



GENERAL CATALOGUE



PEDROLLO®

the spring of life



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Pedrollo SpA, established in 1974, has grown by concentrating on the innovation, quality and reliability of its products and in its more than 40 years of history it has assumed an international dimension.

Recognised as one of the leading manufacturers of pumps worldwide it exports more than 90% of its production to 160 countries in five continents although development and production remain proudly Made in Italy.

Through a constant control of the entire manufacturing process from the purchase of the raw materials to the assistance given to its clients, as well as the choice of the technologically most advanced solutions, Pedrollo guarantees the extremely high quality of its products.

The use of sophisticated robots and production lines in the forefront of technology enable the company to produce more than two million pumps a year, with a range which includes more than one hundred families and models suitable for every requirement.







International growth is supported by a sales network which guarantees a wide range of products to the ultimate clients. Pedrollo pumps are designed to be used for most domestic, civil, agricultural and industrial applications.

The salesforce consists of professionals from many parts of the world, a feature which provides clients with a service of the highest quality and personal advice regarding the best solution to adopt.

In order to design the pumps the research and development department of Pedrollo uses the most sophisticated instruments, whilst its state of the art laboratory for hydraulic tests and the workstations for fluid dynamic calculations and analysis of the finished components support the continuous development of new models as well as improvements to the current range of products.

Technology, creativity and passion are the fundamental components of the production philosophy of Pedrollo which offers its clients a simple and reliable product with a remarkable performance, as shown by the attention to the sturdiness of the pumps and the constant reduction in energy consumption.

**PEDROLLO**[®]
the spring of life

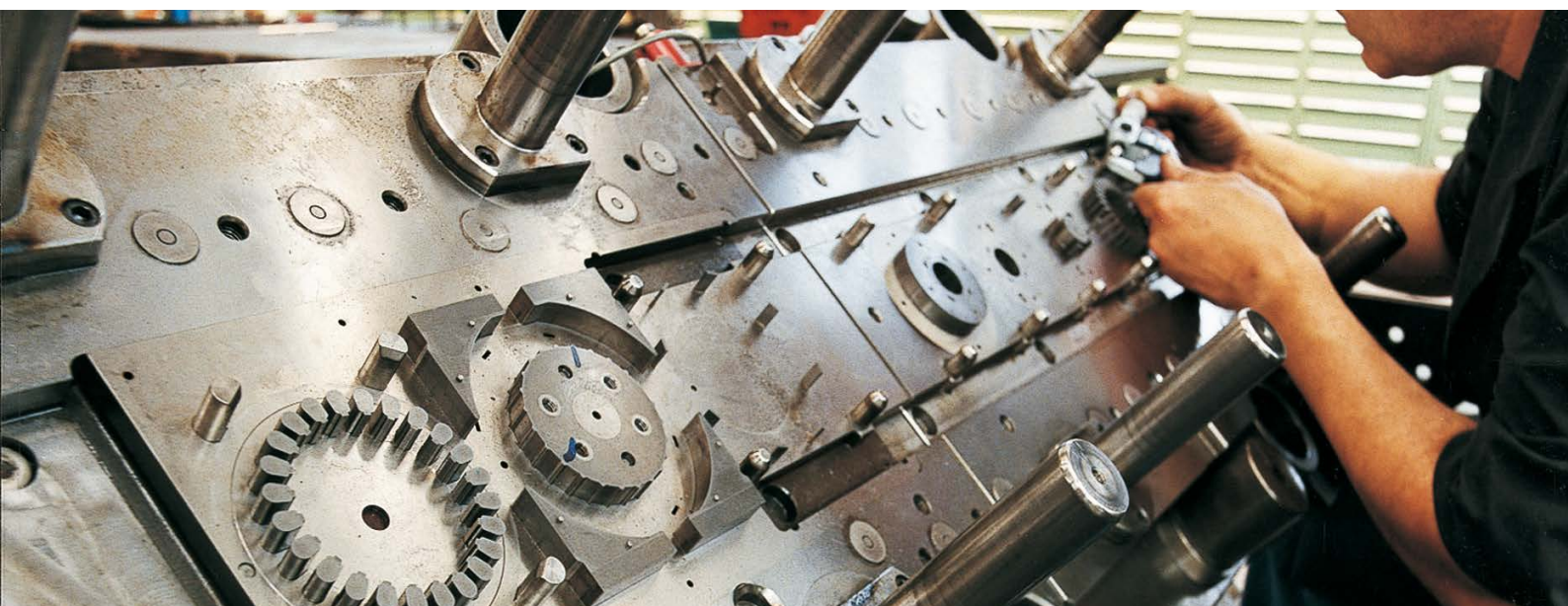
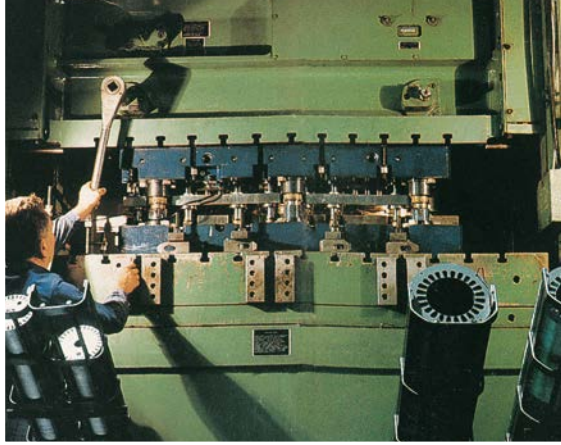


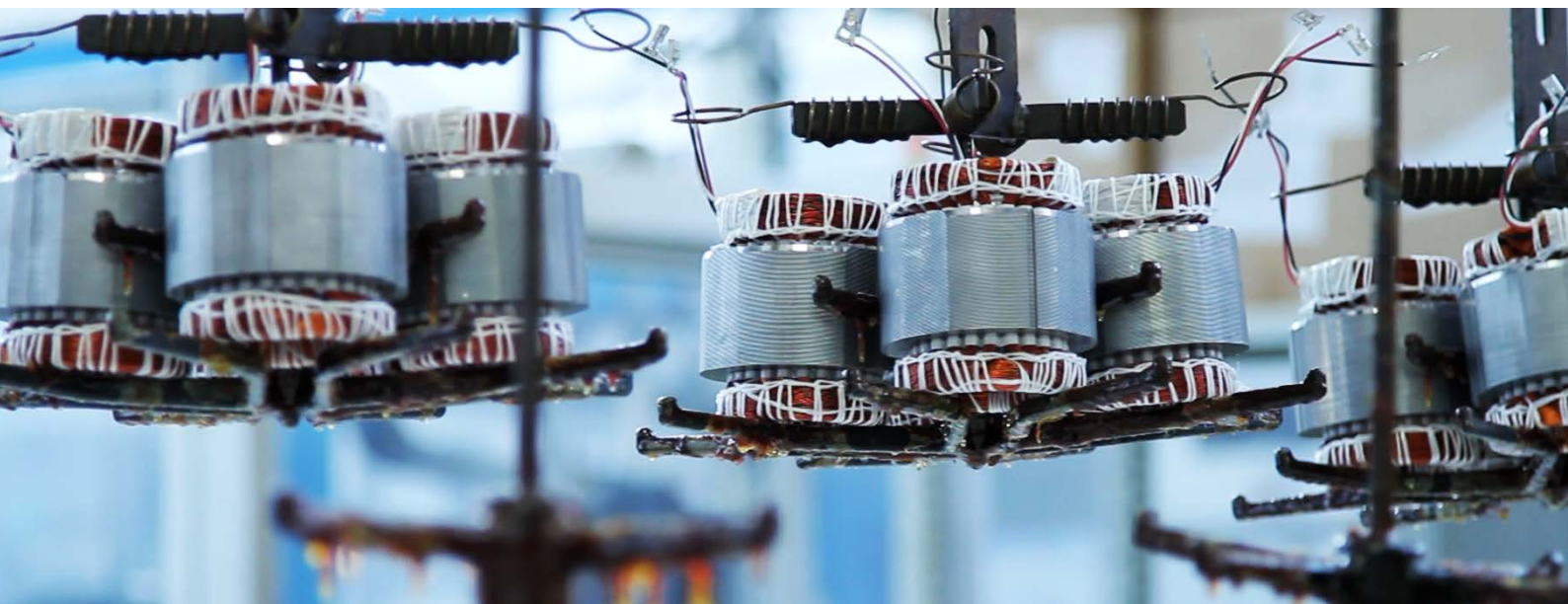


Pedrollo is able to manufacture all the components of its pumps in house. It has its own foundry, a machine shop for pressing steel components, a motor windings division and mechanical work centres which at all times guarantee the greatest precision and the highest quality.

The factories continue to expand and cover an area of 100,000 square metres. They are noteworthy for the extremely automated processes, in which innovative technology and the training of the staff play a leading role.









Automated lines supply and control the final assembly of the pumps, thus guaranteeing the high quality standards of Pedrollo throughout their assembly. The continuous automated tests which are carried out directly guarantee that the finished product will always be available in a very short time.





Pedrollo has a well-equipped hydraulic and electrical laboratory whose task is to test the new models which have been designed before they can enter production.

The laboratory is fitted with a rig capable of reproducing even the most difficult working conditions for the pumps: it is thus possible to directly verify the efficacy of a project and guarantee the quality and reliability of the Pedrollo products to the clients.

EU REGULATION N. 547/2012

- Pumps with a minimum efficiency index $MEI \geq 0.40$ in conformity with the EU Regulation in force from 1st January 2015.
- The bench mark for the most efficient water pumps is $MEI \geq 0.70$.
- The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with a full diameter impeller. The trimming of the impeller adapts the pump to a fixed duty point, resulting in a lower energy consumption. The minimum efficiency index (MEI) is based on the full diameter impeller.
- The functioning of the water pump with variable places of operation can be more efficient and economical if, for example, it is controlled by means of a variable speed motor which adjusts the function of the pump to the system.
- The information regarding the bench mark efficiency is available at: www.europump.org/efficiencycharts

GUARANTEE

- All Pedrollo Pumps are guaranteed for a minimum of one year subject to the terms and conditions of Pedrollo SpA as long as any necessary spare parts fitted during the period of guarantee are original Pedrollo spare parts.

Pumps with peripheral impeller

 Clean water

 Domestic use



PERFORMANCE RANGE

- Flow rate up to **90 l/min** (5.4 m³/h)
- Head up to **100 m**

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C** (**+45 °C** for PK 60)
- Max. working pressure:
 - **6 bar** for PK 60, PK 60-MD, PK 65
 - **7 bar** for PK 70, PK 80
 - **10 bar** for PK 90, PK 100, PK 200, PK 300
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made. Because of their reliability and the fact that they are easy to use and are economical, they are ideal for domestic use and in particular for distributing water in combination with small pressure tanks and for the irrigation of gardens and orchards. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

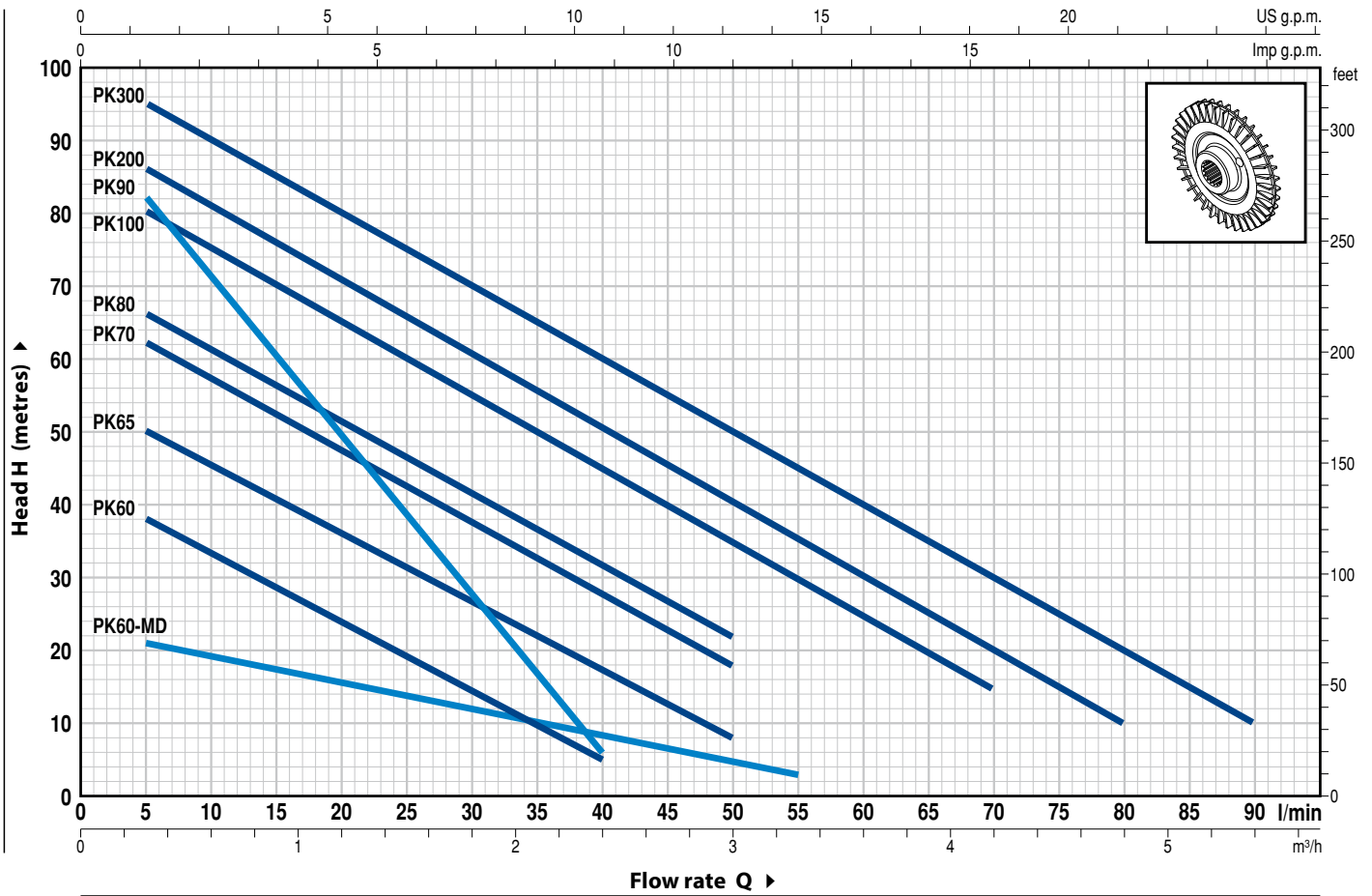
- Registered Trade Mark n. 009875394 PKm 60[®]
- Motor bracket: patent n. IT1243605
- Shaft: patent n. 0000275945 (PK60, PK65)
- Pump body: patent n. 0000275946 (PK60, PK65)
- Registered EU Design n. 01894478

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency
- IP X5 class protection for PK 70-80-90-100-200-300

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		Q	Flow rate																
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0	3.3	4.2	4.8	5.4		
				l/min	0	5	10	15	20	25	30	35	40	50	55	70	80	90			
PKm 60°	PK 60°	0.37	0.50	H metres	40	38	33.5	29	24	19.5	15	10	5								
PKm 60°-MD	PK 60°-MD	0.37	0.50		22	21	19	17.5	15.5	13.8	12	10	8.5	5	3						
PKm 65	PK 65	0.50	0.70		55	50	45.5	40.5	36	31	27	22	17	8							
PKm 70	PK 70	0.60	0.85		65	62	57	52	47	42	37	32	27	18							
PKm 80	PK 80	0.75	1		70	66	61	56	51	46	41	36.5	31	22							
PKm 90	PK 90	0.75	1		90	82	71	60	49	38	27	17	5								
PKm 100	PK 100	1.1	1.5		85	80	75	70	65	60	55	50	45	35	30	15					
PKm 200	PK 200	1.5	2		90	86	81	76	71	65.5	60	55	50	40	35	20	10				
-	PK 300	2.2	3		100	95	90	85	80	75	70	65	60	50	45	30	20	10			

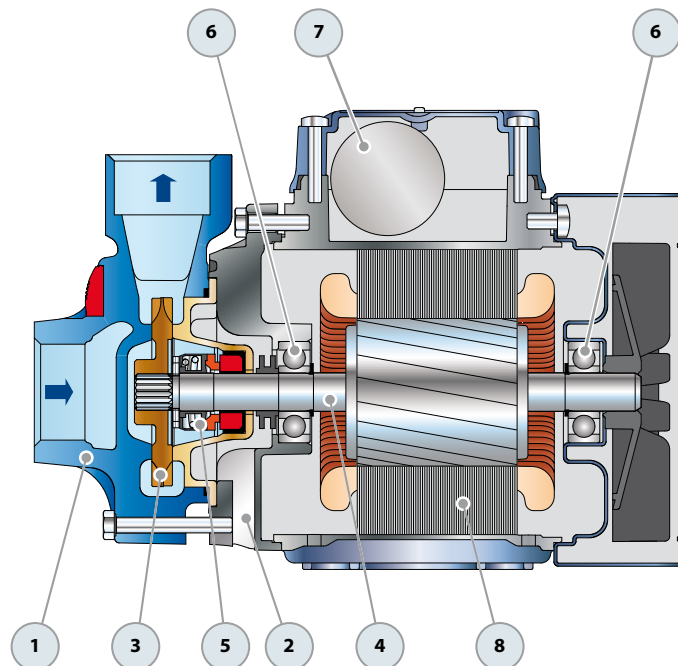
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

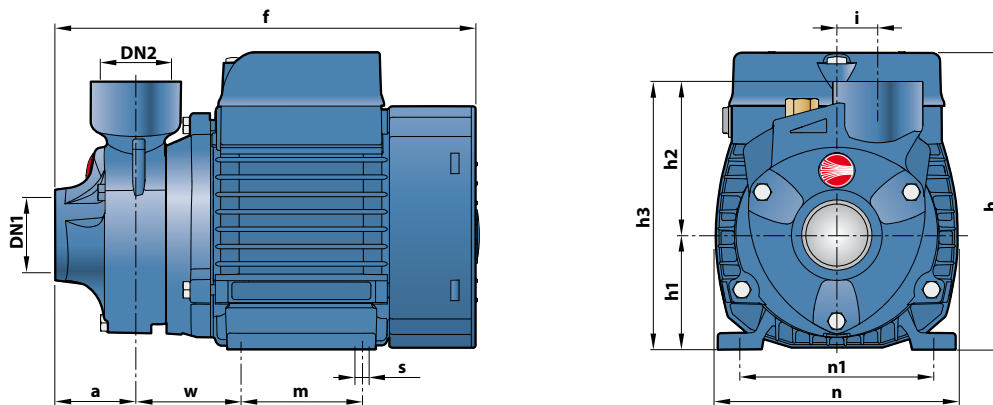
POS. COMPONENT

CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded ports in compliance with ISO 228/1					
2 MOTOR BRACKET	Aluminium with brass insert (patented), reduces the risk of impeller seizure					
3 IMPELLER	Brass with peripheral radial vanes					
4 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104					
5 MECHANICAL SEAL	Pump	Seal	Shaft		Materials	
	<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
	PK 60-65-70-80 PK60-MD	AR-12	Ø 12 mm	Ceramic	Graphite	NBR
	PK 90 PK 100-200-300	ST-12 FN-14	Ø 12 mm Ø 14 mm	Silicon carbide Graphite	Graphite Ceramic	NBR NBR
6 BEARINGS	Pump	Model				
	PK 60-65 PK60-MD	6201 ZZ / 6201 ZZ				
	PK 70-80-90	6203 ZZ / 6203 ZZ				
	PK 100-200-300	6204 ZZ / 6204 ZZ				
7 CAPACITOR	Pump	Capacitance				
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>		<i>(110 V)</i>		
	PKm 60 PKm60-MD	10	µF - 450 VL	25	µF - 250 VL	
	PKm 65	14	µF - 450 VL	25	µF - 250 VL	
	PKm 70	16	µF - 450 VL	60	µF - 300 VL	
	PKm 80	20	µF - 450 VL	60	µF - 300 VL	
	PKm 90	20	µF - 450 VL	60	µF - 300 VL	
	PKm 100	31.5	µF - 450 VL	60	µF - 250 VL	
	PKm 200	45	µF - 450 VL	80	µF - 250 VL	
	8 ELECTRIC MOTOR	PKm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.				
PK: three-phase 230/400 V - 50 Hz.						
<p>➔ The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW in class IE3 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 						



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm												kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	i	m	n	n1	w	s	1~	3~
PKm 60°	PK 60°	1"	1"	39	207	145	56	75	131	20	55	118	93-100	53	7	5.2	5.2
PKm 60°-MD	PK 60°-MD				236	152	63		138		100					5.1	5.1
PKm 65	PK 65			55	285	180	71	85	156		90	140	112	62		10.0	9.9
PKm 70	PK 70			46	278	84	155	19	10.0		9.9						
PKm 80	PK 80	¾"	¾"	55	350	212	80	94	174	20	100	164	125	85	9	10.3	10.0
PKm 90	PK 90	1"	1"	55	350	212	80	94	174	20	100	164	125	85	9	14.4	12.4
PKm 100	PK 100	1"	1"	55	350	212	80	94	174	20	100	164	125	85	9	15.5	13.4
PKm 200	PK 200	1"	1"	55	350	212	80	94	174	20	100	164	125	85	9	-	15.6
-	PK 300																15.6

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
PKm 60°	2.5 A	2.4 A	5.5 A
PKm 60°-MD	2.2 A	2.1 A	4.4 A
PKm 65	3.7 A	3.4 A	7.4 A
PKm 70	5.2 A	4.8 A	10.8 A
PKm 80	5.2 A	4.8 A	10.5 A
PKm 90	5.6 A	5.1 A	11.5 A
PKm 100	9.0 A	8.2 A	18.0 A
PKm 200	11.5 A	11.0 A	24.0 A

MODEL	VOLTAGE				
Three-phase	230 V	400 V	690 V	240 V	415 V
PK 60°	2.0 A	1.15 A	-	1.9 A	1.1 A
PK 60°-MD	1.9 A	1.1 A	-	1.85 A	1.05 A
PK 65	3.0 A	1.7 A	-	2.8 A	1.6 A
PK 70	3.8 A	2.2 A	-	3.3 A	1.9 A
PK 80	3.8 A	2.2 A	-	3.3 A	1.9 A
PK 90	4.0 A	2.3 A	-	3.8 A	2.2 A
PK 100	6.2 A	3.6 A	2.05 A	5.7 A	3.3 A
PK 200	7.6 A	4.4 A	2.5 A	7.0 A	4.0 A
PK 300	9.3 A	5.4 A	3.15 A	8.7 A	5.0 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
PKm 60°	PK 60°	240	330
PKm 60°-MD	PK 60°-MD	240	330
PKm 65	PK 65	189	243
PKm 70	PK 70	102	170
PKm 80	PK 80	102	170
PKm 90	PK 90	102	170
PKm 100	PK 100	72	96
PKm 200	PK 200	72	96
-	PK 300	72	96



PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3 m³/h)
- Head up to **70 m**

APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+60 °C**
- Ambient temperature up to **+40 °C** (**+45 °C** for PKS 60)
- Max. working pressure:
 - **6 bar** for PKS 60, PKS 65
 - **7 bar** for PKS 70, PKS 80
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made. Because of their compactness, reliability and the fact that they are easy to use, they are suitable for use in domestic applications such as the distribution of water in combination with small pressure tanks, for the irrigation of gardens and orchards, for drawing water from tanks and for all those other situations where air or gas may be present in the water to be pumped. The pump comes complete with a flap-check valve. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

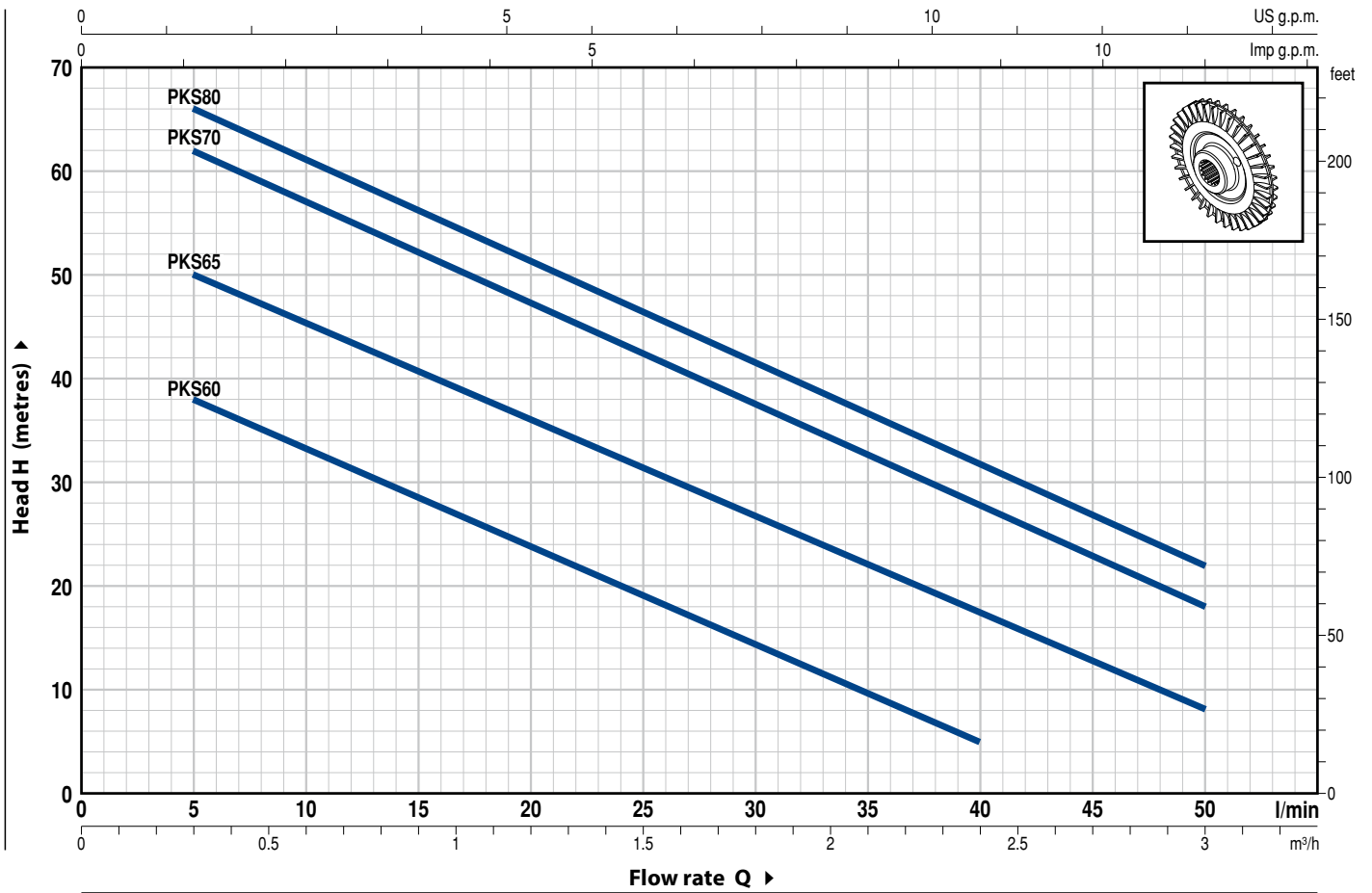
- Motor bracket: patent n. IT1243605
- Shaft: patent n. 0000275945 (PKS60, PKS65)
- Registered Italian model n. 72753

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency
- IP X5 class protection for PKS 70, PKS 80

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m

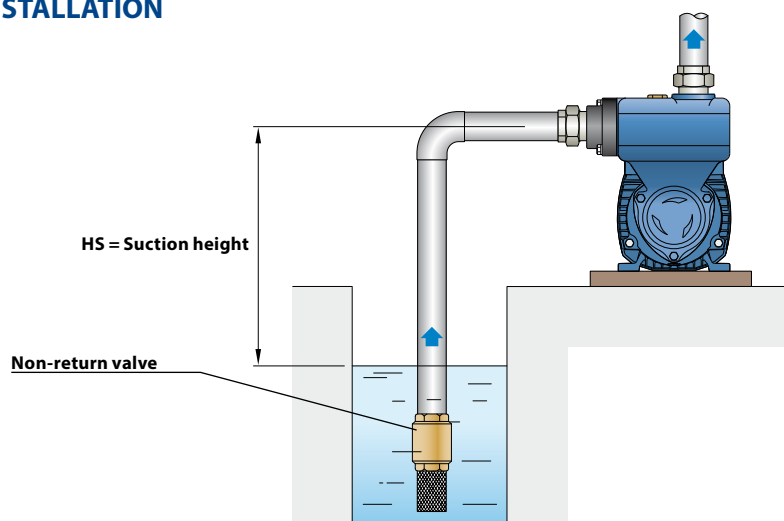


MODEL		POWER (P ₂)		Q	Flow rate														
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0			
				l/min	0	5	10	15	20	25	30	35	40	45	50				
PKSm 60	PKS 60	0.37	0.50	H metres	40	38	33.5	29	24	19.5	15	10	5						
PKSm 65	PKS 65	0.50	0.70		55	50	45.5	40.5	36	31	27	22	17	12.5	8				
PKSm 70	PKS 70	0.60	0.85		65	62	57	52	47	42	37	32	27	22	18				
PKSm 80	PKS 80	0.75	1		70	66	61	56	51	46	41	36.5	31	27	22				

Q = Flow rate H = Total manometric head HS = Suction height

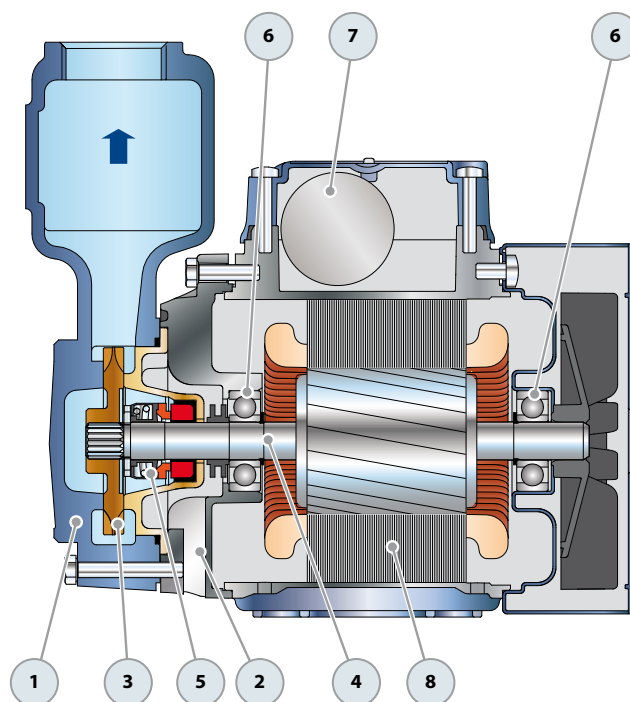
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

STANDARD INSTALLATION

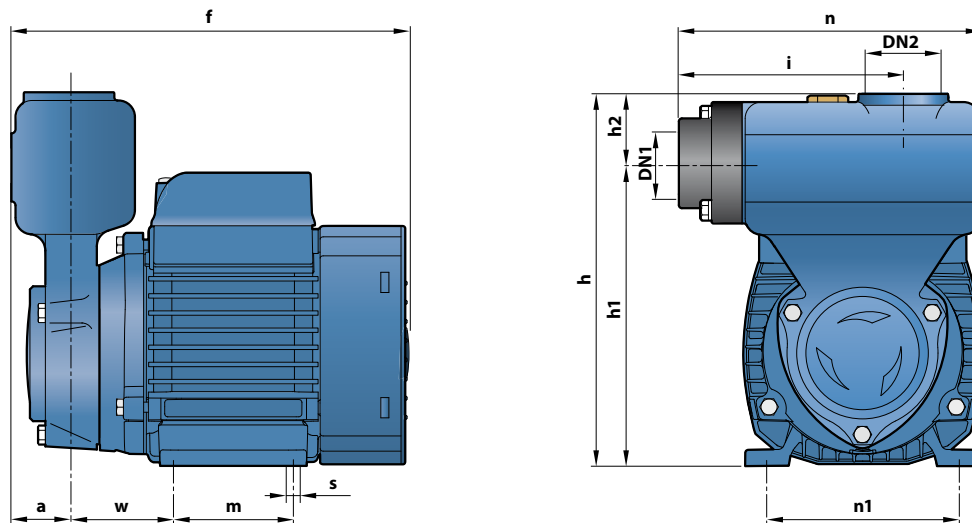


POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded ports in compliance with ISO 228/1 and a built-in flap-check valve in the suction port				
2 MOTOR BRACKET	Aluminium with brass insert (patented), reduces the risk of impeller seizure				
3 IMPELLER	Brass with peripheral radial vanes				
4 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
5 MECHANICAL SEAL	Seal	Shaft	Materials		
	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
	AR-12	Ø 12 mm	Ceramic	Graphite	NBR
6 BEARINGS	Pump	Model			
	PKSm 60-65	6201 ZZ / 6201 ZZ			
	PKS 70-80	6203 ZZ / 6203 ZZ			
7 CAPACITOR	Pump	Capacitance			
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
	PKSm 60	10 µF - 450 VL	25 µF - 250 VL		
	PKSm 65	14 µF - 450 VL	25 µF - 250 VL		
	PKSm 70	16 µF - 450 VL	60 µF - 300 VL		
	PKSm 80	20 µF - 450 VL	60 µF - 300 VL		
8 ELECTRIC MOTOR	<p>PKSm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.</p> <p>PKS: three-phase 230/400 V - 50 Hz.</p> <p>⇒ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm											kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	i	m	n	n1	w	s	1~	3~
PKSm 60	PKS 60	1"	1"	29	197	183	149	34	110	55	149	93-100	53	7	6.1	6.1
PKSm 65	PKS 65				226	190	156			80		100			7.8	7.1
PKSm 70	PKS 70				260	198	164			90	160	112	62		10.6	10.5
PKSm 80	PKS 80				260	198	164			90	160	112	62		10.6	10.5

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110V
PKSm 60	2.5 A	2.4 A	5.5 A
PKSm 65	3.7 A	3.4 A	7.4 A
PKSm 70	5.2 A	4.8 A	10.8 A
PKSm 80	5.2 A	4.8 A	10.5 A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
PKS 60	2.0 A	1.15 A	1.9 A	1.1 A
PKS 65	3.0 A	1.7 A	2.8 A	1.6 A
PKS 70	3.8 A	2.2 A	3.3 A	1.9 A
PKS 80	3.8 A	2.2 A	3.3 A	1.9 A

Pumps with peripheral impeller

-  Clean water
-  Industrial use
-  Domestic use



PERFORMANCE RANGE

- Flow rate up to **90 l/min** (5.4 m³/h)
- Head up to **100 m**

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
(**+45 °C** for PQ 60, PQ 60-Bs)
- Max. working pressure:
 - **6 bar** for PQ 60-65
 - **10 bar** for PQ 70-80-81-90-100-200-300
PQ 60Bs-65Bs-81Bs
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made. The hydraulic characteristics of these pumps, coupled with their compactness, makes them suitable for use in both domestic and industrial applications. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

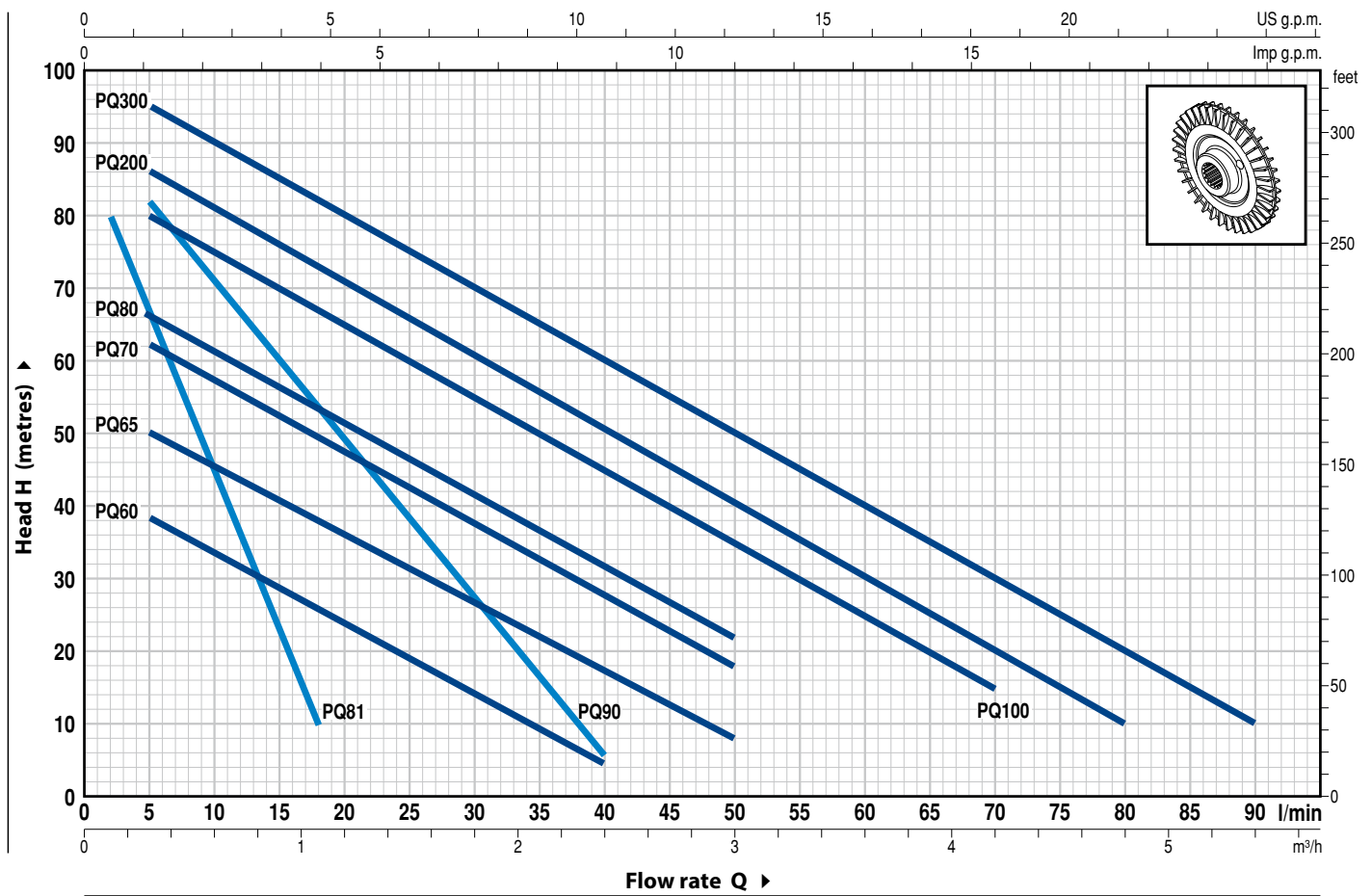
- Registered Trade Mark n. 0001520591 PQm 60[®]
- Motor bracket: patent n. IT1243605
- Shaft: patent n. 0000275945 (PQ60, PQ65)
- Registered EU Design n. 002146548

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel pump shaft
- Other voltages or 60 Hz frequency
- IP X5 class protection for PQ 70-80-90-100-200-300

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		Q	Flow rate																
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0	3.6	4.2	4.8	5.4		
				l/min	0	5	10	15	20	25	30	35	40	50	60	70	80	90			
PQm 60°	PQ 60°	0.37	0.50	H metres	40	38	33.5	29	24	19.5	15	10	5								
PQm 65	PQ 65	0.50	0.70		55	50	45.5	40.5	36	31	27	22	17	8							
PQm 70	PQ 70	0.60	0.85		65	62	57	52	47	42	37	32	27	18							
PQm 80	PQ 80	0.75	1		70	66	61	56	51	46	41	36.5	31	22							
PQm 90	PQ 90	0.75	1		90	82	71	60	49	38	27	17	5								
PQm 100	PQ 100	1.1	1.5		85	80	75	70	65	60	55	50	45	35	25	15					
PQm 200	PQ 200	1.5	2		90	86	81	76	71	65.5	60	55	50	40	30	20	10				
-	PQ 300	2.2	3		100	95	90	85	80	75	70	65	60	50	40	30	20	10			
PQm 60-Bs	PQ 60-Bs	0.37	0.50		40	38	33.5	29	24	19.5	15	10	5								
PQm 65-Bs	PQ 65-Bs	0.50	0.70		55	50	45.5	40.5	36	31	27	22	17	8							

⇒ Bs= version with brass pump body

MODEL		POWER (P ₂)		Q	Flow rate										
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.12	0.24	0.36	0.48	0.60	0.72	0.84	0.96	1.08
				l/min	0	2	4	6	8	10	12	14	16	18	
PQm 81	PQ 81	0.50	0.70	H metres	90	80	71	63	54	45	37	28	19	10	
PQm 81-Bs	PQ 81-Bs	0.50	0.70		90	80	71	63	54	45	37	28	19	10	

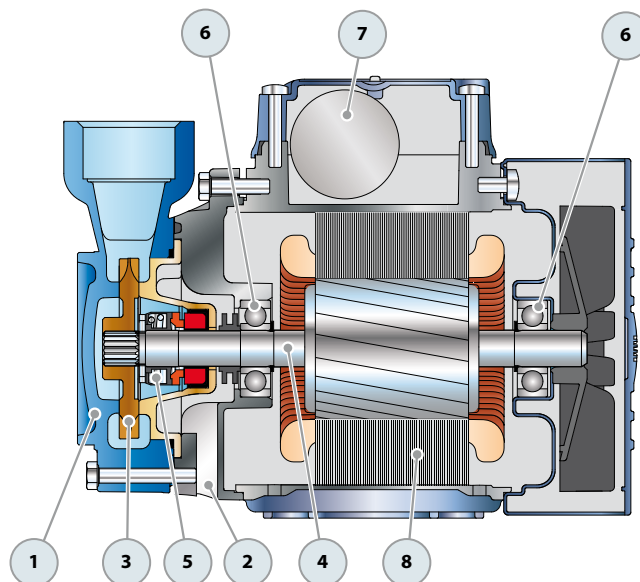
⇒ Bs= version with brass pump body

Q = Flow rate H = Total manometric head HS = Suction height

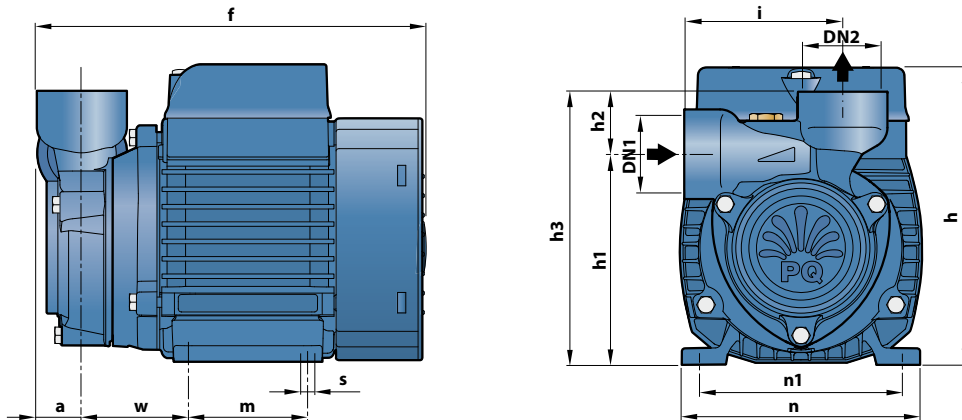
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron with an Epoxy Electro Coating Treatment (brass for PQ-Bs), with threaded ports in compliance with ISO 228/1					
2 MOTOR BRACKET	Aluminium with brass insert (patented), reduces the risk of impeller seizure					
3 IMPELLER	Brass with peripheral radial vanes					
4 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104					
5 MECHANICAL SEAL	Pump	Seal	Shaft	Materials		
	<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
	PQ 60-65	AR-12	Ø 12 mm	Ceramic	Graphite	NBR
	PQ 70-80-81-90 PQ 60Bs-65Bs-81Bs	ST1-12	Ø 12 mm	Silicon carbide	Graphite	NBR
PQ 100-200-300	FN-14	Ø 14 mm	Graphite	Ceramic	NBR	
6 BEARINGS	Pump	Model				
	PQ 60-65-81 PQ 60Bs-65Bs-81Bs	6201 ZZ / 6201 ZZ				
	PQ 70-80-90	6203 ZZ / 6203 ZZ				
	PQ 100-200-300	6204 ZZ / 6204 ZZ				
7 CAPACITOR	Pump	Capacitance				
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>		<i>(110 V)</i>		
	PQm 60 - 60Bs	10 µF - 450 VL	25 µF - 250 VL			
	PQm 65 - 65Bs	14 µF - 450 VL	25 µF - 250 VL			
	PQm 70	16 µF - 450 VL	60 µF - 300 VL			
	PQm 80	20 µF - 450 VL	60 µF - 300 VL			
	PQm 81 - 81Bs	14 µF - 450 VL	25 µF - 250 VL			
	PQm 90	20 µF - 450 VL	60 µF - 300 VL			
PQm 100	31.5 µF - 450 VL	60 µF - 250 VL				
PQm 200	45 µF - 450 VL	80 µF - 250 VL				
8 ELECTRIC MOTOR	PQm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.					
	PQ: three-phase 230/400 V - 50 Hz.					
	<p>⇒ The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW in class IE3 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 					



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm												kg		
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	i	m	n	n1	w	s	1~	3~	
PQm 60°	PQ 60°	1"	1"	22	190	145	101	30	131	76	55	118	93-100	53	7		5.1	5.1
PQm 60-Bs	PQ 60-Bs						113										5.4	5.4
PQm 65	PQ 65						108										7.0	6.2
PQm 65-Bs	PQ 65-Bs						138										7.1	6.4
PQm 70	PQ 70						151										9.7	9.6
PQm 80	PQ 80	1/2"	1/2"	18	218	152	119	22	141	71	80	120	100	56		7.0	6.3	
PQm 81	PQ 81						126									6.9	6.2	
PQm 81-Bs	PQ 81-Bs	3/4"	3/4"	22	255	180	126	27	153	84	90	138	112	62		9.9	9.8	
PQm 90	PQ 90						140									14.1	12.2	
PQm 100	PQ 100	1"	1"	25	318	212	140	30	170	89	100	164	125	85	9	15.2	14.1	
PQm 200	PQ 200						125									-	15.2	
-	PQ 300															-	15.2	

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase			
PQm 60° - PQm 60-Bs	2.6 A	2.4 A	5.2 A
PQm 65 - PQm 65-Bs	3.7 A	3.4 A	7.4 A
PQm 70	5.2 A	4.8 A	10.8 A
PQm 80	5.2 A	4.8 A	10.5 A
PQm 81 - PQm 81-Bs	3.4 A	2.7 A	5.8 A
PQm 90	5.6 A	5.1 A	11.5 A
PQm 100	9.0 A	8.2 A	18.0 A
PQm 200	12.0 A	11.0 A	24.0 A

MODEL	VOLTAGE				
	230 V	400 V	690 V	240 V	415 V
Three-phase					
PQ 60° - PQ 60-Bs	2.0 A	1.15 A	-	1.9 A	1.1 A
PQ 65 - PQ 65-Bs	3.0 A	1.7 A	-	2.8 A	1.6 A
PQ 70	3.8 A	2.2 A	-	3.3 A	1.9 A
PQ 80	3.8 A	2.2 A	-	3.3 A	1.9 A
PQ 81 - PQ 81-Bs	2.2 A	1.3 A	-	2.0 A	1.15 A
PQ 90	4.2 A	2.4 A	-	3.8 A	2.2 A
PQ 100	6.3 A	3.6 A	2.05 A	5.7 A	3.3 A
PQ 200	7.6 A	4.4 A	2.5 A	7.0 A	4.0 A
PQ 300	9.3 A	5.4 A	3.15 A	8.7 A	5.0 A


PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
PQm 60°	PQ 60°	256	352
PQm 60-Bs	PQ 60-Bs	238	306
PQm 65	PQ 65	200	240
PQm 65-Bs	PQ 65-Bs	200	240
PQm 70	PQ 70	102	170
PQm 80	PQ 80	102	170
PQm 81	PQ 81	200	240
PQm 81-Bs	PQ 81-Bs	200	240
PQm 90	PQ 90	102	170
PQm 100	PQ 100	72	96
PQm 200	PQ 200	72	96
-	PQ 300	72	96

PQ 3000

Pump with peripheral impeller

 Clean water

 Industrial use



PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3 m³/h)
- Head up to **180 m**

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. working pressure **18 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. The hydraulic characteristics of this pump make it suitable for use in industrial applications.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

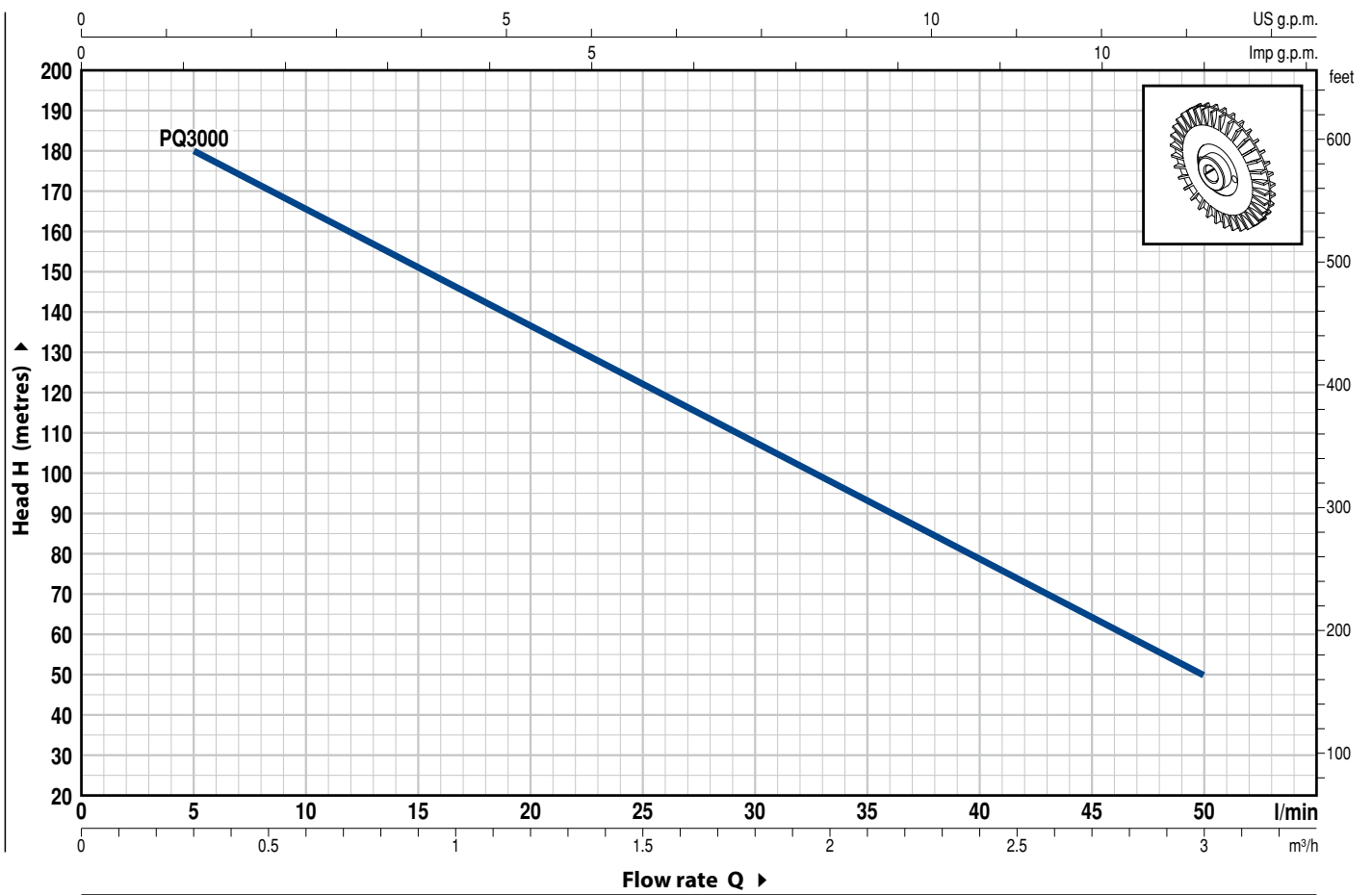
- Patent Pending n. 102015000012230
- Registered EU Design n. 002714469

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel pump shaft
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0
	kW	HP		5	10	15	20	25	30	35	40	45	50
PQ 3000	2.2	3	H metres	180	165	151	136.5	122	107.5	93	78.5	64	50

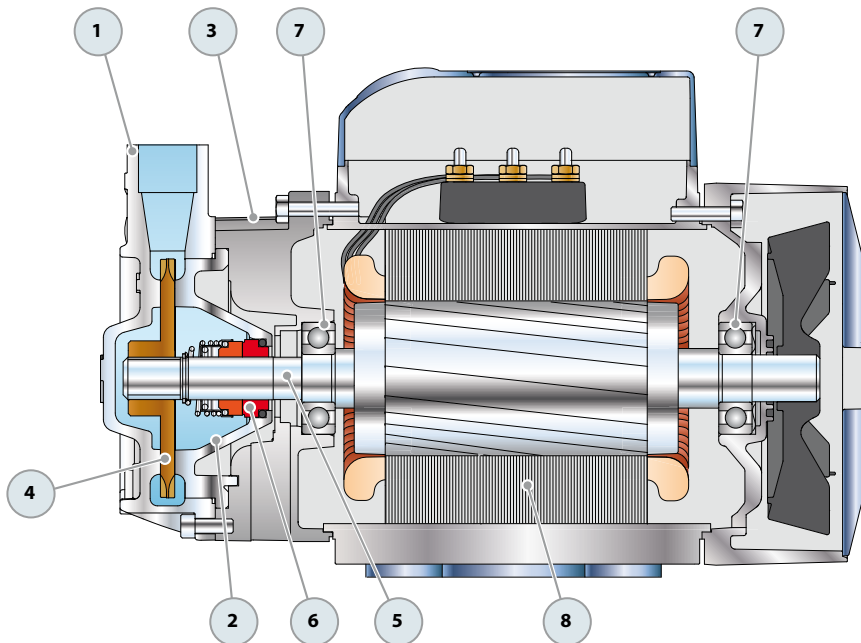
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

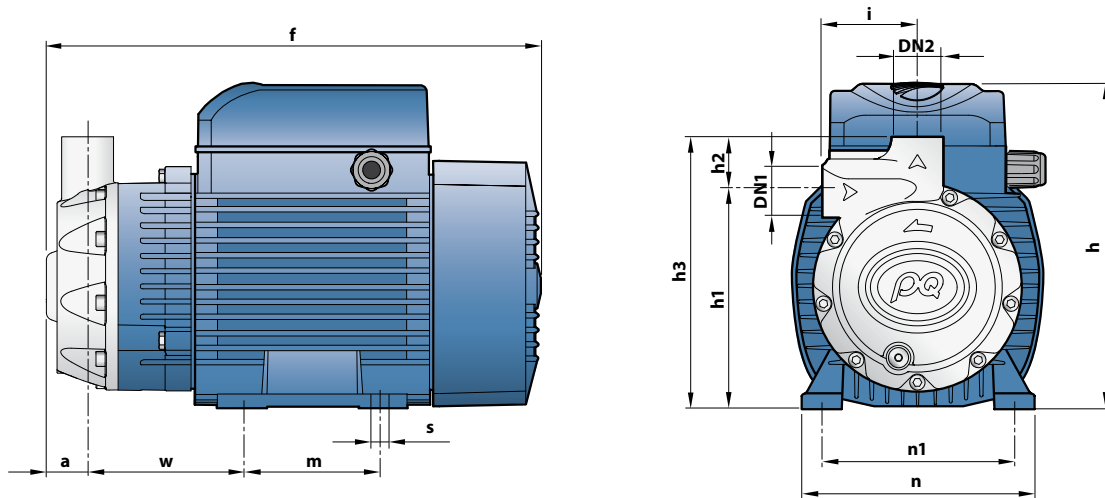
PQ 3000

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 316 complete with threaded ports in compliance with ISO 228/1			
2	PUMP BODY BACK PLATE	Stainless steel AISI 316			
3	MOTOR BRACKET	Aluminium			
4	IMPELLER	Bronze with peripheral radial vanes			
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104			
6	MECHANICAL SEAL	Seal	Shaft	Materials	
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>
		FN-18 NU	Ø 18 mm	Graphite	Ceramic
					<i>Elastomer</i>
					NBR
7	BEARINGS	6204 ZZ - C3 / 6204 ZZ - C3			
8	ELECTRIC MOTOR	PQ 3000: three-phase 230/400 V - 50 Hz. ⇒ The pump is fitted with a high performance motor in class IE3 (IEC 60034-30) – Insulation: class H – Protection: IP X5			



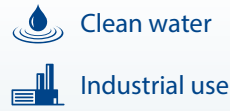
DIMENSIONS AND WEIGHT



MODEL	PORTS		DIMENSIONS mm												kg
	DN1	DN2	a	f	h	h1	h2	h3	i	m	n	n1	w	s	
PQ 3000	3/4"	3/4"	28	327	212	142	36	178	62	100	164	125	100.5	9	17.2

ABSORPTION

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
PQ 3000	12.1 A	7.0 A	11.6 A	6.7 A



PERFORMANCE RANGE

- Flow rate up to **45 l/min** (2.7 m³/h)
- Head up to **105 m**

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+50 °C**
- Max. working pressure **10 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made. The design features of these particularly compact brass pumps provide a guarantee against rust and oxidation; they are therefore recommended for industrial applications such as cooling and air conditioning. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

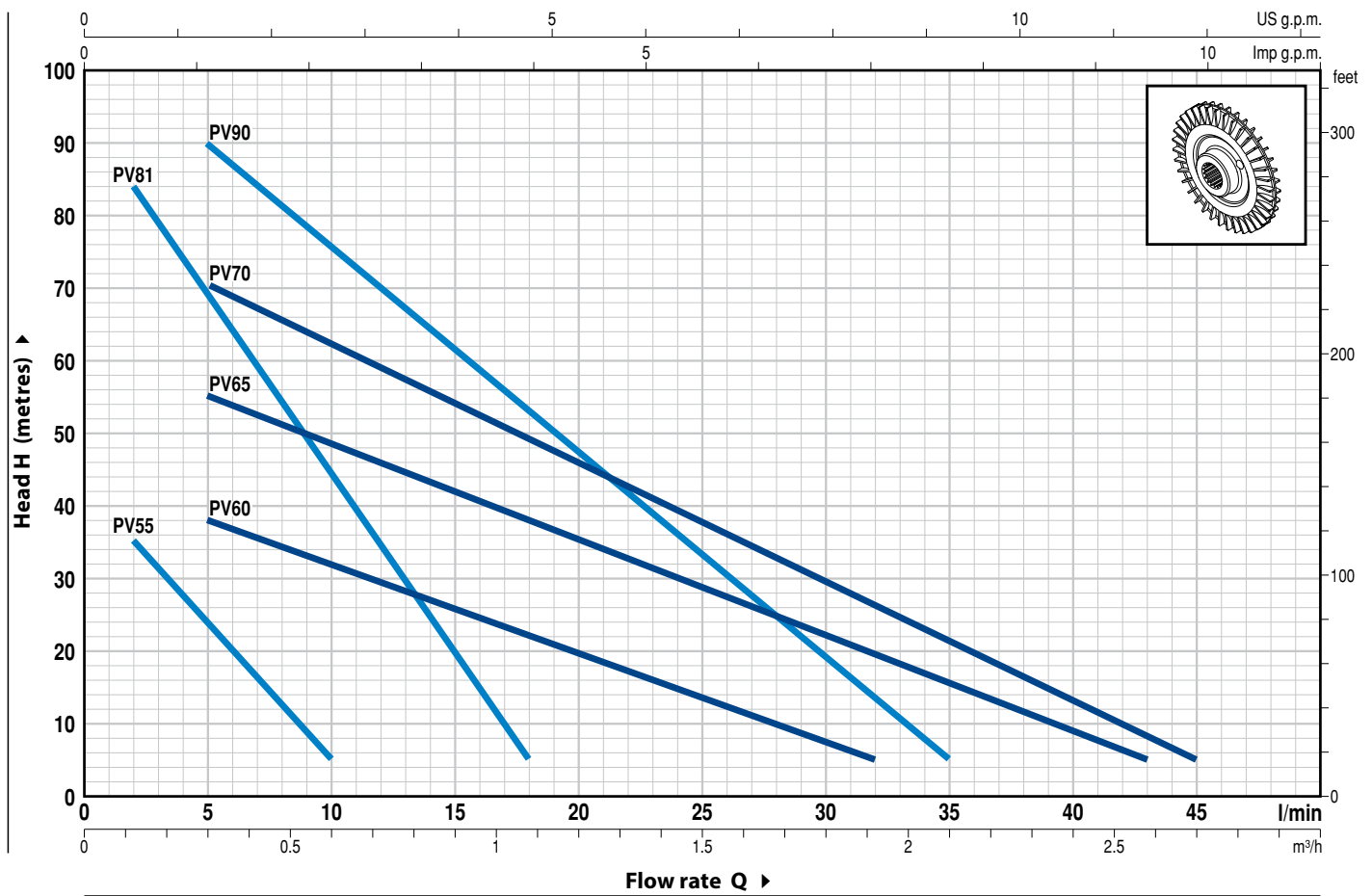
- Shaft: patent n. 0000275945 (PV55, PV60, PV65)

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel pump shaft
- Other voltages or 60 Hz frequency
- IP X5 class protection for PV70-90

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		Q	Q										
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.12	0.18	0.24	0.30	0.36	0.42	0.48	0.54	0.60
PV55	PV 55	0.18	0.25	H metres	0	2	3	4	5	6	7	8	9	10	
				50 Hz	42	35	31	27.5	24	20	16	12.5	9	5	
				60 Hz	55	46	41.5	37	32.5	28	23.5	19	14.5	10	

⇒ The PVm55 e PV55 pumps are designed to work at both 50 and 60 Hz

MODEL		POWER (P ₂)		Q	Q													
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	0.9	1.2	1.5	1.8	1.9	2.1	2.4	2.6	2.7	
PV60	PV 60	0.37	0.50	H metres	0	5	10	15	20	25	30	32	35	40	43	45		
				45	38	31.5	25.5	19.5	13.5	7.5	5							
				60	55	48.5	41.5	35	28.5	22	19.5	15.5	9	5				
				80	70	61.5	53.5	45.5	37.5	29	26	21.5	13	8	5			
				105	90	75.5	61.5	47.5	33	19	13.5	5						

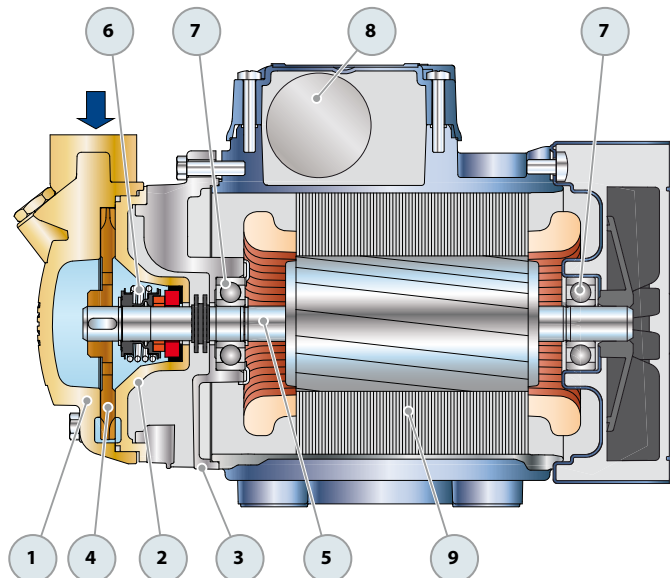
MODEL		POWER (P ₂)		Q	Q								
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.12	0.24	0.30	0.36	0.48	0.60	0.84
PV81	PV 81	0.37	0.50	H metres	0	2	4	5	6	8	10	14	18
				92	84	74	69	64	54.5	44.5	25	5	

Q = Flow rate H = Total manometric head HS = Suction height

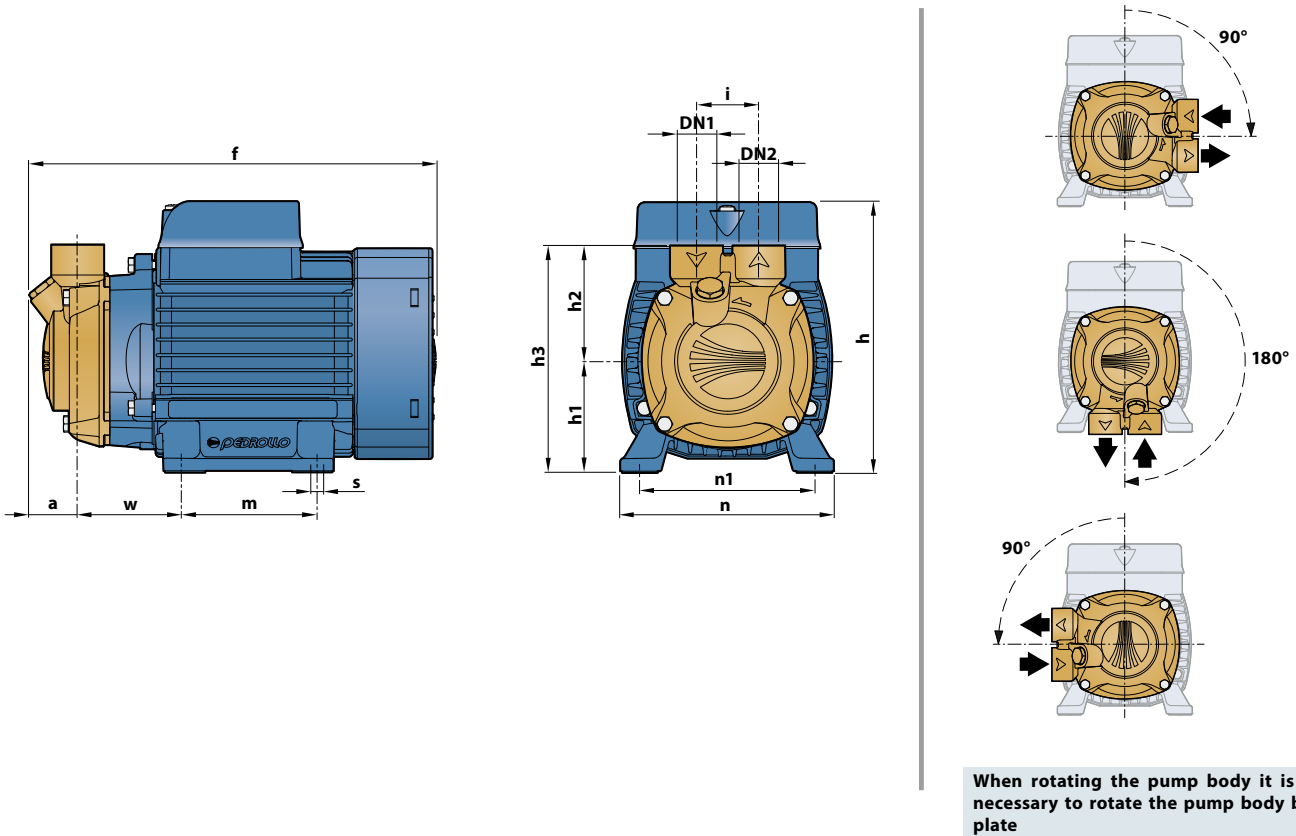
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Brass complete with threaded ports in compliance with ISO 228/1				
2	PUMP BODY BACK-PLATE	Brass				
3	MOTOR BRACKET	Aluminium				
4	IMPELLER	Brass with peripheral radial vanes				
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
6	MECHANICAL SEAL	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		ST1-12E	Ø 12 mm	Silicon carbide	Graphite	EPDM
7	BEARINGS	<i>Pump</i>	<i>Model</i>			
		PV 55-60-65-81	6201 ZZ / 6201 ZZ			
		PV 70-90	6203 ZZ / 6203 ZZ			
8	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>			
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
		PVm 55	10 µF - 450 VL	25 µF - 250 VL		
		PVm 60	10 µF - 450 VL	25 µF - 250 VL		
		PVm 65	14 µF - 450 VL	25 µF - 250 VL		
		PVm 70	16 µF - 450 VL	60 µF - 300 VL		
		PVm 81	14 µF - 450 VL	25 µF - 250 VL		
		PVm 90	20 µF - 450 VL	60 µF - 300 VL		
9	ELECTRIC MOTOR	<p>PVm: single-phase 230 V - 50 Hz (50/60 Hz for PVm55) with thermal overload protector incorporated into the winding.</p> <p>PV: three-phase 230/400 V - 50 Hz (50/60 Hz for PV55).</p> <p>➔ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT

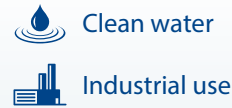


MODEL		PORTS		DIMENSIONS mm												kg		
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	i	m	n	n1	w	s	1~	3~	
PVm 55	PV 55	¼"	¼"	11	188	145	56	40	96	25	55	118	93-100	63	7	4.5	4.5	
PVm 60	PV 60	½"	½"	24	221	152	63	62	125	35	80	120	100	60		5.5	5.5	
PVm 81	PV 81			26	128			78	5.8					5.5				
PVm 65	PV 65	¾"	¾"	25	266	180	71	66	129	45	90	134	112	61		5.8	5.5	
PVm 70	PV 70			24					71					137		71	9.0	9.0
PVm 90	PV 90			24					263					137		69	8.9	8.9

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
PVm 55 (50 Hz)	1.6 A	1.5 A	4.0 A
PVm 55 (60 Hz)	2.0 A	1.9 A	4.0 A
PVm 60	2.8 A	2.7 A	5.6 A
PVm 65	4.2 A	4.0 A	8.4 A
PVm 70	6.2 A	6.0 A	12.4 A
PVm 81	3.0 A	2.9 A	6.0 A
PVm 90	5.6 A	5.4 A	11.2 A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
PV 55 (50/60 Hz)	1.7 A	1.0 A	1.6 A	0.9 A
PV 60	1.9 A	1.1 A	1.8 A	1.0 A
PV 65	2.6 A	1.5 A	2.5 A	1.4 A
PV 70	4.2 A	2.4 A	4.0 A	2.3 A
PV 81	1.9 A	1.1 A	1.8 A	1.0 A
PV 90	4.2 A	2.4 A	4.0 A	2.3 A



PERFORMANCE RANGE

- Flow rate up to **45 l/min** (2.7 m³/h)
- Head up to **65 m**

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C** (+45 °C for PQA 60)
- Max. working pressure **10 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The **PQA** pumps are recommended for pumping clean water without abrasive particles and with liquids which are not chemically aggressive towards the materials with which the pump is made. The RYTON and brass pump body construction guarantees against the formation of rust and oxidation. Because of these characteristics these pumps are suitable for use in industrial applications such as cooling, air conditioning, laundries, etc. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

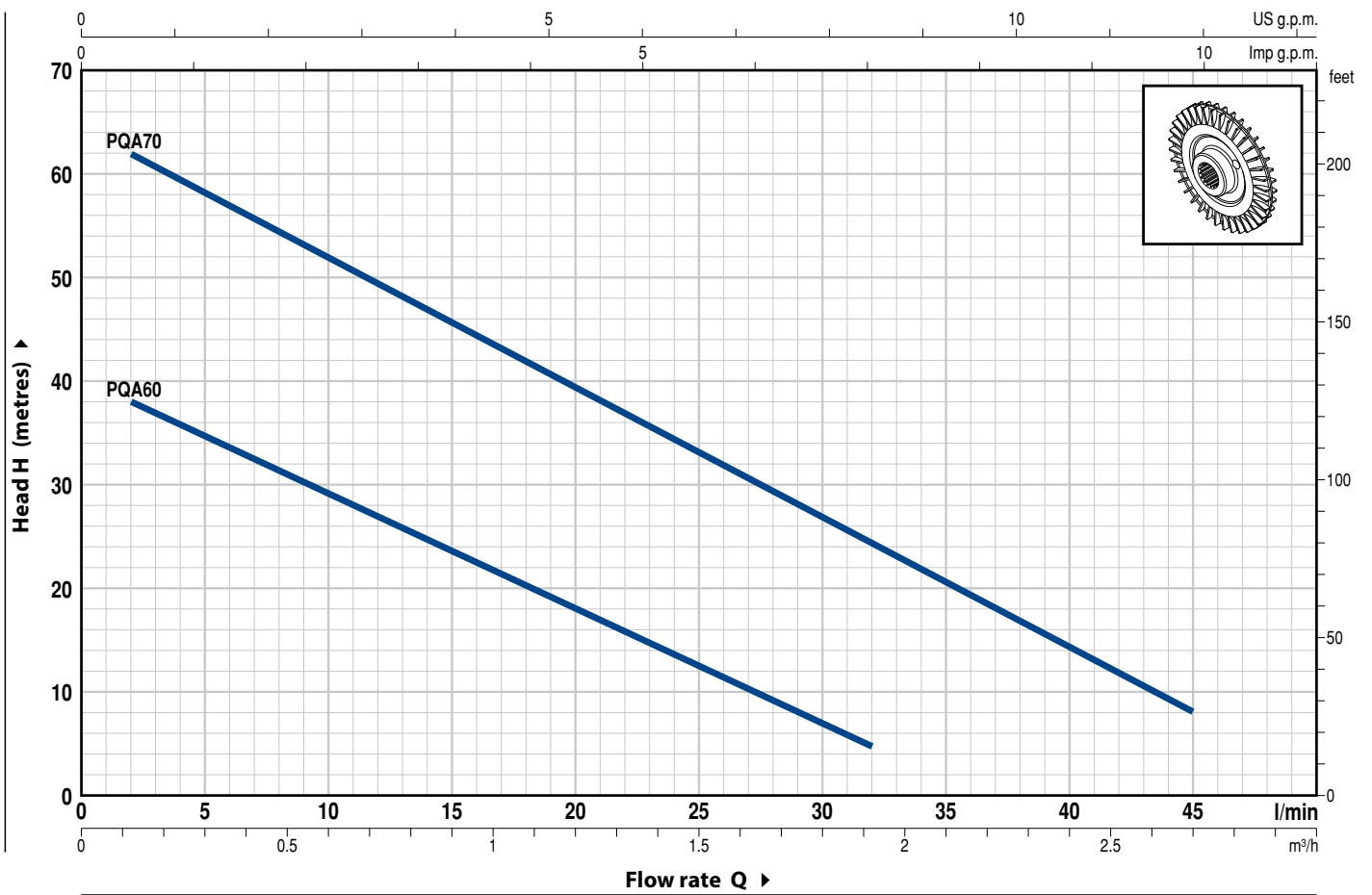
- Motor bracket: patent n. IT1243605
- Shaft: patent n. 0000275945 (PQA60)

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel pump shaft
- Other voltages or 60 Hz frequency
- IP X5 class protection for PQA70

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



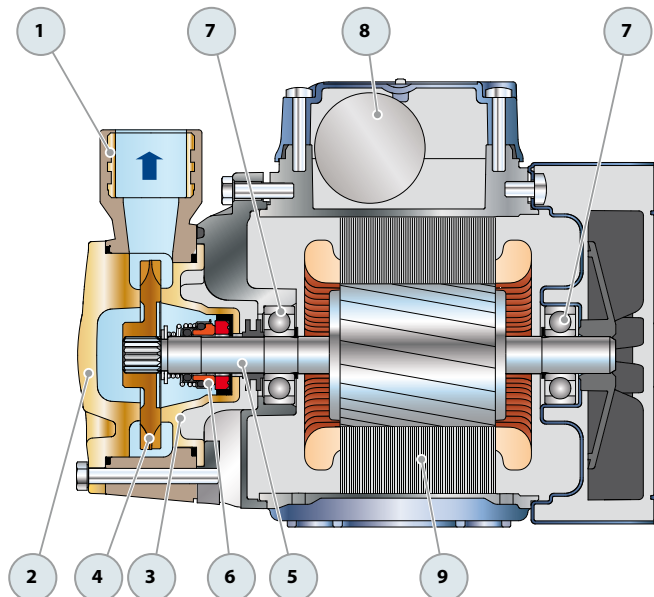
MODEL		POWER (P ₂)		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.1	0.3	0.6	0.9	1.2	1.5	1.8	1.9	2.3	2.7		
				l/min	0	2	5	10	15	20	25	30	32	38	45			
PQAm 60	PQA 60	0.37	0.50	H metres	40	38	35	29	23.5	18	12.5	7	5					
PQAm 70	PQA 70	0.55	0.75		65	62	58	52	45.5	39.5	33	27	24	16.5	8			

Q = Flow rate H = Total manometric head HS = Suction height

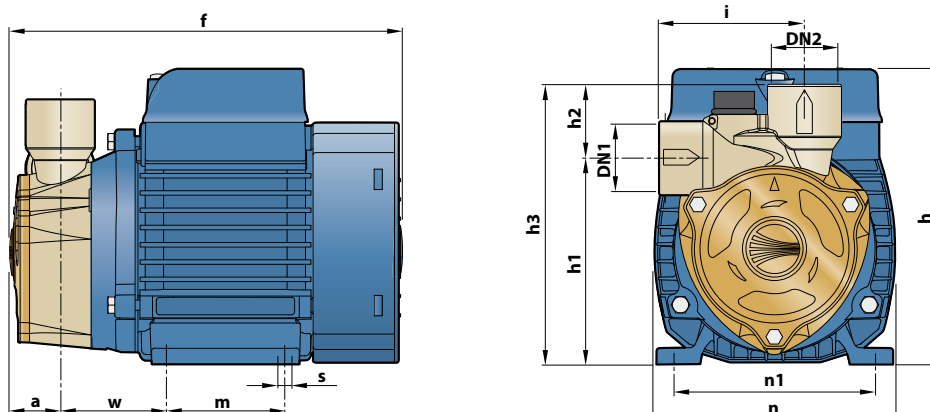
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	RYTON complete with threaded metallic port inserts in compliance with ISO 228/1				
2 BODY PLATE	Brass				
3 MOTOR BRACKET	Aluminium with brass insert (patented), reduces the risk of impeller seizure				
4 IMPELLER	Brass with peripheral radial vanes				
5 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
6 MECHANICAL SEAL	Seal	Shaft	Materials		
	Model	Diameter	Stationary ring	Rotational ring	Elastomer
	ST1-12	Ø 12 mm	Silicon carbide	Graphite	NBR
7 BEARINGS	Pump	Model			
	PQA 60	6201 ZZ / 6201 ZZ			
	PQA 70	6203 ZZ / 6203 ZZ			
8 CAPACITOR	Pump	Capacitance			
	Single-phase	(230 V or 240 V)		(110 V)	
	PQAm 60	10 µF - 450 VL	25 µF - 250 VL		
	PQAm 70	16 µF - 450 VL	60 µF - 300 VL		
9 ELECTRIC MOTOR	<p>PQAm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. PQA: three-phase 230/400 V - 50 Hz.</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm												kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	i	m	n	n1	w	s	1~	3~
PQAm 60	PQA 60	½"	½"	25	192	145	96	33	129	72.5	55	118	93-100	53	7	4.7	4.7
PQAm 70	PQA 70			28	258	179	116.5	32.5	149		90	138	112	62		9.4	9.3

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
PQAm 60	2.5 A	2.4 A	5.2 A
PQAm 70	6.2 A	5.5 A	12.4 A

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
Three-phase	230 V	400 V	240 V	415 V
PQA 60	2.0 A	1.15 A	1.9 A	1.1 A
PQA 70	4.2 A	2.4 A	3.7 A	2.2 A

-  Clean water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **160 l/min** (9.6 m³/h)
- Head up to **56 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure:
 - **6 bar** for CP 100-130-132-150-158
 - **10 bar** for CP 170-190-200
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY




INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. Because they are reliable and easy to use these pumps are widely used in domestic and civil applications such as the distribution of water in combination with small and medium sized pressure tanks, for transferring liquids and for the irrigation of gardens and orchards.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

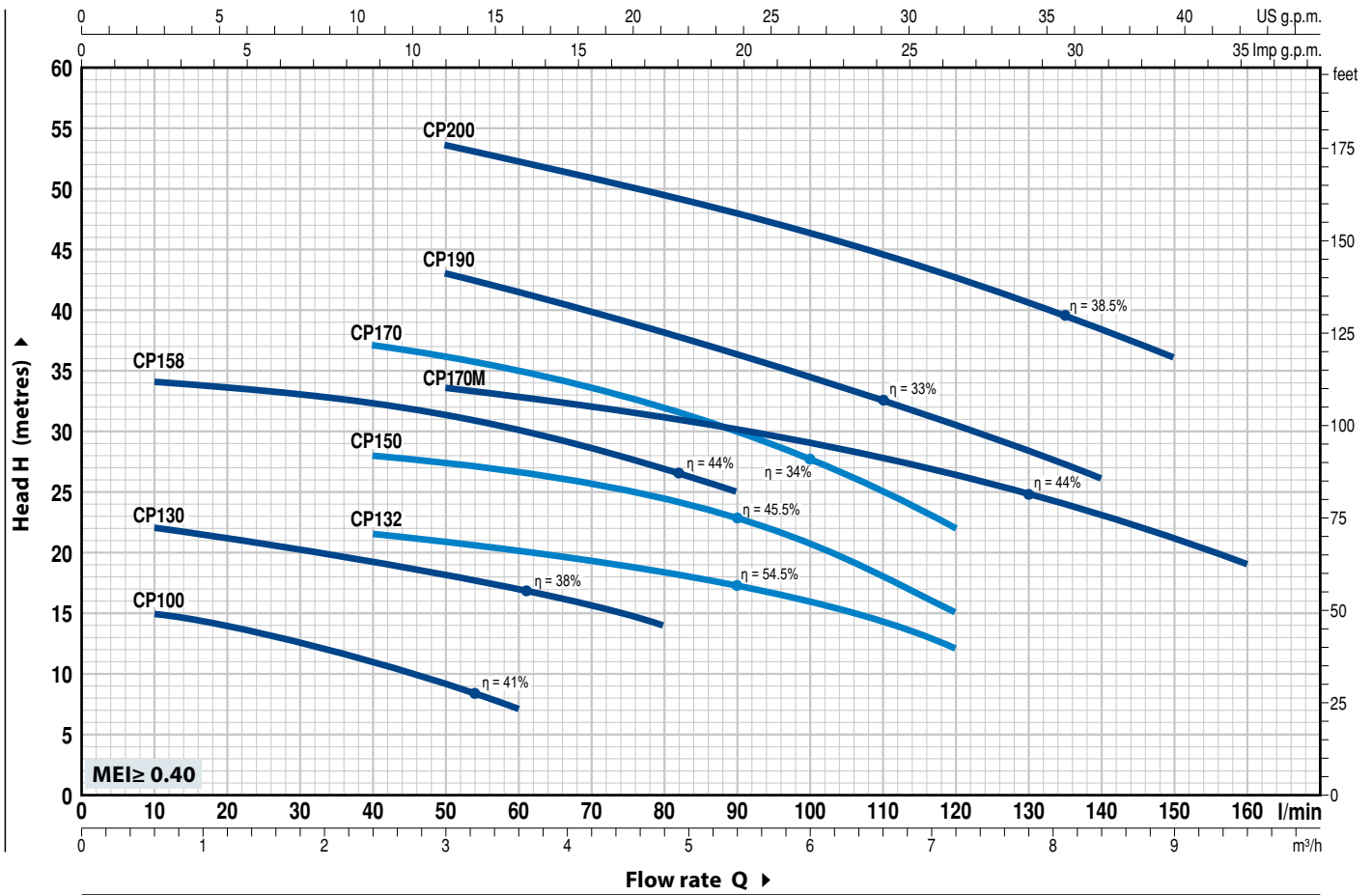
- Registered Trade Mark n. 0001516350 CPm158 
- Registered EU Design n. 002098434

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency
- IP X5 class protection for CP 170, CP 170M

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		Q	Flow rate																		
Single-phase	Three-phase	kW	HP ▲		m ³ /h	0	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	7.8	8.4	9.0	9.6	
				l/min	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160		
CPm 100	CP 100	0.25	0.33	H metres	16	15	14	12.5	11	9	7												
CPm 130	CP 130	0.37	0.50		23	22	21	20	19	18	17	15.5	14										
CPm 132	CP 132	0.55	0.75		23	-	22.5	22	21.5	21	20.5	19.5	18.5	17.5	16	14	12						
CPm 150	CP 150	0.75	1		29.5	-	29	28.5	28	27.5	26.5	26	24.5	23	21	18	15						
CPm 158	CP 158	0.75	1		36	34	33.5	33	32.5	31.5	30	28.5	27	25									
CPm 170	CP 170	1.1	1.5		41	-	-	38	37	36	35	33.5	32	30	27.5	25	22						
CPm 170M	CP 170M	1.1	1.5		36	-	-	35	34.5	33.5	33	32	31	30	29	28	26.5	25	23	21	19		
CPm 190	CP 190	1.5	2		48	-	-	46	44.5	43	41.5	40	38	36	34.5	32.5	30.5	28	26				
-	CP 200	2.2	3	IE3	56	-	-	55	54.5	53.5	52	51	49.5	48	46	44.5	42.5	40.5	38.5	36			

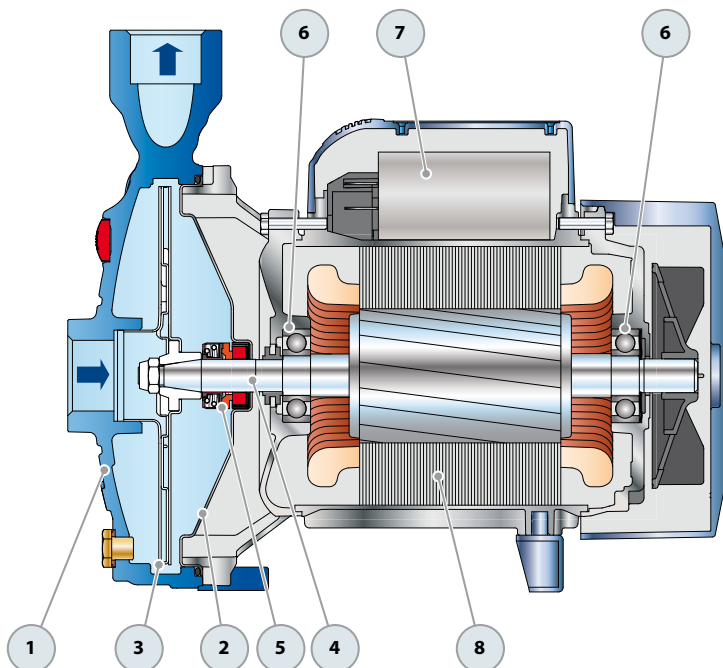
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

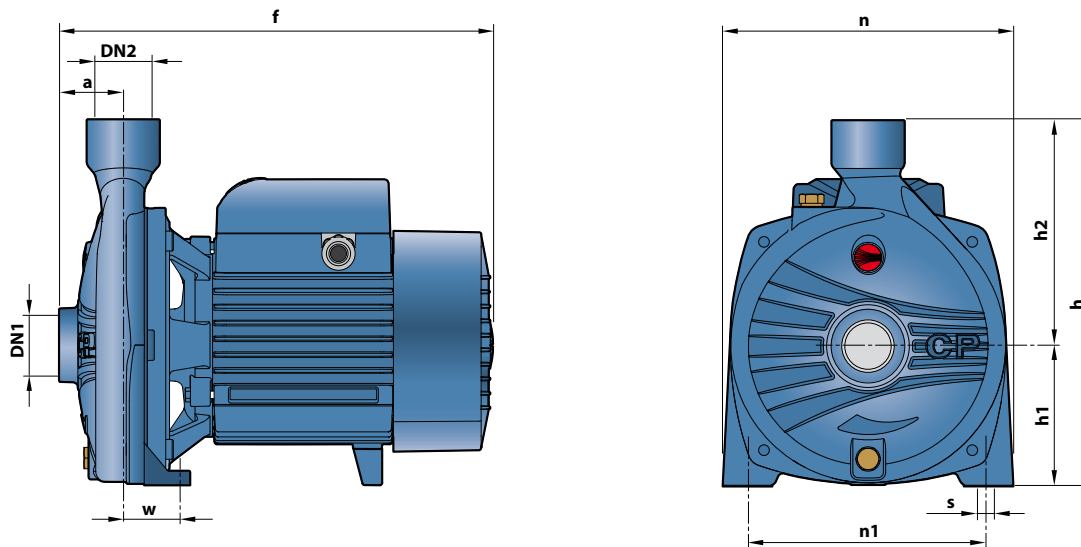
▲ Performance class of the three-phase motor (IEC-60034-30)

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded ports in compliance with ISO 228/1					
2 BODY BACKPLATE	Stainless steel AISI 304 (cast iron for CP 170-170M-190-200)					
3 IMPELLER	Stainless steel AISI 304					
4 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104					
5 MECHANICAL SEAL	Pump	Seal	Shaft	Materials		
	<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
	CP 100-130-132	AR-12	Ø 12 mm	Ceramic	Graphite	NBR
	CP 150-158	AR-14	Ø 14 mm	Ceramic	Graphite	NBR
	CP 170-170M-190-200	FN-18	Ø 18 mm	Graphite	Ceramic	NBR
6 BEARINGS	Pump	Model				
	CP 100-130-132	6201 ZZ / 6201 ZZ				
	CP 150-158	6203 ZZ / 6203 ZZ				
	CP 170-170M	6204 ZZ / 6204 ZZ				
	CP 190-200	6304 ZZ / 6204 ZZ				
7 CAPACITOR	Pump	Capacitance				
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>		<i>(110 V)</i>		
	CPm 100	10 µF - 450 VL	25 µF - 250 VL			
	CPm 130	10 µF - 450 VL	25 µF - 250 VL			
	CPm 132	14 µF - 450 VL	25 µF - 250 VL			
	CPm 150-158	20 µF - 450 VL	60 µF - 300 VL			
	CPm 170-170M	25 µF - 450 VL	60 µF - 250 VL			
	CPm 190	45 µF - 450 VL	80 µF - 250 VL			
8 ELECTRIC MOTOR	CPm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.					
	CP: three-phase 230/400 V - 50 Hz.					
	<p>⇒ The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW in class IE3 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 					



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s	1~	3~
CPm 100	CP 100	1"	1"	42	253	205	82	123	165	135	41	10	7.1	7.1
CPm 130	CP 130												7.8	7.3
CPm 132	CP 132												8.7	8.2
CPm 150	CP 150			285	240	92	148	190	160	38	12.4		11.4	
CPm 158	CP 158										12.0		11.0	
CPm 170 - 170M	CP 170 - 170M	1 1/4"	1"	51	367	260	110	150	206	165	44.5	11	17.8	17.2
CPm 190	CP 190			48	364	290	115	175	242	206	36.5		21.3	20.3
-	CP 200												-	21.5

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
CPm 100	1.9 A	1.55 A	3.3 A
CPm 130	3.2 A	2.9 A	6.4 A
CPm 132	3.9 A	3.7 A	7.0 A
CPm 150	5.7 A	5.4 A	11.4 A
CPm 158	6.0 A	5.8 A	12.0 A
CPm 170 - 170M	7.8 A	7.2 A	16.0 A
CPm 190	11.0 A	10.0 A	22.0 A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
CP 100	1.7 A	1.0 A	1.6 A	0.9 A
CP 130	2.0 A	1.2 A	1.8 A	1.1 A
CP 132	2.4 A	1.4 A	2.3 A	1.3 A
CP 150	4.2 A	2.4 A	4.1 A	2.3 A
CP 158	4.4 A	2.5 A	4.3 A	2.4 A
CP 170 - 170M	5.2 A	3.0 A	5.1 A	2.9 A
CP 190	7.5 A	4.3 A	7.3 A	4.2 A
CP 200	9.3 A	5.4 A	9.0 A	5.2 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
CPm 100	CP 100	90	162
CPm 130	CP 130	90	162
CPm 132	CP 132	90	162
CPm 150	CP 150	70	112
CPm 158	CP 158	70	112
CPm 170	CP 170	50	70
CPm 170M	CP 170M	50	70
CPm 190	CP 190	36	54
-	CP 200	36	54



Clean water



Civil use



Agricultural use



Industrial use



PERFORMANCE RANGE

- Flow rate up to **900 l/min** (54 m³/h)
- Head up to **79 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. working pressure **10 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. As a result of their reliability and the fact that they are easy to use, these pumps are widely used in civil, agricultural and industrial applications such as for supplying water, in air conditioning and cooling systems, for irrigation, etc.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

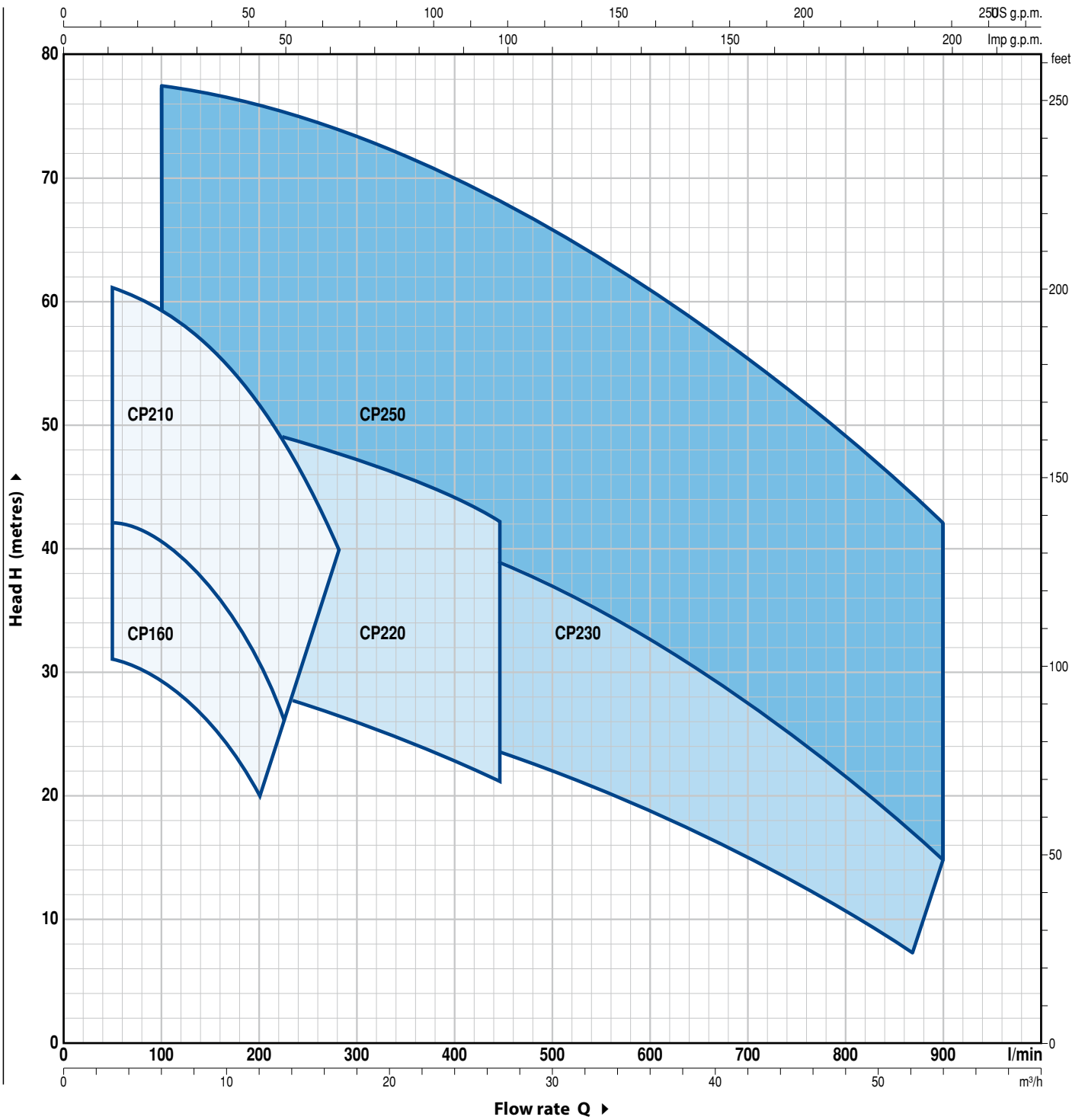
- Registered EU Design n. 002098434 for CP 160, CP210
- Registered Italian model n. 72753 for CP 220, CP 230, CP250

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel pump shaft for CP 220, CP 230, CP250
- Other voltages or 60 Hz frequency
- IP X5 class protection for CP 160

PERFORMANCE RANGE

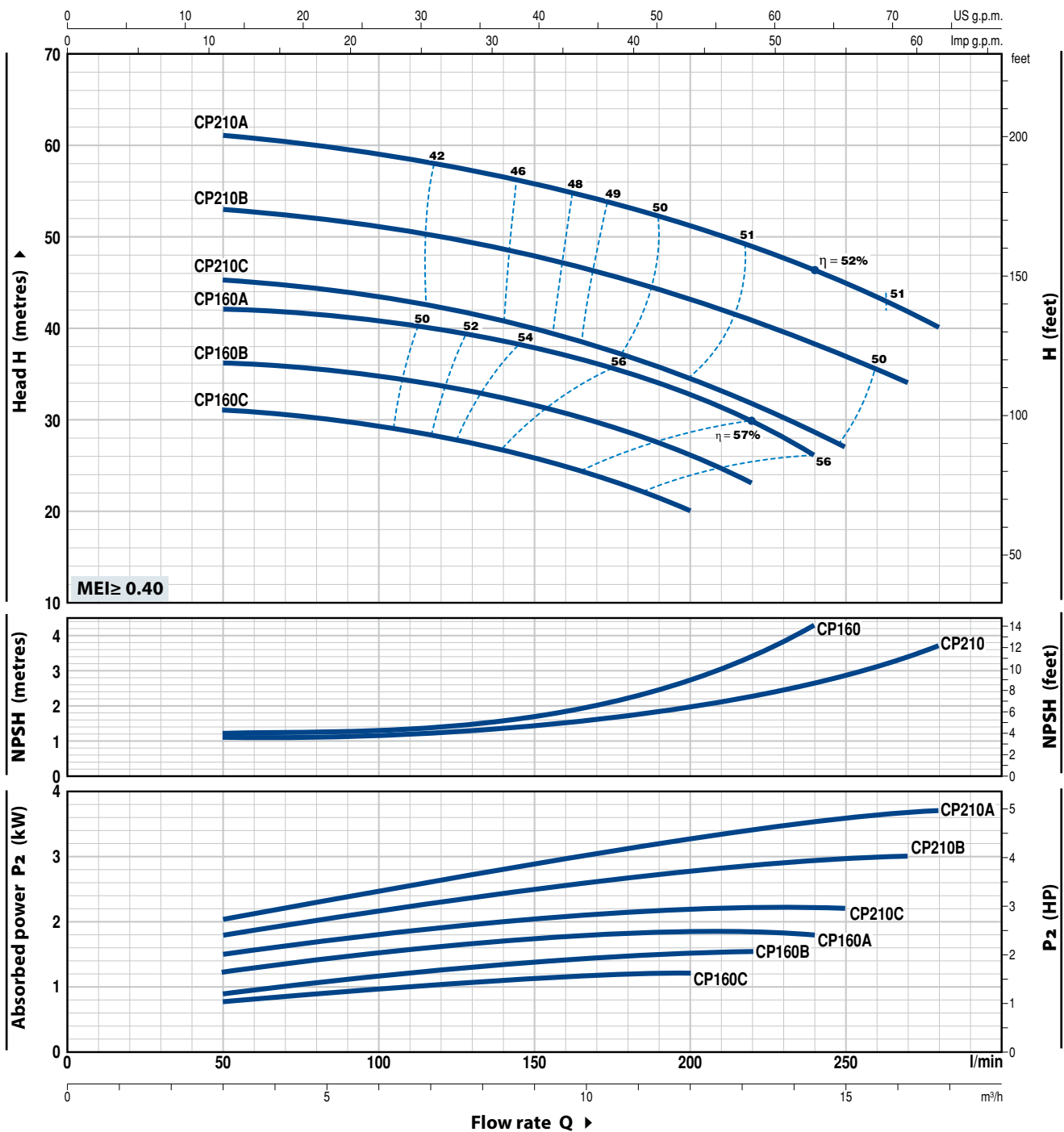
50 Hz n= 2900 rpm HS= 0 m



CP 160-210

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)			Q	H metres															
Single-phase	Three-phase	kW	HP	▲		0	3	4.5	6	7.5	9	10.5	12	13.2	14.4	15	16.2	16.8			
					0	50	75	100	125	150	175	200	220	240	250	270	280				
CPm 160C	CP 160C	1.1	1.5	IE2	32	31	30.5	29.5	28	26	23	20									
CPm 160B	CP 160B	1.5	2		37	36	35.5	34.5	33.5	31.5	29	26.5	23								
-	CP 160A	2.2	3		43	42	41.5	40.5	39.5	38	35.5	33	30	26							
CPm 210C	CP 210C	2.2	3	IE3	46	45.5	44.5	43.5	42	40	37.5	34.5	32	28.5	27						
-	CP 210B	3	4		54	53	52	51	49.5	48	45.5	43	40	38.5	37	34					
-	CP 210A	4	5.5		61	61	60	59	57.5	56	53.5	51	49	46.5	45	42	40				

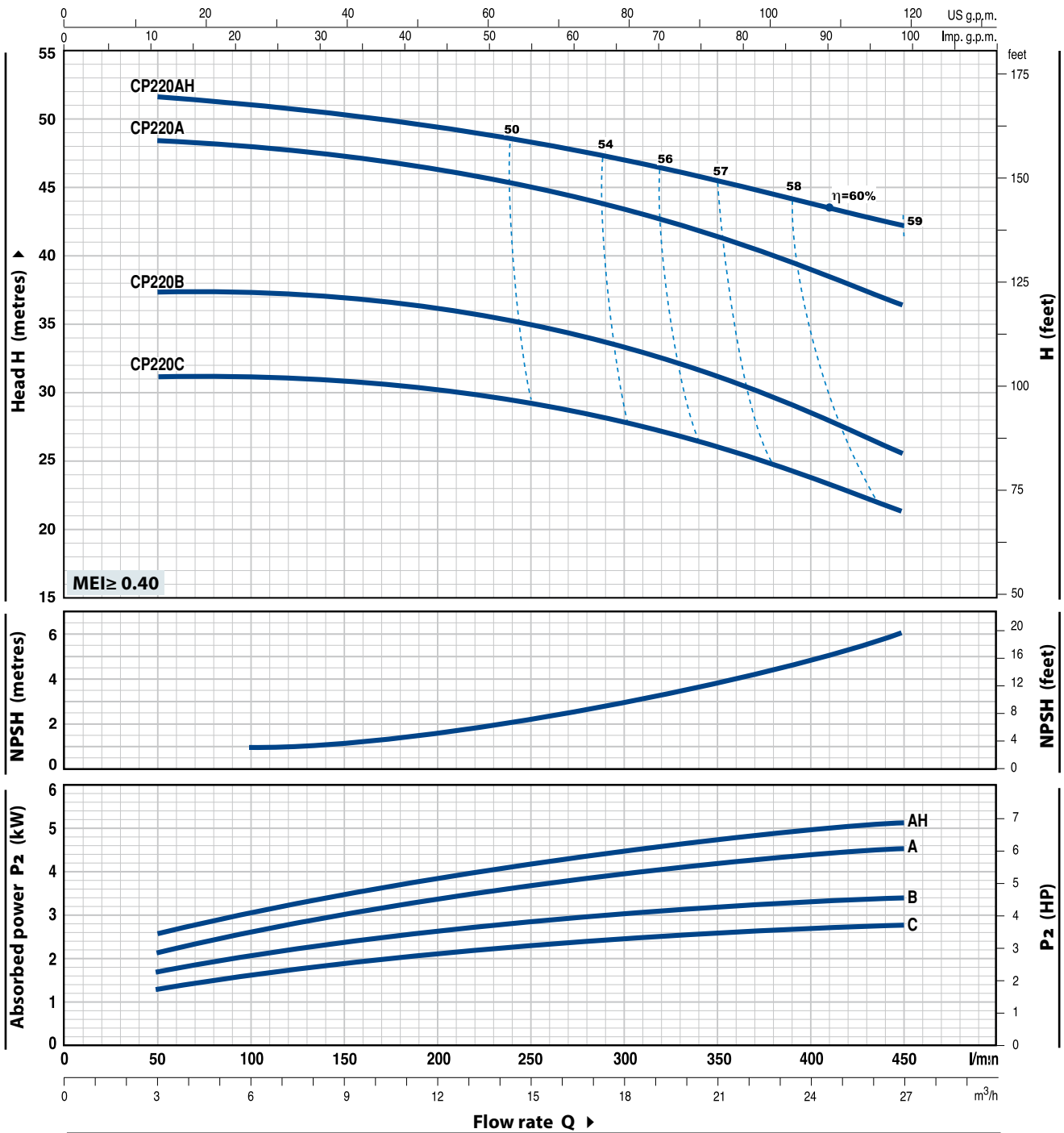
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		▲	Q	m ³ /h						
Single-phase	Three-phase	kW	HP			0	3	6	12	18	24	27
CPm 220C	CP 220C	2.2	3	IE3	H metres	0	50	100	200	300	400	450
-	CP 220B	3	4			32	31.5	31	30	28	24	21
-	CP 220A	4	5.5			38	37.5	37	36	33.5	29	25
-	CP 220AH	5.5	7.5			49	48.5	48	46	43.5	39.5	36
						52	51.5	51	49	47	44	42

Q = Flow rate H = Total manometric head HS = Suction height

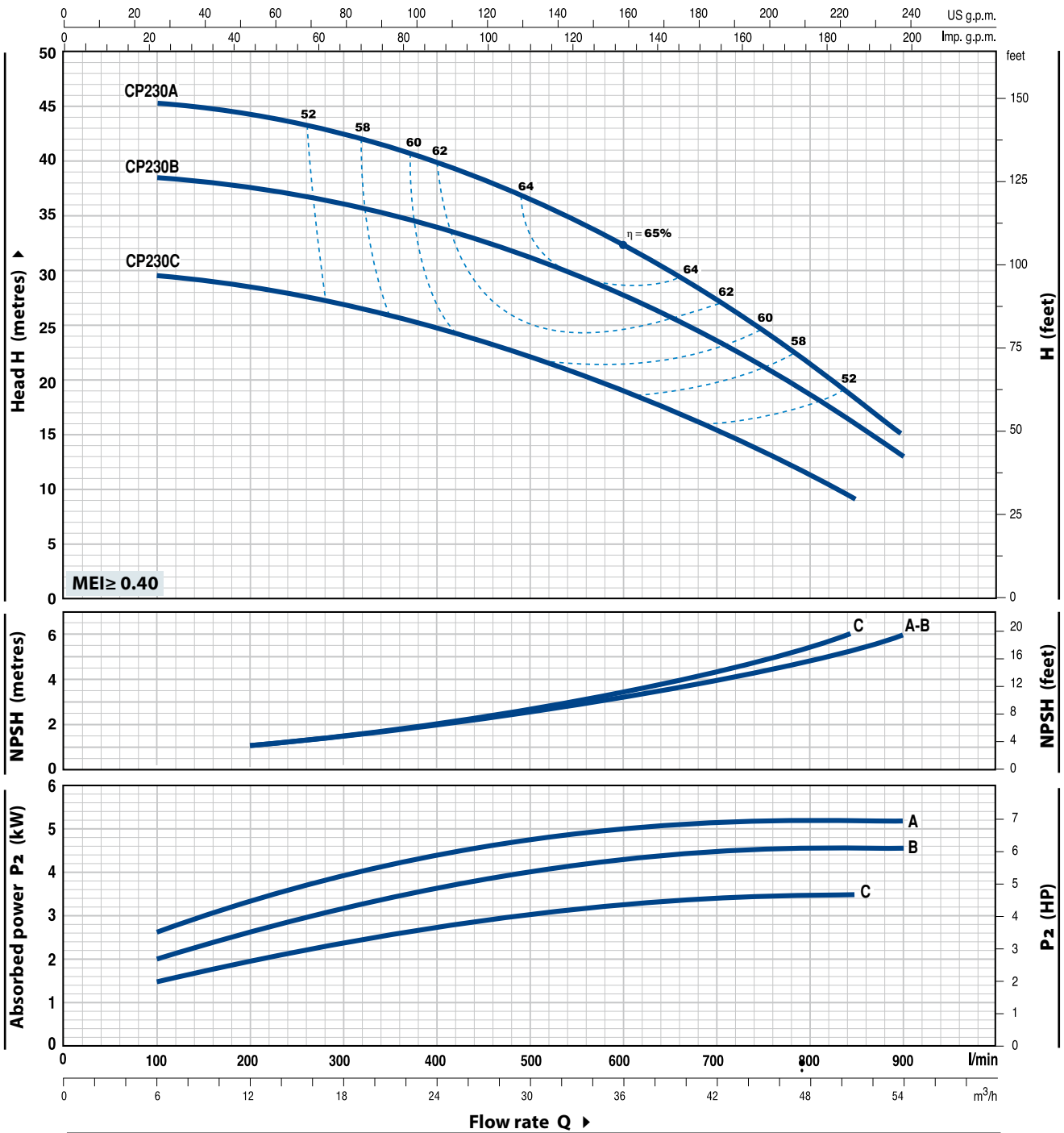
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

CP 230

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		▲	Q	Flow rate Q										
	kW	HP			0	6	12	18	24	30	36	42	48	51	54
Three-phase				l/min	0	100	200	300	400	500	600	700	800	850	900
CP 230C	3	4	IE3	H metres	30	29.5	28.5	27	25	22	19.5	15.5	11.5	9	
CP 230B	4	5.5		39	38.5	38	36	34	31	28	24	18.5	15	13	
CP 230A	5.5	7.5		46	45.5	44.5	42	40	37	32.5	27.5	21.5	18	15	

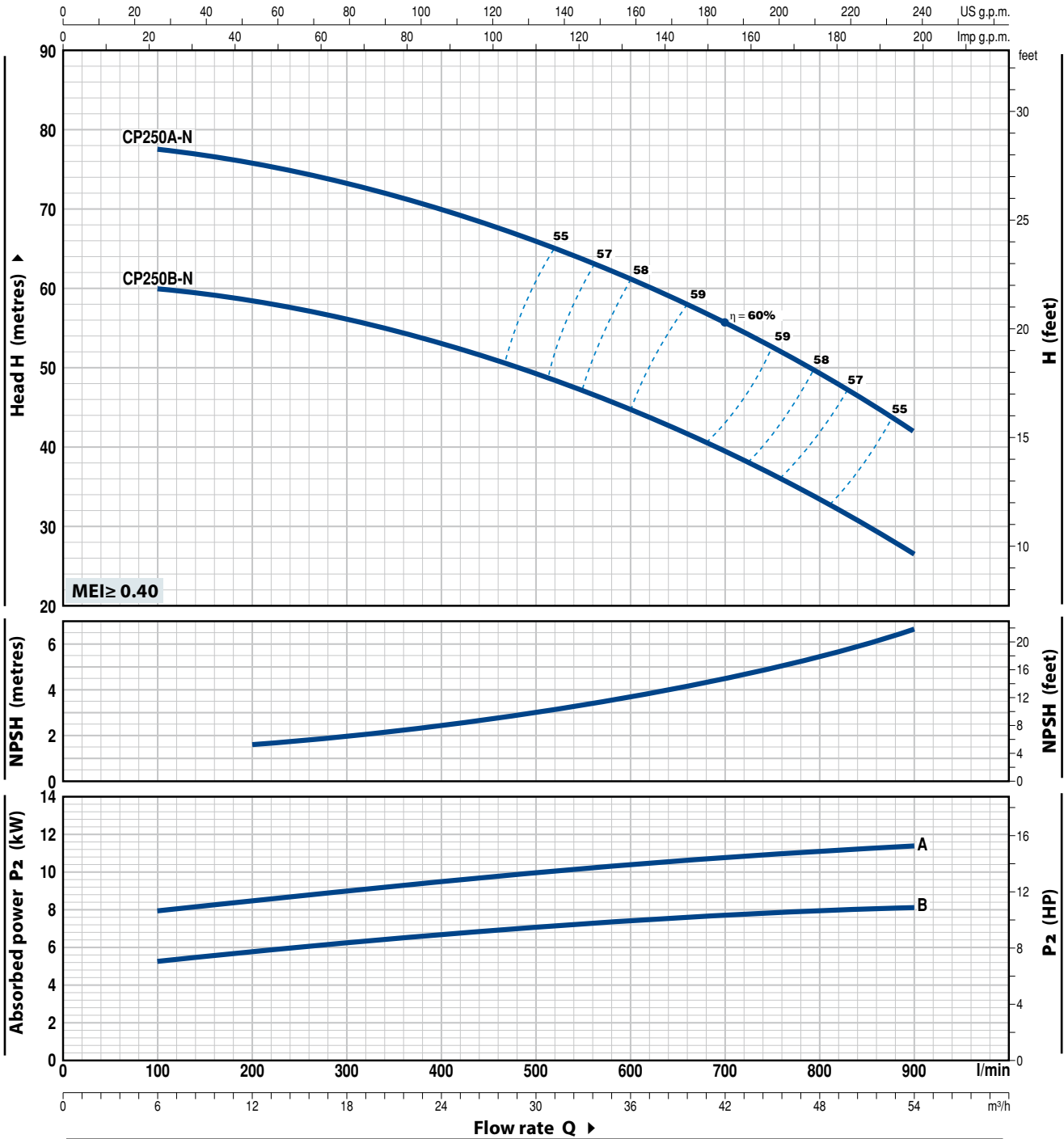
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		▲	Q	Flow rate Q										
	kW	HP			0	6	12	18	24	30	36	42	48	54	
Three-phase					0	100	200	300	400	500	600	700	800	900	
CP 250B-N	7.5	10	IE3	H metres	61	60	58	56	53	49	45	39.5	33.5	26.5	
CP 250A-N	11	15				79	77.5	75.5	73	70	66	61.5	56	50	42

Q = Flow rate H = Total manometric head HS = Suction height

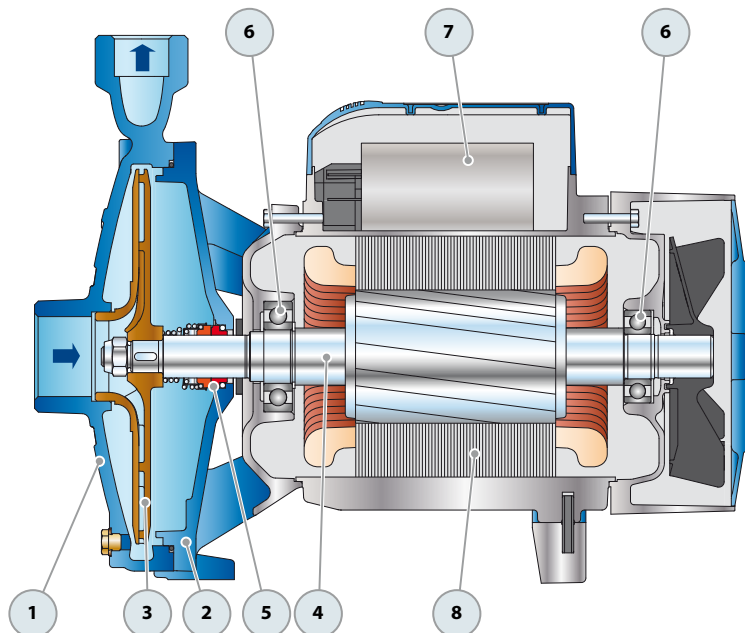
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

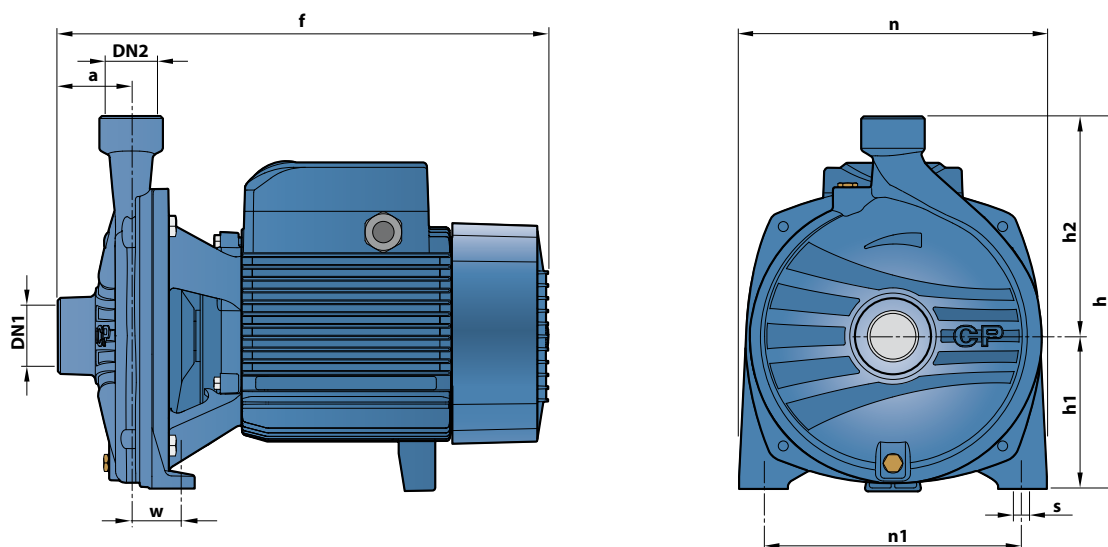
CP 160-210

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1					
2	BODY BACKPLATE	Cast iron					
3	IMPELLER	Brass					
4	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104					
5	MECHANICAL SEAL	<i>Pump</i>	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		CP 160	FN-18	Ø 18 mm	Graphite	Ceramic	NBR
CP 210	FN-24	Ø 24 mm	Graphite	Ceramic	NBR		
6	BEARINGS	<i>Pump</i>	<i>Model</i>				
		CP 160	6204 ZZ / 6204 ZZ				
		CP 210	6206 ZZ - C3 / 6205 ZZ				
7	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>				
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>			
		CPm 160C	31.5 µF - 450 VL	60 µF - 250 VL			
		CPm 160B	45 µF - 450 VL	80 µF - 250 VL			
		CPm 210C	70 µF - 450 VL	-			
8	ELECTRIC MOTOR	CPm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding (up to 1.5 kW).					
		CP: three-phase 230/400 V - 50 Hz.					
		⇒ The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW in class IE3 (IEC 60034-30)					
		- Insulation: class F					
		- Protection: IP X4					



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s	1~	3~
CPm 160C	CP 160C	1½"	1"	54	373	260	110	150	207	165	44.5	11	19.7	17.7
CPm 160B	CP 160B												21.0	21.0
-	CP 160A												-	21.0
CPm 210C	CP 210C			60	402	305	125	180	252	210	39.5	11	26.0	27.5
-	CP 210B												-	30.0
-	CP 210A												-	32.0

ABSORPTION

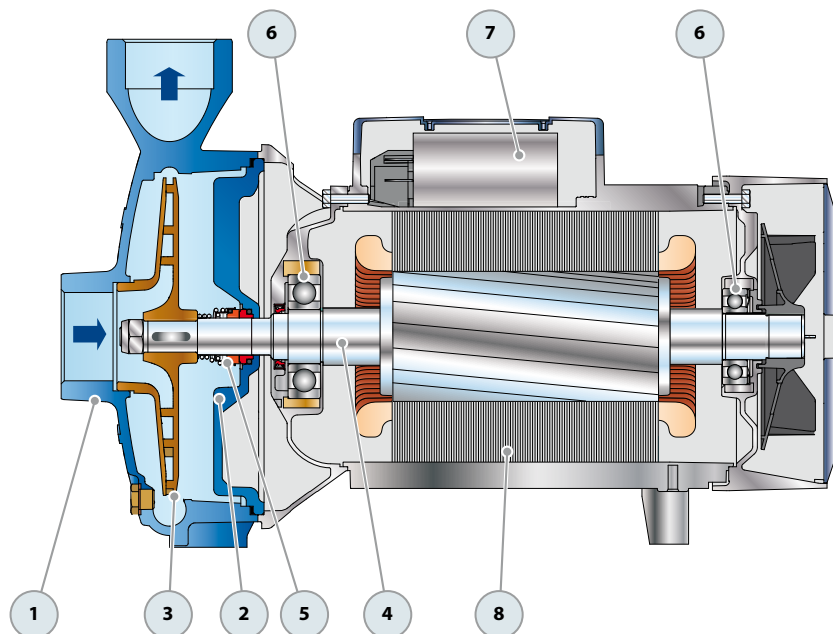
MODEL	VOLTAGE		
	230 V	240 V	110 V
CPm 160C	8.6 A	7.8 A	17.2 A
CPm 160B	10.3 A	9.8 A	20.6 A
CPm 210C	13.0 A	12.7 A	-

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
CP 160C	5.7 A	3.3 A	1.9 A	5.2 A	3.0 A	1.7 A
CP 160B	7.3 A	4.2 A	2.4 A	6.7 A	3.9 A	2.3 A
CP 160A	8.9 A	5.1 A	3.0 A	8.3 A	4.8 A	2.8 A
CP 210C	9.2 A	5.3 A	3.1 A	8.8 A	5.1 A	2.9 A
CP 210B	11.2 A	6.5 A	3.8 A	10.8 A	6.2 A	3.6 A
CP 210A	14.8 A	8.5 A	4.9 A	14.2 A	8.2 A	4.7 A

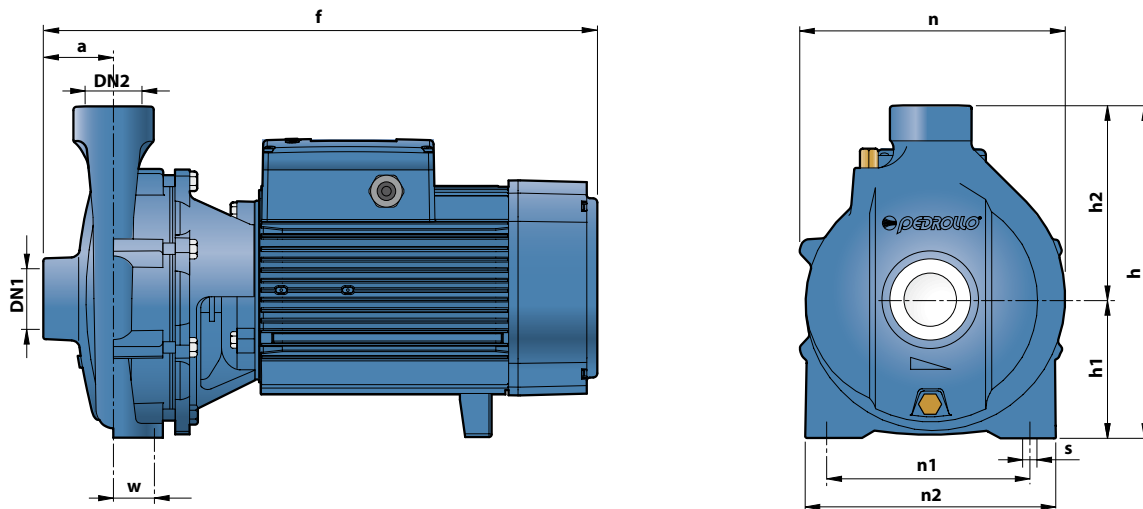
CP 220-230-250

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1					
2 BODY BACKPLATE	Cast iron					
3 IMPELLER	Brass for CP 220, CP 230 Cast iron for CP 250					
4 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104					
5 MECHANICAL SEAL	Pump	Seal	Shaft	Materials		
	<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
	CP 220C-B CP 230C	FN-20	Ø 20 mm	Graphite	Ceramic	NBR
	CP 220A-AH CP 230B-A CP 250B-N CP 250A-N	FN-24	Ø 24 mm	Graphite	Ceramic	NBR
		FN-32 NU	Ø 32 mm	Graphite	Ceramic	NBR
6 BEARINGS	Pump	Model				
	CP 220C	6206 ZZ - C3 / 6204 ZZ				
	CPm 220C					
	CP 220B	6206 ZZ - C3 / 6205 ZZ				
	CP 230C					
	CP 220A-AH CP 230B-A CP 250B-N CP 250A-N	6307 ZZ - C3 / 6206 ZZ - C3				
		6310 ZZ - C3 / 6308 ZZ - C3				
7 CAPACITOR	Pump	Capacitance				
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>				
	CPm 220C	70 µF - 450 VL				
8 ELECTRIC MOTOR	CPm: single-phase 230 V - 50 Hz. CP: three-phase 230/400 V - 50 Hz up to 4 kW. 400/690 V - 50 Hz from 5.5 to 11 kW.					
	⇒ The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30) – Insulation: class F – Protection: IP X5					



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg		
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	n2	w	s	1~	3~	
CPm 220C	CP 220C	2"	2"	70	441/409	315	132	183	255	170	230	40	14	31.9	28.5	
-	CP 220B				441											
-	CP 220A				460	328	136	192	273	190	250					
-	CP 220AH				505											
-	CP 230C				441	315	132	183	255	170	230					
-	CP 230B				460											
-	CP 230A				505	328	136	192	273	190	250					
-	CP 250B-N				507											
-	CP 250A-N				571	392	160	232	322	230	294			45	-	74.0
-																

ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
CPm 220C	15.8 A	15.0 A

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
CP 220C	11.4 A	6.6 A	3.8 A	10.7 A	6.2 A	3.6 A
CP 220B	12.6 A	7.3 A	4.2 A	12.0 A	7.0 A	4.0 A
CP 220A	17.0 A	9.8 A	5.7 A	16.5 A	9.5 A	5.5 A
CP 220AH	20.0 A	11.5 A	6.7 A	19.2 A	11.0 A	6.4 A
CP 230C	13.2 A	7.6 A	4.4 A	12.8 A	7.4 A	4.3 A
CP 230B	16.8 A	9.7 A	5.6 A	16.2 A	9.4 A	5.4 A
CP 230A	20.0 A	11.5 A	6.7 A	19.2 A	11.0 A	6.4 A
CP 250B-N	28.6 A	16.5 A	9.5 A	27.5 A	16.0 A	9.3 A
CP 250A-N	40.8 A	23.6 A	13.7 A	40.7 A	23.5 A	13.6 A

AL-RED

Stainless steel centrifugal pump

-  Clean water
-  Domestic use
-  Agricultural use
-  Industrial use



PERFORMANCE RANGE

- Maximum flow rate **160 l/min** (9.6 m³/h)
- Maximum head **23 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. working pressure **4 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1 EN 60034-1
IEC 60335-1 IEC 60034-1
CEI 61-150 CEI 2-3



EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. Because of its design features this centrifugal pump is recommended for use in domestic, agricultural and industrial applications. All the components in contact with the pumped liquid are in stainless steel AISI 304 thus guaranteeing complete hygiene and maximum resistance against corrosion. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

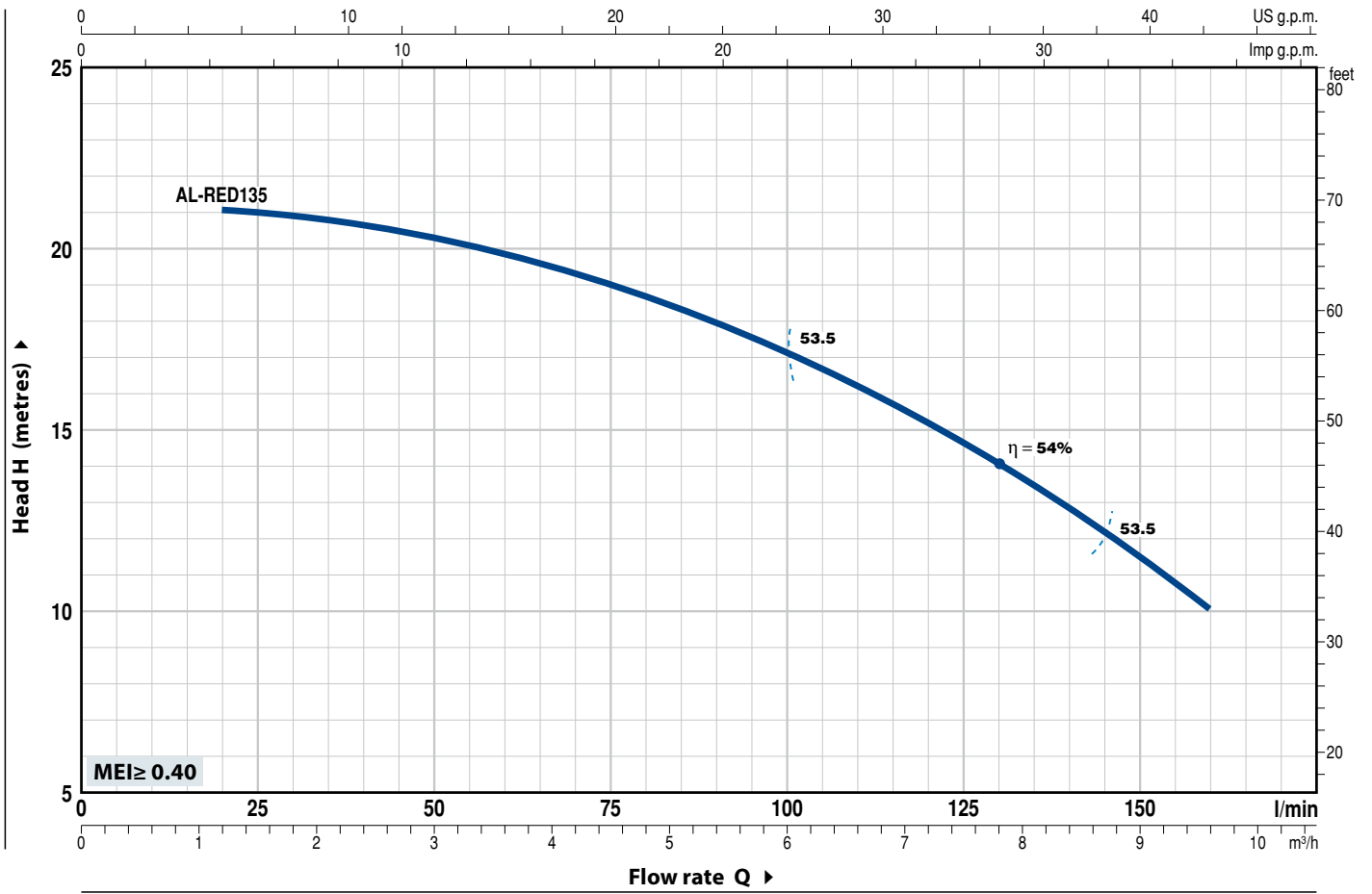
- Registered Trade Mark n. 0001575587 AL-RED®

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- EN 10088-3 - 1.4401 (AISI 316) stainless steel pump shaft
- Other voltages or 60 Hz frequency
- IP X5 class protection

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



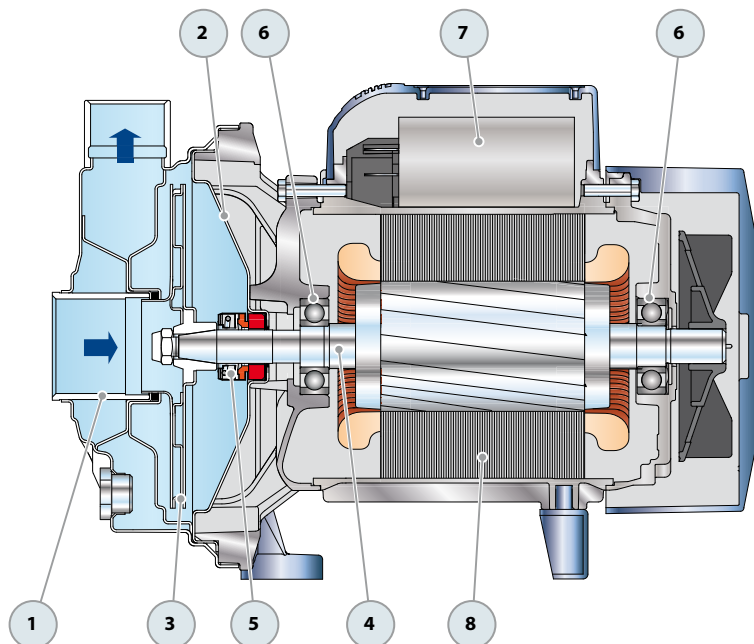
MODEL		POWER (P ₂)		Q	Flow rate									
Single-phase	Three-phase	kW	HP		m ³ /h	0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6
AL-RED 135m	AL-RED 135	0.75	1	l/min	0	20	40	60	80	100	120	140	160	
				H metres	23	21	20.5	20	18.5	17	15	13	10	

Q = Flow rate H = Total manometric head HS = Suction height

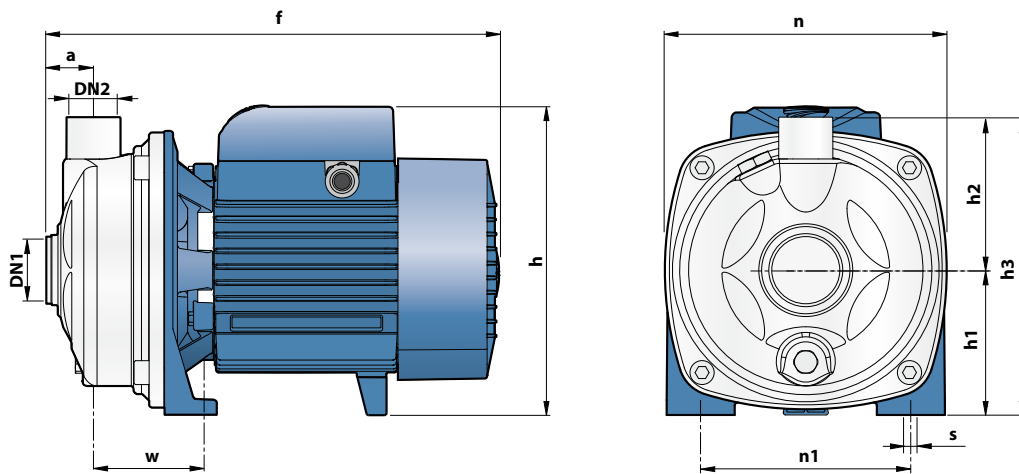
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 complete with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 304				
3	IMPELLER	Stainless steel AISI 304				
4	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
5	MECHANICAL SEAL	Seal	Shaft	Materials		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		AR-14	Ø 14 mm	Ceramic	Graphite	NBR
6	BEARINGS	6203 ZZ / 6203 ZZ				
7	CAPACITOR	Capacitance				
		<i>(230 V or 240 V)</i>	<i>(110 V)</i>			
		20 µF - 450 VL	60 µF - 300 VL			
8	ELECTRIC MOTOR	<p>AL-RED 135m: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.</p> <p>AL-RED 135: three-phase 230/400 V - 50 Hz.</p> <p>➔ The three-phase pump is fitted with a high performance motor in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	n	n1	w	s	1~	3~
AL-RED 135m	AL-RED 135	1¼"	1"	31	296	206	97	103	200	186	135	73.5	10	9.1	9.0

ABSORPTION

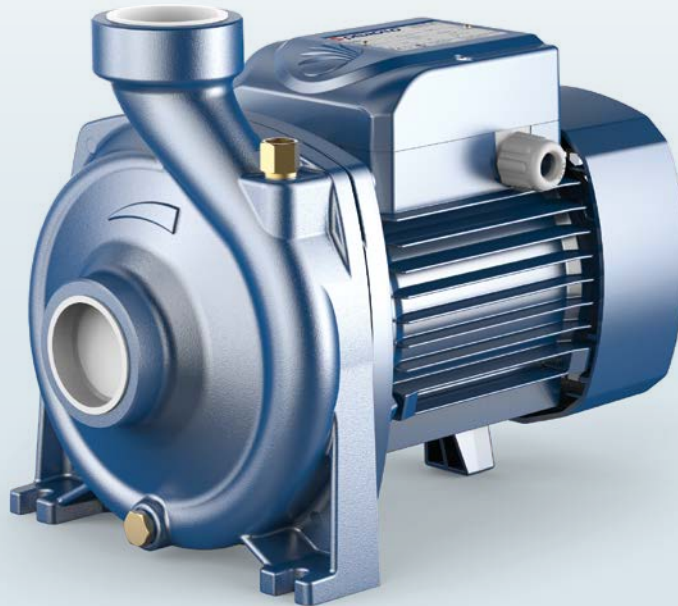
MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
AL-RED 135m	5.0 A	4.8 A	10.0 A

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
AL-RED 135	3.1 A	1.8 A	1.0 A	3.0 A	1.7 A	0.9 A

Centrifugal pumps

▬ Medium flow

-  Clean water
-  Agricultural use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **600 l/min** (36 m³/h)
- Head up to **39 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure:
 - **6 bar** for HF 5-50-51
 - **10 bar** for HF 5M-70
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



EU REGULATION N. 547/2012

INSTALLATION AND USE

Suitable for use in civil and agricultural applications. The high efficiency and continuous duty capabilities makes these pumps ideal for use in applications such as flood and spray irrigation, drawing water from lakes, rivers and wells, or for any number of different industrial applications where the characteristics of high flow rates and mid to low head are required.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency
- IP X5 class protection for HF 5M-70

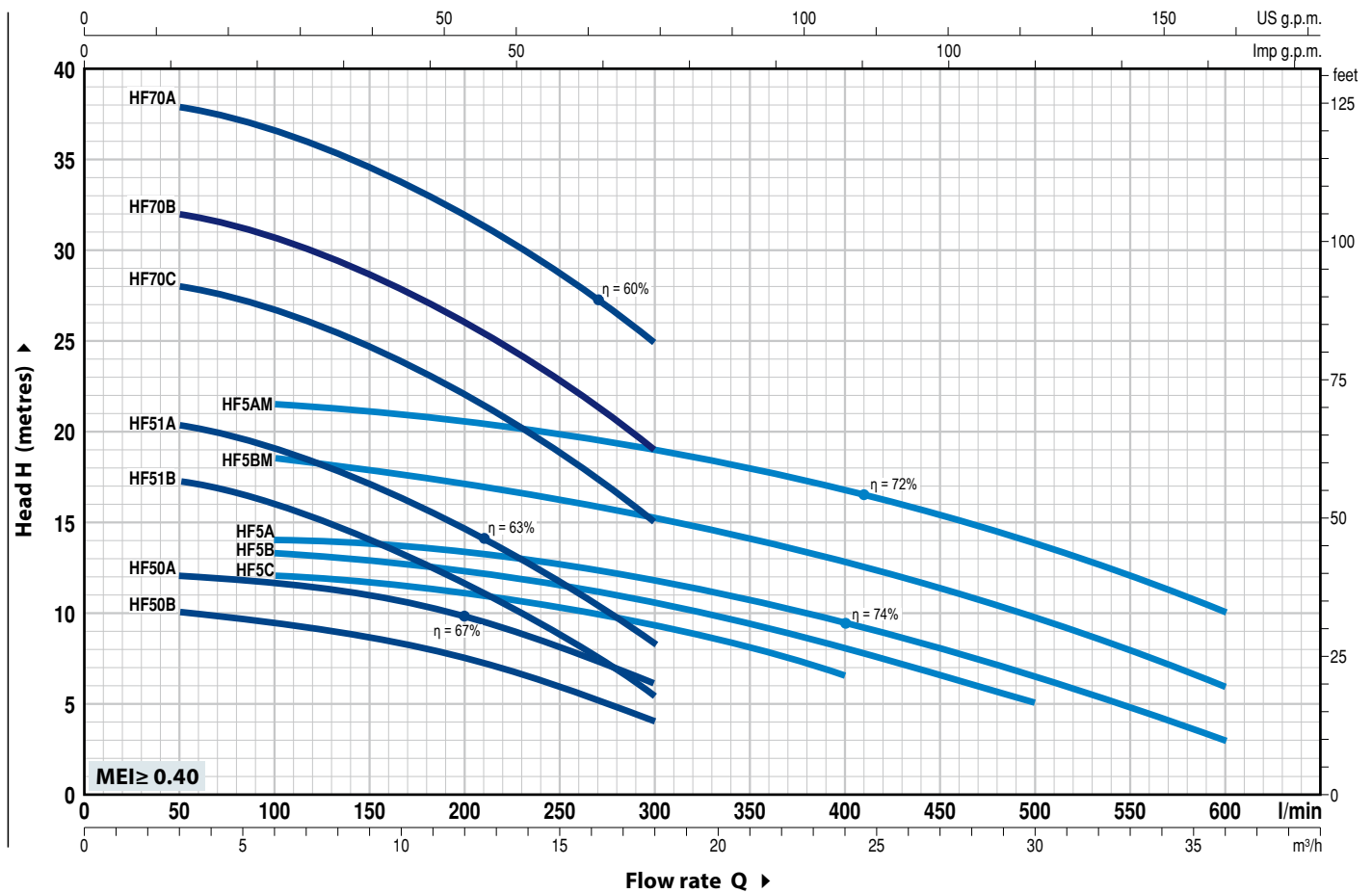
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		Q	H metres												
Single-phase	Three-phase	kW	HP		▲	0	3	6	9	12	15	18	21	24	30	36	
					0	50	100	150	200	250	300	350	400	500	600		
HFm 50B	HF 50B	0.37	0.50	IE2	10	10	9.5	8.5	7.5	6	4						
HFm 50A	HF 50A	0.55	0.75		12	12	11.5	11	9.6	8	6						
HFm 51B	HF 51B	0.60	0.85	IE2	18.2	17.2	16	14	11.5	9	5.4						
HFm 51A	HF 51A	0.75	1		21.2	20.2	19	17	14.5	11.6	8.4						
HFm 70C	HF 70C	1.1	1.5	IE2	29	28	26.5	24.5	22	18.5	15						
HFm 70B	HF 70B	1.5	2		33	32	30.5	28.5	26	22.5	19						
-	HF 70A	2.2	3	IE3	39	38	36.5	34.5	32	28.5	25						
HFm 5C	HF 5C	0.55	0.75	IE2	12.5	-	12	11.7	11	10.2	9.2	8	6.5				
HFm 5B	HF 5B	0.75	1		13.7	-	13.2	13	12.5	11.6	10.5	9.2	8	5			
HFm 5A	HF 5A	1.1	1.5	IE2	14.5	-	13.8	13.5	13.2	12.6	11.8	10.5	9.2	6.5	3		
HFm 5BM	HF 5BM	1.1	1.5		19	-	18.5	18	17	16	15.2	14	12.8	9.7	6		
HFm 5AM	HF 5AM	1.5	2	IE3	22	-	21.5	21	20.5	19.8	19	18	16.8	13.8	10		

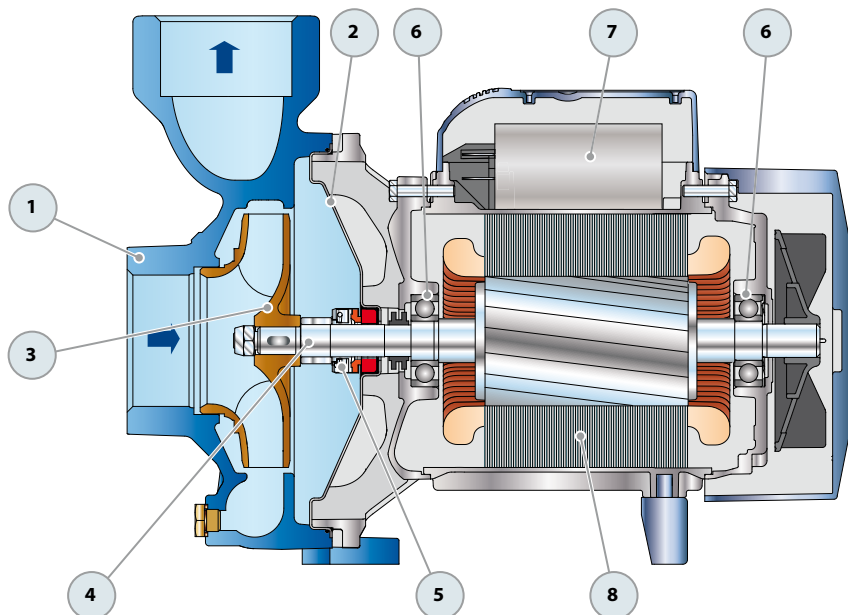
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

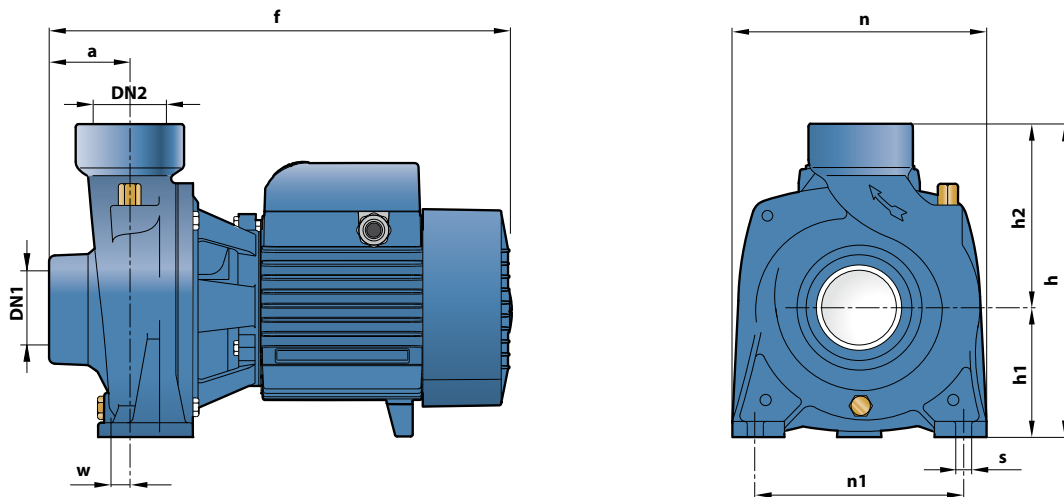
▲ Performance class of the three-phase motor (IEC-60034-30)

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1					
2	BODY BACKPLATE	Stainless steel AISI 304 (cast iron for HF 5M-70)					
3	IMPELLER	Brass					
4	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104					
5	MECHANICAL SEAL	<i>Pump</i>	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		HF 50	AR-12	Ø 12 mm	Ceramic	Graphite	NBR
		HF 5-51	AR-14	Ø 14 mm	Ceramic	Graphite	NBR
		HF 5M-70	FN-18	Ø 18 mm	Graphite	Ceramic	NBR
6	BEARINGS	<i>Pump</i>	<i>Model</i>				
		HF 50	6201 ZZ / 6201 ZZ				
		HF 5-51	6203 ZZ / 6203 ZZ				
		HF 5M-70	6204 ZZ / 6204 ZZ				
7	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>				
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>			
		HFm 50B	10 µF - 450 VL	25 µF - 250 VL			
		HFm 50A	14 µF - 450 VL	25 µF - 250 VL			
		HFm 51B	20 µF - 450 VL	60 µF - 300 VL			
		HFm 51A	20 µF - 450 VL	60 µF - 300 VL			
		HFm 70C	25 µF - 450 VL	60 µF - 250 VL			
		HFm 70B	45 µF - 450 VL	60 µF - 250 VL			
		HFm 5C	16 µF - 450 VL	60 µF - 300 VL			
		HFm 5B	20 µF - 450 VL	60 µF - 300 VL			
		HFm 5A	25 µF - 450 VL	60 µF - 300 VL			
		HFm 5BM	25 µF - 450 VL	60 µF - 250 VL			
		HFm 5AM	45 µF - 450 VL	80 µF - 250 VL			
8	ELECTRIC MOTOR	HFm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.					
		HF: three-phase 230/400 V - 50 Hz.					
		⇒ The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW in class IE3 (IEC 60034-30)					
		- Insulation: class F - Protection: IP X4					



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg		
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s	1~	3~	
HFm 50B	HF 50B	1½"	1½"	42	265	200	82	118	166	135	-3	10	8.3	7.8	
HFm 50A	HF 50A												9.2	8.5	
HFm 51B	HF 51B			45	300	225	92	133	190	160	4		12.9	11.9	
HFm 51A	HF 51A												13.0	12.0	
HFm 70C	HF 70C			48.5	373	269	114	155	216	171	12		12	19.0	18.6
HFm 70B	HF 70B													21.8	20.5
-	HF 70A													-	21.9
HFm 5C	HF 5C	2"	2"	43	316	238	97	141	192	160	-68	10	14.5	13.3	
HFm 5B	HF 5B												14.5	13.3	
HFm 5A	HF 5A			59	386	260	110	150	208	12.5	11	15.3	14.9		
HFm 5BM	HF 5BM											20.1	19.2		
HFm 5AM	HF 5AM											21.5	20.8		

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
HFm 50B	2.8 A	2.6 A	5.6 A
HFm 50A	3.5 A	3.4 A	7.6 A
HFm 51B	4.7 A	4.6 A	9.2 A
HFm 51A	5.6 A	5.3 A	11.2 A
HFm 70C	8.0 A	7.6 A	16.0 A
HFm 70B	10.0 A	9.0 A	20.0 A
HFm 5C	4.2 A	3.8 A	8.4 A
HFm 5B	4.9 A	4.5 A	10.0 A
HFm 5A	6.2 A	5.7 A	12.5 A
HFm 5BM	7.7 A	7.1 A	14.8 A
HFm 5AM	10.1 A	9.7 A	20.5 A

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
HF 50B	2.1 A	1.2 A	0.7 A	2.0 A	1.1 A	0.6 A
HF 50A	3.0 A	1.7 A	1.0 A	2.9 A	1.6 A	0.9 A
HF 51B	3.6 A	2.1 A	1.2 A	3.5 A	2.0 A	1.1 A
HF 51A	4.4 A	2.5 A	1.5 A	4.0 A	2.3 A	1.3 A
HF 70C	5.7 A	3.3 A	1.9 A	5.5 A	3.2 A	1.8 A
HF 70B	7.4 A	4.3 A	2.5 A	7.1 A	4.1 A	2.4 A
HF 70A	9.5 A	5.5 A	3.2 A	9.1 A	5.3 A	3.1 A
HF 5C	3.5 A	2.0 A	1.15 A	3.3 A	1.9 A	1.1 A
HF 5B	3.6 A	2.1 A	1.2 A	3.5 A	2.0 A	1.1 A
HF 5A	5.0 A	2.9 A	1.7 A	4.8 A	2.8 A	1.6 A
HF 5BM	5.7 A	3.3 A	1.9 A	5.5 A	3.2 A	1.8 A
HF 5AM	7.1 A	4.1 A	2.4 A	6.5 A	3.7 A	2.1 A

Centrifugal pumps

High flow

 Clean water

 Agricultural use

 Industrial use



PERFORMANCE RANGE

- Flow rate up to **2200 l/min** (132 m³/h)
- Head up to **24.5 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure:
 - **6 bar** for HF 4
 - **10 bar** for HF 6-8-20-30
- Continuous service **S1**

INSTALLATION AND USE

Suitable for use in civil and agricultural applications. The high efficiency and continuous duty capabilities makes these pumps ideal for use in activities such as flood and spray irrigation, drawing water from lakes, rivers and wells, or for any number of different industrial applications where the characteristics of high flow rates and mid to low head are required.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



EU REGULATION N. 547/2012

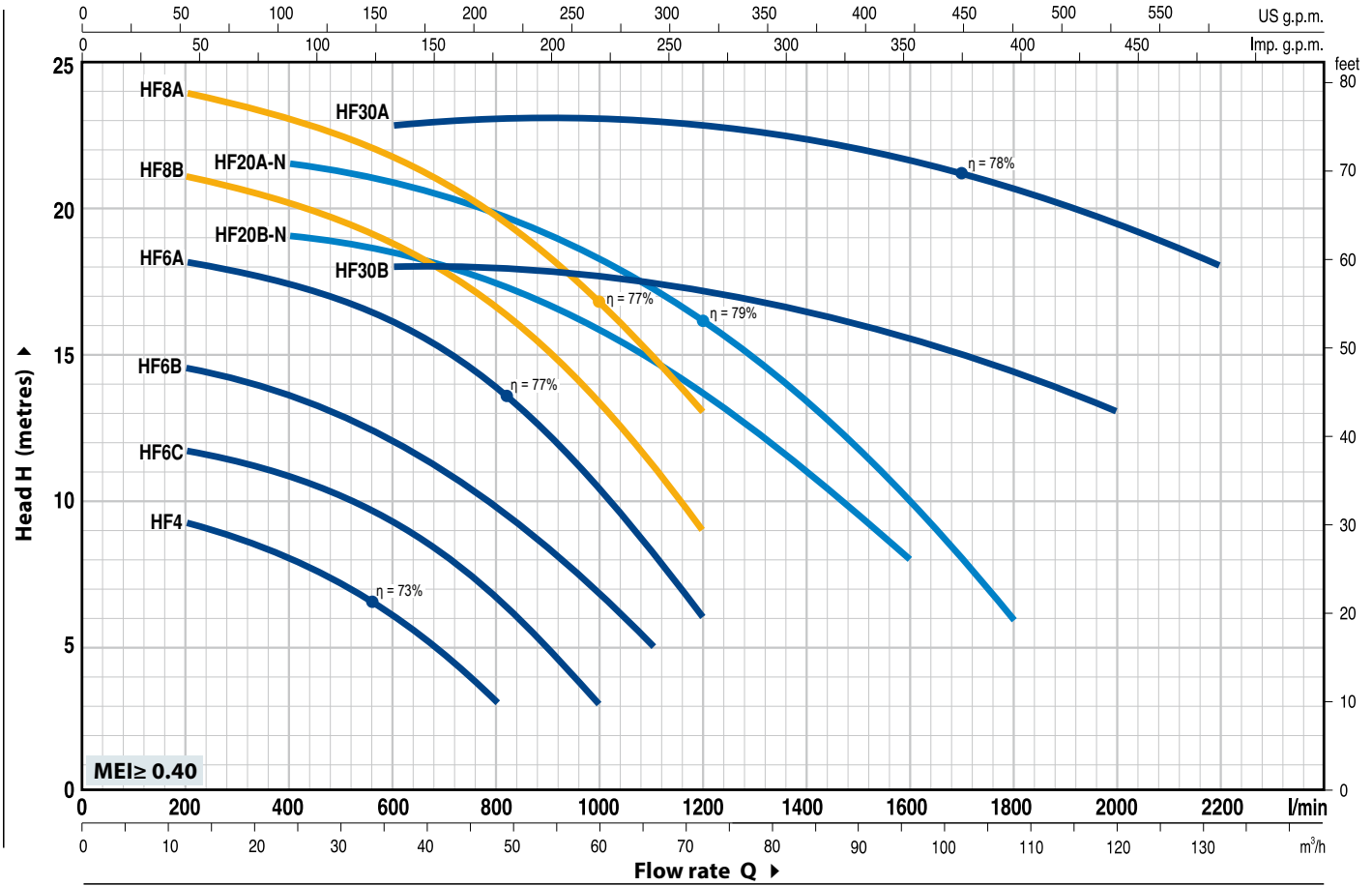
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		Q	m ³ /h																					
Single-ph.	Three-ph.	kW	HP		▲	0	12	18	24	30	36	42	48	54	60	66	72	84	96	102	108	120	132			
					l/min	0	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1700	1800	2000	2200			
HFm 4	HF 4	0.75	1	IE2	H metres	10	9.3	8.7	8	7	6	4.7	3													
HFm 6C	HF 6C	1.1	1.5	IE2		11.9	11.7	11.3	10.7	10.2	9.2	8	6.7	5	3											
HFm 6B	HF 6B	1.5	2	IE3		14.7	14.5	14	13.5	12.8	12	11	9.7	8.2	6.7	5										
-	HF 6A	2.2	3			18.5	18.1	17.8	17.2	16.8	16	15	13.8	12.2	10.5	8.3	6									
-	HF 8B	3	4	IE3		21.5	21	20.7	20	19.5	18.8	17.8	16.5	15	13.5	11.2	9									
-	HF 8A	4	5.5			24.5	24	23.5	23	22.5	21.8	20.8	19.5	18.3	16.8	15	13									
-	HF 20B-N	3	4	IE3		19	-	-	19	18.8	18.5	18	17.5	16.8	16	14.5	13.5	11	8							
-	HF 20A-N	4	5.5			21.5	-	-	21.5	21.3	21	20.5	19.8	19	18	17	16	13.3	10	8	6					
-	HF 30B	5.5	7.5	IE3		18	-	-	-	-	18	18	18	18	18	17.5	17	16.5	15.5	15	14.5	13				
-	HF 30A	7.5	10			23	-	-	-	-	23	23	23	23	23	23	22.5	22.5	22.5	22	21.5	21	19.5	18		

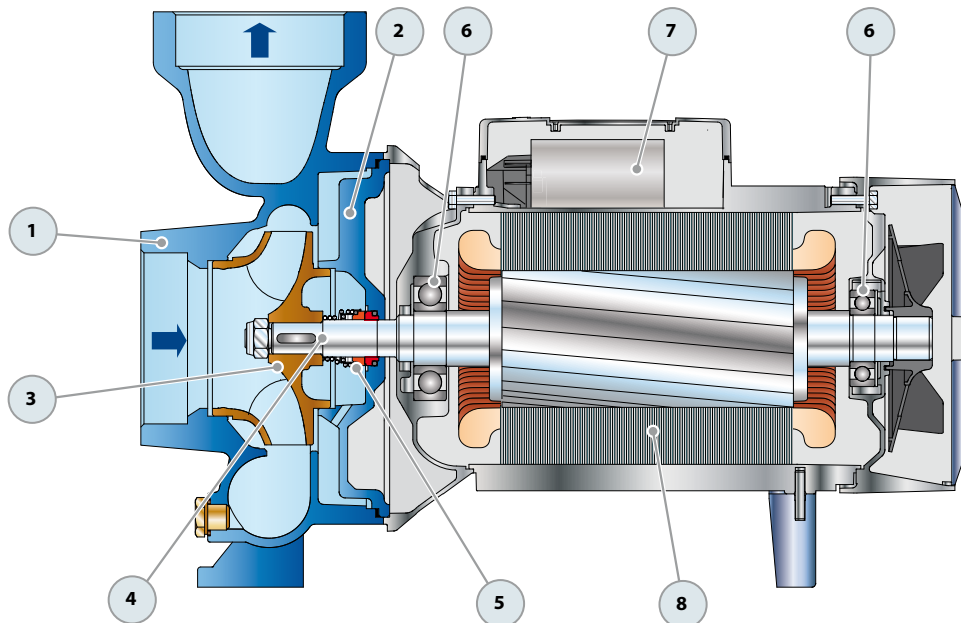
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

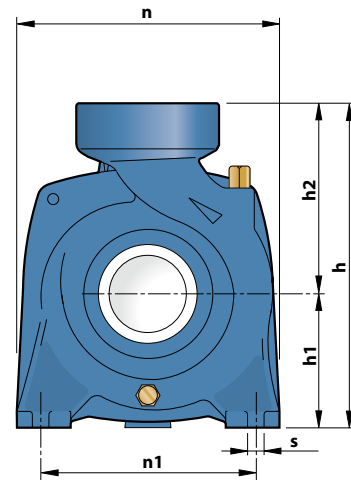
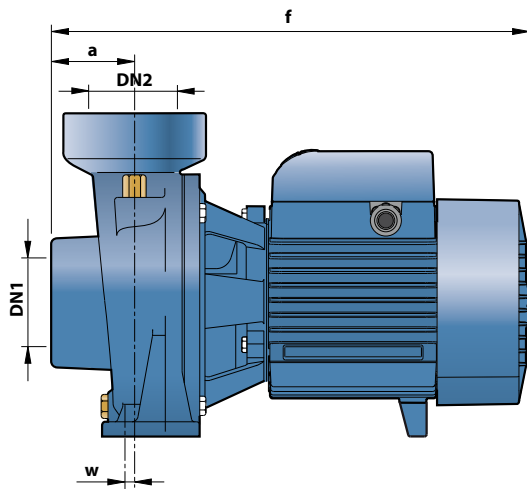
▲ Performance class of the three-phase motor (IEC-60034-30)

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1					
2 BODY BACKPLATE	Cast iron (stainless steel AISI 304 for HF 4)					
3 IMPELLER	Brass for HF 4, HF 6, HF 8 Cast iron for HF 20, HF 30					
4 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104					
5 MECHANICAL SEAL	Pump	Seal	Shaft	Materials		
	<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
	HF 4	AR-14	Ø 14 mm	Ceramic	Graphite	NBR
	HF 6	FN-18	Ø 18 mm	Graphite	Ceramic	NBR
	HF 8, HF 20	FN-20	Ø 20 mm	Graphite	Ceramic	NBR
HF 30	FN-24	Ø 24 mm	Graphite	Ceramic	NBR	
6 BEARINGS	Pump	Model				
	HF 4	6203 ZZ / 6203 ZZ				
	HF 6	6304 ZZ / 6204 ZZ				
	HF 8B, HF 20B-N	6206 ZZ - C3 / 6205 ZZ				
	HF 8A, HF 20A-N	6306 ZZ - C3 / 6206 ZZ - C3				
HF 30	6307 ZZ - C3 / 6206 ZZ - C3					
7 CAPACITOR	Pump	Capacitance				
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>		<i>(110 V)</i>		
	HFm 4	20 µF - 450 VL	60 µF - 300 VL			
	HFm 6C	31.5 µF - 450 VL	60 µF - 250 VL			
HFm 6B	45 µF - 450 VL	80 µF - 250 VL				
8 ELECTRIC MOTOR	HFm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.					
	HF: three-phase 230/400 V - 50 Hz up to 4 kW 400/690 V - 50 Hz from 5.5 to 7.5 kW.					
	<p>➔ The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW in class IE3 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 					



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s	1~	3~
HFm 4	HF 4	2½"	2½"	47	317	240	97	143	198	155	-68	10	14.5	13.2
HFm 6C	HF 6C	3"	3"	68	411	312	120	192	240	190	6	12	25.5	24.2
HFm 6B	HF 6B												26.5	25.5
-	HF 6A	4"	4"	80	445	312	132	180	245	190	30	14	-	26.7
-	HF 8B												-	35.0
-	HF 8A												-	40.0
-	HF 20B-N												-	36.0
-	HF 20A-N												-	41.0
-	HF 30B												-	60.9
-	HF 30A	82	585	370	160	210	292	212	-	65.2				

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
HFm 4	5.9 A	5.3 A	11.8 A
HFm 6C	8.8 A	8.0 A	17.6 A
HFm 6B	10.8 A	9.8 A	21.0 A

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
HF 4	4.3 A	2.5 A	1.4 A	4.0 A	2.3 A	1.3 A
HF 6C	6.2 A	3.6 A	2.1 A	6.0 A	3.5 A	2.0 A
HF 6B	8.0 A	4.6 A	2.7 A	7.4 A	4.3 A	2.5 A
HF 6A	9.0 A	5.2 A	3.0 A	8.3 A	4.8 A	2.8 A
HF 8B	12.1 A	7.0 A	4.1 A	11.8 A	6.8 A	3.9 A
HF 8A	15.8 A	9.1 A	5.3 A	15.2 A	8.8 A	5.1 A
HF 20B-N	12.1 A	7.0 A	4.1 A	11.8 A	6.8 A	3.9 A
HF 20A-N	15.8 A	9.1 A	5.3 A	15.2 A	8.8 A	5.1 A
HF 30B	21.3 A	12.3 A	7.1 A	20.4 A	11.8 A	6.8 A
HF 30A	28.6 A	16.5 A	9.5 A	27.5 A	15.9 A	9.2 A

Centrifugal pumps with open impeller

-  Clean water
-  Domestic use
-  Agricultural use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **350 l/min** (21 m³/h)
- Head up to **20 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. working pressure **6 bar**
- Passage of suspended solids up to **Ø 10 mm**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



EU REGULATION N. 547/2012

INSTALLATION AND USE

Suitable for use with liquids that are not chemically aggressive towards the materials from which the pump is made.

The open impeller design allows **liquids containing relatively high levels of impurities** to be pumped without the risk of the impeller clogging. Because of these characteristics the **NGA** series pumps are used specifically in industry and for transferring water from canals, rivers, reservoirs, tanks, etc. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

- Registered EU Design n. 002098434

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency

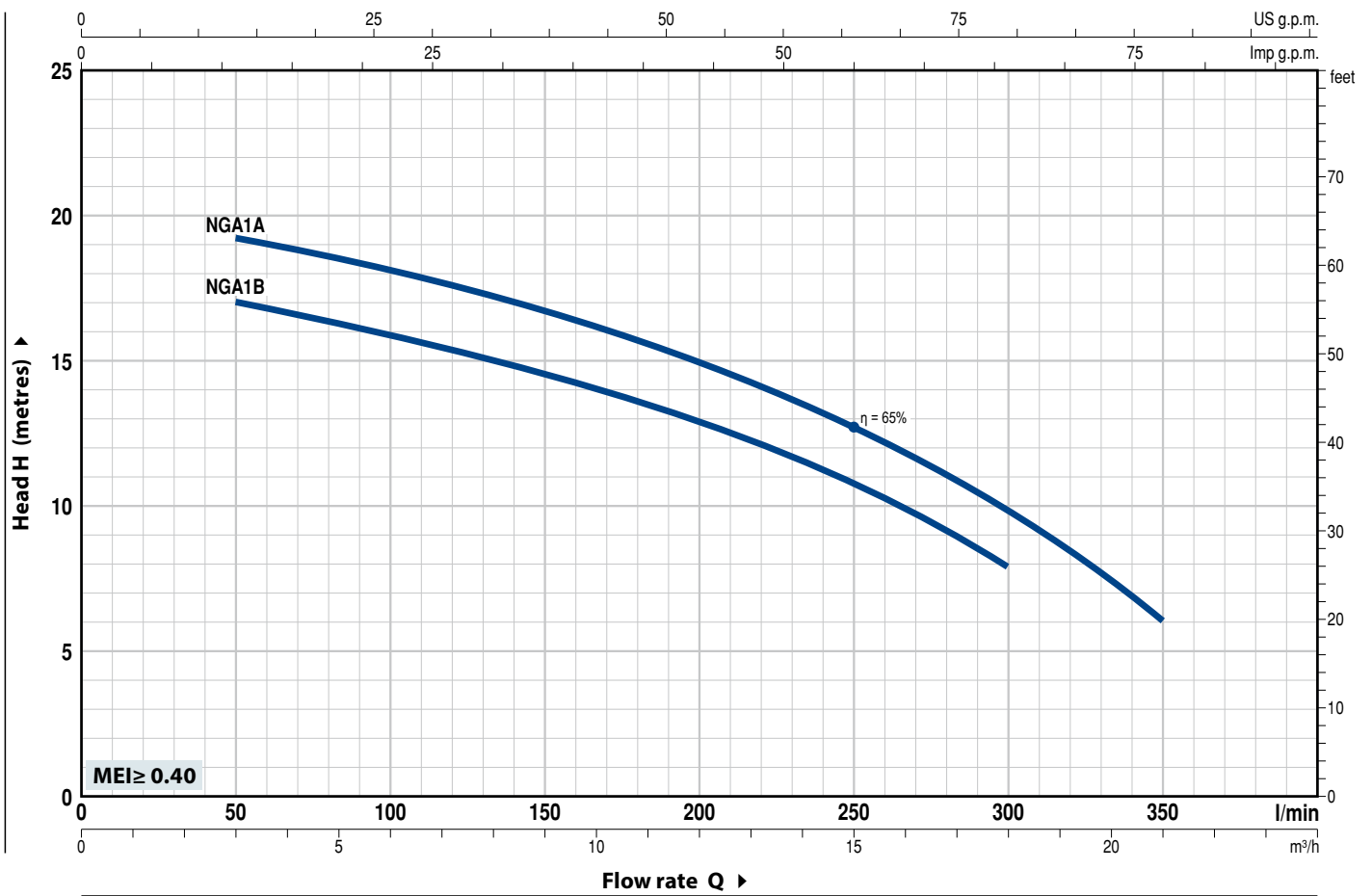
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



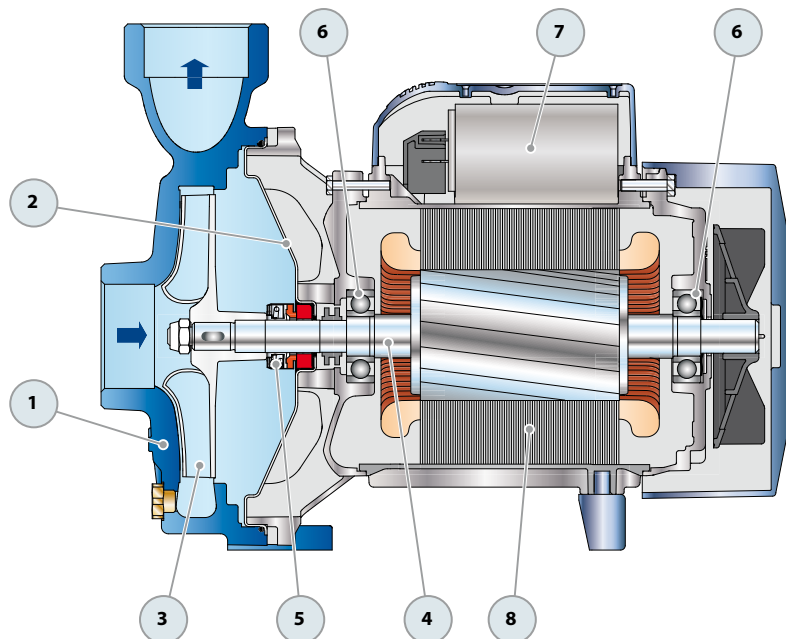
MODEL		POWER (P ₂)		Q	Flow rate								
Single-phase	Three-phase	kW	HP		m ³ /h	0	3	6	9	12	15	18	21
NGAm 1B	NGA 1B	0.55	0.75	l/min	0	50	100	150	200	250	300	350	
NGAm 1A	NGA 1A	0.75	1	H metres	20	19.5	18	16.5	15	12.5	10	6	

Q = Flow rate H = Total manometric head HS = Suction height

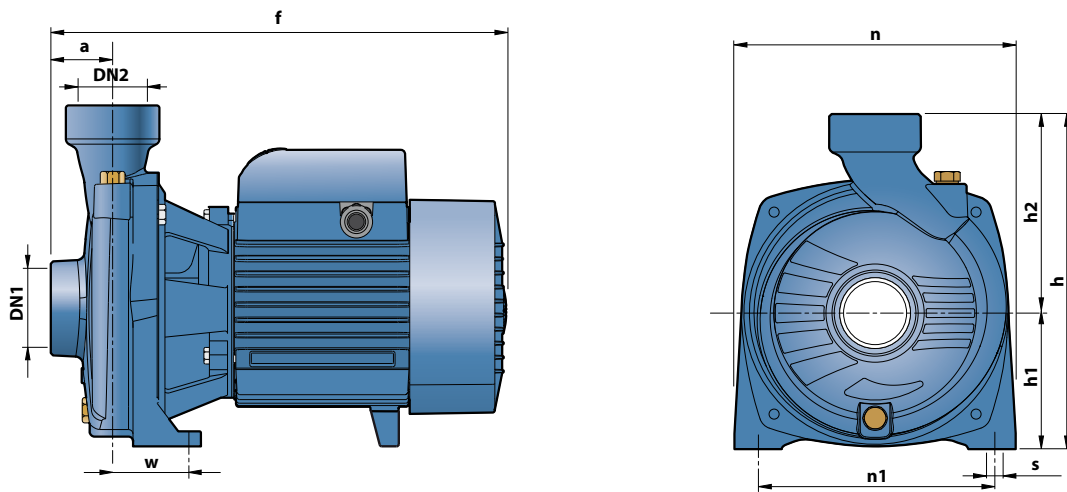
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 304				
3	IMPELLER	Open impeller in stainless steel 316				
4	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
5	MECHANICAL SEAL	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		AR-14	Ø 14 mm	Ceramic	Graphite	NBR
6	BEARINGS	6203 ZZ / 6203 ZZ				
7	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>			
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
		NGAm 1B	16 µF - 450 VL	60 µF - 300 VL		
		NGAm 1A	20 µF - 450 VL	60 µF - 300 VL		
8	ELECTRIC MOTOR	<p>NGAm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. NGA: three-phase 230/400 V - 50 Hz.</p> <p>⇒ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s	1~	3~
NGAm 1B	NGA 1B	1½"	1½"	41	297	227	92	135	190	160	50	10	12.5	12.5
NGAm 1A	NGA 1A												12.6	12.5

ABSORPTION

MODEL	VOLTAGE		
	Single-phase	230 V	240 V
NGAm 1B	5.6 A	5.3 A	11.2 A
NGAm 1A	6.2 A	6.0 A	12.0 A

MODEL	VOLTAGE					
	Three-phase	230 V	400 V	690 V	240 V	415 V
NGA 1B	3.3 A	1.9 A	1.1 A	3.2 A	1.8 A	1.0 A
NGA 1A	3.7 A	2.1 A	1.2 A	3.6 A	2.0 A	1.1 A

NGA-PRO

Stainless steel pumps with open impeller

 Clean water

 Agricultural use

 Industrial use



PERFORMANCE RANGE

- Flow rate up to **350 l/min** (21 m³/h)
- Head up to **20 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. working pressure **6 bar**
- Passage of suspended solids up to **Ø 10 mm**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with liquids that are not chemically aggressive towards the materials from which the pump is made.

The open impeller design allows **liquids containing relatively high levels of impurities** to be pumped without the risk of the impeller clogging. All of the components in contact with the pumped liquid are constructed in **stainless steel AISI 316**. Because of this characteristic the **NGA-PRO** series of pumps are particularly suitable for use in plants for washing fruit, vegetables, fish and shellfish, in industrial washing plants and for the circulation of cooling liquids. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

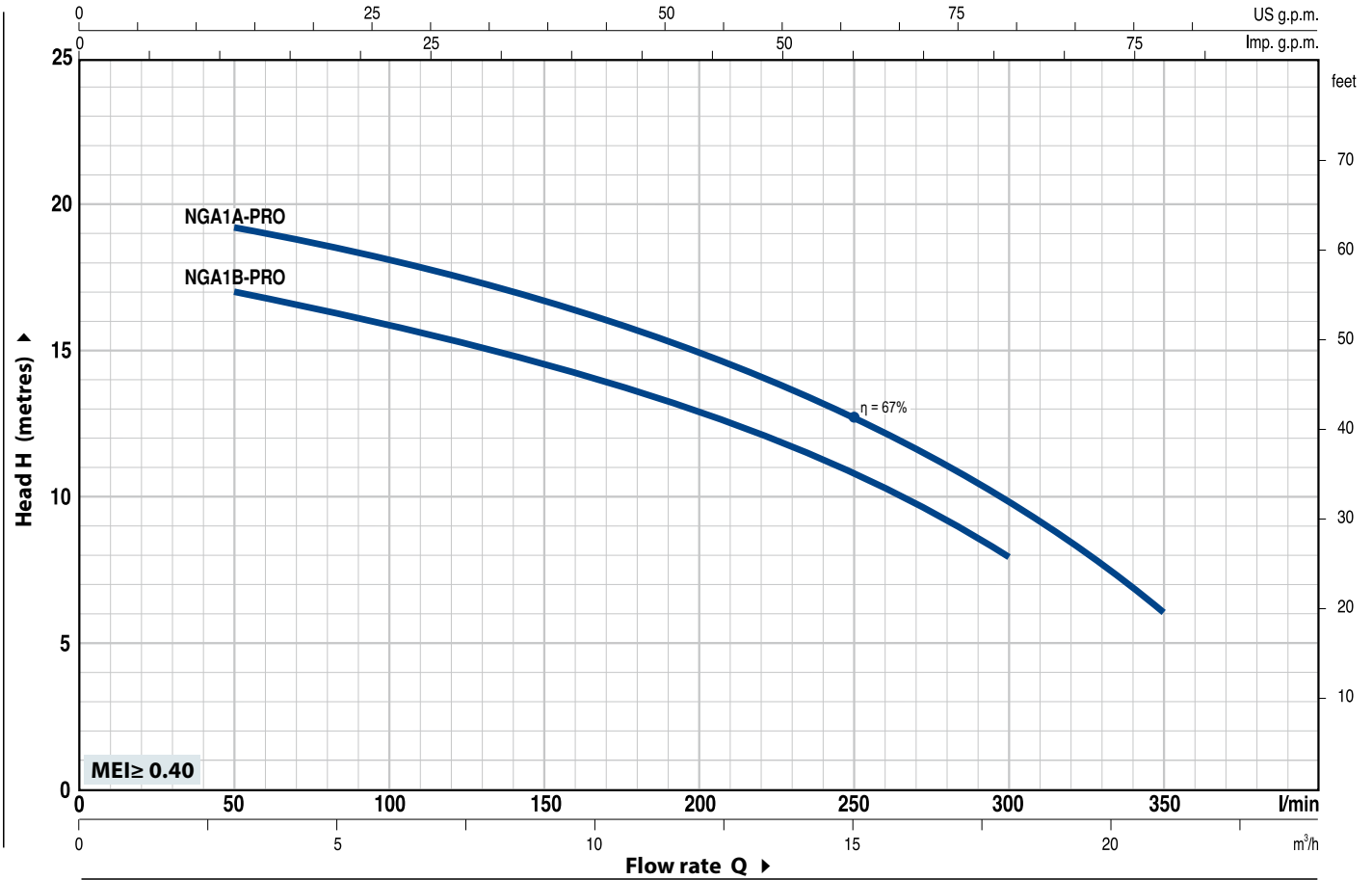
- Registered EU Design n. 002098434

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		Q	0	3	6	9	12	15	18	21
Single-phase	Three-phase	kW	HP		0	50	100	150	200	250	300	350
NGAm 1B - PRO	NGA 1B - PRO	0.55	0.75	H metres	18	17	16	14.5	13	10.5	8	
NGAm 1A - PRO	NGA 1A - PRO	0.75	1		20	19.5	18	16.5	15	12.5	10	6

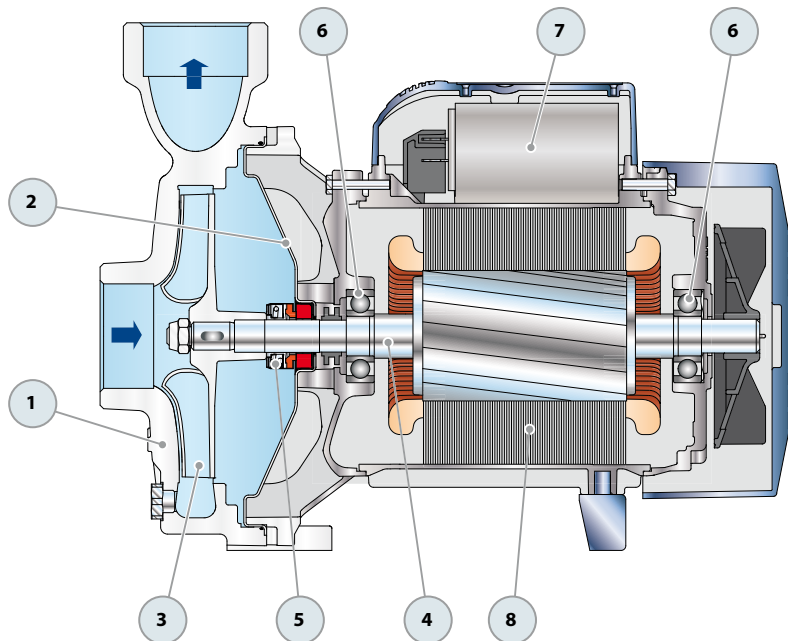
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

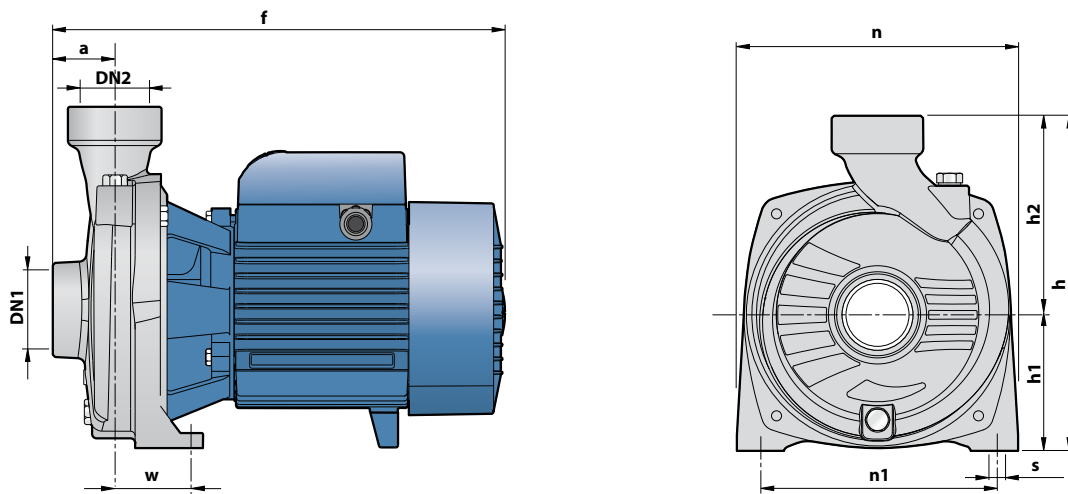
NGA-PRO

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 316 complete with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 316				
3	IMPELLER	Open impeller in stainless steel 316				
4	MOTOR SHAFT	Stainless steel AISI 316				
5	MECHANICAL SEAL	Seal	Shaft	Materials		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		AR-14S	Ø 14 mm	Ceramic	Graphite	Viton
6	BEARINGS	6203 ZZ / 6203 ZZ				
7	CAPACITOR	Pump	Capacitance			
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
		NGAm 1B - PRO	16 µF - 450 VL	60 µF - 300 VL		
		NGAm 1A - PRO	20 µF - 450 VL	60 µF - 300 VL		
8	ELECTRIC MOTOR	<p>NGAm - PRO: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.</p> <p>NGA - PRO: three-phase 230/400 V - 50 Hz.</p> <p>⇒ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s	1~	3~
NGAm 1B - PRO	NGA 1B - PRO	1½"	1½"	41	297	227	92	135	190	160	50	10	12.6	12.6
NGAm 1A - PRO	NGA 1A - PRO												12.7	12.6

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
NGAm 1B - PRO	5.6 A	5.3 A	11.2 A
NGAm 1A - PRO	6.2 A	6.0 A	12.0 A

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
NGA 1B - PRO	3.3 A	1.9 A	1.1 A	3.2 A	1.8 A	1.1 A
NGA 1A - PRO	3.7 A	2.1 A	1.2 A	3.6 A	2.0 A	1.1 A

2CP

Centrifugal twin-impeller pumps

-  Clean water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **450 l/min** (27 m³/h)
- Head up to **112 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. working pressure **10 bar**
(**6 bar** for 2CP25/130N)
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. The high performance and adaptability to a wide range of applications make them the ideal choice in domestic, civil and industrial applications, in particular for the distribution of water in combination with pressure tanks for boosting pressure in the network and for firefighting sets.

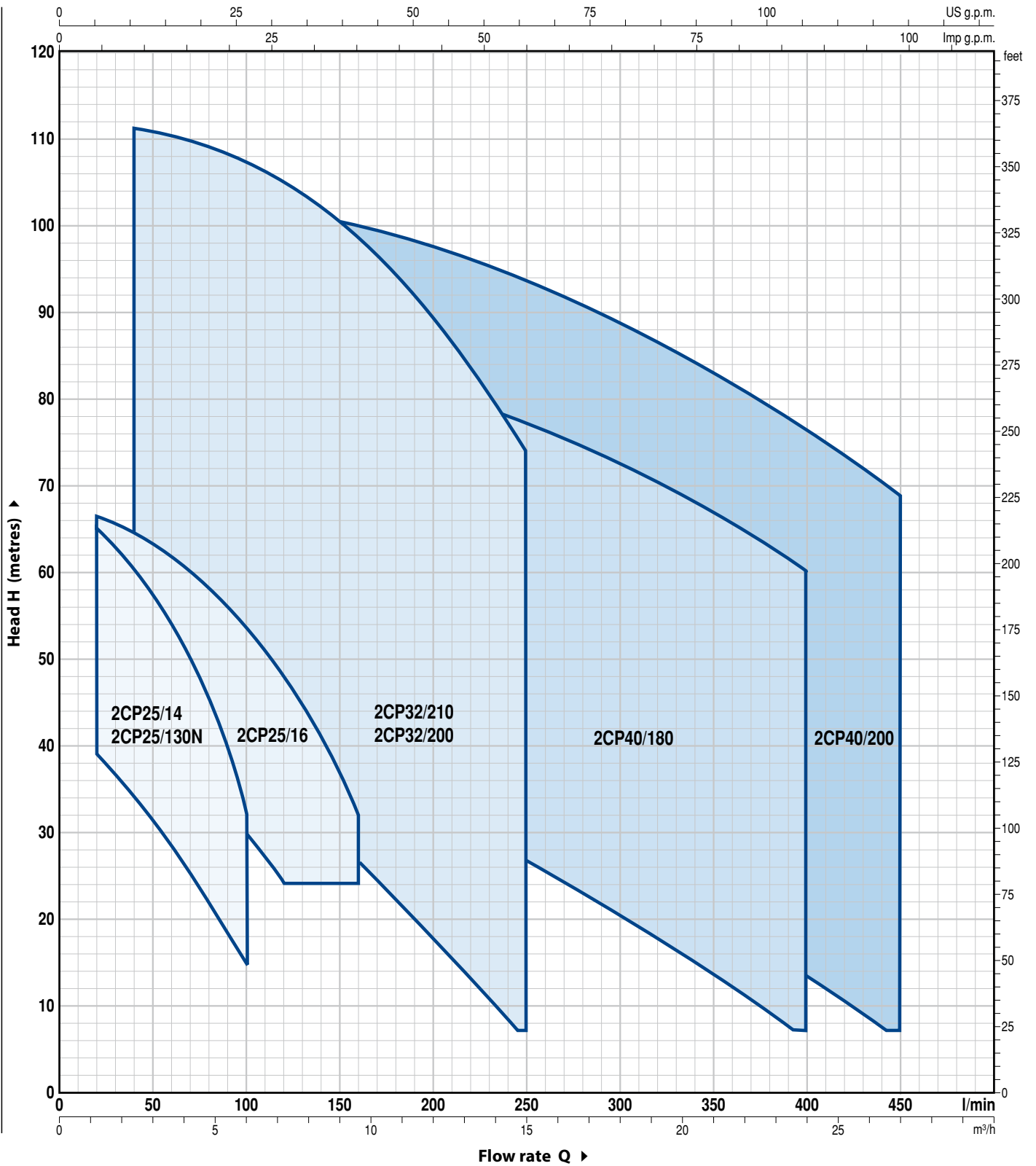
The pump should be installed in an enclosed environment or sheltered from inclement weather.

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency
- IPX5 class protection for:
 - 2CP32/200 – 2CP40/180
 - 2CP32/210 – 2CP40/200

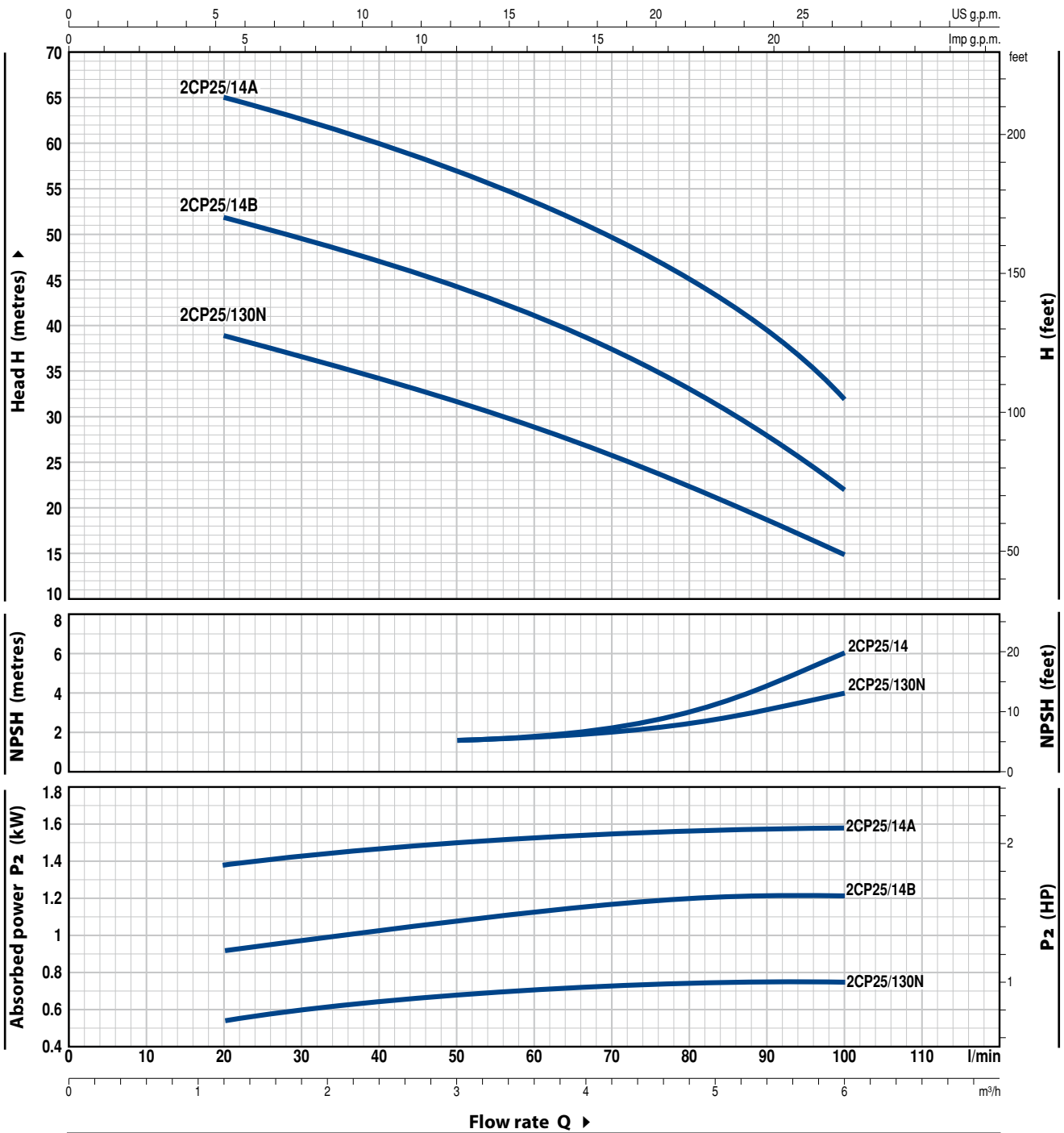
PERFORMANCE RANGE

50 Hz n= 2900 rpm HS= 0 m



CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)			Q										
Single-phase	Three-phase	kW	HP	▲		m ³ /h	0	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4
					l/min	0	20	30	40	50	60	70	80	90	100
2CPm 25/130N	2CP 25/130N	0.75	1	IE2	H metres	42	39	37	34	31	28.5	25.5	22	18	15
2CPm 25/14B	2CP 25/14B	1.1	1.5			54	52	50	47.5	44.5	41	37	33	28	22
2CPm 25/14A	2CP 25/14A	1.5	2	IE3		67	65	62	60	57	54	50	45	40	32

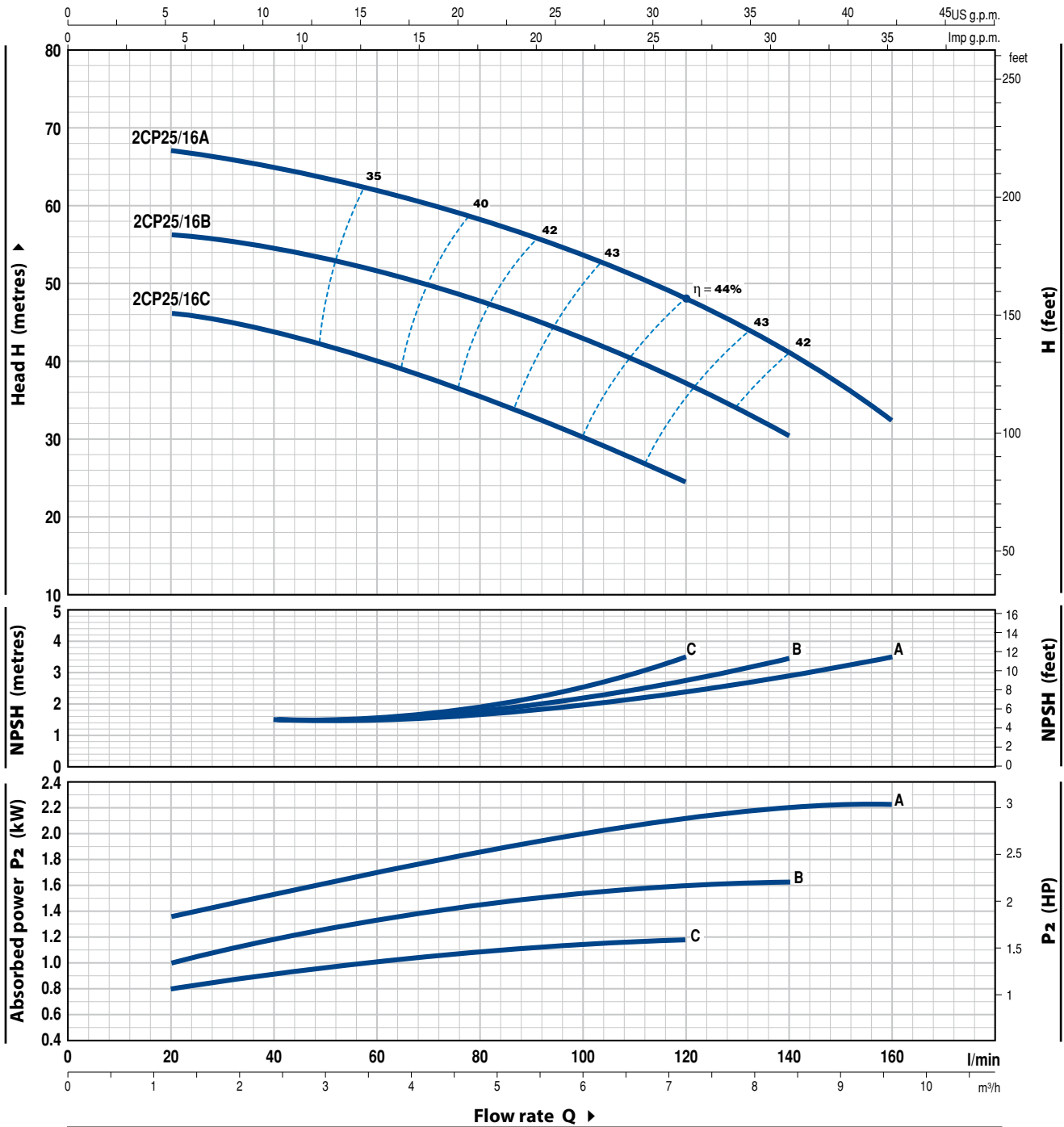
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)			Q	Flow rate															
Single-phase	Three-phase	kW	HP	▲		m ³ /h	0	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	8.4	9.6	
					l/min	0	20	30	40	50	60	70	80	90	100	110	120	140	160		
2CPm 25/16C	2CP 25/16C	1.1	1.5	IE2	H metres	47	46	45	44	42	40	38	35	33	30	27	24				
2CPm 25/16B	2CP 25/16B	1.5	2	IE3		58	56	55	54	53	51	49	47	45	43	40	37	30			
-	2CP 25/16A	2.2	3			68	67	65.5	64.5	63	62	60	58	56	54	51	48	41	32		

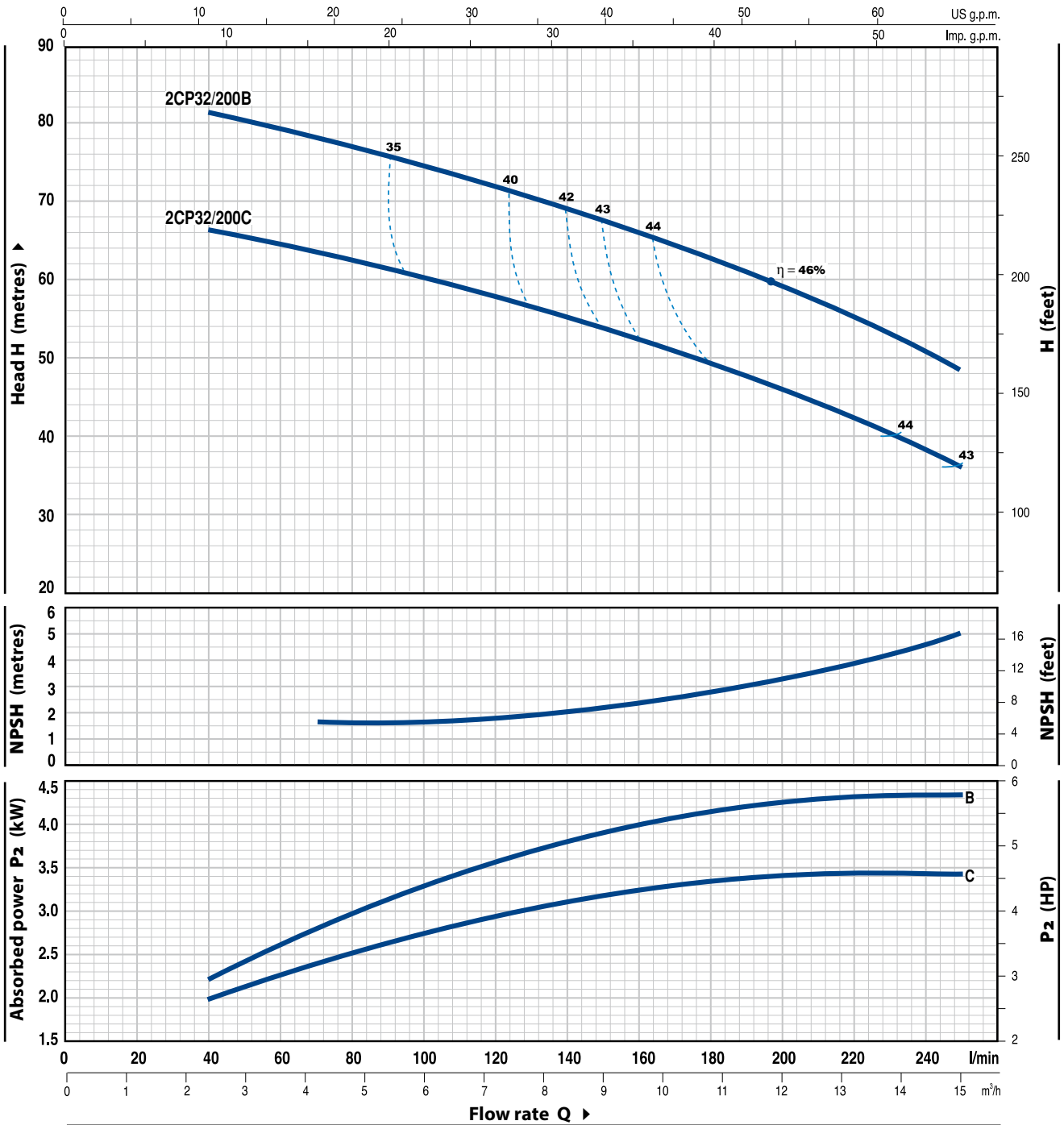
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		▲	Q	Flow rate														
	kW	HP			m ³ /h	0	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.5	8.4	9.6	10.8	12.0
Three-phase				l/min	0	40	50	60	70	80	90	100	110	125	140	160	180	200	250
2CP 32/200C	3	4	IE3	H metres	70	66.5	65.5	65	64	63	62	60.5	59	57	55	52	49.5	46.5	36
2CP 32/200B	4	5.5		85	81	80	79	78	77	76	75	74	72	69	66	62	58	49	

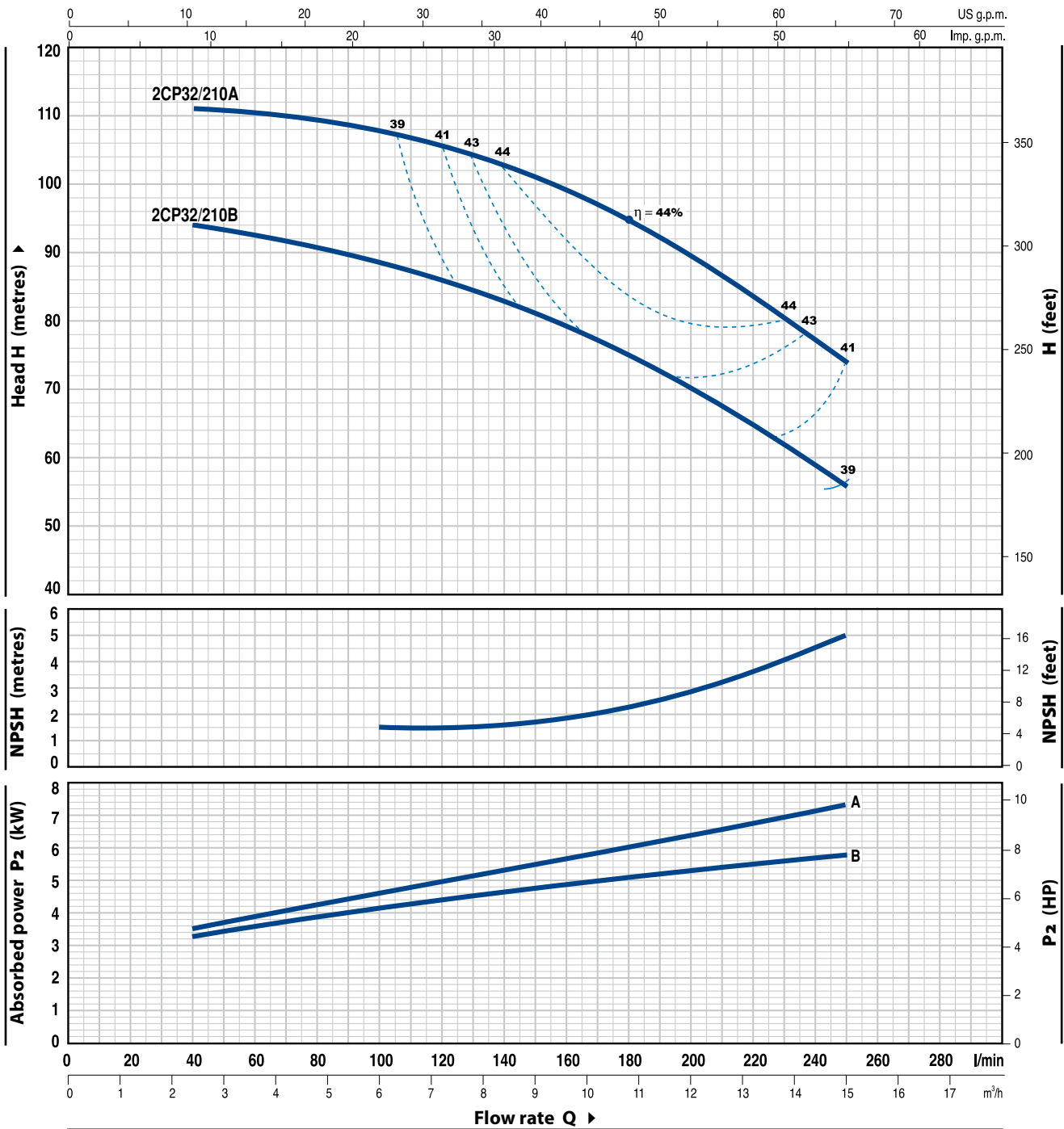
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		▲	Q	Flow rate Q														
	kW	HP			0	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.5	8.4	9.6	10.8	12.0	15.0
Three-phase				l/min	0	40	50	60	70	80	90	100	110	125	140	160	180	200	250
2CP 32/210B	5.5	7.5	IE3	H metres	94	94	93.5	93	92	91	90	89	87	85	83	79	75	70	56
2CP 32/210A	7.5	10				112	111	110.8	110.5	110.3	110	109	108	107	105	102	99	94	89

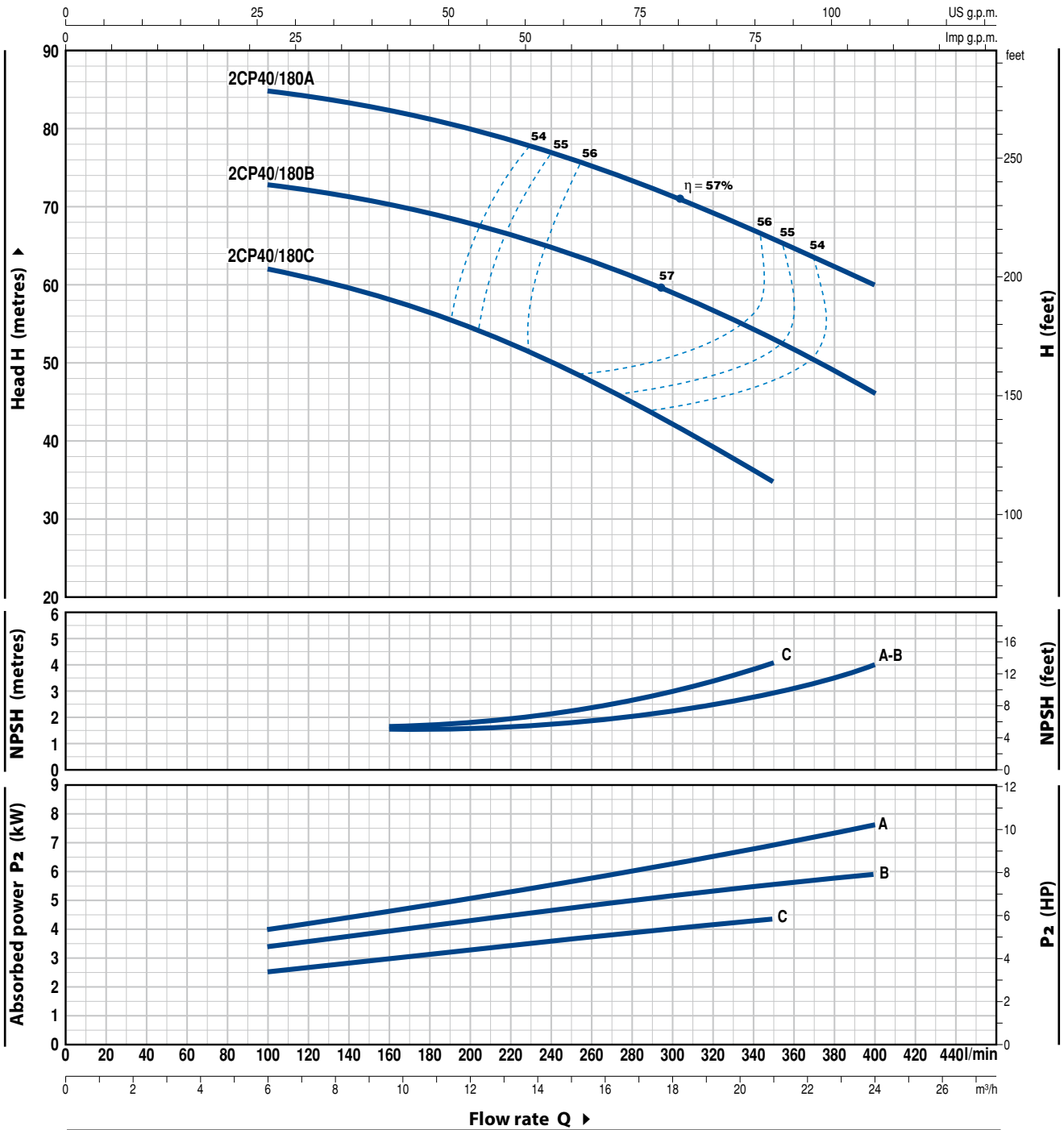
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		▲	Q	m ³ /h														
	kW	HP			0	6.0	6.6	7.5	8.4	9.6	10.8	12.0	15.0	18.0	21.0	24.0			
Three-phase				Q	0	100	110	125	140	160	180	200	250	300	350	400			
2CP 40/180C	4	5.5	IE3	H metres	64	62	61	60	59	58	56	54.5	49	43	35				
2CP 40/180B	5.5	7.5		76	73	72.5	72	71	70	69	67.5	64	59.5	54	46				
2CP 40/180A	7.5	10		88	85	84.5	84	83	82	81	79.5	76	72	67	60				

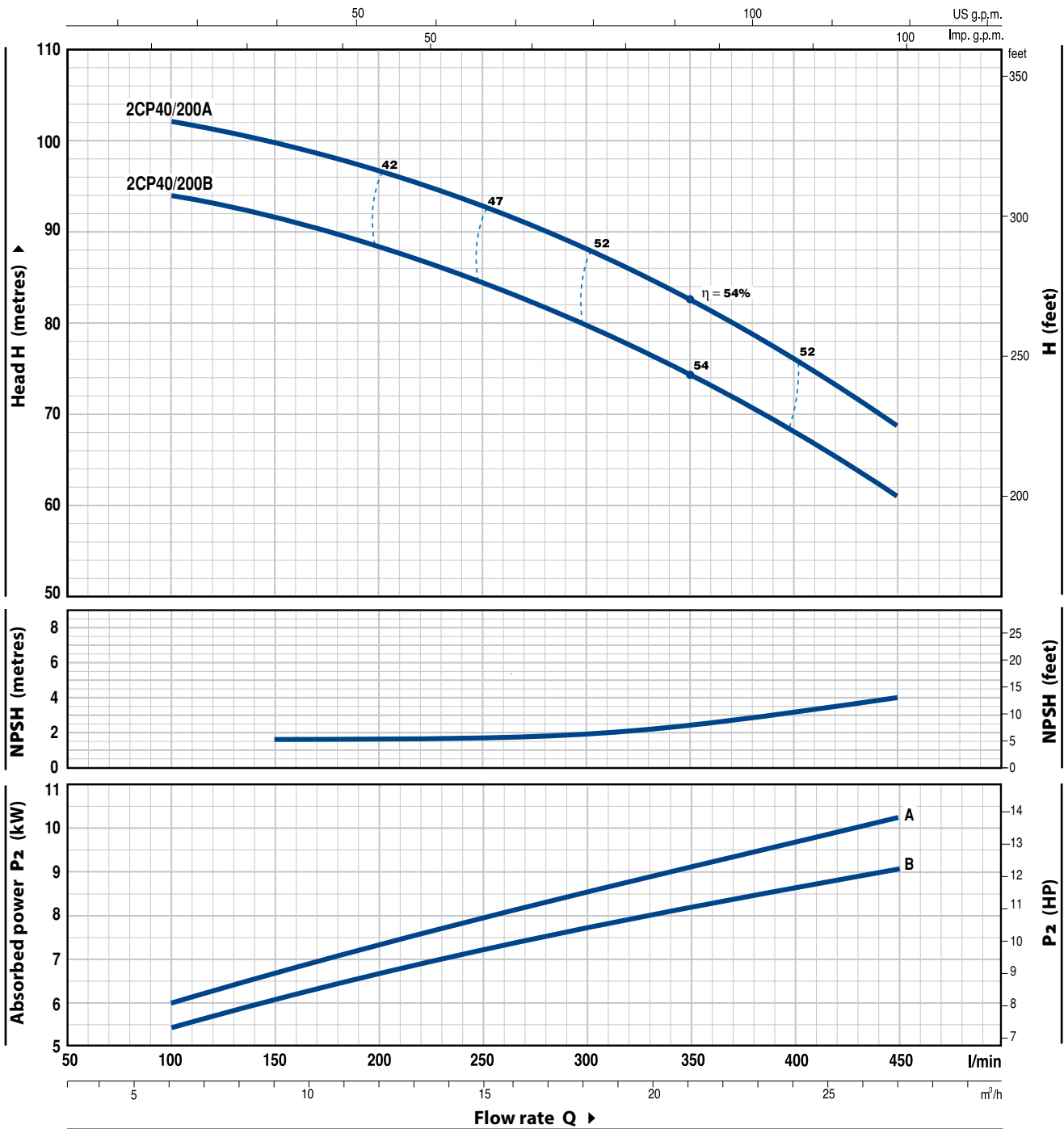
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		▲	Q	Flow rate												
	kW	HP			0	6.0	9	10.8	12.0	15.0	18.0	21.0	24.0	27.0			
Three-phase					0	100	150	180	200	250	300	350	400	450			
2CP 40/200B	9.2	12.5	IE3	H metres	97	94	92	90	88	85	80	74	68	61			
2CP 40/200A	11	15			105	102	100	98	97	93	88	83	76	69			

Q = Flow rate H = Total manometric head HS = Suction height

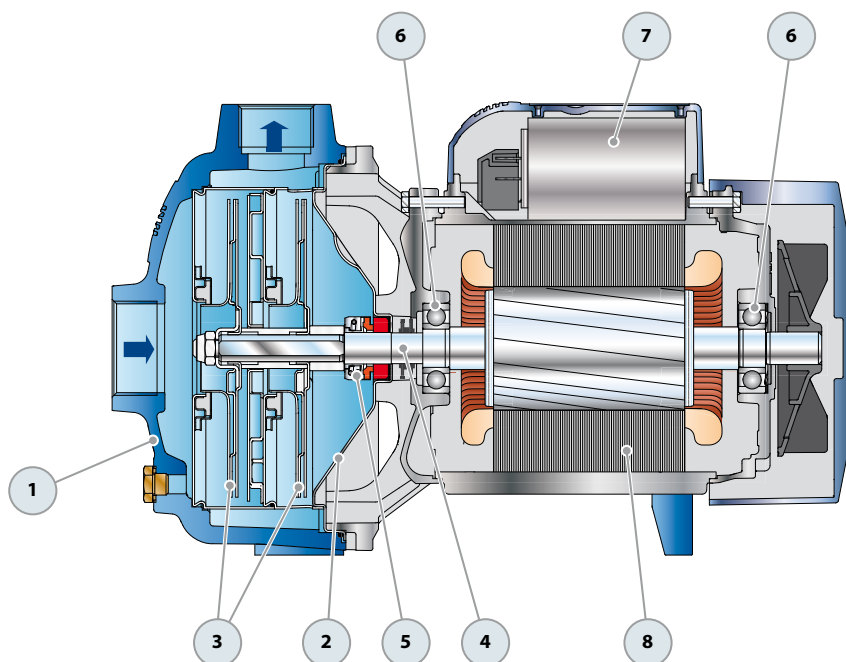
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

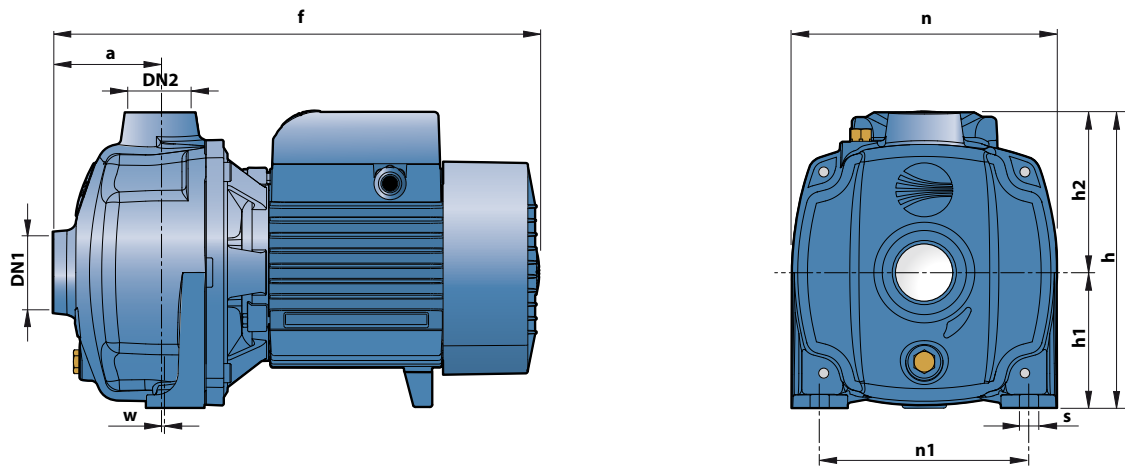
2CP 25/130N

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 304				
3	IMPELLERS	Stainless steel AISI 304				
4	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
5	MECHANICAL SEAL	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		AR-14	Ø 14 mm	Ceramic	Graphite	NBR
6	BEARINGS	6203 ZZ / 6203 ZZ				
7	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>			
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
		2CPm 25/130N	20 µF - 450 VL	60 µF - 300 VL		
8	ELECTRIC MOTOR	2CPm 25/130N: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. 2CP 25/130N: three-phase 230/400 V - 50 Hz. ⇒ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30) – Insulation: class F – Protection: IP X4				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s	1~	3~
2CPm 25/130N	2CP 25/130N	1¼"	1"	73	330	201	92	109	180	142	1	10	14.5	14.4

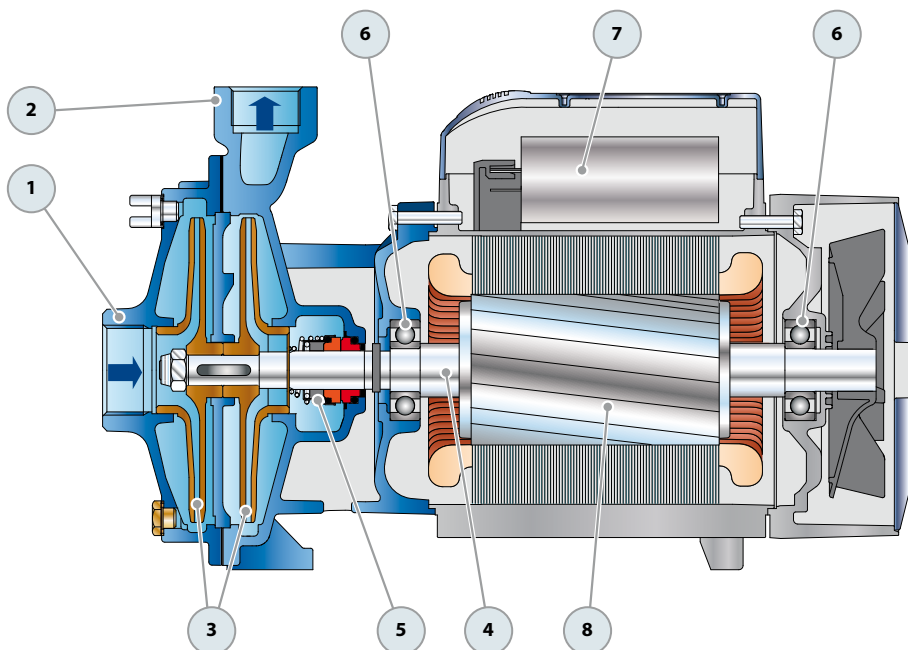
ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
2CPm 25/130N	6.3 A	6.0 A	12.6 A

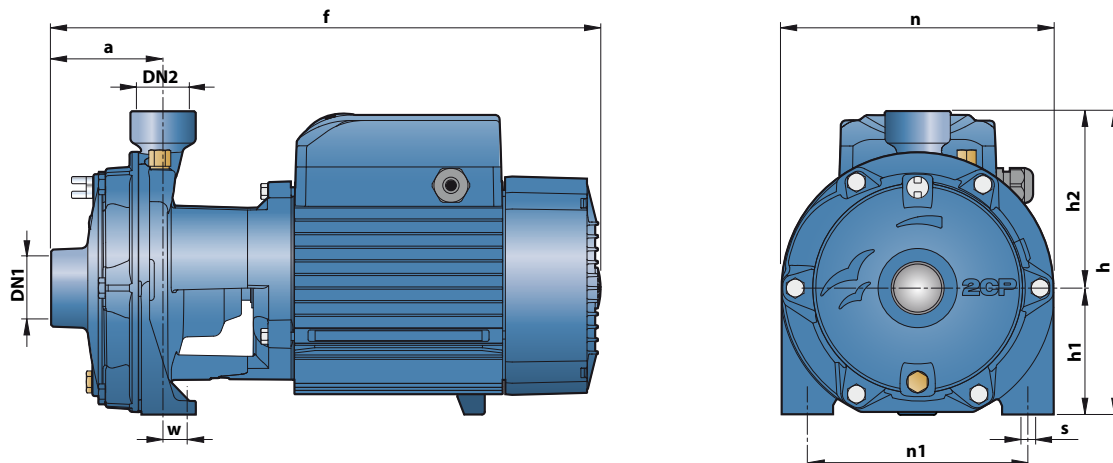
MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
2CP 25/130N	4.6 A	2.6 A	1.5 A	4.3 A	2.5 A	1.4 A

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	SUCTION BODY	Cast iron complete with threaded suction port in compliance with ISO 228/1					
2	DELIVERY BODY	Cast iron complete with threaded suction port in compliance with ISO 228/1					
3	IMPELLERS	Brass					
4	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104					
5	MECHANICAL SEAL	<i>Pump</i>	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		2CP 25/14	FN-18	Ø 18 mm	Graphite	Ceramic	NBR
		2CP 25/16					
		2CP 32/200	FN-20	Ø 20 mm	Graphite	Ceramic	NBR
		2CP 32/210					
		2CP 40/180	FN-24	Ø 24 mm	Graphite	Ceramic	NBR
2CP 40/200							
2CP 40/200	FN-32 NU	Ø 32 mm	Graphite	Ceramic	NBR		
6	BEARINGS	<i>Pump</i>	<i>Model</i>				
		2CP 25/14	6204 ZZ - C3 / 6204 ZZ - C3				
		2CP 25/16					
		2CP 32/200	6206 ZZ - C3 / 6206 ZZ - C3				
		2CP 32/210	6306 ZZ - C3 / 6206 ZZ - C3				
		2CP 40/180					
		2CP 40/200	6308 ZZ - C3 / 6308 ZZ - C3				
7	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>				
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>			
		2CPm 25/14B	25 µF - 450 VL	60 µF - 250 VL			
		2CPm 25/16C	45 µF - 450 VL	80 µF - 250 VL			
		2CPm 25/14A					
2CPm 25/16B							
8	ELECTRIC MOTOR	<p>2CPm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. 2CP: three-phase 230/400 V - 50 Hz up to 4 kW 400/690 V - 50 Hz from 5.5 to 11 kW</p> <p>➔ The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW in class IE3 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 					



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg		
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s	1~	3~	
2CPm 25/14B	2CP 25/14B	1 1/4"	1"	82	404	223	93	130	200	162	17	10	19.3	18.8	
2CPm 25/14A	2CP 25/14A					261	110	151	225	185	26	11	24.6	23.5	
2CPm 25/16C	2CP 25/16C					223	93	130	200	162	17	10	19.3	18.6	
2CPm 25/16B	2CP 25/16B					261	110	151	225	185	26	11	24.4	23.3	
-	2CP 25/16A	1 1/2"	1 1/4"	95	464	304	132	172	266	206	19	-	38.0		
-	2CP 32/200C					334	139	195	292	232	21	14	-	43.0	
-	2CP 32/200B					542	334	139	195	292	232	21	14	-	54.0
-	2CP 32/210B					542	334	139	195	292	232	21	14	-	61.0
-	2CP 32/210A	2"	1 1/2"	108	542	496	334	139	195	292	232	21	14	49.0	
-	2CP 40/180C					542	334	139	195	292	232	21	14	54.0	
-	2CP 40/180B					542	334	139	195	292	232	21	14	60.0	
-	2CP 40/180A					542	334	139	195	292	232	21	14	90.0	
-	2CP 40/200B	2"	1 1/2"	110	566	355	160	195	298	-	-	-	91.0		
-	2CP 40/200A					355	160	195	298	-	-	-	91.0		

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
2CPm 25/14B	7.7 A	7.4 A	15.5 A
2CPm 25/14A	10.5 A	10.0 A	21.0 A
2CPm 25/16C	7.7 A	7.4 A	15.5 A
2CPm 25/16B	10.0 A	9.6 A	20.0 A

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
2CP 25/14B	5.4 A	3.1 A	1.8 A	5.2 A	3.0 A	1.7 A
2CP 25/14A	6.9 A	4.0 A	2.3 A	6.6 A	3.8 A	2.2 A
2CP 25/16C	5.4 A	3.1 A	1.8 A	5.2 A	3.0 A	1.7 A
2CP 25/16B	6.9 A	4.0 A	2.3 A	6.6 A	3.8 A	2.2 A
2CP 25/16A	9.2 A	5.3 A	3.1 A	8.8 A	5.1 A	2.9 A
2CP 32/200C	12.8 A	7.4 A	4.3 A	12.3 A	7.1 A	4.1 A
2CP 32/200B	18.2 A	10.5 A	6.1 A	17.7 A	10.2 A	5.9 A
2CP 32/210B	21.7 A	12.5 A	7.2 A	19.9 A	11.5 A	6.7 A
2CP 32/210A	27.7 A	16.0 A	9.2 A	26.0 A	15.0 A	8.7 A
2CP 40/180C	17.0 A	9.8 A	5.7 A	16.5 A	9.5 A	5.5 A
2CP 40/180B	21.3 A	12.3 A	7.1 A	20.8 A	12.0 A	6.9 A
2CP 40/180A	26.7 A	15.4 A	8.9 A	26.0 A	15.0 A	8.7 A
2CP 40/200B	-	17.5 A	10.1 A	-	17.45 A	10.0 A
2CP 40/200A	-	20.0 A	11.6 A	-	19.9 A	11.5 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
2CPm 25/14B	2CP 25/14B	50	70
2CPm 25/14A	2CP 25/14A	50	70
2CPm 25/16C	2CP 25/16C	50	70
2CPm 25/16B	2CP 25/16B	50	70
-	2CP 25/16A	50	70
-	2CP 32/200C	18	24
-	2CP 32/200B	18	24
-	2CP 32/210B	12	16
-	2CP 32/210A	12	16
-	2CP 40/180C	12	16
-	2CP 40/180B	12	16
-	2CP 40/180A	12	16
-	2CP 40/200B	6	9
-	2CP 40/200A	6	9

2-4CP

Multi-stage centrifugal pumps

 Clean water

 Domestic use



PERFORMANCE RANGE

- Flow rate up to **130 l/min** (7.8 m³/h)
- Head up to **52 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **6 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. As a result of their quietness, these pumps are widely used in domestic applications such as the distribution of water in combination with small and medium sized pressure tanks, and for the irrigation of gardens and orchards, etc.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

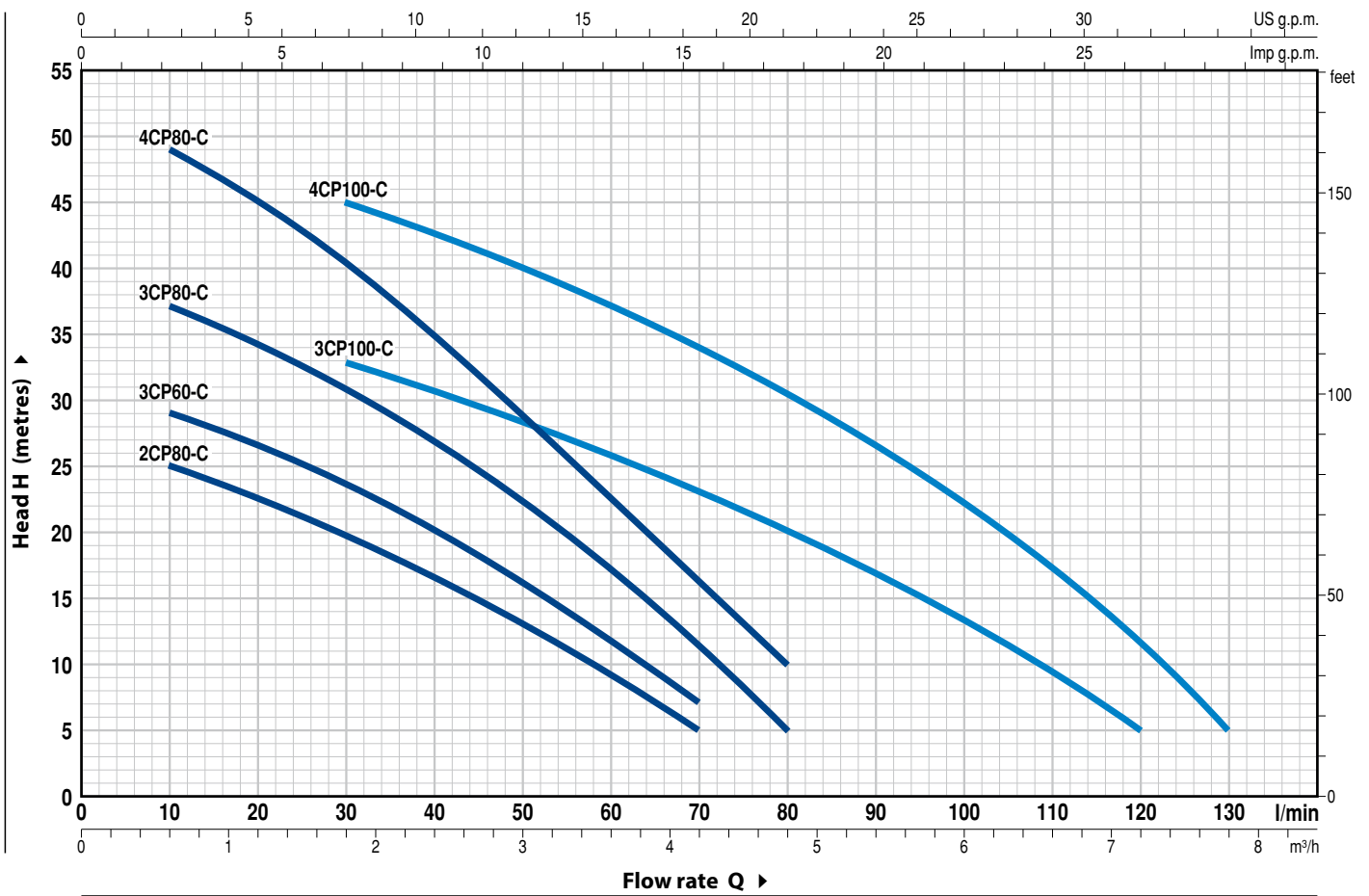
- Registered EU Design n. 002073635-0001

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		Q	H metres																		
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	7.8	
				l/min	0	5	10	15	20	25	30	40	50	60	70	80	90	100	110	120	130		
2CPm 80-C	2CP 80-C	0.37	0.50	H metres	27	26	25	24	22.5	21	20	16.5	13	9	5								
3CPm 60-C	3CP 60-C	0.37	0.50		30	30	29	28	26.5	25	23.5	20	16	11.5	7								
3CPm 80-C	3CP 80-C	0.45	0.60		40	38	37	36	34.5	33	31	27	22.5	17	11	5							
4CPm 80-C	4CP 80-C	0.55	0.75		52	50	49	47	44.5	42	40	34	28.5	22.5	16	10							
3CPm 100-C	3CP 100-C	0.55	0.75		38	37	36	35	34.5	33.5	33	31	28	26	23	20	17	13.5	10	5			
4CPm 100-C	4CP 100-C	0.75	1		50	50	49	48	47	46	45	42	39.5	37	34	30.5	26.5	22	17	11	5		

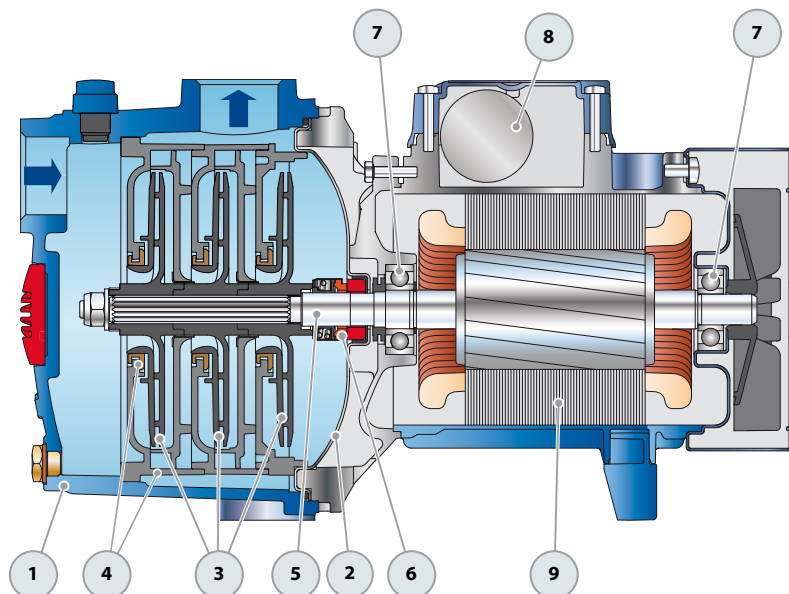
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

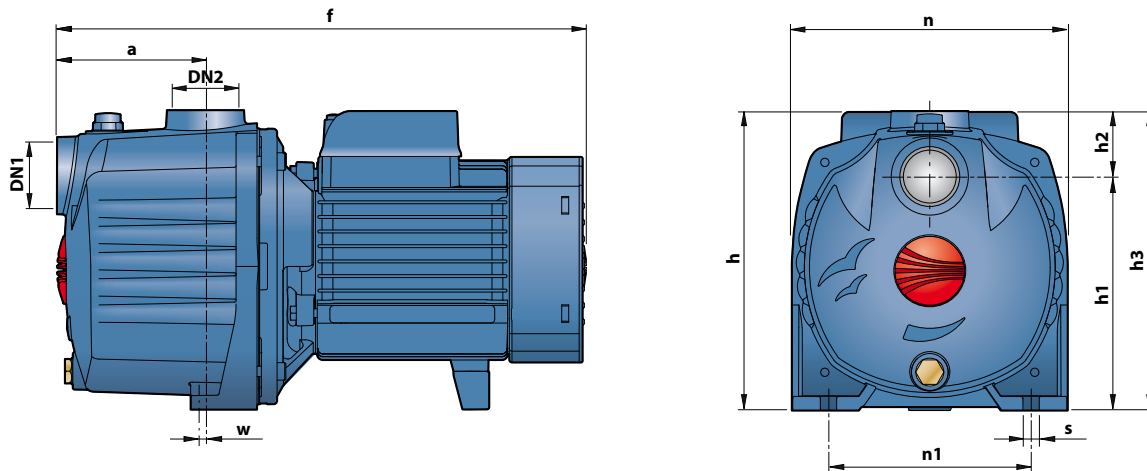
2-4CP

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 304				
3	IMPELLERS	Noryl FE1520PW				
4	DIFFUSERS	Noryl complete with anti-wear ring				
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
6	MECHANICAL SEAL	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		AR-13	Ø 13 mm	Ceramic	Graphite	NBR
7	BEARINGS	<i>Pump</i>	<i>Model</i>			
		2CP 80-C 3CP 60-C 3CP 80-C 4CP 80-C 3CP 100-C 4CP 100-C	6202 ZZ - C3 / 6201 ZZ			
		2CP 80-C 3CP 60-C 3CP 80-C 4CP 80-C 3CP 100-C 4CP 100-C	6203 ZZ / 6203 ZZ			
8	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>			
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
		2CPm 80-C	10 µF - 450 VL	25 µF - 250 VL		
		3CPm 60-C	12.5 µF - 450 VL	25 µF - 250 VL		
		3CPm 80-C	14 µF - 450 VL	25 µF - 250 VL		
		3CPm 100-C 4CPm 100-C	20 µF - 450 VL	60 µF - 300 VL		
9	ELECTRIC MOTOR	<p>2-4CPm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. 2-4CP: three-phase 230/400 V - 50 Hz.</p> <p>➔ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	n	n1	w	s	1~	3~
2CPm 80-C	2CP 80-C	1"	1"	85	307	172	134	38	172	158	116	1.5	9	9.0	9.0
3CPm 60-C	3CP 60-C													9.0	9.0
3CPm 80-C	3CP 80-C													9.8	9.3
4CPm 80-C	4CP 80-C			110	332	10.4	10.5								
3CPm 100-C	3CP 100-C			85	307	10.4	9.9								
4CPm 100-C	4CP 100-C			110	356	191	13.4	13.4							

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
2CPm 80-C	2.4 A	2.3 A	4.8 A
3CPm 60-C	2.4 A	2.3 A	4.8 A
3CPm 80-C	3.4 A	3.3 A	6.8 A
4CPm 80-C	4.1 A	4.0 A	8.2 A
3CPm 100-C	4.1 A	4.0 A	8.2 A
4CPm 100-C	6.0 A	5.8 A	12.0 A

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
2CP 80-C	1.7 A	1.0 A	0.6 A	1.6 A	0.9 A	0.5 A
3CP 60-C	1.7 A	1.0 A	0.6 A	1.6 A	0.9 A	0.5 A
3CP 80-C	2.5 A	1.5 A	0.9 A	2.4 A	1.4 A	0.8 A
4CP 80-C	3.4 A	2.0 A	1.2 A	3.3 A	1.9 A	1.1 A
3CP 100-C	3.4 A	2.0 A	1.2 A	3.3 A	1.9 A	1.1 A
4CP 100-C	4.5 A	2.6 A	1.5 A	4.3 A	2.5 A	1.4 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
2CPm 80-C	2CP 80-C	98	140
3CPm 60-C	3CP 60-C	98	140
3CPm 80-C	3CP 80-C	98	140
4CPm 80-C	4CP 80-C	98	140
3CPm 100-C	3CP 100-C	98	140
4CPm 100-C	4CP 100-C	84	108

2-5CR

Multi-stage centrifugal pumps

-  Clean water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **130 l/min** (7.8 m³/h)
- Head up to **67 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **7 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. As a result of their quietness these pumps are widely used in domestic applications such as the distribution of water in combination with small and medium sized pressure tanks, and for the irrigation of gardens and orchards, etc.

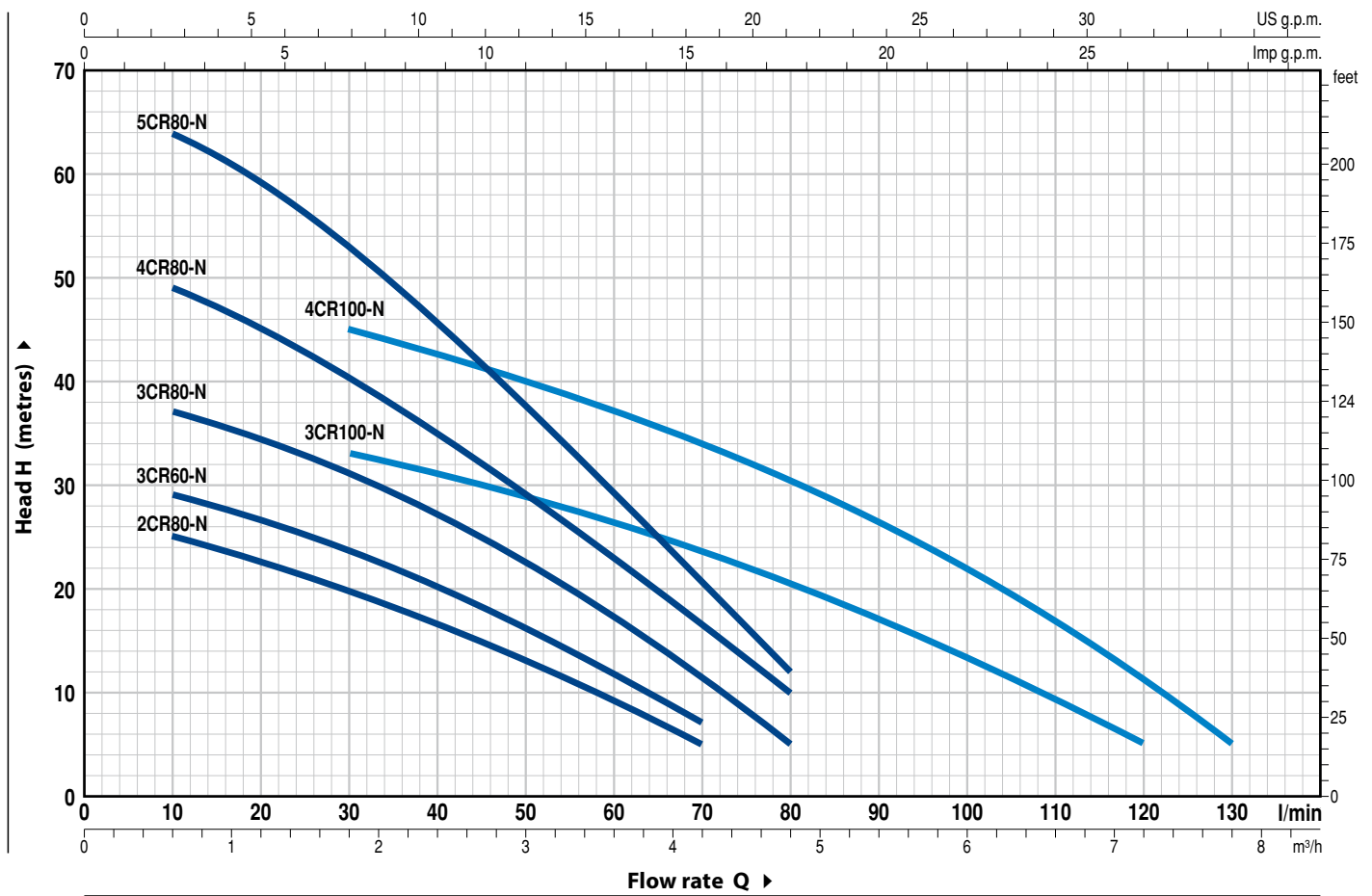
The pump should be installed in an enclosed environment or sheltered from inclement weather.

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		Q	H metres																		
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2	7.8	
				l/min	0	5	10	15	20	25	30	40	50	60	70	80	90	100	110	120	130		
2CRm 80 -N	2CR 80 -N	0.37	0.50	H metres	27	26	25	24	22.5	21	20	16.5	13	9	5								
3CRm 60 -N	3CR 60 -N	0.37	0.50		31	30	29	28	26.5	25	23.5	20	16	11.5	7								
3CRm 80 -N	3CR 80 -N	0.45	0.60		40	38	37	36	34.5	33	31	27	22.5	17	11	5							
4CRm 80 -N	4CR 80 -N	0.55	0.75		52	50	49	47	44.5	42	40	34	28.5	22.5	16	10							
5CRm 80 -N	5CR 80 -N	0.75	1		67	66	64	62	59	56	53	45.5	37.5	29.5	20.5	12							
3CRm 100-N	3CR 100-N	0.55	0.75		38	37	36	35	34.5	33.5	33	31	28	26	23	20	17	13.5	10	5			
4CRm 100-N	4CR 100-N	0.75	1		50	50	49	48	47	46	45	42	39.5	37	34	30.5	26.5	22	17	11	5		

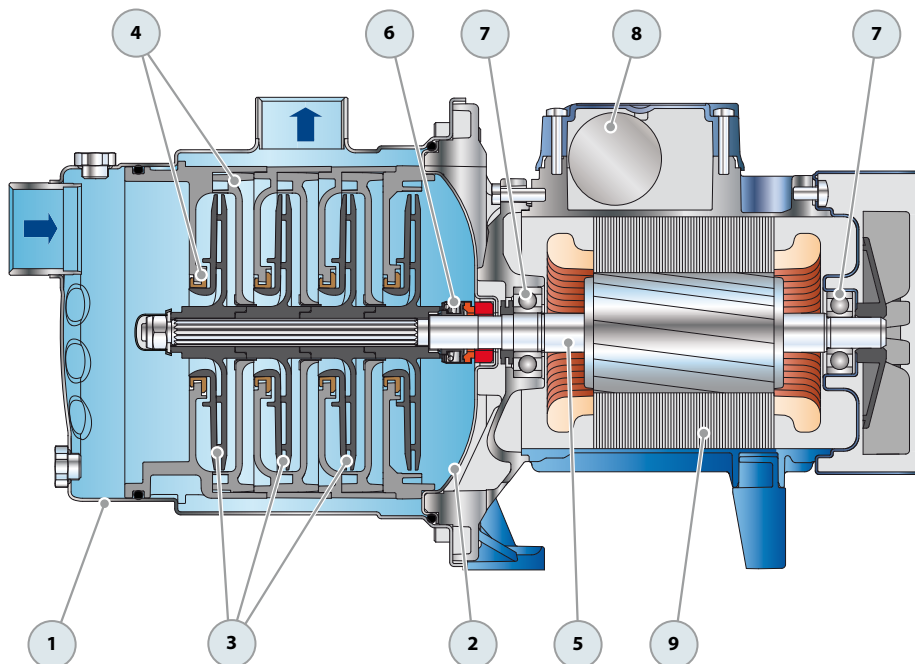
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

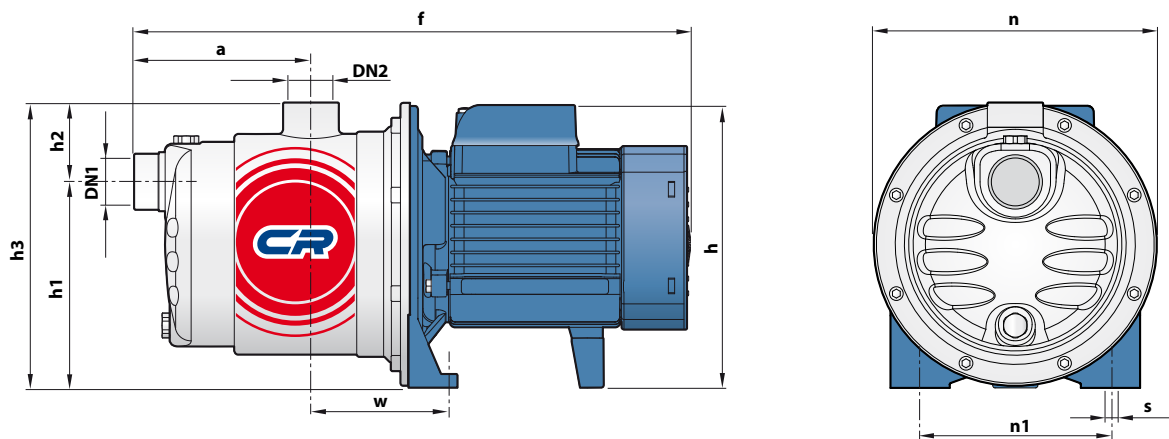
2-5CR

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 complete with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 304				
3	IMPELLERS	Noryl FE1520PW				
4	DIFFUSERS	Noryl complete with anti-wear ring				
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
6	MECHANICAL SEAL	<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Stationary ring</i>	<i>Materials Rotational ring</i>	<i>Elastomer</i>
		AR-13	Ø 13 mm	Ceramic	Graphite	NBR
7	BEARINGS	<i>Pump</i>	<i>Model</i>			
		2CR 80 -N 3CR 60 -N 3CR 80 -N 4CR 80 -N 3CR 100-N 4CR 100-N 5CR 80 -N	6202 ZZ - C3 / 6201 ZZ 6203 ZZ / 6203 ZZ			
8	CAPACITOR	<i>Pump Single-phase</i>	<i>Capacitance (230 V or 240 V)</i>	<i>(110 V)</i>		
		2CRm 80 -N 3CRm 60 -N 3CRm 80 -N 4CRm 80 -N 3CRm 100-N 4CRm 100-N 5CRm 80 -N	10 µF - 450 VL 12.5 µF - 450 VL 14 µF - 450 VL 20 µF - 450 VL	25 µF - 250 VL 25 µF - 250 VL 25 µF - 250 VL 60 µF - 300 VL		
9	ELECTRIC MOTOR	<p>2-5CRm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.</p> <p>2-5CR: three-phase 230/400 V - 50 Hz.</p> <p>⇒ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <p>- Insulation: class F - Protection: IP X4</p>				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	n	n1	w	s	1~	3~
2CRm 80 -N	2CR 80 -N	1"	1"	113	361	182	132	51	183	182	120	87	9	6.5	6.5
3CRm 60 -N	3CR 60 -N													6.5	6.5
3CRm 80 -N	3CR 80 -N													7.3	7.2
4CRm 80 -N	4CR 80 -N			10	8.6	7.8									
5CRm 80 -N	5CR 80 -N				10.6	10.6									
3CRm 100-N	3CR 100-N			113	361	182							9	7.9	7.1
4CRm 100-N	4CR 100-N													10.2	10.2

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
2CRm 80 -N	2.2 A	2.1 A	4.4 A
3CRm 60 -N	2.4 A	2.3 A	4.8 A
3CRm 80 -N	3.3 A	3.1 A	6.6 A
4CRm 80 -N	4.1 A	4.0 A	8.2 A
5CRm 80 -N	5.5 A	5.2 A	11.0 A
3CRm 100 -N	4.1 A	4.0 A	8.2 A
4CRm 100 -N	6.0 A	5.8 A	12.0 A

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
2CR 80 -N	1.7 A	1.0 A	0.6 A	1.6 A	0.9 A	0.5 A
3CR 60 -N	1.7 A	1.0 A	0.6 A	1.6 A	0.9 A	0.5 A
3CR 80 -N	2.5 A	1.5 A	0.9 A	2.4 A	1.4 A	0.8 A
4CR 80 -N	3.4 A	2.0 A	1.2 A	3.3 A	1.9 A	1.1 A
5CR 80 -N	4.3 A	2.5 A	1.4 A	4.1 A	2.4 A	1.3 A
3CR 100 -N	3.4 A	2.0 A	1.2 A	3.3 A	1.9 A	1.1 A
4CR 100 -N	4.5 A	2.6 A	1.5 A	4.3 A	2.5 A	1.4 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
2CRm 80 -N	2CR 80 -N	84	120
3CRm 60 -N	3CR 60 -N	84	120
3CRm 80 -N	3CR 80 -N	84	120
4CRm 80 -N	4CR 80 -N	84	120
5CRm 80 -N	5CR 80 -N	72	96
3CRm 100-N	3CR 100-N	84	120
4CRm 100-N	4CR 100-N	72	96

Vertical multi-stage pumps

-  Clean water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **180 l/min** (10.8 m³/h)
- Head up to **112 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **11 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1 EN 60034-1
IEC 60335-1 IEC 60034-1
CEI 61-150 CEI 2-3



EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. The high performance and adaptability to a wide range of applications make them an ideal choice in domestic, civil and industrial applications, in particular for the distribution of water in combination with pressure tanks and for boosting pressure in the network. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

- Patent Pending n. PCT/IB2014/063126

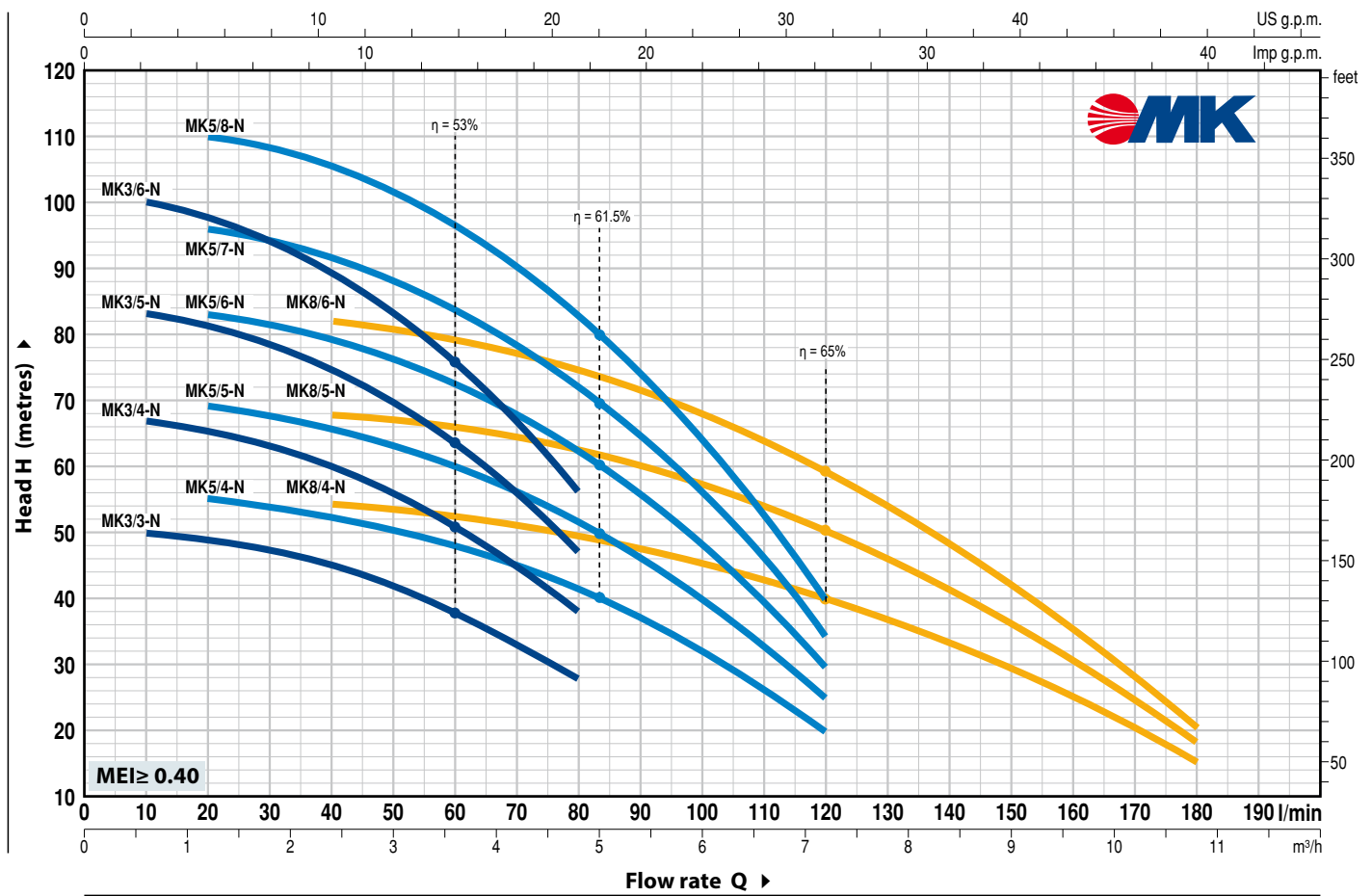
OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency
- Supply of threaded flanges ISO 228/1 (1" - 1¼" - 1½") suction and delivery ports



CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		▲	Q	Flow rate (m³/h)													
Single-phase	Three-phase	kW	HP			0	0.6	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8			
MK _m 3/3-N	MK 3/3-N	0.75	1	IE2	H metres	0	10	20	40	60	80	100	120	140	160	180			
MK _m 3/4-N	MK 3/4-N	1.1	1.5			52	50	49	45	38	28								
MK _m 3/5-N	MK 3/5-N	1.1	1.5			69.5	67	65.5	60	50.5	38								
MK _m 3/6-N	MK 3/6-N	1.5	2	IE3		87	83	82	75	63.5	47								
MK _m 5/4-N	MK 5/4-N	1.1	1.5			104	100	98	90	76	56								
MK _m 5/5-N	MK 5/5-N	1.1	1.5	IE2		56	-	55	52.5	48	41.5	32	20						
MK _m 5/6-N	MK 5/6-N	1.5	2			70	-	69	66	60	51.5	40	25						
MK _m 5/7-N	MK 5/7-N	1.8	2.5	IE3		84	-	83	79	72	62	48	30						
MK _m 5/8-N	MK 5/8-N	2.2	3			98	-	96	92.5	84	72.5	56	34						
MK _m 8/4-N	MK 8/4-N	1.5	2	IE3		112	-	110	105.5	96	82.5	64	40						
MK _m 8/5-N	MK 8/5-N	1.8	2.5			56	-	-	54	52	50	46	39	31.5	24	15			
MK _m 8/6-N	MK 8/6-N	2.2	3			70	-	-	67.5	66	63	58	50	40	30	18			
						86	-	-	82	78	74	68	58	46.5	35	20			

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	SUCTION BODY	Cast iron with an Epoxy Electro Coating complete with threaded suction port ISO 228/1				
2	EXTERNAL SLEEVE	Stainless steel AISI 304				
3	DELIVERY BODY	Cast iron with an Epoxy Electro Coating complete with threaded delivery port ISO 228/1				
4	IMPELLERS AND DIFFUSERS	Noryl FE1520PW				
5	DIAPHRAGMS	Stainless steel AISI 304				
6	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
7	MECHANICAL SEAL	<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		FN-18	Ø 18 mm	Graphite	Ceramic	NBR
8	BEARINGS	6304 ZZ / 6204 ZZ				

9 CAPACITOR

Pump	Capacitance	
	(230 V or 240 V)	(110 V)
Single-phase		
MKm 3/3-N	25 µF - 450 VL	60 µF - 250 VL
MKm 3/4-N	25 µF - 450 VL	60 µF - 250 VL
MKm 3/5-N	25 µF - 450 VL	60 µF - 250 VL
MKm 3/6-N	31.5 µF - 450 VL	60 µF - 250 VL
MKm 5/4-N	25 µF - 450 VL	60 µF - 250 VL
MKm 5/5-N	25 µF - 450 VL	60 µF - 250 VL
MKm 5/6-N	31.5 µF - 450 VL	60 µF - 250 VL
MKm 5/7-N	45 µF - 450 VL	-
MKm 5/8-N	50 µF - 450 VL	-
MKm 8/4-N	31.5 µF - 450 VL	60 µF - 250 VL
MKm 8/5-N	45 µF - 450 VL	-
MKm 8/6-N	50 µF - 450 VL	-

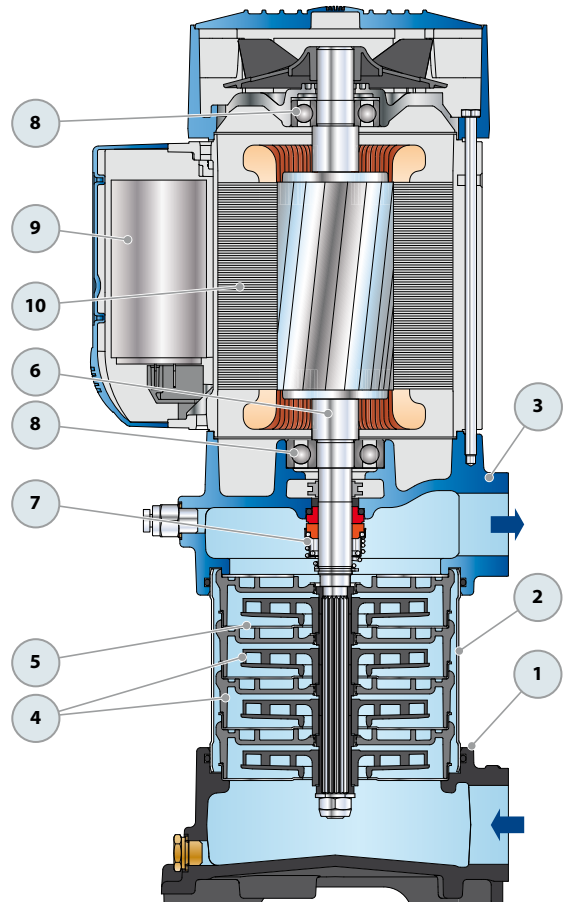
10 ELECTRIC MOTOR

MKm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding up to P₂=1.5 kW

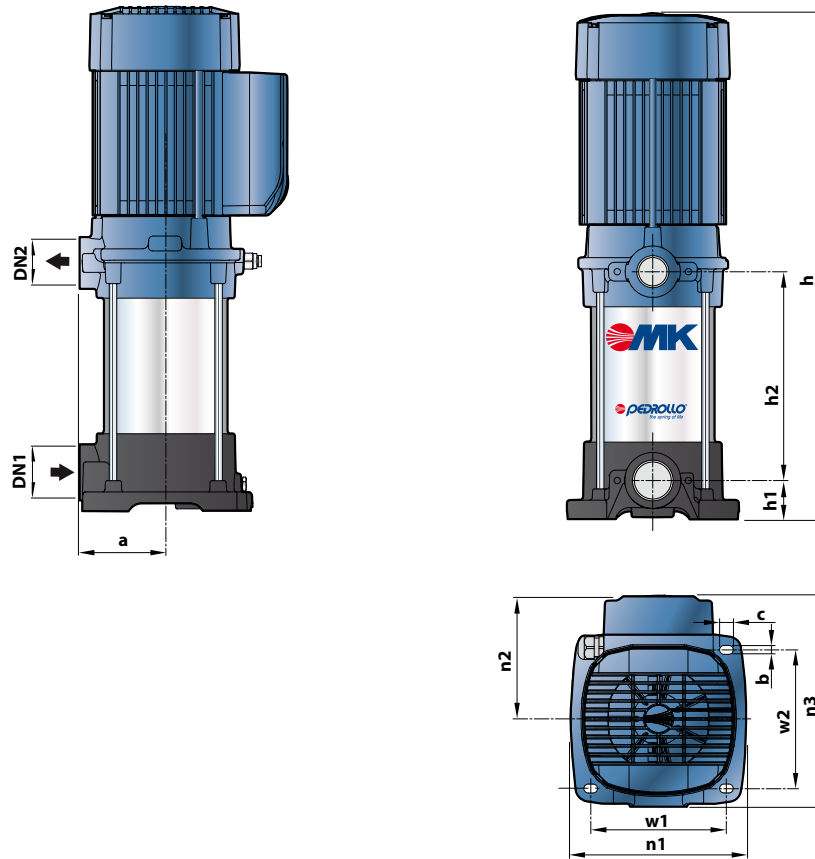
MK: three-phase 230/400 V - 50 Hz

➡ **The three-phase pumps are fitted with high performance motors up to P₂=1.1 kW in class IE2 and from P₂=1.5 kW in class IE3 (IEC 60034-30)**

- Insulation: class F
- Protection: IP X4



DIMENSIONS AND WEIGHT



MODEL		PORTS		N. STAGES	DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2		a	h	h1	h2	w1	w2	n1	n2	n3	b	c	1~
MKm 3/3-N	MK 3/3-N	1 1/4"	1"	3	93	450	132,5	143	146	185	130	223	9,5	14,5	19.1	19.2
MKm 3/4-N	MK 3/4-N			4		477	159,5								19.6	19.6
MKm 3/5-N	MK 3/5-N			5		504	186,5								20.0	20.1
MKm 3/6-N	MK 3/6-N			6		531	213,5								22.9	21.8
MKm 5/4-N	MK 5/4-N			4		477	159,5								19.5	19.6
MKm 5/5-N	MK 5/5-N			5		504	186,5								19.9	20.0
MKm 5/6-N	MK 5/6-N			6		531	213,5								22.8	21.7
MKm 5/7-N	MK 5/7-N			7		558	240,5								24.3	23.1
MKm 5/8-N	MK 5/8-N			8		585	267,5								24.8	23.6
MKm 8/4-N	MK 8/4-N			4		477	159,5								22.0	20.9
MKm 8/5-N	MK 8/5-N			5		504	186,5								23.6	22.4
MKm 8/6-N	MK 8/6-N			6		531	213,5								24.0	22.8

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
MKm 3/3-N	6.0 A	5.8 A	12.0 A
MKm 3/4-N	6.5 A	6.2 A	13.0 A
MKm 3/5-N	7.0 A	6.7 A	14.0 A
MKm 3/6-N	9.0 A	8.6 A	18.0 A
MKm 5/4-N	6.5 A	6.2 A	13.0 A
MKm 5/5-N	8.5 A	8.1 A	17.0 A
MKm 5/6-N	9.5 A	9.1 A	19.0 A
MKm 5/7-N	10.5 A	10.1 A	21.0 A
MKm 5/8-N	11.5 A	11.0 A	23.0 A
MKm 8/4-N	8.5 A	8.1 A	17.0 A
MKm 8/5-N	9.5 A	9.1 A	19.0 A
MKm 8/6-N	11.5 A	11.0 A	23.0 A

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
MK 3/3-N	4.2 A	2.4 A	1.4 A	4.0 A	2.3 A	1.3 A
MK 3/4-N	4.8 A	2.8 A	1.6 A	4.6 A	2.7 A	1.5 A
MK 3/5-N	5.2 A	3.0 A	1.7 A	5.0 A	2.9 A	1.6 A
MK 3/6-N	5.5 A	3.2 A	1.8 A	5.3 A	3.1 A	1.7 A
MK 5/4-N	4.8 A	2.8 A	1.6 A	4.6 A	2.7 A	1.5 A
MK 5/5-N	5.2 A	3.0 A	1.7 A	5.0 A	2.9 A	1.6 A
MK 5/6-N	6.1 A	3.5 A	2.0 A	5.8 A	3.4 A	1.9 A
MK 5/7-N	7.8 A	4.5 A	2.6 A	7.5 A	4.3 A	2.5 A
MK 5/8-N	8.7 A	5.0 A	2.9 A	8.3 A	4.8 A	2.8 A
MK 8/4-N	5.2 A	3.0 A	1.7 A	5.0 A	2.9 A	1.6 A
MK 8/5-N	6.1 A	3.5 A	2.0 A	5.8 A	3.4 A	1.9 A
MK 8/6-N	8.7 A	5.0 A	2.9 A	8.3 A	4.8 A	2.8 A

-  Clean water
-  Domestic use
-  Civil use
-  Agricultural use



PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3 m³/h)
- Head up to **51 m**

APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+90 °C**
- Temperature of diesel up to **+55 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **6 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with diesel, clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made. Because of a specific principle of their operating performance these pumps are an excellent solution in every case where a compact self-priming pump is required or when the fluid flow is irregular or contains air.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

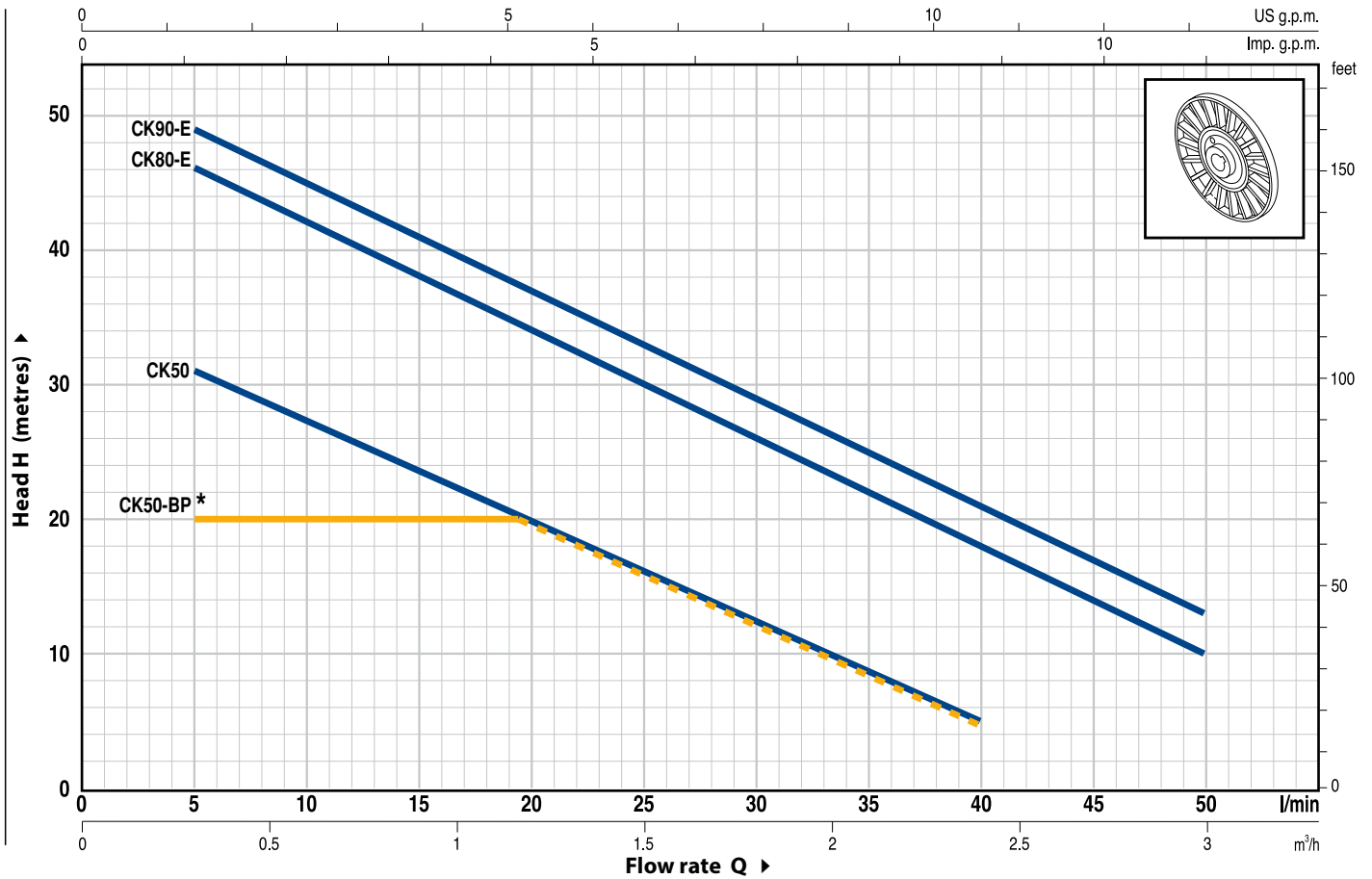
- Motor bracket: patent n. IT1243605
- CK 80-E/90-E Registered EU Design n. 342159-0008

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency for CK 80-E, CK 90-E
- IP X5 class protection for CK 80-E, CK 90-E

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



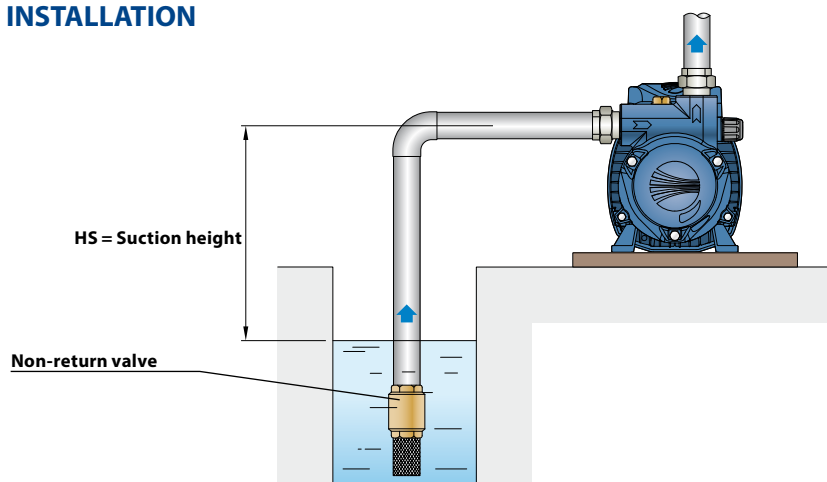
MODEL		POWER (P ₂)		Q	Flow rate												
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0		
				l/min	0	5	10	15	20	25	30	35	40	50			
CKm 50	CK 50	0.37	0.50	H metres	35	31	27	24	20	16	13	9	5				
CKm 50-BP	CK 50-BP	0.25	0.33		20	20	20	20	20	16.5	13	9	5				
CKm 80-E	CK 80-E	0.55	0.75		48	46	42	38	34	30	26	22	18	10			
CKm 90-E	CK 90-E	0.75	1		51	49	45	41	37	33	29	25	21	13			

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

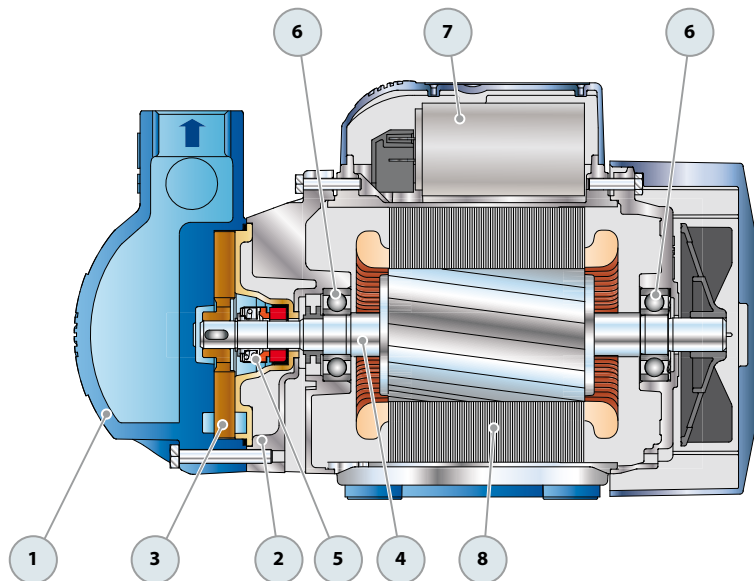
(*) CK 50-BP = performance curve with by-pass

STANDARD INSTALLATION

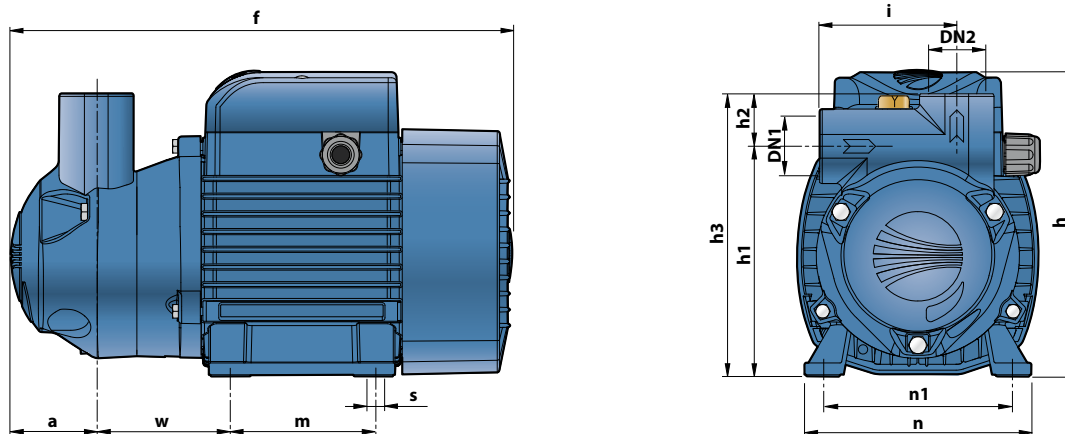


POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1				
2 MOTOR BRACKET	Aluminium with brass insert (patented), reduces the risk of impeller seizure				
3 IMPELLER	Brass star type with open radial vanes				
4 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
5 MECHANICAL SEAL	Seal	Shaft	Materials		
	Model	Diameter	Stationary ring	Rotational ring	Elastomer
	AR-12V	Ø 12 mm	Ceramic	Graphite	Viton
6 BEARINGS	Pump	Model			
	CK 50	6201 ZZ / 6201 ZZ			
	CK 50-BP				
	CK 80-E CK 90-E	6203 ZZ / 6203 ZZ			
7 CAPACITOR	Pump	Capacitance			
	Single-phase	(230 V or 240 V)	(110 V)		
	CKm 50	12.5 µF - 450 VL	25 µF - 250 VL		
	CKm 50-BP				
	CKm 80-E CKm 90-E	16 µF - 450 VL 20 µF - 450 VL	60 µF - 300 VL 60 µF - 300 VL		
8 ELECTRIC MOTOR	<p>CKm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. CK: three-phase 230/400 V - 50 Hz.</p> <p>⇒ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm												kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	i	m	n	n1	w	s	1~	3~
CKm 50	CK 50	¾"	¾"	41	254	152	128	23	151	75	80	120	100	69	7		
CKm 50-BP	CK 50-BP			45	258												
CKm 80-E	CK 80-E	1"	1"	50	296	180	136	31	167	81	90	140	112	77		10.8	9.9
CKm 90-E	CK 90-E															10.9	10.0

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
CKm 50	3.0 A	2.9 A	6.2 A
CKm 50-BP	3.0 A	2.9 A	6.2 A
CKm 80-E	5.0 A	4.8 A	9.8 A
CKm 90-E	5.1 A	4.9 A	9.4 A

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
CK 50	2.1 A	1.2 A	0.7 A	1.9 A	1.1 A	0.6 A
CK 50-BP	2.1 A	1.2 A	0.7 A	1.9 A	1.1 A	0.6 A
CK 80-E	3.5 A	2.0 A	1.2 A	3.4 A	1.9 A	1.1 A
CK 90-E	3.6 A	2.1 A	1.25 A	3.5 A	2.0 A	1.1 A


Self-priming liquid ring pumps

► With double anti-seize frontal inserts

 Clean water

 Civil use

 Industrial use

 Agricultural use



PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3 m³/h)
- Head up to **51 m**

APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **6 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water that does not contain abrasive particles and with liquids that are not chemically aggressive towards the materials from which the pump is made.

Because of a specific principle of their operating performance these pumps are an excellent solution in every case where a compact self-priming pump is required or when the fluid flow is irregular or contains air.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

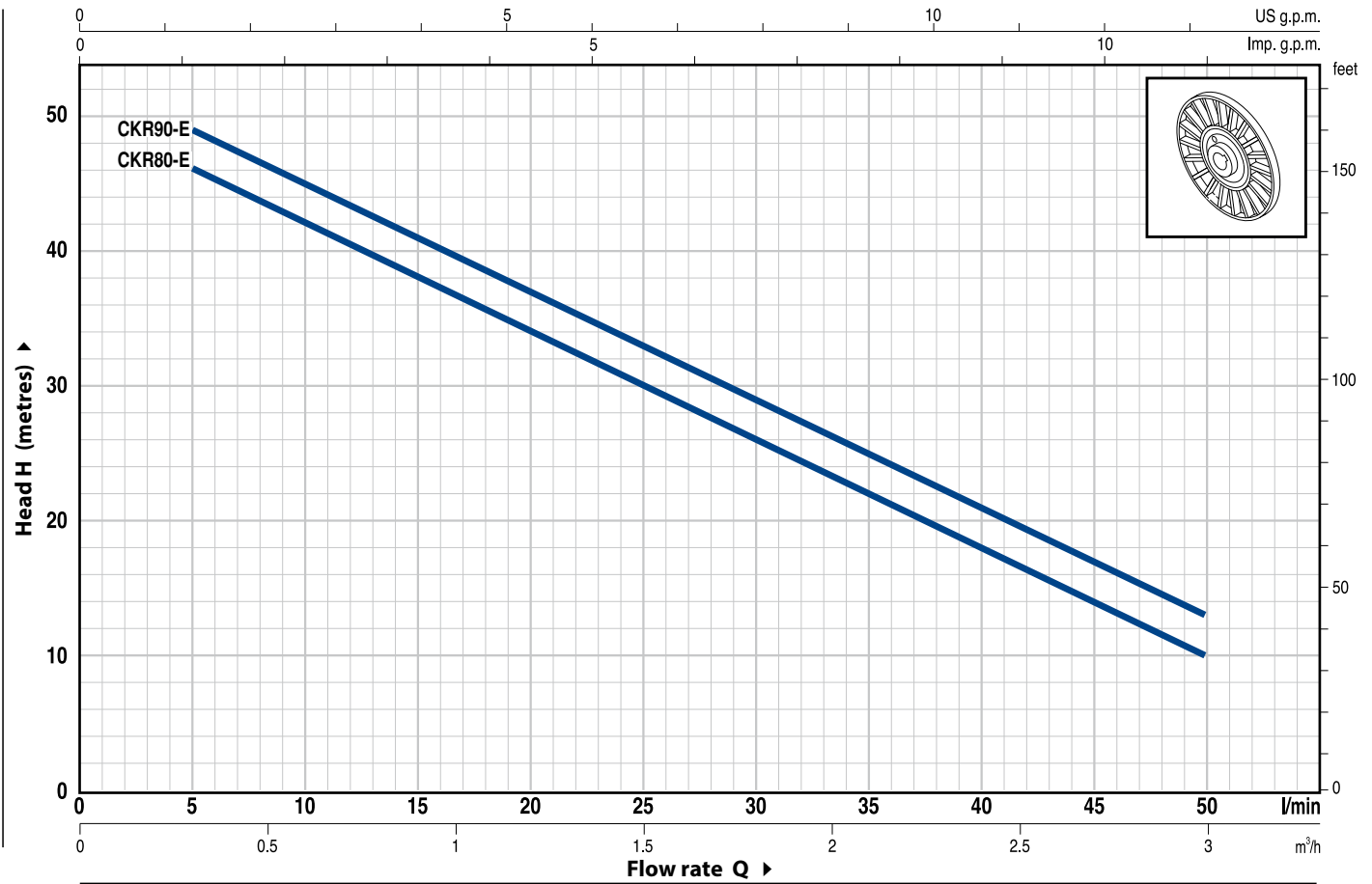
- Motor bracket: patent n. IT1243605
- Registered EU Design n. 342159-0008

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages
- IP X5 class protection

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m

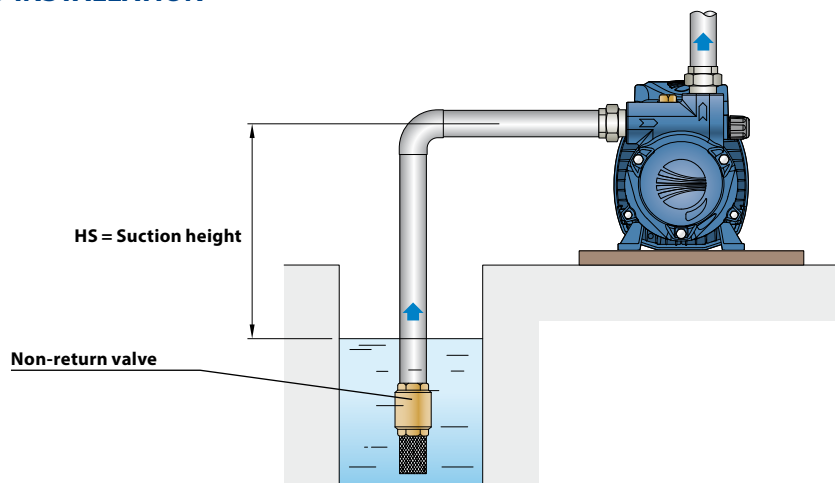


MODEL		POWER (P ₂)		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	3.0			
				l/min	0	5	10	15	20	25	30	35	40	50				
CKRm 80-E	CKR 80-E	0.55	0.75	H metres	48	46	42	38	34	30	26	22	18	10				
CKRm 90-E	CKR 90-E	0.75	1	H metres	51	49	45	41	37	33	29	25	21	13				

Q = Flow rate H = Total manometric head HS = Suction height

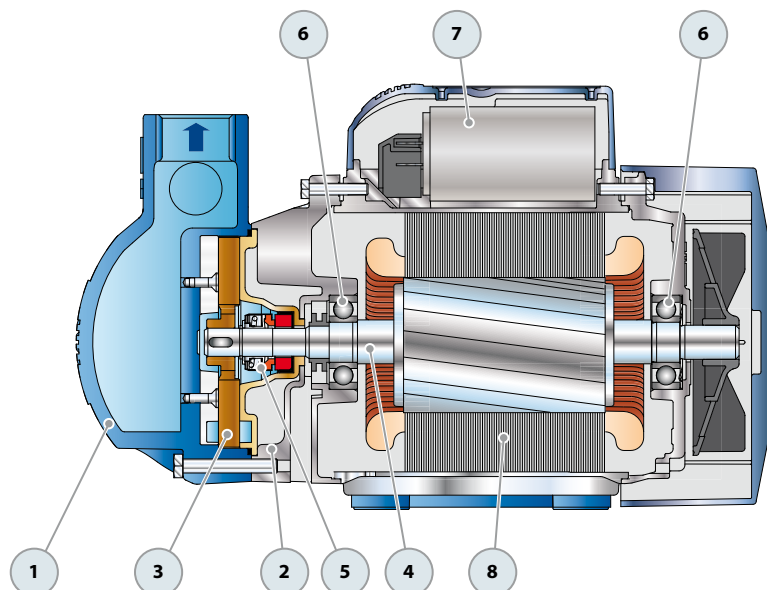
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

STANDARD INSTALLATION

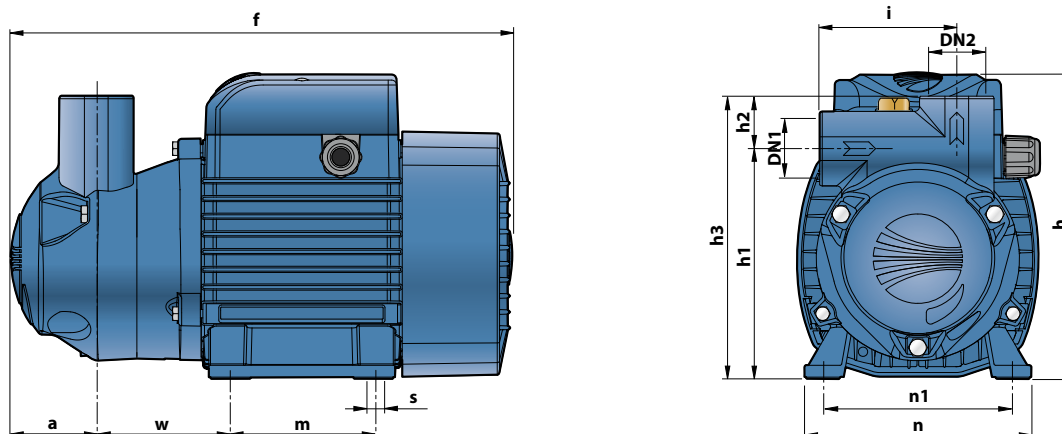


POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron with stainless steel insert to prevent impeller seizure due to the formation of rust . The pump body is complete with threaded ports in compliance with ISO 228/1				
2 MOTOR BRACKET	Aluminium with brass insert (patented), reduces the risk of impeller seizure				
3 IMPELLER	Brass star type with open radial vanes				
4 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
5 MECHANICAL SEAL	Seal	Shaft	Materials		
	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
	AR-12V	Ø 12 mm	Ceramic	Graphite	Viton
6 BEARINGS	6203 ZZ / 6203 ZZ				
7 CAPACITOR	Pump	Capacitance			
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
	CKRm 80-E	16 µF - 450 VL	60 µF - 300 VL		
	CKRm 90-E	20 µF - 450 VL	60 µF - 300 VL		
8 ELECTRIC MOTOR	<p>CKRm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. CKR: three-phase 230/400 V - 50 Hz.</p> <p>⇒ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm												kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	i	m	n	n1	w	s	1~	3~
CKRm 80-E	CKR 80-E	1"	1"	50	296	180	136	31	167	81	90	140	112	77	7	10.8	9.9
CKRm 90-E	CKR 90-E															10.9	10.0

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
CKRm 80-E	5.0 A	4.8 A	9.8 A
CKRm 90-E	5.1 A	4.9 A	9.4 A

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
CKR 80-E	3.5 A	2.0 A	1.2 A	3.4 A	1.9 A	1.1 A
CKR 90-E	3.6 A	2.1 A	1.25 A	3.5 A	2.0 A	1.1 A



PERFORMANCE RANGE

- Flow rate up to **60 l/min** (3.6 m³/h)
- Head up to **48 m**

APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **6 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. The self-priming **JSW** pumps are designed to pump water even in cases where air is present. Because of their reliability and the fact that they are easy to use, they are recommended for use in domestic applications such as the distribution of water in combination with small or medium sized pressure tanks, and for the irrigation of gardens and orchards, etc. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

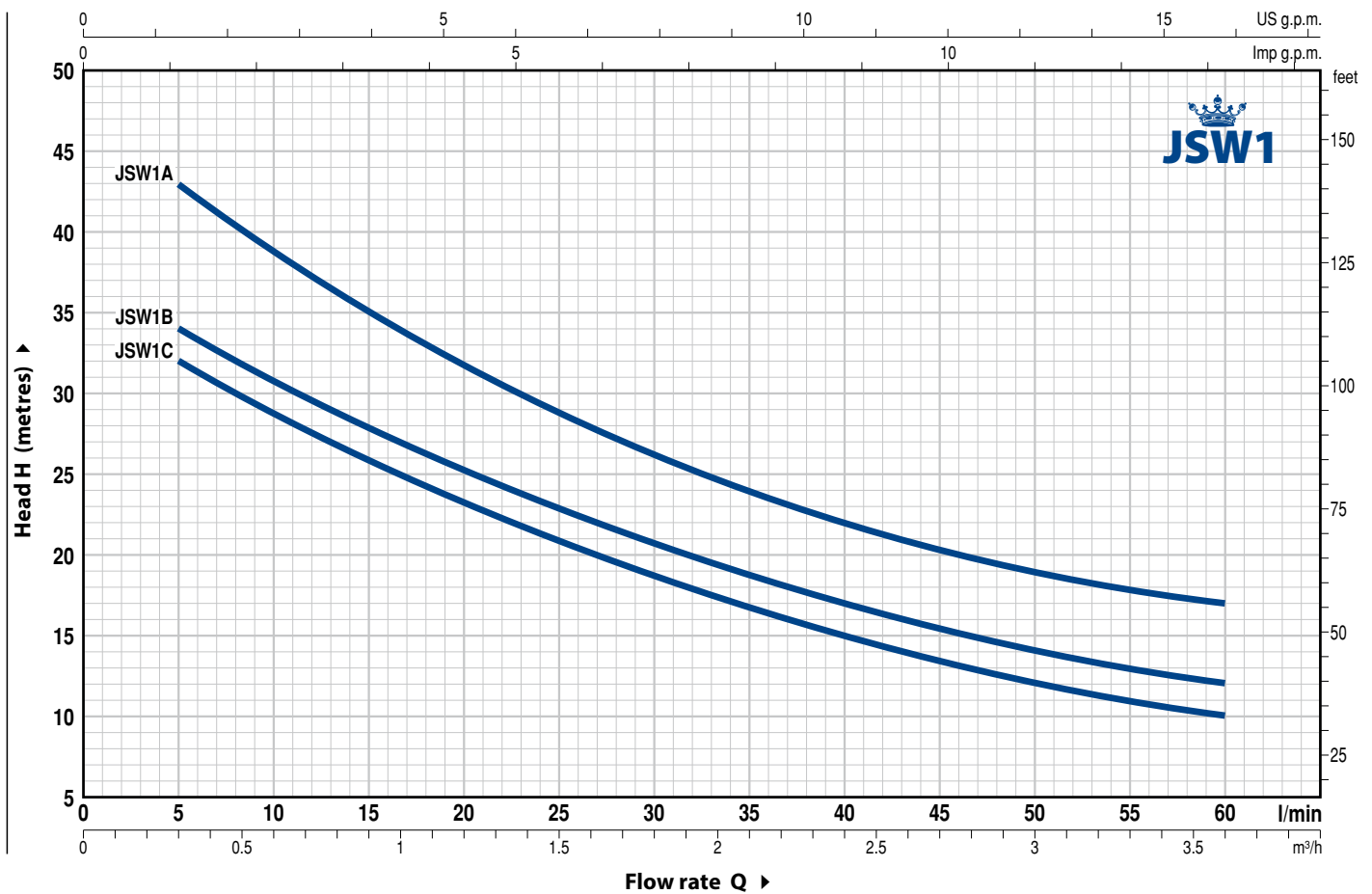
- Registered Trade Mark n. 013073135 JSW[®]
- Registered EU Design n. 002218610-0001
- European Patent n. 1 510 696

OPTIONS AVAILABLE ON REQUEST

- Pumps with technopolymer impeller
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m

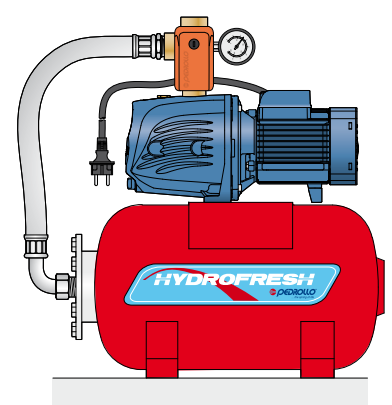
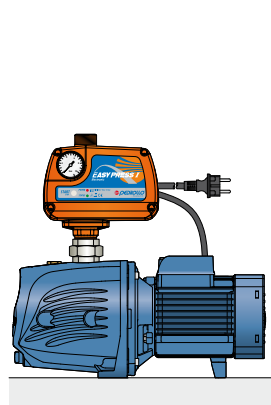
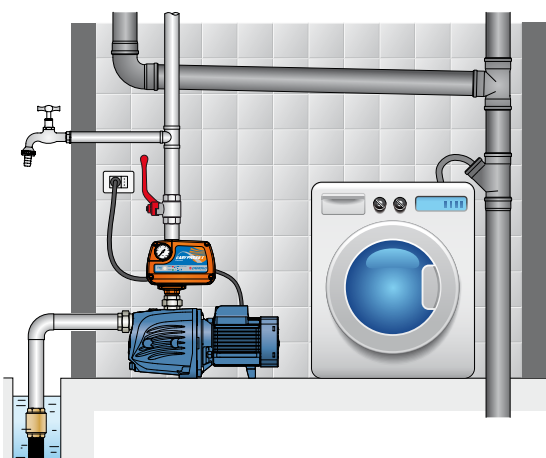


MODEL		POWER (P ₂)		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	1.2	1.5	1.8	2.4	2.7	3.0	3.6			
				l/min	0	5	10	20	25	30	40	45	50	60				
JSWm 1C	JSW 1C	0.37	0.50	H metres	35	32	28.5	23.5	21	18.5	15	13.5	12	10				
JSWm 1B	JSW 1B	0.48	0.65		37	34	30.5	25.5	23	20.5	17	15.5	14	12				
JSWm 1A	JSW 1A	0.55	0.75		48	43	39	31.5	28.5	26	22	20.5	19	17				

Q = Flow rate H = Total manometric head HS = Suction height

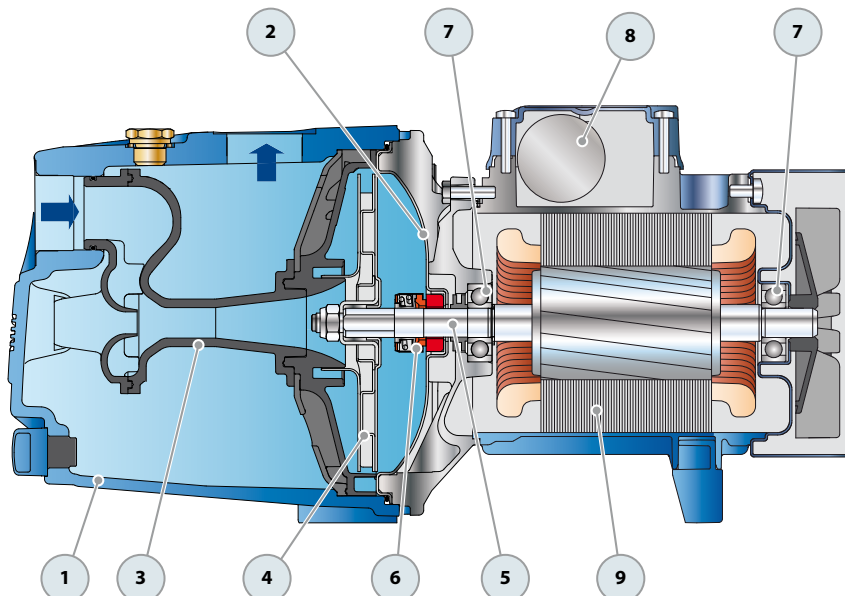
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

STANDARD INSTALLATION

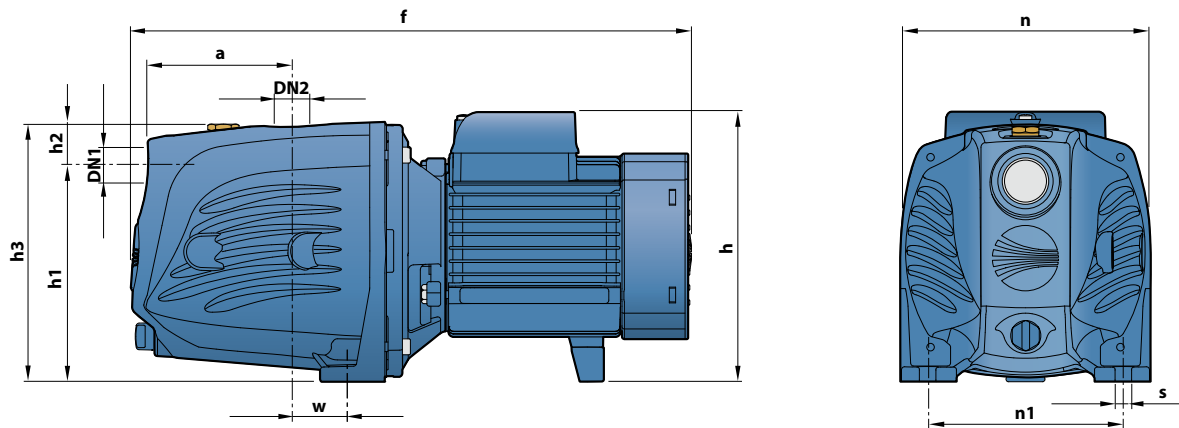


POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 304				
3	NOZZLE ASSEMBLY	Noryl FE1520PW				
4	IMPELLER	Stainless steel AISI 304				
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
6	MECHANICAL SEAL	<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		AR-12	Ø 12 mm	Ceramic	Graphite	NBR
7	BEARINGS	6201 ZZ / 6201 ZZ				
8	CAPACITOR	<i>Pump Single-phase</i>	<i>Capacitance (230 V or 240 V)</i>	<i>(110 V)</i>		
		JSWm 1C	10 µF - 450 VL	25 µF - 250 VL		
		JSWm 1B	12.5 µF - 450 VL	25 µF - 250 VL		
		JSWm 1A	14 µF - 450 VL	25 µF - 250 VL		
9	ELECTRIC MOTOR	JSWm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. JSW: three-phase 230/400 V - 50 Hz. – Insulation: class F – Protection: IP X4				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	n	n1	w	s	1~	3~
JSWm 1C	JSW 1C	1"	1"	94	352	171	127	33	160	158	124	24	10	9.9	9.9
JSWm 1B	JSW 1B													10.0	10.0
JSWm 1A	JSW 1A													10.6	10.0

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
JSWm 1C	2.8 A	2.7 A	5.6 A
JSWm 1B	3.1 A	3.0 A	6.0 A
JSWm 1A	3.9 A	3.8 A	7.3 A

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
JSW 1C	2.1 A	1.2 A	0.7 A	2.0 A	1.1 A	0.6 A
JSW 1B	2.3 A	1.3 A	0.8 A	2.2 A	1.2 A	0.7 A
JSW 1A	3.0 A	1.7 A	1.0 A	2.9 A	1.6 A	0.9 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
JSWm 1C	JSW 1C	98	140
JSWm 1B	JSW 1B	98	140
JSWm 1A	JSW 1A	98	140

Self-priming "JET" pumps

-  Clean water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **70 l/min** (4.2 m³/h)
- Head up to **58 m**

APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **6 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and liquids that are not chemically aggressive towards the materials from which the pump is made. The self-priming **JSW** pumps are designed to pump water even in cases where air is present. Because of their reliability and the fact that they are easy to use, they are recommended for use in domestic applications such as the distribution of water in combination with small or medium sized pressure tanks, and for the irrigation of gardens and orchards, etc. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

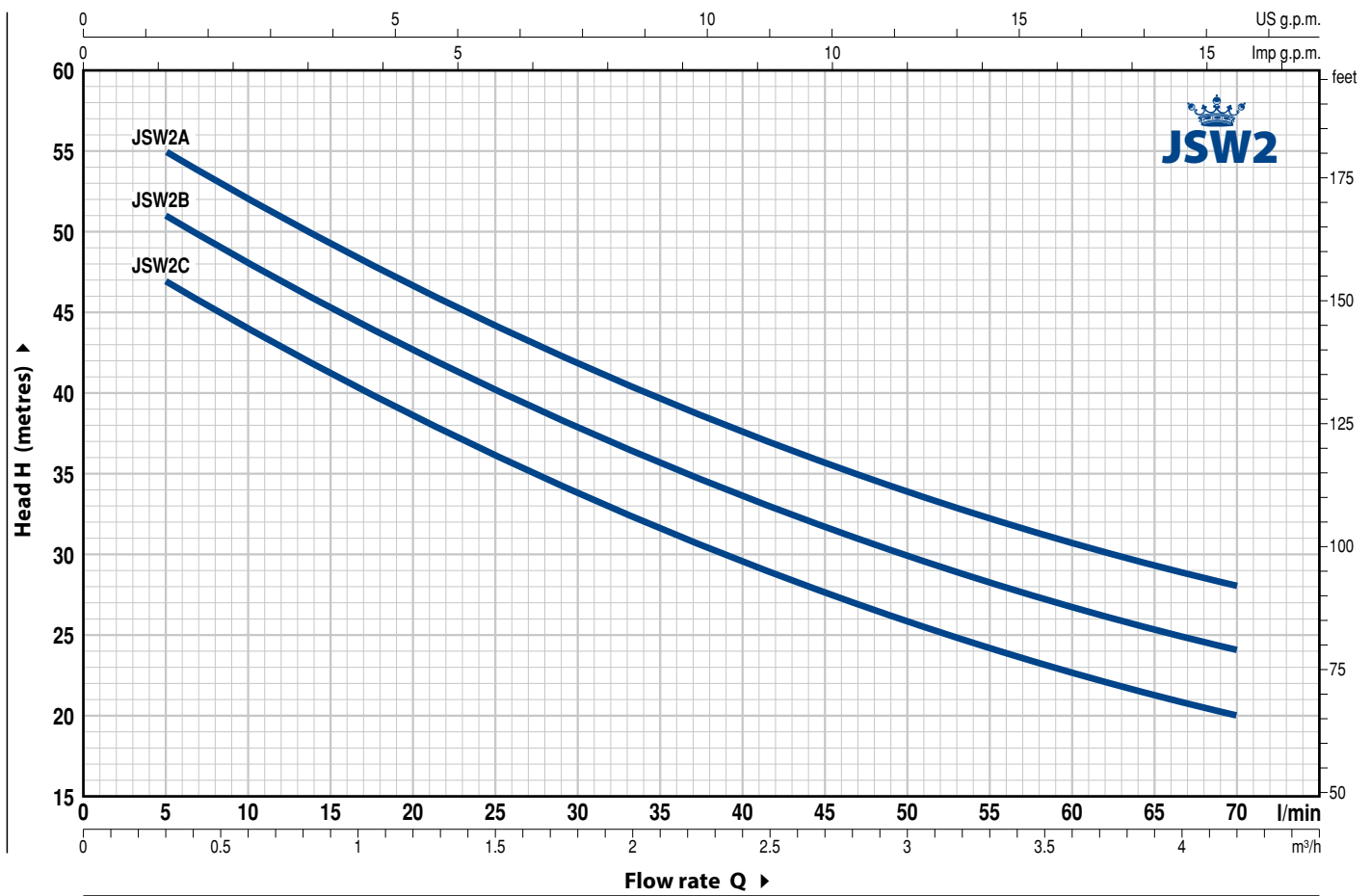
- Registered Trade Mark n. 013073135 JSW[®]
- Registered EU Design n. 002218610-0002
- European Patent n. 1 510 696

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency
- Pumps with technopolymer impeller

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m

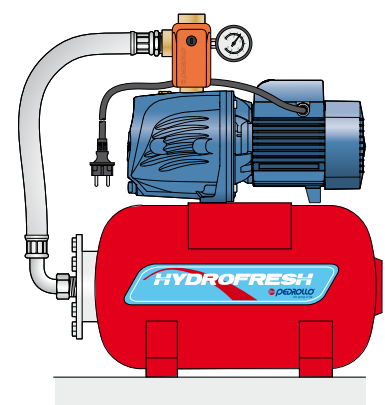
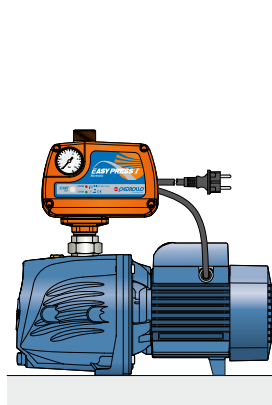
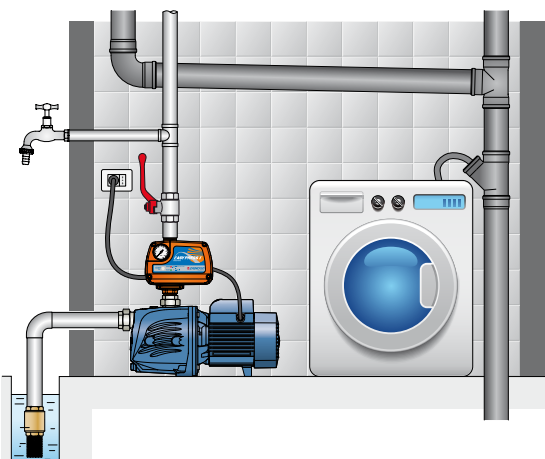


MODEL		POWER (P ₂)		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	1.2	1.5	1.8	2.4	2.7	3.0	3.6	4.2		
				H metres	0	5	10	20	25	30	40	45	50	60	70			
JSWm 2C	JSW 2C	0.75	1		50	47	44	38.5	36	34	29.5	27.5	26	22.5	20			
JSWm 2B	JSW 2B	0.90	1.25		54	51	48	42.5	40	38	33.5	31.5	30	26.5	24			
JSWm 2A	JSW 2A	1.1	1.5		58	55	52	46.5	44	42	37.5	35.5	34	31	28			

Q = Flow rate H = Total manometric head HS = Suction height

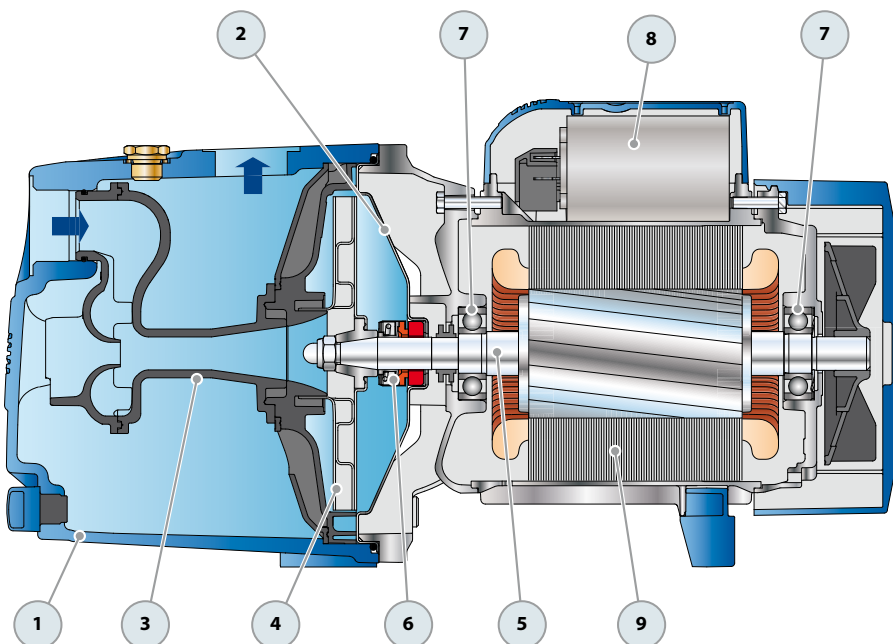
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

STANDARD INSTALLATION

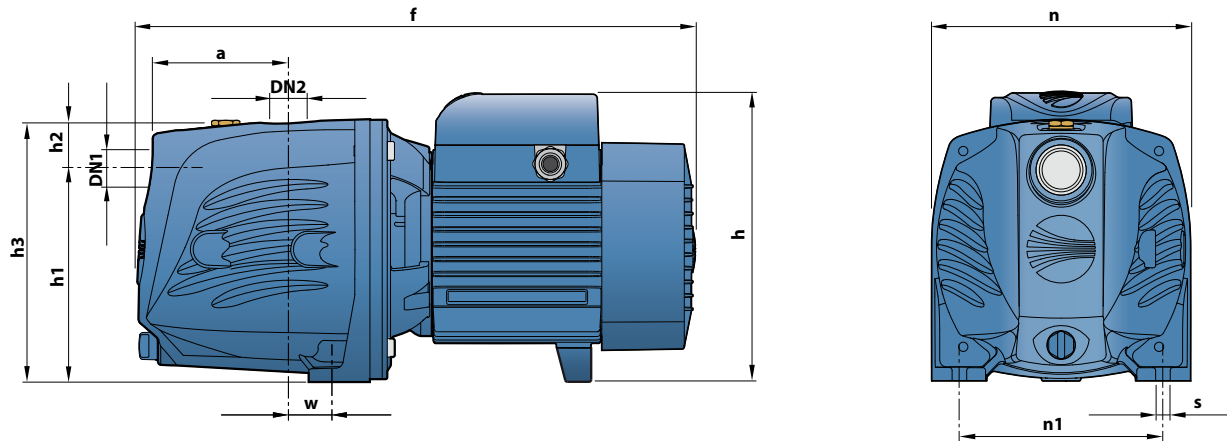


POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 304				
3	NOZZLE ASSEMBLY	Noryl FE1520PW				
4	IMPELLER	Stainless steel AISI 304				
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
6	MECHANICAL SEAL	<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		AR-14	Ø 14 mm	Ceramic	Graphite	NBR
7	BEARINGS	6203 ZZ / 6203 ZZ				
8	CAPACITOR	<i>Pump Single-phase</i>	<i>Capacitance (230 V or 240 V)</i>	<i>(110 V)</i>		
		JSWm 2C	60 µF - 300 VL	60 µF - 300 VL		
		JSWm 2B	60 µF - 300 VL	60 µF - 300 VL		
		JSWm 2A	60 µF - 300 VL	60 µF - 300 VL		
9	ELECTRIC MOTOR	<p>JSWm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. JSW: three-phase 230/400 V - 50 Hz.</p> <p>➔ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	n	n1	w	s	1~	3~
JSWm 2C	JSW 2C	1"	1"	96	388	201	147	33	180	180	142	22	10	13.0	13.0
JSWm 2B	JSW 2B													14.0	14.0
JSWm 2A	JSW 2A													14.2	14.2

ABSORPTION

MODEL	VOLTAGE		
	Single-phase	230 V	240 V
JSWm 2C	4.7 A	4.5 A	9.4 A
JSWm 2B	5.8 A	5.3 A	11.6 A
JSWm 2A	6.0 A	5.5 A	12.0 A

MODEL	VOLTAGE					
	Three-phase	230 V	400 V	690 V	240 V	415 V
JSW 2C	3.5 A	2.0 A	1.2 A	3.4 A	1.9 A	1.1 A
JSW 2B	4.6 A	2.7 A	1.6 A	4.4 A	2.5 A	1.5 A
JSW 2A	5.1 A	3.0 A	1.7 A	4.9 A	2.8 A	1.6 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
JSWm 2C	JSW 2C	72	96
JSWm 2B	JSW 2B	72	96
JSWm 2A	JSW 2A	72	96

Self-priming "JET" pumps

-  Clean water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **160 l/min** (9.6 m³/h)
- Head up to **96 m**

APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **10 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. The self-priming **JSW** pumps are designed to pump water even in cases where air is present. Because of their reliability and the fact that they are easy to use, they are recommended for use in domestic, civil and industrial applications such as the distribution of water in combination with pressure tanks, and for the irrigation of gardens and orchards, etc.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

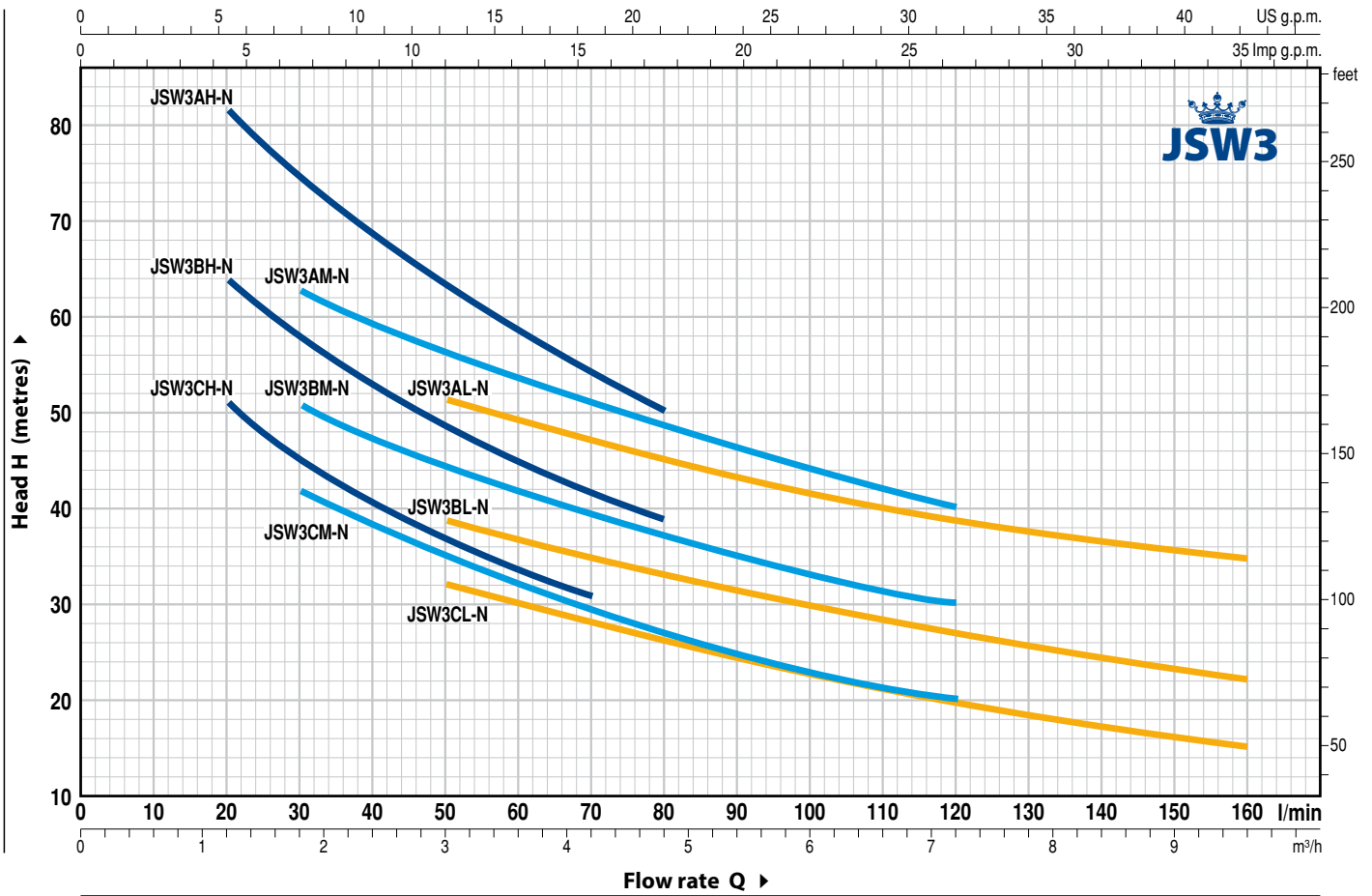
- Registered Trade Mark n. 013073135 JSW[®]
- Registered EU Design n. 002218610

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency
- IPX5 protection

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



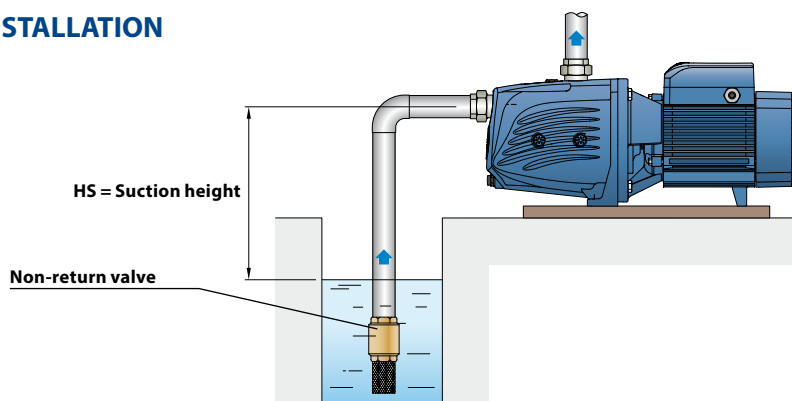
MODEL		POWER (P ₂)		▲	Q	Flow rate																		
Single-phase	Three-phase	kW	HP			IE2	0	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.6	4.2	4.8	6.0	7.2	8.4	9.6	
JSWm 3CH -N	JSW 3CH -N	1.1	1.5	IE2	0	10	15	20	25	30	35	40	45	50	60	70	80	100	120	140	160			
JSWm 3BH -N	JSW 3BH -N	1.5	2	IE3	64	60	55	51	48	45	42.5	40	39	37	34	31								
-	JSW 3AH -N	2.2	3		76	70	67	64	61	58	55.5	53	51	49	45	41	39							
JSWm 3CM -N	JSW 3CM -N	1.1	1.5	IE2	96	90	86	82	79	75	71.5	69	66	64	58	54	50							
JSWm 3BM -N	JSW 3BM -N	1.5	2	IE3	52	50	48	45	44	42	40	38	37	35	32	29	27	23	20					
-	JSW 3AM -N	2.2	3		60	58	56	54	52	51	49	47	46	45	42	39	37	33	30					
JSWm 3CL -N	JSW 3CL -N	1.1	1.5	IE2	74	70	68	67	65	63	61	59	58	56	54	51	49	44	40					
JSWm 3BL -N	JSW 3BL -N	1.5	2	IE3	42	40	39	38	37	36	35	34	33	32	30	28	26	23	20	17	15			
-	JSW 3AL -N	2.2	3		51	48	46	45	44	43	42	41	40	39	37	35	33	30	27	24	22			
					62	60	58	57	56	55	54	53	52	51	49	47	45	42	39	36.5	35			

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

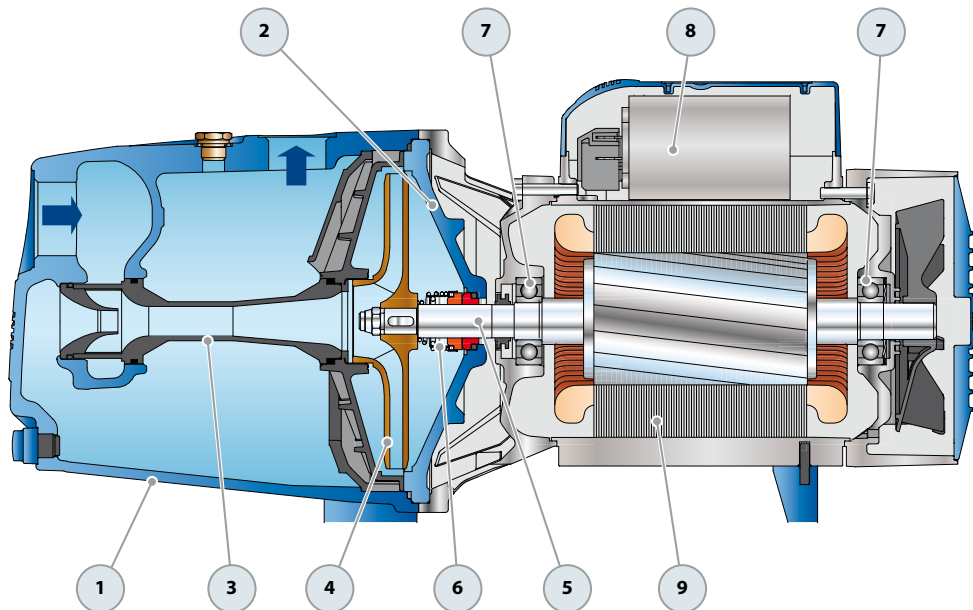
▲ Performance class of the three-phase motor (IEC-60034-30)

STANDARD INSTALLATION

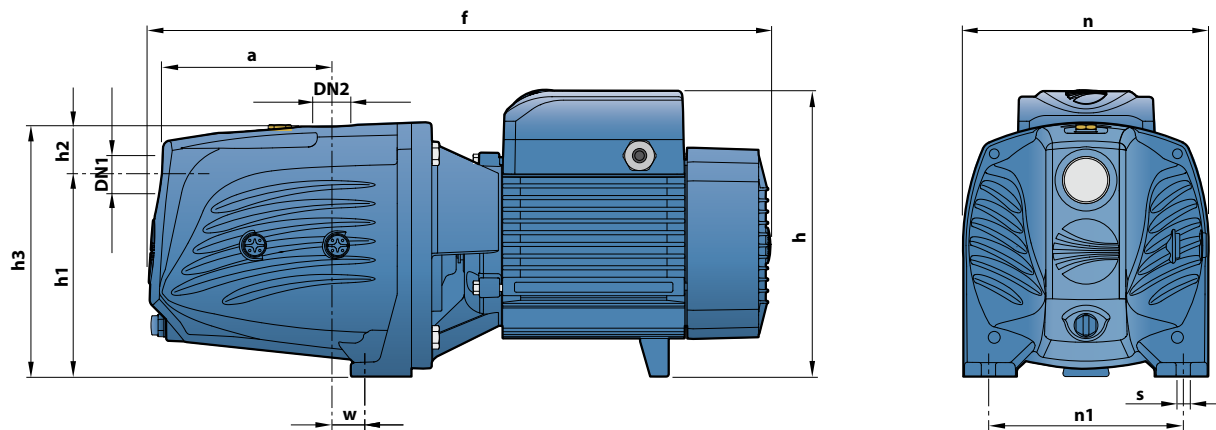


POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Cast iron				
3	NOZZLE ASSEMBLY	Noryl FE1520PW				
4	IMPELLER	Brass				
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
6	MECHANICAL SEAL	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		FN-18	Ø 18 mm	Graphite	Ceramic	NBR
7	BEARINGS	6204 ZZ / 6204 ZZ				
8	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>			
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
		JSWm 3C-N	31.5 µF - 450 VL	60 µF - 250 VL		
		JSWm 3B-N	45 µF - 450 VL	80 µF - 250 VL		
9	ELECTRIC MOTOR	JSWm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. JSW: three-phase 230/400 V - 50 Hz. ⇒ The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW in class IE3 (IEC 60034-30) – Insulation: class F – Protection: IP X4				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	n	n1	w	s	1~	3~
JSWm 3CH -N	JSW 3CH -N													25.3	23.3
JSWm 3BH -N	JSW 3BH -N													26.5	25.5
-	JSW 3AH -N													-	26.8
JSWm 3CM -N	JSW 3CM -N													25.3	23.3
JSWm 3BM -N	JSW 3BM -N	1¼"	1"	141.5	522	241	165	44	209	206	164	30	11	26.5	25.5
-	JSW 3AM -N													-	26.8
JSWm 3CL -N	JSW 3CL -N													25.3	23.3
JSWm 3BL -N	JSW 3BL -N													26.5	25.5
-	JSW 3AL -N													-	26.8

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
JSWm 3CH -N	8.0 A	7.3 A	16.0 A
JSWm 3BH -N	9.0 A	8.2 A	18.0 A
JSWm 3CM -N	7.9 A	7.2 A	15.8 A
JSWm 3BM -N	9.3 A	8.5 A	18.6 A
JSWm 3CL -N	7.5 A	6.9 A	15.0 A
JSWm 3BL -N	9.7 A	9.0 A	19.4 A

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
JSW 3CH -N	5.5 A	3.2 A	1.8 A	5.3 A	3.1 A	1.7 A
JSW 3BH -N	6.9 A	4.0 A	2.3 A	6.6 A	3.8 A	2.2 A
JSW 3AH -N	9.0 A	5.2 A	3.0 A	8.6 A	5.0 A	2.9 A
JSW 3CM -N	5.9 A	3.4 A	2.0 A	5.7 A	3.3 A	1.9 A
JSW 3BM -N	7.3 A	4.2 A	2.4 A	7.0 A	4.0 A	2.3 A
JSW 3AM -N	9.5 A	5.5 A	3.2 A	9.1 A	5.3 A	3.1 A
JSW 3CL -N	5.5 A	3.2 A	1.8 A	5.3 A	3.1 A	1.7 A
JSW 3BL -N	7.3 A	4.2 A	2.4 A	7.0 A	4.0 A	2.3 A
JSW 3AL -N	9.5 A	5.5 A	3.2 A	9.1 A	5.3 A	3.1 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
JSWm 3CH -N	JSW 3CH -N	35	49
JSWm 3BH -N	JSW 3BH -N	35	49
-	JSW 3AH -N	35	49
JSWm 3CM -N	JSW 3CM -N	35	49
JSWm 3BM -N	JSW 3BM -N	35	49
-	JSW 3AM -N	35	49
JSWm 3CL -N	JSW 3CL -N	35	49
JSWm 3BL -N	JSW 3BL -N	35	49
-	JSW 3AL -N	35	49



PERFORMANCE RANGE

- Flow rate up to **60 l/min** (3.6 m³/h)
- Head up to **48 m**

APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **6 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. The self-priming **JCR** pumps are designed to pump water even in cases where air is present. Because of their reliability and the fact that they are easy to use, they are recommended for use in domestic applications such as the distribution of water in combination with small or medium sized pressure tanks, and for the irrigation of gardens and orchards, etc. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

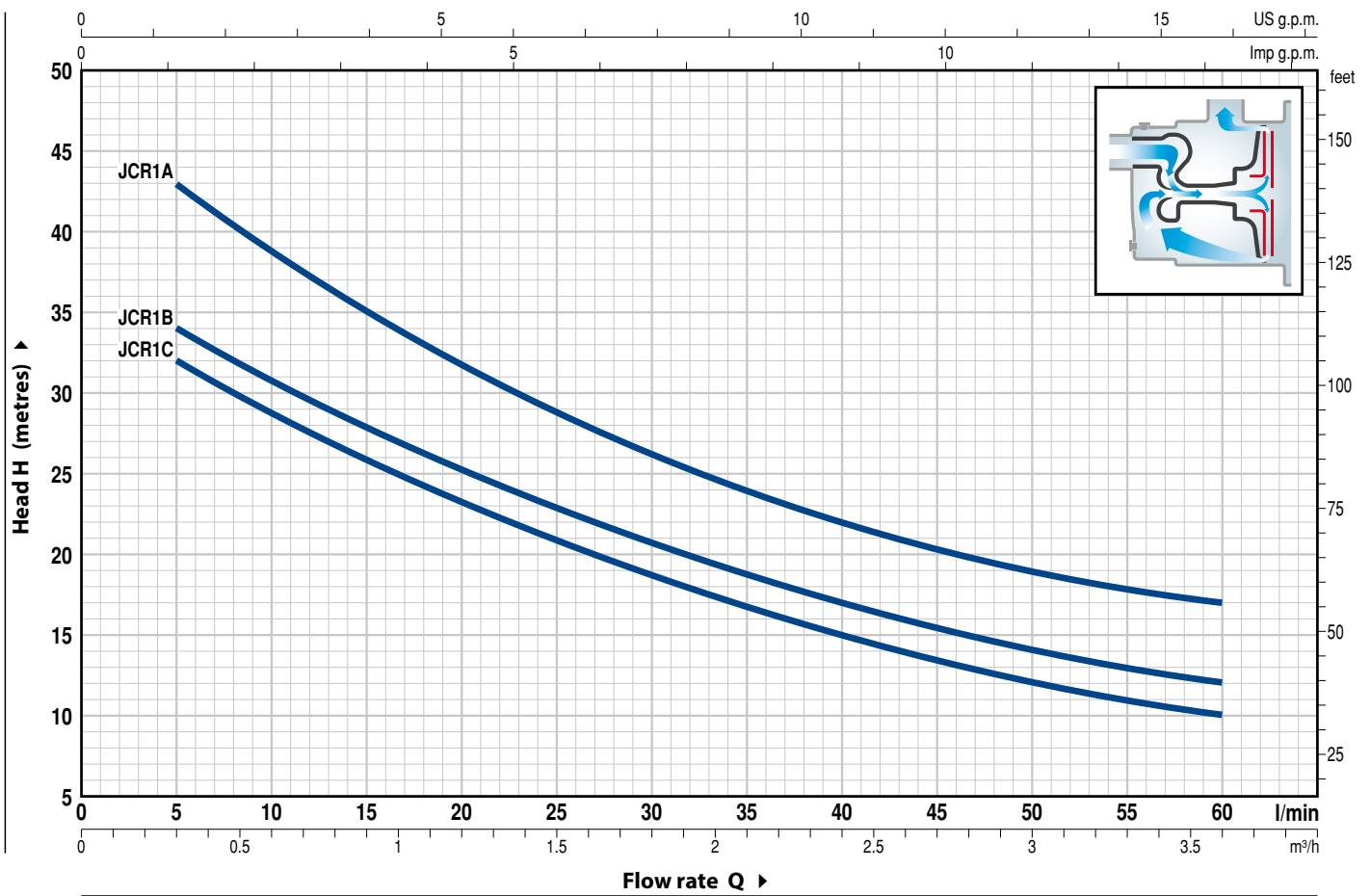
- European Patent n. 1 510 696

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m

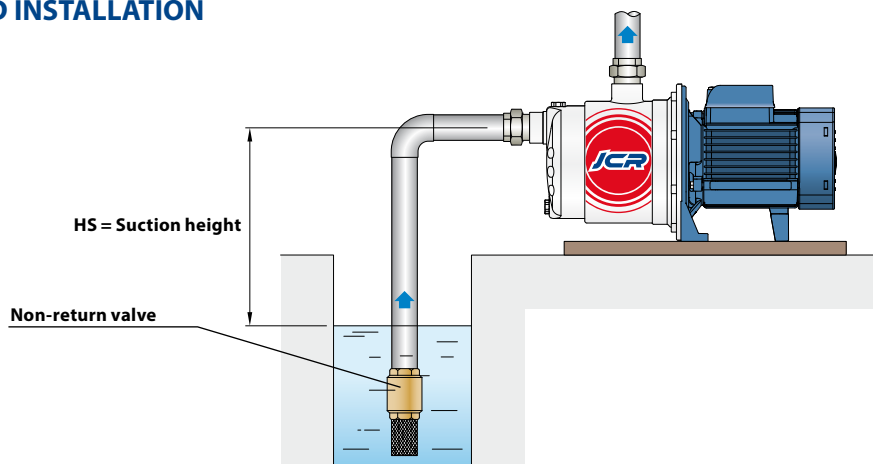


MODEL		POWER (P ₂)		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	1.2	1.5	1.8	2.4	2.7	3.0	3.6			
				l/min	0	5	10	20	25	30	40	45	50	60				
JCRm 1C	JCR 1C	0.37	0.50	H metres	35	32	28.5	23.5	21	18.5	15	13.5	12	10				
JCRm 1B	JCR 1B	0.48	0.65		37	34	30.5	25.5	23	20.5	17	15.5	14	12				
JCRm 1A	JCR 1A	0.55	0.75		48	43	39	31.5	28.5	26	22	20.5	19	17				

Q = Flow rate H = Total manometric head HS = Suction height

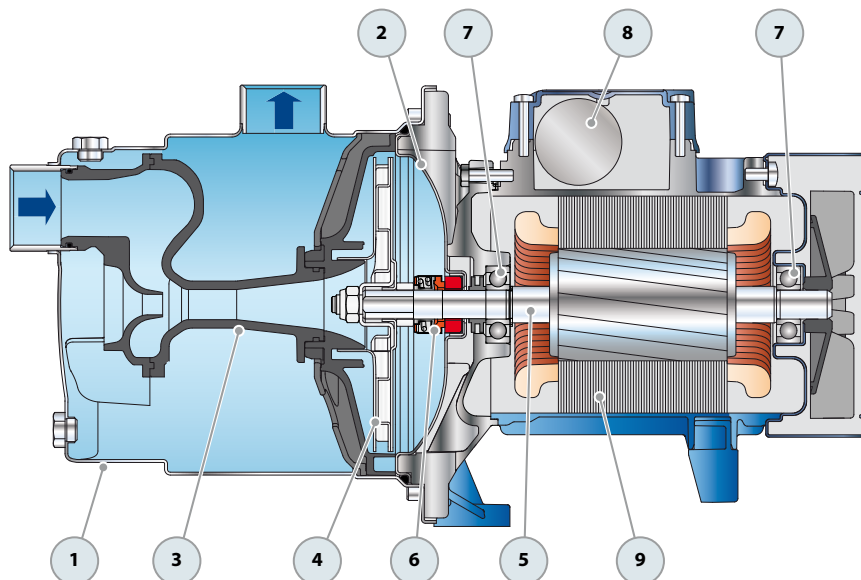
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

STANDARD INSTALLATION

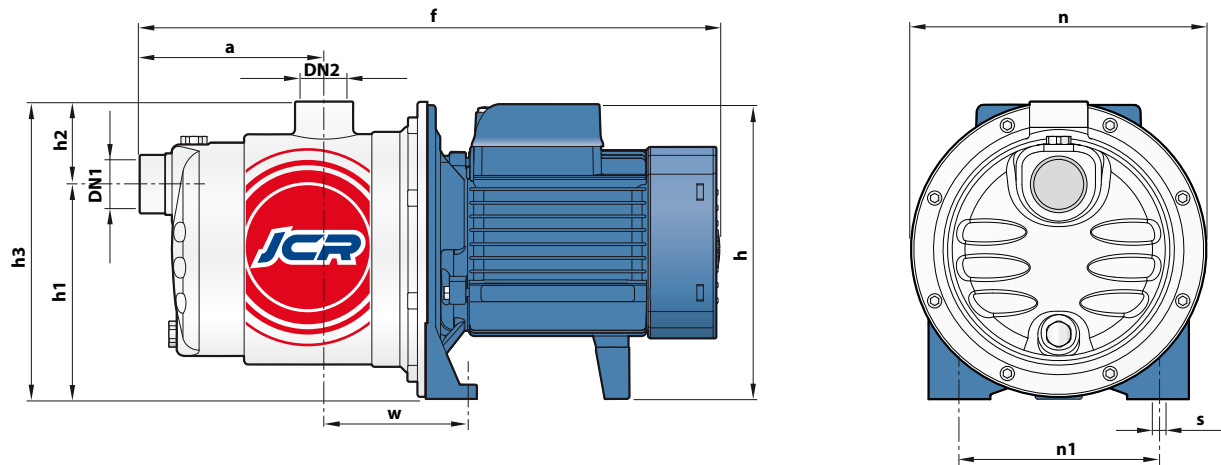


POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 complete with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 304				
3	NOZZLE ASSEMBLY	Noryl FE1520PW				
4	IMPELLER	Stainless steel AISI 304				
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
6	MECHANICAL SEAL	<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Stationary ring</i>	<i>Materials Rotational ring</i>	<i>Elastomer</i>
		AR-12	Ø 12 mm	Ceramic	Graphite	NBR
7	BEARINGS	6201 ZZ / 6201 ZZ				
8	CAPACITOR	<i>Pump Single-phase</i>	<i>Capacitance (230 V or 240 V)</i>	<i>(110 V)</i>		
		JCRm 1C	10 µF - 450 VL	25 µF - 250 VL		
		JCRm 1B	12.5 µF - 450 VL	25 µF - 250 VL		
		JCRm 1A	14 µF - 450 VL	25 µF - 250 VL		
9	ELECTRIC MOTOR	JCRm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. JCR: three-phase 230/400 V - 50 Hz. – Insulation: class F – Protection: IP X4				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	n	n1	w	s	1~	3~
JCRm 1C	JCR 1C	1"	1"	113	361	182	132	51	183	182	120	87	9	7.1	7.1
JCRm 1B	JCR 1B													7.2	7.2
JCRm 1A	JCR 1A													7.8	7.2

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
JCRm 1C	2.8 A	2.7 A	5.6 A
JCRm 1B	3.1 A	3.0 A	6.0 A
JCRm 1A	3.9 A	3.8 A	7.3 A

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
JCR 1C	2.1 A	1.2 A	0.7 A	2.0 A	1.1 A	0.6 A
JCR 1B	2.3 A	1.3 A	0.8 A	2.2 A	1.2 A	0.7 A
JCR 1A	3.0 A	1.7 A	1.0 A	2.9 A	1.6 A	0.9 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
JCRm 1C	JCR 1C	84	120
JCRm 1B	JCR 1B	84	120
JCRm 1A	JCR 1A	84	120

JCR2

Self-priming "JET" pumps

-  Clean water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **70 l/min** (4.2 m³/h)
- Head up to **60 m**

APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **6 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. The self-priming **JCR** pumps are designed to pump water even in cases where air is present. As a result of their reliability and the fact that they are easy to use, they are recommended for use in domestic applications such as the distribution of water in combination with small or medium sized pressure tanks, and for the irrigation of gardens and orchards, etc. The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

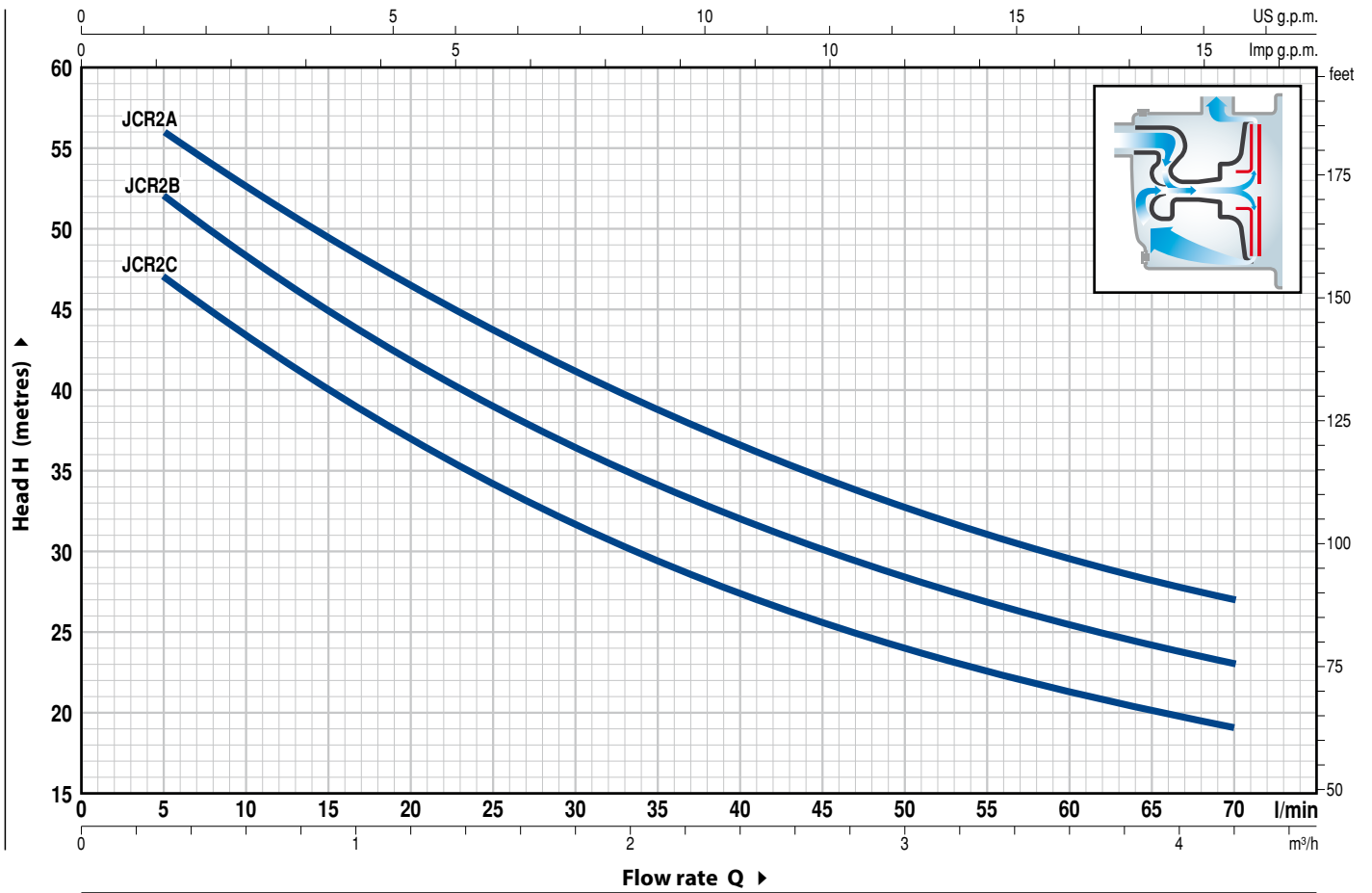
- European Patent n. 1 510 696

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m

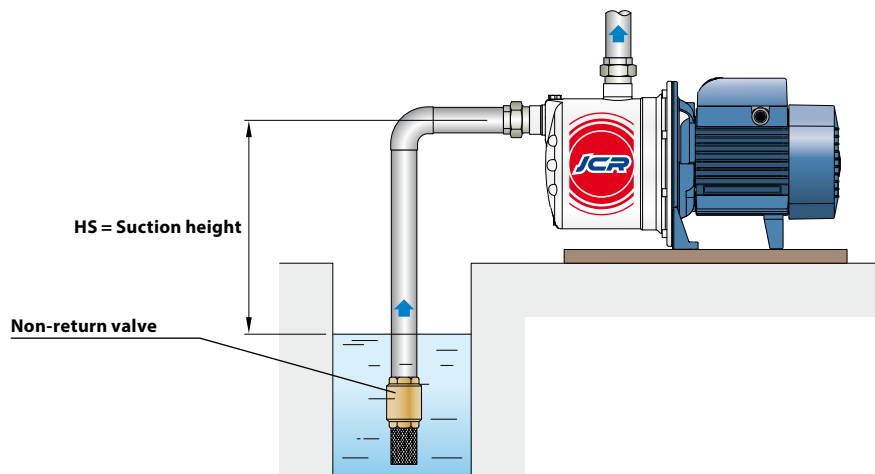


MODEL		POWER (P ₂)		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	1.2	1.5	1.8	2.4	2.7	3.0	3.6	4.2		
				H metres	0	5	10	20	25	30	40	45	50	60	70			
JCRm 2C	JCR 2C	0.75	1		50	47	43	37	34	31.5	27.5	25.5	24	21	19			
JCRm 2B	JCR 2B	0.90	1.25		55	52	48	42	39	36	32	30	28.5	25.5	23			
JCRm 2A	JCR 2A	1.1	1.5		60	56	53	46.5	43.5	41	36.5	34.5	32.5	29.5	27			

Q = Flow rate H = Total manometric head HS = Suction height

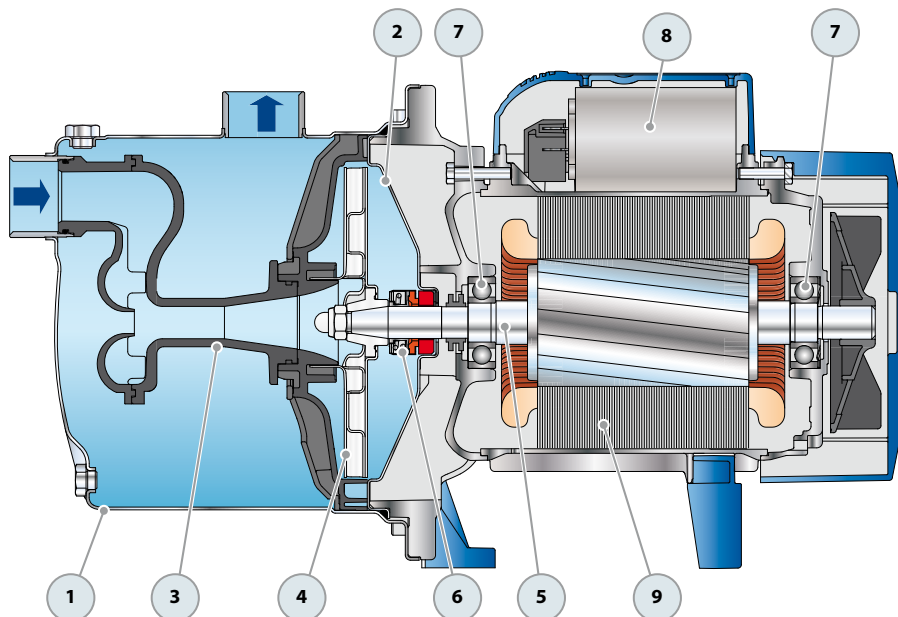
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

STANDARD INSTALLATION

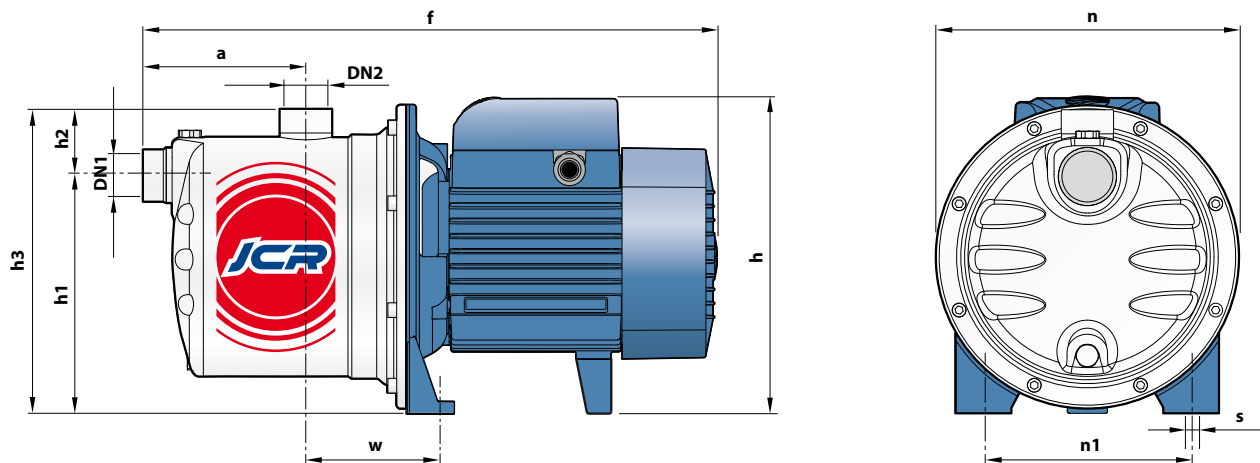


POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 complete with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 304				
3	NOZZLE ASSEMBLY	Noryl FE1520PW				
4	IMPELLER	Stainless steel AISI 304				
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
6	MECHANICAL SEAL	<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Stationary ring</i>	<i>Materials Rotational ring</i>	<i>Elastomer</i>
		AR-14	Ø 14 mm	Ceramic	Graphite	NBR
7	BEARINGS	6203 ZZ / 6203 ZZ				
8	CAPACITOR	<i>Pump Single-phase</i>	<i>Capacitance (230 V or 240 V)</i>	<i>(110 V)</i>		
		JCRm 2C	20 µF - 450 VL	60 µF - 300 VL		
		JCRm 2B	25 µF - 450 VL	60 µF - 300 VL		
		JCRm 2A	25 µF - 450 VL	60 µF - 300 VL		
9	ELECTRIC MOTOR	<p>JCRm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. JCR: three-phase 230/400 V - 50 Hz.</p> <p>⇒ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	n	n1	w	s	1~	3~
JCRm 2C	JCR 2C	1"	1"	111	393	217	162	46	208	208	142	91	10	10.2	10.2
JCRm 2B	JCR 2B													11.2	11.2
JCRm 2A	JCR 2A													11.5	11.5

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
JCRm 2C	4.7 A	4.5 A	9.4 A
JCRm 2B	5.8 A	5.3 A	11.6 A
JCRm 2A	6.2 A	5.7 A	12 A

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
JCR 2C	3.5 A	2.0 A	1.2 A	3.4 A	1.9 A	1.1 A
JCR 2B	4.6 A	2.7 A	1.6 A	4.4 A	2.5 A	1.5 A
JCR 2A	5.3 A	3.1 A	1.7 A	4.9 A	2.8 A	1.6 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
JCRm 2C	JCR 2C	60	80
JCRm 2B	JCR 2B	60	80
JCRm 2A	JCR 2A	60	80

PLURIJET 60-80-100

Self-priming multi-stage pumps

-  Clean water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **130 l/min** (7.8 m³/h)
- Head up to **52 m**

APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **6 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The self-priming **PLURIJET** pumps are recommended for pumping clean water even in cases where air is present and for liquids which are not chemically aggressive towards the materials from which the pump is made.

Because of their silence, reliability and low energy consumption they are recommended for domestic and civil applications, in particular for pressurising and distributing water in combination with pressure tanks, for the recovery of rain water, for irrigation systems, etc.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

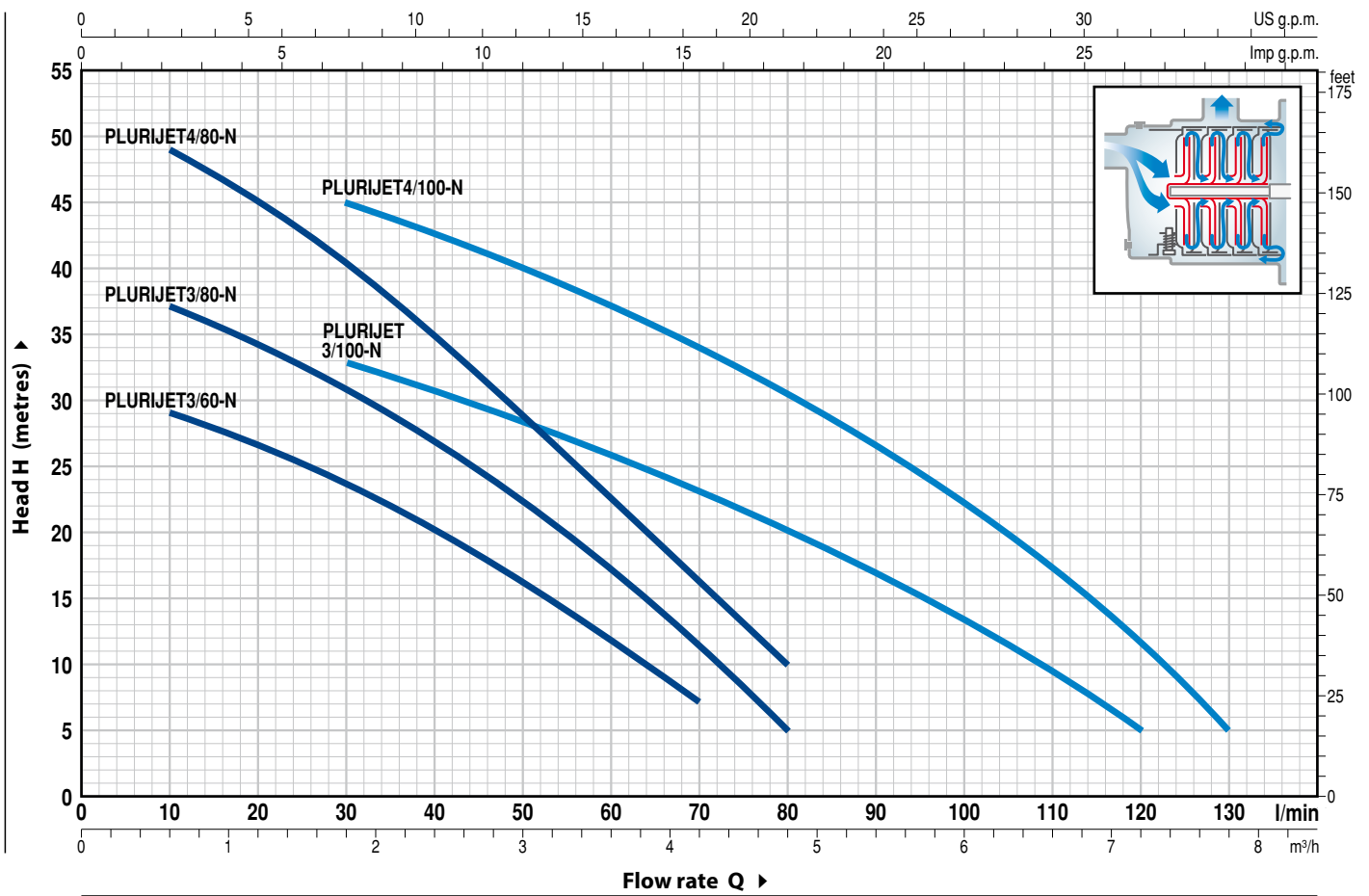
- Registered Trade Mark n. 3974301 PLURIJET®

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m

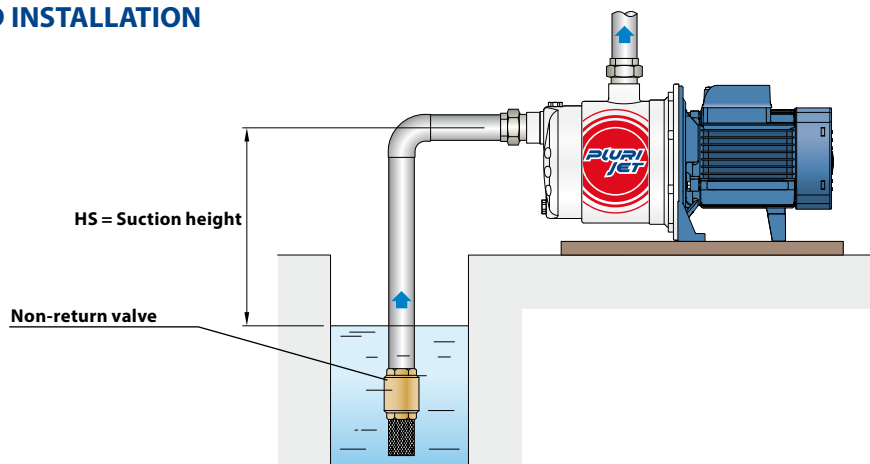


MODEL		POWER (P ₂)		Q	Flow rate														
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2
				l/min	0	5	10	20	30	40	50	60	70	80	90	100	110	120	130
PLURIJETm 3/60 -N	PLURIJET 3/60 -N	0.37	0.50	H metres	31	30	29	26.5	23.5	20	16	11.5	7						
PLURIJETm 3/80 -N	PLURIJET 3/80 -N	0.48	0.65		40	38	37	34.5	31	27	22.5	17	11	5					
PLURIJETm 4/80 -N	PLURIJET 4/80 -N	0.55	0.75		52	50	49	44.5	40	34	28.5	22.5	16	10					
PLURIJETm 3/100-N	PLURIJET 3/100-N	0.55	0.75		38	37	36	34.5	33	31	28	26	23	20	17	13.5	10	5	
PLURIJETm 4/100-N	PLURIJET 4/100-N	0.75	1		50	50	49	47	45	42	39.5	37	34	30.5	26.5	22	17	11	5

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

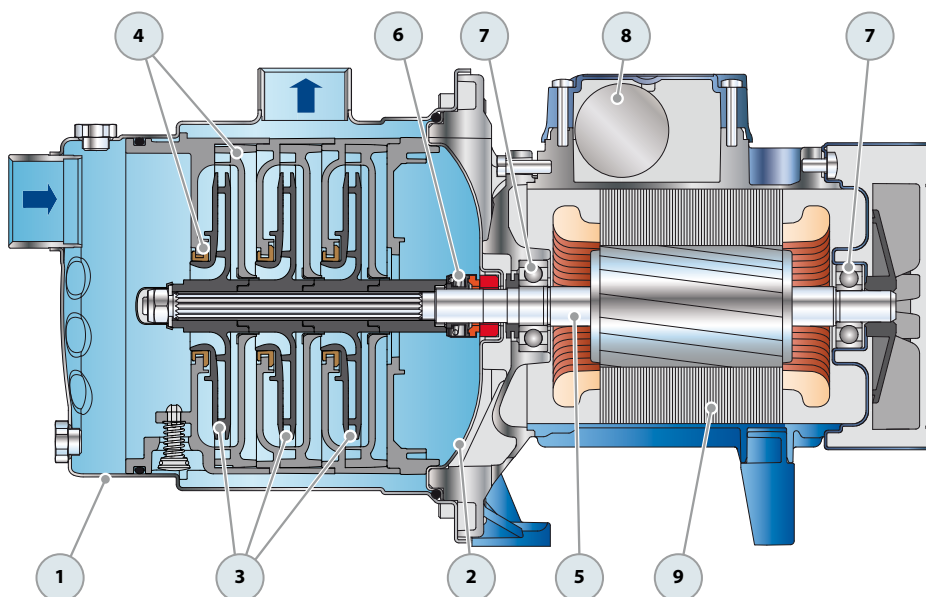
STANDARD INSTALLATION



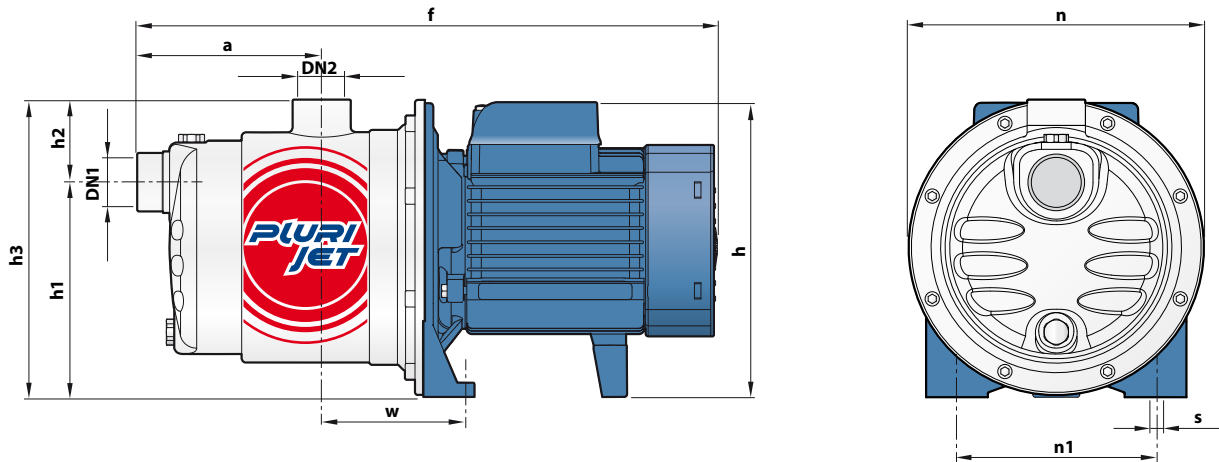
PLURIJET 60-80-100

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 complete with threaded ports in compliance with ISO 228/1			
2	BODY BACKPLATE	Stainless steel AISI 304			
3	IMPELLERS	Noryl FE1520PW			
4	DIFFUSERS	Noryl complete with anti-wear ring			
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104			
6	MECHANICAL SEAL	<i>Seal Model</i> AR-13	<i>Shaft Diameter</i> Ø 13 mm	<i>Stationary ring</i> Ceramic	<i>Materials</i> <i>Rotational ring</i> Graphite <i>Elastomer</i> NBR
7	BEARINGS	<i>Pump</i> PLURIJET 3/60, 3/80, 3/100, 4/80-N PLURIJET 4/100-N	<i>Model</i> 6202 ZZ - C3 / 6201 ZZ 6203 ZZ / 6203 ZZ		
8	CAPACITOR	<i>Pump</i> <i>Single-phase</i> PLURIJETm 3/60-N PLURIJETm 3/80-N PLURIJETm 4/80, 3/100-N PLURIJETm 4/100-N	<i>Capacitance</i> <i>(230 V or 240 V)</i> 10 µF - 450 VL 12.5 µF - 450 VL 14 µF - 450 VL 20 µF - 450 VL	<i>(110 V)</i> 25 µF - 250 VL 25 µF - 250 VL 25 µF - 250 VL 60 µF - 300 VL	
9	ELECTRIC MOTOR	<p>PLURIJETm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. PLURIJET: three-phase 230/400 V - 50 Hz.</p> <p>⇒ The three-phase pumps are fitted with high performance motors in class IE2 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 			



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	h3	n	n1	w	s	1~	3~
PLURIJETm 3/60 -N	PLURIJET 3/60 -N	1"	1"	113	361	182	132	51	183	182	120	87	9	6.5	6.5
PLURIJETm 3/80 -N	PLURIJET 3/80 -N			138	386									7.3	7.2
PLURIJETm 4/80 -N	PLURIJET 4/80 -N			113	361									8.6	7.8
PLURIJETm 3/100 -N	PLURIJET 3/100 -N			138	411	7.9								7.1	
PLURIJETm 4/100 -N	PLURIJET 4/100 -N			10	10.6	10.6									

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
PLURIJETm 3/60 -N	2.4 A	2.3 A	4.8 A
PLURIJETm 3/80 -N	3.3 A	3.1 A	6.6 A
PLURIJETm 4/80 -N	4.1 A	4.0 A	8.2 A
PLURIJETm 3/100 -N	4.1 A	4.0 A	8.2 A
PLURIJETm 4/100 -N	6.0 A	5.8 A	12.0 A

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
PLURIJET 3/60 -N	1.7 A	1.0 A	0.6 A	1.6 A	0.9 A	0.5 A
PLURIJET 3/80 -N	2.5 A	1.5 A	0.9 A	2.4 A	1.4 A	0.8 A
PLURIJET 4/80 -N	3.4 A	2.0 A	1.2 A	3.3 A	1.9 A	1.1 A
PLURIJET 3/100 -N	3.4 A	2.0 A	1.2 A	3.3 A	1.9 A	1.1 A
PLURIJET 4/100 -N	4.5 A	2.6 A	1.5 A	4.3 A	2.5 A	1.4 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
PLURIJETm 3/60 -N	PLURIJET 3/60 -N	84	120
PLURIJETm 3/80 -N	PLURIJET 3/80 -N	84	120
PLURIJETm 4/80 -N	PLURIJET 4/80 -N	72	96
PLURIJETm 3/100 -N	PLURIJET 3/100 -N	84	120
PLURIJETm 4/100 -N	PLURIJET 4/100 -N	72	96

PLURIJET 90-130-200

Self-priming multi-stage pumps

-  Clean water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **200 l/min** (12 m³/h)
- Head up to **97 m**

APPLICATION LIMITS

- Manometric suction lift up to **9 m** (HS)
- Liquid temperature between **-10 °C** and **+40 °C**
- Ambient temperature up to **+40 °C**
- Max. working pressure **10 bar**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The self-priming **PLURIJET** pumps are recommended for pumping clean water even in cases where air is present and for liquids which are not chemically aggressive towards the materials from which the pump is made.

Because of their silence, reliability and low energy consumption they are recommended for domestic and civil applications, in particular for pressurising and distributing water in combination with pressure tanks, for the recovery of rain water, for irrigation systems, etc.

The pump should be installed in an enclosed environment or sheltered from inclement weather.

PATENTS - TRADE MARKS - MODELS

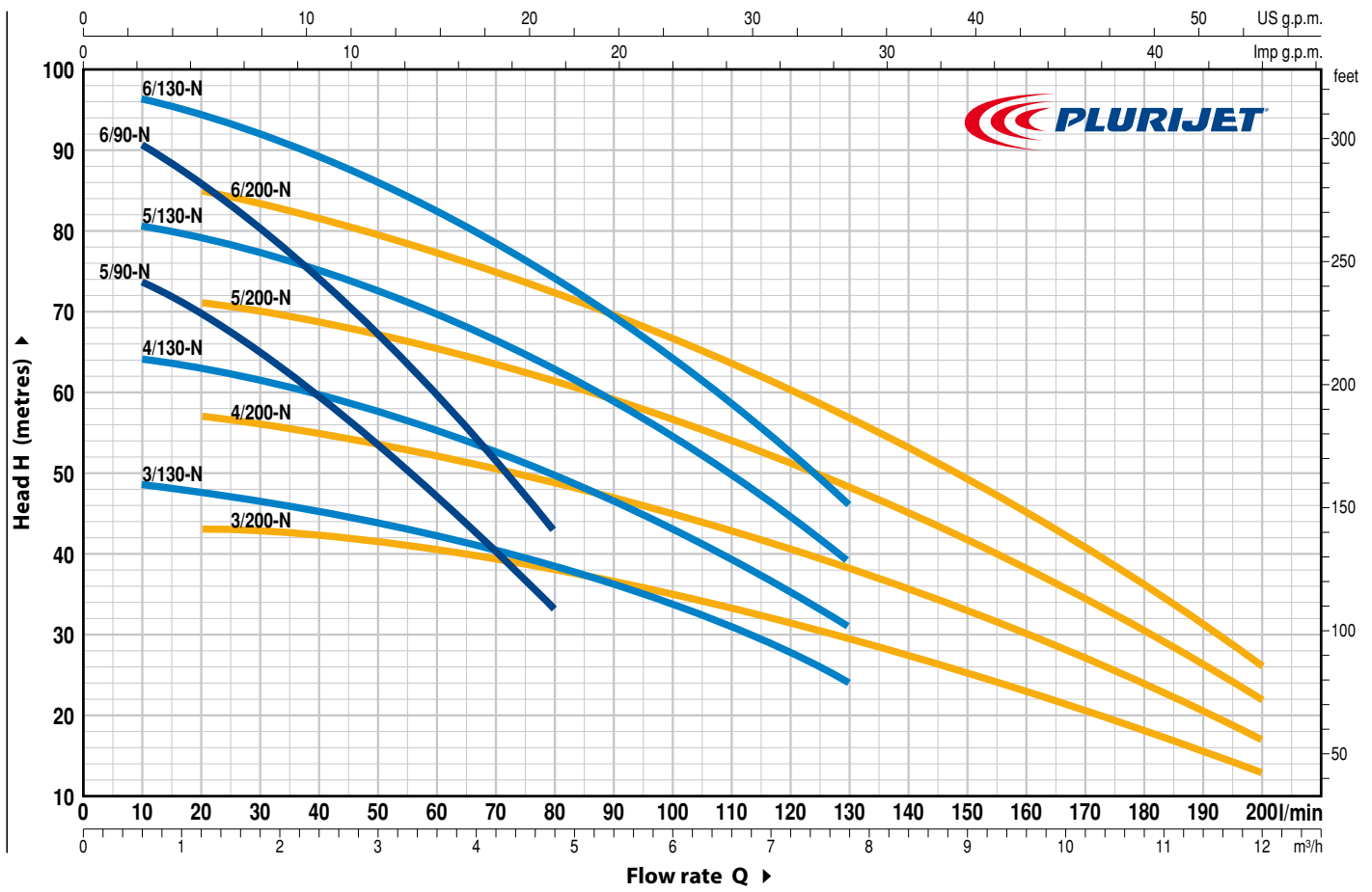
- Registered Trade Mark n. 3974301 PLURIJET®
- Patent Pending n. PCT/IB2014/063126

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency
- IPX5 class protection

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



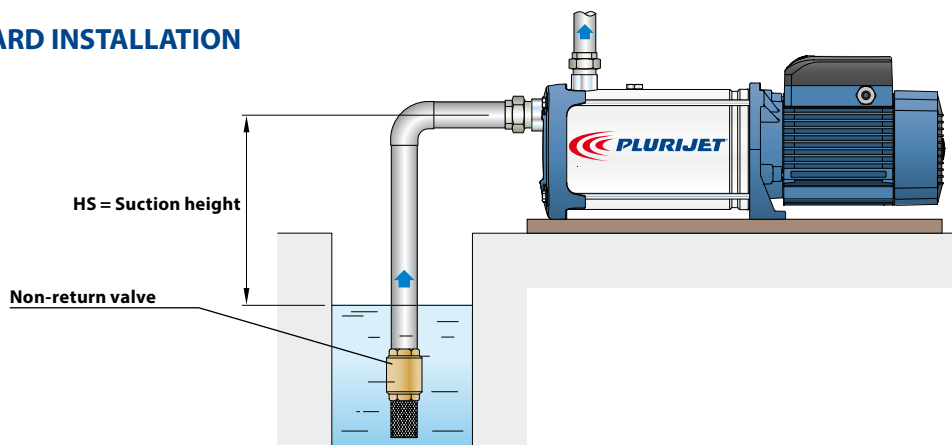
MODEL		POWER (P ₂)			Q	Flow rate (m³/h)														
Single-phase	Three-phase	kW	HP	▲		0	0.3	0.6	1.2	2.4	3.6	4.8	6.0	7.8	8.4	9.6	10.8	12.0		
PLURIJETm 5/90 -N	PLURIJET 5/90 -N	1.1	1.5	IE2	0	5	10	20	40	60	80	100	130	140	160	180	200			
PLURIJETm 6/90 -N	PLURIJET 6/90 -N	1.5	2	IE3	76	76	73.5	70	60.5	47	33									
PLURIJETm 3/130-N	PLURIJET 3/130-N	1.1	1.5	IE2	93	93	90.5	86	74.5	59.5	43									
PLURIJETm 4/130-N	PLURIJET 4/130-N	1.5	2	IE3	49	49	48.5	47.5	45	42.5	38.5	33.5	24							
-	PLURIJET 5/130-N	1.8	2.5		65	65	64	63	60	56	50	43	31							
-	PLURIJET 6/130-N	2.2	3	81	81	80.5	79	75	70	62.5	54	39								
PLURIJETm 3/200-N	PLURIJET 3/200-N	1.1	1.5	IE2	97	97	96.5	94.5	90	83	74.5	64	46							
PLURIJETm 4/200-N	PLURIJET 4/200-N	1.5	2	IE3	44	43.5	43.5	43	42	40.5	38	35	29	27.5	23	18	13			
-	PLURIJET 5/200-N	1.8	2.5		58	57.5	57.5	57	55	52.5	49.5	45	38	35.5	30	24	17			
-	PLURIJET 6/200-N	2.2	3		73	72	71.5	71	69	65.5	62	56.5	48	44.5	38	30	22			
					87	86	85.5	85	82	78	73	67	57	53	45	36	26			

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

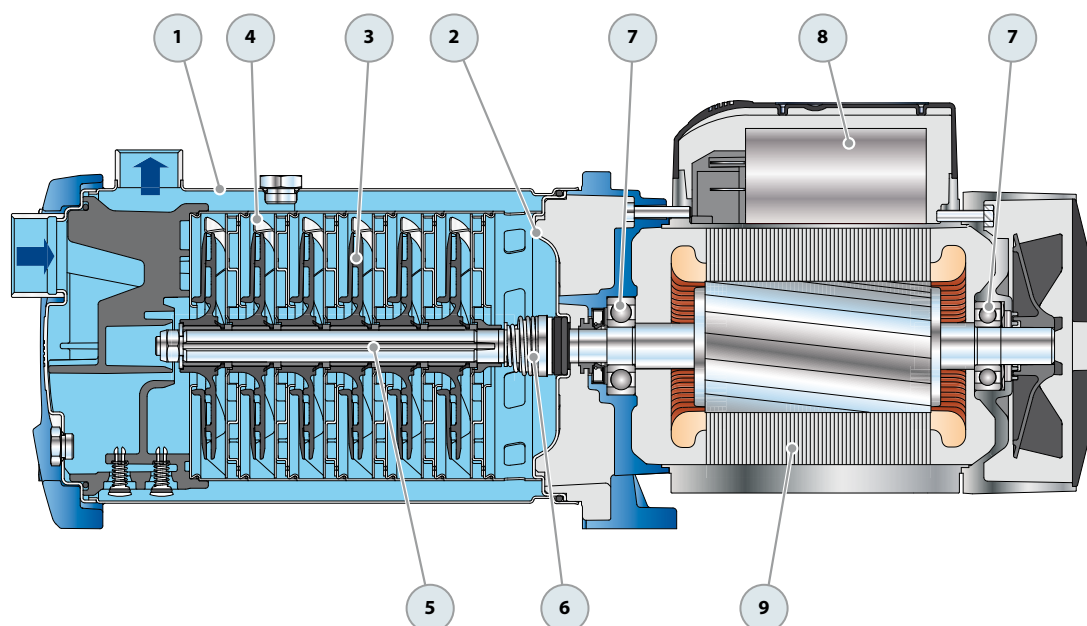
STANDARD INSTALLATION



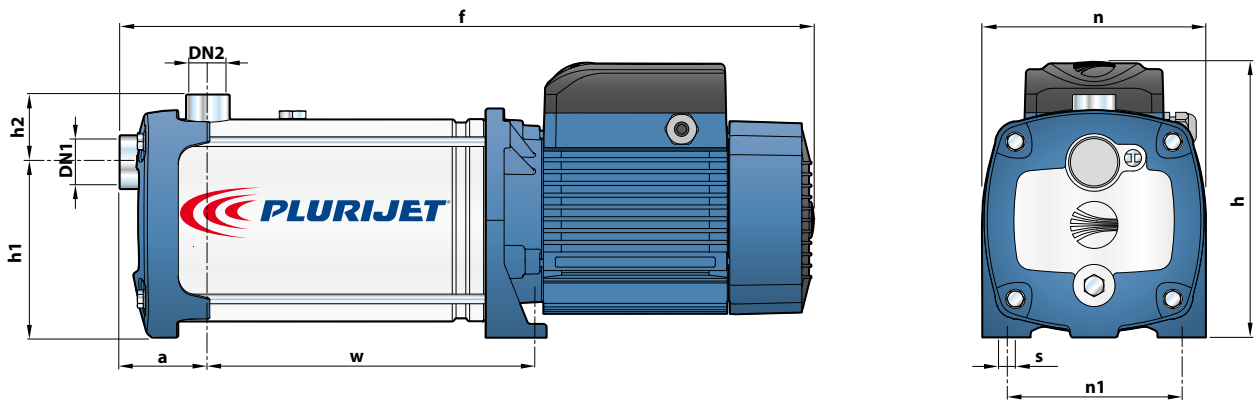
PLURIJET 90-130-200

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 complete with threaded ports in compliance with ISO 228/1				
2	BODY BACKPLATE	Stainless steel AISI 304				
3	IMPELLERS	Noryl FE1520PW				
4	DIFFUSERS	Stainless steel AISI 304				
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
6	MECHANICAL SEAL	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
		<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
		FN-18	Ø 18 mm	Graphite	Ceramic	NBR
7	BEARINGS	6304 2RS - C3 / 6204 ZZ - C3E				
8	CAPACITOR	<i>Pump</i>	<i>Capacitance</i>			
		<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
		PLURIJETm 5/90 -N	31.5 µF - 450 VL	60 µF - 250 VL		
		PLURIJETm 3/130 -N				
		PLURIJETm 3/200 -N				
		PLURIJETm 6/90 -N	45 µF - 450 VL	80 µF - 250 VL		
PLURIJETm 4/130 -N						
PLURIJETm 4/200 -N						
9	ELECTRIC MOTOR	<p>PLURIJETm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. PLURIJET: three-phase 230/400 V - 50 Hz.</p> <p>➔ The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW in class IE3 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X4 				



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	w	s	1~	3~
PLURIJETm 5/90 -N	PLURIJET 5/90 -N	1¼"	1"	73	549	228	145	56	185	145	245	11	19.4	17.6
PLURIJETm 6/90 -N	PLURIJET 6/90 -N				575						271		22.7	21.8
PLURIJETm 3/130 -N	PLURIJET 3/130 -N				497						193		17.6	15.7
PLURIJETm 4/130 -N	PLURIJET 4/130 -N				523						219		19.7	18.7
-	PLURIJET 5/130 -N				549						245		-	21.9
-	PLURIJET 6/130 -N				575						271		-	22.7
PLURIJETm 3/200 -N	PLURIJET 3/200 -N				497						193		17.6	15.7
PLURIJETm 4/200 -N	PLURIJET 4/200 -N				523						219		19.7	18.7
-	PLURIJET 5/200 -N				549						245		-	21.9
-	PLURIJET 6/200 -N				575						271		-	22.7

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
PLURIJETm 5/90 -N	8.5 A	8.2 A	17.0 A
PLURIJETm 6/90 -N	10.5 A	10.0 A	21.0 A
PLURIJETm 3/130 -N	8.5 A	8.2 A	17.0 A
PLURIJETm 4/130 -N	10.5 A	10.0 A	21.0 A
PLURIJETm 3/200 -N	8.5 A	8.2 A	17.0 A
PLURIJETm 4/200 -N	10.5 A	10.0 A	21.0 A

MODEL	VOLTAGE					
	230 V	400 V	690 V	240 V	415 V	720 V
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
PLURIJET 5/90 -N	5.7 A	3.3 A	1.9 A	5.5 A	3.2 A	1.8 A
PLURIJET 6/90 -N	8.1 A	4.7 A	2.7 A	7.8 A	4.5 A	2.6 A
PLURIJET 3/130 -N	5.7 A	3.3 A	1.9 A	5.5 A	3.2 A	1.8 A
PLURIJET 4/130 -N	8.5 A	4.9 A	2.8 A	8.1 A	4.7 A	2.7 A
PLURIJET 5/130 -N	8.7 A	5.0 A	2.9 A	8.3 A	4.8 A	2.8 A
PLURIJET 6/130 -N	10.4 A	6.0 A	3.5 A	10.0 A	5.8 A	3.4 A
PLURIJET 3/200 -N	5.7 A	3.3 A	1.9 A	5.5 A	3.2 A	1.8 A
PLURIJET 4/200 -N	8.1 A	4.7 A	2.7 A	7.8 A	4.5 A	2.6 A
PLURIJET 5/200 -N	8.7 A	5.0 A	2.9 A	8.3 A	4.8 A	2.8 A
PLURIJET 6/200 -N	10.4 A	6.0 A	3.5 A	10.0 A	5.8 A	3.4 A

Standardised "EN 733" centrifugal pumps

 Clean water

 Industrial use


PERFORMANCE RANGE

- Flow rate up to **6000 l/min** (360 m³/h)
- Head up to **98 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. pressure in pump body **10 bar** (PN10)
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



Pump body dimensions in compliance with **EN 733**
EU REGULATION N. 547/2012

INSTALLATION AND USE

- Water supply
- Pressure boosting
- Irrigation
- Water circulation in air-conditioning units
- Cleaning sets
- Firefighting sets
- Industrial applications
- Agricultural applications

The pump should be installed in an enclosed environment or sheltered from inclement weather.

OPTIONS AVAILABLE ON REQUEST

- Counter flange KIT complete with bolts, nuts and washers
- Special mechanical seal
- Other voltages or 60 Hz frequency
- Compatibility with hotter or colder liquids
- Compatibility with hotter or colder environments

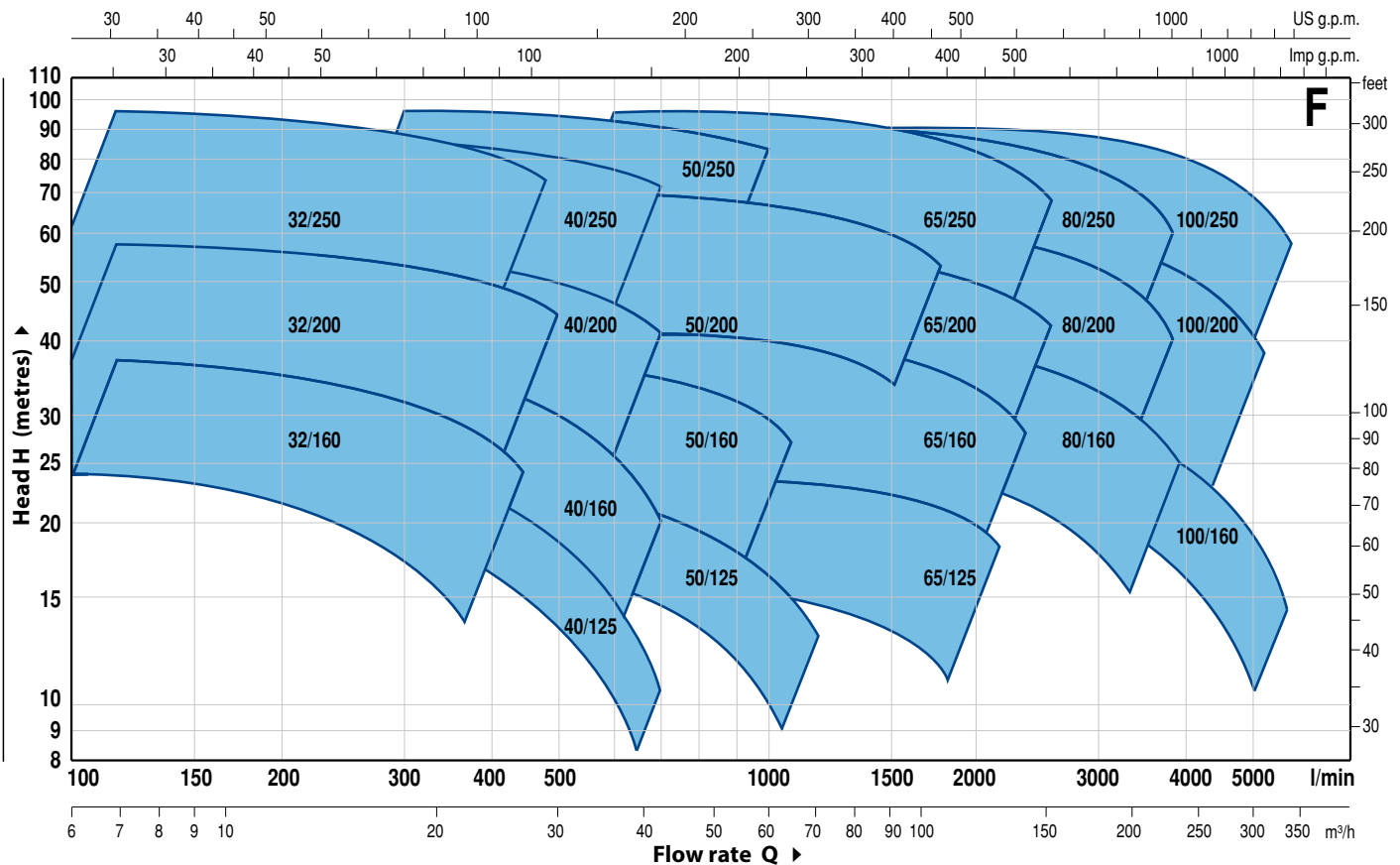
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



PERFORMANCE RANGE

50 Hz n = 2900 rpm



PERFORMANCE DATA

50 Hz n = 2900 rpm

MODEL	POWER (P ₂)		▲	PERFORMANCE	
	kW	HP		Q l/min	H metres
Three-phase					
F 32/160C	1.5	2	IE3	100 ÷ 350	24 ÷ 14
F 32/160B	2.2	3		100 ÷ 400	30 ÷ 17
F 32/160A	3	4		100 ÷ 450	37 ÷ 24
F 32/200C	4	5.5	IE3	100 ÷ 450	44 ÷ 31.5
F 32/200B	5.5	7.5		100 ÷ 500	51 ÷ 36
F 32/200A	7.5	10		100 ÷ 500	57 ÷ 44
F 32/200BH	3	4	IE3	100 ÷ 300	45 ÷ 37
F 32/200AH	4	5.5		100 ÷ 320	55 ÷ 44
F 32/250C	9.2	12.5		100 ÷ 400	75 ÷ 55
F 32/250B	11	15	IE3	100 ÷ 450	87 ÷ 62
F 32/250A	15	20		100 ÷ 480	97 ÷ 70
F 40/125C	1.1	1.5		IE2	100 ÷ 550
F 40/125B	1.5	2	IE3	100 ÷ 600	20.5 ÷ 9
F 40/125A	2.2	3		100 ÷ 700	26 ÷ 10
F 40/160C	2.2	3		100 ÷ 600	27 ÷ 14
F 40/160B	3	4	IE3	100 ÷ 600	32 ÷ 20
F 40/160A	4	5.5		100 ÷ 700	38 ÷ 20
F 40/200B	5.5	7.5		100 ÷ 700	47 ÷ 28
F 40/200A	7.5	10	IE3	100 ÷ 700	55 ÷ 41
F 40/250C	9.2	12.5		100 ÷ 700	64 ÷ 47
F 40/250B	11	15		100 ÷ 700	71 ÷ 55
F 40/250A	15	20	IE3	100 ÷ 700	88 ÷ 72
F 50/125C	2.2	3		300 ÷ 1200	17.5 ÷ 6
F 50/125B	3	4		IE3	300 ÷ 1200
F 50/125A	4	5.5	300 ÷ 1200		23.5 ÷ 13
F 50/160C	4	5.5	300 ÷ 1000		27 ÷ 16
F 50/160B	5.5	7.5	IE3	300 ÷ 1100	32 ÷ 21
F 50/160A	7.5	10		300 ÷ 1100	37 ÷ 27
F 50/200C	11	15		400 ÷ 1700	44 ÷ 30
F 50/200B	15	20	IE3	400 ÷ 1700	52 ÷ 38
F 50/200A	18.5	25		400 ÷ 1800	61 ÷ 45
F 50/200AR	22	30		400 ÷ 1800	69 ÷ 53
F 50/250D	9.2	12.5	IE3	300 ÷ 900	51 ÷ 32
F 50/250C	11	15		300 ÷ 900	59 ÷ 42
F 50/250B	15	20		300 ÷ 1000	72 ÷ 59
F 50/250A	18.5	25	IE3	300 ÷ 1000	85 ÷ 73
F 50/250AR	22	30		300 ÷ 1000	95 ÷ 83

MODEL	POWER (P ₂)		▲	PERFORMANCE	
	kW	HP		Q l/min	H metres
Three-phase					
F 65/125C	4	5.5	IE3	600 ÷ 1800	16 ÷ 11
F 65/125B	5.5	7.5		600 ÷ 2000	18 ÷ 13
F 65/125A	7.5	10		600 ÷ 2200	23 ÷ 18
F 65/160C	9.2	12.5	IE3	600 ÷ 2200	32 ÷ 22
F 65/160B	11	15		600 ÷ 2400	36.5 ÷ 23
F 65/160A	15	20		600 ÷ 2400	40.5 ÷ 28
F 65/200B	15	20	IE3	200 ÷ 2400	44 ÷ 30.5
F 65/200A	18.5	25		200 ÷ 2500	50 ÷ 36.5
F 65/200AR	22	30		200 ÷ 2600	57 ÷ 42
F 65/250C	30	40	IE3	400 ÷ 2350	76 ÷ 53
F 65/250B	37	50		400 ÷ 2500	87 ÷ 62
F 65/250A	45	60		400 ÷ 2600	95 ÷ 68
F 65/260D	11	15	IE3	500 ÷ 4000	25 ÷ 10
F 80/160C	15	20		500 ÷ 4000	30 ÷ 15
F 80/160B	18.5	25		500 ÷ 4000	35 ÷ 20
F 80/160A	22	30	IE3	500 ÷ 4000	40 ÷ 25
F 80/200B	30	40		500 ÷ 3650	56 ÷ 34.5
F 80/200A	37	50		500 ÷ 3900	62 ÷ 40
F 80/250B	45	60	IE3	600 ÷ 3600	77 ÷ 54
F 80/250A	55	75		600 ÷ 3900	88.5 ÷ 60
F 100/160C-N	15	20		1000 ÷ 5000	28.5 ÷ 11
F 100/160B-N	18.5	25	IE3	1000 ÷ 5500	32.5 ÷ 11
F 100/160A-N	22	30		1000 ÷ 6000	37 ÷ 13
F 100/200C	30	40		833 ÷ 4650	51 ÷ 28
F 100/200B	37	50	IE3	833 ÷ 4900	57 ÷ 33
F 100/200A	45	60		833 ÷ 5250	63 ÷ 38
F 100/250B	55	75		800 ÷ 5150	75 ÷ 48
F 100/250A	75	100	IE3	800 ÷ 5750	89 ÷ 58

Q = Flow rate

H = Total manometric head

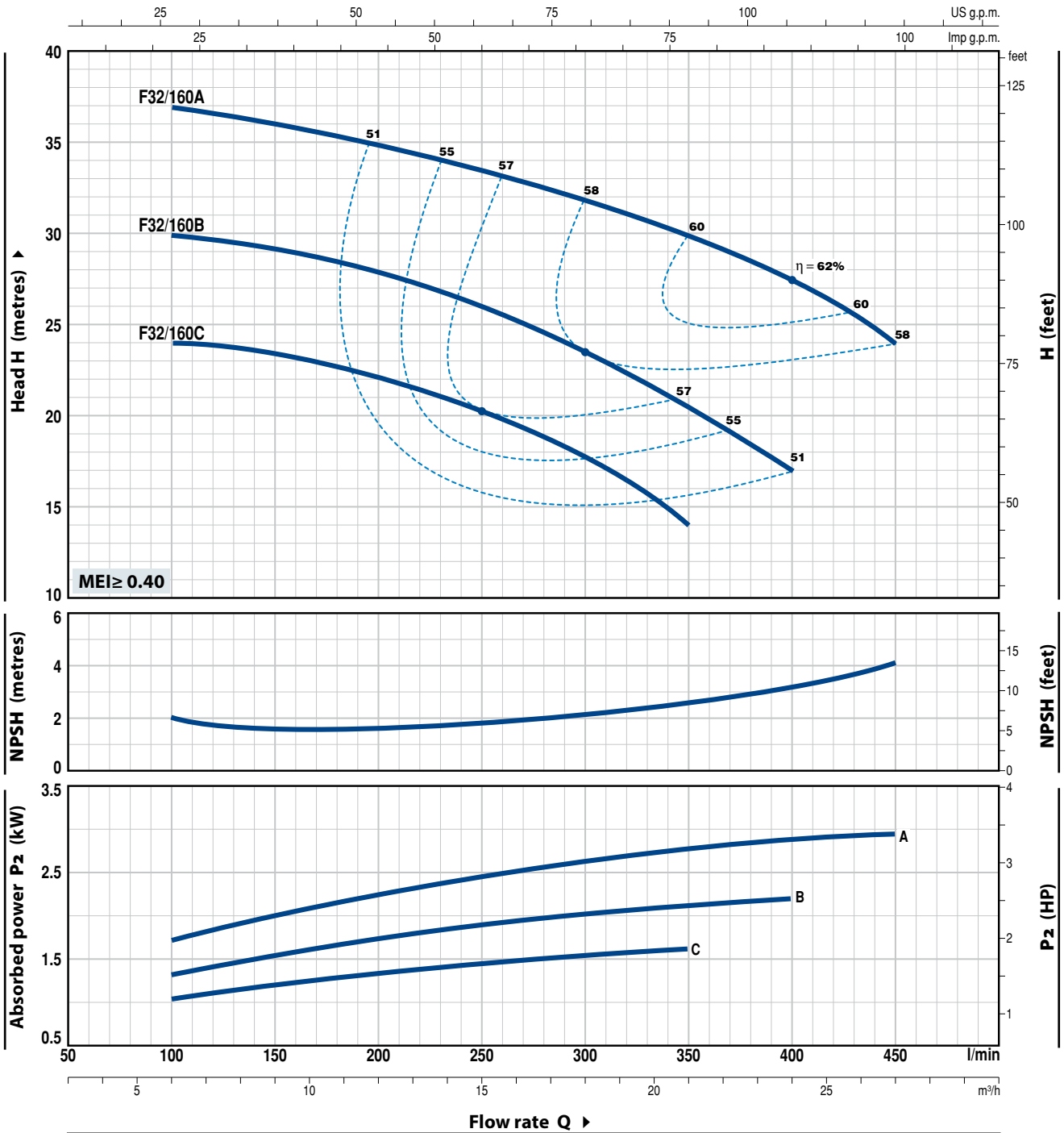
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

F32/160

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



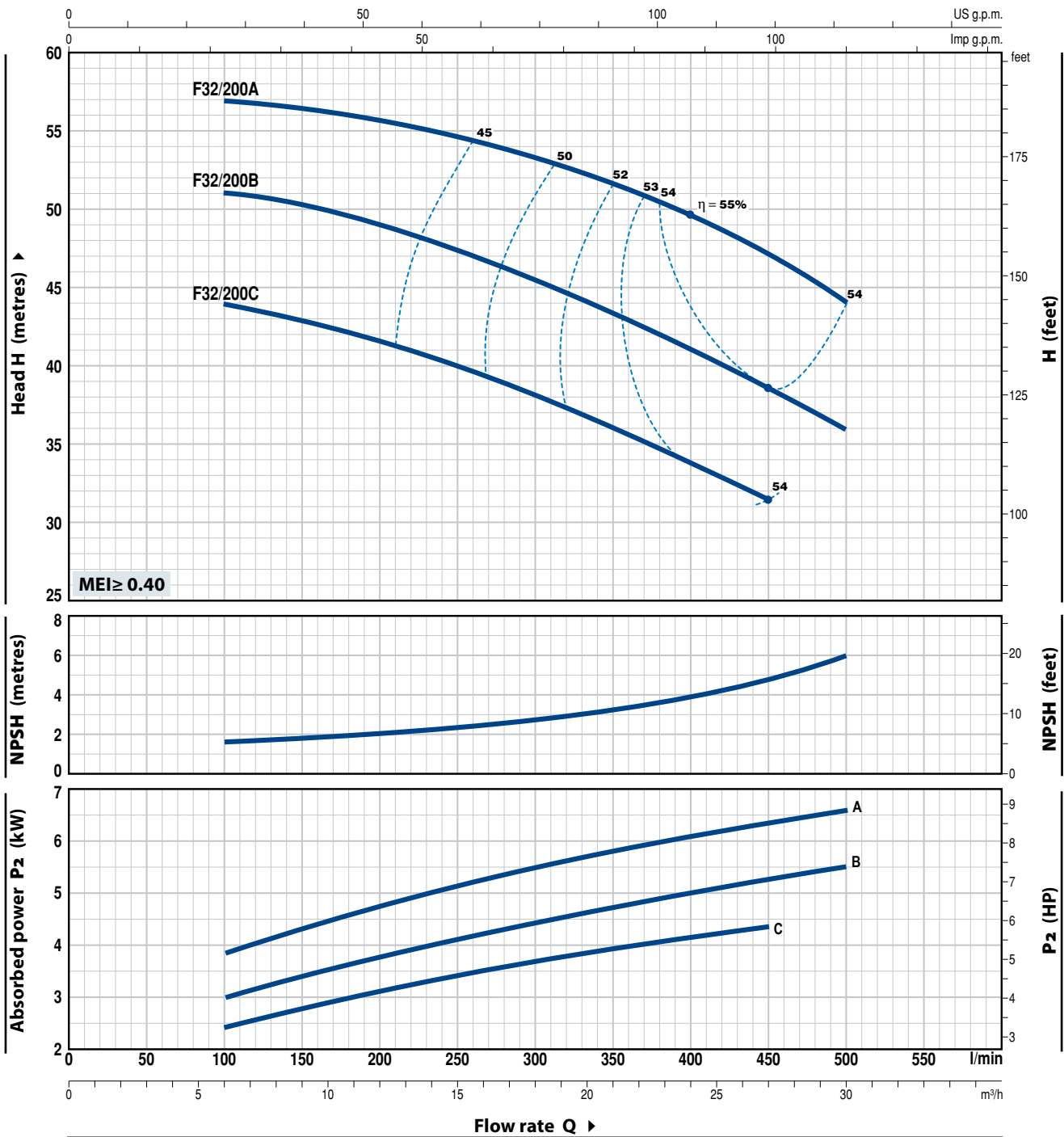
MODEL		POWER (P ₂)		Q	Flow rate												
Single-phase	Three-phase	kW	HP		m ³ /h	0	6	9	12	15	18	21	24	27			
Fm 32/160C	F 32/160C	1.5	2	l/min	0	100	150	200	250	300	350	400	450				
Fm 32/160B	F 32/160B	2.2	3	H metres	25	24	23.5	22	20.5	18	14						
-	F 32/160A	3	4		31	30	29	28	26	23.5	20.5	17					
					38	37	36	35	33.5	31.5	30	27.5	24				

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		0	6	9	12	15	18	21	24	27	30		
Three-phase			l/min	0	100	150	200	250	300	350	400	450	500		
F 32/200C	4	5.5	H metres	46	44	43	41.5	40	38	36	34	31.5			
F 32/200B	5.5	7.5		52	51	50.5	49	47	45	43	41	38.5	36		
F 32/200A	7.5	10		60	57	56.5	56	55	53.5	52	50	47	44		

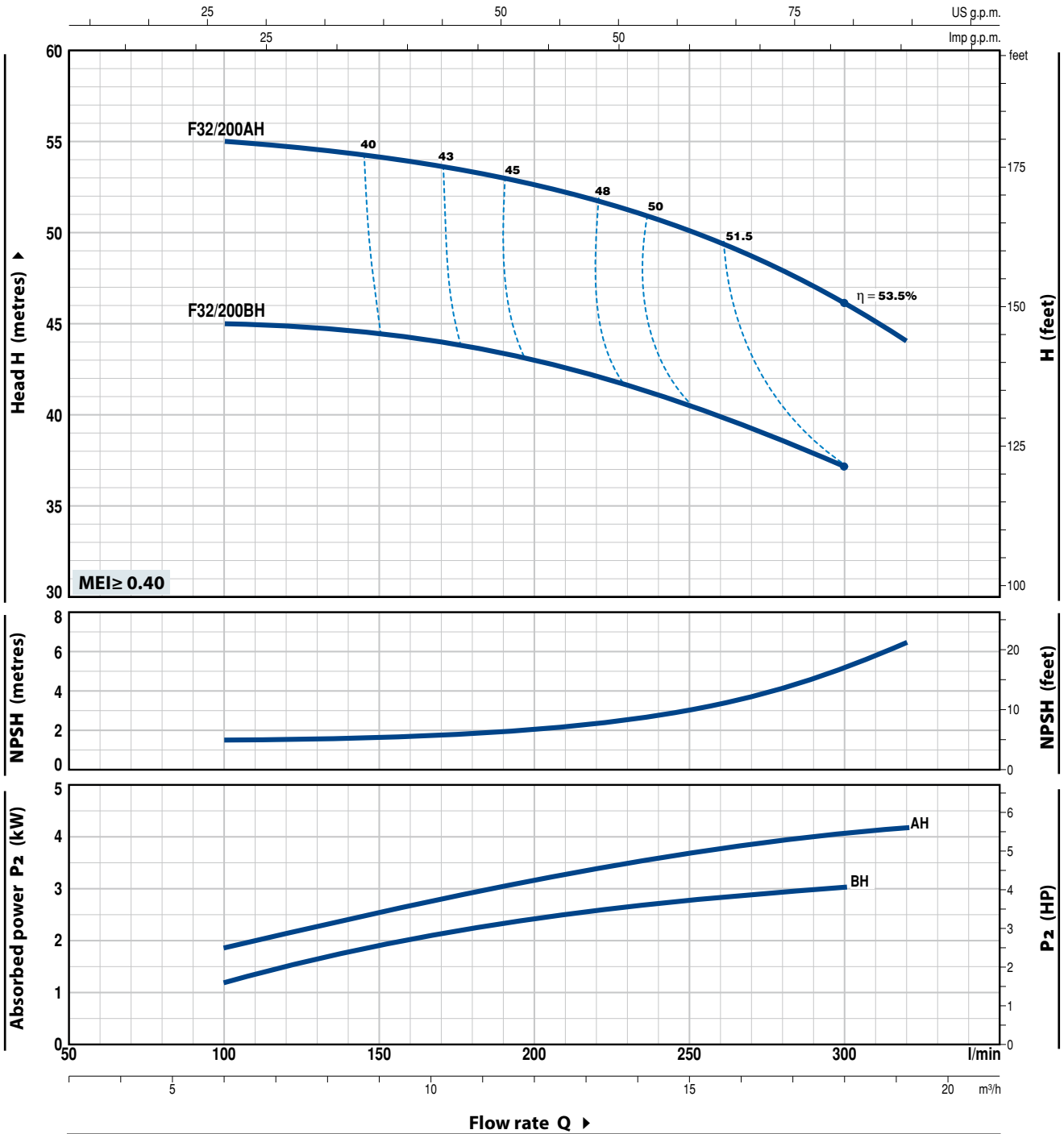
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F32/200H

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



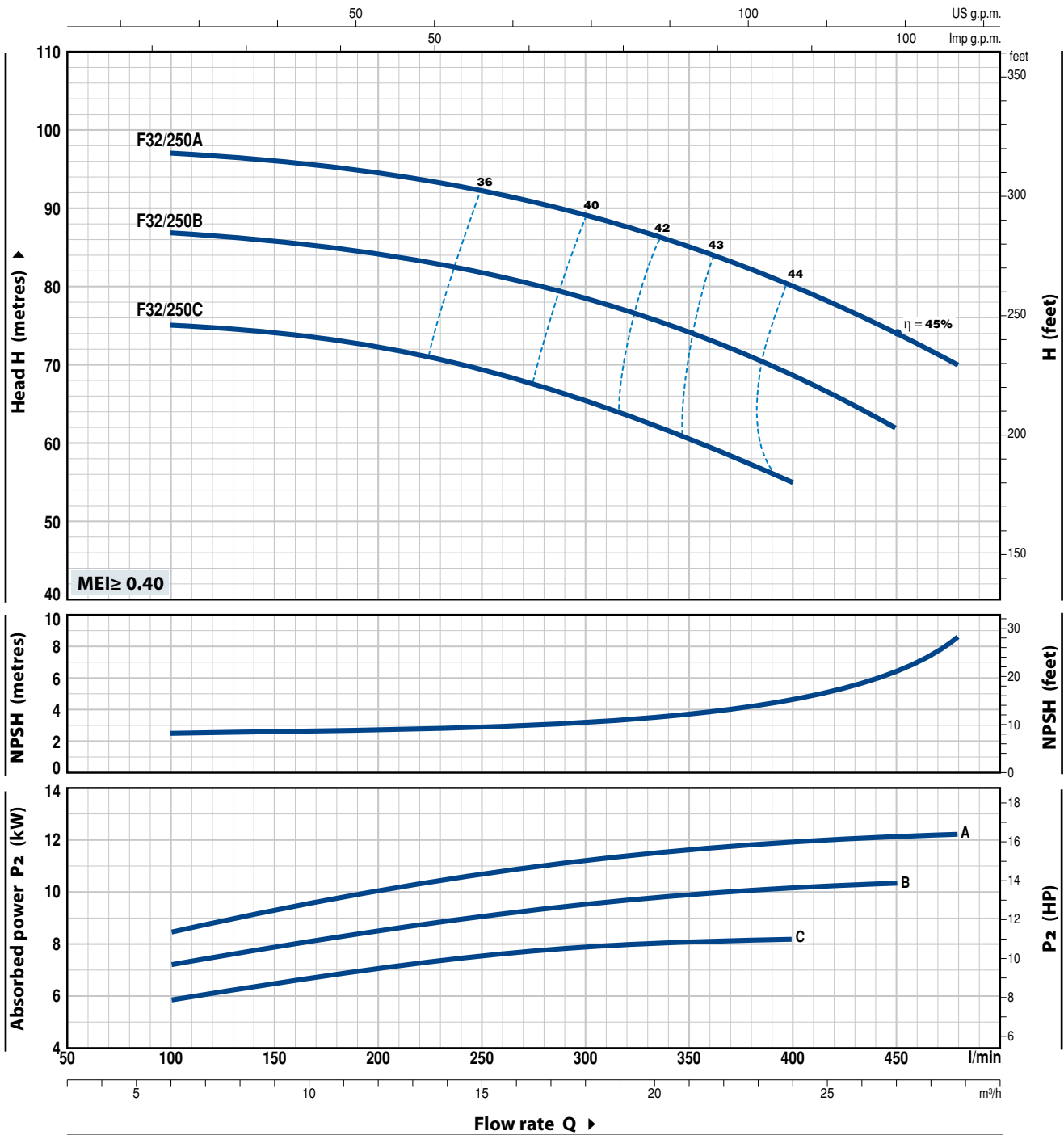
MODEL	POWER (P_2)		Q	Flow rate Q							
	kW	HP		0	6	9	12	15	18	19.2	
Three-phase			$\frac{m^3}{h}$	0	6	9	12	15	18	19.2	
F 32/200BH	3	4	$\frac{l}{min}$	0	100	150	200	250	300	320	
F 32/200AH	4	5.5	H metres	47	45	44.5	43	40.5	37		
				57	55	54	52.5	50	46	44	

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		0	6	9	12	15	18	21	24	27	28.8		
Three-phase			l/min	0	100	150	200	250	300	350	400	450	480		
F 32/250C	9.2	12.5	H metres	76	75	74.5	72.5	69.5	66	61	55				
F 32/250B	11	15		88	87	86	84	82	78.5	74.5	69	62			
F 32/250A	15	20		98	97	96	94.5	92	89	85	80	74	70		

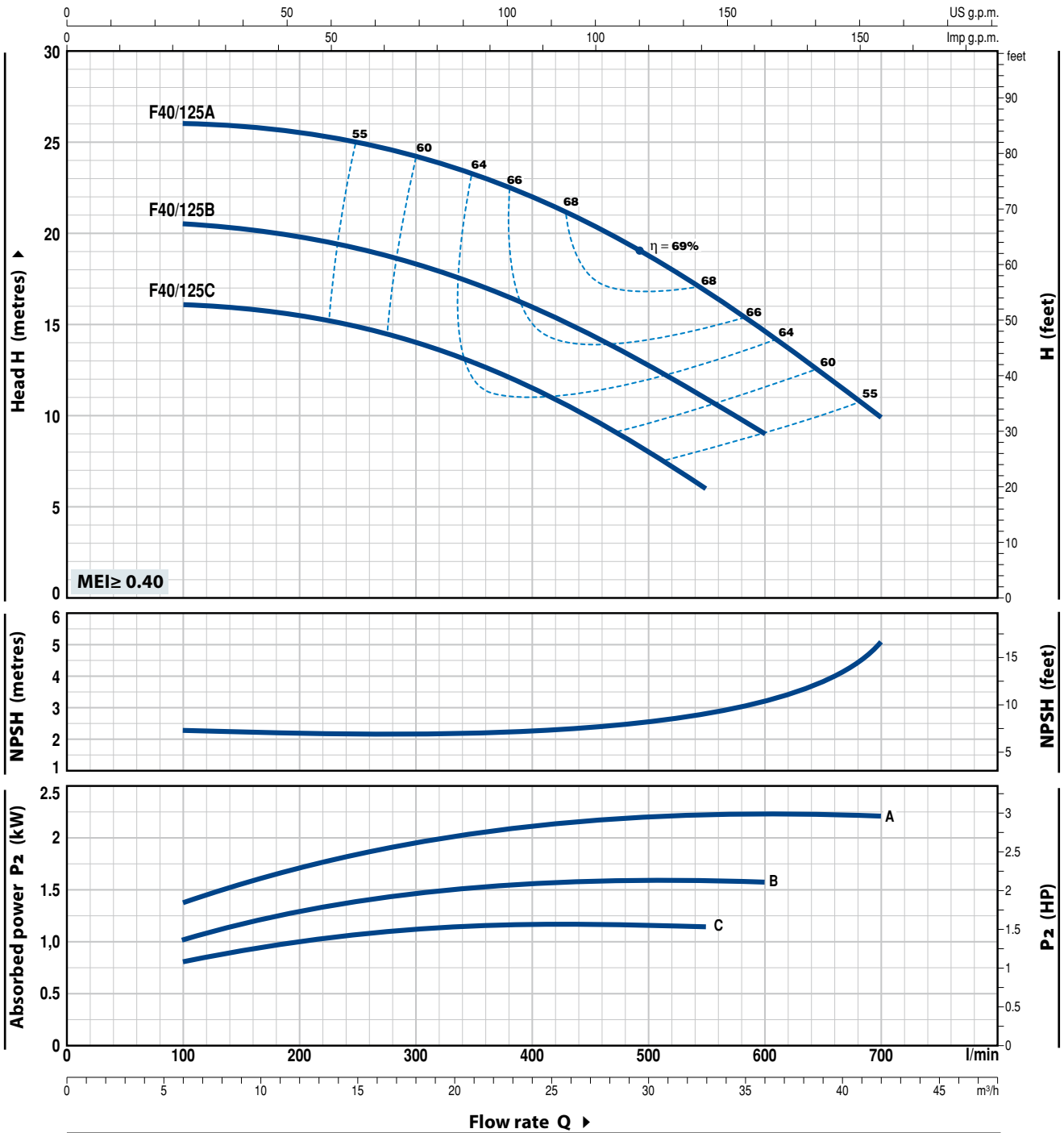
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F40/125

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



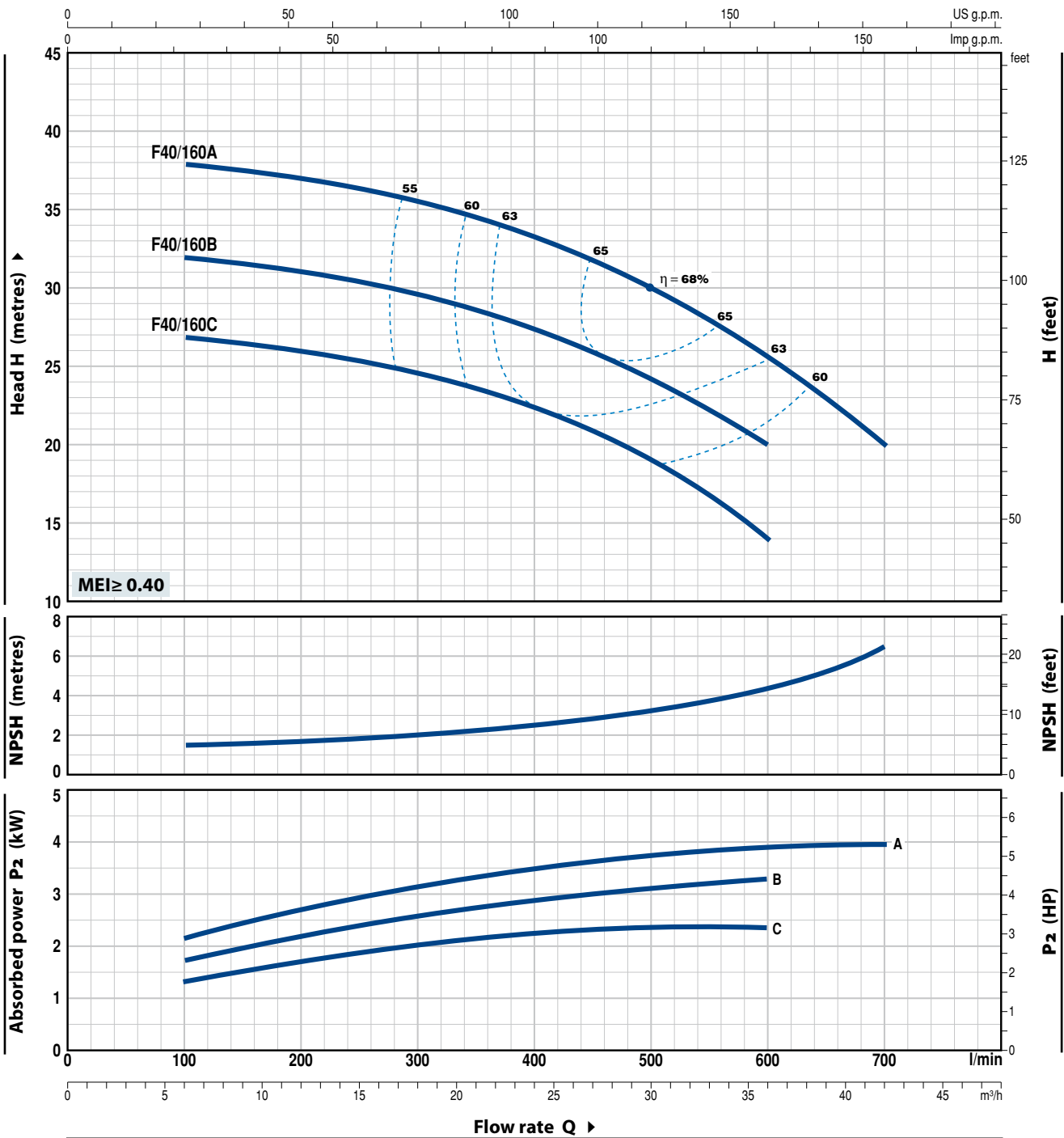
MODEL		POWER (P ₂)		Q	Flow rate												
Single-phase	Three-phase	kW	HP		m ³ /h	0	6	12	18	24	30	33	36	39	42		
Fm 40/125C	F 40/125C	1.1	1.5	l/min	0	100	200	300	400	500	550	600	650	700			
	Fm 40/125B	F 40/125B	1.5	2	H metres	20.5	20.5	19.8	18.5	16	12.8	11	9				
-	F 40/125A	2.2	3			26	26	25.5	24	22	18.5	17	14.5	12.5	10		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL		POWER (P ₂)		Q	Flow rate												
Single-phase	Three-phase	kW	HP		m ³ /h	0	6	9	12	15	18	24	30	36	42		
Fm 40/160C	F 40/160C	2.2	3	l/min	0	100	150	200	250	300	400	500	600	700			
-	F 40/160B	3	4	H metres	27	27	26.5	26	25.5	25	22.5	19	14				
-	F 40/160A	4	5.5		32	32	31.5	31	30.5	30	27.5	24	20				
					38	38	37.8	37	36.5	36	33.5	30	26	20			

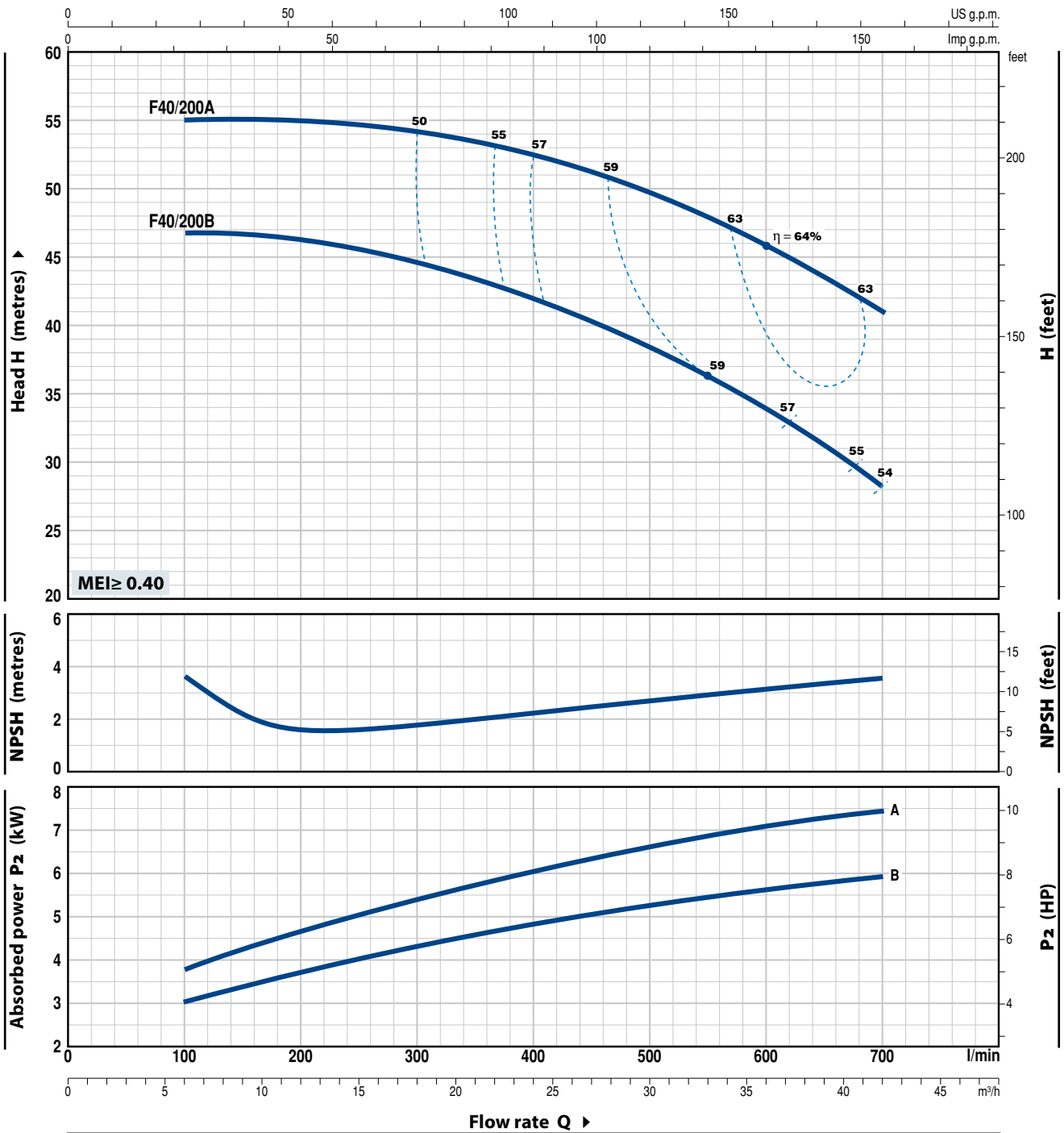
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F40/200

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



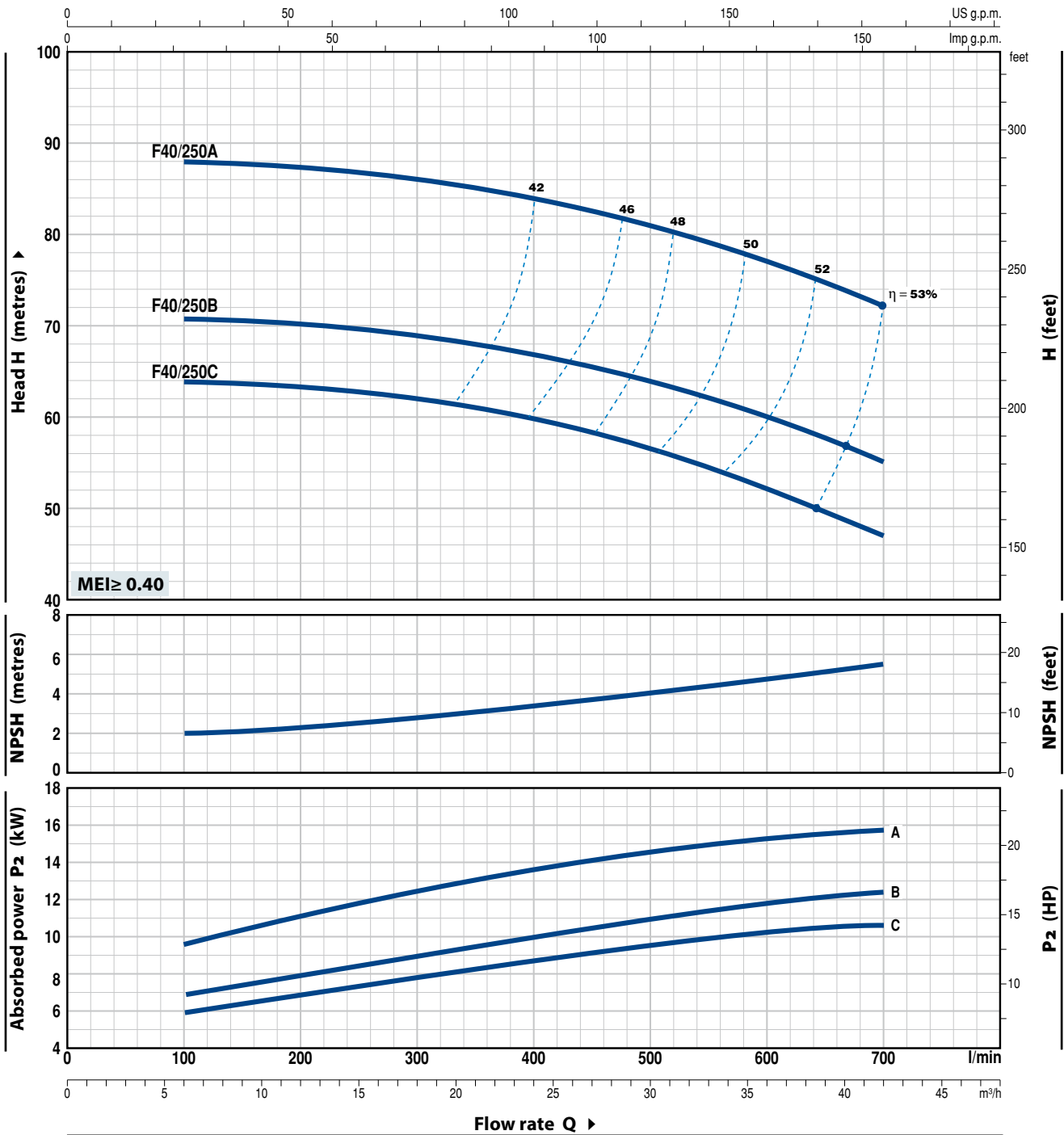
MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		0	6	9	12	15	18	24	30	36	42		
Three-phase			l/min	0	100	150	200	250	300	400	500	600	700		
F 40/200B	5.5	7.5	H metres	48	47	46.5	46	45.5	44.5	42	38	34	28		
F 40/200A	7.5	10		56	55	55	55	54.5	54	52.5	49.5	46	41		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		0	6	9	12	15	18	24	30	36	42		
Three-phase			l/min	0	100	150	200	250	300	400	500	600	700		
F 40/250C	9.2	12.5	H metres	64	64	63.5	63	62.5	62	60	56.5	52.5	47		
F 40/250B	11	15		71	71	70.5	70	69.5	69	67	64	60	55		
F 40/250A	15	20		88	88	87.5	87	86.5	86	84	81	77	72		

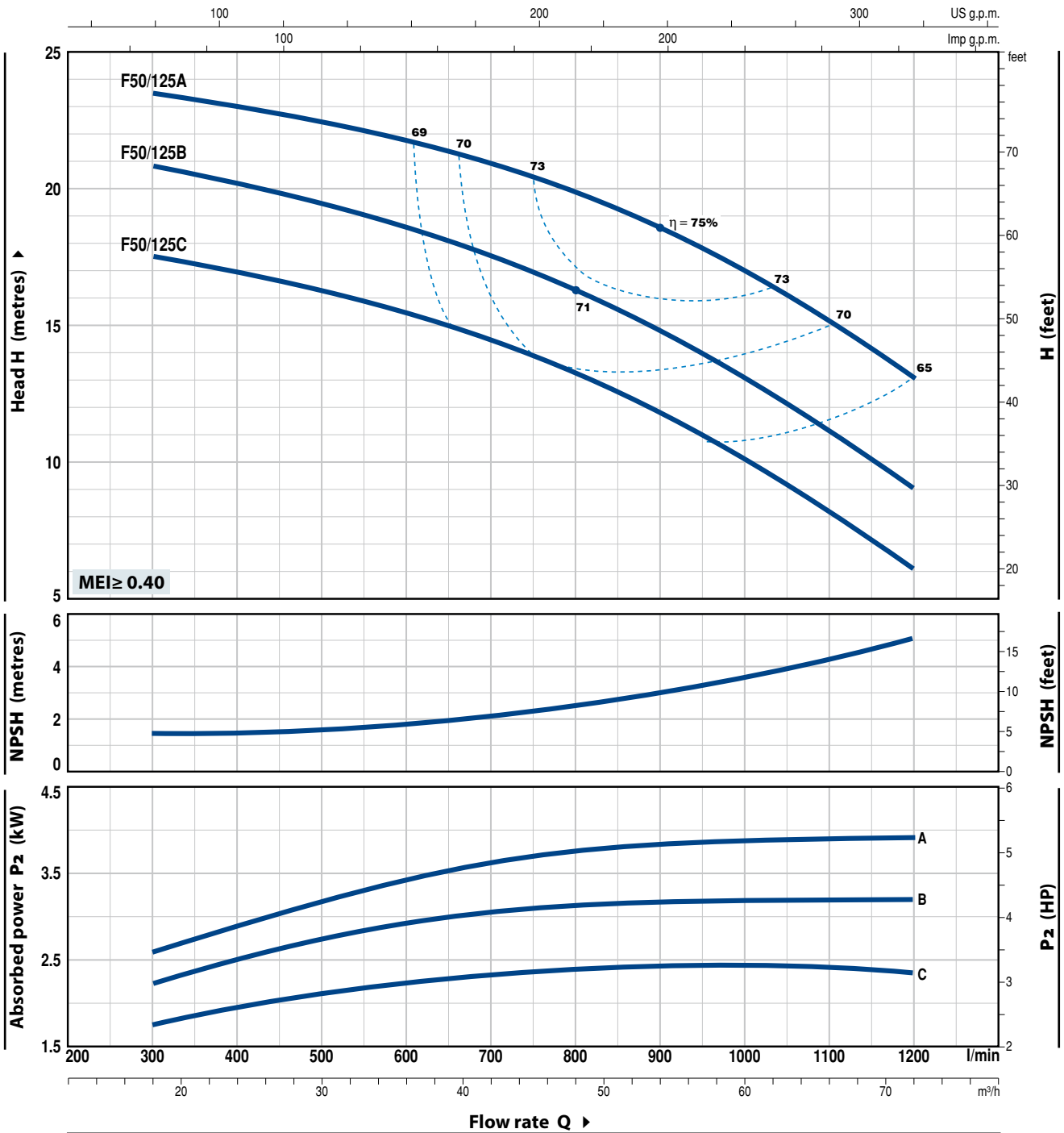
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F50/125

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



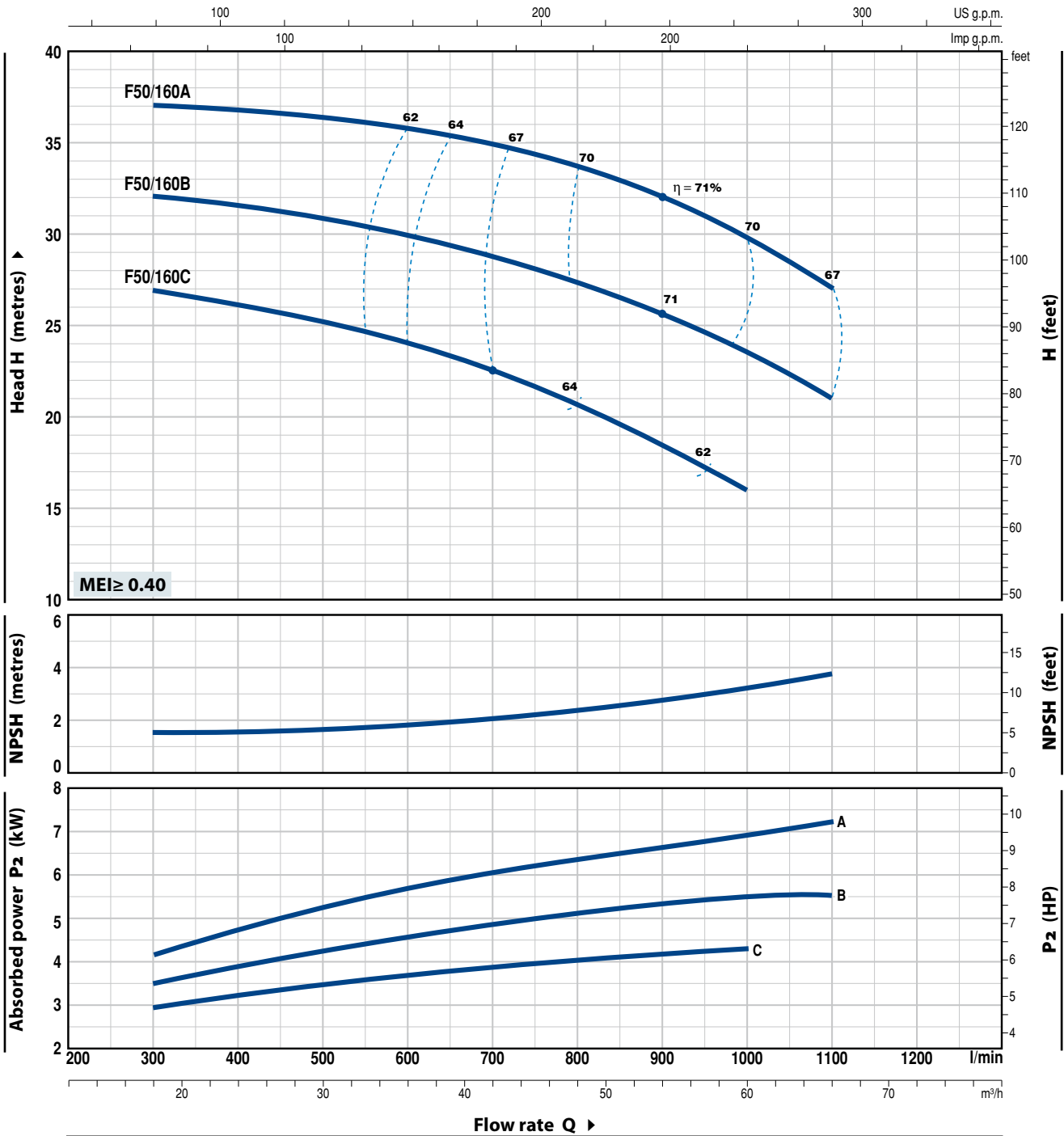
MODEL		POWER (P ₂)		Q	Flow rate												
Single-phase	Three-phase	kW	HP		m ³ /h	0	18	24	30	36	42	48	54	60	66	72	
Fm 50/125C	F 50/125C	2.2	3	H metres	0	300	400	500	600	700	800	900	1000	1100	1200		
-	F 50/125B	3	4		18.5	17.5	17	16.5	15.5	14.8	13.5	12	10.5	8.2	6		
-	F 50/125A	4	5.5		21.5	20.7	20	19.5	18.8	17.8	16.5	15	13.5	11.2	9		
						24.5	23.5	23	22.5	21.8	20.8	19.5	18.3	16.8	15	13	

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		0	18	24	30	36	42	48	54	60	66		
Three-phase			l/min	0	300	400	500	600	700	800	900	1000	1100		
F 50/160C	4	5.5	H metres	27	27	26.5	25	24.5	23	20	18.5	16			
F 50/160B	5.5	7.5		33	32	31.7	31	30	29	27	26	24	21		
F 50/160A	7.5	10		38	37	36.8	36.5	36	34	33	32	30	27		

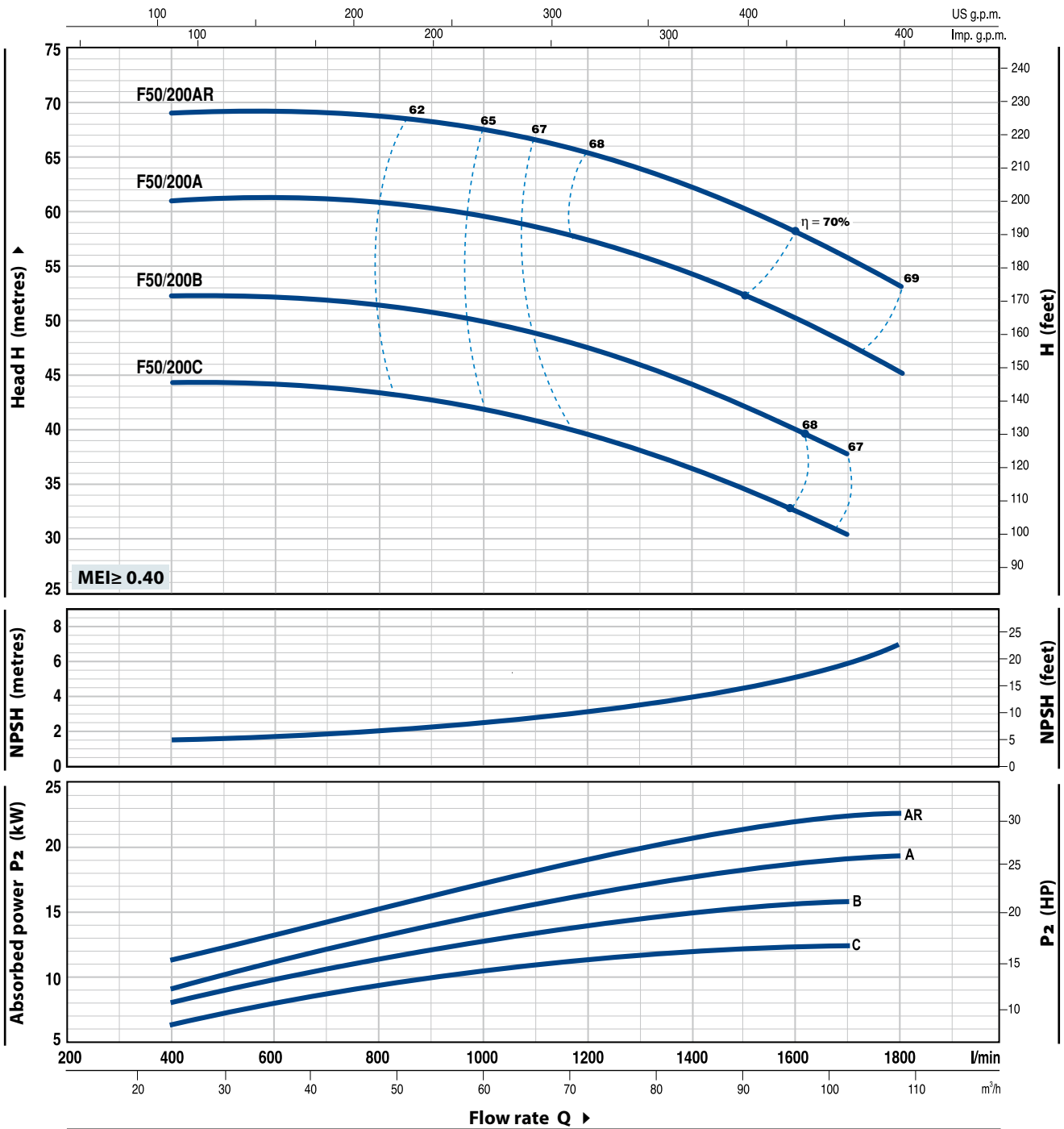
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F50/200

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



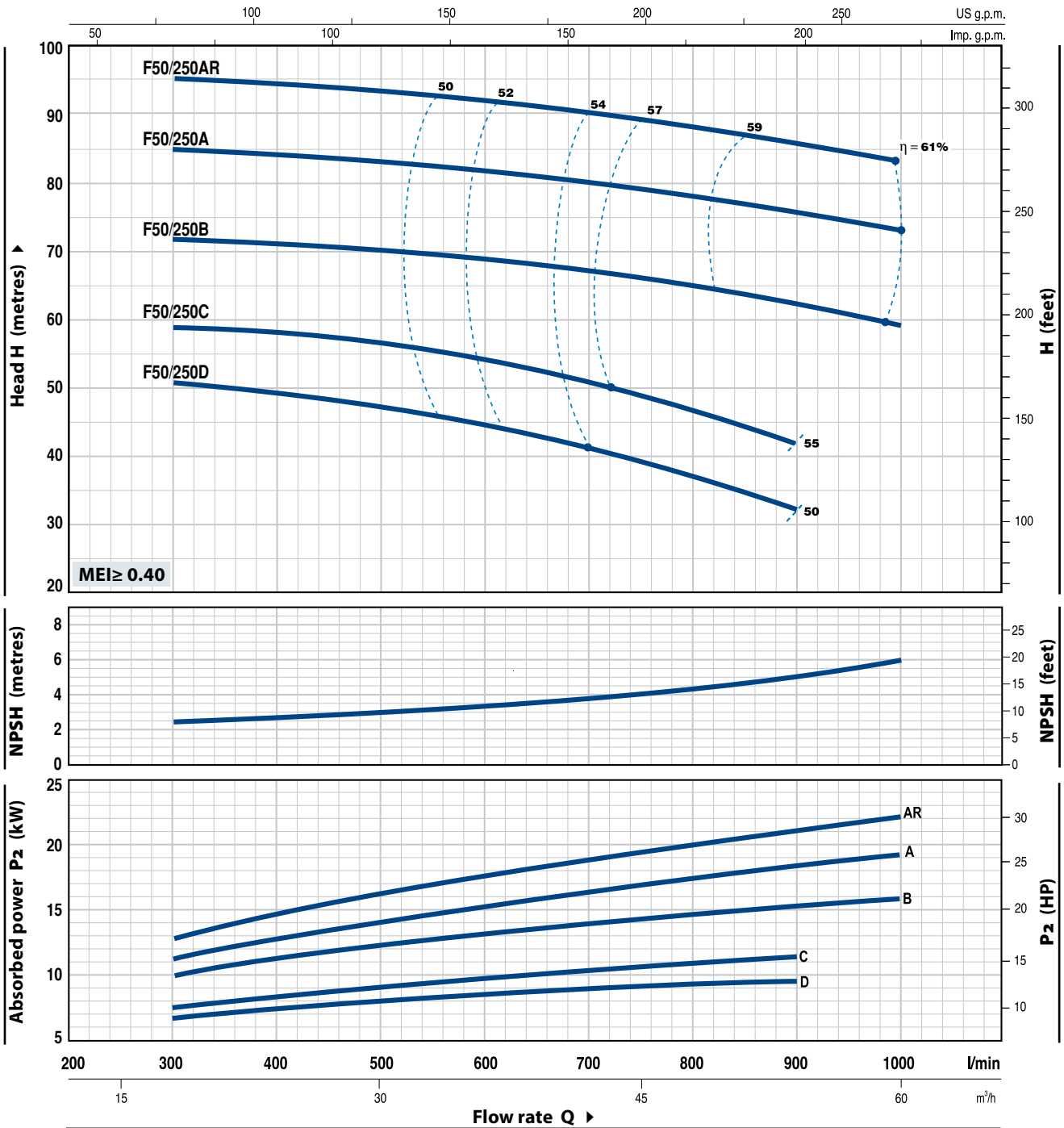
MODEL	POWER (P ₂)		Q	Flow rate Q										
	kW	HP		m ³ /h	24	36	48	60	72	84	96	102	108	
Three-phase			l/min	400	600	800	1000	1200	1400	1600	1700	1800		
F 50/200C	11	15	H metres	44	44	44	42	39	36	33	30			
F 50/200B	15	20		52	52	52	50	47	44	40	38			
F 50/200A	18.5	25		61	61	60.5	60	57	54	50	48	45		
F 50/200AR	22	30		69	69	68.5	68	65	62	58	56	53		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate										
	kW	HP		m ³ /h	0	18	24	30	36	42	48	54	60	
Three-phase				0	300	400	500	600	700	800	900	1000		
F 50/250D	9.2	12.5	H metres	51	51	49	47	44	41	37	32			
F 50/250C	11	15		59	59	58	57	54	51	47	42			
F 50/250B	15	20		72	72	71	70	69	67	65	62	59		
F 50/250A	18.5	25		85	85	84	83	82	80	78	76	73		
F 50/250AR	22	30		95	95	94	93	92	90	88	86	83		

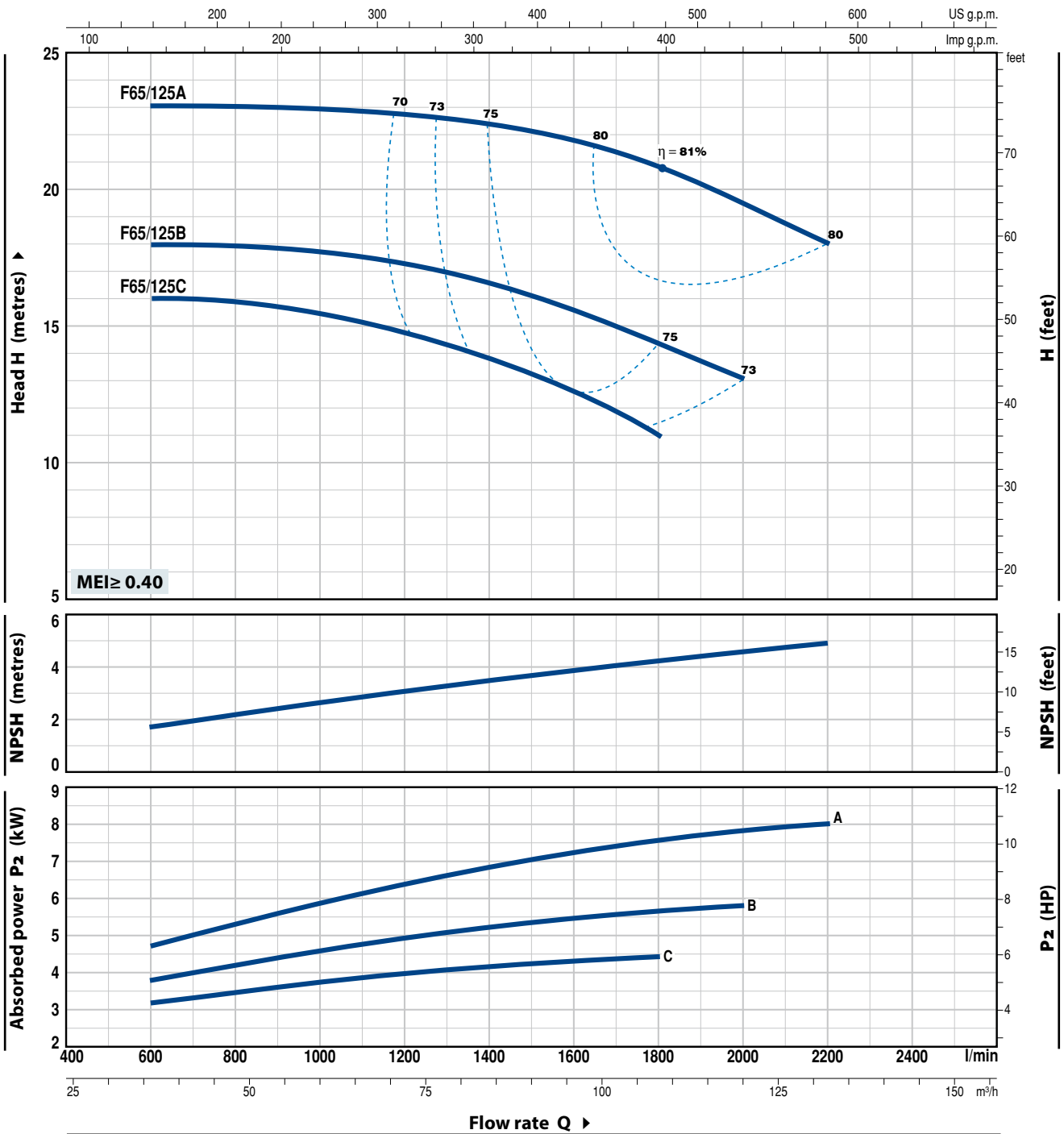
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F65/125

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



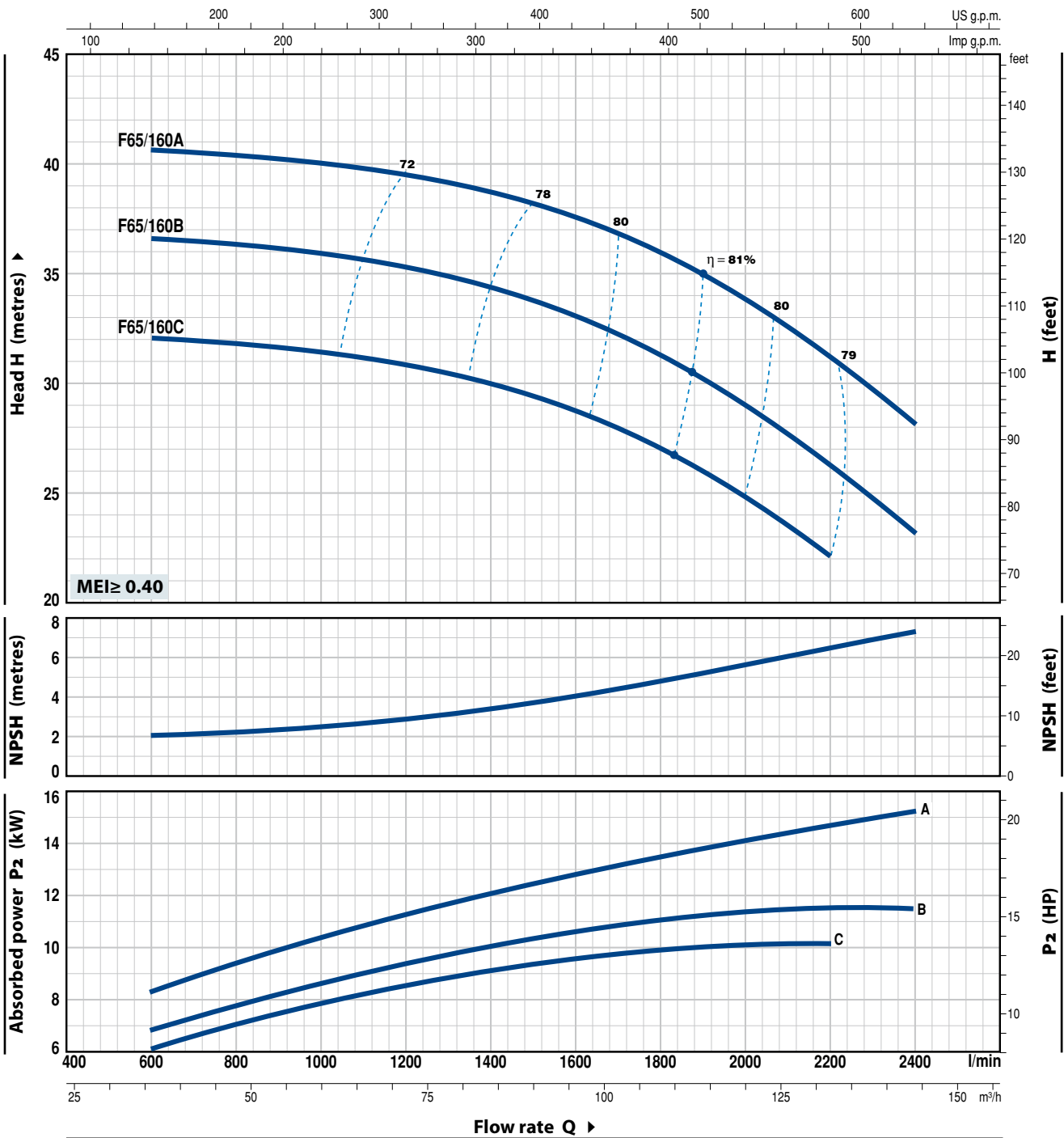
MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		0	36	48	60	72	84	96	108	120	132		
Three-phase			l/min	0	600	800	1000	1200	1400	1600	1800	2000	2200		
F 65/125C	4	5.5	H metres	16	16	16	15.5	14.5	13.5	12.5	11				
F 65/125B	5.5	7.5		18	18	18	18	17	16.5	15.5	14.5	13			
F 65/125A	7.5	10		23	23	23	23	22.5	22.5	22	21	19.5	18		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate												
	kW	HP		0	36	48	60	72	84	96	108	120	132	144		
Three-phase			l/min	0	600	800	1000	1200	1400	1600	1800	2000	2200	2400		
F 65/160C	9.2	12.5	H metres	32	32	32	32	32	30	29	27	25	22			
F 65/160B	11	15		37	36.5	36.5	36	35.5	34	33	31	29	26	23		
F 65/160A	15	20		41	40.5	40.5	40	39.5	39	37.5	36	34	31	28		

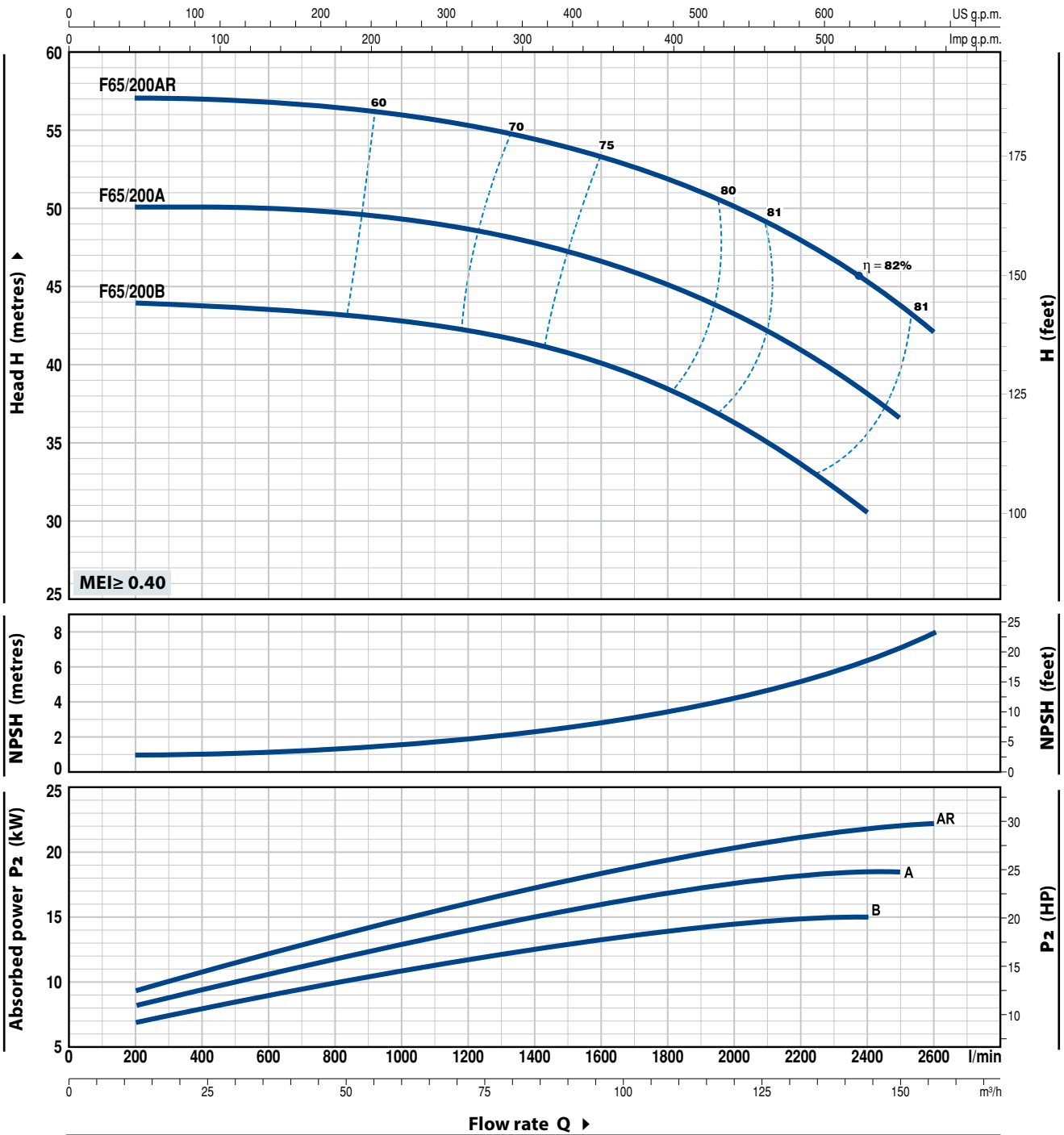
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F65/200

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



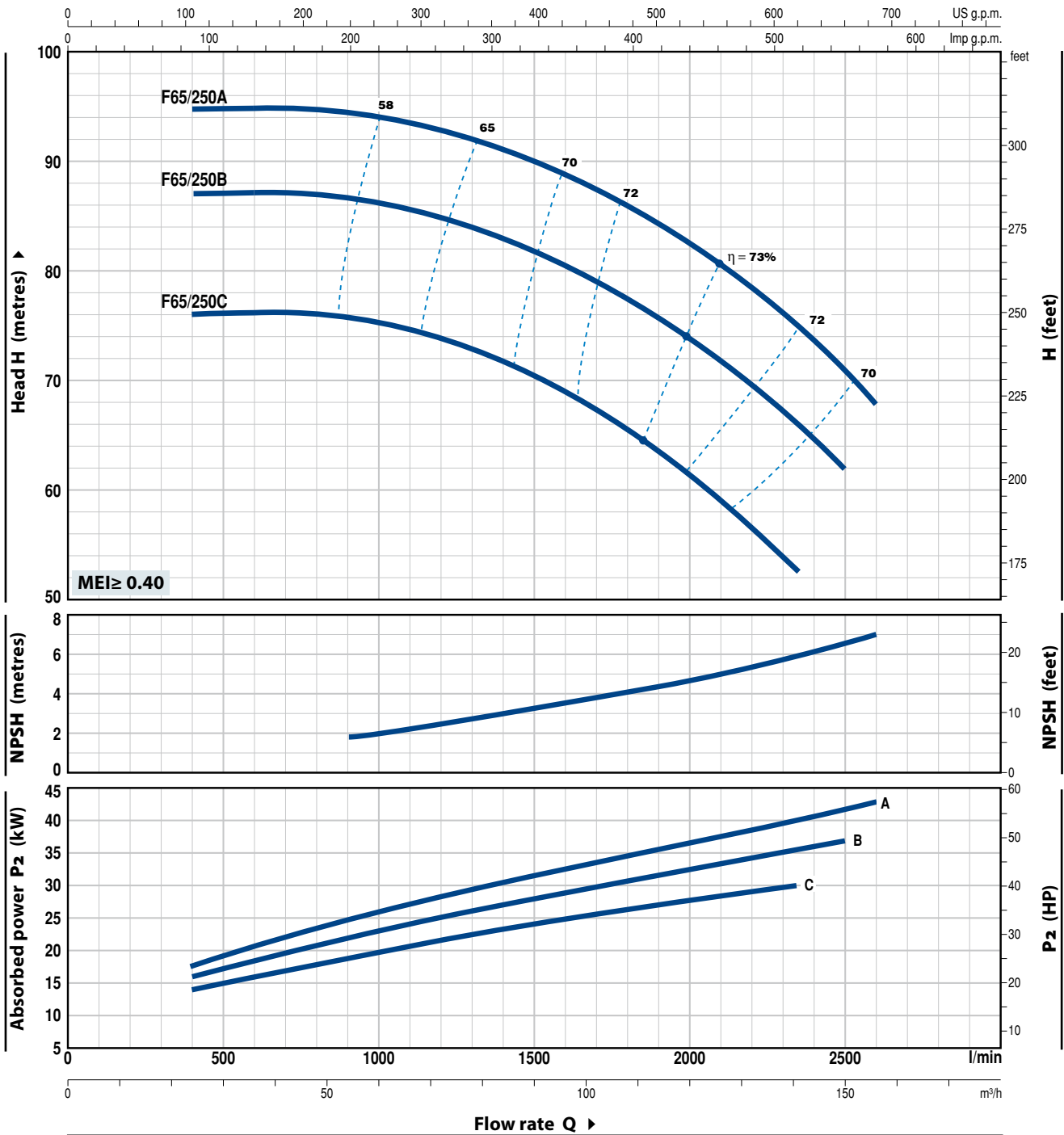
MODEL	POWER (P ₂)		Q	Flow rate														
	kW	HP		m ³ /h	12	36	48	60	72	84	96	108	120	132	144	150	156	
Three-phase			l/min	200	600	800	1000	1200	1400	1600	1800	2000	2200	2400	2500	2600		
F 65/200B	15	20	H metres	44	43.5	43.3	43	42.5	41.5	40	38.5	36.5	34	30.5				
F 65/200A	18.5	25		50	50	50	49.5	49	48	46.5	45	43	41	38	36.5			
F 65/200AR	22	30		57	57	57	56	55.5	54.5	53.5	52	50	48	45.5	43.5	42		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		m ³ /h	24	40	60	80	100	120	141	150	156		
Three-phase			l/min	400	667	1000	1333	1667	2000	2350	2500	2600			
F 65/250C	30	40	H metres	76	76	75.5	72.5	68	61.5	53					
F 65/250B	37	50		87	87	86	84	80	74	66.5	62				
F 65/250A	45	60		95	95	94	92	88	82.5	75	71	68			

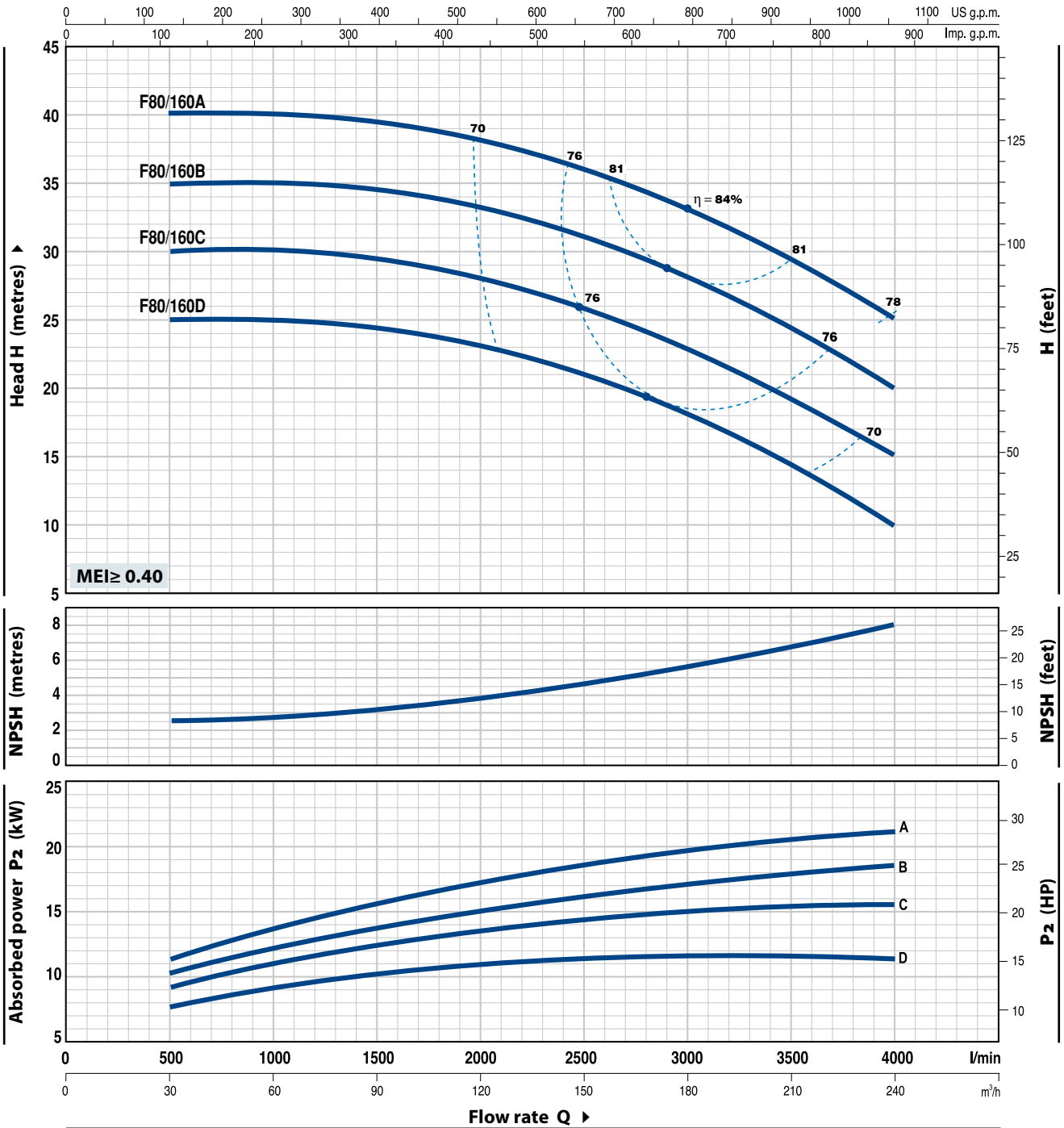
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F80/160

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



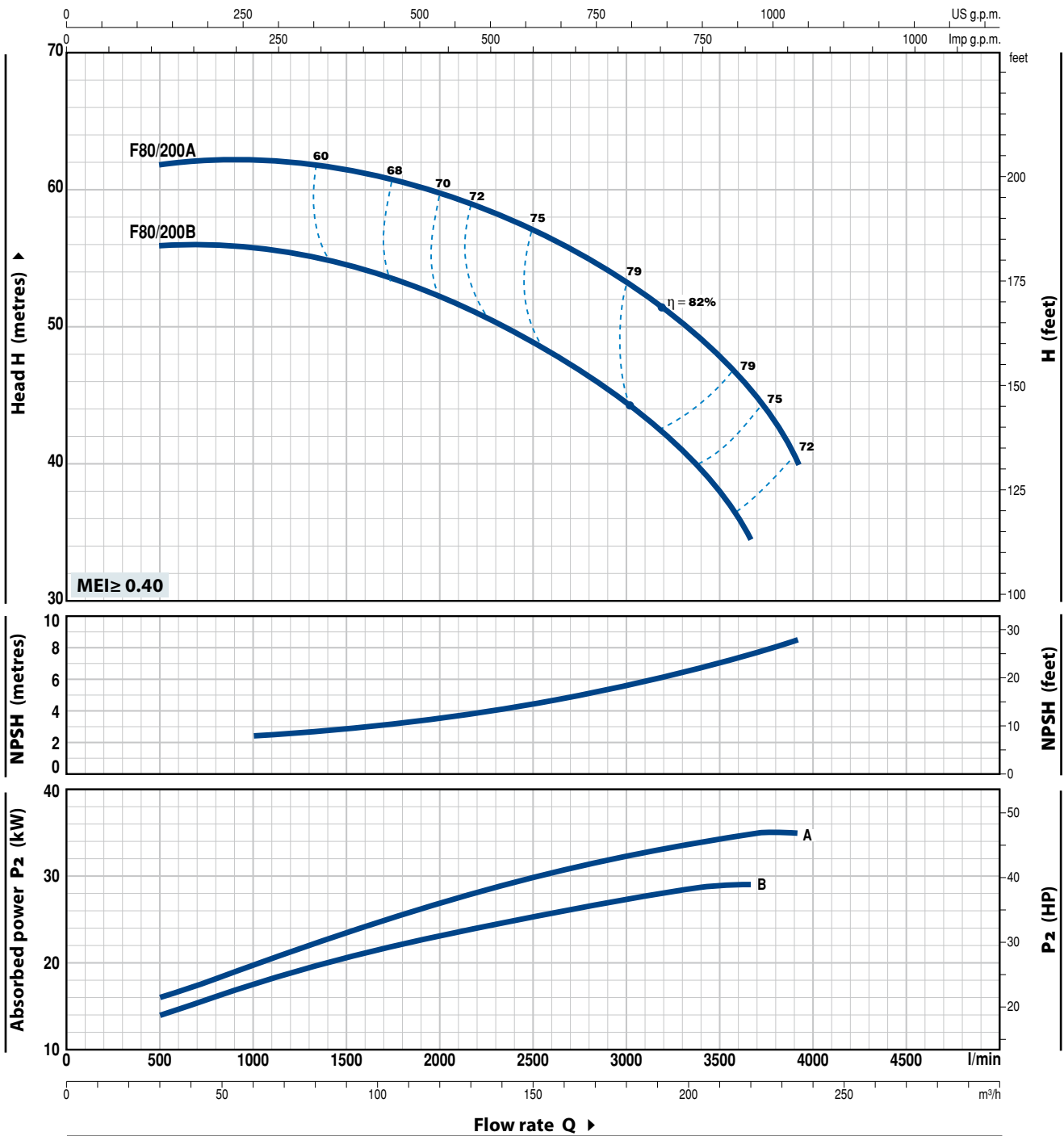
MODEL	POWER (P ₂)		Q	H metres											
	kW	HP		0	30	60	90	120	150	180	210	240			
Three-phase			l/min	0	500	1000	1500	2000	2500	3000	3500	4000			
F 80/160D	11	15		25	25	25	24.5	23.5	21	18	14.5	10			
F 80/160C	15	20		30	30	30	29.5	28.5	26	23	19.5	15			
F 80/160B	18.5	25		35	35	35	34.5	33.5	31	28.5	24.5	20			
F 80/160A	22	30		40	40	40	39.5	38.5	36	33	29.5	25			

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate						
	kW	HP		m ³ /h	l/min	l/min	l/min	l/min	l/min	l/min
Three-phase				30	50	100	150	200	219	234
F 80/200B	30	40	H metres	56	56	54	49	41	34.5	
F 80/200A	37	50	H metres	62	62	61	57	50	45.5	40

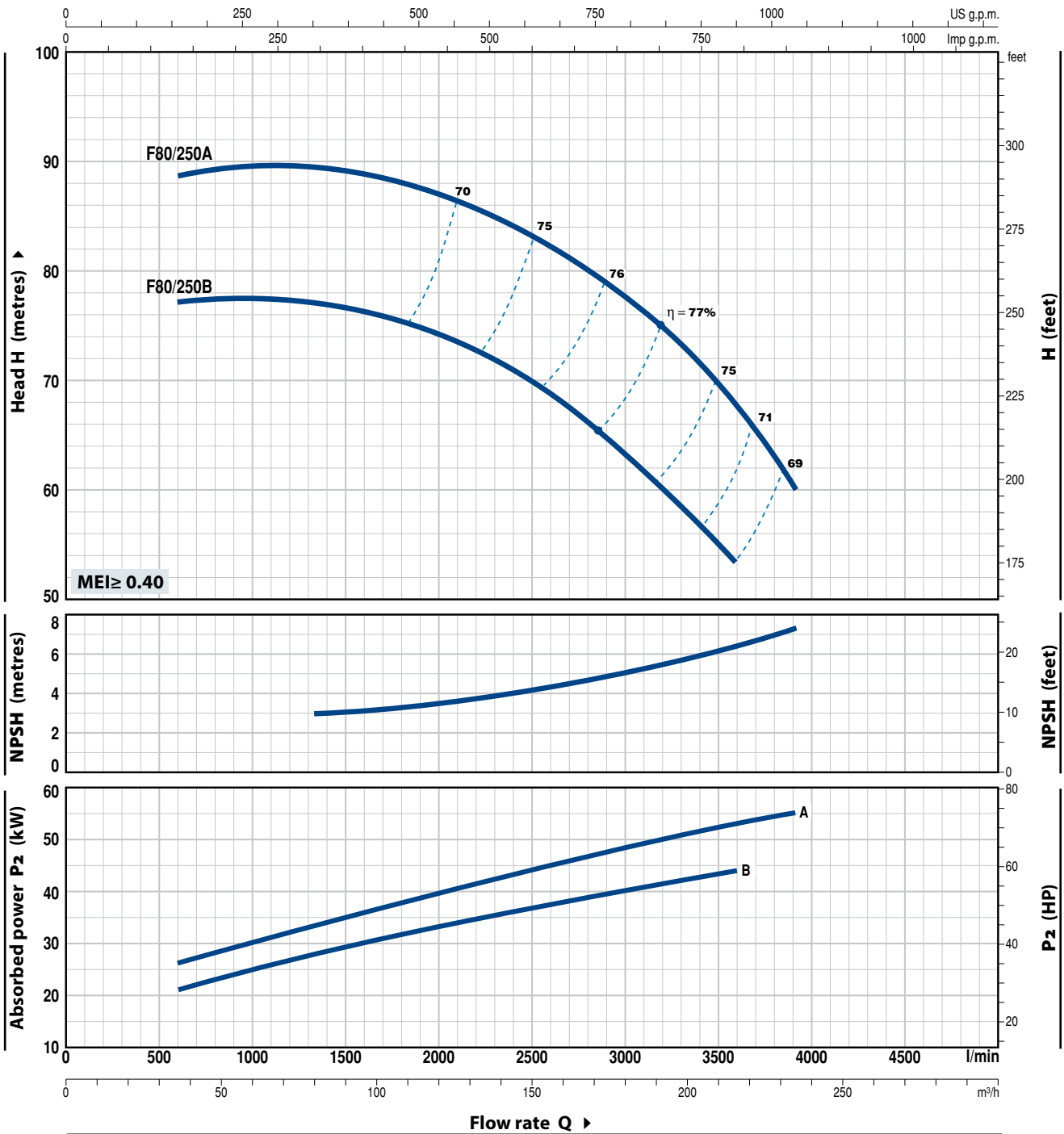
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F80/250

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



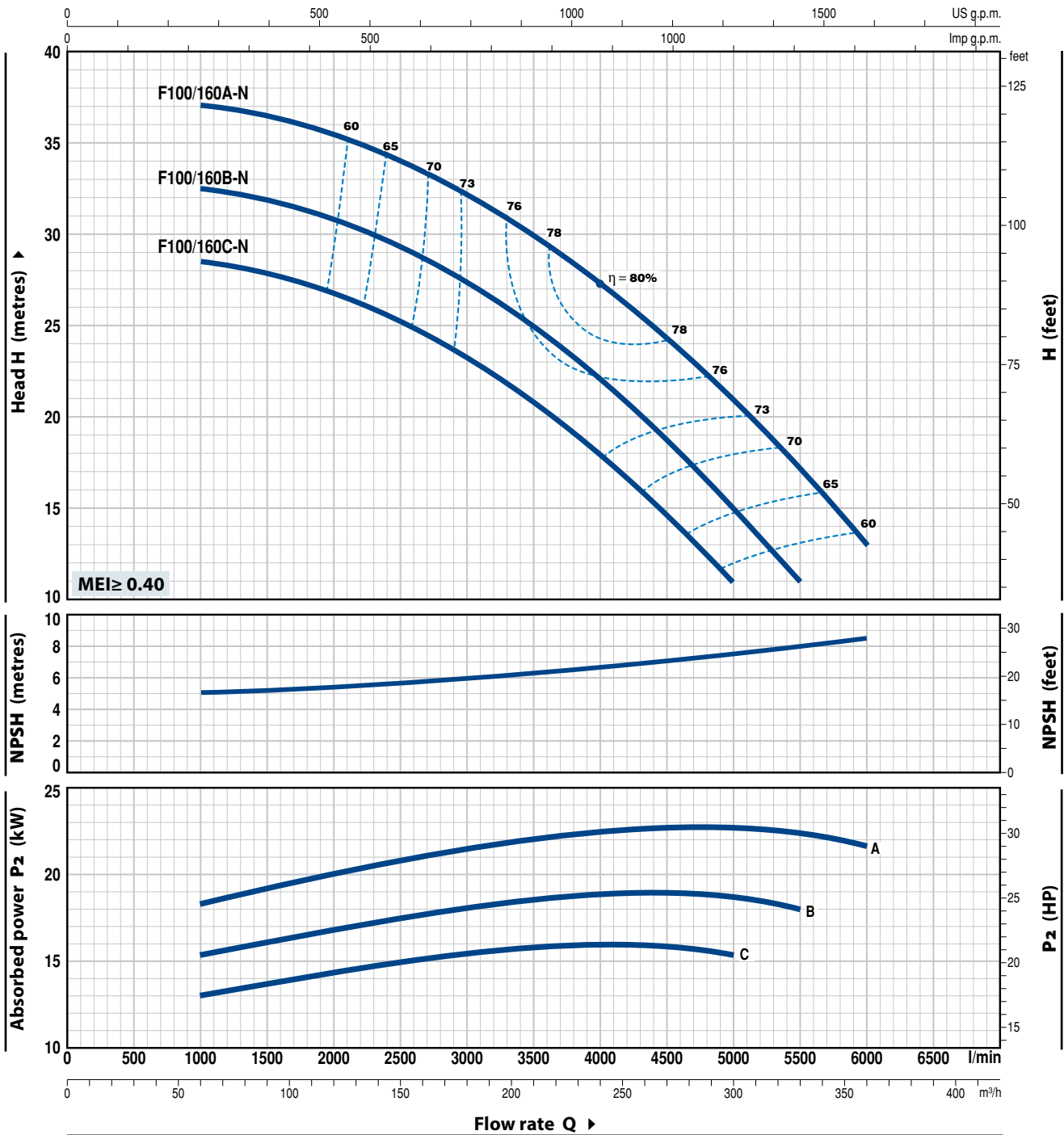
MODEL	POWER (P ₂)		Q									
	kW	HP		m ³ /h	l/min	36	50	100	150	200	216	234
Three-phase				600	833	1667	2500	3333	3600	3900		
F 80/250B	45	60	H metres	77	77.5	76	70.5	58.5	54			
F 80/250A	55	75		88.5	89.5	89	83	72	68	60		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	60	120	180	240	270	300	330	360
	kW	HP		l/min	1000	2000	3000	4000	4500	5000	5500
F 100/160C-N	15	20	H metres	28.5	26.5	23	18	14.5	11		
F 100/160B-N	18.5	25		32.5	30.5	27	22	18.5	15	11	
F 100/160A-N	22	30		37	35.5	32	27	24	20.5	17	13

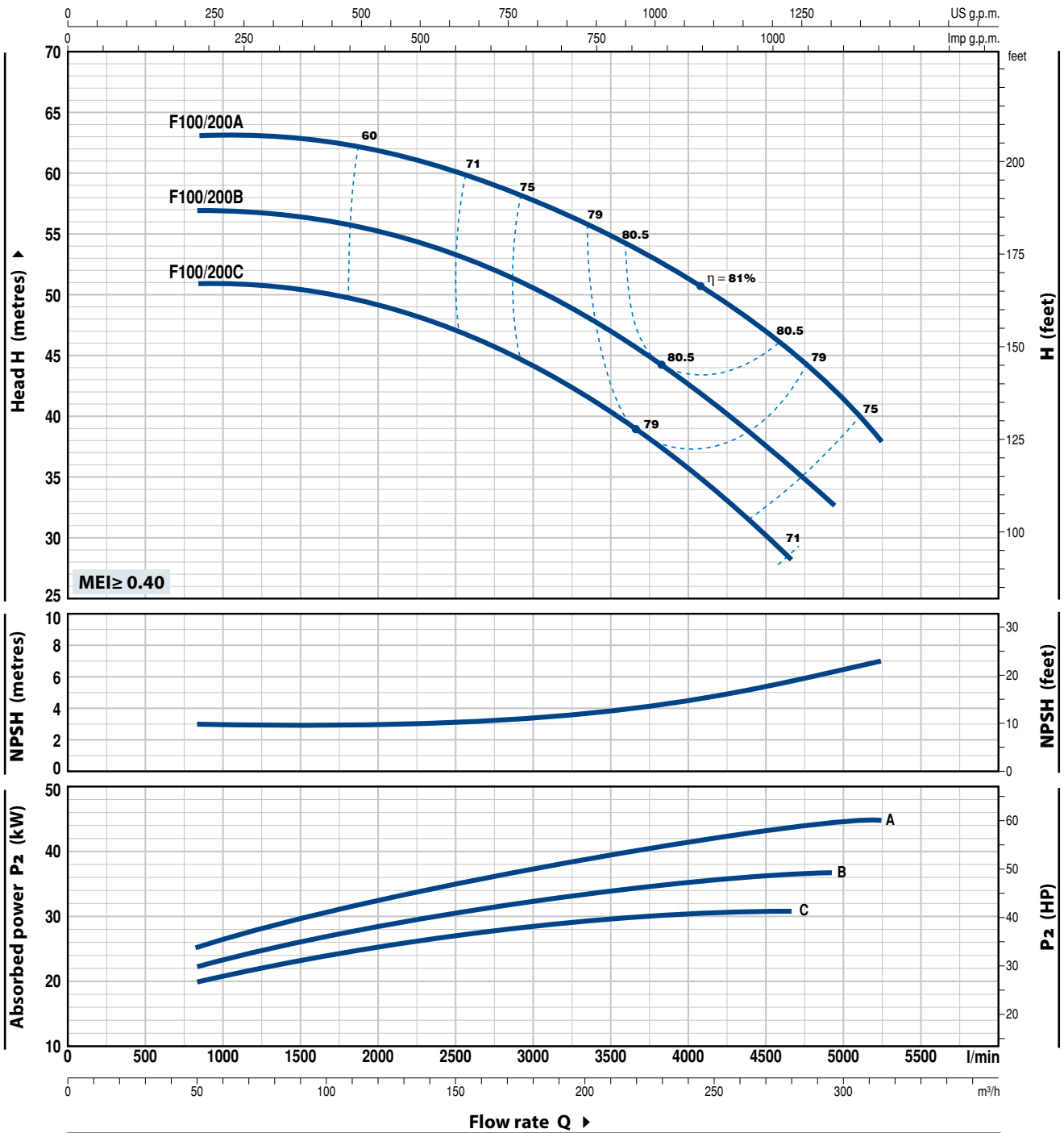
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F100/200

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



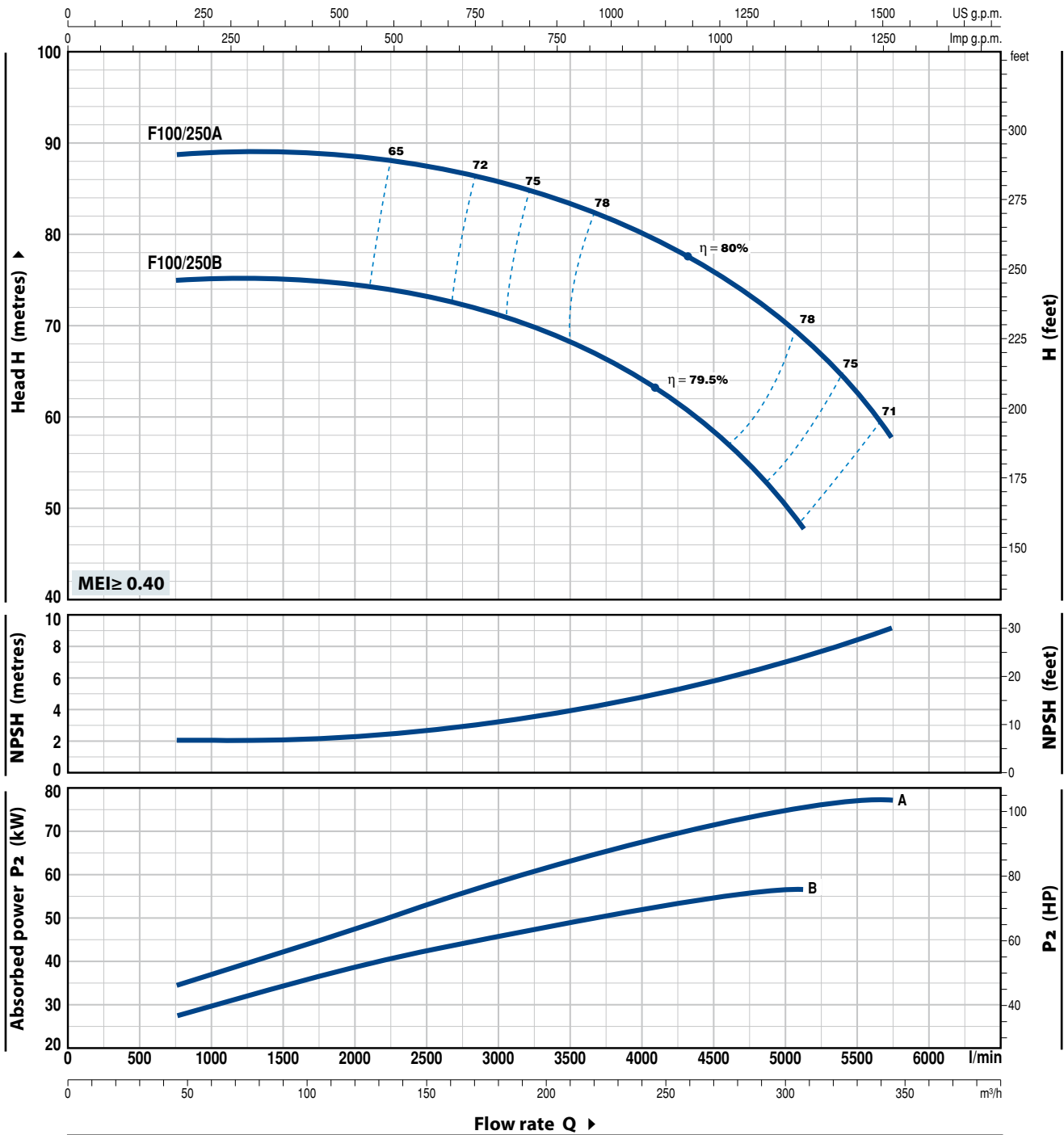
MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		0	50	100	150	200	250	279	294	300	315		
Three-phase			l/min	0	833	1667	2500	3333	4167	4650	4900	5000	5250		
F 100/200C	30	40	H metres	51	51	50	47	41.5	34	28					
F 100/200B	37	50		57	57	56	53	48	41	36	33				
F 100/200A	45	60		63	63	62.5	60	56	50	45	42.5	41.5	38		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



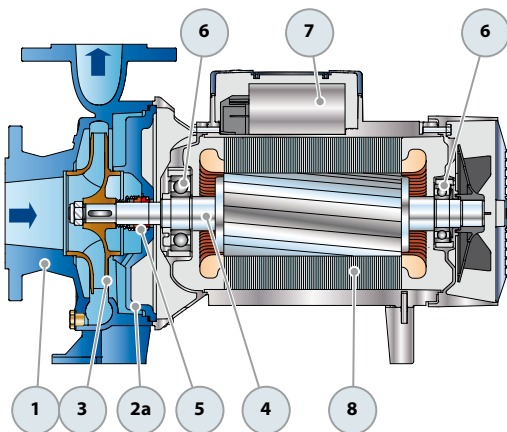
MODEL	POWER (P ₂)		Q	Flow rate										
	kW	HP		m ³ /h	48	96	150	180	210	240	300	309	345	
Three-phase			l/min	800	1600	2500	3000	3500	4000	5000	5150	5750		
F 100/250B	55	75	H metres	75	75	74	71.5	69	64.5	51	48			
F 100/250A	75	100		89	89	88.5	87	84	80.5	70.5	69	58		

Q = Flow rate H = Total manometric head HS = Suction height

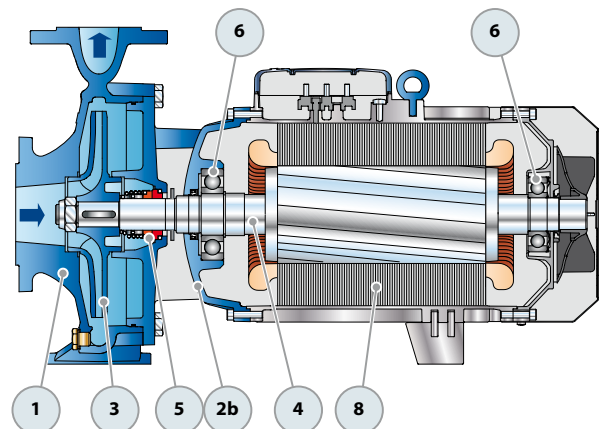
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron complete with flanged suction and delivery ports				
2a BODY BACKPLATE	Cast iron for F32/160, F32/200, F40/125, F40/160, F40/200, F50/125, F50/160, F65/125				
2b MOTOR BRACKET	Cast iron for F32/250, F40/250, F50/200, F50/250, F65/160, F65/200, F65/250, F80/160, F80/200, F80/250, F100/160, F100/200, F100/250				
3 IMPELLER	Brass for F32/160, F32/200, F40/125, F40/160, F40/200, F50/125, F50/160 Cast iron for F32/250, F40/250, F50/200, F50/250, F65/125, F65/160, F65/200, F65/250, F80/160, F80/200, F80/250, F100/160, F100/200, F100/250				
4 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
5 MECHANICAL SEAL	Pump Model	Seal Model	Shaft Diameter	Stationary ring	Materials Rotational ring Elastomer
	F32/160, F40/125, F40/160, 50/125	FN-20	Ø 20 mm	Graphite	Ceramic NBR
	F32/200, F40/200, F50/160, F65/125	FN-24	Ø 24 mm	Graphite	Ceramic NBR
	F50/200, F65/160, F65/200, F80/160, F100/160	FN-32 NU	Ø 32 mm	Graphite	Ceramic NBR
	F32/250, F40/250, F50/250	FN-38	Ø 38 mm	Graphite	Ceramic NBR
	F65/250, F80/200, F80/250B, F100/200	FN-40 NU	Ø 40 mm	Graphite	Ceramic NBR
	F80/250A, F100/250	FH-45 NU	Ø 45 mm	Graphite	Ceramic NBR
6 BEARINGS	Pump Model	Model	Pump Model	Model	
	F32/160C F40/160C	6206 ZZ-C3 / 6204 ZZ	F32/250 F50/200	6310 ZZ-C3 / 6308 ZZ-C3	
	F32/160B F50/125C		F40/250 F65/160		
	F40/125		F50/250 F80/160		
	Fm32/160B F32/160A	6206 ZZ-C3 / 6205 ZZ	F65/200 F100/160	6312 ZZ-C3 / 6212 ZZ-C3	
	Fm40/160C F40/160B		F65/250 F80/200		
	Fm50/125C F50/125B		F80/250B F100/200		
	F40/160A	6306 ZZ-C3 / 6206 ZZ-C3	F80/250A	6314 ZZ-C3 / 6314 ZZ-C3	
	F50/125A		F100/250		
	F32/200 F40/200	6307 ZZ-C3 / 6206 ZZ-C3			
	F50/160 F65/125				
7 CAPACITOR	Pump	Capacitance			
	Single-phase	(230 V or 240 V)			
	Fm32/160C	45 µF - 450 VL			
	Fm32/160B	70 µF - 450 VL			
	Fm40/125C	31.5 µF - 450 VL			
	Fm40/125B	45 µF - 450 VL			
	Fm40/160C	70 µF - 450 VL			
	Fm50/125C	70 µF - 450 VL			
8 ELECTRIC MOTOR	Fm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding (up to 1.5 kW) F: three-phase 230/400 V - 50 Hz up to 4 kW 400/690 V - 50 Hz from 5.5 to 75 kW <ul style="list-style-type: none"> ➡ The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW in class IE3 (IEC 60034-30) - Insulation: class F - Protection: IP X5 				



Single-phase version



Three-phase version

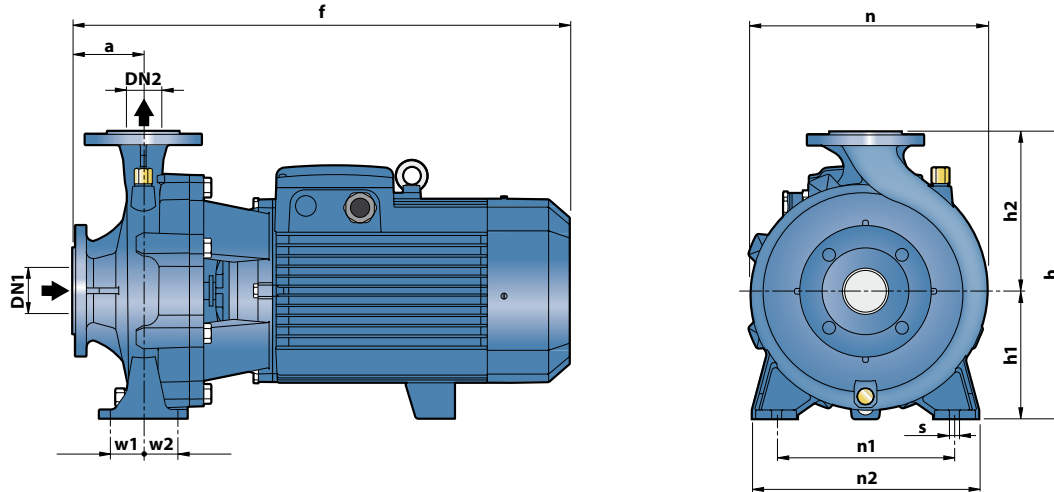
ABSORPTION

MODEL	VOLTAGE	
	230 V	240 V
Single-phase		
Fm 32/160C	11.0 A	10.0 A
Fm 32/160B	15.0 A	13.8 A
Fm 40/125C	8.6 A	7.8 A
Fm 40/125B	15.0 A	13.8 A
Fm 40/160C	15.0 A	13.8 A
Fm 50/125C	15.0 A	13.8 A

MODEL	VOLTAGE		
	230÷240 V	400÷415 V	690÷720 V
Three-phase			
F 32/160C	7.5 A	4.3 A	2.5 A
F 32/160B	10.0 A	5.8 A	3.4 A
F 32/160A	12.0 A	7.3 A	4.2 A
F 32/200C	17.9 A	10.3 A	5.9 A
F 32/200B	-	11.7 A	6.7 A
F 32/200A	-	14.9 A	8.6 A
F 32/200BH	12.6 A	7.3 A	4.2 A
F 32/200AH	15.4 A	8.9 A	5.1 A
F 32/250C	-	17.2 A	9.9 A
F 32/250B	-	21.0 A	12.0 A
F 32/250A	-	27.0 A	15.6 A
F 40/125C	5.7 A	3.3 A	1.9 A
F 40/125B	7.5 A	4.3 A	2.5 A
F 40/125A	10.0 A	5.8 A	3.4 A
F 40/160C	9.9 A	5.7 A	3.3 A
F 40/160B	12.0 A	6.9 A	4.0 A
F 40/160A	17.2 A	9.9 A	5.7 A
F 40/200B	-	12.6 A	7.3 A
F 40/200A	-	15.6 A	9.0 A
F 40/250C	-	21.0 A	12.1 A
F 40/250B	-	23.5 A	13.6 A
F 40/250A	-	30.5 A	17.6 A
F 50/125C	9.4 A	5.4 A	3.1 A
F 50/125B	12.0 A	6.9 A	4.0 A
F 50/125A	16.3 A	9.4 A	5.4 A
F 50/160C	15.8 A	9.1 A	5.3 A
F 50/160B	-	12.3 A	7.1 A
F 50/160A	-	15.5 A	8.9 A
F 50/200C	-	23.0 A	13.3 A
F 50/200B	-	29.5 A	17.0 A
F 50/200A	-	34.5 A	20.0 A
F 50/200AR	-	41.5 A	24.0 A

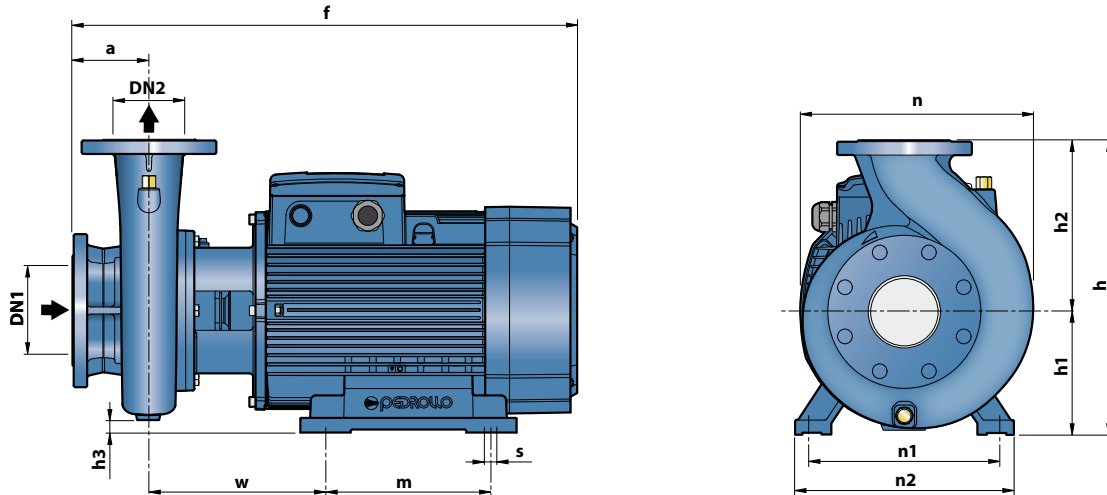
MODEL	VOLTAGE		
	230÷240 V	400÷415 V	690÷720 V
Three-phase			
F 50/250D	-	17.2 A	9.9 A
F 50/250C	-	21.0 A	12.0 A
F 50/250B	-	27.0 A	15.6 A
F 50/250A	-	34.0 A	19.6 A
F 50/250AR	-	41.0 A	24.0 A
F 65/125C	17.5 A	10.0 A	5.8 A
F 65/125B	-	12.0 A	7.0 A
F 65/125A	-	16.5 A	9.5 A
F 65/160C	-	19.0 A	11.0 A
F 65/160B	-	23.0 A	13.5 A
F 65/160A	-	27.5 A	16.0 A
F 65/200B	-	31.0 A	18.0 A
F 65/200A	-	34.0 A	19.5 A
F 65/200AR	-	41.0 A	23.7 A
F 65/250C	-	53.0 A	31.0 A
F 65/250B	-	65.0 A	38.0 A
F 65/250A	-	79.0 A	46.0 A
F 80/160D	-	22.0 A	13.0 A
F 80/160C	-	29.0 A	17.0 A
F 80/160B	-	34.5 A	20.0 A
F 80/160A	-	39.0 A	22.5 A
F 80/200B	-	53.0 A	31.0 A
F 80/200A	-	65.0 A	38.0 A
F 80/250B	-	79.0 A	46.0 A
F 80/250A	-	98.0 A	57.0 A
F 100/160C-N	-	31.0 A	18.0 A
F 100/160B-N	-	36.0 A	21.0 A
F 100/160A-N	-	42.0 A	24.0 A
F 100/200C	-	53.0 A	31.0 A
F 100/200B	-	65.0 A	38.0 A
F 100/200A	-	79.0 A	46.0 A
F 100/250B	-	98.0 A	57.0 A
F 100/250A	-	126.0 A	73.0 A

DIMENSIONS AND WEIGHT



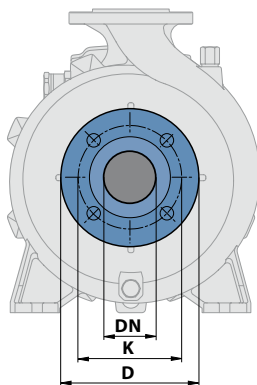
MODEL		DIMENSIONS mm													kg													
Single-phase	Three-phase	DN1	DN2	a	f	h	h1	h2	n	n1	n2	w1	w2	s	1~	3~												
Fm 32/160C	F 32/160C	50	32	80	412	340	160	180	270	190	240	35	35	14	32.7	32.1												
Fm 32/160B	F 32/160B				448/412										292	132	160	242	37.5	33.4								
-	F 32/160A				448										-	-	-	-	-	-								
-	F 32/200C				469										-	-	-	-	-	-								
-	F 32/200B				515										-	-	-	-	-	-								
-	F 32/200A			469	-	-	-	-	-			-																
-	F 32/200BH			-	-	-	-	-	-			-	-		-	-	-	-	-	-	-							
-	F 32/200AH			-	-	-	-	-	-			-	-		-	-	-	-	-	-	-							
-	F 32/250C			-	-	-	-	-	-			-	-		-	-	-	-	-	-	-							
-	F 32/250B			100	100	606	405	180	225			330	250		320	47.5	47.5	-	-	100.0	102.0							
-	F 32/250A	701	-	-	-	-	-	-	-	-	-	-	-	-	-	119.8												
Fm 40/125C	F 40/125C	65	40	80	421	340	160	180	275	160	210	35	35	14	31.5	29.5												
Fm 40/125B	F 40/125B				448/412										292	132	160	240	190	240	37.6	33.5						
-	F 40/125A				448										-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fm 40/160C	F 40/160C				465										-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	F 40/160B				465										-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	F 40/160A			535	-	-	-	-	-			-	-		-	-	-	-	-	-	-							
-	F 40/200B			535	-	-	-	-	-			-	-		-	-	-	-	-	-	-							
-	F 40/200A			606	-	-	-	-	-			-	-		-	-	-	-	-	-	-							
-	F 40/250C			606	405	180	225	328	250			320	47.5		47.5	-	-	-	-	100.0	102.0							
-	F 40/250B			701	-	-	-	-	-			-	-		-	-	-	-	-	-	-							
-	F 40/250A	701	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Fm 50/125C	F 50/125C	65	50	100	465/431	340	160	180	269	190	240	35	35	14	37.3	33.2												
-	F 50/125B				465										292	132	160	242	190	240	-	-	-	-	-	-	-	
-	F 50/125A				484										-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	F 50/160C				489										-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	F 50/160B				535										-	-	-	-	-	-	-	-	-	35	35	-	-	-
-	F 50/160A			535	-	-	-	-	-			-	-		-	-	-	-	-	-	-							
-	F 50/200C			616	-	-	-	-	-			-	-		212	265	-	-	-	-	-							
-	F 50/200B			616	160	-	-	-	-			-	-		-	-	-	-	-	-	-							
-	F 50/200A			711	360	-	-	-	-			-	-		-	-	-	-	-	-	-							
-	F 50/200AR			711	-	-	-	-	-			-	-		-	-	-	-	-	-	-							
-	F 50/250D	743	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 50/250C	606	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 50/250B	606	405	180	225	337	250	320	-	-	-	-	-	-	-	-												
-	F 50/250A	701	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 50/250AR	733	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 65/125C	511	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 65/125B	511	340	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 65/125A	557	-	-	-	-	-	-	-	212	280	-	-	-	-	-												
-	F 65/160C	557	160	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 65/160B	621	360	-	-	-	-	-	-	-	-	47.5	47.5	-	-	-												
-	F 65/160A	621	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 65/200B	716	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 65/200A	716	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 65/200AR	719	-	-	-	-	-	-	-	340	-	-	-	-	-	-												
-	F 65/200A	719	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 65/200AR	751	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 80/160D	652	405	180	225	-	-	-	-	250	320	-	-	-	-	-												
-	F 80/160C	652	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 80/160B	747	-	-	-	-	-	-	-	330	-	-	-	-	-	-												
-	F 80/160A	747	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 100/160C-N	779	125	125	779	-	-	-	-	-	-	-	-	-	-	-												
-	F 100/160B-N	779	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 100/160A-N	779	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 100/160C-N	758	125	100	758	480	200	280	362	280	360	60	60	18	-	-												
-	F 100/160B-N	758	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
-	F 100/160A-N	790	-	-	-	-	-	-	-	-	-	-	-	-	-	-												

DIMENSIONS AND WEIGHT



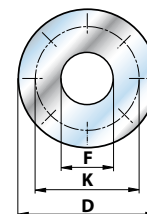
MODEL	DIMENSIONS mm														kg 3~
	DN1	DN2	a	f	h	h1	h2	h3	n	n1	n2	w	m	s	
F 65/250C	80	65	100	796	450	200	250	15	369	318	360	269.5	305	18.5	201.3
F 65/250B				847											201.3
F 65/250A				847											219.3
F 80/200B	100	80	125	824	430	280	280	25	360	400	490	294	350	24	201.6
F 80/200A				875											201.6
F 80/250B				872											234.5
F 80/250A	125	100	140	1015	620	250	280	55	490	400	490	300	350	24	539.0
F 100/200C				824											225.3
F 100/200B				875											225.3
F 100/200A	125	100	140	875	480	200	280	0	391	318	360	269.5	305	18.5	233.3
F 100/250B				539.3											
F 100/250A				539.3											

FLANGED PORTS



COUNTER FLANGES

(CAN BE ORDERED SEPARATELY)



DN FLANGES mm	D mm	K mm	HOLES	
			N.	Ø (mm)
32	140	100	4	18
40	150	110		
50	165	125		
65	185	145		
80	200	160		
100	220	180	8	
125	250	210		

DN FLANGES mm	F COUNTER FLANGES	D mm	K mm	HOLES	
				N.	Ø (mm)
32	1¼"	140	100	4	18
40	1½"	150	110		
50	2"	165	125		
65	2½"	185	145		
80	3"	200	160		
100	4"	220	180	8	
125	5"	250	210		

Standardised “EN 733” centrifugal pumps

 Clean water

 Industrial use



PERFORMANCE RANGE

- Flow rate up to **3000 l/min** (180 m³/h)
- Head up to **24 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. pressure in pump body **10 bar** (PN10)
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



Pump body dimensions in compliance with **EN 733**
EU REGULATION N. 547/2012

INSTALLATION AND USE

- Water supply
- Pressure boosting
- Irrigation
- Water circulation in air-conditioning units
- Cleaning sets
- Firefighting sets
- Industrial applications
- Agricultural applications

The pump should be installed in an enclosed environment or sheltered from inclement weather.

OPTIONS AVAILABLE ON REQUEST

- Counter flange KIT complete with bolts, nuts and washers
- Other voltages or 60 Hz frequency
- Compatibility with hotter or colder liquids
- Compatibility with hotter or colder environments

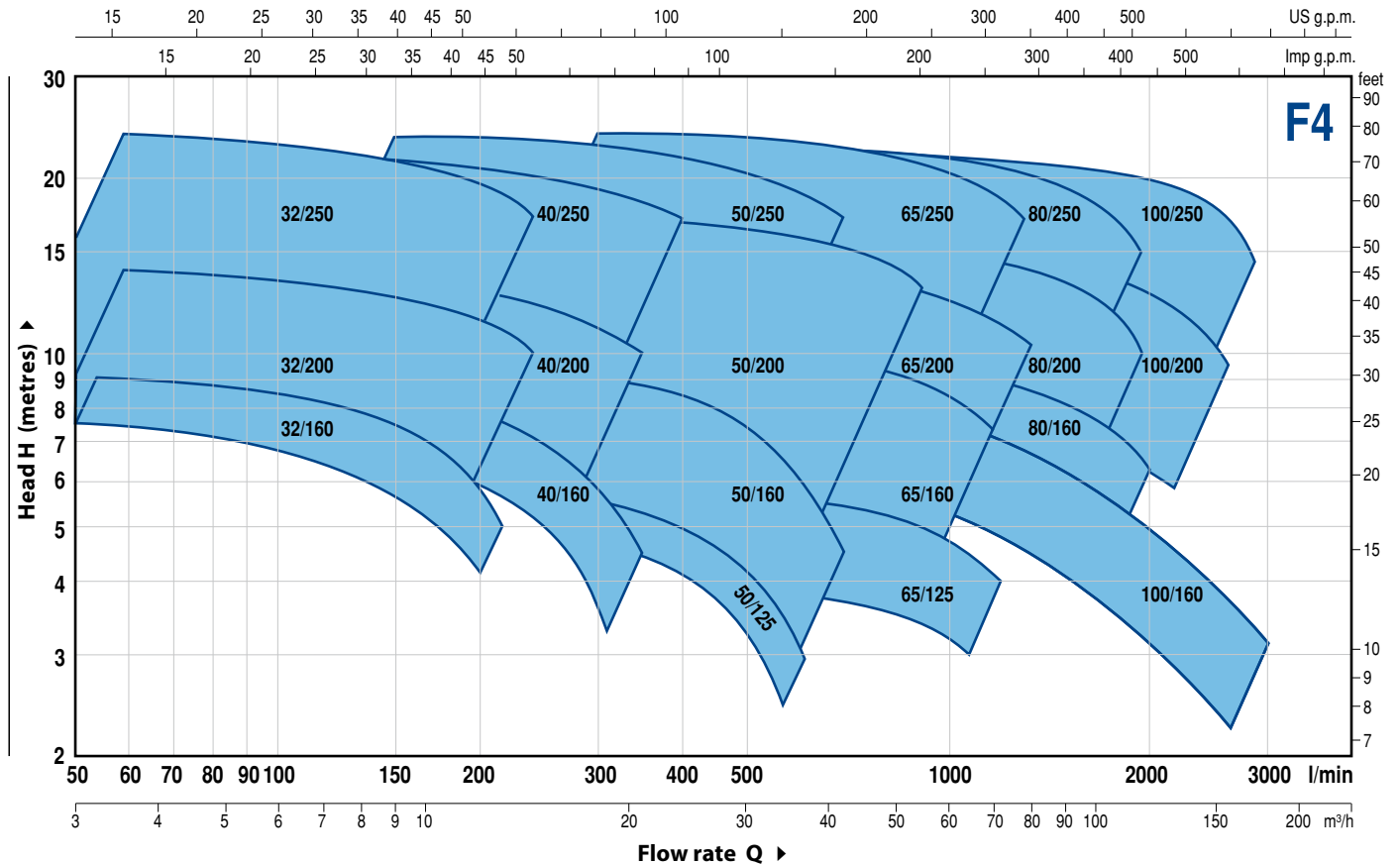
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



PERFORMANCE RANGE

50 Hz n = 1450 rpm



PERFORMANCE DATA

50 Hz n = 1450 rpm

MODEL	POWER (P ₂)			PERFORMANCE	
	Three-phase	kW	HP ▲	Q l/min	H metres
F4-32/160B	0.37	0.5	IE2	50 ÷ 200	7.5 ÷ 4.5
F4-32/160A	0.37	0.5		50 ÷ 225	9 ÷ 5
F4-32/200B	0.75	1	IE2	50 ÷ 250	12.5 ÷ 9
F4-32/200A	1.1	1.5		50 ÷ 250	14 ÷ 10.5
F4-32/200BH	0.75	1	IE2	50 ÷ 150	11.3 ÷ 9.2
F4-32/200AH	0.75	1		50 ÷ 160	13.8 ÷ 11
F4-32-250C	1.1	1.5	IE2	50 ÷ 200	18.5 ÷ 13.5
F4-32-250B	1.5	2		50 ÷ 225	21.5 ÷ 15.5
F4-32-250A	2.2	3	IE3	50 ÷ 250	24 ÷ 16.5
F4-40/160B	0.37	0.5	IE2	50 ÷ 320	7.5 ÷ 3.5
F4-40/160A	0.55	0.75		50 ÷ 350	9 ÷ 4.5
F4-40/200B	0.75	1	IE2	50 ÷ 350	11.5 ÷ 7
F4-40/200A	1.1	1.5		50 ÷ 350	13.8 ÷ 10
F4-40/250C	1.1	1.5	IE2	50 ÷ 400	15.5 ÷ 10
F4-40/250B	1.5	2		50 ÷ 400	17.5 ÷ 12
F4-40/250A	2.2	3	IE3	50 ÷ 400	22 ÷ 17
F4-50/125B	0.55	0.75	IE2	150 ÷ 600	5 ÷ 2
F4-50/125A	0.55	0.75		150 ÷ 600	6 ÷ 3
F4-50/160B	0.75	1	IE2	150 ÷ 650	8 ÷ 3.8
F4-50/160A	1.1	1.5		150 ÷ 700	9.3 ÷ 4.5
F4-50/200C	1.5	2	IE3	200 ÷ 850	11 ÷ 7.5
F4-50/200B	2.2	3		200 ÷ 850	13 ÷ 9.5
F4-50/200A	2.2	3		200 ÷ 900	15 ÷ 11.2
F4-50/200AR	3	4		200 ÷ 900	17 ÷ 13.2
F4-50/250D	1.1	1.5	IE2	150 ÷ 650	12.5 ÷ 5
F4-50/250C	1.5	2		150 ÷ 700	14 ÷ 5
F4-50/250B	2.2	3		150 ÷ 700	18 ÷ 10.5
F4-50/250A	2.2	3		150 ÷ 700	20 ÷ 13
F4-50/250AR	3	4		150 ÷ 700	23.5 ÷ 17

MODEL	POWER (P ₂)			PERFORMANCE	
	Three-phase	kW	HP ▲	Q l/min	H metres
F4-65/125B	0.75	1	IE2	300 ÷ 1100	4.7 ÷ 3
F4-65/125A	1.1	1.5		300 ÷ 1200	5.7 ÷ 4
F4-65/160C	1.1	1.5	IE2	300 ÷ 1100	8 ÷ 5.5
F4-65/160B	1.5	2		300 ÷ 1200	9.1 ÷ 5.7
F4-65/160A	2.2	3	IE3	300 ÷ 1200	10.1 ÷ 7
F4-65/200A	2.2	3		300 ÷ 1250	12 ÷ 8.5
F4-65/200AR	3	4	IE3	300 ÷ 1300	14 ÷ 10
F4-65/250B	4	5.5	IE3	200 ÷ 1250	21.8 ÷ 15.5
F4-65/250A	5.5	7.5		200 ÷ 1300	23.5 ÷ 17
F4-80/160D	1.5	2	IE3	300 ÷ 2000	6.3 ÷ 2.5
F4-80/160C	2.2	3		300 ÷ 2000	7.5 ÷ 3.8
F4-80/160B	2.2	3		300 ÷ 2000	8.8 ÷ 5
F4-80/160A	3	4		300 ÷ 2000	10 ÷ 6.2
F4-80/200B	4	5.5	IE3	300 ÷ 1800	14 ÷ 9
F4-80/200A	5.5	7.5		300 ÷ 1900	15.5 ÷ 10.5
F4-80/250B	5.5	7.5	IE3	300 ÷ 1800	19.5 ÷ 13.5
F4-80/250A	7.5	10		300 ÷ 1950	22 ÷ 15
F4-100/160B-N	2.2	3	IE3	400 ÷ 2750	8.1 ÷ 2.7
F4-100/160A-N	3	4		400 ÷ 3000	9.2 ÷ 3.2
F4-100/200C	4	5.5	IE3	400 ÷ 2300	12.7 ÷ 7
F4-100/200B	5.5	7.5		400 ÷ 2400	14.2 ÷ 8.5
F4-100/200A	5.5	7.5		400 ÷ 2600	15.8 ÷ 9.5
F4-100/250B	7.5	10	IE3	400 ÷ 2600	18.5 ÷ 11.5
F4-100/250A	9.2	12.5		400 ÷ 2900	22 ÷ 13.5

Q = Flow rate

H = Total manometric head

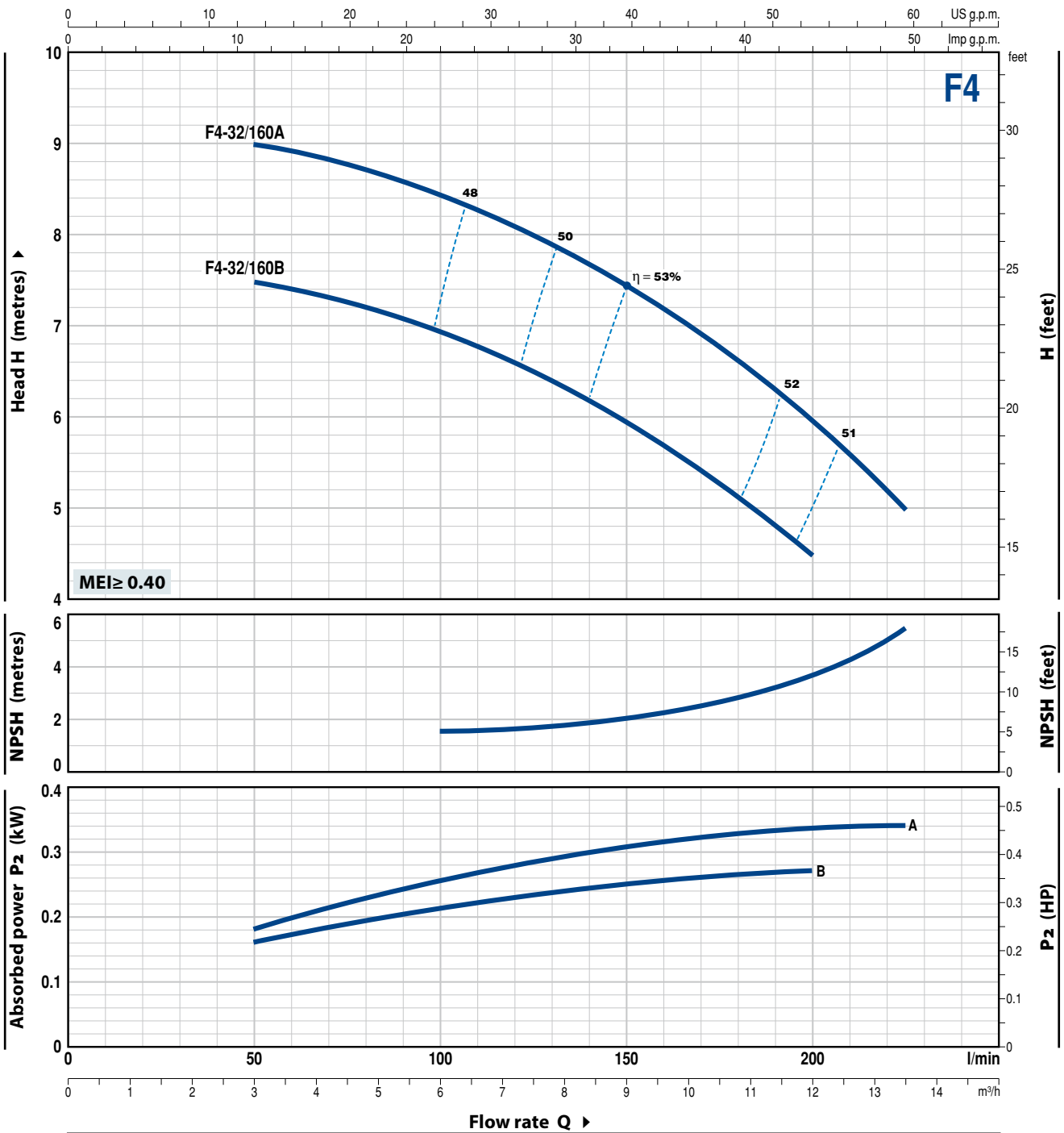
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

F4-32/160

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



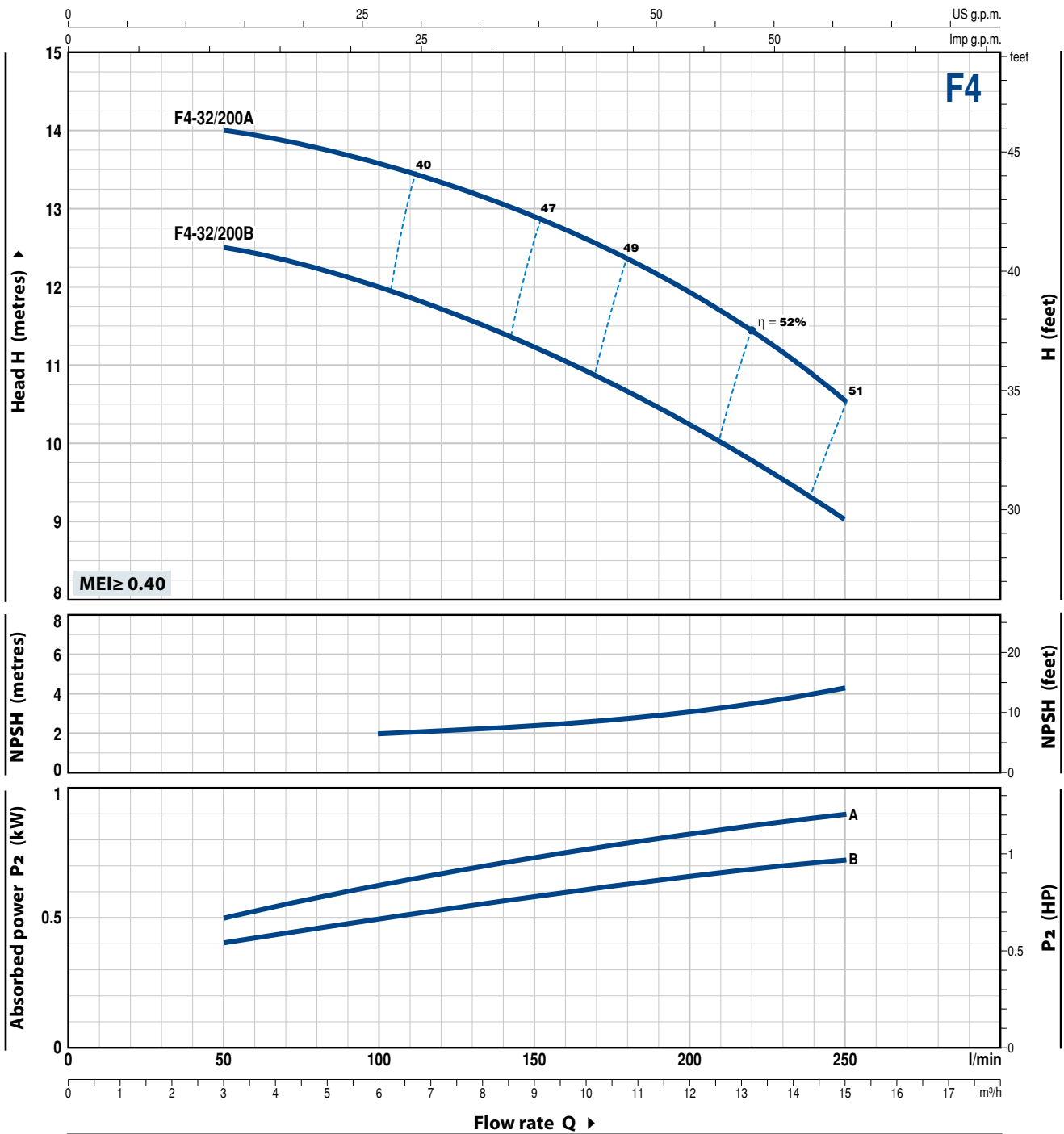
MODEL	POWER (P ₂)		Q	Flow rate								
	kW	HP		m ³ /h	3	4.5	6	7.5	9	10.8	12	13.5
Three-phase			l/min	50	75	100	125	150	180	200	225	
F4-32/160B	0.37	0.5	H metres	7.5	7.3	6.9	6.5	6	5.1	4.5		
F4-32/160A	0.37	0.5		9	8.8	8.4	8	7.5	6.6	6	5	

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate				
	kW	HP		m ³ /h	l/min	l/min	l/min	l/min
Three-phase				3	6	9	12	15
				50	100	150	200	250
F4-32/200B	0.75	1	H metres	12.5	12	11.2	10.3	9
F4-32/200A	1.1	1.5	H metres	14	13,6	12.8	11.9	10.5

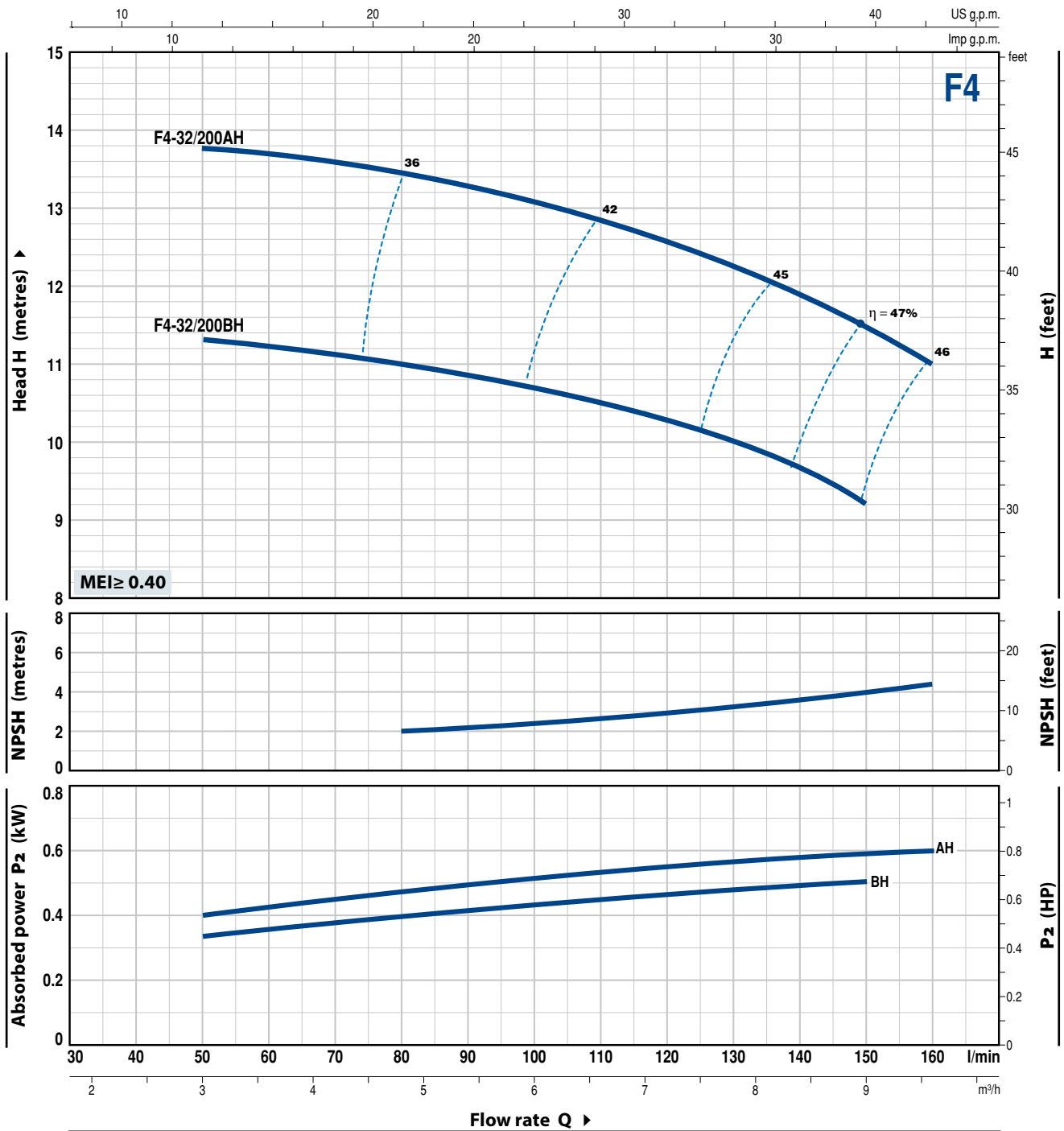
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-32/200H

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



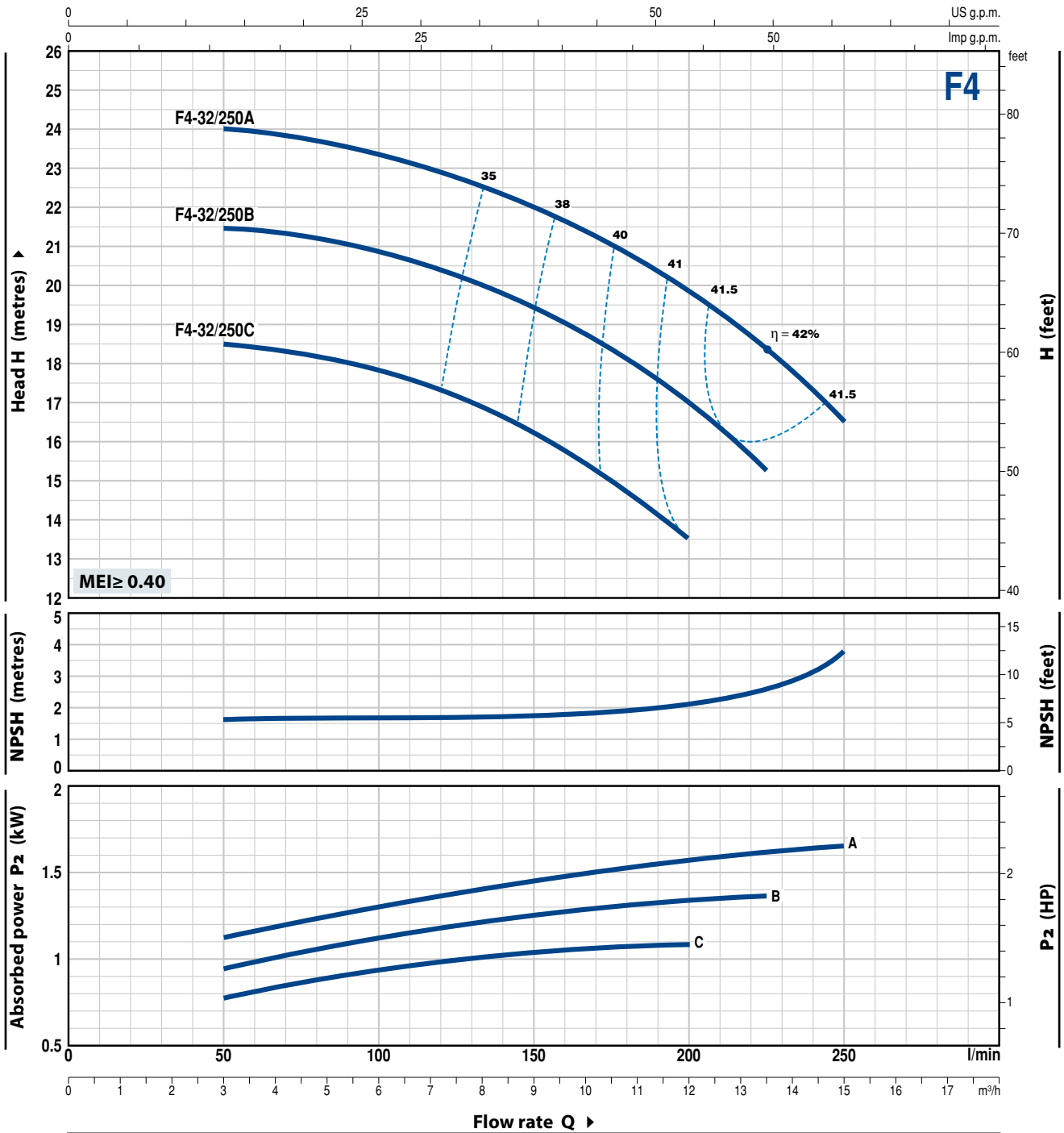
MODEL	POWER (P ₂)		Q	Flow rate							
	kW	HP		m ³ /h	3	4.2	5.4	6.6	7.8	9	9.6
Three-phase				50	70	90	110	130	150	160	
F4-32/200BH	0.75	1	H metres	11.3	11.1	10.8	10.5	10	9.2		
F4-32/200AH	0.75	1	H metres	13.8	13.6	13.3	12.8	12.2	11.5	11	

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		m ³ /h	3	4.5	6	7.5	9	10.5	12	13.5	15		
Three-phase			l/min	50	75	100	125	150	175	200	225	250			
F4-32/250C	1.1	1.5	H metres		18.5	18.2	17.8	17.2	16.2	15	13.5				
F4-32/250B	1.5	2			21.5	21.2	20.8	20.2	19.5	18.2	17	15.5			
F4-32/250A	2.2	3			24	23.7	23.3	22.7	22	21	19.8	18.3	16.5		

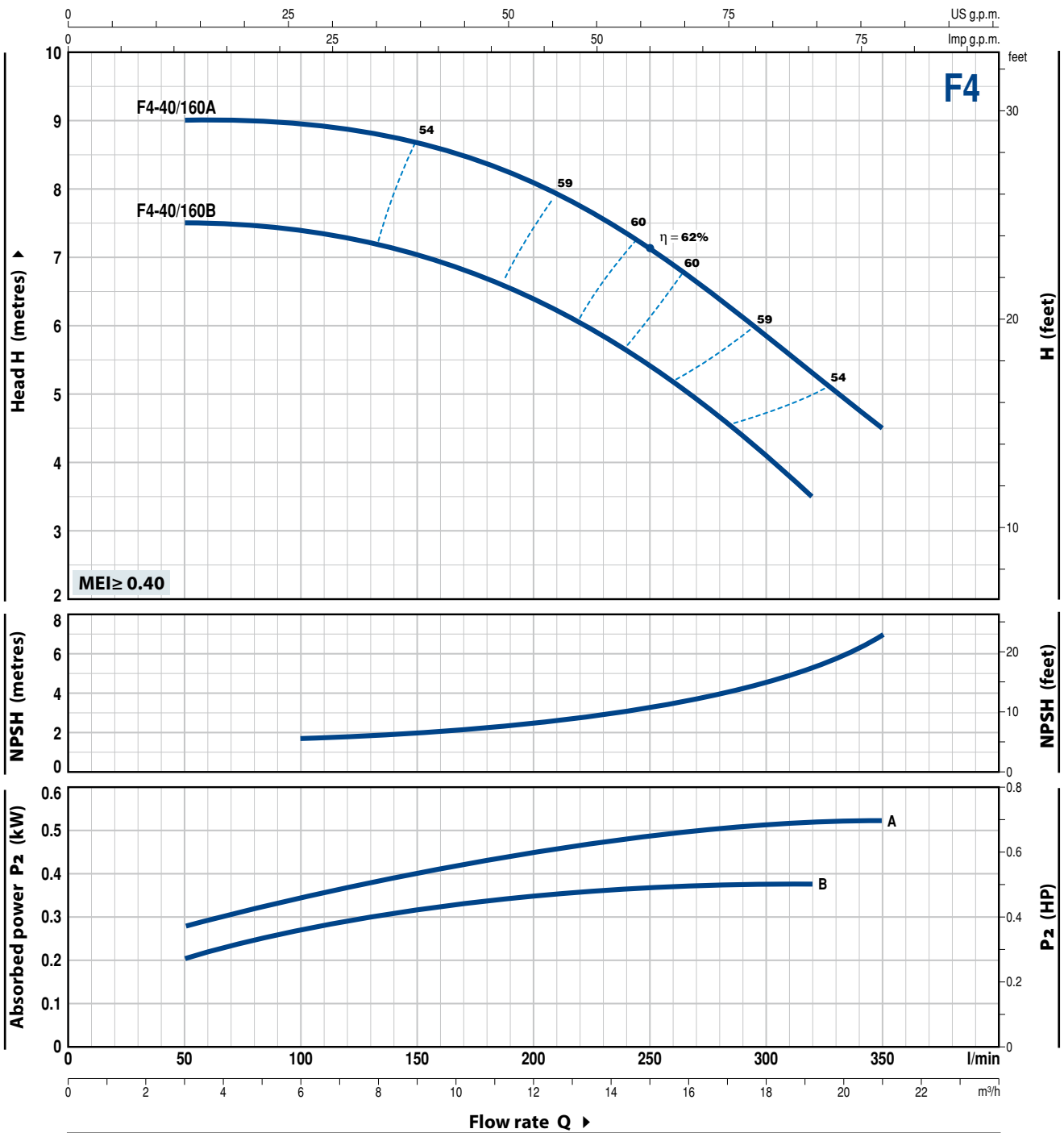
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-40/160

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



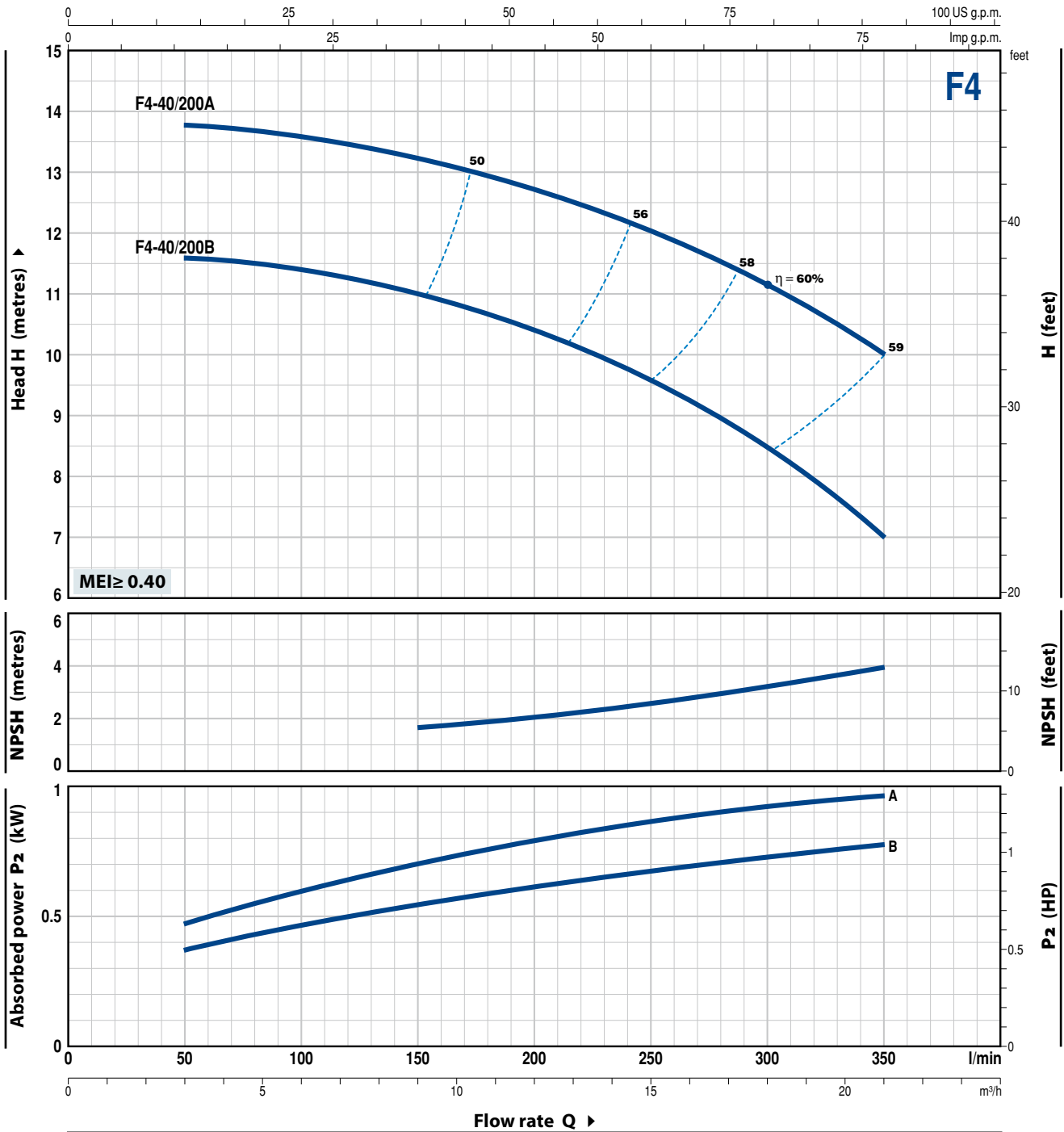
MODEL	POWER (P ₂)		Q	Flow rate								
	kW	HP		m ³ /h	3	6	9	12	15	18	19.2	21
Three-phase			l/min	50	100	150	200	250	300	320	350	
F4-40/160B	0.37	0.5	H metres	7.5	7.4	7	6.4	5.4	4.1	3.5		
F4-40/160A	0.55	0.75		9	8.9	8.7	8.1	7.1	5.8	5.3	4.5	

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	3	6	9	12	15	18	21
	kW	HP		l/min	50	100	150	200	250	300
F4-40/200B	0.75	1	H metres	11.5	11.4	11	10.4	9.5	8.5	7
F4-40/200A	1.1	1.5	H metres	13.8	13.6	13.2	12.7	12	11.1	10

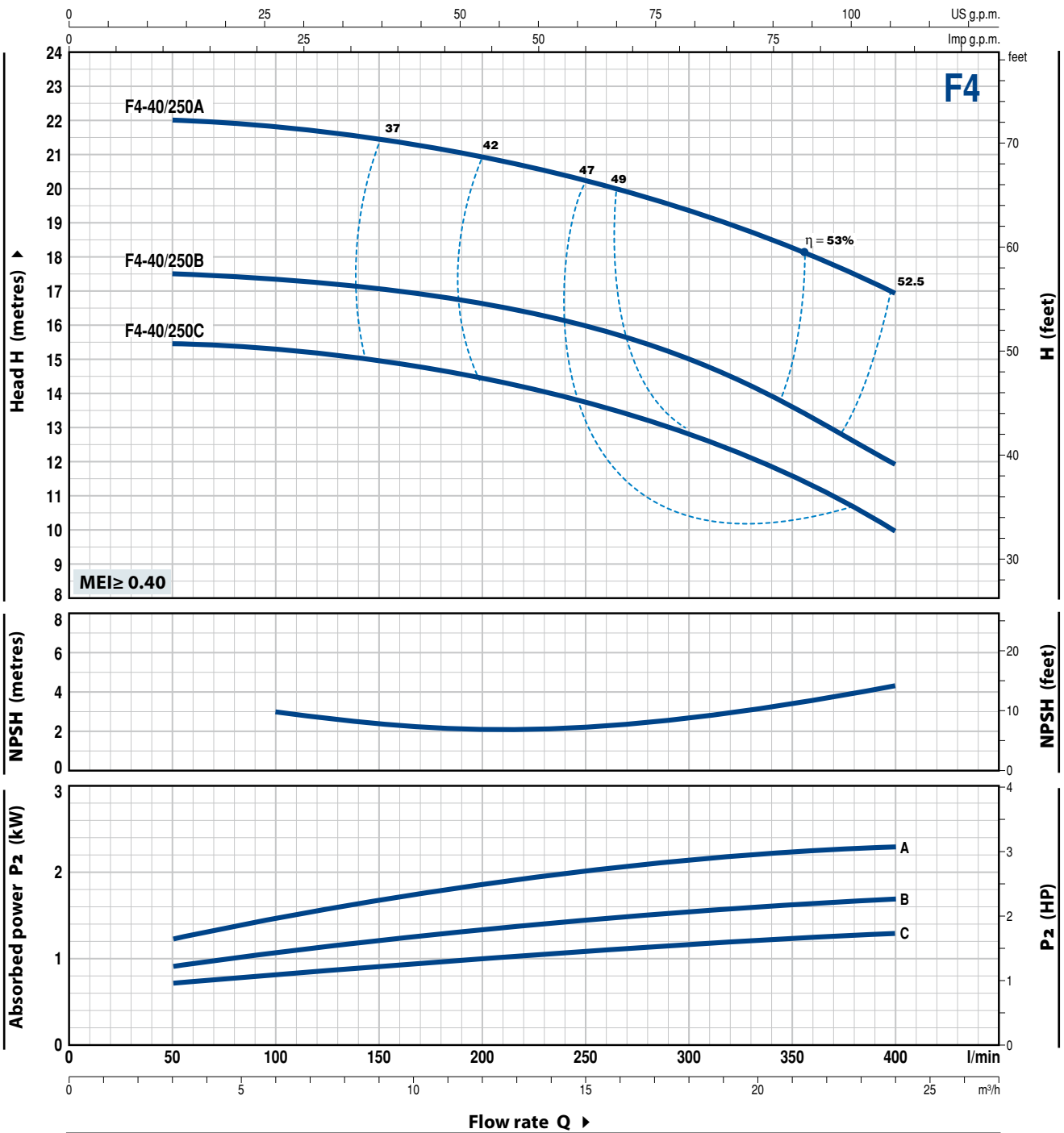
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-40/250

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



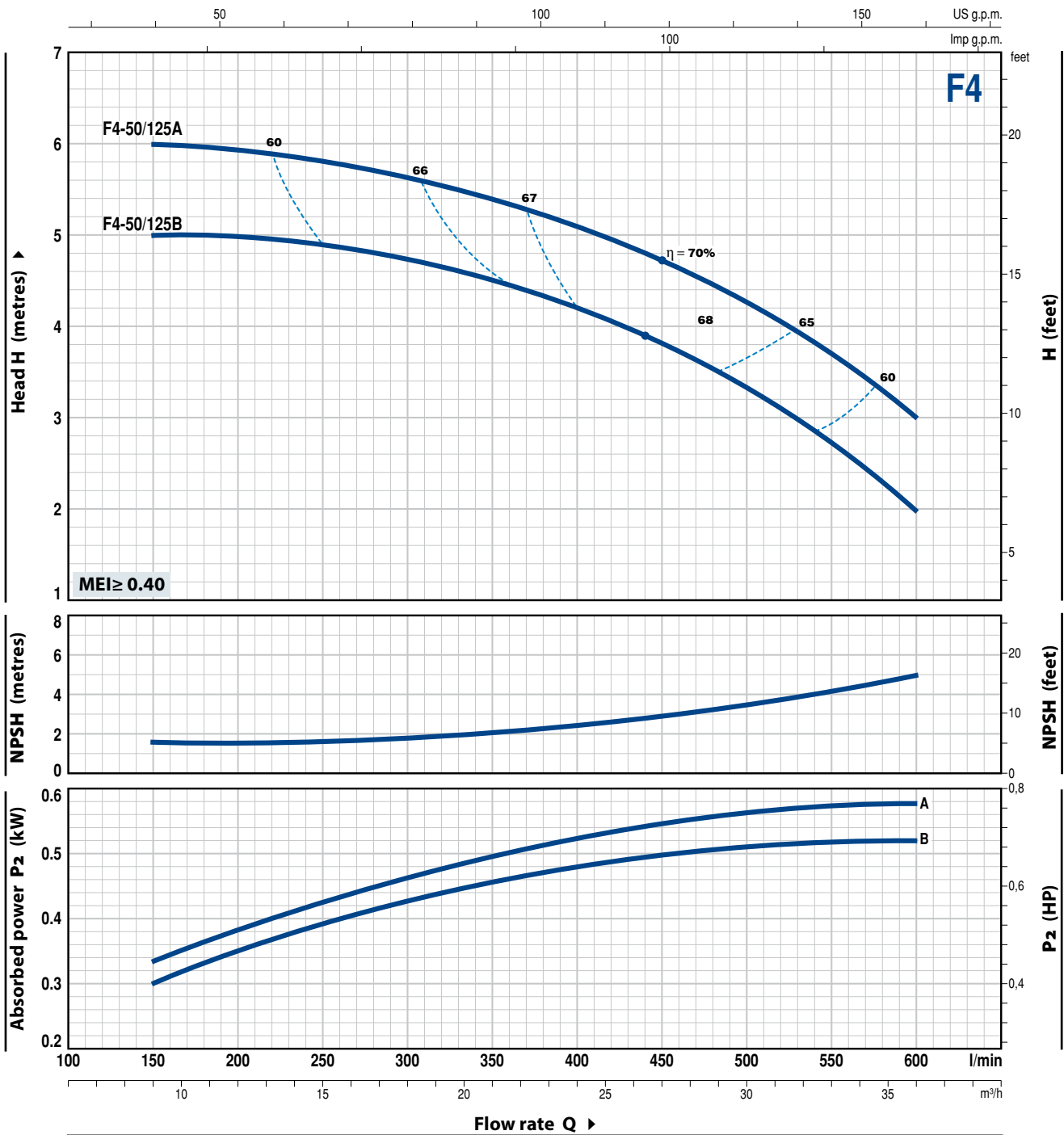
MODEL	POWER (P ₂)		Q	3	6	9	12	15	18	21	24
	kW	HP		m ³ /h	l/min	l/min	l/min	l/min	l/min	l/min	l/min
Three-phase				50	100	150	200	250	300	350	400
F4-40/250C	1.1	1.5	H metres	15.5	15.2	15	14.5	13.6	12.9	11.5	10
F4-40/250B	1.5	2		17.5	17.2	17	16.5	16	15	13.5	12
F4-40/250A	2.2	3		22	21.9	21.5	21	20.2	19.2	18.2	17

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 1450 rpm HS = 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		m ³ /h	9	12	15	17	21	24	27	30	33	36	
Three-phase			l/min	150	200	250	300	350	400	450	500	550	600		
F4-50/125B	0.55	0.75	H metres	5	5	4.9	4.7	4.5	4.2	3.8	3.3	2.7	2		
F4-50/125A	0.55	0.75		6	5.9	5.8	5.6	5.4	5.1	4.7	4.2	3.7	3		

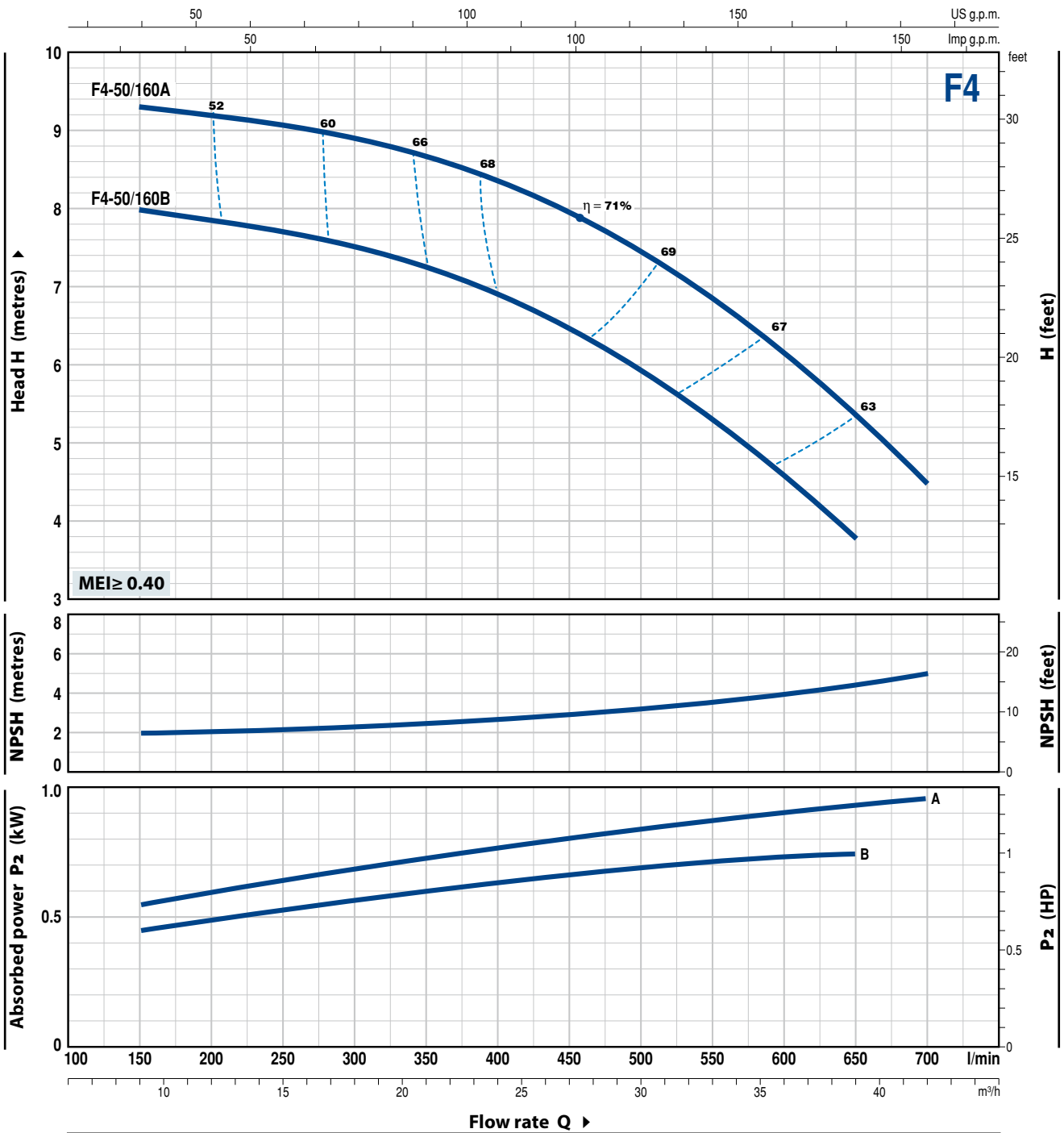
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-50/160

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



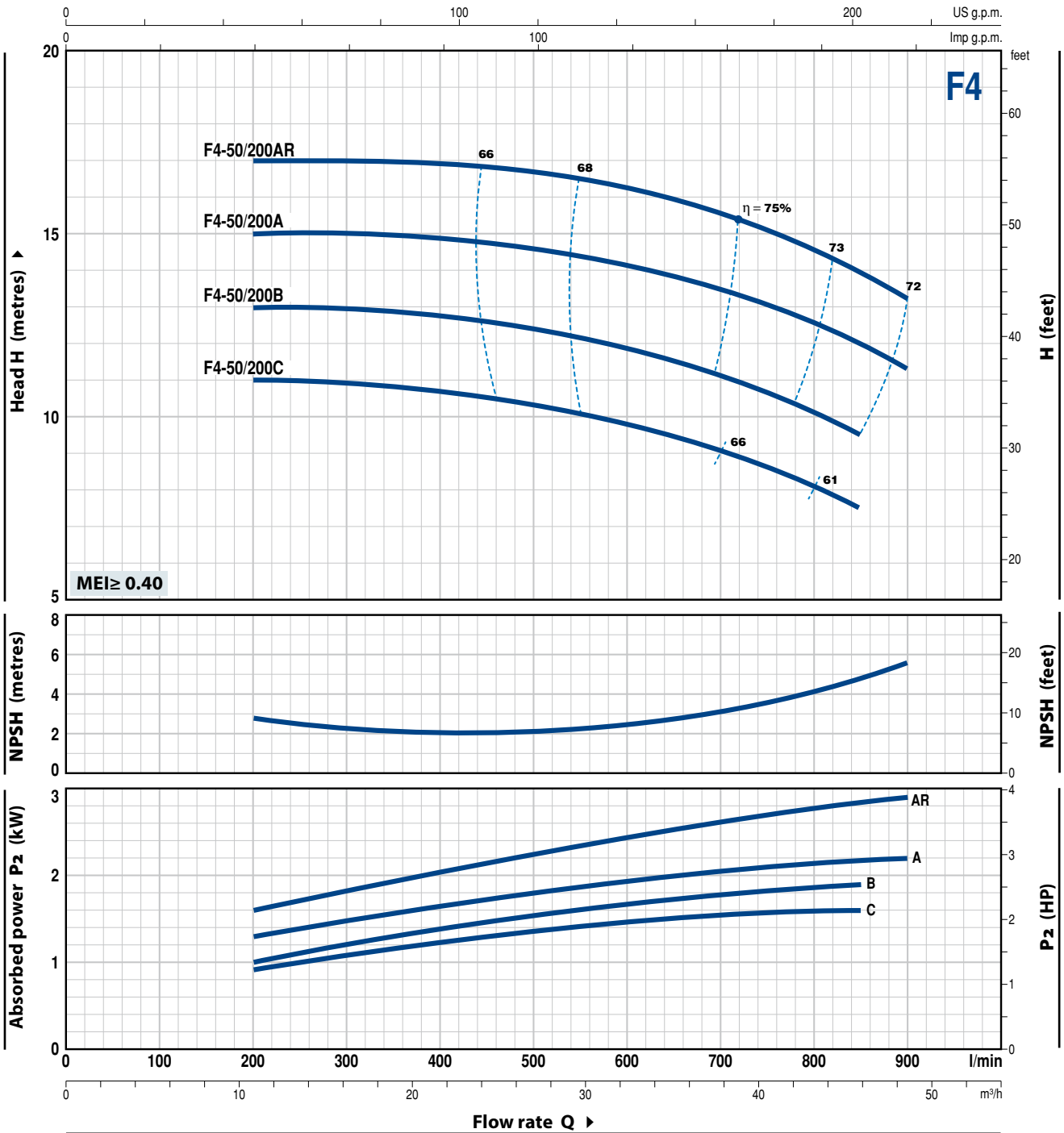
MODEL	POWER (P ₂)		Q	Flow rate													
	kW	HP		m ³ /h	9	12	15	17	21	24	27	30	33	36	39	42	
Three-phase			l/min	150	200	250	300	350	400	450	500	550	600	650	700		
F4-50/160B	0.75	1	H metres	8	7.8	7.7	7.5	7.2	6.9	6.5	5.9	5.3	4.6	3.8			
F4-50/160A	1.1	1.5		9.3	9.2	9.1	8.9	8.7	8.4	8	7.4	6.8	6.2	5.4	4.5		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		m ³ /h	12	17	24	30	36	42	48	51	54		
Three-phase				l/min	200	300	400	500	600	700	800	850	900		
F4-50/200C	1.5	2	H metres		11	11	10.8	10.3	9.8	9	8	7.5			
F4-50/200B	2.2	3			13	13	12.8	12.4	11.9	11.1	10.1	9.5			
F4-50/200A	2.2	3			15	15	14.9	14.6	14.1	13.5	12.5	12	11.2		
F4-50/200AR	3	4			17	17	16.9	16.7	16.2	15.5	14.5	14	13.2		

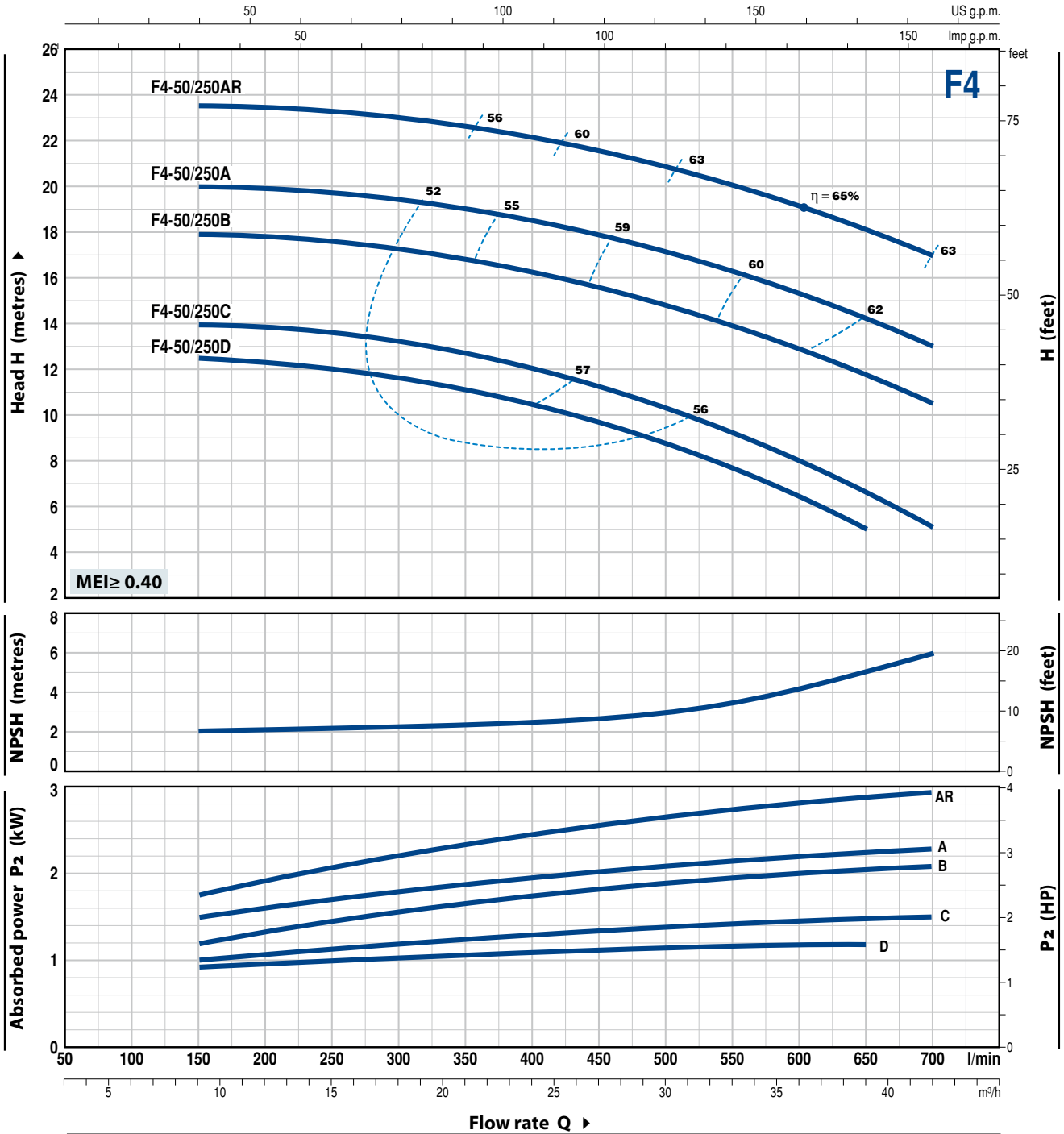
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-50/250

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



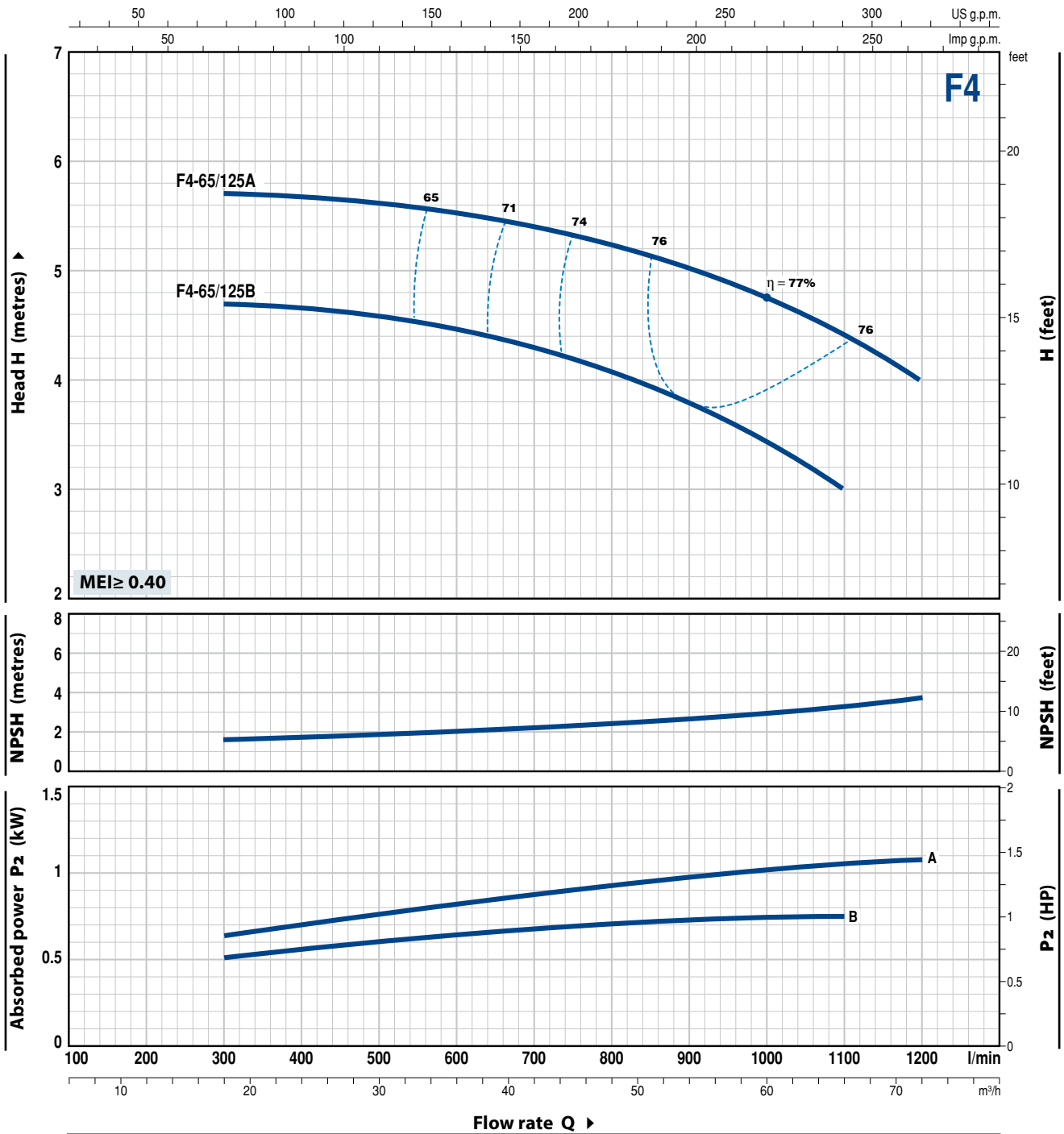
MODEL	POWER (P ₂)		Q	Flow rate (l/min)													
	kW	HP		9	12	15	18	21	24	27	30	33	36	39	42		
Three-phase			Q	150	200	250	300	350	400	450	500	550	600	650	700		
F4-50/250D	1.1	1.5	H metres	12.5	12.3	12	11.5	11.1	10.5	9.8	8.8	7.8	6.5	5			
F4-50/250C	1.5	2		14	13.9	13.6	13.2	12.8	12	11.2	10.2	9.2	8	6.6	5		
F4-50/250B	2.2	3		18	17.9	17.6	17.2	16.8	16.2	15.5	14.8	14	13	11.8	10.5		
F4-50/250A	2.2	3		20	19.9	19.7	19.5	19	18.5	18	17.2	16.2	15.3	14.2	13		
F4-50/250AR	3	4		23.5	23.4	23.2	23	22.6	22.1	21.6	21	20	19	18	17		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		m ³ /h	18	24	30	36	42	48	54	60	66	72	
Three-phase			l/min	300	400	500	600	700	800	900	1000	1100	1200		
F4-65/125B	0.75	1	H metres	4.7	4.7	4.6	4.5	4.3	4.1	3.8	3.4	3			
F4-65/125A	1.1	1.5		5.7	5.7	5.6	5.5	5.4	5.2	5	4.7	4.4	4		

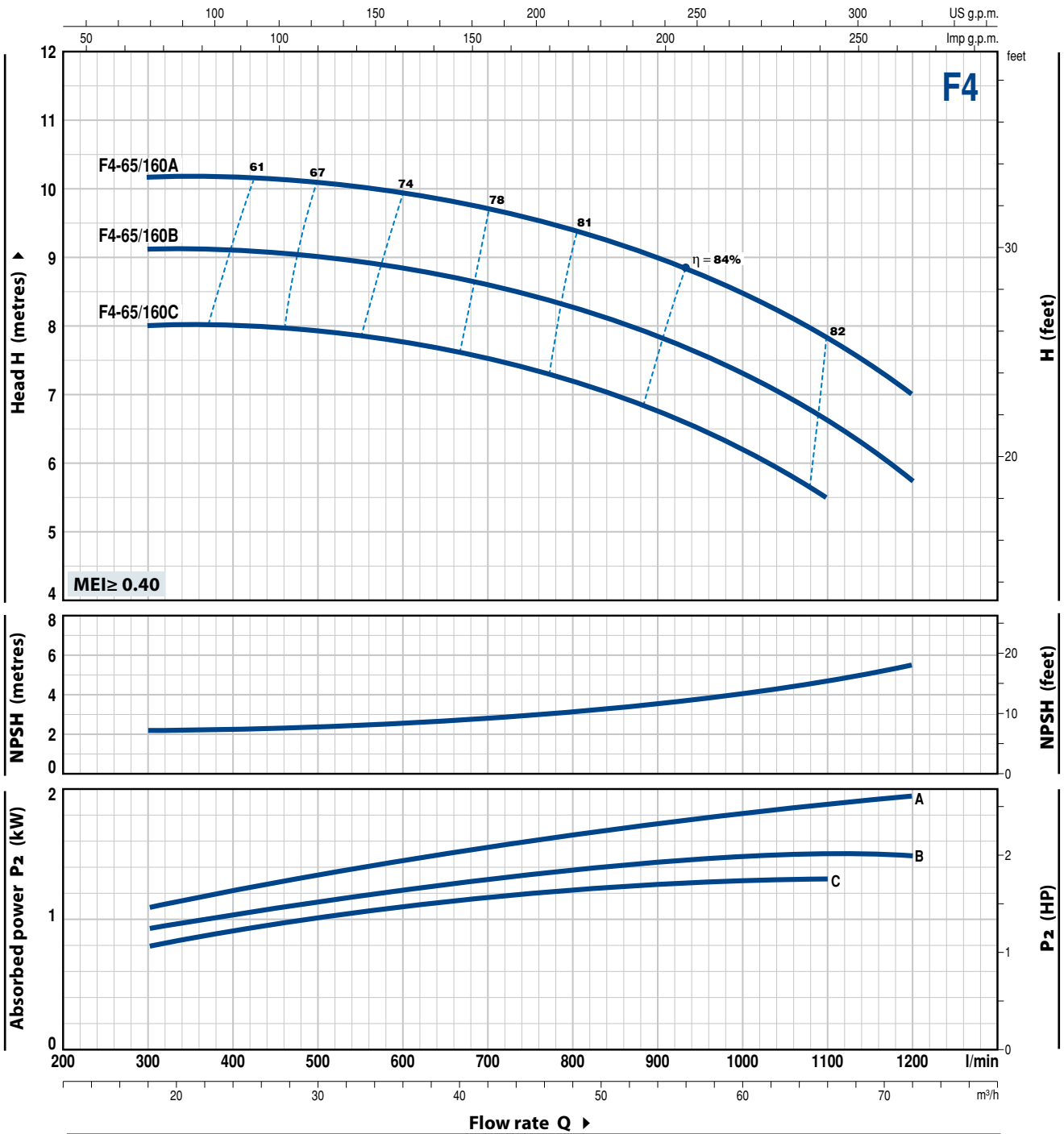
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-65/160

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



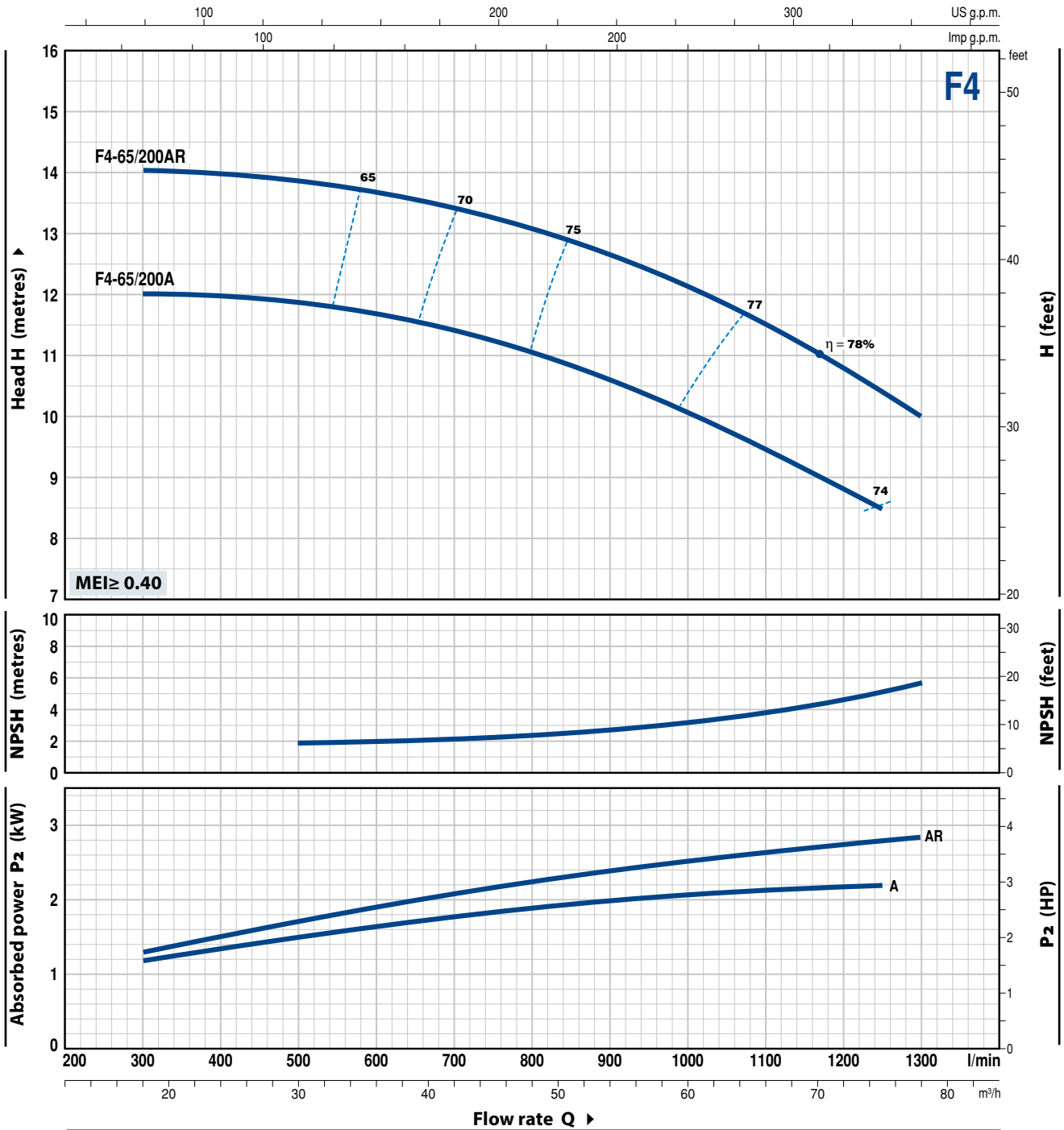
MODEL	POWER (P ₂)		Q	18	24	30	36	42	48	54	60	66	72
	kW	HP		300	400	500	600	700	800	900	1000	1100	1200
F4-65/160C	1.1	1.5	H metres	8	8	7.9	7.7	7.5	7.2	6.7	6.2	5.5	
F4-65/160B	1.5	2		9.1	9.1	9	8.8	8.6	8.3	7.8	7.3	6.6	5.7
F4-65/160A	2.2	3		10.1	10.1	10.1	9.9	9.7	9.4	9	8.5	7.8	7

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate														
	kW	HP		m ³ /h	18	24	30	36	42	48	54	60	66	72	75	78		
Three-phase				300	400	500	600	700	800	900	1000	1100	1200	1250	1300			
F4-65/200A	2.2	3	H metres	12	12	11.9	11.6	11.4	11	10.6	10.1	9.5	8.8	8.5				
F4-65/200AR	3	4	H metres	14	13.9	13.8	13.6	13.4	13.1	12.7	12.1	11.5	10.8	10.3	10			

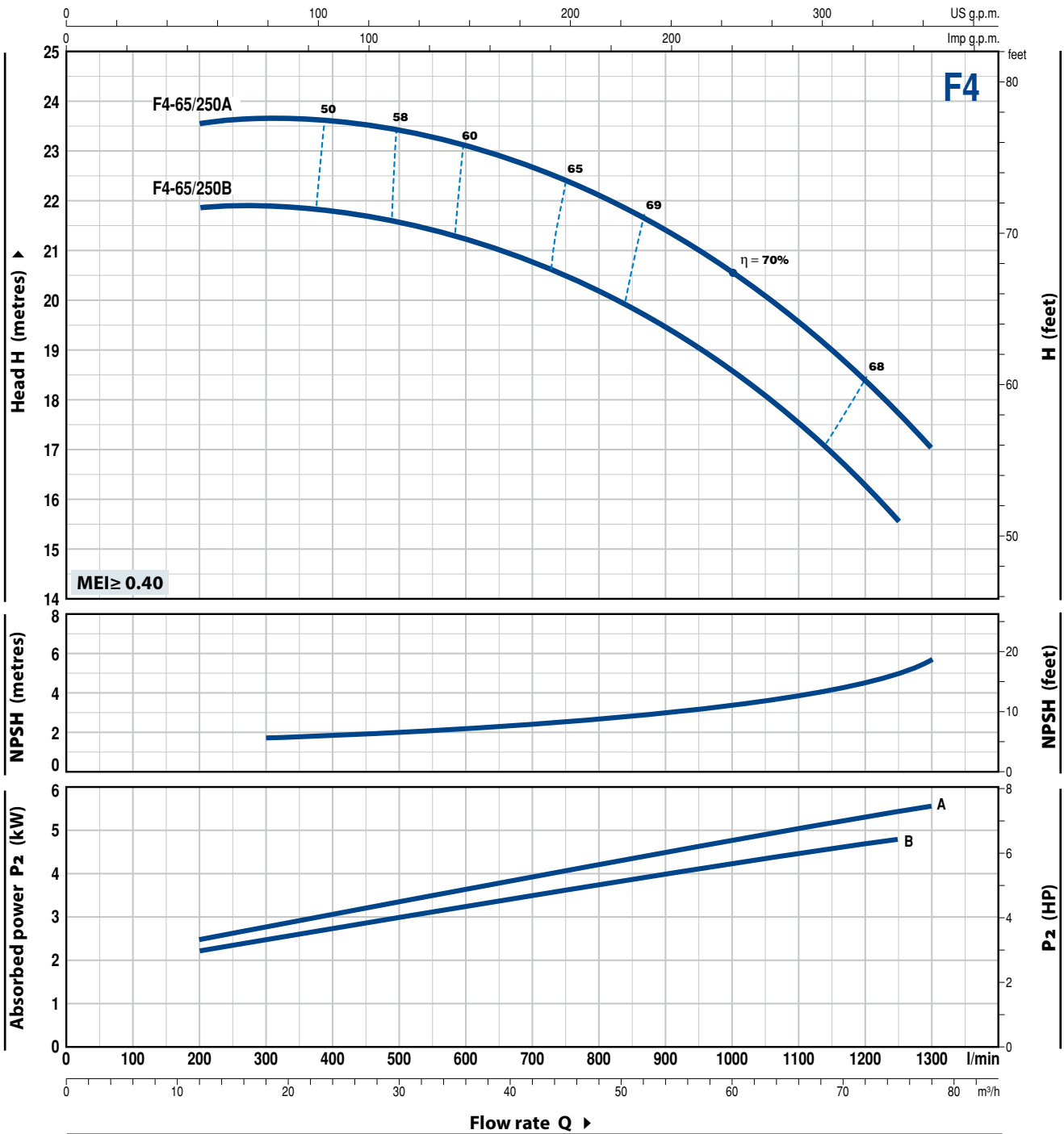
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-65/250

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



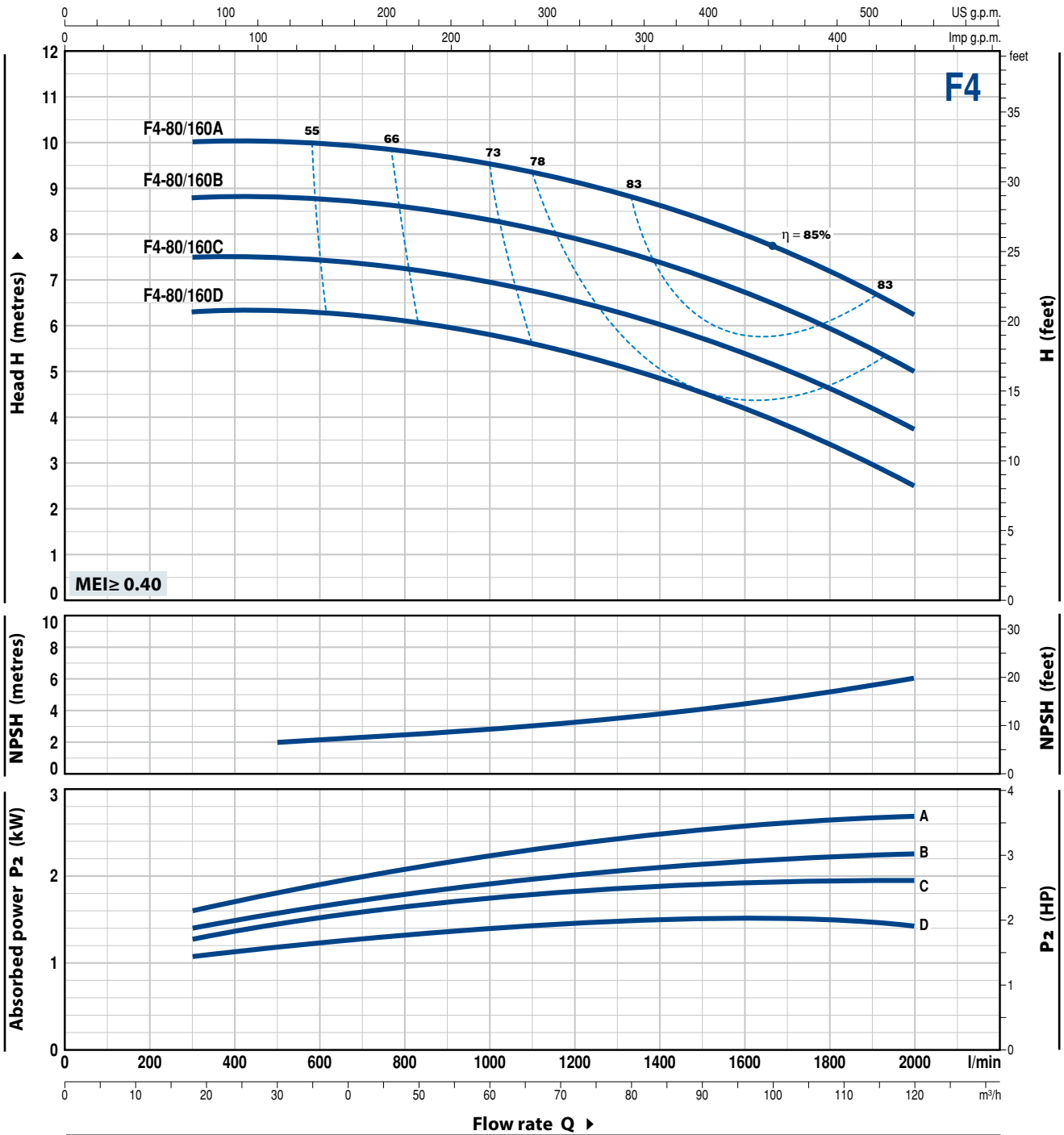
MODEL	POWER (P ₂)		Q	12	18	24	30	36	42	48	54	60	66	72	75	78
	kW	HP		l/min	200	300	400	500	600	700	800	900	1000	1100	1200	1250
F4-65/250B	4	5.5	H metres	21.8	21.8	21.7	21.5	21.2	20.7	20.2	19.5	18.6	17.5	16.2	15.5	
F4-65/250A	5.5	7.5		23.5	23.5	23.5	23.4	23.1	22.6	22.1	21.5	20.5	19.6	18.5	17.8	17

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		m ³ /h	18	24	36	48	60	72	84	96	108	120	
Three-phase			l/min	300	400	600	800	1000	1200	1400	1600	1800	2000		
F4-80/160D	1.5	2	H metres	6.3	6.3	6.3	6.1	5.8	5.4	4.8	4.2	3.4	2.5		
F4-80/160C	2.2	3		7.5	7.5	7.4	7.3	6.9	6.5	6	5.4	4.6	3.8		
F4-80/160B	2.2	3		8.8	8.8	8.8	8.6	8.3	7.9	7.4	6.7	5.9	5		
F4-80/160A	3	4		10	10	10	9.8	9.5	9.1	8.6	8	7.2	6.2		

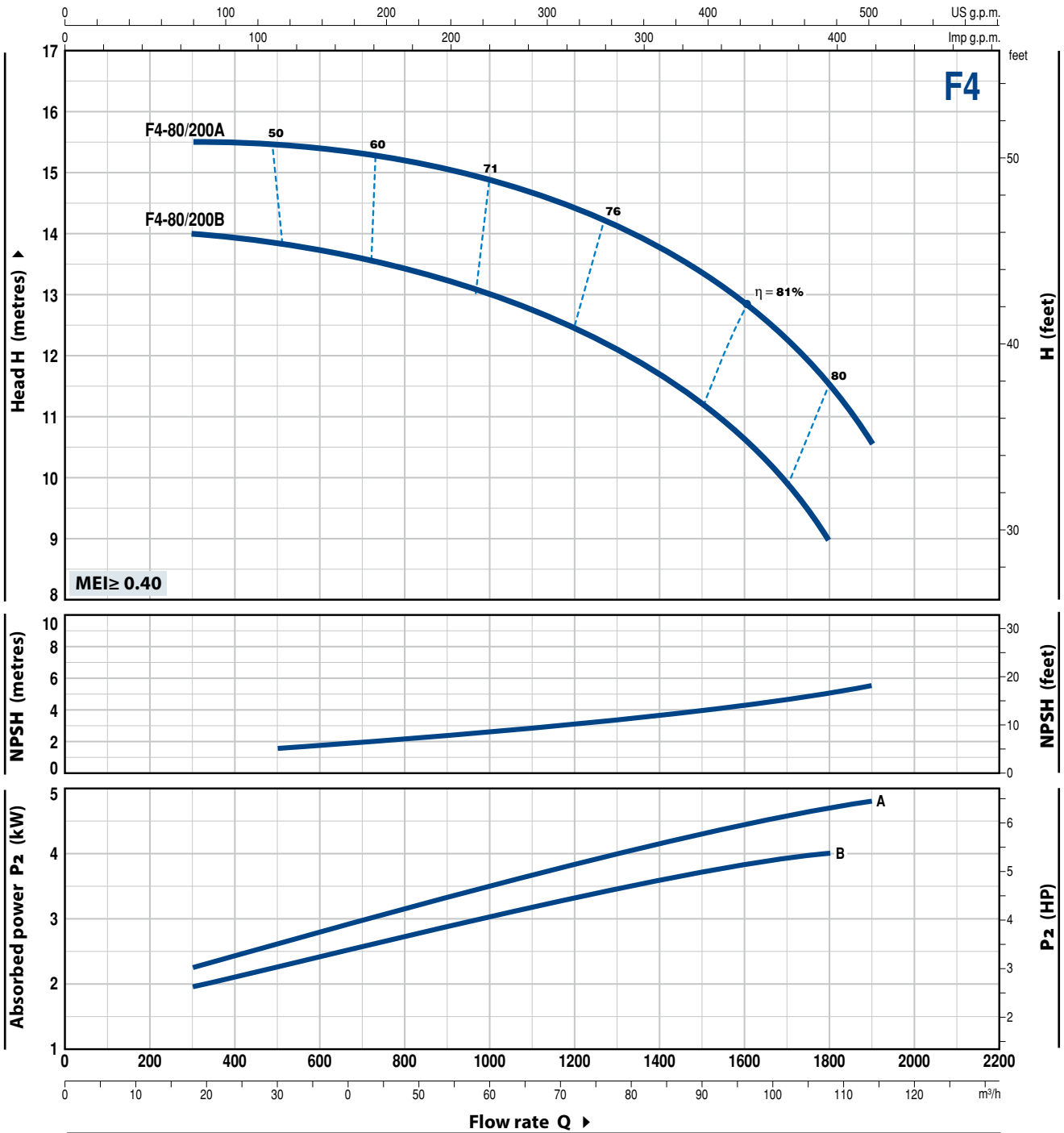
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-80/200

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



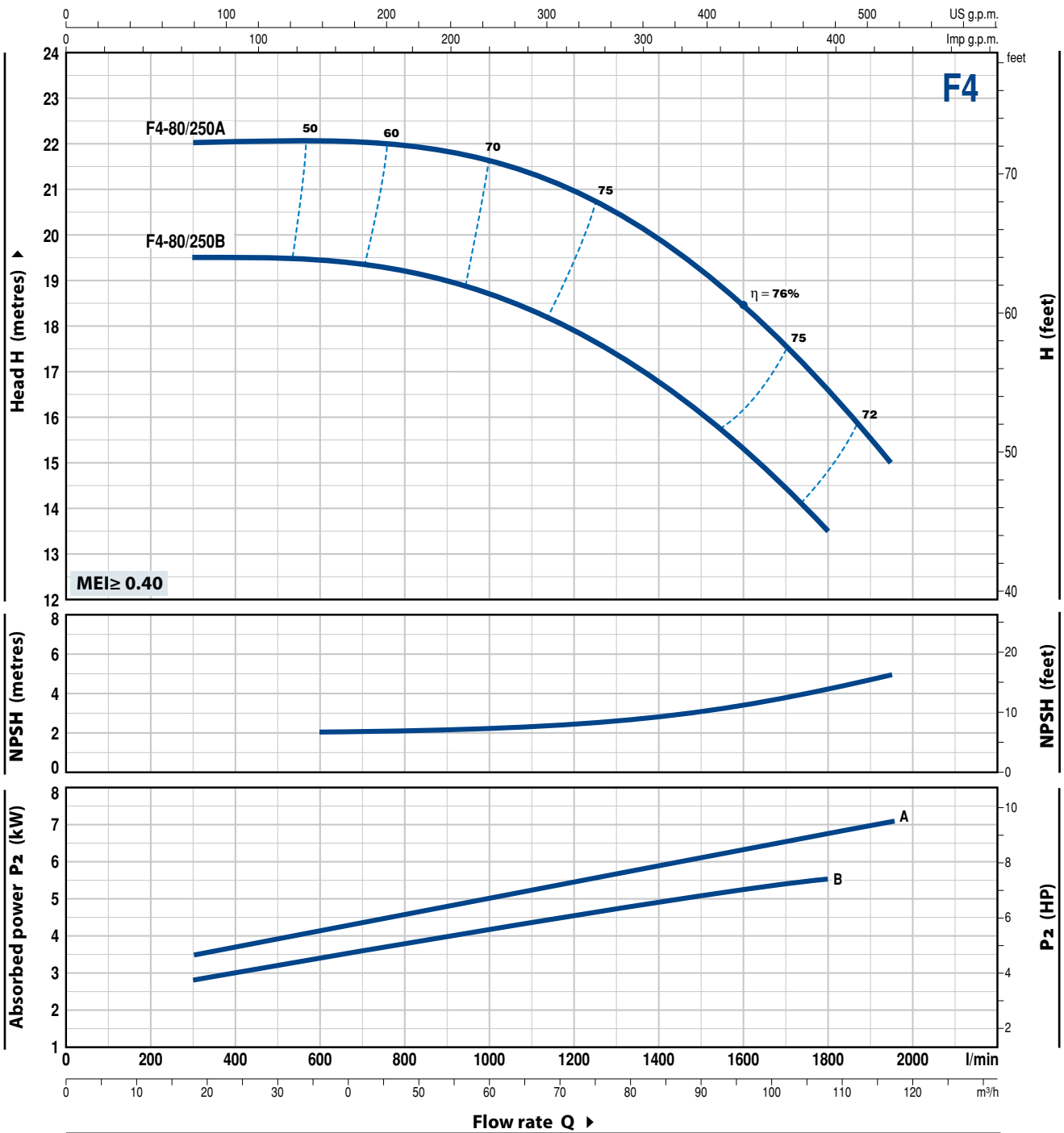
MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		m ³ /h	18	24	36	48	60	72	84	96	108	114	
Three-phase			l/min	300	400	600	800	1000	1200	1400	1600	1800	1900		
F4-80/200B	4	5.5	H metres	14	13.9	13.7	13.4	13	12.5	11.7	10.6	9			
F4-80/200A	5.5	7.5		15.5	15.5	15.4	15.2	14.8	14.5	13.7	12.8	11.5	10.5		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 1450 rpm HS = 0 m



MODEL	POWER (P ₂)		Q	Flow rate												
	kW	HP		m ³ /h	18	24	36	48	60	72	84	96	108	117		
Three-phase			l/min	300	400	600	800	1000	1200	1400	1600	1800	1950			
F4-80/250B	5.5	7.5	H metres	19.5	19.5	19.5	19.2	18.7	17.9	16.7	15.3	13.5				
F4-80/250A	7.5	10		22	22	22	21.9	21.6	21	20	18.5	16.5	15			

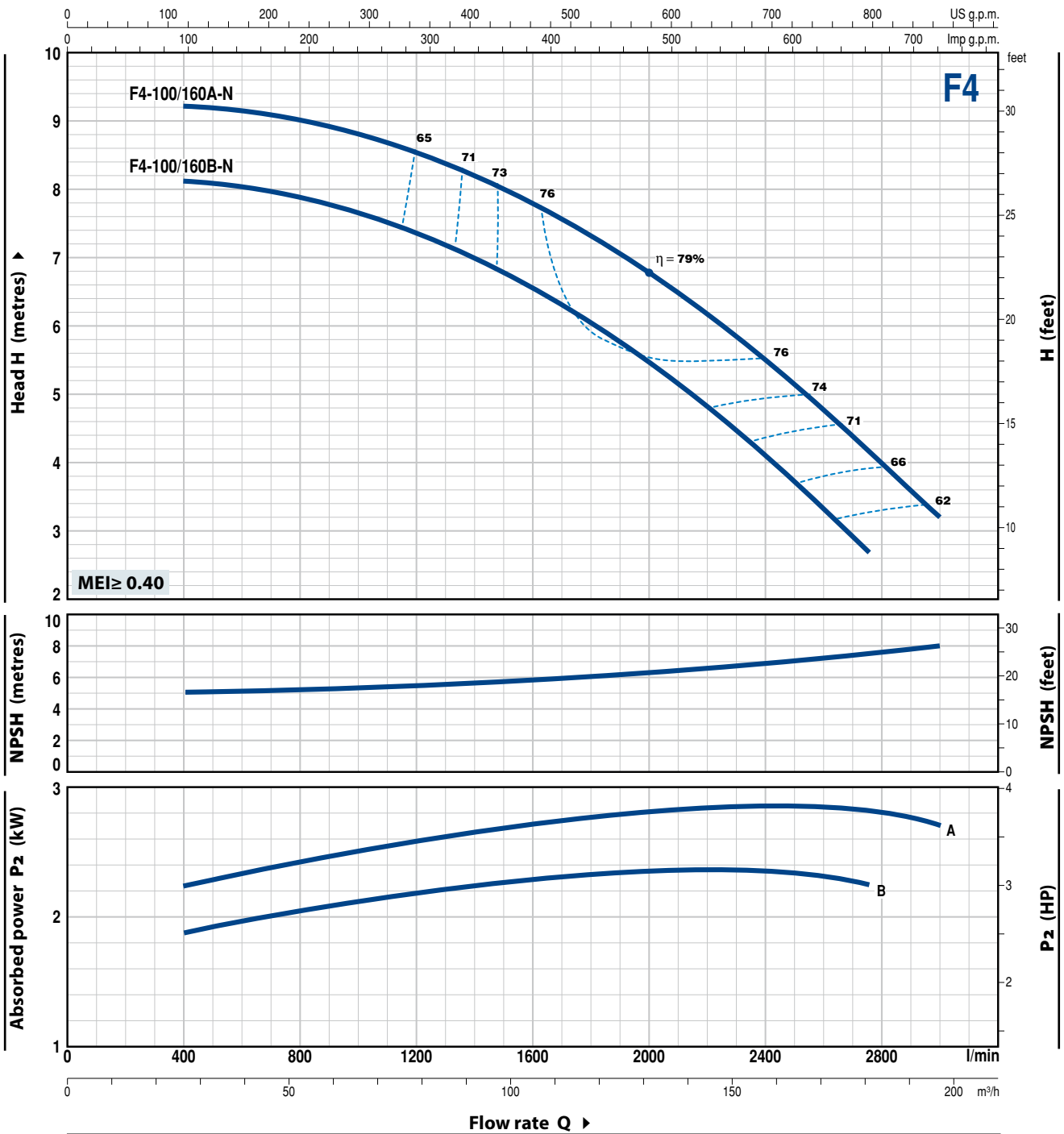
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-100/160

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



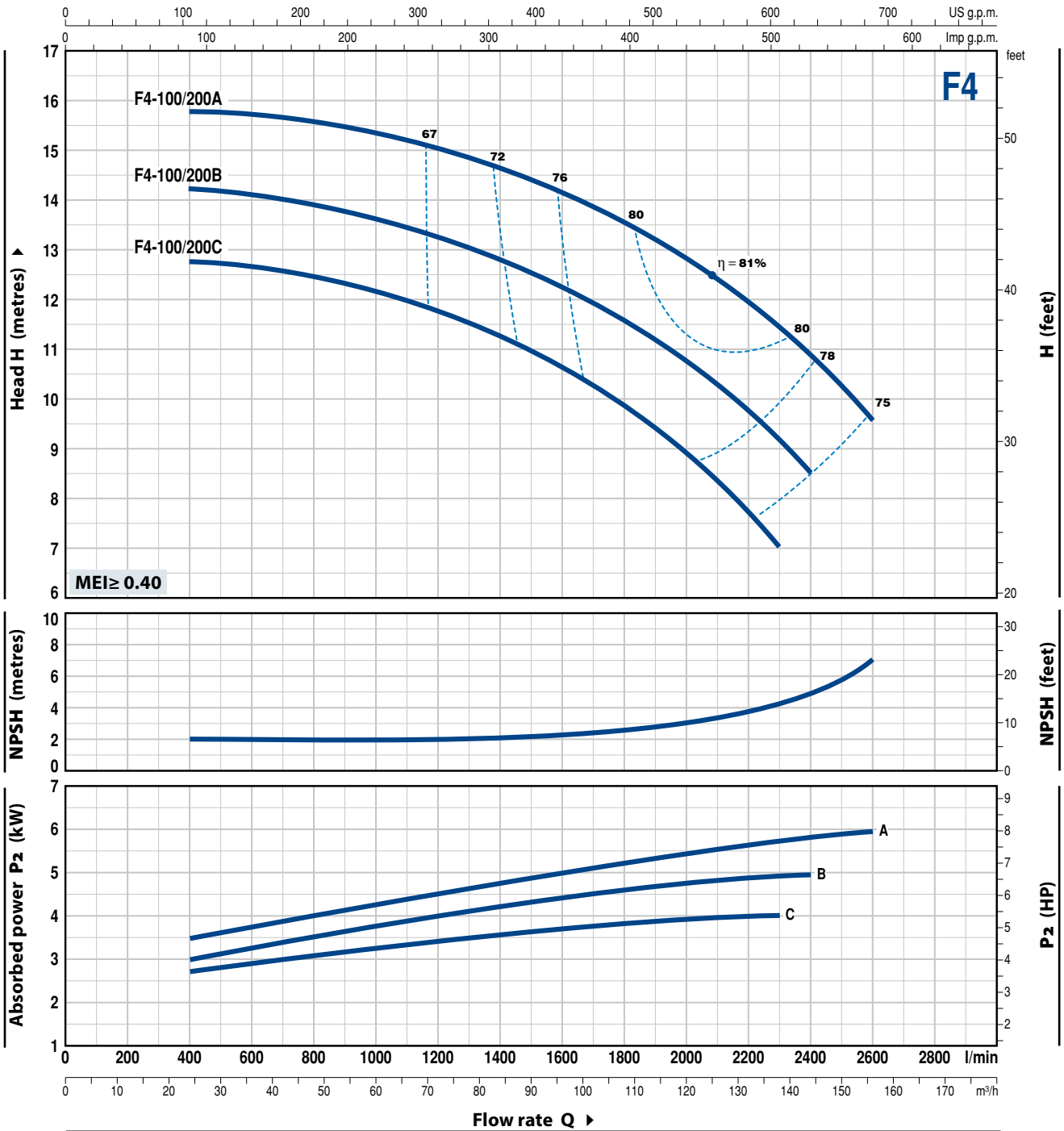
MODEL	POWER (P ₂)		Q	Flow rate									
	kW	HP		m ³ /h	l/min	24	48	72	96	120	144	165	180
Three-phase				400	800	1200	1600	2000	2400	2750	3000		
F4-100/160B-N	2.2	3	H metres	8.1	7.9	7.3	6.5	5.5	4.1	2.7			
F4-100/160A-N	3	4	H metres	9.2	9	8.5	7.8	6.8	5.5	4.2	3.2		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



MODEL	POWER (P ₂)		Q	Flow rate													
	kW	HP		m ³ /h	24	36	48	60	72	84	96	108	120	138	144	156	
Three-phase			l/min	400	600	800	1000	1200	1400	1600	1800	2000	2300	2400	2600		
F4-100/200C	4	5.5	H metres	12.7	12.6	12.5	12.2	11.8	11.3	10.6	9.9	8.9	7				
F4-100/200B	5.5	7.5		14.2	14.1	13.9	13.6	13.3	12.8	12.2	11.6	10.7	9.2	8.5			
F4-100/200A	5.5	7.5		15.8	15.7	15.6	15.4	15	14.6	14.2	13.5	12.8	12	11.4	9.5		

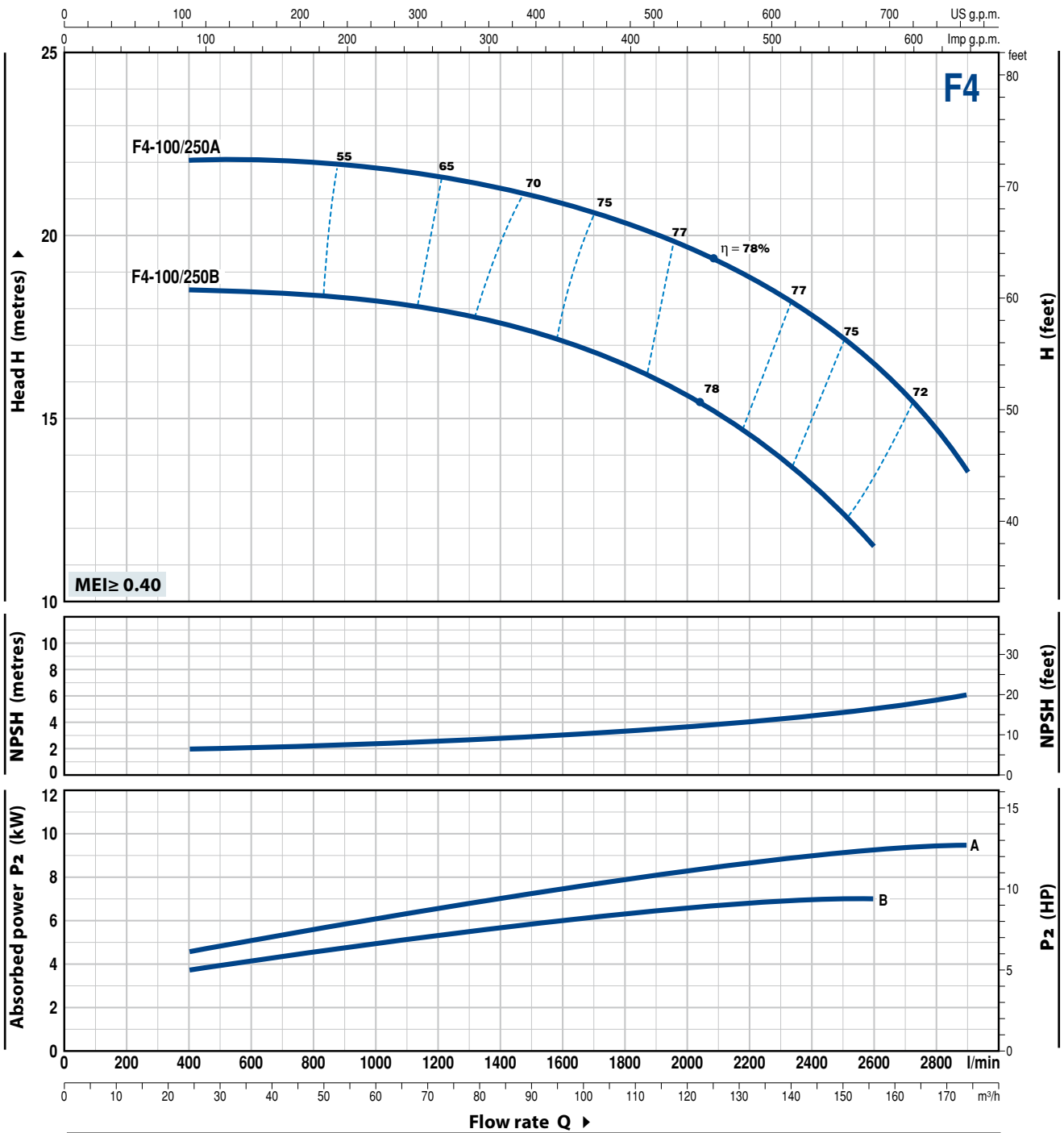
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

F4-100/250

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



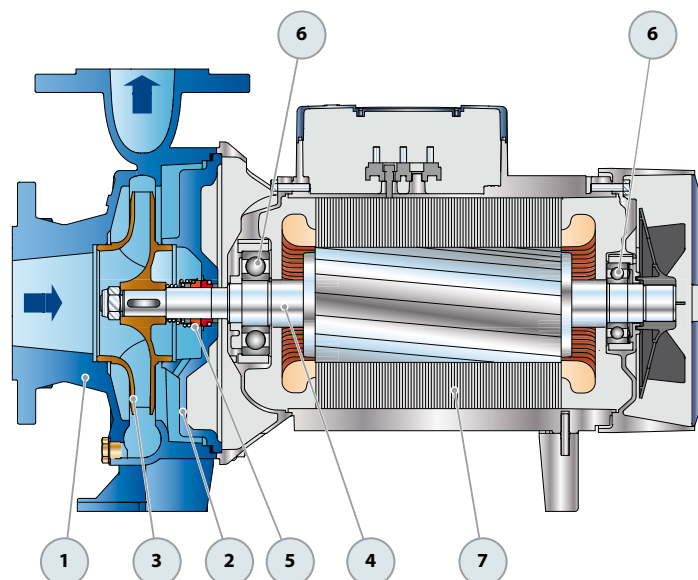
MODEL	POWER (P ₂)		Q	Flow rate															
	kW	HP		m ³ /h	24	36	48	60	72	84	96	108	120	132	144	156	174		
Three-phase			l/min	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2900			
F4-100/250B	7.5	10	H metres	18.5	18.5	18.3	18.2	18	17.5	17.1	16.5	15.7	14.5	13.2	11.5				
F4-100/250A	9.2	12.5		22	22	22	21.8	21.6	21.2	20.9	20.3	19.7	18.9	17.9	16.5	13.5			

Q = Flow rate H = Total manometric head HS = Suction height

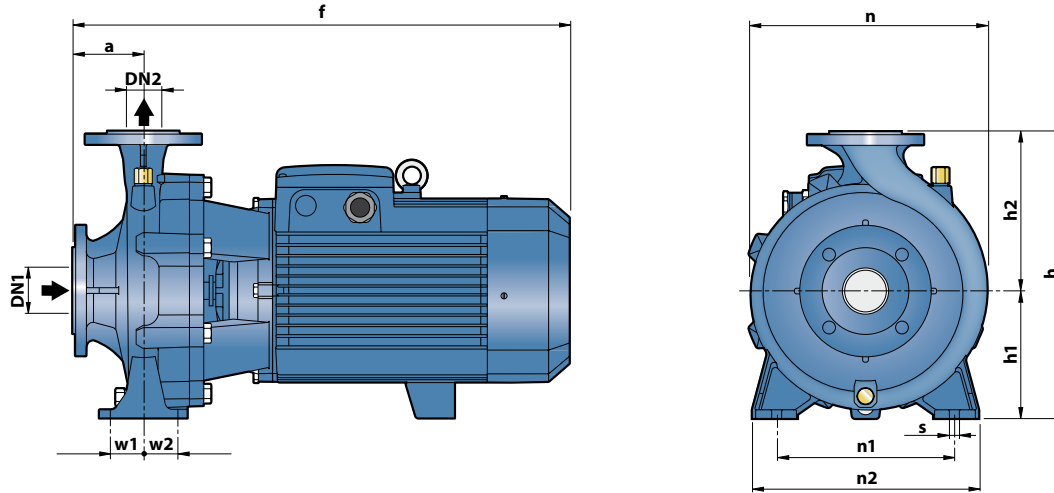
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron, complete with flanged suction and delivery ports					
2 BODY BACKPLATE	Cast iron					
3 IMPELLER	Brass for F4-32/160, 32/200, 40/160, 40/200, 50/125, 50/160					
4 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104					
5 MECHANICAL SEAL	Pump Model	Seal Model	Shaft Diameter	Stationary ring	Rotational ring	Elastomer
	F4-32/160 F4-40/160	F4-50/125	FN-20	Ø 20 mm	Graphite	Ceramic NBR
	F4-32/200 F4-40/200	F4-50/160 F4-65/125	FN-24	Ø 24 mm	Graphite	Ceramic NBR
	F4-50/200 F4-65/200 F4-65/160	F4-80/160 F4-100/160	FN-32 NU	Ø 32 mm	Graphite	Ceramic NBR
	F4-32/250 F4-40/250	F4-50/250	FN-38	Ø 38 mm	Graphite	Ceramic NBR
	F4-65/250 F4-80/200	F4-100/200	FN-40 NU	Ø 40 mm	Graphite	Ceramic NBR
	F4-80/250	F4-100/250	FN-45 NU	Ø 45 mm	Graphite	Ceramic NBR
6 BEARINGS	Pump Model	Model	Pump Model	Model		
	F4-32/160 F4-40/160 F4-50/125	6206 ZZ-C3 / 6204 ZZ	F4-32/250 F4-40/250 F4-50/200 F4-50/250 F4-65/160 F4-65/200 F4-80/160 F4-100/160	6208 ZZ-C3 / 6206 ZZ-C3		
	F4-32/200 F4-40/200 F4-50/160 F4-65/125	6307 ZZ-C3 / 6206 ZZ-C3	F4-65/250 F4-80/200 F4-80/250 F4-100/200 F4-100/250	6310 ZZ-C3 / 6308 ZZ-C3		
7 ELECTRIC MOTOR	F4: with 4 poles three-phase 230/400 V - 50 Hz ► The three-phase pumps are fitted with high performance motors up to P2=1.1 kW in class IE2 and from P2=1.5 kW in class IE3 (IEC 60034-30) – Insulation: class F – Protection: IP X5					

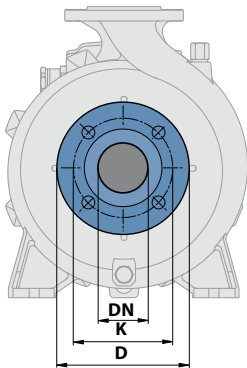


DIMENSIONS AND WEIGHT



MODEL	DIMENSIONS mm													kg		
	DN1	DN2	a	f	h	h1	h2	n	n1	n2	w1	w2	s			
Three-phase																
F4-32/160B	50	32	80	412	292	132	160	242	190	240	35	35	14	31.2		
F4-32/160A				31.3												
F4-32/200B				43.4												
F4-32/200A				43.5												
F4-32/200BH			42.3													
F4-32/200AH			42.4													
F4-32/250C			100	522	405	180	225	330	250	320	405	47.5		59.7		
F4-32/250B				63.1												
F4-32/250A	568	68.7														
F4-40/160B	65	40	80	412	292	132	160	240	190	240	35	35	14	32.5		
F4-40/160A				32.9												
F4-40/200B			100	489	340	160	180	275	212	265	47.5	47.5		46.0		
F4-40/200A				46.1												
F4-40/250C				522	405	180	225	328	250	320				59.7		
F4-40/250B				63.1												
F4-40/250A	568	68.7														
F4-50/125B	65	50	100	431	292	132	160	242	190	240	35	35	14	32.2		
F4-50/125A				32.3												
F4-50/160B				489	340	160	180	269	212	265				35	35	59.2
F4-50/160A																
F4-50/200C				529	360	200	316	212	265	64.4						
F4-50/200B				64.4												
F4-50/200A			576	360	200	316	212	265	64.7							
F4-50/200AR			68.8													
F4-50/250D			522	405	180	225	337	250	320	47.5	47.5	59.9				
F4-50/250C			63.3													
F4-50/250B			68.7													
F4-50/250A			568	69.1												
F4-50/250AR	73.2															
F4-65/125B	80	65	100	511	340	160	180	291	212	280	47.5	47.5	14	51.0		
F4-65/125A				51.1												
F4-65/160C				533	360	200	300	63.7								
F4-65/160B				579	360	200	300	63.7								
F4-65/160A				579	360	200	300	63.7								
F4-65/200A				582	405	180	225	340	250	320				69.0		
F4-65/200AR				582	405	180	225	340	250	320				73.0		
F4-65/250B				627	450	200	250	373	280	360				60	60	123.8
F4-65/250A	722	450	200	250	373	280	360	60	60	139.6						
F4-80/160D	100	80	125	565	405	180	225	330	250	320	47.5	47.5	14	62.1		
F4-80/160C				67.3												
F4-80/160B				611	405	180	225	330	250	320	67.5					
F4-80/160A				67.5												
F4-80/200B				655	430	250	360	280	345	114.4						
F4-80/200A				750	430	250	360	280	345	130.2						
F4-80/250B				768	480	200	280	405	315	400	60	60		149.5		
F4-80/250A				768	480	200	280	405	315	400	60	60		166.0		
F4-100/160B-N	125	100	125	622	480	200	280	362	280	360	60	60	18	70.7		
F4-100/160A-N				78.1												
F4-100/200C				657	480	200	280	391	280	360				124.1		
F4-100/200B				752	480	200	280	391	280	360				60	60	139.8
F4-100/200A				752	480	200	280	391	280	360				60	60	140.1
F4-100/250B				789	505	225	280	422	315	400				173.5		
F4-100/250A	821	505	225	280	422	315	400	182.9								

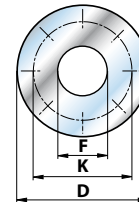
FLANGED PORTS



DN FLANGES mm	D mm	K mm	HOLES	
			N.	Ø (mm)
32	140	100	4	18
40	150	110		
50	165	125		
65	185	145		
80	200	160	8	18
100	220	180		
125	250	210		

COUNTER FLANGES

(CAN BE ORDERED SEPARATELY)



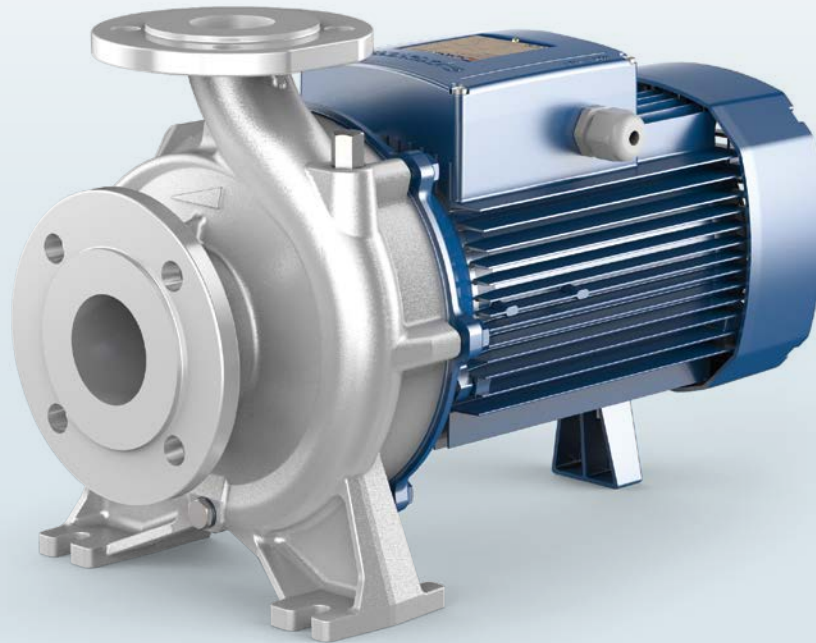
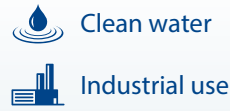
DN FLANGES mm	F COUNTER FLANGES	D mm	K mm	HOLES	
				N.	Ø (mm)
32	1¼"	140	100	4	18
40	1½"	150	110		
50	2"	165	125		
65	2½"	185	145		
80	3"	200	160	8	18
100	4"	220	180		
125	5"	250	210		

ABSORPTION

MODEL	VOLTAGE	
	230÷240 V	400÷415 V
Three-phase		
F4-32/160B	1.9 A	1.1 A
F4-32/160A	2.3 A	1.3 A
F4-32/200B	3.6 A	2.1 A
F4-32/200A	4.0 A	2.3 A
F4-32/200BH	3.1 A	1.8 A
F4-32/200AH	3.5 A	2.0 A
F4-32/250C	4.5 A	2.6 A
F4-32/250B	5.7 A	3.3 A
F4-32/250A	9.0 A	5.2 A
F4-40/160B	2.1 A	1.2 A
F4-40/160A	2.8 A	1.6 A
F4-40/200B	3.6 A	2.1 A
F4-40/200A	4.2 A	2.4 A
F4-40/250C	4.5 A	2.6 A
F4-40/250B	6.1 A	3.5 A
F4-40/250A	9.0 A	5.2 A
F4-50/125B	2.4 A	1.4 A
F4-50/125A	2.6 A	1.5 A
F4-50/160B	3.6 A	2.1 A
F4-50/160A	4.2 A	2.4 A
F4-50/200C	6.1 A	3.5 A
F4-50/200B	8.0 A	4.6 A
F4-50/200A	9.0 A	5.2 A
F4-50/200AR	11.8 A	6.8 A
F4-50/250D	4.5 A	2.6 A
F4-50/250C	5.9 A	3.4 A
F4-50/250B	8.5 A	4.9 A
F4-50/250A	9.9 A	5.7 A
F4-50/250AR	11.8 A	6.8 A

MODEL	VOLTAGE	
	230÷240 V	400÷415 V
Three-phase		
F4-65/125B	3.6 A	2.1 A
F4-65/125A	4.5 A	2.6 A
F4-65/160C	4.7 A	2.7 A
F4-65/160B	5.9 A	3.4 A
F4-65/160A	7.8 A	4.5 A
F4-65/200A	9.0 A	5.2 A
F4-65/200AR	11.8 A	6.8 A
F4-65/250B	16.4 A	9.5 A
F4-65/250A	23.4 A	13.5 A
F4-80/160D	5.9 A	3.4 A
F4-80/160C	8.1 A	4.7 A
F4-80/160B	9.2 A	5.3 A
F4-80/160A	11.8 A	6.8 A
F4-80/200B	16.4 A	9.5 A
F4-80/200A	22.2 A	12.8 A
F4-80/250B	23.4 A	13.5 A
F4-80/250A	25.6 A	14.8 A
F4-100/160B-N	9.0 A	5.2 A
F4-100/160A-N	11.8 A	6.8 A
F4-100/200C	16.4 A	9.5 A
F4-100/200B	21.0 A	12.1 A
F4-100/200A	23.4 A	13.5 A
F4-100/250B	27.5 A	15.9 A
F4-100/250A	34.1 A	19.7 A

Standardised “EN 733” stainless steel pumps



PERFORMANCE RANGE

- Flow rate up to **2200 l/min** (132 m³/h)
- Head up to **38 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. pressure in pump body **10 bar** (PN10)
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



Pump body dimensions in compliance with **EN 733**
EU REGULATION N. 547/2012

INSTALLATION AND USE

- Water supply
- Pressure boosting
- Irrigation
- Water circulation in air-conditioning units
- Cleaning sets
- Firefighting sets
- Industrial applications
- Agricultural applications

Suitable for use with clean, aggressive liquids that are chemically compatible with the materials from which the pump is made. The pump should be installed in an enclosed environment or sheltered from inclement weather.

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency
- Compatibility with hotter or colder liquids
- Compatibility with hotter or colder environments

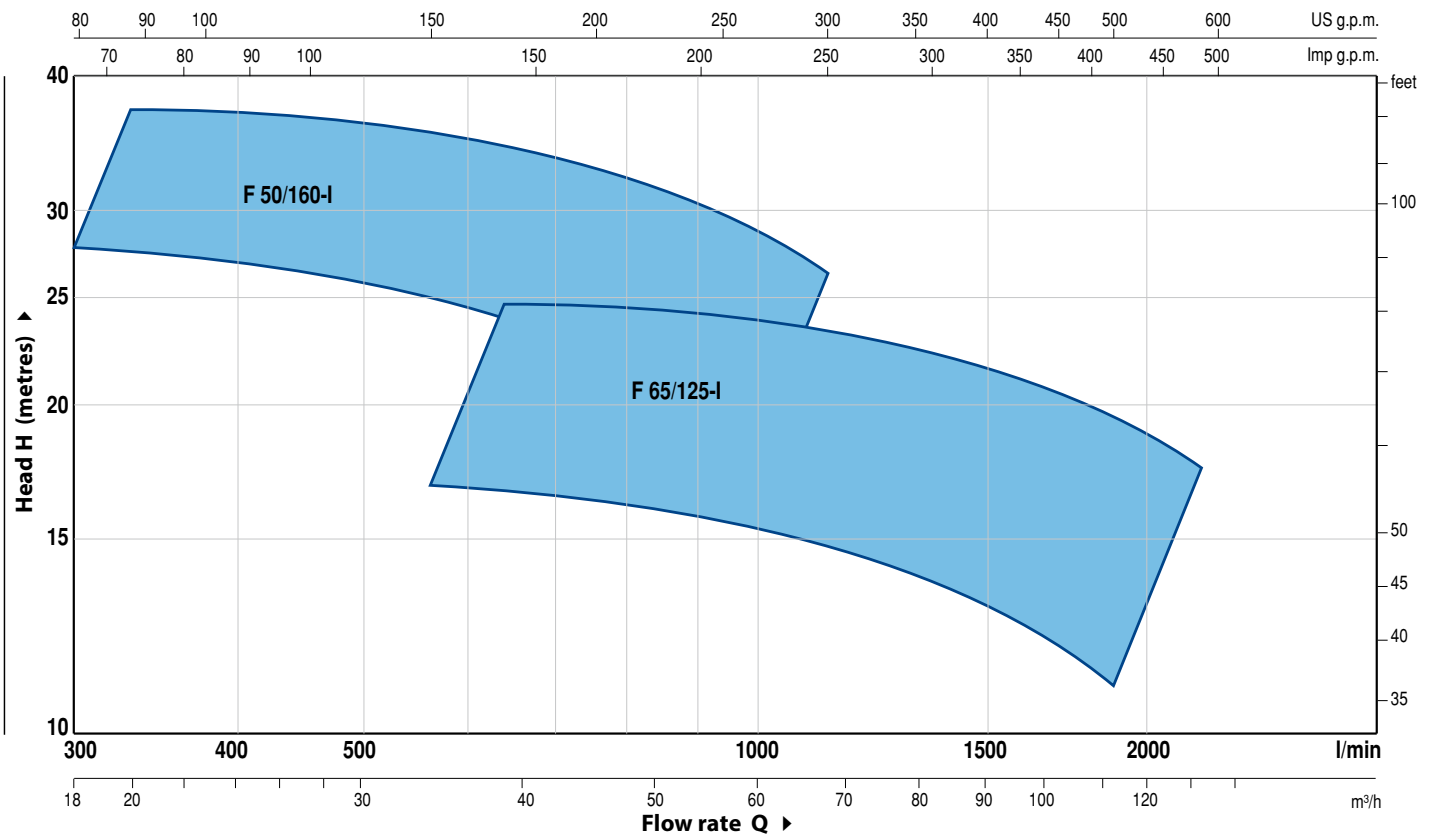
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



PERFORMANCE RANGE

50 Hz n = 2900 rpm



PERFORMANCE DATA

50 Hz n = 2900 rpm

MODEL	POWER (P ₂)		▲	PERFORMANCE	
	kW	HP		Q l/min	H metres
F 50/160C-I	4	5.5	IE3	300 ÷ 1000	27 ÷ 16
F 50/160B-I	5.5	7.5		300 ÷ 1100	32 ÷ 21
F 50/160A-I	7.5	10		300 ÷ 1100	37 ÷ 27
F 65/125C-I	4	5.5	IE3	600 ÷ 1800	16 ÷ 11
F 65/125B-I	5.5	7.5		600 ÷ 2000	18 ÷ 13
F 65/125A-I	7.5	10		600 ÷ 2200	23 ÷ 18

Q = Flow rate

H = Total manometric head

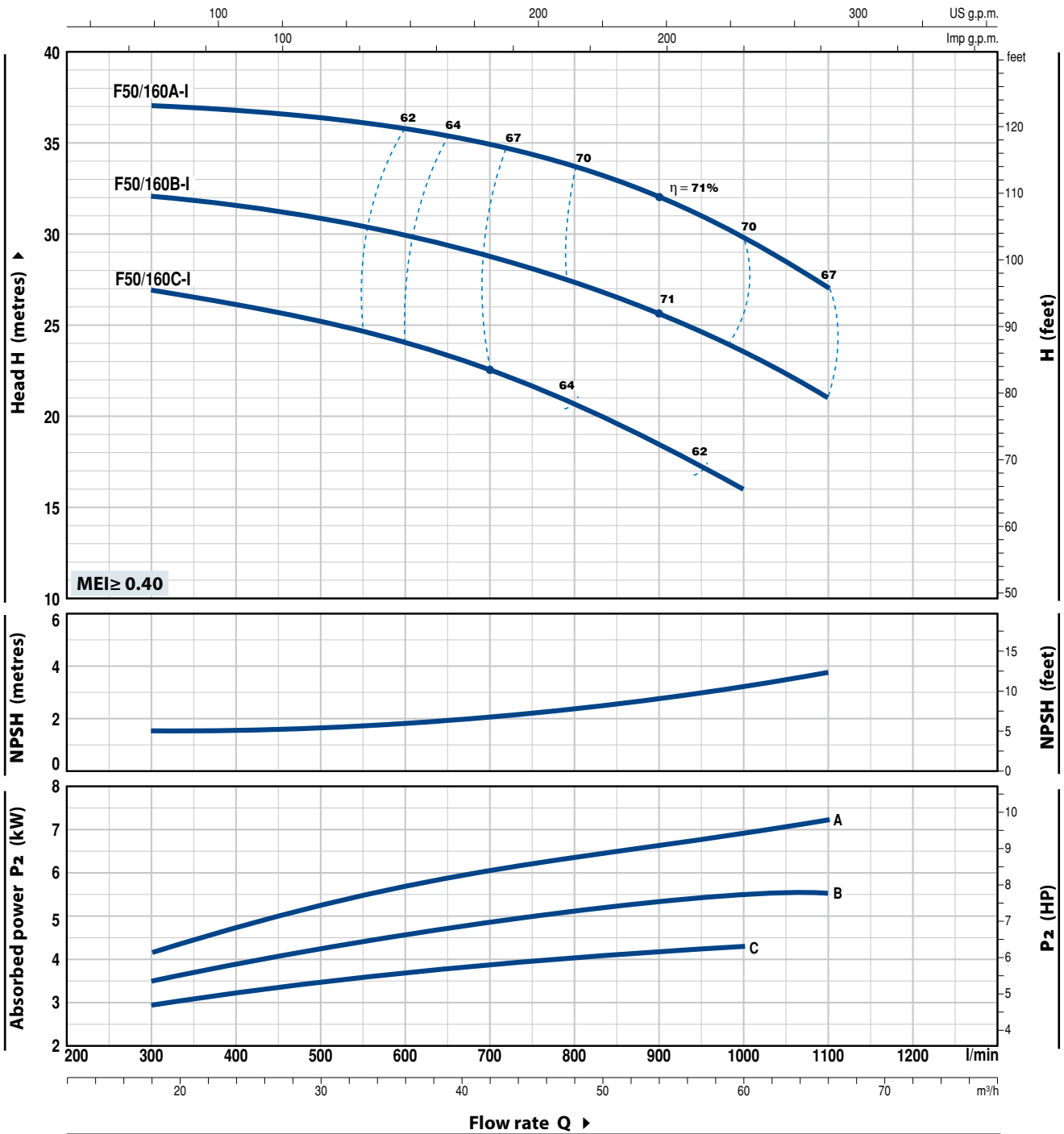
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

F50/160-I

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



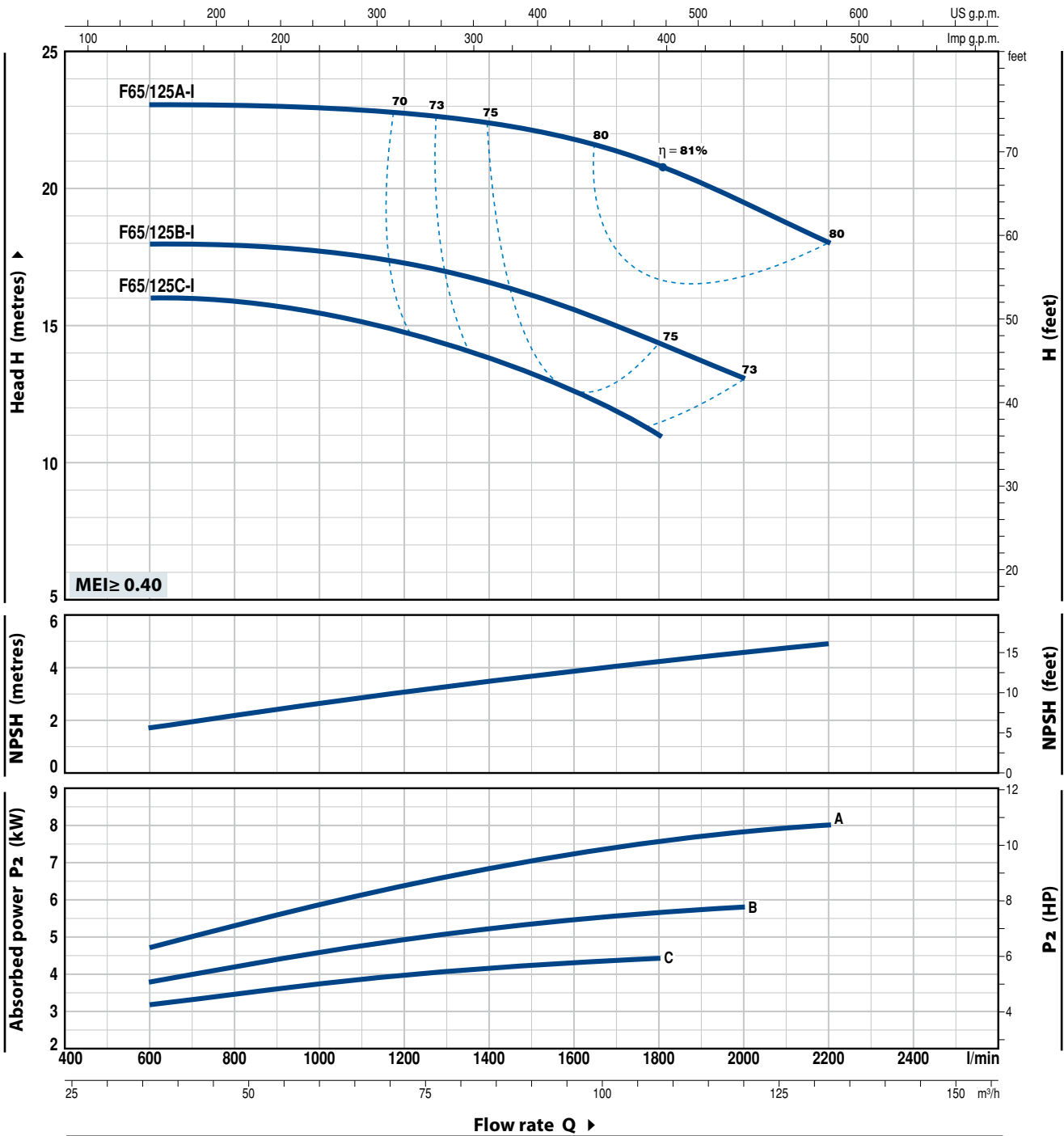
MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		0	18	24	30	36	42	48	54	60	66		
Three-phase			$\frac{m^3}{h}$ l/min	0	300	400	500	600	700	800	900	1000	1100		
F 50/160C-I	4	5.5	H metres	27	27	26.5	25	24.5	23	20	18.5	16			
F 50/160B-I	5.5	7.5		33	32	31.7	31	30	29	27	26	24	21		
F 50/160A-I	7.5	10		38	37	36.8	36.5	36	34	33	32	30	27		

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m



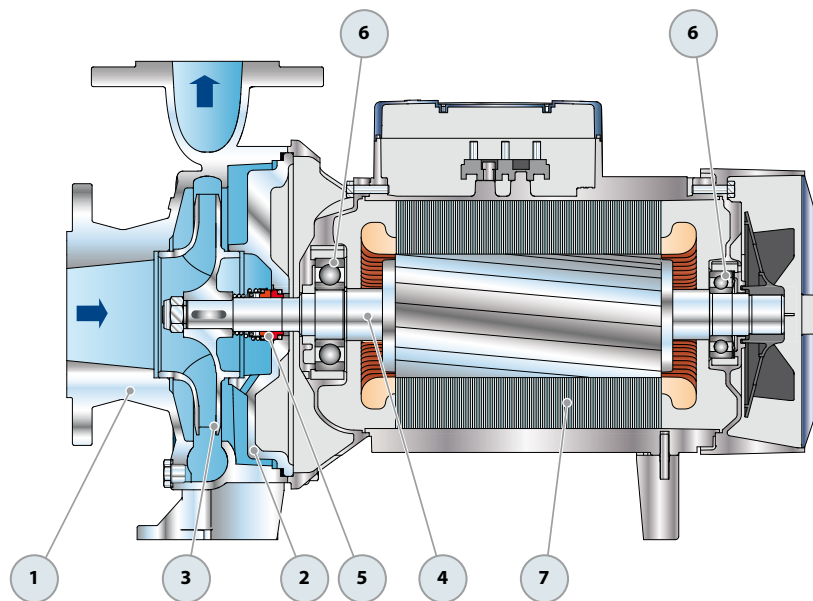
MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		m ³ /h	0	36	48	60	72	84	96	108	120	132	
Three-phase			l/min	0	600	800	1000	1200	1400	1600	1800	2000	2200		
F 65/125C-I	4	5.5	H metres	16	16	16	15.5	14.5	13.5	12.5	11				
F 65/125B-I	5.5	7.5		18	18	18	18	17	16.5	15.5	14.5	13			
F 65/125A-I	7.5	10		23	23	23	23	22.5	22.5	22	21	19.5	18		

Q = Flow rate H = Total manometric head HS = Suction height

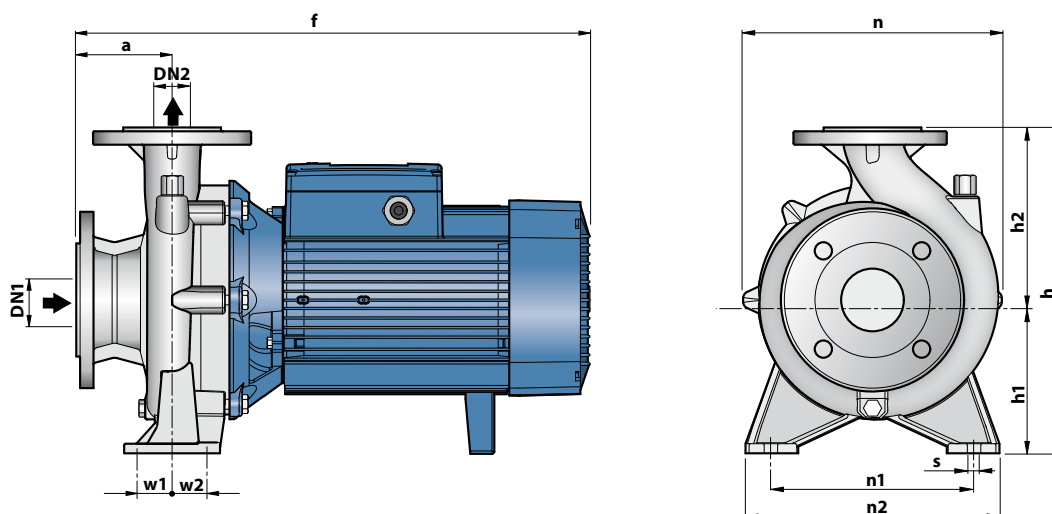
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 316 complete with flanged suction and delivery ports					
2	BODY BACKPLATE	Stainless steel AISI 316					
3	IMPELLER	Stainless steel AISI 316					
4	MOTOR SHAFT	Stainless steel AISI 316					
5	MECHANICAL SEAL	Pump Model	Seal Model	Shaft Diameter	Stationary ring	Rotational ring	Elastomer
		F50/160-I F65/125-I	FN-24SV	Ø 24 mm	Silicon carbide	Silicon carbide	Viton
6	BEARINGS	Pump Model	Model				
		F50/160-I F65/125-I	6307 ZZ-C3 / 6206 ZZ-C3				
7	ELECTRIC MOTOR	<p>F: three-phase 230/400 V - 50 Hz for 4 kW 400/690 V - 50 Hz from 5.5 to 7.5 kW</p> <p>⇒ The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30)</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X5 					



DIMENSIONS AND WEIGHT





MODEL	DIMENSIONS mm												kg 3~	
	DN1	DN2	a	f	h	h1	h2	n	n1	n2	w1	w2		s
F 50/160C-I	65	50	100	489	340	160	180	269	212	265	35	35	14	50.2
F 50/160B-I				535										54.0
F 50/160A-I				511										65.5
F 65/125C-I	80	65	100	511	340	160	180	291	212	280	47.5	47.5	14	62.6
F 65/125B-I				557										67.7
F 65/125A-I				557										72.9

ABSORPTION

MODEL	VOLTAGE		
	230÷240 V	400÷415 V	690÷720 V
F 50/160C-I	15.8 A	9.1 A	5.3 A
F 50/160B-I	-	12.3 A	7.1 A
F 50/160A-I	-	15.5 A	8.9 A
F 65/125C-I	17.5 A	10.0 A	5.8 A
F 65/125B-I	-	12.0 A	7.0 A
F 65/125A-I	-	16.5 A	9.5 A

Standardised “EN 733” centrifugal pumps

-  Clean water
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **6000 l/min** (360 m³/h)
- Head up to **98 m**

APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Max. pressure in pump body **10 bar** (PN10)

CONSTRUCTION AND SAFETY STANDARDS

EN 733



EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

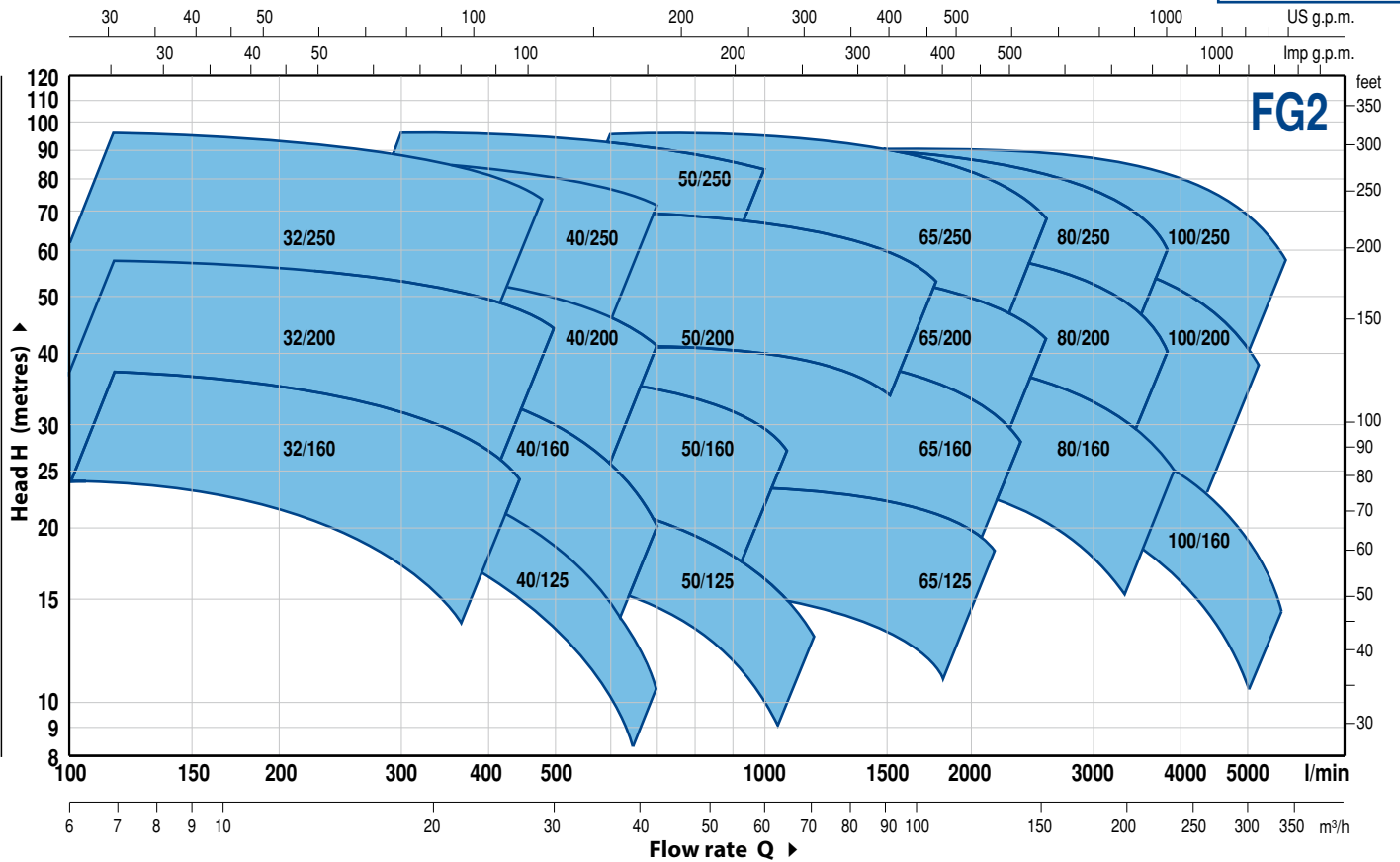
- Water supply
- Pressure boosting
- Irrigation
- Water circulation in air-conditioning units
- Cleaning sets
- Firefighting sets
- Industrial applications
- Agricultural applications

OPTIONS AVAILABLE ON REQUEST

- Counter flange KIT complete with bolts, nuts and washers
- Special mechanical seal
- Pumps compatible with 60 Hz motors
- Compatibility with hotter or colder liquids
- Compatibility with hotter or colder environments

PERFORMANCE RANGE

n = 2900 rpm



PERFORMANCE DATA

MODEL	MOTOR PAIRING		PERFORMANCE n = 2900 rpm	
	kW	HP	Q m³/h	H metres
FG2-32/160C	1.5	2	6 ÷ 21	24 ÷ 14
FG2-32/160B	2.2	3	6 ÷ 24	30 ÷ 17
FG2-32/160A	3	4	6 ÷ 27	37 ÷ 24
FG2-32/200C	4	5.5	6 ÷ 27	44 ÷ 31.5
FG2-32/200B	5.5	7.5	6 ÷ 30	51 ÷ 36
FG2-32/200A	7.5	10	6 ÷ 30	57 ÷ 44
FG2-32/200BH	3	4	6 ÷ 18	45 ÷ 37
FG2-32/200AH	4	5.5	6 ÷ 19.2	55 ÷ 44
FG2-32/250C	9.2	12.5	6 ÷ 24	75 ÷ 55
FG2-32/250B	11	15	6 ÷ 27	87 ÷ 62
FG2-32/250A	15	20	6 ÷ 28.8	97 ÷ 70
FG2-40/125C	1.1	1.5	6 ÷ 33	16 ÷ 6
FG2-40/125B	1.5	2	6 ÷ 36	20.5 ÷ 9
FG2-40/125A	2.2	3	6 ÷ 42	26 ÷ 10
FG2-40/160C	2.2	3	6 ÷ 36	27 ÷ 14
FG2-40/160B	3	4	6 ÷ 36	32 ÷ 20
FG2-40/160A	4	5.5	6 ÷ 42	38 ÷ 20
FG2-40/200B	5.5	7.5	6 ÷ 42	47 ÷ 28
FG2-40/200A	7.5	10	6 ÷ 42	55 ÷ 41
FG2-40/250C	9.2	12.5	6 ÷ 42	64 ÷ 47
FG2-40/250B	11	15	6 ÷ 42	71 ÷ 55
FG2-40/250A	15	20	6 ÷ 42	88 ÷ 72
FG2-50/125C	2.2	3	18 ÷ 72	17.5 ÷ 6
FG2-50/125B	3	4	18 ÷ 72	20.7 ÷ 9
FG2-50/125A	4	5.5	18 ÷ 72	23.5 ÷ 13
FG2-50/160C	4	5.5	18 ÷ 60	27 ÷ 16
FG2-50/160B	5.5	7.5	18 ÷ 66	32 ÷ 21
FG2-50/160A	7.5	10	18 ÷ 66	37 ÷ 27
FG2-50/200C	11	15	24 ÷ 102	44 ÷ 30
FG2-50/200B	15	20	24 ÷ 102	52 ÷ 38
FG2-50/200A	18.5	25	24 ÷ 108	61 ÷ 45
FG2-50/200AR	22	30	24 ÷ 108	69 ÷ 53
FG2-50/250D	9.2	12.5	18 ÷ 54	51 ÷ 32
FG2-50/250C	11	15	18 ÷ 54	59 ÷ 42
FG2-50/250B	15	20	18 ÷ 60	72 ÷ 59
FG2-50/250A	18.5	25	18 ÷ 60	85 ÷ 73
FG2-50/250AR	22	30	18 ÷ 60	95 ÷ 83

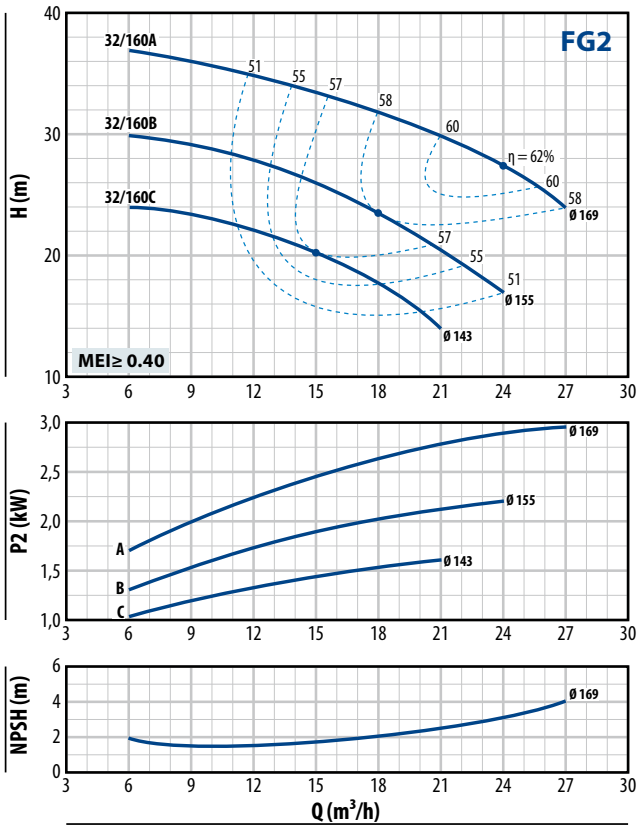
MODEL	MOTOR PAIRING		PERFORMANCE n = 2900 rpm	
	kW	HP	Q m³/h	H metres
FG2-65/125C	4	5.5	36 ÷ 108	16 ÷ 11
FG2-65/125B	5.5	7.5	36 ÷ 108	18 ÷ 13
FG2-65/125A	7.5	10	36 ÷ 132	23 ÷ 18
FG2-65/160C	9.2	12.5	36 ÷ 132	32 ÷ 22
FG2-65/160B	11	15	36 ÷ 144	36.5 ÷ 23
FG2-65/160A	15	20	36 ÷ 144	40.5 ÷ 28
FG2-65/200B	15	20	12 ÷ 144	44 ÷ 30.5
FG2-65/200A	18.5	25	12 ÷ 150	50 ÷ 36.5
FG2-65/200AR	22	30	12 ÷ 156	57 ÷ 42
FG2-65/250C	30	40	24 ÷ 141	76 ÷ 53
FG2-65/250B	37	50	24 ÷ 150	87 ÷ 62
FG2-65/250A	45	60	24 ÷ 156	95 ÷ 68
FG2-80/160D	11	15	30 ÷ 240	25 ÷ 10
FG2-80/160C	15	20	30 ÷ 240	30 ÷ 15
FG2-80/160B	18.5	25	30 ÷ 240	35 ÷ 20
FG2-80/160A	22	30	30 ÷ 240	40 ÷ 25
FG2-80/200B	30	40	30 ÷ 219	56 ÷ 34.5
FG2-80/200A	37	50	30 ÷ 234	62 ÷ 40
FG2-80/250B	45	60	36 ÷ 216	77 ÷ 54
FG2-80/250A	55	75	36 ÷ 234	88.5 ÷ 60
FG2-100/160C-N	15	20	60 ÷ 300	28.5 ÷ 11
FG2-100/160B-N	18.5	25	60 ÷ 330	32.5 ÷ 11
FG2-100/160A-N	22	30	60 ÷ 360	37 ÷ 13
FG2-100/200C	30	40	48 ÷ 279	51 ÷ 28
FG2-100/200B	37	50	48 ÷ 294	57 ÷ 33
FG2-100/200A	45	60	48 ÷ 315	63 ÷ 38
FG2-100/250B	55	75	48 ÷ 309	75 ÷ 48
FG2-100/250A	75	100	48 ÷ 345	89 ÷ 58

Q = Flow rate

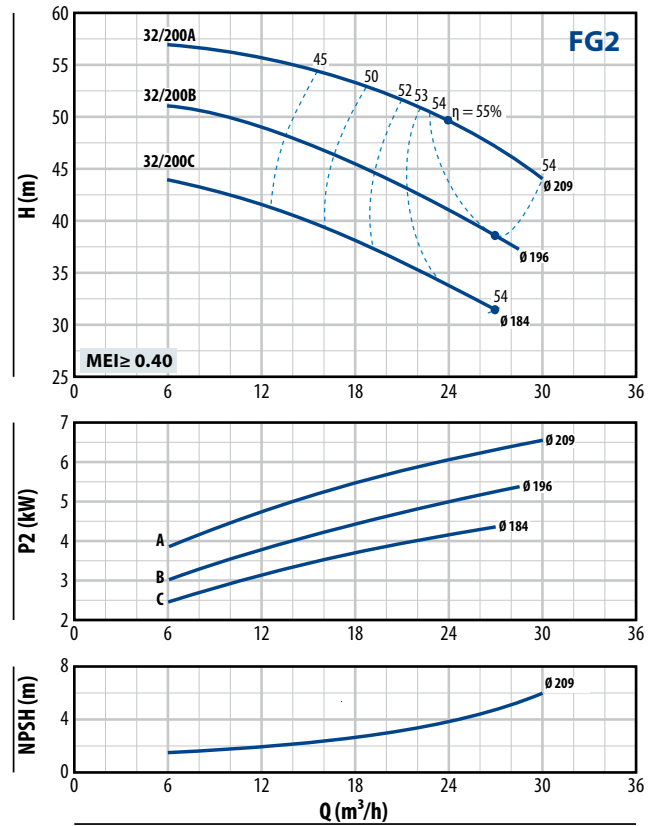
H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

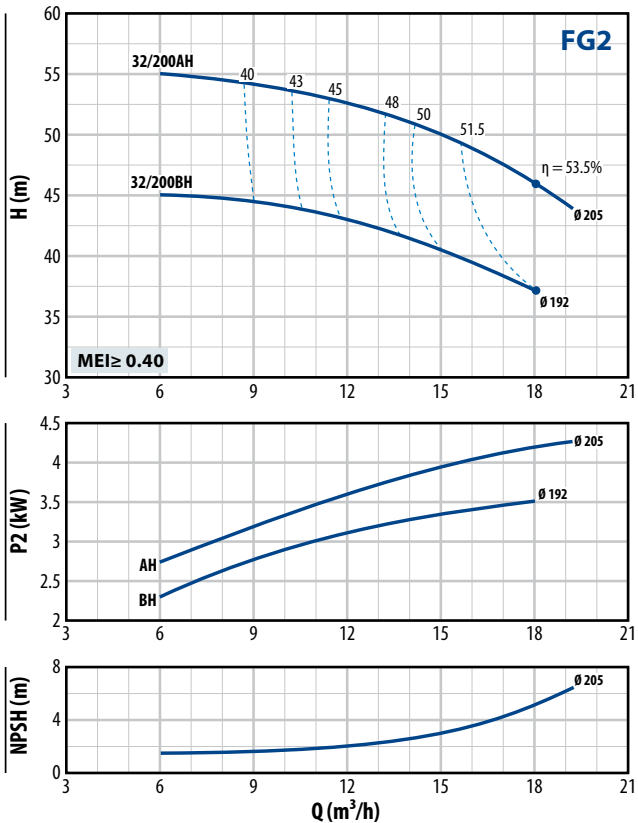
FG2-32/160



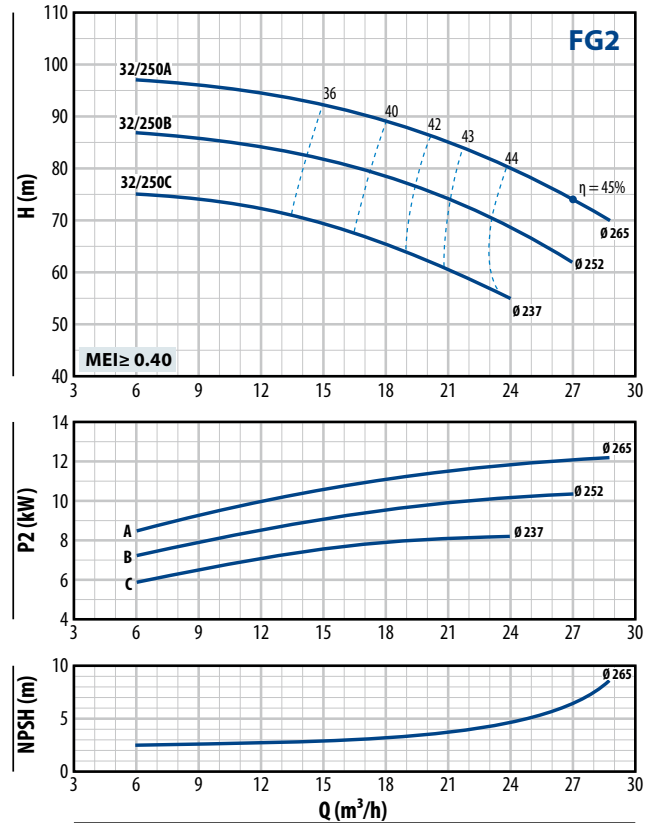
FG2-32/200



FG2-32/200H



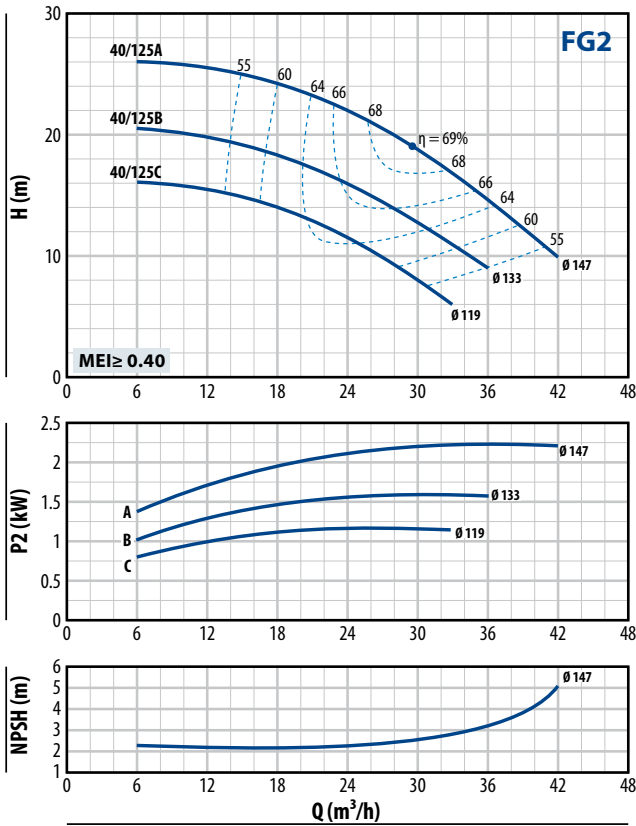
FG2-32/250



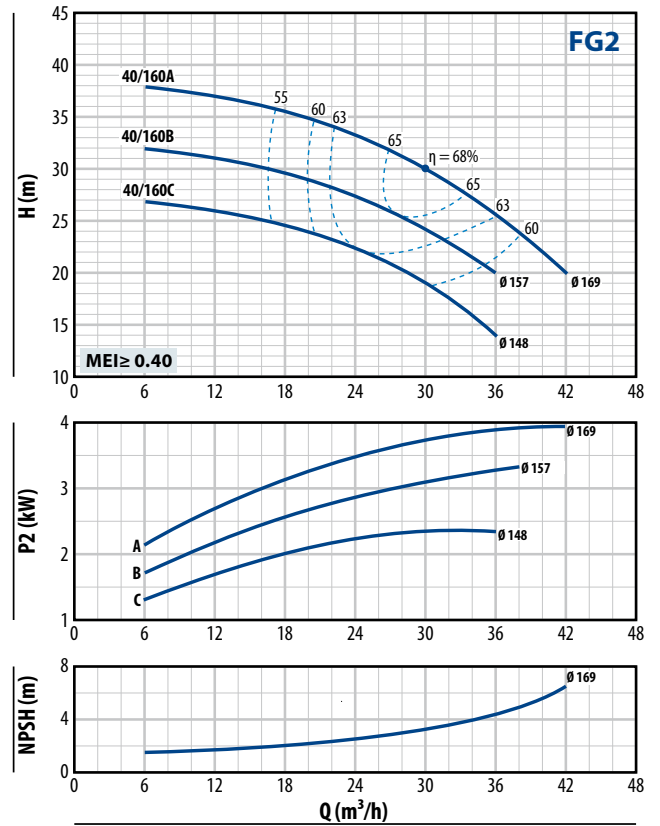
CHARACTERISTIC CURVES

n = 2900 rpm

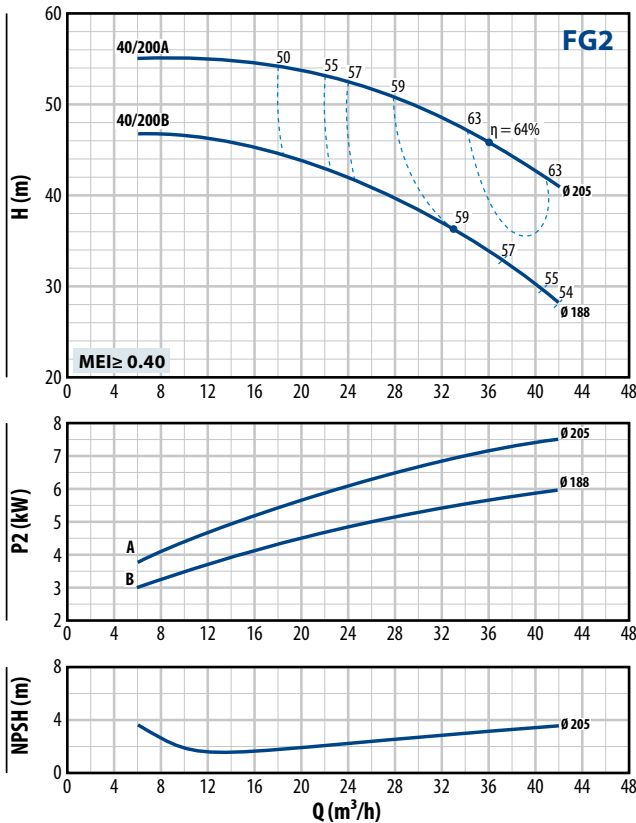
FG2-40/125



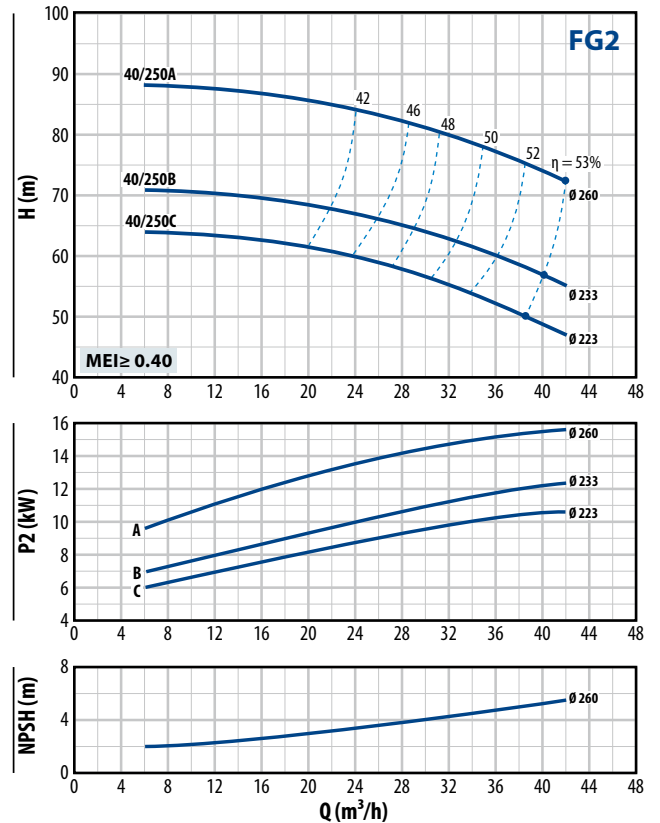
FG2-40/160



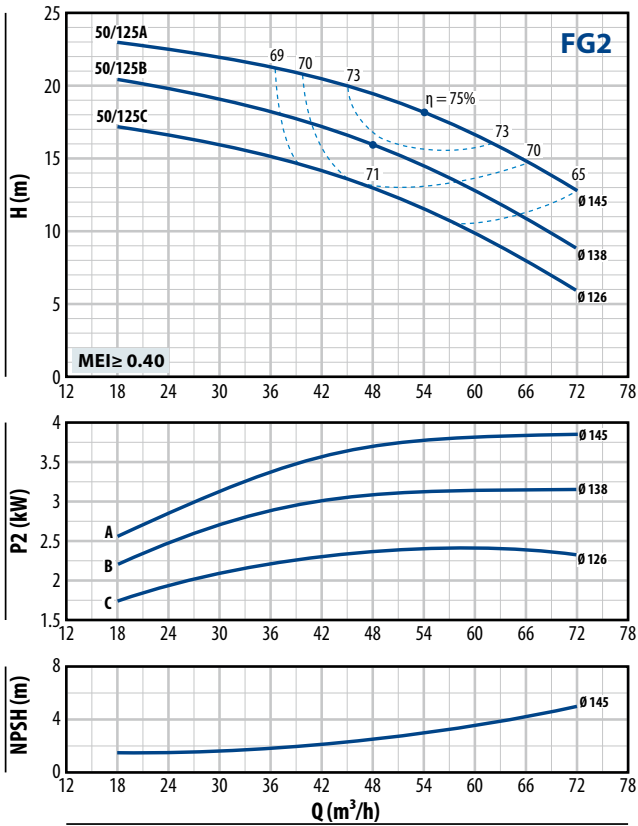
FG2-40/200



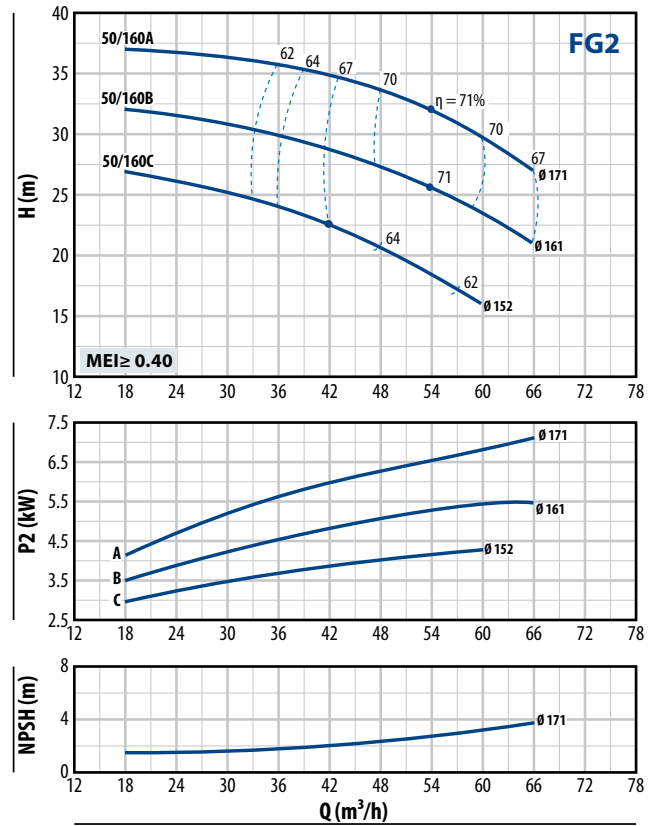
FG2-40/250



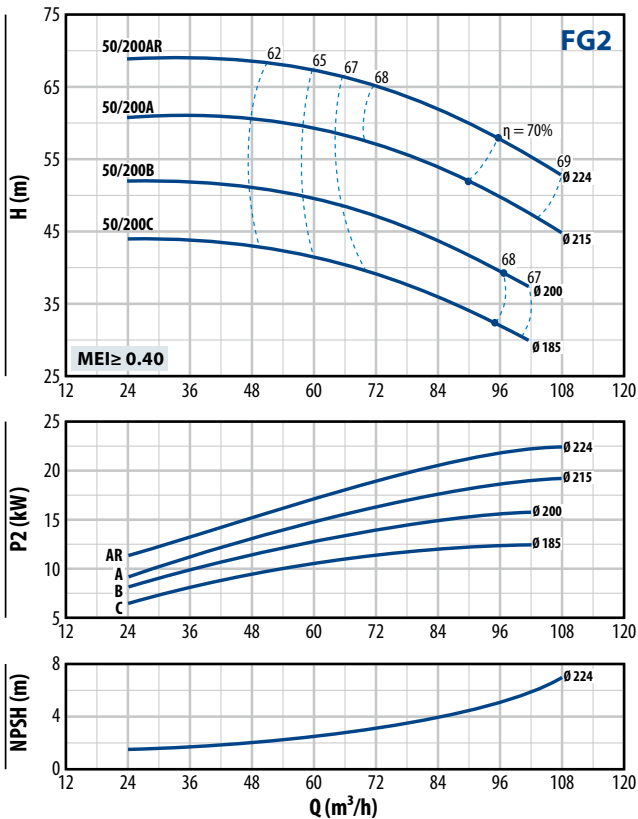
FG2-50/125



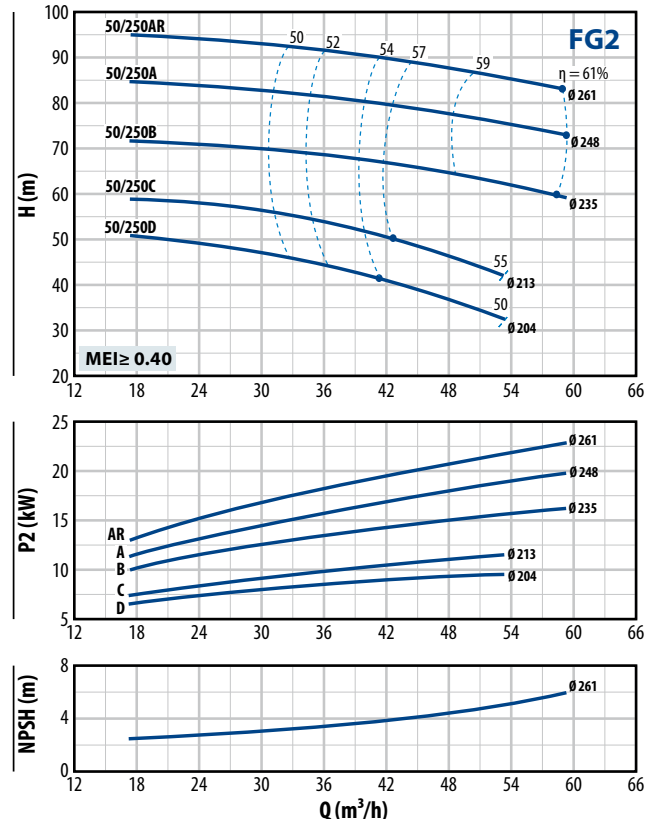
FG2-50/160



FG2-50/200



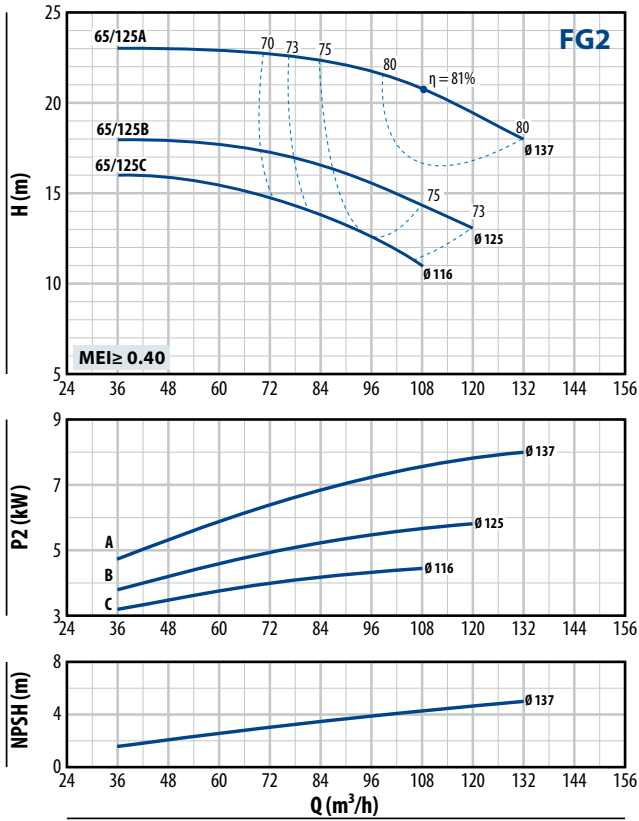
FG2-50/250



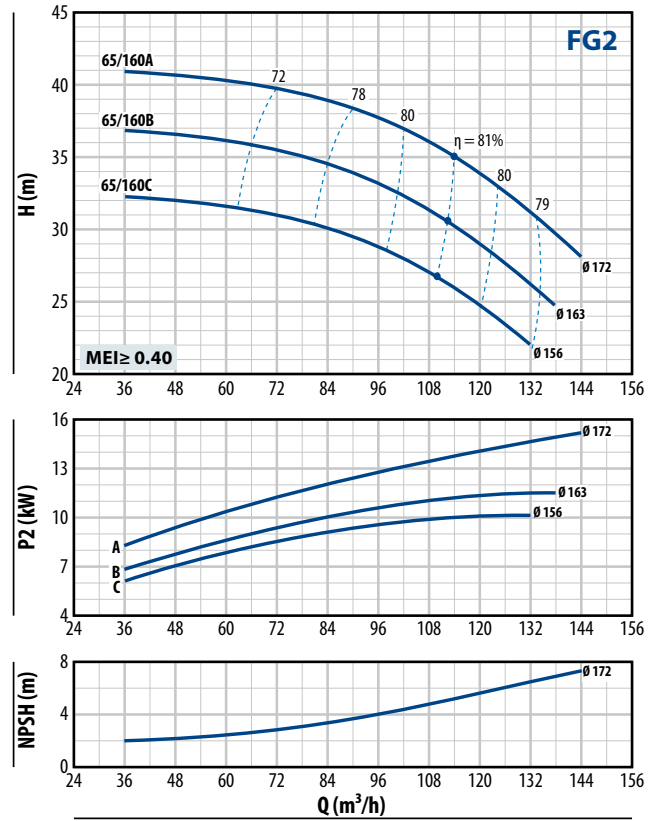
CHARACTERISTIC CURVES

n = 2900 rpm

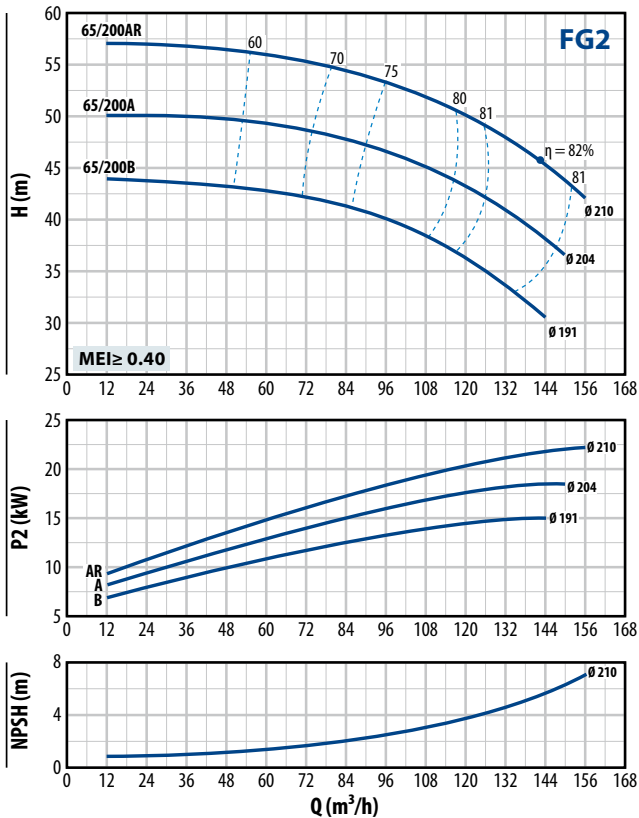
FG2-65/125



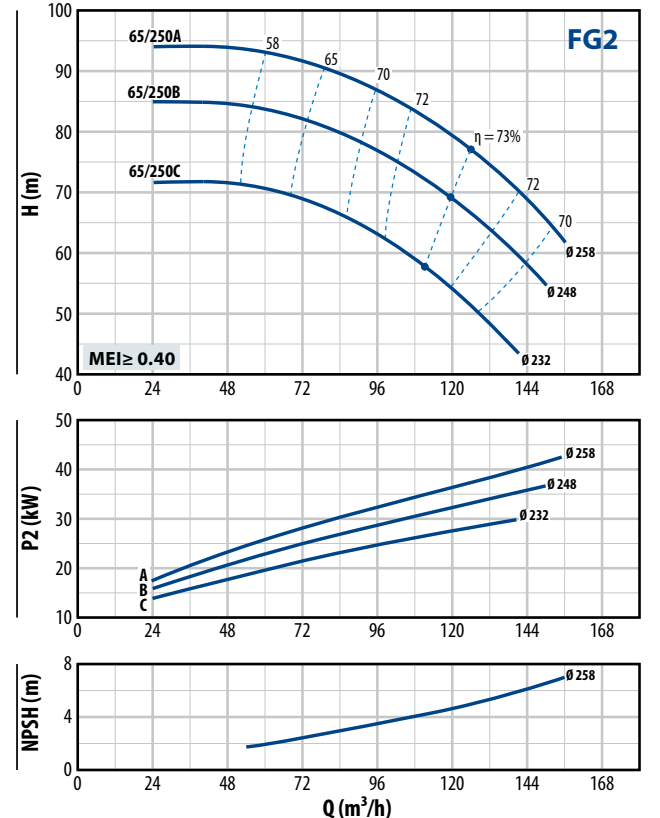
FG2-65/160



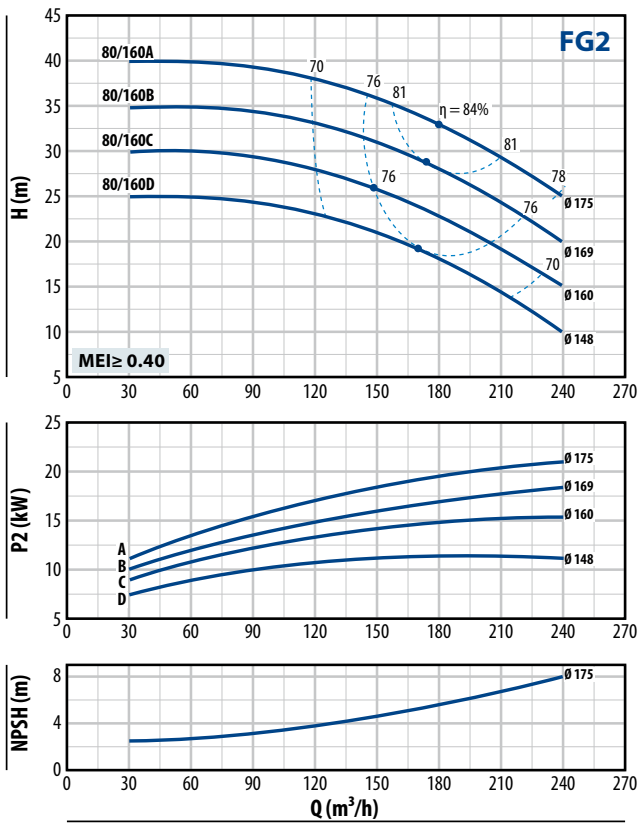
FG2-65/200



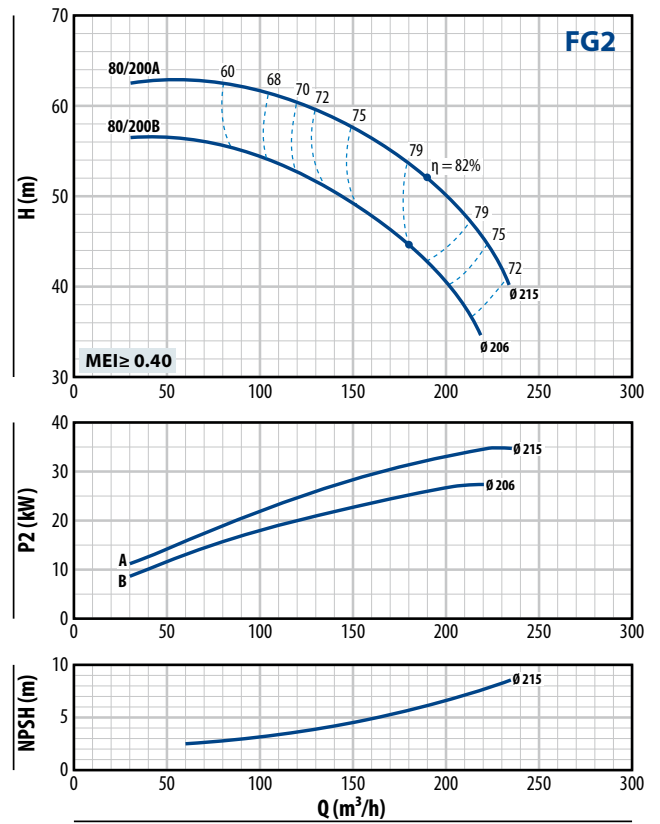
FG2-65/250



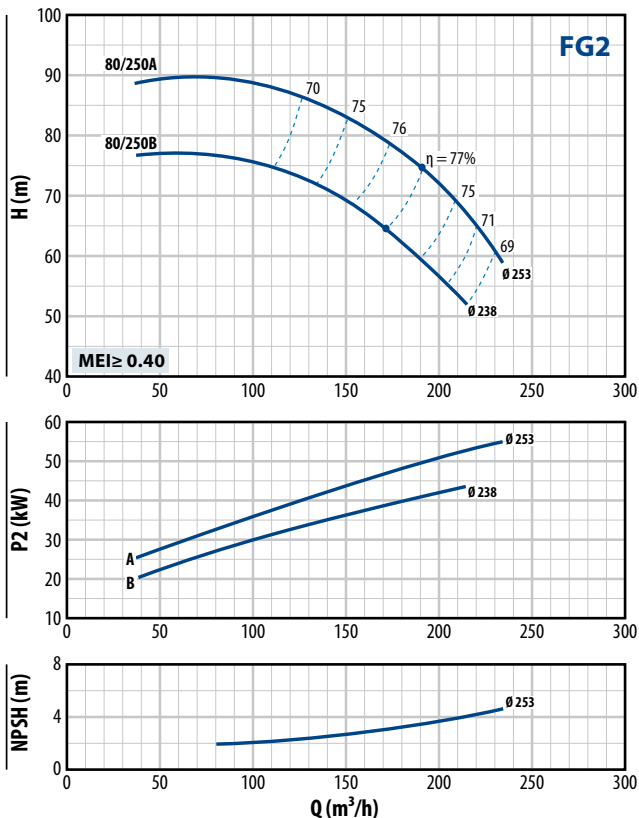
FG2-80/160



FG2-80/200



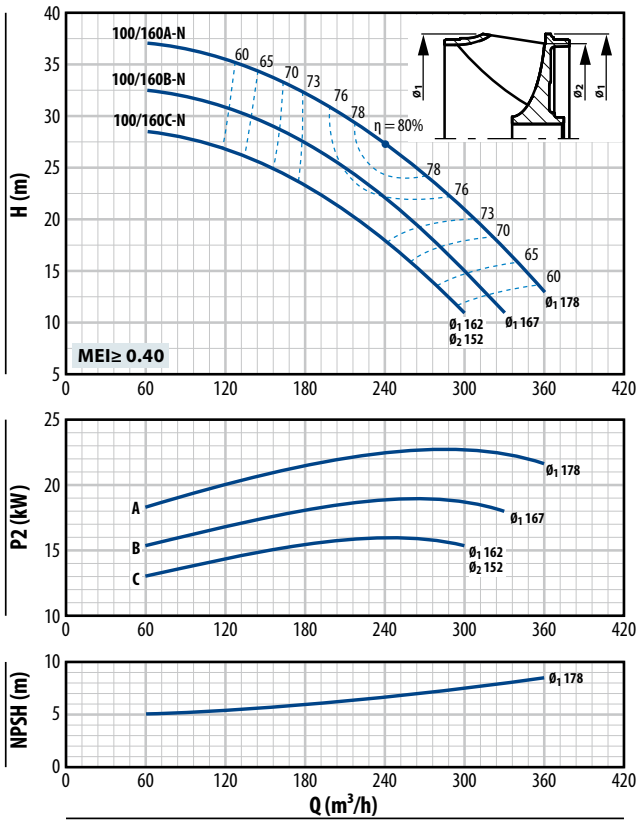
FG2-80/250



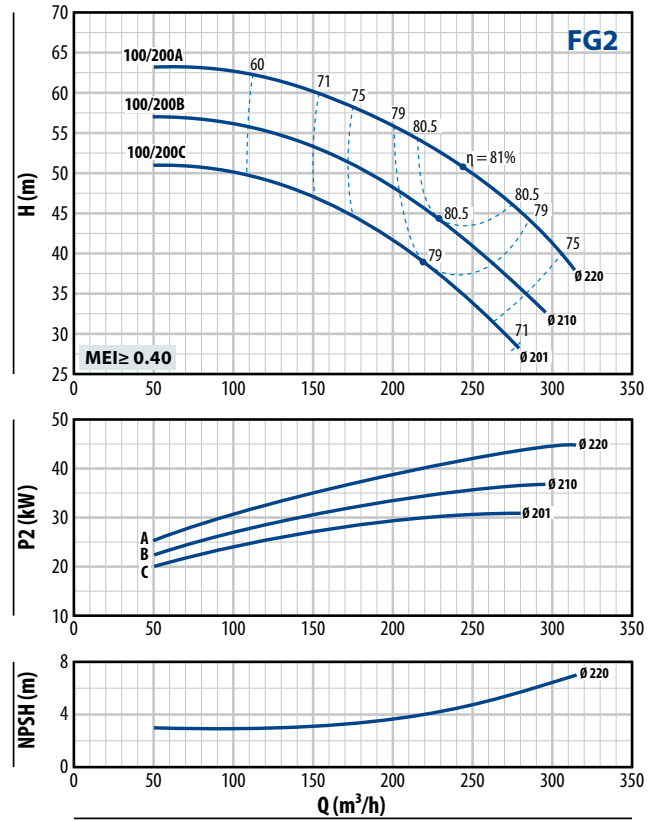
CHARACTERISTIC CURVES

n = 2900 rpm

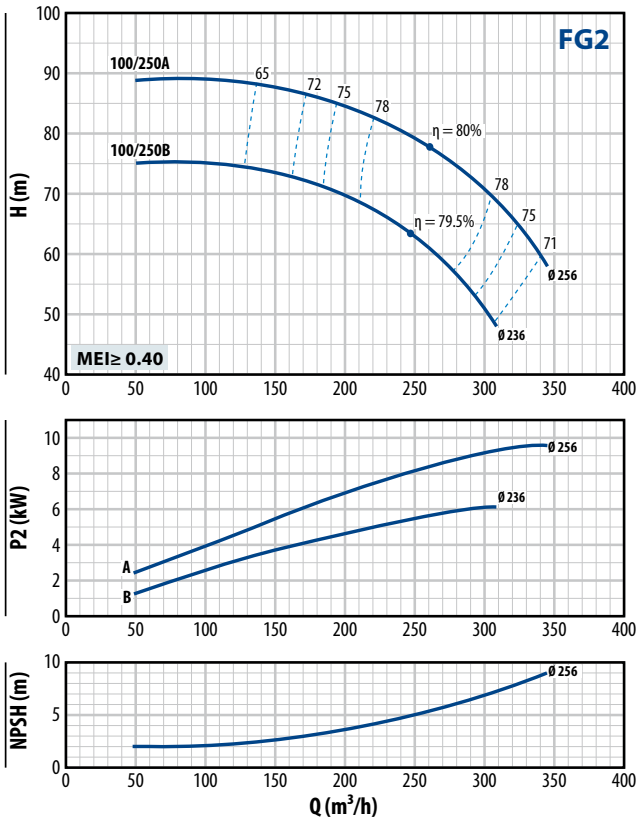
FG2-100/160



FG2-100/200

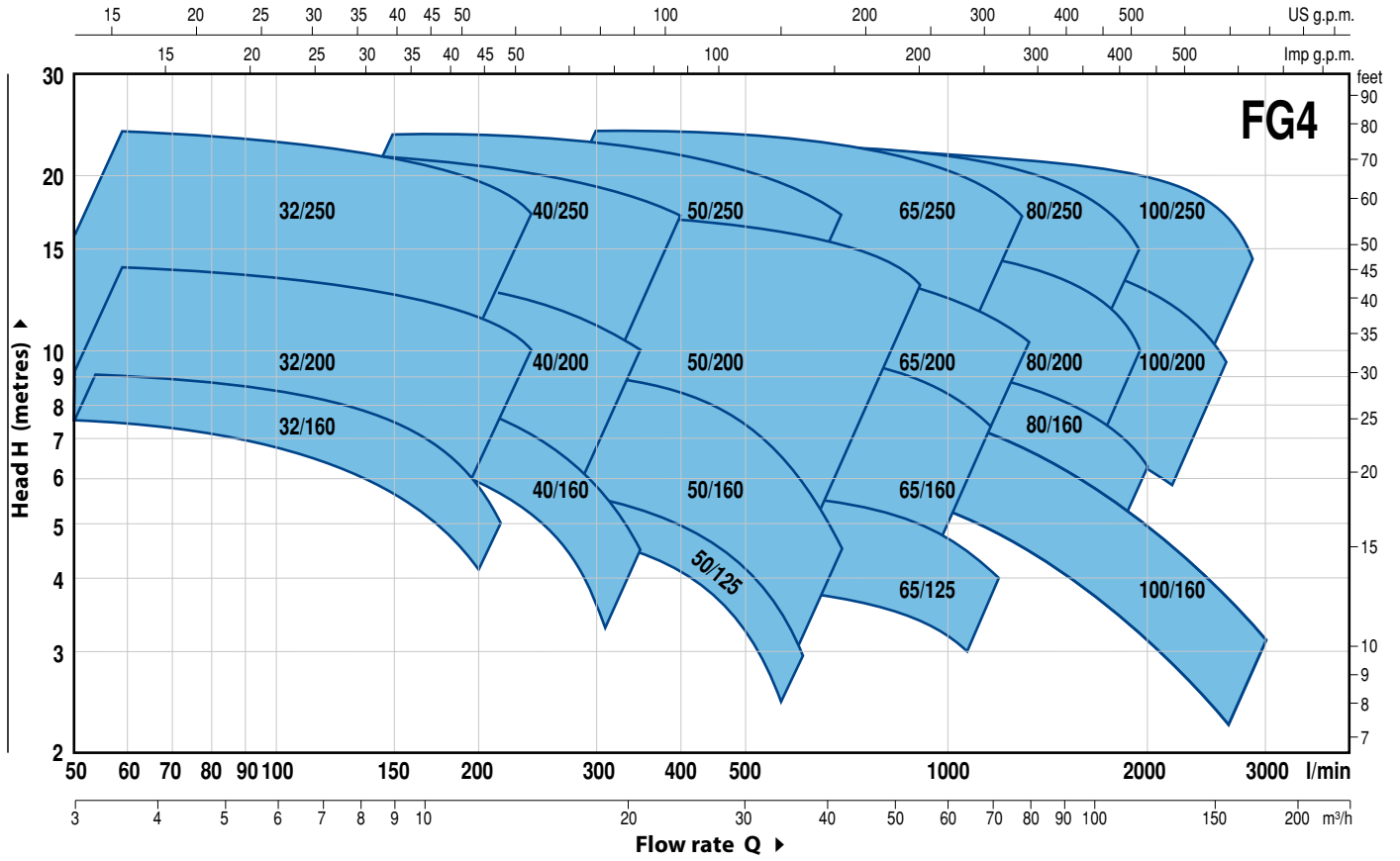


FG2-100/250



PERFORMANCE RANGE

n = 1450 rpm



PERFORMANCE DATA

MODEL	MOTOR PAIRING		PERFORMANCE n = 1450 rpm	
	kW	HP	Q m³/h	H metres
FG4-32/160C	0.25	0.33	3 ÷ 10.5	6 ÷ 3.5
FG4-32/160B	0.37	0.5	3 ÷ 12	7.5 ÷ 4
FG4-32/160A	0.37	0.5	3 ÷ 13.5	9 ÷ 6
FG4-32/200C	0.55	0.75	3 ÷ 13.5	11 ÷ 8
FG4-32/200B	0.75	1	3 ÷ 15	12.5 ÷ 9
FG4-32/200A	1.1	1.5	3 ÷ 15	14 ÷ 11
FG4-32/200BH	0.55	0.75	3 ÷ 9	11 ÷ 9
FG4-32/200AH	0.55	0.75	3 ÷ 9.6	13.8 ÷ 11
FG4-32/250C	1.1	1.5	3 ÷ 12	18.5 ÷ 13.5
FG4-32/250B	1.5	2	3 ÷ 13.5	21.5 ÷ 15.5
FG4-32/250A	2.2	3	3 ÷ 16.5	24 ÷ 16.5
FG4-40/160C	0.37	0.5	3 ÷ 18	6.5 ÷ 3.5
FG4-40/160B	0.37	0.5	3 ÷ 18	8 ÷ 5
FG4-40/160A	0.55	0.75	3 ÷ 21	9.5 ÷ 5
FG4-40/200B	0.75	1	3 ÷ 21	11.5 ÷ 7
FG4-40/200A	1.1	1.5	3 ÷ 21	13.5 ÷ 10
FG4-40/250C	1.1	1.5	3 ÷ 21	16 ÷ 11.5
FG4-40/250B	1.5	2	3 ÷ 21	17.5 ÷ 13.5
FG4-40/250A	2.2	3	3 ÷ 21	22 ÷ 18
FG4-50/125C	0.37	0.5	9 ÷ 36	4 ÷ 1.5
FG4-50/125B	0.55	0.75	9 ÷ 36	5 ÷ 2
FG4-50/125A	0.55	0.75	9 ÷ 36	6 ÷ 3
FG4-50/160C	0.55	0.75	9 ÷ 30	7 ÷ 4
FG4-50/160B	0.75	1	9 ÷ 33	8 ÷ 5
FG4-50/160A	1.1	1.5	9 ÷ 33	9 ÷ 7
FG4-50/200C	1.5	2	12 ÷ 51	11 ÷ 7.5
FG4-50/200B	2.2	3	12 ÷ 51	13 ÷ 9.5
FG4-50/200A	2.2	3	12 ÷ 54	15 ÷ 11
FG4-50/200AR	3	4	12 ÷ 54	17 ÷ 13
FG4-50/250D	1.1	1.5	9 ÷ 27	12.5 ÷ 8
FG4-50/250C	1.5	2	9 ÷ 27	14.5 ÷ 10.5
FG4-50/250B	2.2	3	9 ÷ 30	18 ÷ 14.5
FG4-50/250A	2.2	3	9 ÷ 30	21 ÷ 18
FG4-50/250AR	3	4	9 ÷ 30	24 ÷ 21

MODEL	MOTOR PAIRING		PERFORMANCE n = 1450 rpm	
	kW	HP	Q m³/h	H metres
FG4-65/125C	0.55	0.75	18 ÷ 54	4 ÷ 2.5
FG4-65/125B	0.75	1	18 ÷ 60	4.5 ÷ 3
FG4-65/125A	1.1	1.5	18 ÷ 66	5.5 ÷ 4.5
FG4-65/160C	1.1	1.5	18 ÷ 66	8 ÷ 5.5
FG4-65/160B	1.5	2	18 ÷ 72	9 ÷ 5.5
FG4-65/160A	2.2	3	18 ÷ 72	10 ÷ 7
FG4-65/200B	2.2	3	6 ÷ 72	10.5 ÷ 7.3
FG4-65/200A	2.2	3	6 ÷ 75	12 ÷ 8.5
FG4-65/200AR	3	4	6 ÷ 78	14 ÷ 10
FG4-65/250C	3	4	12 ÷ 70.5	19 ÷ 13
FG4-65/250B	4	5.5	12 ÷ 75	21.5 ÷ 15.5
FG4-65/250A	5.5	7.5	12 ÷ 78	23.5 ÷ 17
FG4-80/160D	1.5	2	15 ÷ 120	6 ÷ 2.5
FG4-80/160C	2.2	3	15 ÷ 120	7.5 ÷ 3.5
FG4-80/160B	2.2	3	15 ÷ 120	8.5 ÷ 5
FG4-80/160A	3	4	15 ÷ 120	10 ÷ 6
FG4-80/200B	4	5.5	15 ÷ 109.5	14 ÷ 8.5
FG4-80/200A	5.5	7.5	15 ÷ 117	15.5 ÷ 10
FG4-80/250B	5.5	7.5	18 ÷ 108	19 ÷ 13.5
FG4-80/250A	7.5	10	18 ÷ 117	22 ÷ 15
FG4-100/160B-N	2.2	3	24 ÷ 165	8.1 ÷ 2.7
FG4-100/160A-N	3	4	24 ÷ 180	9.2 ÷ 3.2
FG4-100/200C	4	5.5	24 ÷ 139.5	12.5 ÷ 7
FG4-100/200B	5.5	7.5	24 ÷ 147	14 ÷ 8
FG4-100/200A	5.5	7.5	24 ÷ 157.5	15.5 ÷ 9.5
FG4-100/250B	7.5	10	24 ÷ 154.5	18.5 ÷ 12
FG4-100/250A	9.2	12.5	24 ÷ 172.5	22 ÷ 14.5

Q = Flow rate

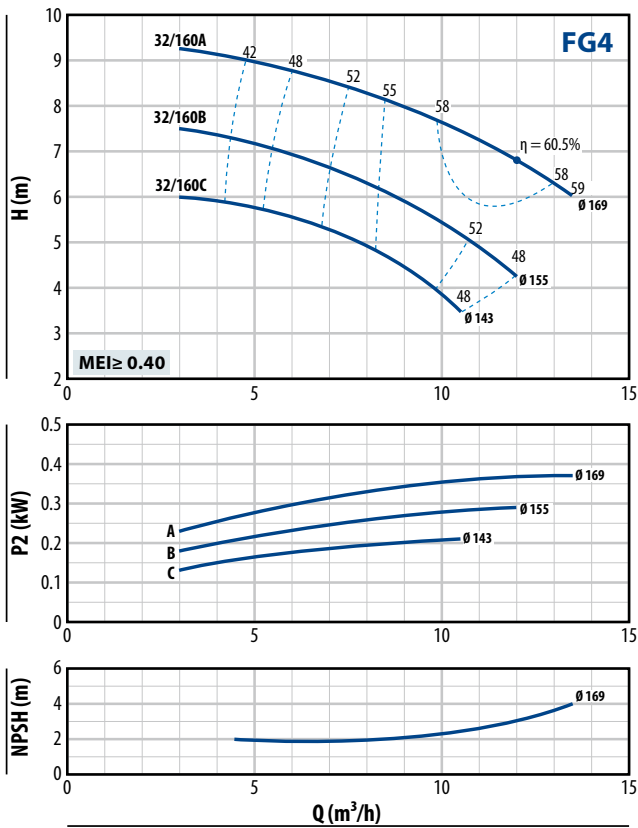
H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

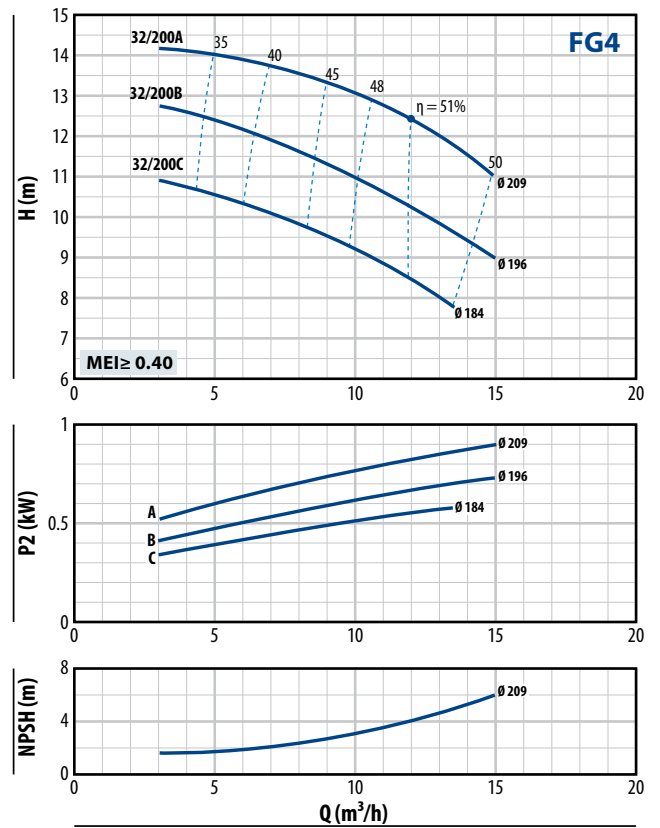
CHARACTERISTIC CURVES

n = 1450 rpm

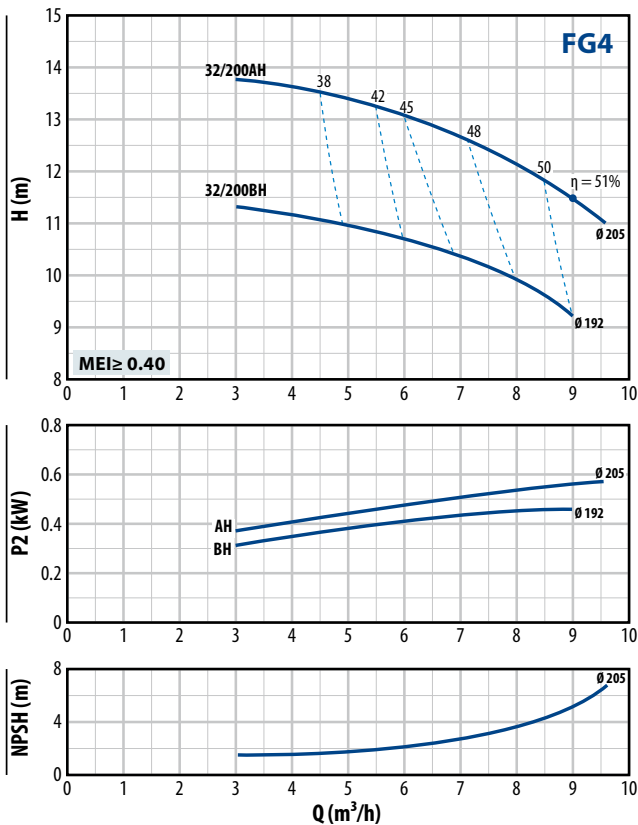
FG4-32/160



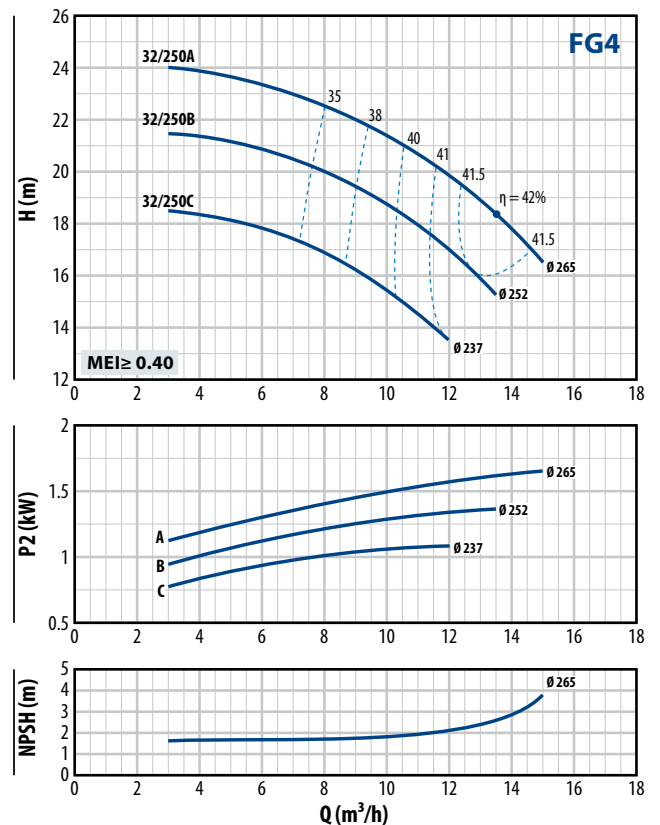
FG4-32/200



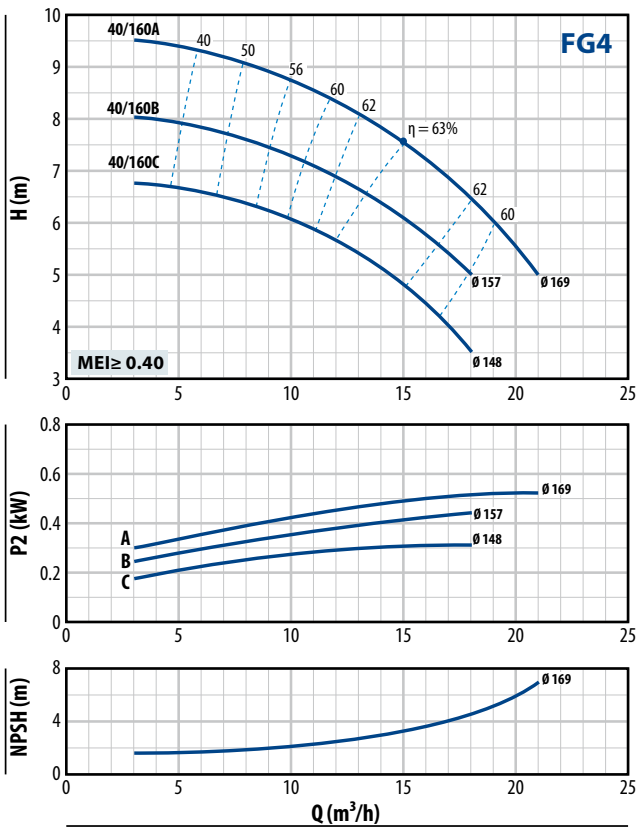
FG4-32/200H



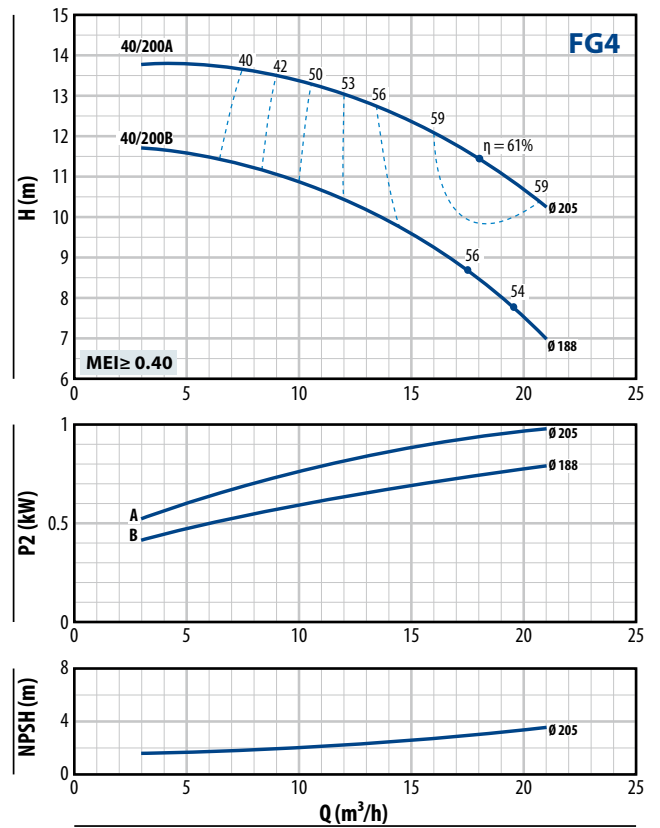
FG4-32/250



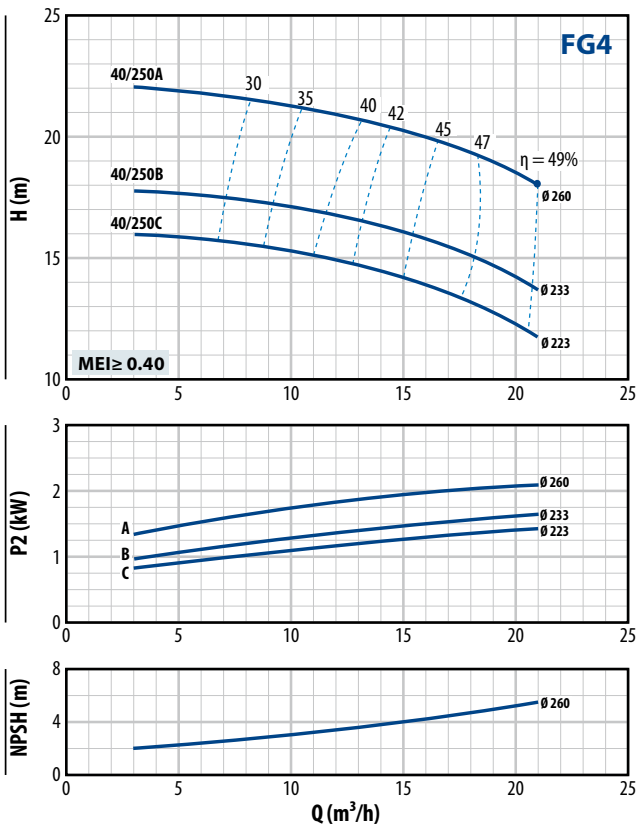
FG4-40/160



FG4-40/200



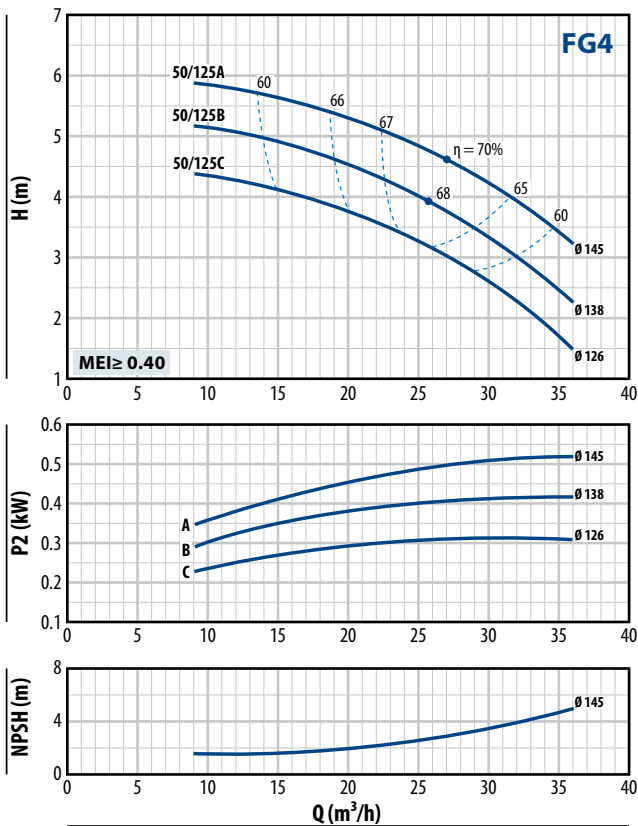
FG4-40/250



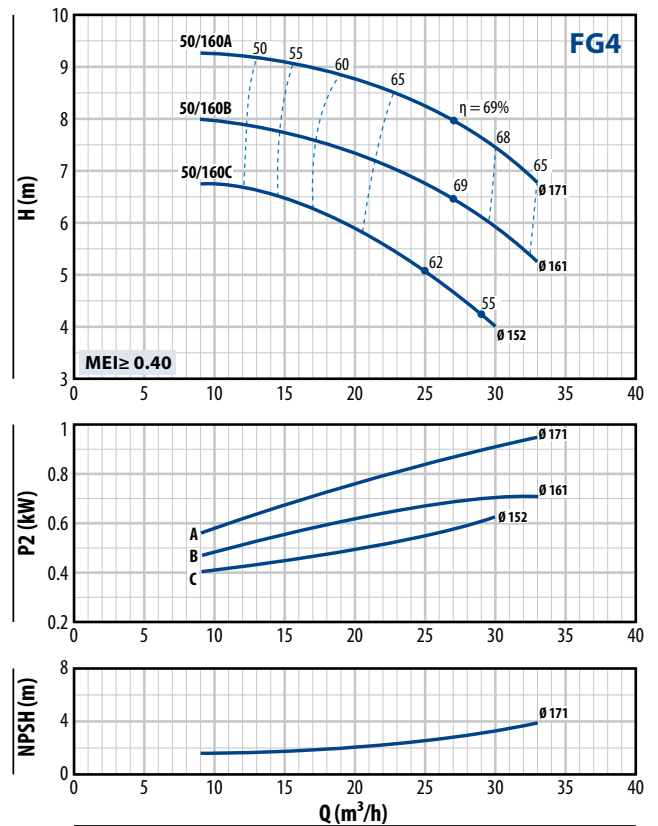
CHARACTERISTIC CURVES

n = 1450 rpm

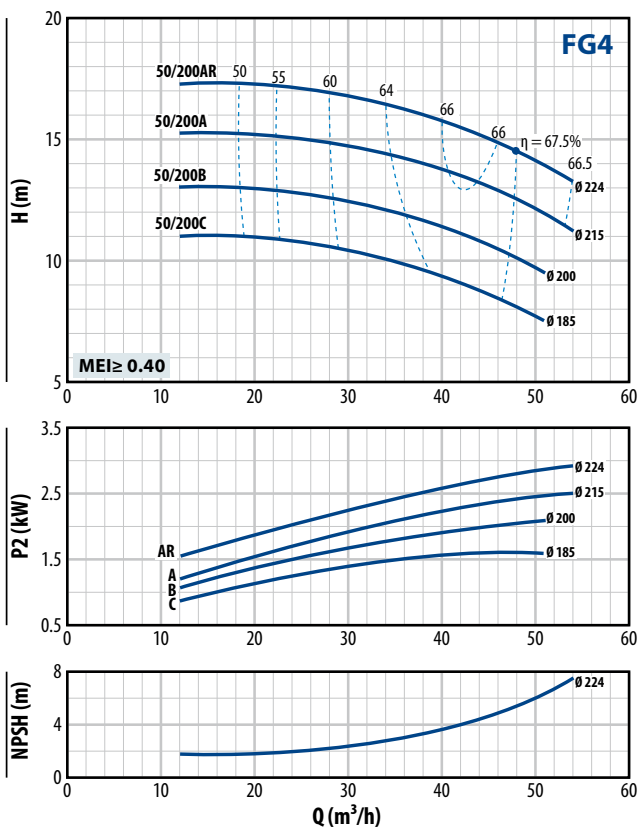
FG4-50/125



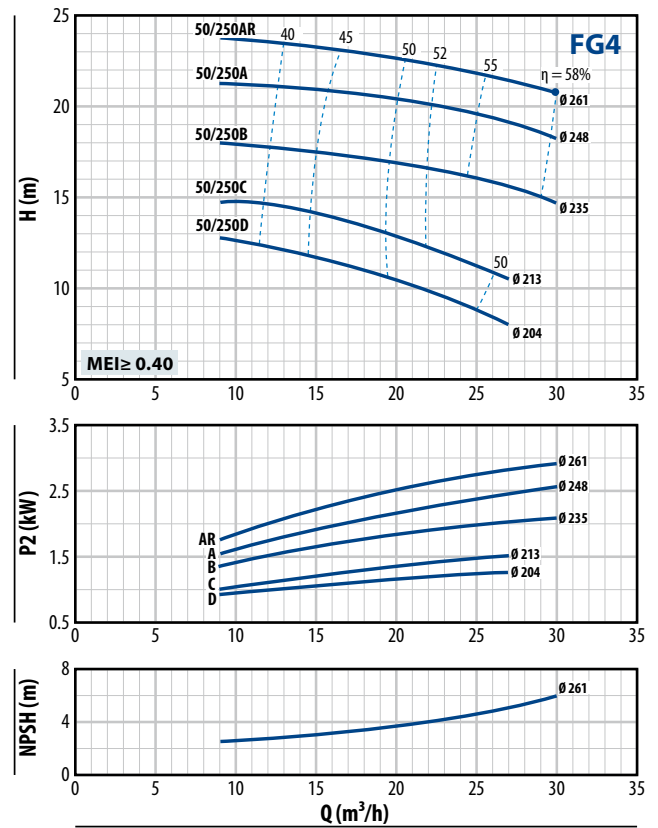
FG4-50/160



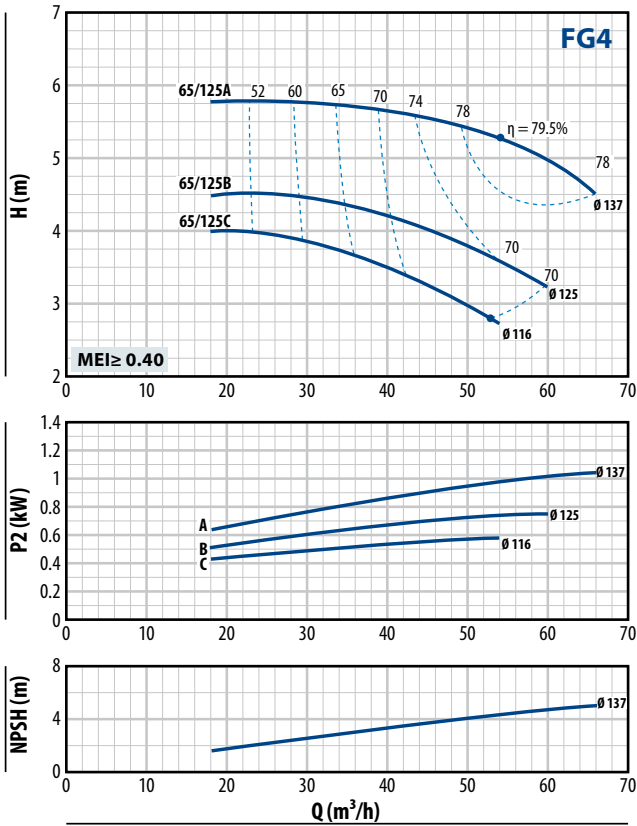
FG4-50/200



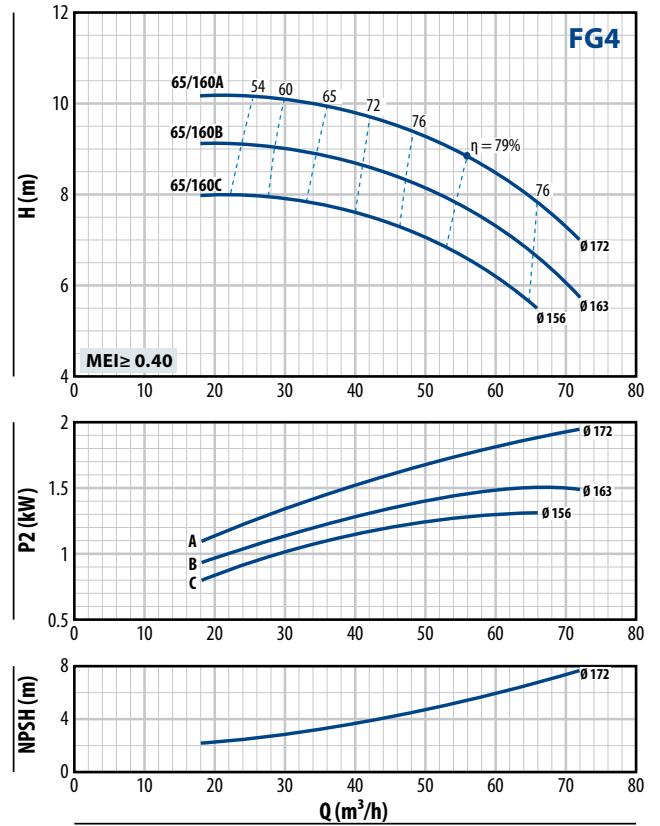
FG4-50/250



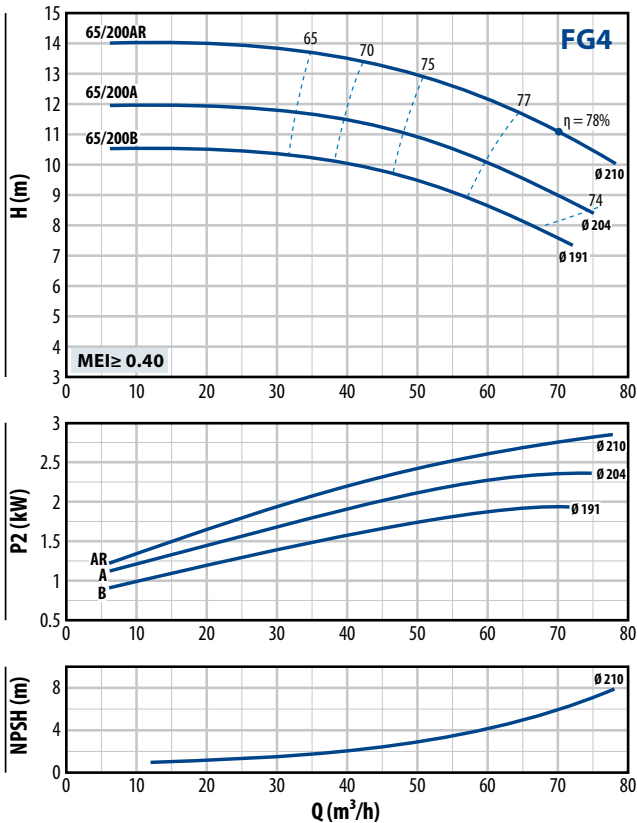
FG4-65/125



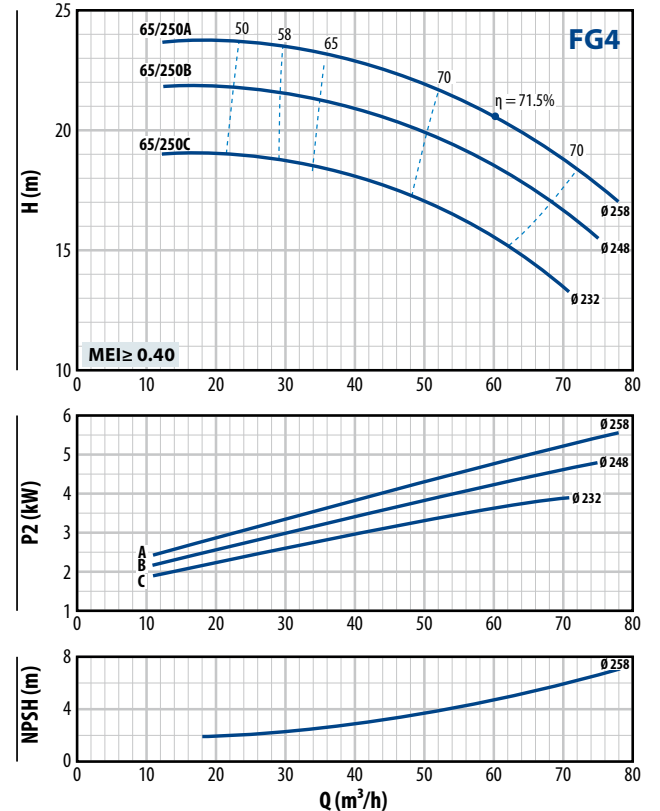
FG4-65/160



FG4-65/200



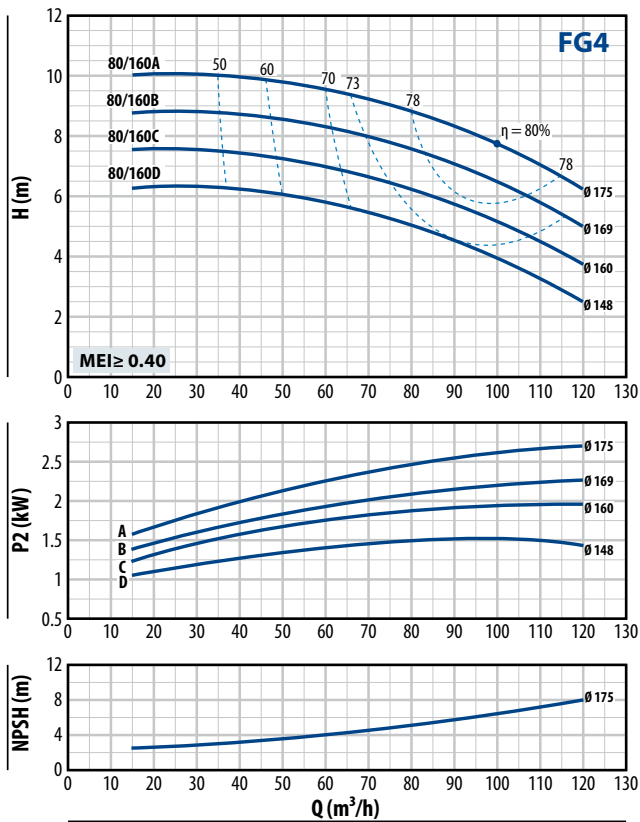
FG4-65/250



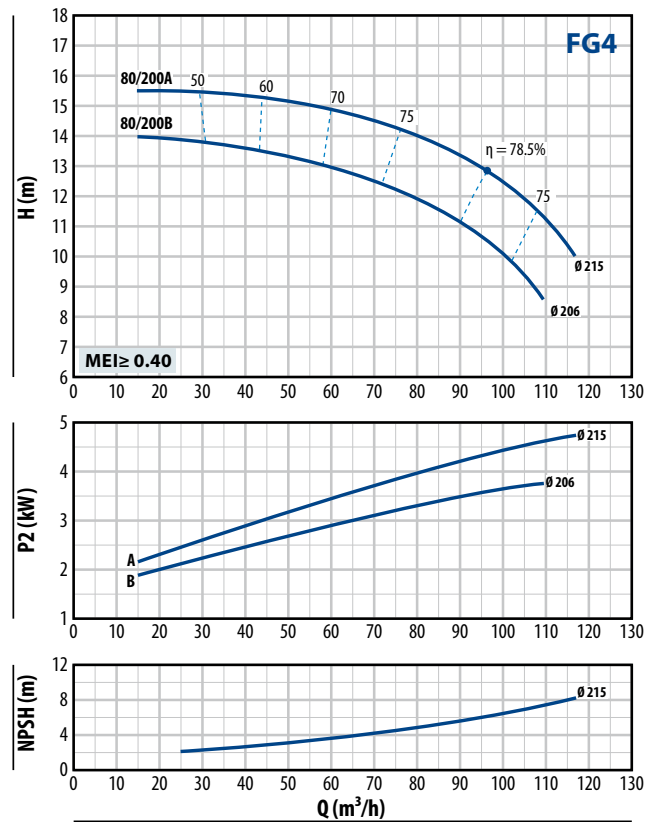
CHARACTERISTIC CURVES

n = 1450 rpm

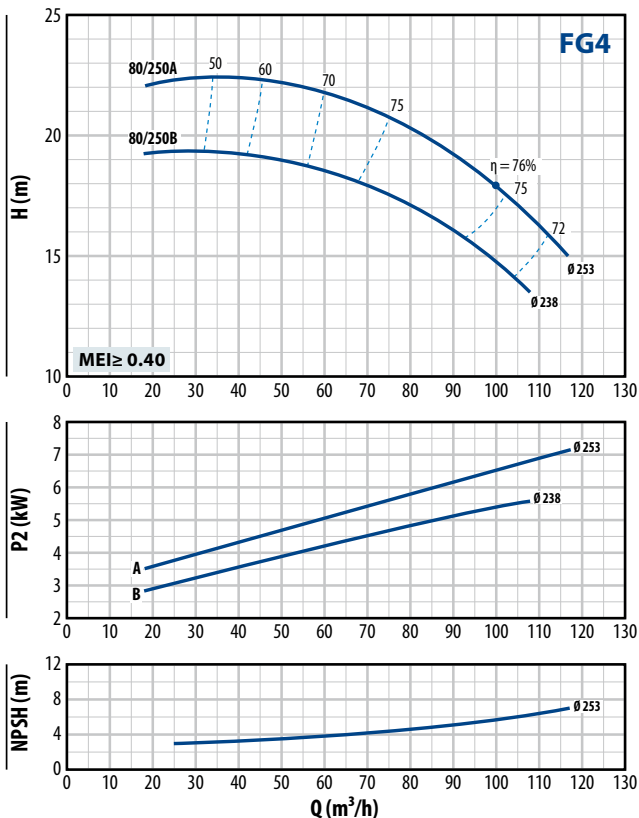
FG4-80/160



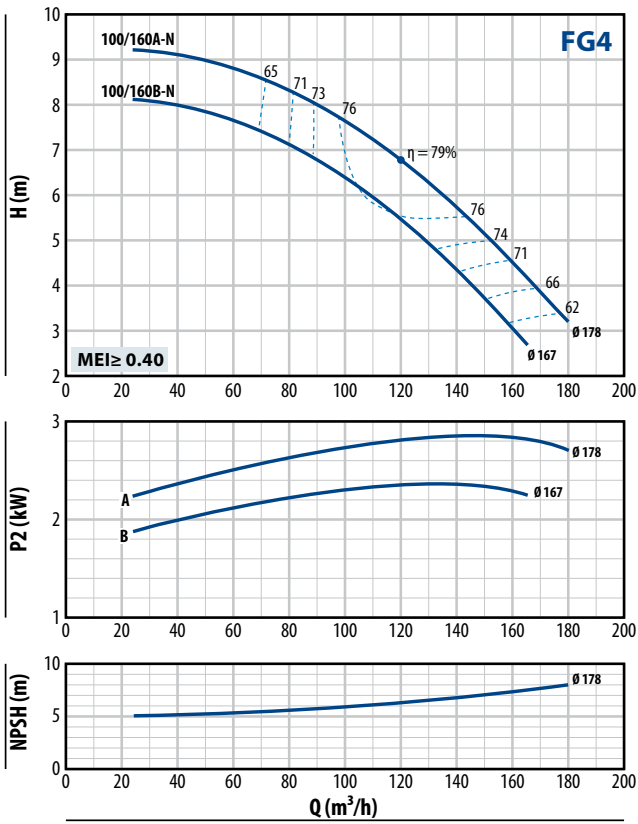
FG4-80/200



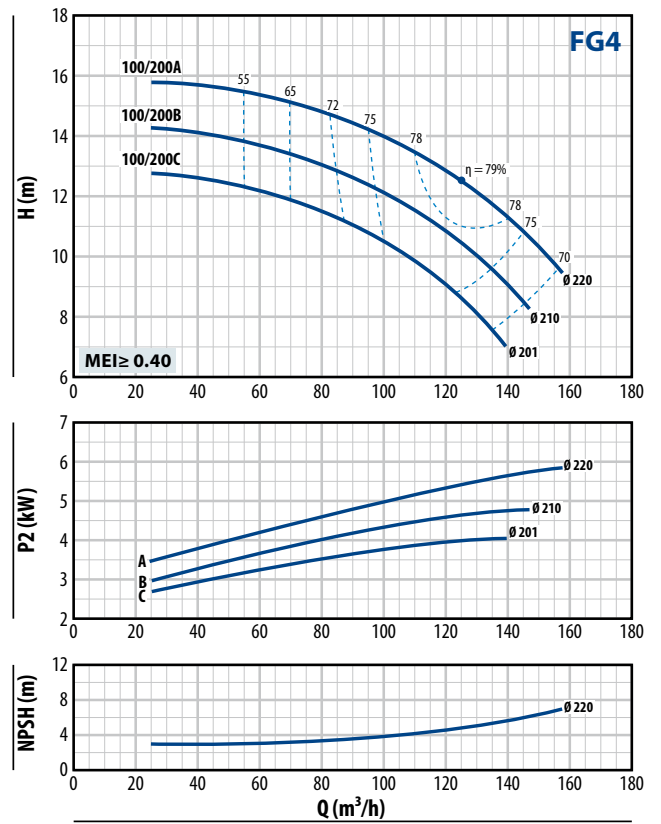
FG4-80/250



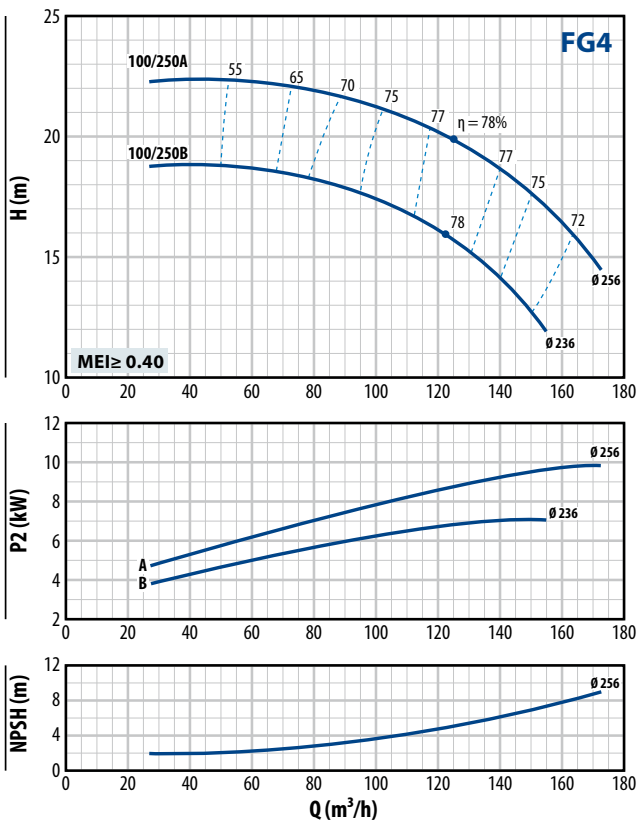
FG4-100/160



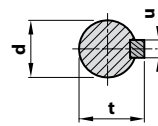
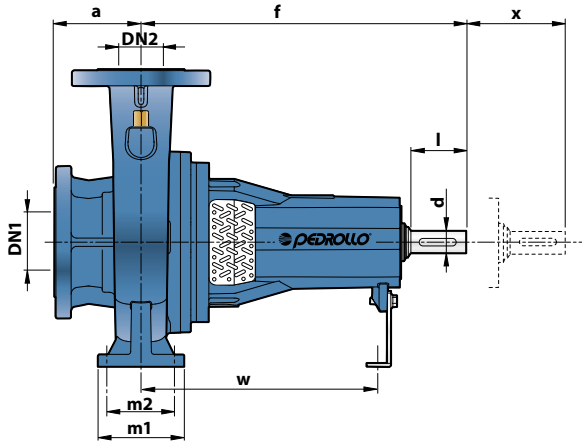
FG4-100/200



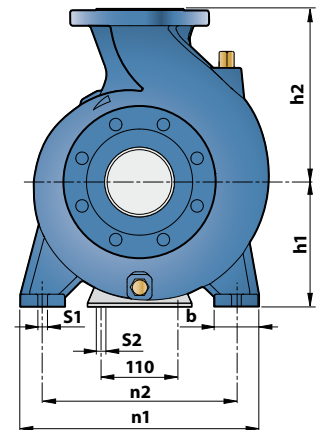
FG4-100/250



DIMENSIONS AND WEIGHT

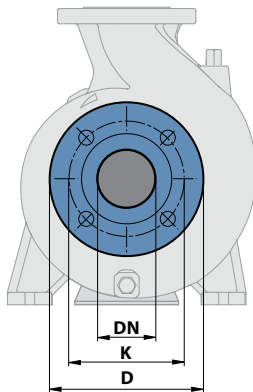


SHAFT mm		
d	u	t
24 k6	8	27
32 k6	10	35



MODEL	DIMENSIONS mm																kg									
	DN1	DN2	a	f	h1	h2	b	m1	m2	n1	n2	s1	s2	w	x	d		l								
FG 32/160	50	32	80	360	132	160	50	100	95	70	240	190	14	260	100	24	50	32	80	71						
FG 32/200					160	180	55	125													95	240	190	32	80	48
FG 32/200H					160	180	55	125													95	240	190	32	80	48
FG 32/250	65	40	80	360	180	225	65	125	95	320	250	14	260	100	24	50	32	80	71							
FG 40/125					112	140	50	100	70	210	160									24	50	30				
FG 40/160					132	160	50	100	70	240	190									24	50	35				
FG 40/200	65	40	80	360	160	180	55	125	95	265	212	14	260	100	24	50	32	80	71							
FG 40/250					180	225	65	125	95	320	250									24	50	58				
FG 50/125					132	160	50	100	70	240	190									24	50	30				
FG 50/160	65	50	100	360	160	180	55	100	70	265	212	14	260	100	24	50	32	80	71							
FG 50/200					160	200	50	100	70	320	250									24	50	45				
FG 50/250					180	225	65	125	95	320	250									24	50	50				
FG 65/125	80	65	100	360	160	180	65	125	95	280	212	14	260	100	24	50	32	80	71							
FG 65/160					160	200	65	125	95	320	250									24	50	45				
FG 65/200					180	225	65	125	95	320	250									24	50	50				
FG 65/250	100	80	125	360	470	200	250	80	160	120	360	280	18	340	140	24	50	32	80	71						
FG 80/160					360	180	225	65	125	95	320	250	14								24	50	48			
FG 80/200					470	180	250	65	125	95	345	280	14								340	32	80	65		
FG 80/250	100	80	125	360	200	280	80	160	120	400	315	18	340	140	24	50	32	80	71							
FG 100/160-N					360	200	280	80	160	120	360									280	18	24	50	62		
FG 100/200					200	280	80	160	120	360	280									18	340	32	80	75		
FG 100/250	125	100	140	470	225	280	80	160	120	400	315	18	340	140	24	50	32	80	71							

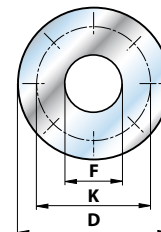
FLANGED PORTS



DN FLANGES mm	D mm	K mm	HOLES	
			N.	Ø (mm)
32	140	100	4	18
40	150	110		
50	165	125		
65	185	145		
80	200	160		
100	220	180	8	18
125	250	210		

COUNTER FLANGES

(CAN BE ORDERED SEPARATELY)



DN FLANGES mm	F COUNTER FLANGES	D mm	K mm	HOLES	
				N.	Ø (mm)
32	1 1/4"	140	100	4	18
40	1 1/2"	150	110		
50	2"	165	125		
65	2 1/2"	185	145		
80	3"	200	160		
100	4"	220	180	8	18
125	5"	250	210		

Multi-stage submersible pumps



-  Clean water
(Maximum sand content 150 g/m³)
-  Domestic use
-  Civil use
-  Agricultural use

PERFORMANCE RANGE

- Flow rate up to **120 l/min** (7.2 m³/h)
- Head up to **95 m**

APPLICATION LIMITS

- Maximum liquid temperature **+40 °C**
- Maximum sand content **150 g/m³**
- **20 m** maximum immersion depth (with a sufficiently long power cable)
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

- **20 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



INSTALLATION AND USE

Because of their high efficiency and reliability they are suitable for use with clean water in domestic, civil and agricultural applications such as the distribution of water in combination with pressure tanks, for the irrigation of gardens and orchards and for pressure boosting, etc.

PATENTS - TRADE MARKS - MODELS

- Patent Pending n. PCT/IB2014/063126

OPTIONS AVAILABLE ON REQUEST

- Pumps without float switch
- Pumps fitted with power cables of other lengths
- Other voltages or 60 Hz frequency

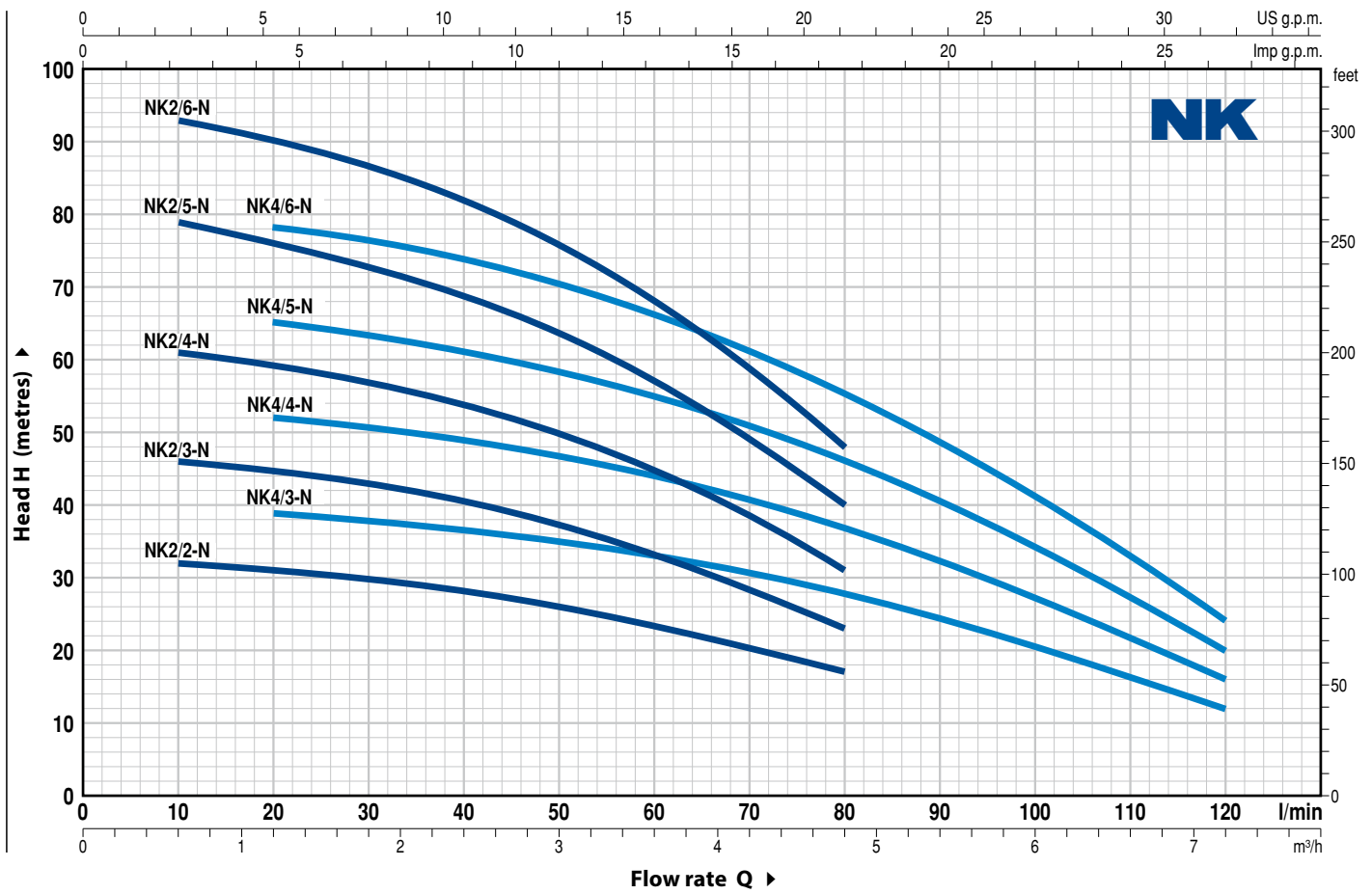
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	H metres												
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	6.0	6.6	7.2
				l/min	0	10	20	30	40	50	60	70	80	100	110	120	
NKm 2/2 GE-N	NK 2/2-N	0.37	0.5	H metres	33	32	31	29.5	28	26	23.5	20.5	17				
NKm 2/3 GE-N	NK 2/3-N	0.55	0.75		48	46	44.5	42.8	40.5	37.5	33.5	29	23				
NKm 2/4 GE-N	NK 2/4-N	0.75	1		63	61	59	57	54	50	45	39	31				
NKm 2/5 GE-N	NK 2/5-N	1.1	1.5		81	79	75.5	73	68.5	63.5	57.5	49.5	40				
NKm 2/6 GE-N	NK 2/6-N	1.5	2		95	93	90	87	82	76	68.5	59.5	48				
NKm 4/3 GE-N	NK 4/3-N	0.55	0.75		40	-	39	38	37	35	33	30.5	28	20.5	16.5	12	
NKm 4/4 GE-N	NK 4/4-N	0.75	1		53	-	52	50.5	49	46.5	44	40.5	37	27.5	22	16	
NKm 4/5 GE-N	NK 4/5-N	1.1	1.5		67	-	65	63.5	61.5	58	55	50.5	46.5	34	27.5	20	
NKm 4/6 GE-N	NK 4/6-N	1.5	2	80	-	78	76	74	70	66	61	56	41	33	24		

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

➡ Single-phase pumps without float switch on request

POS. COMPONENT

CONSTRUCTION CHARACTERISTICS

1	EXTERNAL SLEEVE	Stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1
2	SUCTION FILTER	Stainless steel AISI 304 complete with anti-vibration supports
3	MOTOR SLEEVE	Stainless steel AISI 304
4	IMPELLERS AND DIFFUSERS	Noryl FE1520PW
5	DIAPHRAGMS	Stainless steel AISI 304
6	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104

7 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-17	Ø 17 mm	Motor side	Silicon carbide	Graphite	NBR
ST1-16	Ø 16 mm	Pump side	Silicon carbide	Graphite	NBR

8 BEARINGS 6303 2RS - C3 / 6203 ZZ - C3E

9 CAPACITOR

Pump	Capacitance	
Single-phase	(230 V or 240 V)	(110 V)
NKm 2/2 GE-N		
NKm 2/3 GE-N	16 µF - 500 VL	30 uF - 250 VL
NKm 4/3 GE-N		
NKm 2/4 GE-N	20 µF - 450 VL	-
NKm 4/4 GE-N		
NKm 2/5 GE-N	25 µF - 450 VL	-
NKm 4/5 GE-N		
NKm 2/6 GE-N	35 µF - 450 VL	-
NKm 4/6 GE-N		

10 ELECTRIC MOTOR

- NKm:** single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding.
- NK:** three-phase 400 V - 50 Hz.
- Insulation: class F
 - Protection: IP X8

11 POWER CABLE

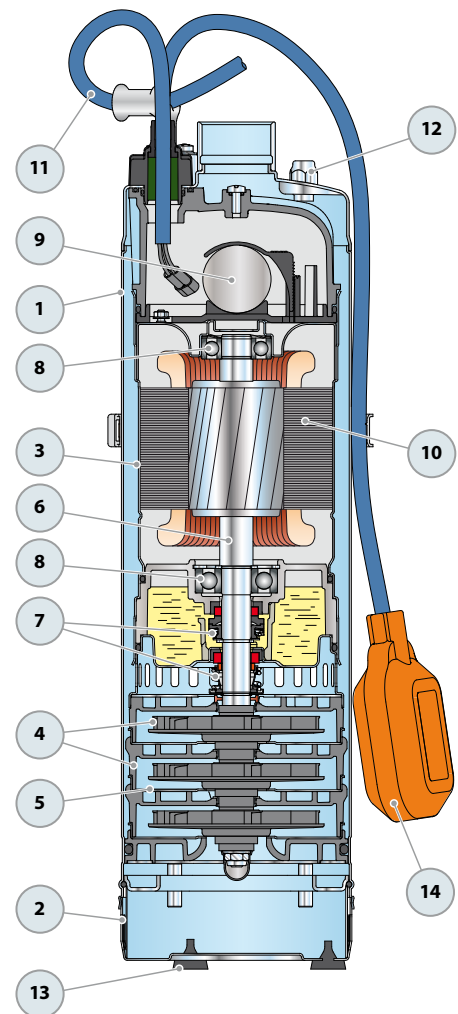
- ⇒ **DRINCABLE®** type
approved for use in drinking water by "WRAS"
in compliance with BS 6920, approval n. 7513
Standard length 20 metres

12 AUTOMATIC VENT VALVE

13 ANTI-VIBRATION SUPPORTS

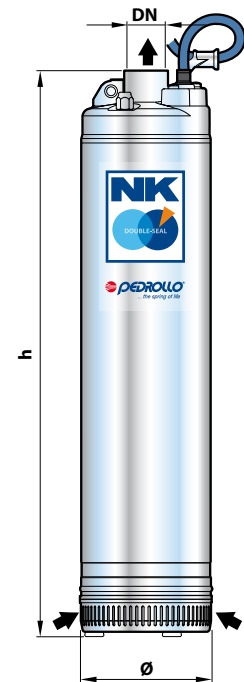
14 FLOAT SWITCH

- (only for single-phase versions)



DIMENSIONS AND WEIGHT

MODEL		PORT DN	N. STAGES	DIMENSIONS mm		kg	
Single-phase	Three-phase			∅	h	1~	3~
NKm 2/2 GE-N	NK 2/2-N	1 1/4"	2	135	458	14.0	13.8
NKm 2/3 GE-N	NK 2/3-N		3		485	14.5	14.3
NKm 2/4 GE-N	NK 2/4-N		4		542	16.1	15.3
NKm 2/5 GE-N	NK 2/5-N		5		569	17.5	16.7
NKm 2/6 GE-N	NK 2/6-N		6		616	19.8	18.8
NKm 4/3 GE-N	NK 4/3-N		3		485	14.5	14.3
NKm 4/4 GE-N	NK 4/4-N		4		542	16.1	15.3
NKm 4/5 GE-N	NK 4/5-N		5		569	17.5	16.7
NKm 4/6 GE-N	NK 4/6-N		6		616	19.8	18.8



ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase			
NKm 2/2 GE-N	4.4 A	4.3 A	8.8 A
NKm 2/3 GE-N	5.4 A	5.2 A	10.8 A
NKm 2/4 GE-N	6.2 A	6.0 A	12.4 A
NKm 2/5 GE-N	7.6 A	7.3 A	15.2 A
NKm 2/6 GE-N	8.8 A	8.5 A	17.6 A
NKm 4/3 GE-N	5.0 A	4.8 A	10.0 A
NKm 4/4 GE-N	6.2 A	6.0 A	12.4 A
NKm 4/5 GE-N	7.2 A	6.9 A	14.4 A
NKm 4/6 GE-N	8.7 A	8.4 A	17.4 A

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
Three-phase				
NK 2/2-N	2.8 A	1.6 A	2.7 A	1.5 A
NK 2/3-N	3.3 A	1.9 A	3.2 A	1.8 A
NK 2/4-N	4.0 A	2.3 A	3.9 A	2.2 A
NK 2/5-N	5.0 A	2.9 A	4.9 A	2.8 A
NK 2/6-N	5.7 A	3.3 A	5.5 A	3.2 A
NK 4/3-N	3.2 A	1.8 A	3.1 A	1.7 A
NK 4/4-N	3.8 A	2.2 A	3.7 A	2.1 A
NK 4/5-N	4.9 A	2.8 A	4.7 A	2.7 A
NK 4/6-N	5.6 A	3.2 A	5.4 A	3.1 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
NKm 2/2 GE-N	NK 2/2-N	30	54
NKm 2/3 GE-N	NK 2/3-N	30	54
NKm 2/4 GE-N	NK 2/4-N	30	54
NKm 2/5 GE-N	NK 2/5-N	25	45
NKm 2/6 GE-N	NK 2/6-N	25	45
NKm 4/3 GE-N	NK 4/3-N	30	54
NKm 4/4 GE-N	NK 4/4-N	30	54
NKm 4/5 GE-N	NK 4/5-N	25	45
NKm 4/6 GE-N	NK 4/6-N	25	45

Multi-stage submersible pumps



-  Clean water
(Maximum sand content 150 g/m³)
-  Domestic use
-  Civil use
-  Agricultural use

PERFORMANCE RANGE

- Flow rate up to **180 l/min** (10.8 m³/h)
- Head up to **95 m**

APPLICATION LIMITS

- Maximum liquid temperature **+40 °C**
- Maximum sand content **150 g/m³**
- **20 m** maximum immersion depth (with a sufficiently long power cable)
- Vertical and horizontal installation
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

- **20 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



PATENTS - TRADE MARKS - MODELS

- Patent Pending n. PCT/IB2014/063126
- Patent Pending n. BO2015A000116
- Patent Pending n. PCT/EP2009/059855

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

A new concept range of submersible multi-stage pumps designed guarantee even greater reliability, thanks to patented innovative technical solutions which prevent blockage of the pumps even after prolonged periods of inactivity.

Because of their high efficiency and reliability they are suitable for use with clean water in domestic, civil and agricultural applications such as the distribution of water in combination with pressure tanks, for the irrigation of gardens and orchards and for pressure boosting, etc.

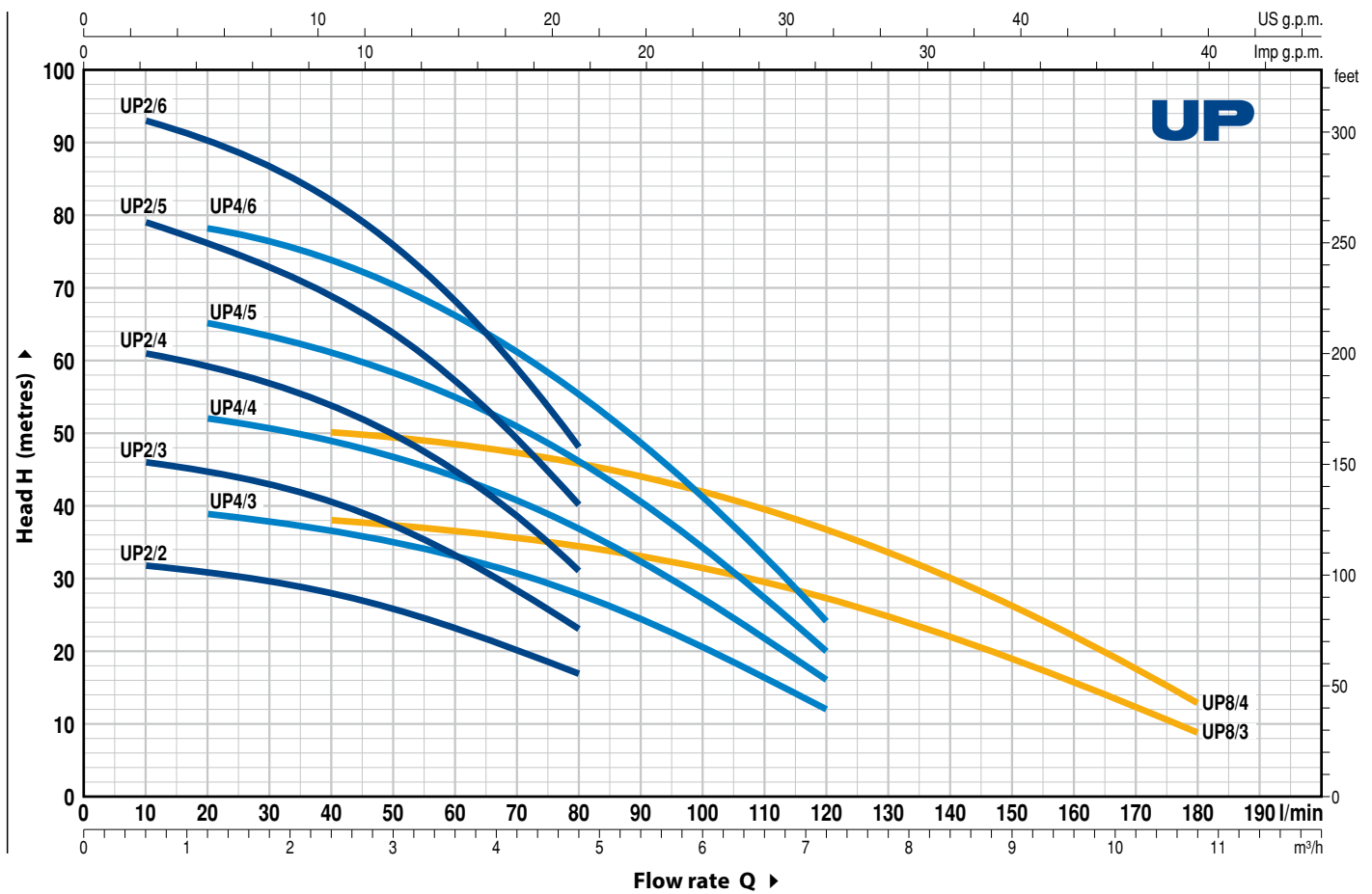
OPTIONS AVAILABLE ON REQUEST

- Pumps without float switch
- Pumps fitted with power cables of other lengths
- Other voltages or 60 Hz frequency
- **Support kit for horizontal operation**



CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate (m³/h)											
Single-phase	Three-phase	kW	HP		0	0.6	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	
UPm 2/2-GE	UP 2/2	0.37	0.5	l/min	0	10	20	40	60	80	100	120	140	160	180	
UPm 2/3-GE	UP 2/3	0.55	0.75	H metres	33	32	31	28	23.5	17						
UPm 2/4-GE	UP 2/4	0.75	1		48	46	44.5	40.5	33.5	23						
UPm 2/5-GE	UP 2/5	1.1	1.5		63	61	59	54	45	31						
UPm 2/6-GE	UP 2/6	1.5	2		81	79	75.5	68.5	57.5	40						
UPm 4/3-GE	UP 4/3	0.55	0.75		95	93	90	82	68.5	48						
UPm 4/4-GE	UP 4/4	0.75	1		40	-	39	37	33	28	20.5	12				
UPm 4/5-GE	UP 4/5	1.1	1.5		53	-	52	49	44	37	27.5	16				
UPm 4/6-GE	UP 4/6	1.5	2		67	-	65	61.5	55	46.5	34	20				
UPm 8/3-GE	UP 8/3	1.1	1.5		80	-	78	74	66	56	41	24				
UPm 8/4-GE	UP 8/4	1.5	2		40	-	-	38	36.5	34.5	31.5	27.5	22	16	9	
				52	-	-	50	48.5	46	42	36.5	29.5	21.5	13		

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

➡ Single-phase pumps without float switch on request

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	EXTERNAL SLEEVE	Stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1
2	MOTOR SLEEVE	Stainless steel AISI 304
3	IMPELLERS AND DIFFUSERS	Noryl FE1520PW
4	DIAPHRAGMS	Stainless steel AISI 304
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104
6	TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER	

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-17	Ø 17 mm	Motor side	Silicon carbide	Graphite	NBR
ST1-16	Ø 16 mm	Pump side	Silicon carbide	Graphite	NBR

7	BEARINGS	6303 2RS - C3 / 6203 ZZ - C3E
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8	CAPACITOR	
Pump	Capacitance	
<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>
UPm 2/2-GE		
UPm 2/3-GE	16 µF - 500 VL	30 µF - 250 VL
UPm 4/3-GE		
UPm 2/4-GE	20 µF - 450 VL	-
UPm 4/4-GE		
UPm 2/5-GE		
UPm 4/5-GE	25 µF - 450 VL	-
UPm 8/3-GE		
UPm 2/6-GE		
UPm 4/6-GE	35 µF - 450 VL	-
UPm 8/4-GE		

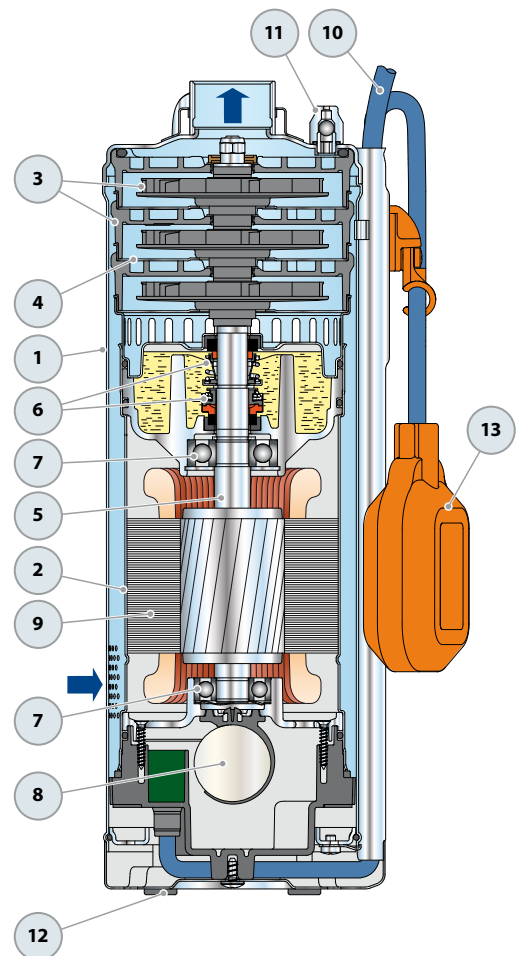
9	ELECTRIC MOTOR
<p>UPm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.</p> <p>UP: three-phase 400 V - 50 Hz.</p> <ul style="list-style-type: none"> - Insulation: class F - Protection: IP X8 	

10	POWER CABLE
<p>⇒ DRINCABLE® type approved for use in drinking water by "WRAS" in compliance with BS 6920, approval n. 7513 Standard length 20 metres</p>	

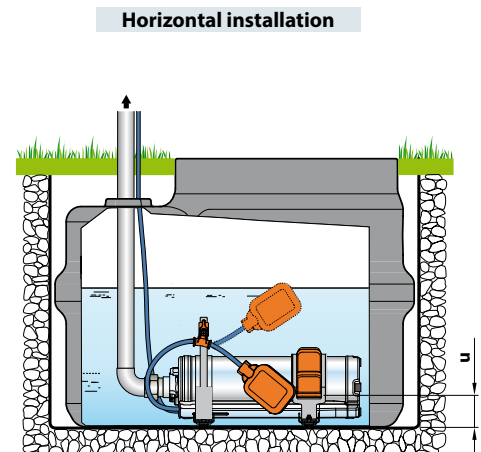
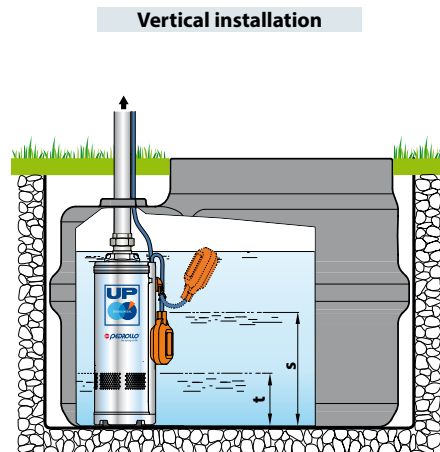
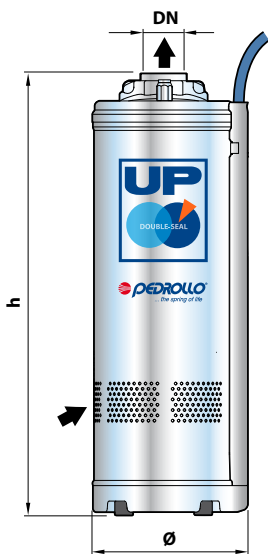
11	AUTOMATIC VENT VALVE
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12	ANTI-VIBRATION SUPPORTS
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13	FLOAT SWITCH (only for single-phase versions)
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DIMENSIONS AND WEIGHT



MODEL		PORT DN	N. STAGES	DIMENSIONS mm		kg	
Single-phase	Three-phase			Ø	h	1~	3~
UPm 2/2-GE	UP 2/2	1 1/4"	2	150	398	13.7	13.5
UPm 2/3-GE	UP 2/3		3		425	14.2	14.0
UPm 2/4-GE	UP 2/4		4		482	15.8	15.0
UPm 2/5-GE	UP 2/5		5		509	17.2	16.4
UPm 2/6-GE	UP 2/6		6		556	19.5	18.5
UPm 4/3-GE	UP 4/3		3		425	14.2	14.0
UPm 4/4-GE	UP 4/4		4		482	15.8	15.0
UPm 4/5-GE	UP 4/5		5		509	17.2	16.4
UPm 4/6-GE	UP 4/6		6		556	19.5	18.5
UPm 8/3-GE	UP 8/3		3		455	15.4	14.6
UPm 8/4-GE	UP 8/4		4		502	17.7	16.7

MODEL	LEVELS mm		
	s	t	u
UP 2/3 UP 4/3	320	135	55
UP 2/4 UP 2/5 UP 4/4 UP 4/5 UP 8/3	350		
UP 2/6 UP 4/6 UP 8/4	370		

s = Minimum restarting level
t = Emptying level
u = Minimum operational level

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
UPm 2/2-GE	4.4 A	4.3 A	8.8 A
UPm 2/3-GE	5.4 A	5.2 A	10.8 A
UPm 2/4-GE	6.2 A	6.0 A	12.4 A
UPm 2/5-GE	7.6 A	7.3 A	15.2 A
UPm 2/6-GE	8.8 A	8.5 A	17.6 A
UPm 4/3-GE	5.0 A	4.8 A	10.0 A
UPm 4/4-GE	6.2 A	6.0 A	12.4 A
UPm 4/5-GE	7.2 A	6.9 A	14.4 A
UPm 4/6-GE	8.7 A	8.4 A	17.4 A
UPm 8/3-GE	7.6 A	7.3 A	15.2 A
UPm 8/4-GE	8.8 A	8.5 A	17.6 A

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
UP 2/2	2.8 A	1.6 A	2.7 A	1.5 A
UP 2/3	3.3 A	1.9 A	3.2 A	1.8 A
UP 2/4	4.0 A	2.3 A	3.9 A	2.2 A
UP 2/5	5.0 A	2.9 A	4.9 A	2.8 A
UP 2/6	5.7 A	3.3 A	5.5 A	3.2 A
UP 4/3	3.2 A	1.8 A	3.1 A	1.7 A
UP 4/4	3.8 A	2.2 A	3.7 A	2.1 A
UP 4/5	4.9 A	2.8 A	4.7 A	2.7 A
UP 4/6	5.6 A	3.2 A	5.4 A	3.1 A
UP 8/3	5.0 A	2.9 A	4.9 A	2.8 A
UP 8/4	5.7 A	3.3 A	5.5 A	3.2 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
UPm 2/2-GE	UP 2/2	30	54
UPm 2/3-GE	UP 2/3	30	54
UPm 2/4-GE	UP 2/4	30	54
UPm 2/5-GE	UP 2/5	25	45
UPm 2/6-GE	UP 2/6	25	45

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
UPm 4/3-GE	UP 4/3	30	54
UPm 4/4-GE	UP 4/4	30	54
UPm 4/5-GE	UP 4/5	25	45
UPm 4/6-GE	UP 4/6	25	45
UPm 8/3-GE	UP 8/3	30	54
UPm 8/4-GE	UP 8/4	30	54

4" submersible pump with peripheral impeller

 Clean water

 Domestic use

 Agricultural use



PERFORMANCE RANGE

- Flow rate up to **50 l/min** (3.0 m³/h)
- Head up to **75 m**

APPLICATION LIMITS

- Maximum liquid temperature **+40 °C**
- Maximum immersion depth of **40 m** with a sufficiently long power cable
- Vertical and horizontal installation
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with **clean water that does not contain abrasive particles** and with liquids that are not chemically aggressive towards the materials from which the pump is made. Because of their compact design and economy, they are suitable for domestic applications such as the distribution of water in combination with small pressure tanks and for irrigation, etc.

PATENTS - TRADE MARKS - MODELS

- Patent Pending n. PCT/IB2009/051491
- Patent Pending n. PCT/EP2009/059855
- Registered Trade Mark n. 0001552668 **DAVIS®**

OPTIONS AVAILABLE ON REQUEST

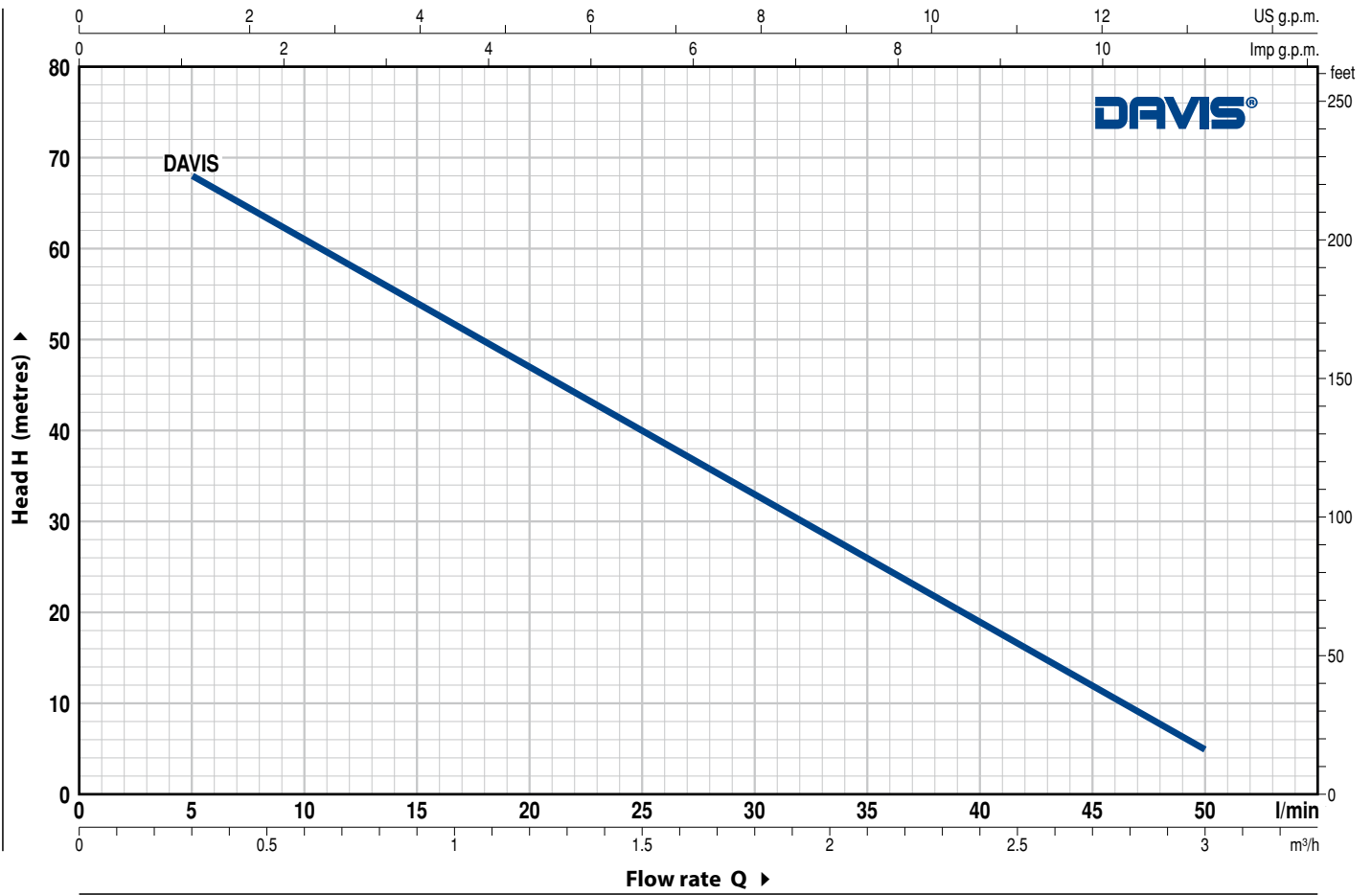
- **30 metres long power cable**
- Other voltages or 60 Hz frequency

➔ **Ready to install, stainless steel monoblock submersible pump.**

**Complete with: – motor with built-in capacitor and thermal overload protector
– 20 m long power cable.**

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL Single-phase	POWER (P ₂)		Q	Flow rate Q													
	kW	HP		m ³ /h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0		
DAVIS®	0.75	1	H metres	75	68	61	54	47	40	33	26	19	12	5			

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT

CONSTRUCTION CHARACTERISTICS

1	DELIVERY BODY	Stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1
2	PUMP BODY BACK PLATE	Brass
3	IMPELLER	Brass with peripheral radial vanes
4	MOTOR SLEEVE	Stainless steel AISI 304
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104

6 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
AR-14	Ø 14 mm	Motor side	Ceramic	Graphite	NBR
ST1-14 SIC	Ø 14 mm	Pump side	Ceramic	Silicon carbide	NBR

7 BEARINGS 6203 ZZ - C3E / 6203 ZZ - C3E

8 CAPACITOR

Capacitance

(230 V or 240 V)	(110 V)
31.5 µF - 500 VL	70 µF - 250 VL

9 ELECTRIC MOTOR

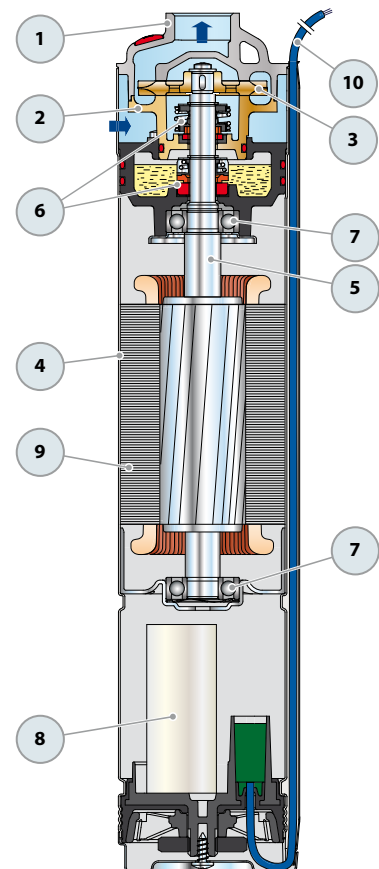
Submersible PEDROLLO motor, suitable for continuous duty (with dry, rewindable stator).

DAVIS®: single-phase 230 V - 50 Hz
 Motor with built-in capacitor.
 Thermal overload protector incorporated into the winding.

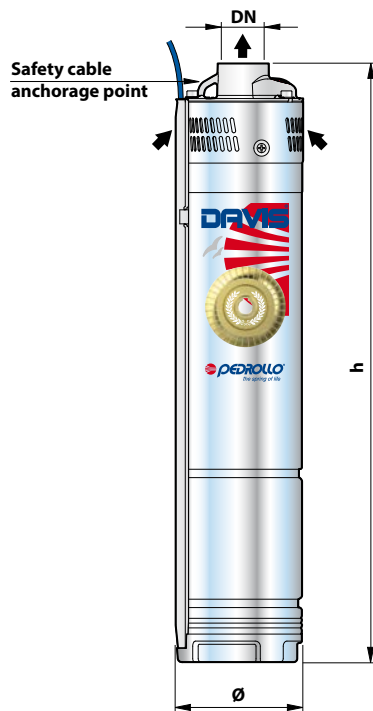
- Insulation: class F
- Protection: IP X8

10 POWER CABLE

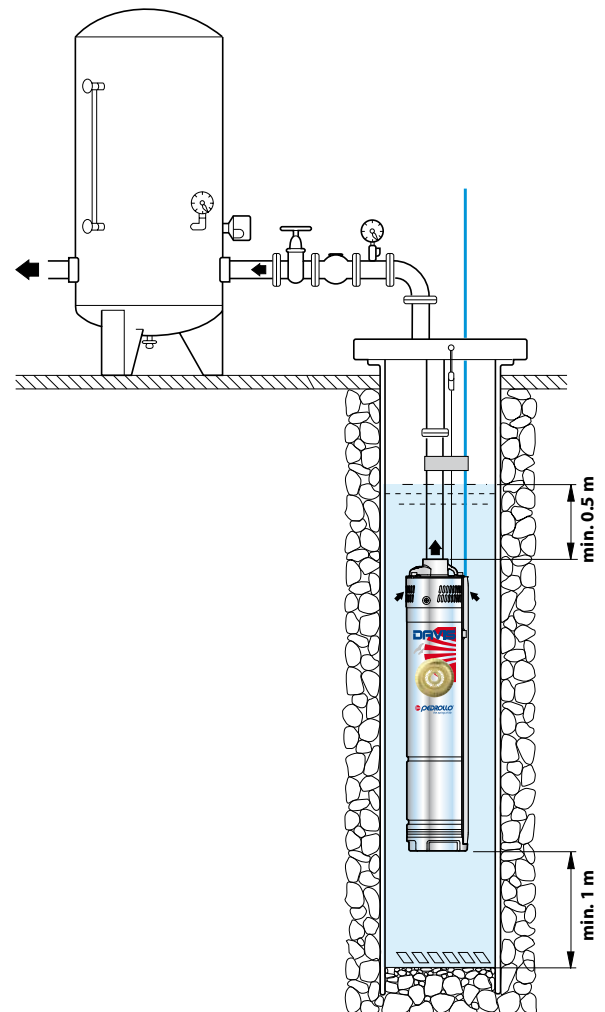
- ⇒ **PBS-P type approved for use in drinking water by "ACS" in compliance with BS 6920, approval . 04 ACCLI 201 Standard length 20 metres**



DIMENSIONS AND WEIGHT



Standard installation



MODEL	PORT	DIMENSIONS mm		kg
		Ø	h	
Single-phase	DN			
DAVIS®	1"	101	470	12.6

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase			
DAVIS®	5.7 A	5.5 A	11.4 A

PALLETIZATION

MODEL	GROUPAGE/ CONTAINER
Single-phase	n. pumps
DAVIS®	60

4BLOCK

4" monoblock submersible pumps



-  Clean water
(Maximum sand content 150 g/m³)
-  Domestic use
-  Civil use
-  Agricultural use

PERFORMANCE RANGE

- Flow rate up to **150 l/min** (9 m³/h)
- Head up to **128 m**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **150 g/m³**
- Maximum immersion depth of **60 m** with a sufficiently long power cable
- Vertical and horizontal installation
- Starts/hour: **20** at regular intervals
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for pumping clean water from boreholes that contain sand (up to 150 g/m³).

Because of their high efficiency and reliability they are suitable for use in domestic applications such as domestic water supply as part of a pressure supply and for irrigation, etc.

PATENTS - TRADE MARKS - MODELS

- Patent Pending n. PCT/IB2009/051491
- Patent Pending n. PCT/IB2010/054499
- Patent Pending n. PCT/EP2009/059855

OPTIONS AVAILABLE ON REQUEST

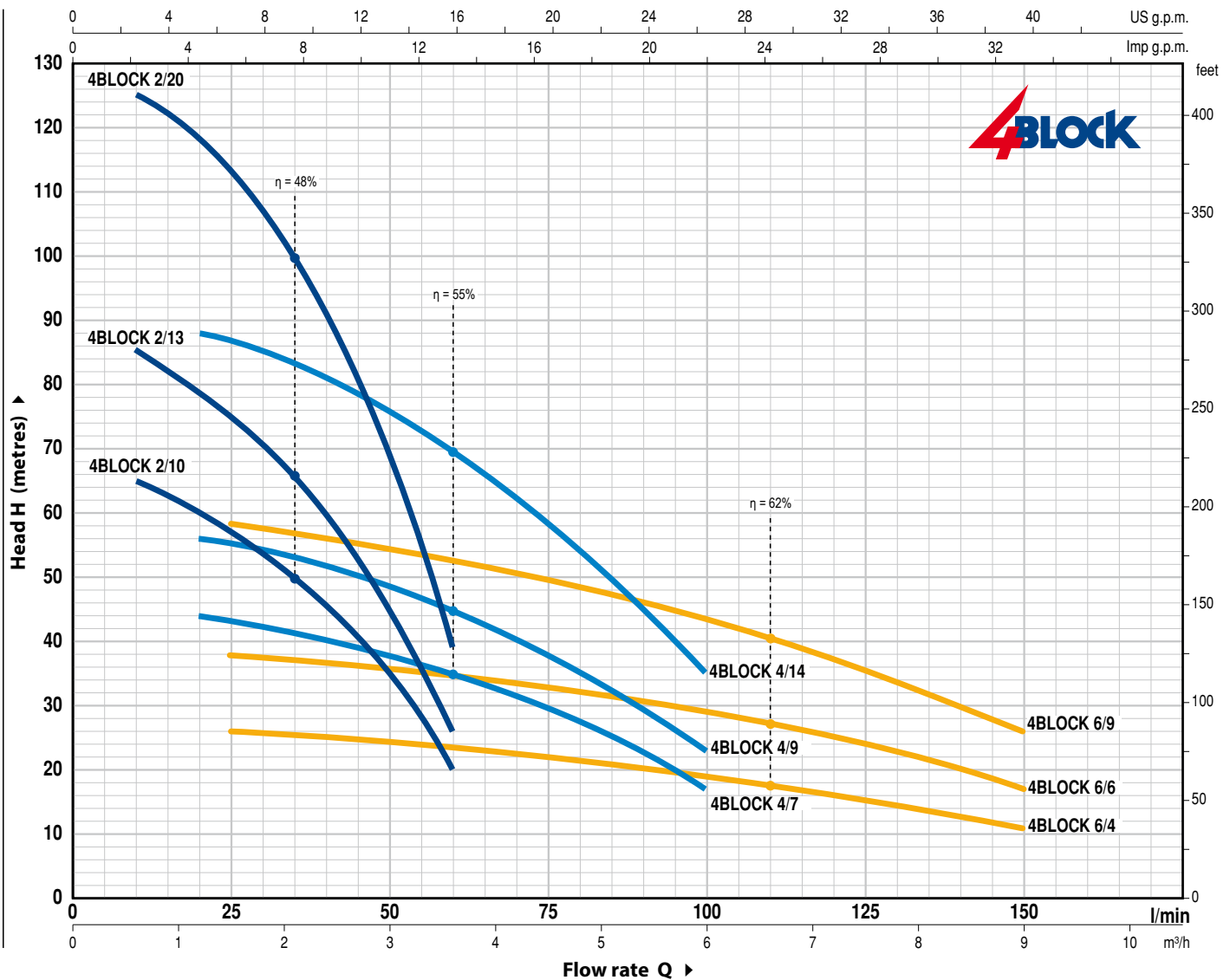
- **30 metres** long power cable
- Other voltages or 60 Hz frequency

► Ready to install, stainless steel monoblock submersible pump.

Complete with: – motor with built-in capacitor and thermal overload protector
– 20 m long power cable.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



MODEL	POWER (P ₂)		Q	Flow rate							
	kW	HP		m ³ /h	0	0.6	1.2	1.8	2.4	3.0	3.6
Single-phase				0	10	20	30	40	50	60	
4BLOCKm 2/10	0.55	0.75	H metres	66	65	60	54	46	35	20	
4BLOCKm 2/13	0.75	1	H metres	86	85	79	71	60	45	26	
4BLOCKm 2/20	1.1	1.5	H metres	128	125	118	108	91	70	39	

MODEL	POWER (P ₂)		Q	Flow rate										
	kW	HP		m ³ /h	0	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0
Single-phase				0	20	30	40	50	60	70	80	90	100	
4BLOCKm 4/7	0.55	0.75	H metres	46	44	42	40	38	35	31.5	27	23	17	
4BLOCKm 4/9	0.75	1	H metres	60	56	54.5	52	49	45	40.5	35	29	23	
4BLOCKm 4/14	1.1	1.5	H metres	92	88	85	81	76	70	63	54.5	45	35	

MODEL	POWER (P ₂)		Q	Flow rate							
	kW	HP		m ³ /h	0	1.5	3.0	4.5	6.0	7.5	9.0
Single-phase				0	25	50	75	100	125	150	
4BLOCKm 6/4	0.55	0.75	H metres	27	26	24	22	19	15	11	
4BLOCKm 6/6	0.75	1	H metres	40	38	36	33	29	24	17	
4BLOCKm 6/9	1.1	1.5	H metres	61	58	54	50	44	35	26	

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

4BLOCK

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	DELIVERY BODY AND EXTERNAL SLEEVE	Stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1.
2	IMPELLERS	Lexan 141-R
3	DIFFUSERS	Noryl FE1520PW
4	STAGE CASING	Stainless steel AISI 304
5	PUMP SHAFT	Stainless steel AISI 304
6	PUMP BEARINGS	Special technopolymer housing with stainless steel AISI 316, chrome oxide coated, sand resistant shaft bushing.
7	DRIVE COUPLING	Stainless steel AISI 316L
8	CABLE COVER	Stainless steel AISI 304
9	MOTOR SHAFT	Stainless steel EN 10088-3 1.4104 (AISI 431 per 1.1 kW single-phase)
10	MOTOR SLEEVE	Stainless steel AISI 304

11 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal	Shaft	Position	Materials		
Model	Diameter		Stationary ring	Rotational ring	Elastomer
STA-17	Ø 17 mm	Motor side	Silicon carbide	Graphite	NBR
ST1-16 SIC	Ø 16 mm	Pump side	Silicon carbide	Silicon carbide	NBR

12 BEARINGS

Pump	Model
4BLOCK – 0.55÷0.75 kW	6203 2RS - C3E / 6203 ZZ - C3E
4BLOCK – 1.1 kW	3203B 2RS - C3 / 6203 ZZ - C3E

13 CAPACITOR

Pump	Capacitance
Single-phase	(230 V or 240 V)
4BLOCK – 0.55 kW	20 µF - 500 VL
4BLOCK – 0.75 kW	31.5 µF - 500 VL
4BLOCK – 1.1 kW	35 µF - 500 VL

14 ELECTRIC MOTOR

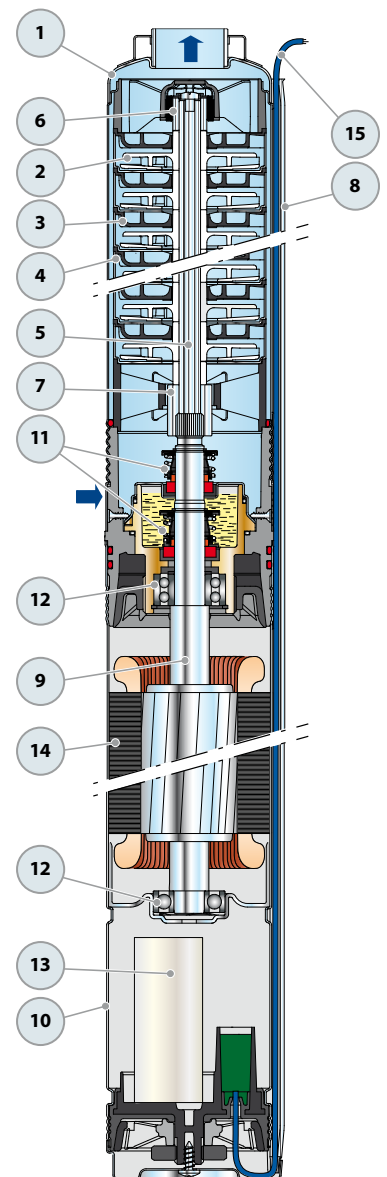
Submersible PEDROLLO motor, suitable for continuous duty (with dry, rewindable stator).

4BLOCKm: single-phase 230 V - 50 Hz
Motor with built-in capacitor.
Thermal overload protector incorporated into the winding.

- Insulation: class F
- Protection: IP X8

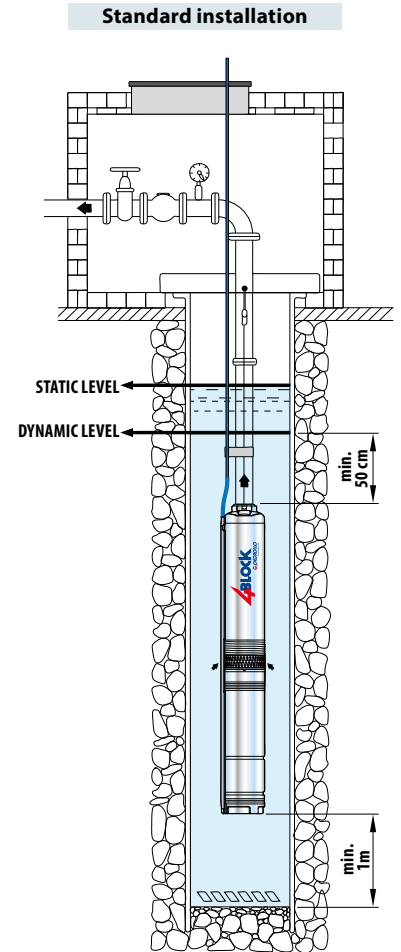
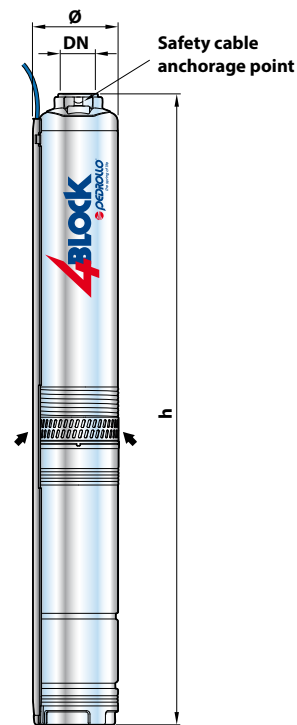
15 POWER CABLE

⇒ **PBS-P type**
approved for use in drinking water by "ACS"
in compliance with BS 6920, approval n. 04 ACCLI 201
Standard length 20 metres



DIMENSIONS AND WEIGHT

MODEL	PORT DN	DIMENSIONS mm			kg
		N. STAGES	Ø	h	
Single-phase					1~
4BLOCKm 2/10	1 1/4"	10	100	705	12.5
4BLOCKm 2/13		13		786	14.3
4BLOCKm 2/20		20		986	17.8
4BLOCKm 4/7		7		674	12.1
4BLOCKm 4/9		9		743	13.8
4BLOCKm 4/14		14		925	17.0
4BLOCKm 6/4		4		641	10.7
4BLOCKm 6/6		6		725	13.3
4BLOCKm 6/9		9		887	16.5



ABSORPTION

MODEL	VOLTAGE	
	230 V	240 V
Single-phase		
4BLOCKm – 0.55 kW	5.0 A	4.8 A
4BLOCKm – 0.75 kW	6.0 A	5.8 A
4BLOCKm – 1.1 kW	8.0 A	7.8 A

PALLETIZATION

MODEL	GROUPAGE/CONTAINER
Single-phase	n. pumps
4BLOCKm 2/10	55
4BLOCKm 2/13	33
4BLOCKm 2/20	33
4BLOCKm 4/7	55
4BLOCKm 4/9	55
4BLOCKm 4/14	33
4BLOCKm 6/4	55
4BLOCKm 6/6	55
4BLOCKm 6/9	33

FLUID SOLAR

4" high efficiency submersible solar pumps

 Clean water
(Maximum sand content 150 g/m³)

 Domestic use

 Agricultural use



PERFORMANCE RANGE

- Flow rate up to **102 l/min** (6.1 m³/h)
- Head up to **132 m**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **150 g/m³**
- Maximum immersion depth of **40 m** with a sufficiently long power cable

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY




TECHNICAL CHARACTERISTICS

- 4" multi-stage submersible solar pumps
- High performance motor with permanent magnets
- High efficiency photovoltaic panels
PANASONIC mod. VBHN240SJ25
- Electronic control incorporated in the motor

INSTALLATION AND USE

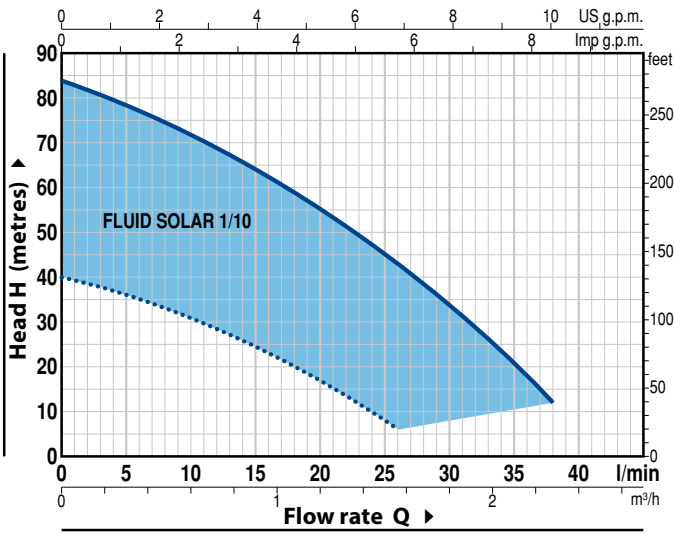
The **FLUID SOLAR** pumps have been developed to pump clean water from a well utilising energy obtained from photovoltaic panels. The electronic control incorporated into the high performance motor converts the exit voltage from the panels and regulates the velocity of rotation of the motor in order to utilise the available energy most efficiently at any one time: **on a sunny day there will be a high velocity of rotation with a raised performance of the pump, and on a cloudy day the velocity and the performance will be reduced.**

PATENTS - TRADE MARKS

- Registered Trade Mark n. 0001516301 
- Patent n. 0001413386
- Patent Pending:
n. PCT/IB2009/051491, PCT/IB2010/054499, PCT/EP2009/059855

CHARACTERISTIC CURVES AND PERFORMANCE DATA

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B

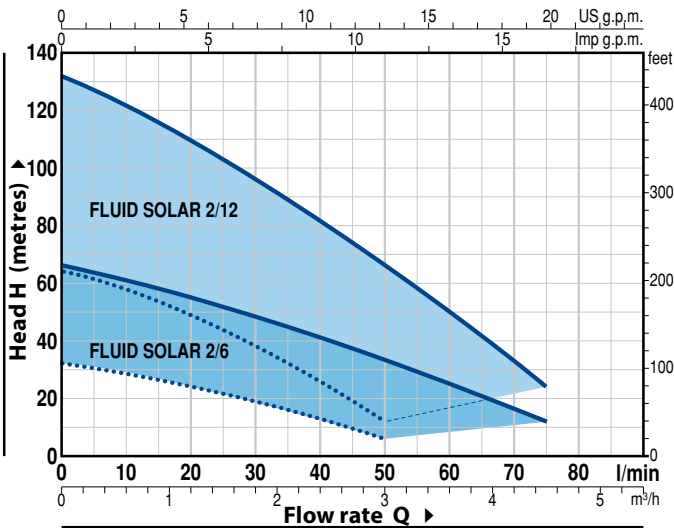


FLUID SOLAR 1/10

ABSORBED POWER P₁ **750 W**

Performance with **4 photovoltaic panels** with a nominal total of 980 Wp

Q	m ³ /h						
	0	0.3	0.6	1.2	1.6	1.8	2.3
H metres	l/min						
	0	5	10	20	26	30	38
—	84	79	72	56	42	33	12
....	40	36	31	17	6		



FLUID SOLAR 2/6

ABSORBED POWER P₁ **750 W**

Performance with **4 photovoltaic panels** with a nominal total of 980 Wp

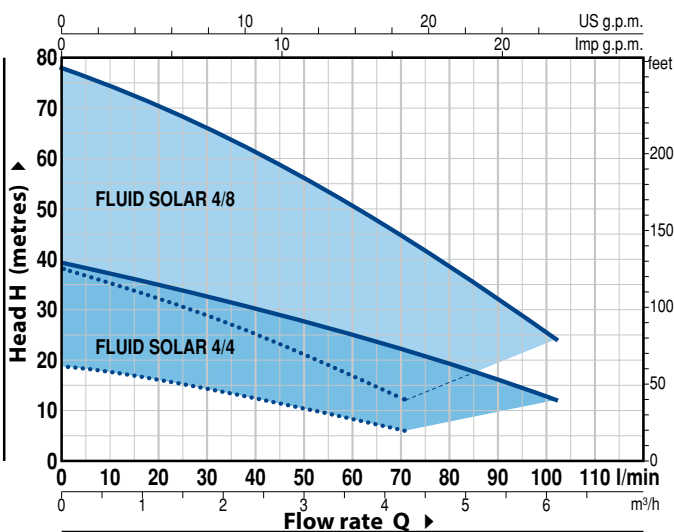
Q	m ³ /h									
	0	0.3	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.5
H metres	l/min									
	0	5	10	20	30	40	50	60	70	75
—	66	64	61	55	48	41	33	25	16	12
....	32	31	28	24	19	13	6			

FLUID SOLAR 2/12

ABSORBED POWER P₁ **1500 W**

Performance with **8 photovoltaic panels** with a nominal total of 1960 Wp

Q	m ³ /h									
	0	0.3	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.5
H metres	l/min									
	0	5	10	20	30	40	50	60	70	75
—	132	128	122	110	96	82	66	50	33	24
....	64	62	58	48	38	26	12			



FLUID SOLAR 4/4

ABSORBED POWER P₁ **750 W**

Performance with **4 photovoltaic panels** with a nominal total of 980 Wp

Q	m ³ /h											
	0	0.3	0.6	1.2	1.8	3.0	3.6	4.3	4.5	4.8	5.7	6.1
H metres	l/min											
	0	5	10	20	30	50	60	71	75	80	95	102
—	39	38.5	37	35	32.5	27	25	22	21	18	14	12
....	19	18.5	17.5	16	14	10	8	6				

FLUID SOLAR 4/8

POWER ASSORBITA P₁ **1500 W**

Performance with **8 photovoltaic panels** with a nominal total of 1960 Wp

Q	m ³ /h											
	0	0.3	0.6	1.2	1.8	3.0	3.6	4.3	4.5	4.8	5.7	6.1
H metres	l/min											
	0	5	10	20	30	50	60	71	75	80	95	102
—	78	77	74	70	65	54	50	44	42	38	28	24
....	38	37	35	32	28	20	16	12				

— Performance with a solar radiation of 1000 W/m² and with an available voltage of the photovoltaic panels of 100 Vdc

.... Performance with a solar radiation of 300 W/m² and with an available voltage of the photovoltaic panels of 70 Vdc

The performance curves illustrated above are obtained with the photovoltaic panels facing SOUTH (facing NORTH for installations in the southern hemisphere) and optimising the angle of inclination in relation to the horizon in compliance with the latitude of the installation site.

FLUID SOLAR

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	DELIVERY BODY AND EXTERNAL SLEEVE	Stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1.
2	IMPELLERS	Lexan 141-R for FLUID SOLAR 1/10, 4/4, 4/8 Delrin 100P for FLUID SOLAR 2/6, 2/12
3	DIFFUSERS	Noryl FE1520PW
4	STAGE BOXES / STAGE LIDS	Stainless steel AISI 304
5	CABLE COVER	Stainless steel AISI 304
6	PUMP SHAFT	Stainless steel AISI 304 for FLUID SOLAR 1/10, 2/12, 4/4, 4/8
7	DRIVE COUPLING	Stainless steel AISI 316L for FLUID SOLAR 1/10, 2/12, 4/4, 4/8
8	MOTOR SHAFT	Stainless steel EN 10088-3 – 1.4104
9	MOTOR SLEEVE	Stainless steel AISI 304

10 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-17	Ø 17 mm	Motor side	Silicon carbide	Graphite	NBR
ST1-16 SIC	Ø 16 mm	Pump side	Silicon carbide	Silicon carbide	NBR

11	BEARINGS	6203 2RS - C3E / 6203 ZZ - C3E
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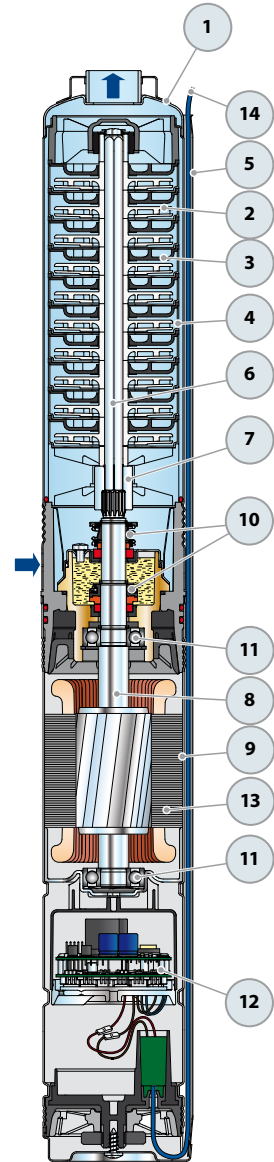
12	INVERTER	
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13	ELECTRIC MOTOR	Submersible PEDROLLO motor, suitable for continuous duty (with dry, rewindable stator). FLUID SOLAR: high performance motor with permanent magnets – Insulation: class F – Protection: IP X8
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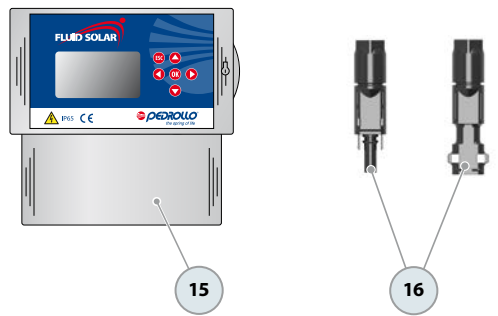
14	POWER CABLE	<p>⇒ PBS-P type approved for use in drinking water by "ACS" in compliance with BS 6920, approval n. 04 ACCLI 201 Standard length 2 metres</p> <p>Equipment supplied: connection kit for RPS2 cables</p>
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15	CONTROL BOX	
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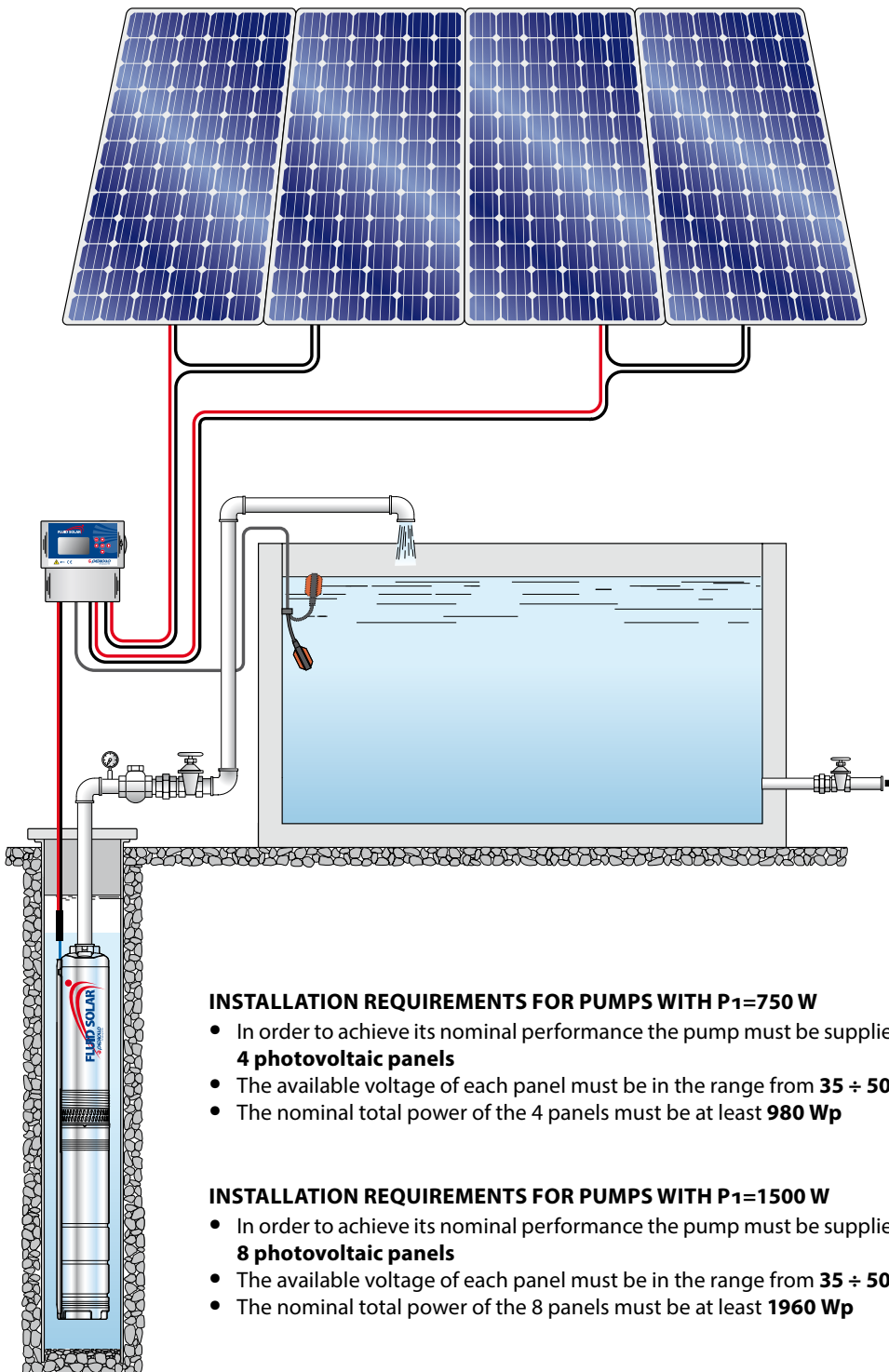
16	CONNECTORS	2 SMK male connectors 2 SMK female connectors
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Equipment supplied



STANDARD INSTALLATION FOR PUMPS WITH $P_1=750\text{ W}$



INSTALLATION REQUIREMENTS FOR PUMPS WITH $P_1=750\text{ W}$

- In order to achieve its nominal performance the pump must be supplied by **4 photovoltaic panels**
- The available voltage of each panel must be in the range from **$35 \div 50\text{ V}_{DC}$**
- The nominal total power of the 4 panels must be at least **980 Wp**

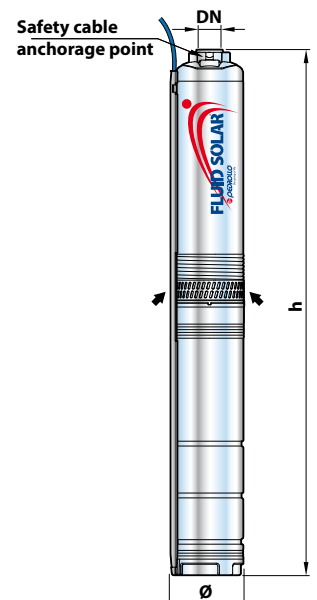
INSTALLATION REQUIREMENTS FOR PUMPS WITH $P_1=1500\text{ W}$

- In order to achieve its nominal performance the pump must be supplied by **8 photovoltaic panels**
- The available voltage of each panel must be in the range from **$35 \div 50\text{ V}_{DC}$**
- The nominal total power of the 8 panels must be at least **1960 Wp**

DIMENSIONS AND WEIGHT

MODEL	PORT DN	N. STAGES	DIMENSIONS mm		kg *
			Ø	h	
FLUID SOLAR 1/10	1"	10	100	711	12.5
FLUID SOLAR 2/6		6		587	11.4
FLUID SOLAR 2/12		12		895	18.0
FLUID SOLAR 4/4		4		614	11.5
FLUID SOLAR 4/8		8		782	17.0

(* weight of the pump with control box)



4SR

4" submersible pumps

-  Clean water
(Maximum sand content 150 g/m³)
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **350 l/min** (21 m³/h)
- Head up to **405 m**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **150 g/m³**
- **100 m** immersion limit
- Installation:
 - vertical
 - horizontal, with the following limits:
 - 4SR1 - 4SR1.5 - 4SR2 - 4SR4 up to **27 stages**
 - 4SR6 - 4SR8 up to **17 stages**
 - 4SR10 - 4SR12 - 4SR15 up to **12 stages**
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **8 cm/s**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

ELECTRIC MOTOR

- Single-phase 230 V - 50 Hz
- Three-phase 400 V - 50 Hz

Length of power cable:

- for P₂ from 0.37 to 3 kW: **1.7 m** 4SR-PD, **2.0 m** 4SR-PS, **1.5 m** 4SR-FK
- for P₂ from 4 to 7.5 kW: **2.7 m** 4SR-PD, **3.0 m** 4SR-PS, **2.5 m** 4SR-FK

► The **4SR-PD** and **4SR-PS** single-phase versions supplied with a capacitor included in the packaging.

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Suitable for use with clean water with a sand content of no more than **150 g/m³**. Because of their high efficiency and reliability, they are suitable for use in domestic, civil and industrial applications such as for the distribution of water in combination with pressure tanks, for irrigation, for washing plants and for pressure boosting in fire-fighting sets, etc.

PATENTS - TRADE MARKS - MODELS

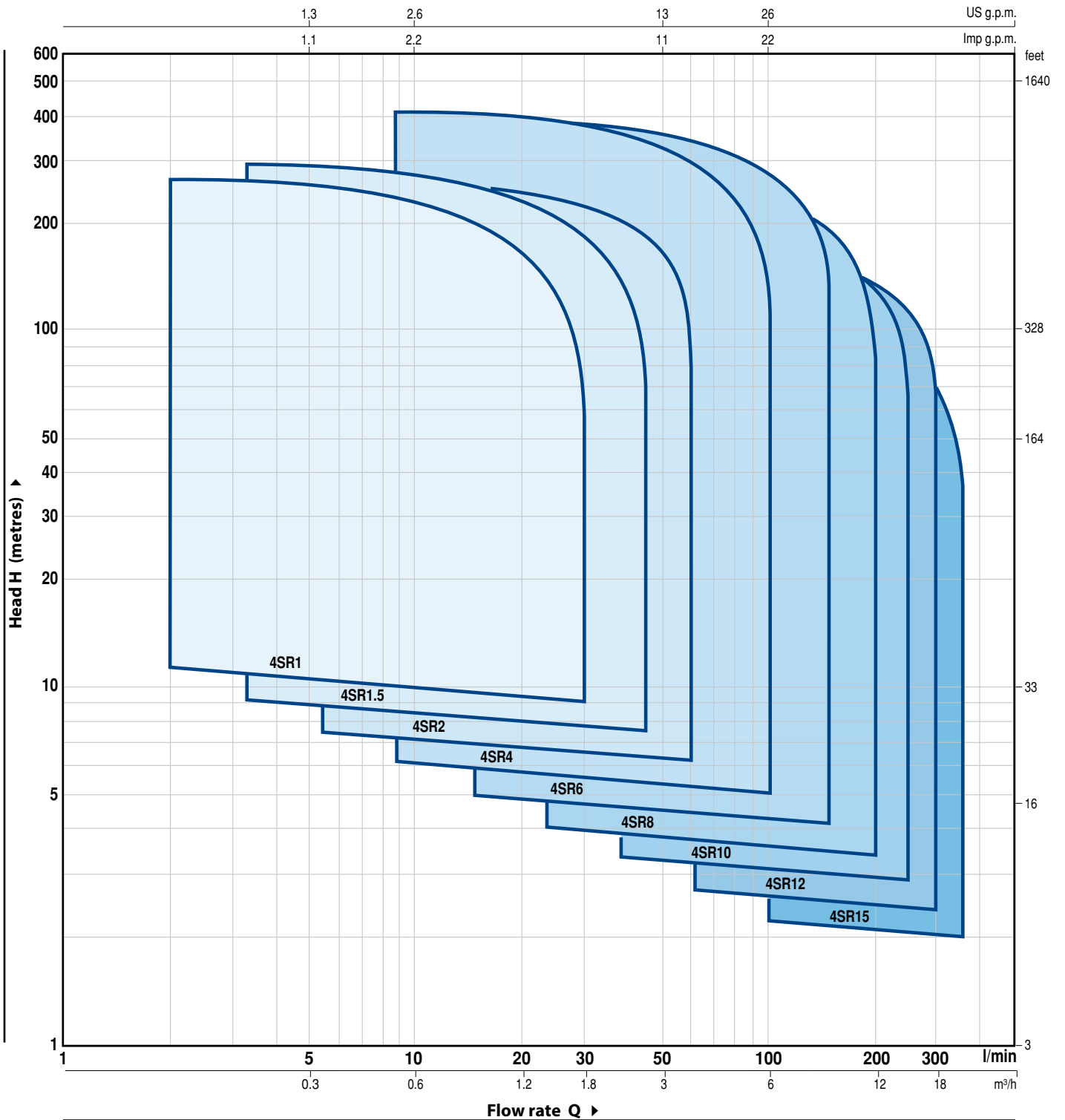
- Patent Pending n. PCT/EP2009/059855

OPTIONS AVAILABLE ON REQUEST

- Kit of cooling jacket complete with filter and supports
- Other voltages or 60 Hz frequency

PERFORMANCE RANGE

50 Hz n= 2900 rpm



NOMENCLATURE

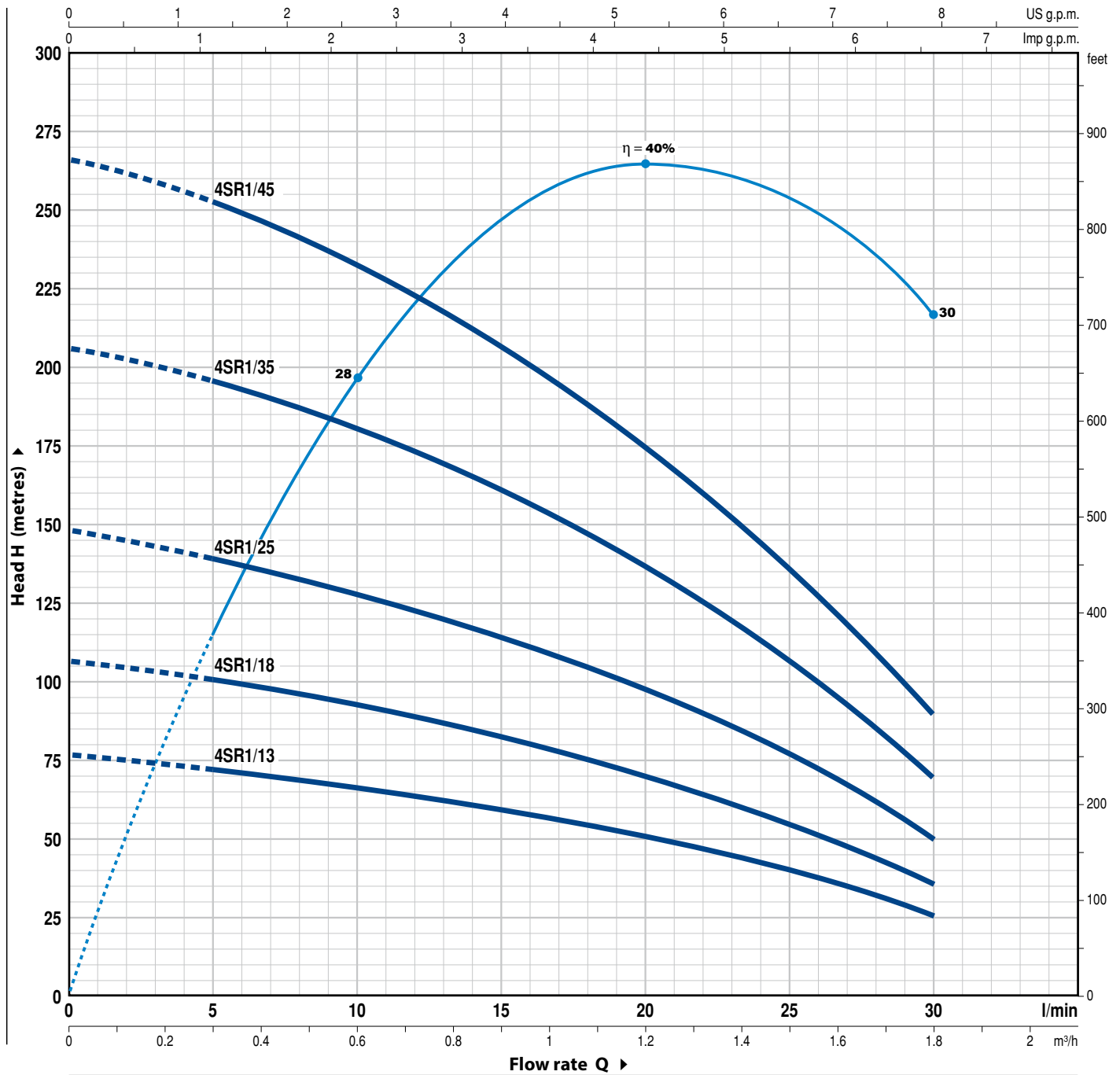
4 SR 1 m / 13 - PD or PS or FK or HYD

- Borehole diameter in inches _____
- Series _____
- Flow rate in m³/h at the point of highest efficiency _____
- Single-phase motor _____
- Number of stages _____
- PD:** pump with "4PD PEDROLLO" motor _____
- PS:** pump with "4PS PEDROLLO" motor _____
- FK:** pump with "4FK FRANKLIN" motor _____
- HYD:** pump without motor _____

4SR1

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



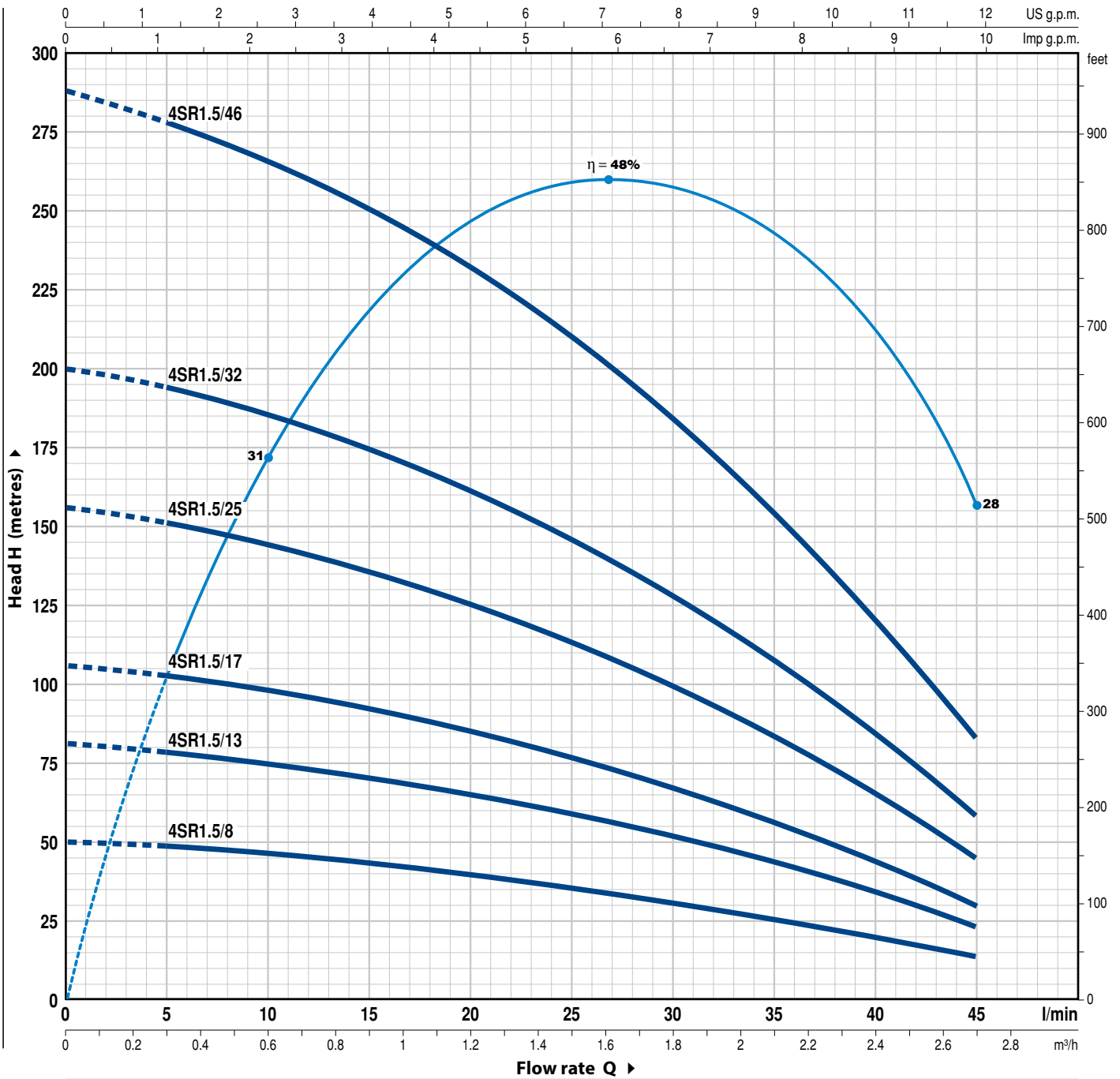
MODEL		POWER (P ₂)		Q	Flow rate (l/min)						
Single-phase	Three-phase	kW	HP		0	5	10	15	20	25	30
4SR1m/13	4SR1/13	0.37	0.50	H metres	77	73	67	60	51	40	26
4SR1m/18	4SR1/18	0.55	0.75		107	101	93	83	71	55	36
4SR1m/25	4SR1/25	0.75	1		148	140	129	115	98	77	50
4SR1m/35	4SR1/35	1.1	1.5		206	197	182	161	136	107	70
4SR1m/45	4SR1/45	1.5	2		266	254	234	207	176	137	90

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



MODEL		POWER P ₂		Q	Flow rate (l/min)													
Single-phase	Three-phase	kW	HP		0	5	10	15	20	25	30	35	40	45				
4SR1.5m/8	4SR1.5/8	0.37	0.50	H metres	50	48	46	44	40	36	32	26	20	14				
4SR1.5m/13	4SR1.5/13	0.55	0.75		81	78	75	71	66	59	52	43	33	23				
4SR1.5m/17	4SR1.5/17	0.75	1		106	102	98	93	86	78	68	56	43	30				
4SR1.5m/25	4SR1.5/25	1.1	1.5		156	151	144	136	127	115	100	83	64	45				
4SR1.5m/32	4SR1.5/32	1.5	2		200	193	184	175	162	147	128	106	82	58				
4SR1.5m/46	4SR1.5/46	2.2	3		288	277	265	250	233	211	184	153	117	83				

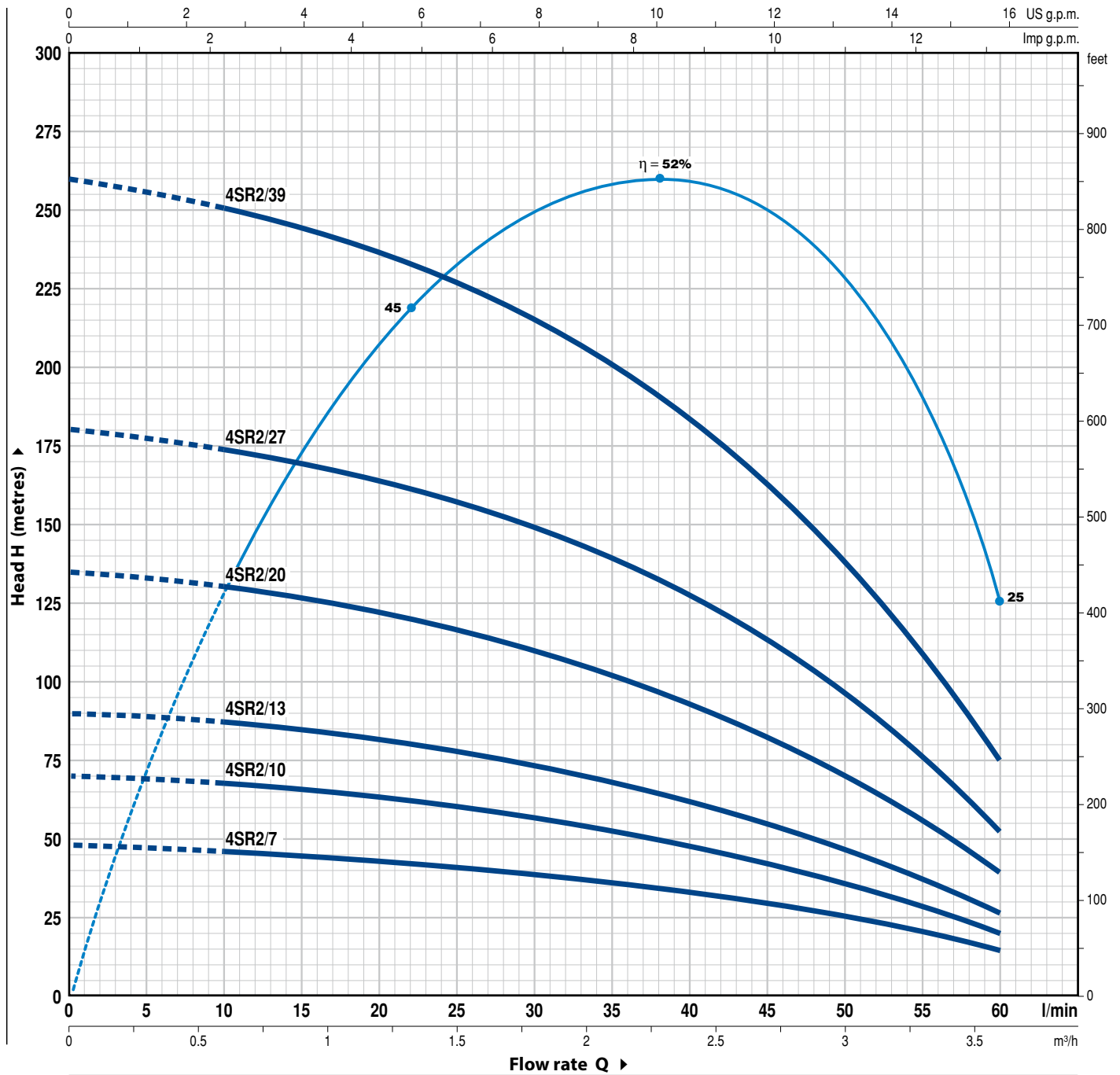
Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

4SR2

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



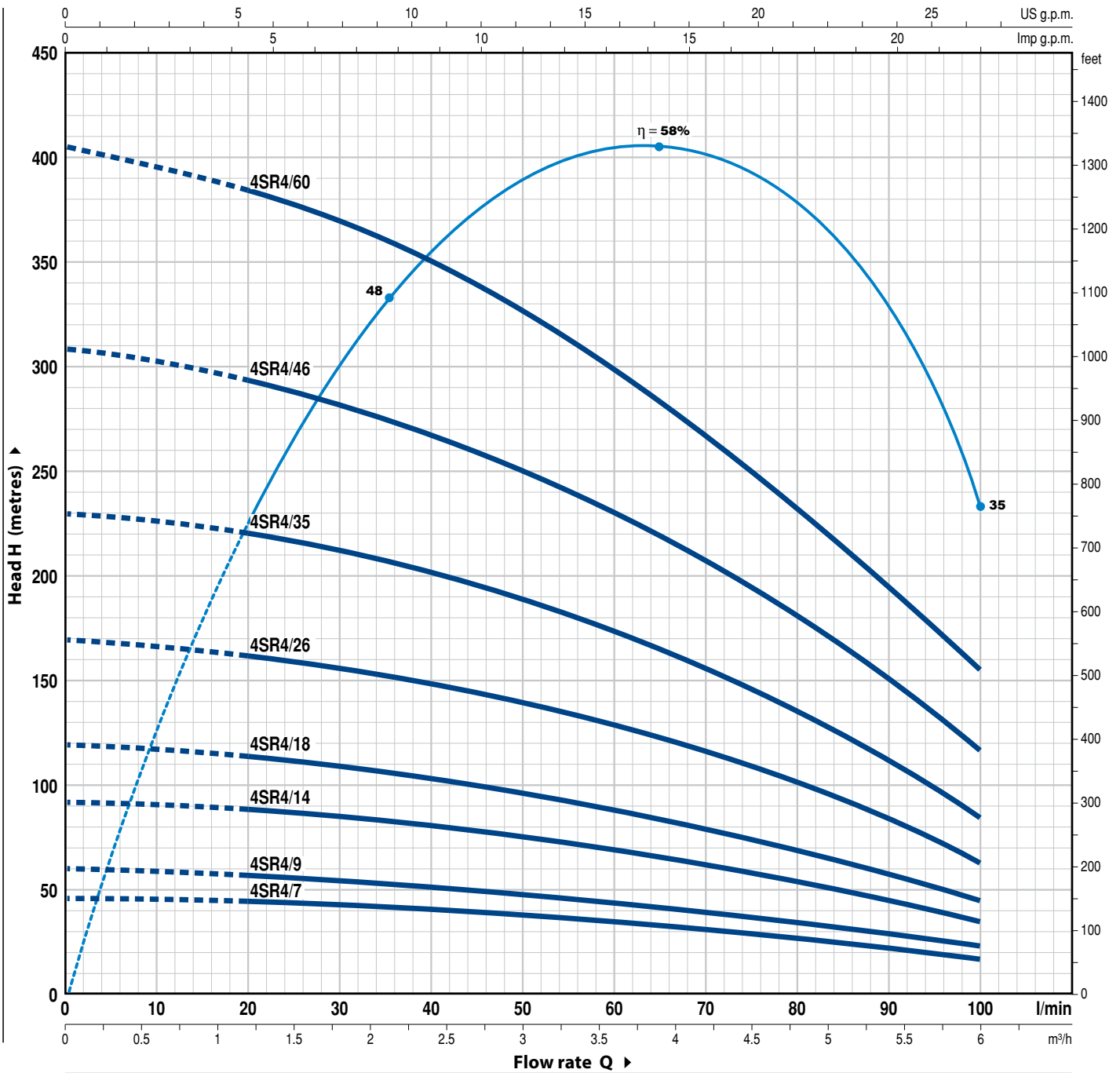
MODEL		POWER (P ₂)		Q	0	0.6	1.2	1.8	2.4	3.0	3.6
Single-phase	Three-phase	kW	HP								
4SR2m/7	4SR2/7	0.37	0.50	H metres	0	10	20	30	40	50	60
4SR2m/10	4SR2/10	0.55	0.75		48	46	44	39	33	25	14
4SR2m/13	4SR2/13	0.75	1		70	68	63	57	48	36	20
4SR2m/20	4SR2/20	1.1	1.5		90	88	82	74	62	46	26
4SR2m/27	4SR2/27	1.5	2		135	130	122	111	93	71	39
4SR2m/39	4SR2/39	2.2	3		180	173	164	150	126	96	52
					260	250	238	216	183	138	75

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate (l/min)										
Single-phase	Three-phase	kW	HP		0	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	
4SR4m/7	4SR4/7	0.55	0.75	H metres	46	44	42	40	38	35	32	28	23	17	
4SR4m/9	4SR4/9	0.75	1		60	56	55	52	49	45	40	35	29	23	
4SR4m/14	4SR4/14	1.1	1.5		92	88	85	81	76	70	63	55	45	35	
4SR4m/18	4SR4/18	1.5	2		120	112	109	104	98	90	81	70	58	45	
4SR4m/26	4SR4/26	2.2	3		170	162	157	150	141	130	116	101	84	63	
-	4SR4/35	3	4		230	220	211	202	190	175	157	137	113	85	
-	4SR4/46	4	5.5		308	293	280	269	249	230	205	181	151	117	
-	4SR4/60	5.5	7.5		405	385	370	350	325	300	270	235	195	155	

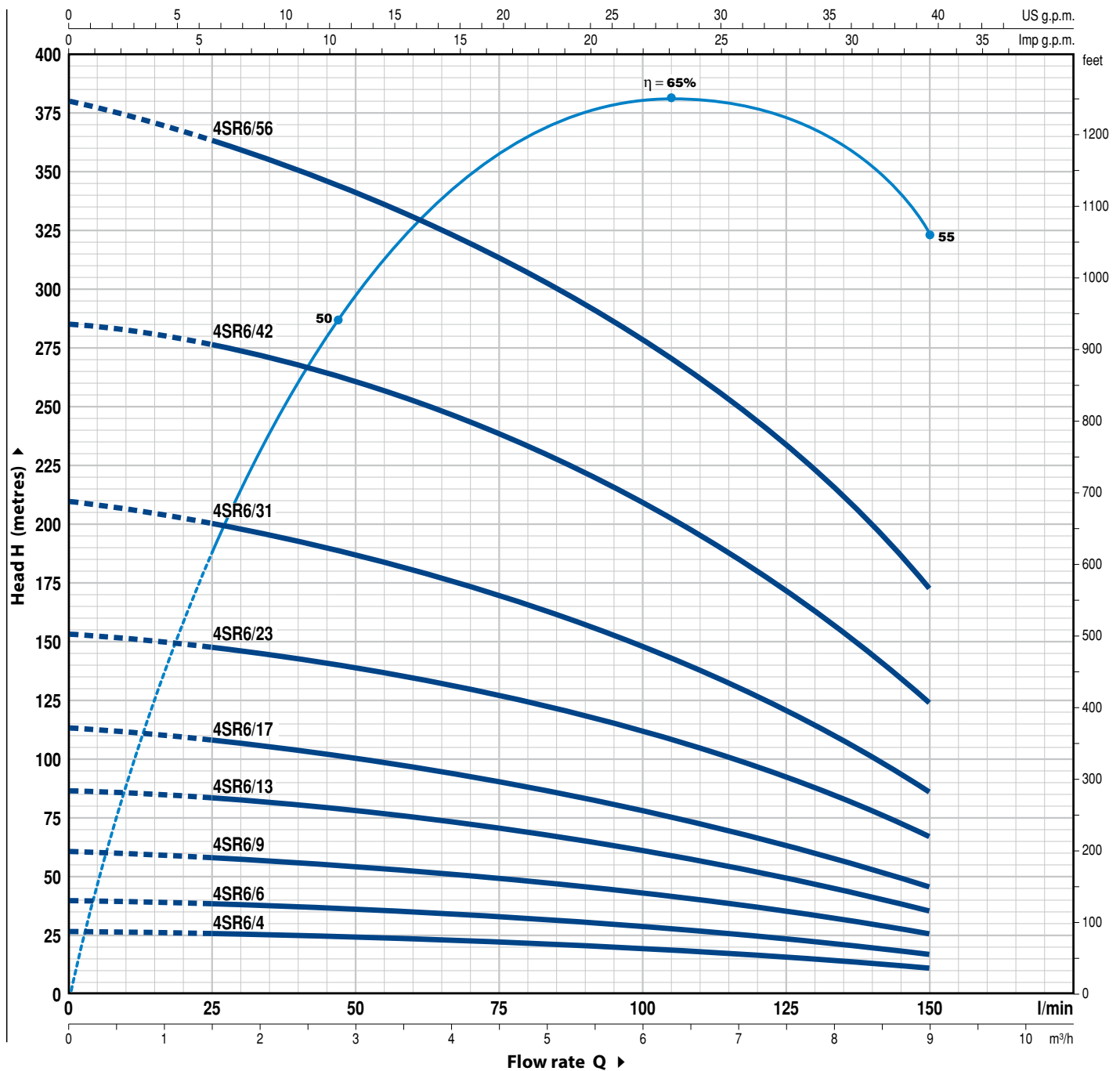
Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

4SR6

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



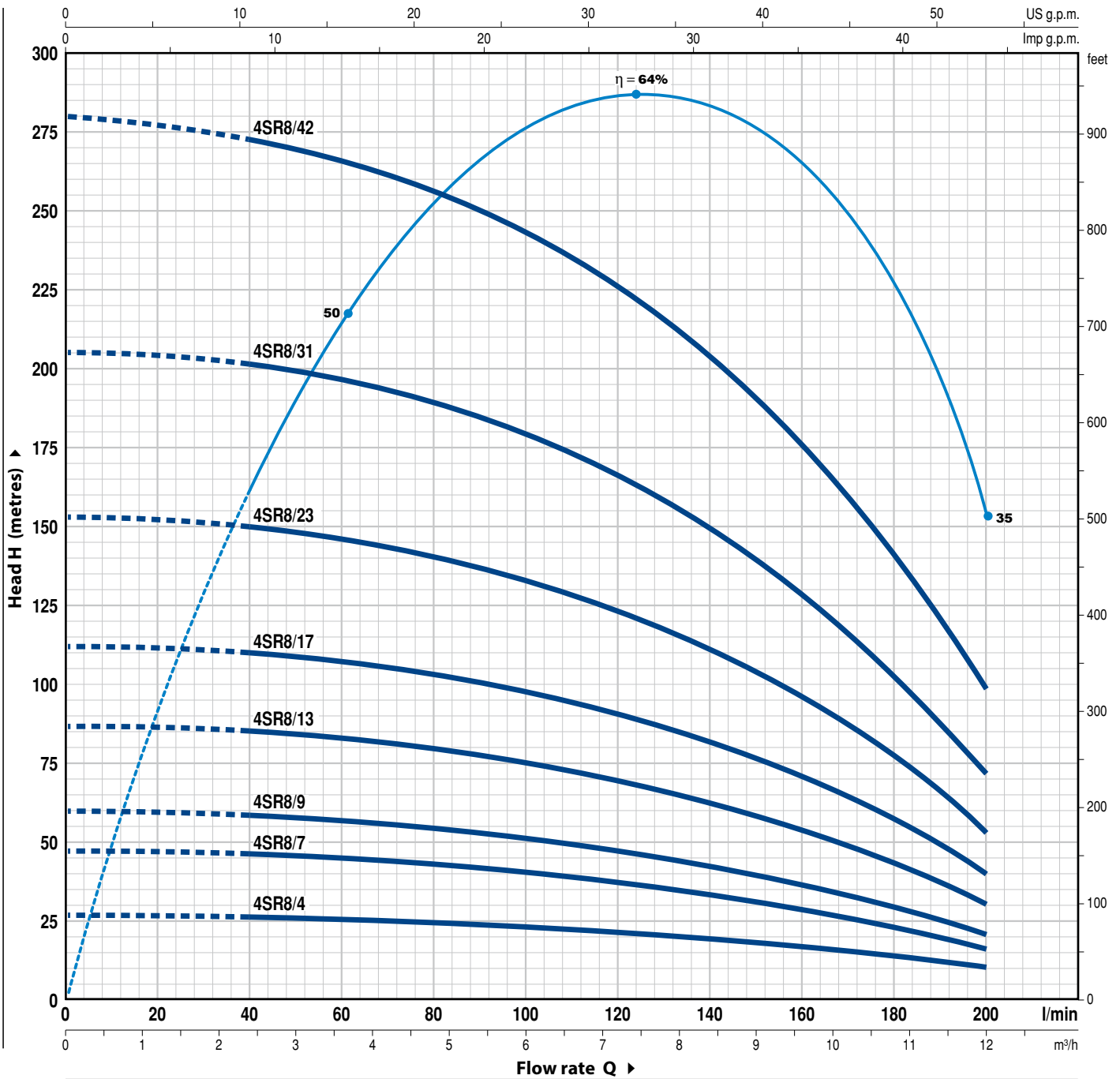
MODEL		POWER (P ₂)		Q	Flow rate						
Single-phase	Three-phase	kW	HP		0	1.5	3.0	4.5	6.0	7.5	9.0
4SR6m/4	4SR6/4	0.55	0.75	H metres	0	25	50	75	100	125	150
4SR6m/6	4SR6/6	0.75	1		27	26	24	22	19	15	11
4SR6m/9	4SR6/9	1.1	1.5		40	38	36	33	29	24	17
4SR6m/13	4SR6/13	1.5	2		61	58	54	50	44	35	26
4SR6m/17	4SR6/17	2.2	3		87	83	78	71	61	49	35
-	4SR6/23	3	4		114	107	100	91	79	62	45
-	4SR6/31	4	5.5		154	148	138	128	112	92	67
-	4SR6/42	5.5	7.5		210	200	186	170	149	121	86
-	4SR6/56	7.5	10		285	276	258	240	212	170	124
-	-	-	-		380	365	340	315	280	233	173

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate												
Single-phase	Three-phase	kW	HP		m ³ /h	0	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.0		
				l/min	0	40	60	80	100	120	140	160	180	200			
4SR8m/4	4SR8/4	0.75	1	H metres	27	26	25	24	23	22	20	17	13	10			
4SR8m/7	4SR8/7	1.1	1.5		47	46	45	43	41	38	34	29	23	16			
4SR8m/9	4SR8/9	1.5	2		60	58	57	55	52	48	43	37	30	21			
4SR8m/13	4SR8/13	2.2	3		87	85	83	80	76	70	63	54	43	30			
-	4SR8/17	3	4		112	110	108	104	99	92	82	70	56	40			
-	4SR8/23	4	5.5		153	150	146	141	134	124	111	95	76	53			
-	4SR8/31	5.5	7.5		205	200	196	190	181	167	149	128	103	72			
-	4SR8/42	7.5	10		280	272	266	257	244	225	202	175	140	98			

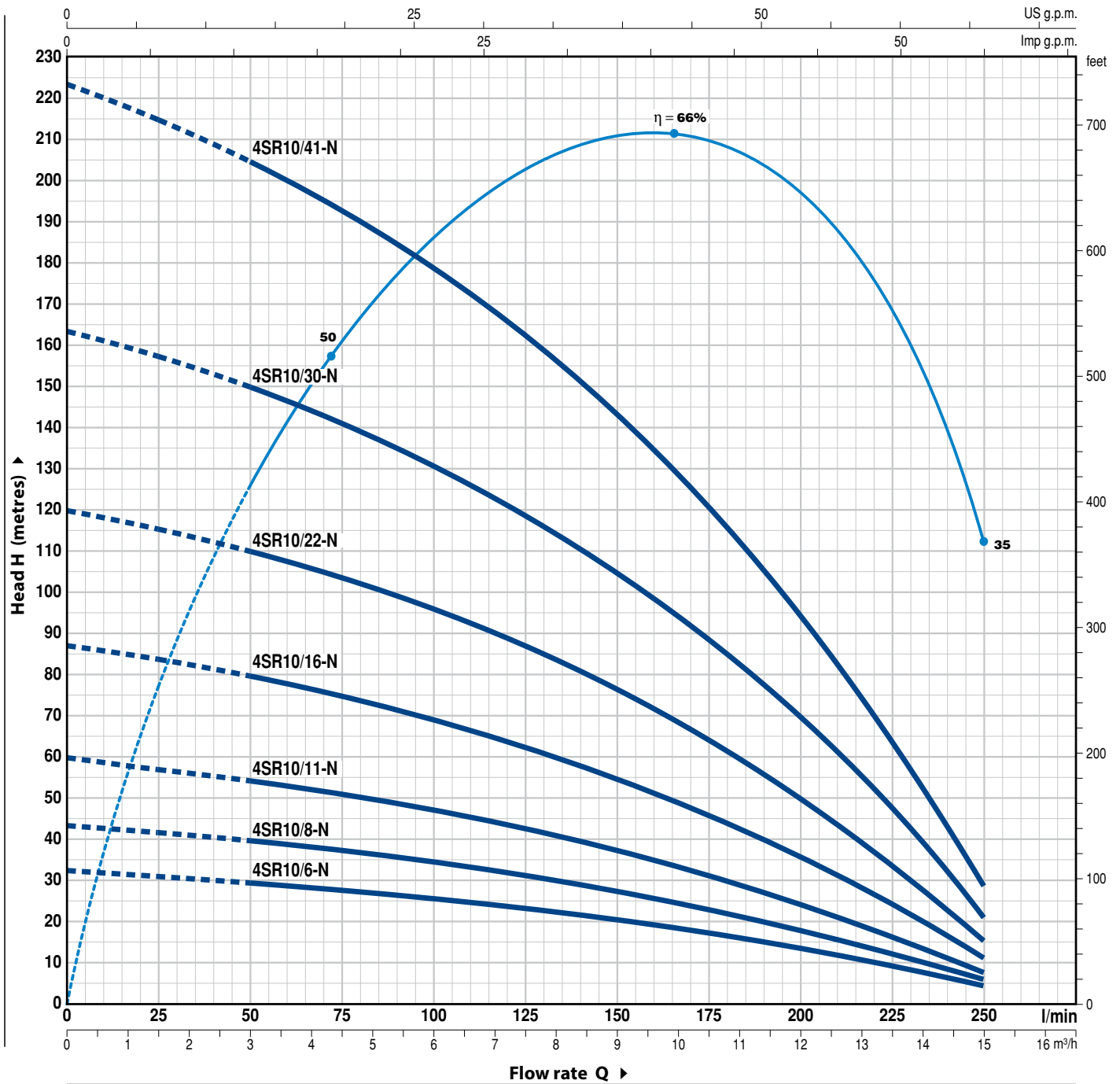
Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

4SR10

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



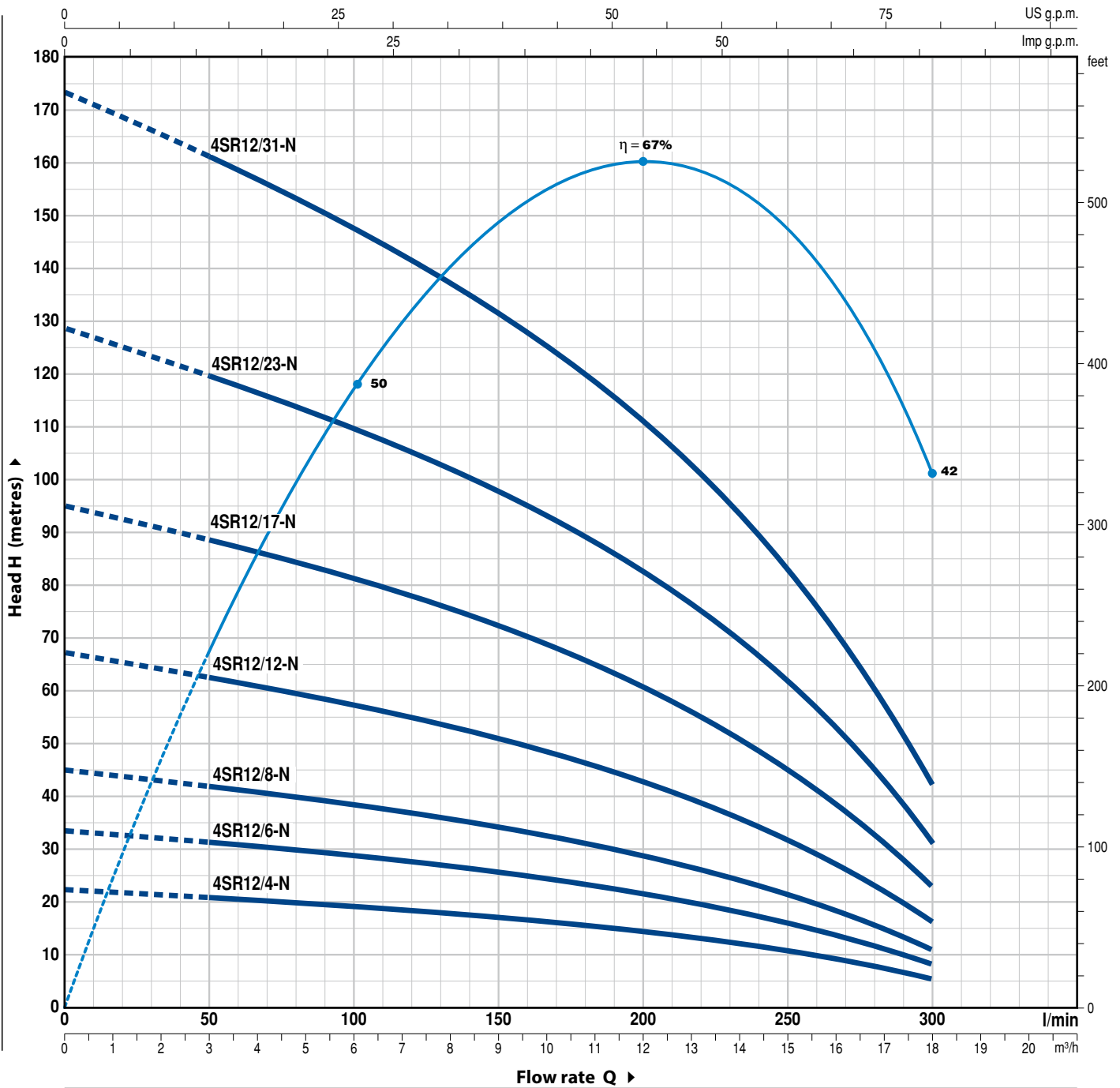
MODEL		POWER (P ₂)		Q	Flow rate									
Single-phase	Three-phase	kW	HP		m ³ /h	0	3.0	6.0	7.5	9.0	10.5	12	13.5	15.0
				l/min	0	50	100	125	150	175	200	225	250	
4SR10m/6 -N	4SR10/6 -N	0.75	1	H metres	33	29	25	23	20.5	17	14	9	4	
4SR10m/8 -N	4SR10/8 -N	1.1	1.5		43	39	35	31	27.5	23	18.5	12	6	
4SR10m/11 -N	4SR10/11 -N	1.5	2		60	54	47	42	37.5	31	24.5	16	8	
4SR10m/16 -N	4SR10/16 -N	2.2	3		87	79	69	62	55	45	35.5	24	11	
-	4SR10/22 -N	3	4		120	110	96	87	76	64	50	33	15	
-	4SR10/30 -N	4	5.5		163	150	130	118	104.5	87	70	46	21	
-	4SR10/41 -N	5.5	7.5		223	205	178	162	143	120	95	63	29	

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m ³ /h	0	3.0	6.0	9.0	12.0	13.2	14.4	15.6	16.8	18.0			
				l/min	0	50	100	150	200	220	240	260	280	300				
4SR12m/4 -N	4SR12/4 -N	0.75	1	H metres	22	21	19	17	14.5	13	11.5	10	8	6				
4SR12m/6 -N	4SR12/6 -N	1.1	1.5		34	31	28.5	25	21.5	19.5	17	14.5	12	9				
4SR12m/8 -N	4SR12/8 -N	1.5	2		45	42	38	34	28	26	23.5	19.5	15.5	11				
4SR12m/12 -N	4SR12/12 -N	2.2	3		67	62	57	51	43	38.5	34	29	23	16				
-	4SR12/17 -N	3	4		95	88	81	72	61	54.5	48	41	33	23				
-	4SR12/23 -N	4	5.5		129	120	110	97	82.5	75	66	56	45	31				
-	4SR12/31 -N	5.5	7.5		173	162	147	131	111	101	89.5	76	60	42				

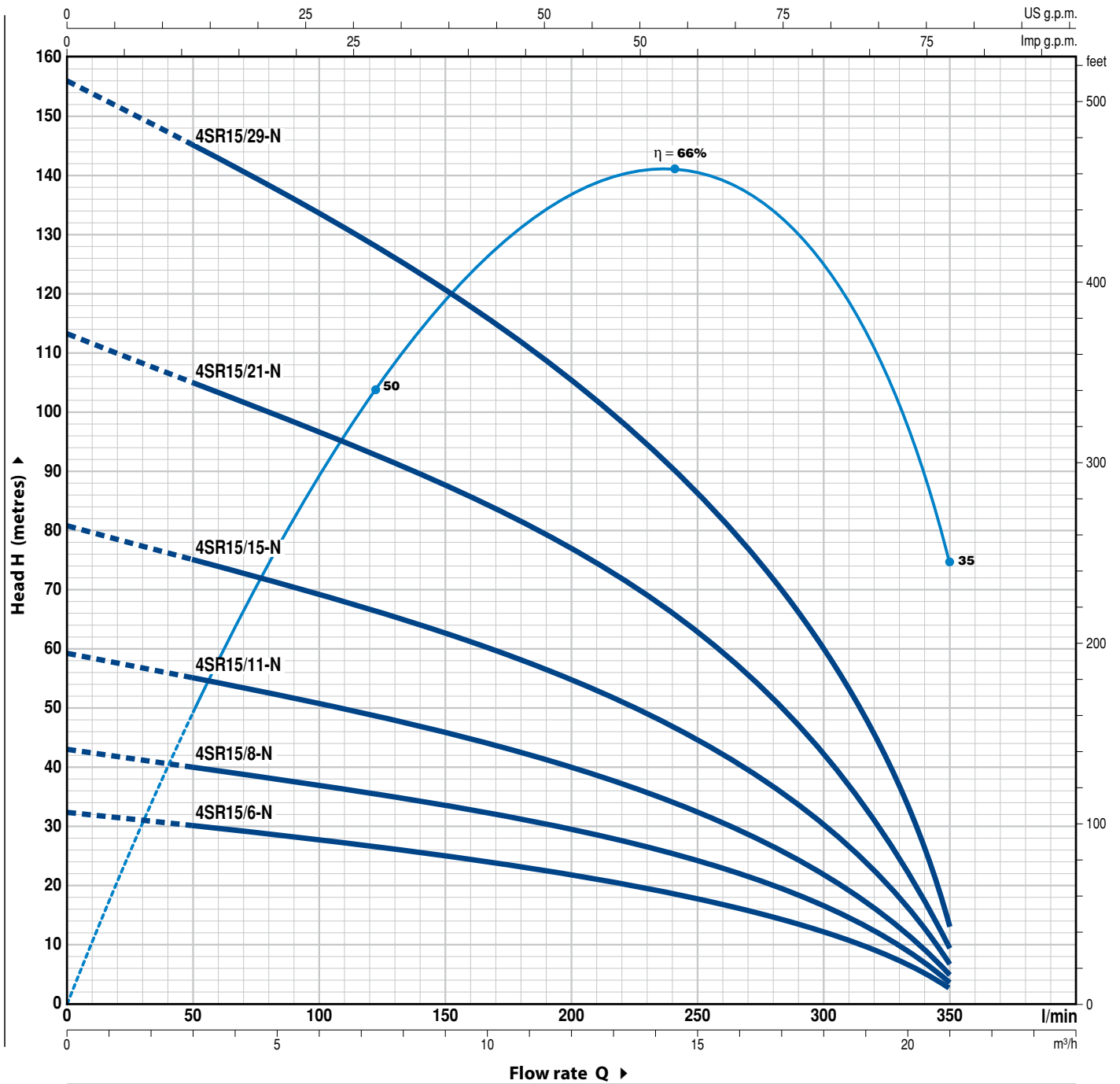
Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

4SR15

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate (l/min)									
Single-phase	Three-phase	kW	HP		0	3.0	6.0	9.0	12.0	15.0	18.0	19.5	21.0	
					0	50	100	150	200	250	300	325	350	
4SR15m/6 -N	4SR15/6 -N	1.1	1.5	H metres	32	30	28	25	22	18	12	8	3	
4SR15m/8 -N	4SR15/8 -N	1.5	2		43	40	37	33.5	29.5	24	16	11	4	
4SR15m/11 -N	4SR15/11 -N	2.2	3		59	55	51	45.5	40	32.5	22	15	5	
-	4SR15/15 -N	3	4		81	75	69	62.5	55	44	30	20.5	7	
-	4SR15/21 -N	4	5.5		113	105	97	87	77	62.5	42	28	10	
-	4SR15/29 -N	5.5	7.5		156	145	133.5	121	105.5	86	60	40.5	13	

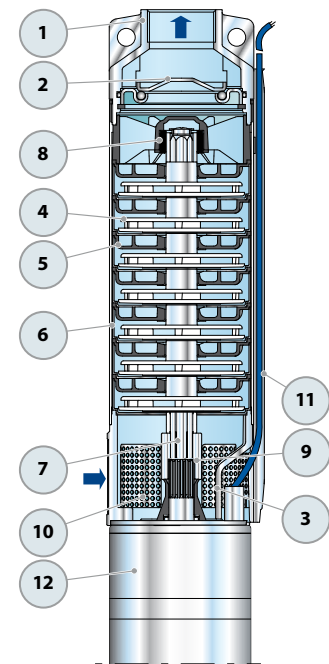
Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT

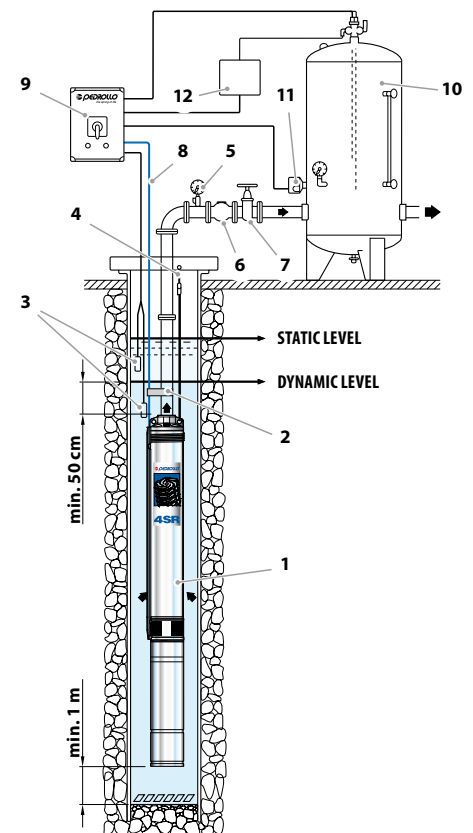
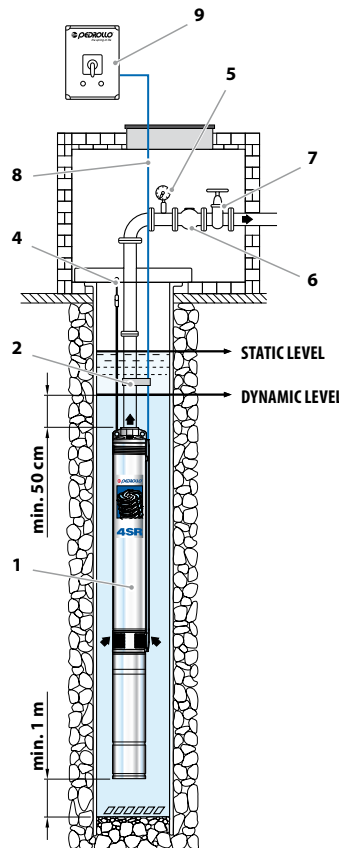
CONSTRUCTION CHARACTERISTICS

1 DELIVERY BODY	Precision cast stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1
2 NON-RETURN VALVE	Stainless steel AISI 304
3 MOTOR BRACKET	Stainless steel AISI 304 in compliance with NEMA standards
4 IMPELLER	Lexan 141-R for 4SR1-1.5-2-4-6-8 Noryl FE1520PW for 4SR10-12-15
5 DIFFUSER	Noryl FE1520PW
6 STAGE CASING	Stainless steel AISI 304
7 PUMP SHAFT	Stainless steel AISI 304
8 PUMP BEARINGS	Special technopolymer housing with stainless steel AISI 316, chrome oxide coated, sand resistant shaft bushing
9 DRIVE COUPLING	Stainless steel AISI 316L up to 2.2 kW; stainless steel AISI 304 for higher powers
10 FILTER	Stainless steel AISI 304
11 CABLE COVER	Stainless steel AISI 304
12 MOTOR 4"	4PD = "PEDROLLO" oil filled motor 4PS = "PEDROLLO" water filled motor 4FK = "FRANKLIN" water filled motor



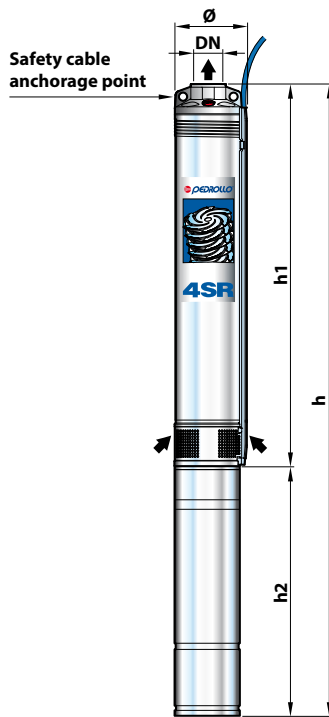
STANDARD INSTALLATION

- 1) Submersible pump
- 2) Power cable clamps
- 3) Level probes; prevent dry running
- 4) Bracket and anchorage cable
- 5) Pressure gauge
- 6) Non-return valve
- 7) Gate valve; for flow rate regulation
- 8) Power cable
- 9) Control box
- 10) Pressure vessel
- 11) Pressure switch
- 12) Electro valve/electro-compressor



➔ The **4SR** series pumps should be installed in boreholes of at least 4" (100 mm) in diameter. The pump should be lowered into the borehole, by means of the delivery pipe, to such a depth (min. 50 cm and at least one metres from the bottom) that it is completely immersed during operation when the level of water in the borehole may reduce. It is good practice to secure the pump by attaching a stainless steel cable to the anchorage points present on the delivery body.

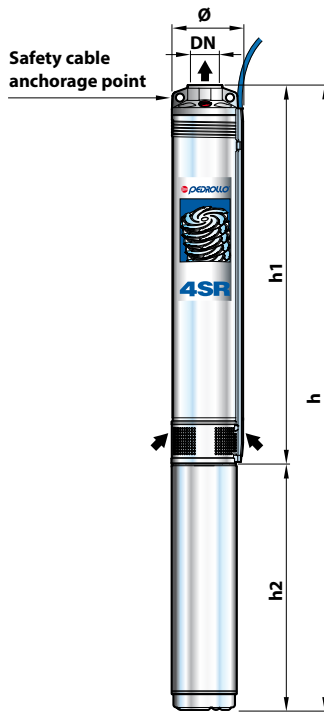
DIMENSIONS AND WEIGHT



MODEL	PORT	DIMENSIONS mm				kg
		DN	Ø	h1	h2	
Single-phase						
4SR1m/13 - PD	1 1/4"	98	400	311	711	11.2
4SR1m/18 - PD			517	331	848	13.2
4SR1m/25 - PD			646	356	1002	15.9
4SR1m/35 - PD			856	386	1242	19.6
4SR1m/45 - PD			1065	436	1501	23.1
4SR1.5m/8 - PD			308	311	619	10.3
4SR1.5m/13 - PD			400	331	731	11.7
4SR1.5m/17 - PD			499	356	855	14.2
4SR1.5m/25 - PD			646	386	1032	17.5
4SR1.5m/32 - PD			800	436	1236	20.9
4SR1.5m/46 - PD			1134	481	1615	28.1
4SR2m/7 - PD			290	311	601	10.1
4SR2m/10 - PD			345	331	676	11.4
4SR2m/13 - PD			400	356	756	13.3
4SR2m/20 - PD			554	386	940	16.6
4SR2m/27 - PD			683	436	1119	19.5
4SR2m/39 - PD			929	481	1410	25.4
4SR4m/7 - PD			314	331	645	11.0
4SR4m/9 - PD			358	356	714	12.8
4SR4m/14 - PD			468	386	854	15.6
4SR4m/18 - PD	580	436	1016	18.3		
4SR4m/26 - PD	756	481	1237	23.2		
4SR6m/4 - PD	2"	98	281	331	612	10.9
4SR6m/6 - PD			341	356	697	12.5
4SR6m/9 - PD			431	386	817	15.0
4SR6m/13 - PD			576	436	1012	17.8
4SR6m/17 - PD			695	481	1176	22.2
4SR8m/4 - PD			281	356	637	12.0
4SR8m/7 - PD			371	386	757	14.4
4SR8m/9 - PD			431	436	867	16.4
4SR8m/13 - PD			576	481	1057	21.0
4SR10m/6 -N - PD			616	356	972	14.0
4SR10m/8 -N - PD			762	386	1148	16.9
4SR10m/11 -N - PD			981	436	1417	20.2
4SR10m/16 -N - PD	1346	481	1827	26.4		
4SR12m/4 -N - PD	470	356	826	12.4		
4SR12m/6 -N - PD	616	386	1002	15.7		
4SR12m/8 -N - PD	762	436	1198	18.4		
4SR12m/12 -N - PD	1054	481	1535	24.0		
4SR15m/6 -N - PD	616	386	1002	15.7		
4SR15m/8 -N - PD	762	436	1198	18.4		
4SR15m/11 -N - PD	981	481	1462	23.4		

MODEL	PORT	DIMENSIONS mm				kg		
		DN	Ø	h1	h2		h	3~
Three-phase								
4SR1/13 - PD	1 1/4"	98	400	311	711	11.2		
4SR1/18 - PD			517	331	848	13.2		
4SR1/25 - PD			646	356	1002	15.9		
4SR1/35 - PD			856	371	1227	18.8		
4SR1/45 - PD			1065	386	1451	21.6		
4SR1.5/8 - PD			308	311	619	10.3		
4SR1.5/13 - PD			400	331	731	11.7		
4SR1.5/17 - PD			499	356	855	14.2		
4SR1.5/25 - PD			646	371	1017	16.7		
4SR1.5/32 - PD			800	386	1186	19.4		
4SR1.5/46 - PD			1134	436	1570	24.9		
4SR2/7 - PD			290	311	601	10.1		
4SR2/10 - PD			345	331	676	11.4		
4SR2/13 - PD			400	356	756	13.3		
4SR2/20 - PD			554	371	925	15.8		
4SR2/27 - PD			683	386	1069	18.0		
4SR2/39 - PD			929	436	1365	22.2		
4SR4/7 - PD			314	331	645	11.0		
4SR4/9 - PD			358	356	714	12.8		
4SR4/14 - PD			468	371	839	14.8		
4SR4/18 - PD			580	386	966	16.8		
4SR4/26 - PD			756	436	1192	20.0		
4SR4/35 - PD			978	505	1483	25.7		
4SR4/46 - PD			1295	610	1905	35.1		
4SR4/60 - PD			1652	700	2352	44.1		
4SR6/4 - PD			2"	98	281	331	612	10.9
4SR6/6 - PD					341	356	697	12.5
4SR6/9 - PD					431	371	802	14.2
4SR6/13 - PD					576	386	962	16.3
4SR6/17 - PD					695	436	1131	19.0
4SR6/23 - PD	900	505			1405	24.3		
4SR6/31 - PD	1164	610			1774	31.7		
4SR6/42 - PD	1519	700			2219	40.4		
4SR6/56 - PD	2063	800			2863	51.0		
4SR8/4 - PD	281	356			637	12.0		
4SR8/7 - PD	371	371			742	13.6		
4SR8/9 - PD	431	386			817	14.9		
4SR8/13 - PD	576	436			1012	17.8		
4SR8/17 - PD	695	505			1200	22.2		
4SR8/23 - PD	900	610			1510	29.4		
4SR8/31 - PD	1164	700			1864	36.5		
4SR8/42 - PD	1519	800			2319	43.9		
4SR10/6 -N - PD	616	356			972	14.0		
4SR10/8 -N - PD	762	371			1133	16.1		
4SR10/11 -N - PD	981	386			1367	18.7		
4SR10/16 -N - PD	1346	436			1782	23.2		
4SR10/22 -N - PD	1784	505			2289	30.0		
4SR10/30 -N - PD	2368	610			2978	40.1		
4SR10/41 -N - PD	3171	700			3871	51.2		
4SR12/4 -N - PD	470	356	826	12.4				
4SR12/6 -N - PD	616	371	987	14.9				
4SR12/8 -N - PD	762	386	1148	16.9				
4SR12/12 -N - PD	1054	436	1490	20.8				
4SR12/17 -N - PD	1419	505	1924	27.0				
4SR12/23 -N - PD	1857	610	2467	35.7				
4SR12/31 -N - PD	2441	700	3141	45.1				
4SR15/6 -N - PD	616	371	987	14.9				
4SR15/8 -N - PD	762	386	1148	16.9				
4SR15/11 -N - PD	981	436	1417	20.2				
4SR15/15 -N - PD	1273	505	1778	25.9				
4SR15/21 -N - PD	1711	610	2321	34.5				
4SR15/29 -N - PD	2295	700	2995	43.9				

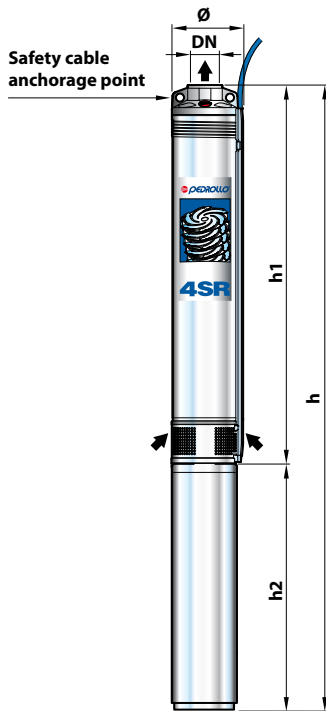
DIMENSIONS AND WEIGHT



MODEL	PORT DN	DIMENSIONS mm			kg	
		\varnothing	h1	h2		h
Single-phase					1~	
4SR1m/13 - PS	1 1/4"	98	400	237	637	11.5
4SR1m/18 - PS			517	257	774	13.9
4SR1m/25 - PS			646	272	918	16.5
4SR1m/35 - PS			856	312	1168	20.6
4SR1m/45 - PS			1065	352	1417	24.8
4SR1.5m/8 - PS			308	237	545	10.6
4SR1.5m/13 - PS			400	257	657	12.4
4SR1.5m/17 - PS			499	272	771	14.8
4SR1.5m/25 - PS			646	312	958	18.5
4SR1.5m/32 - PS			800	352	1152	22.6
4SR1.5m/46 - PS			1134	402	1536	27.4
4SR2m/7 - PS			290	237	527	10.4
4SR2m/10 - PS			345	257	602	12.1
4SR2m/13 - PS			400	272	672	13.9
4SR2m/20 - PS			554	312	866	17.6
4SR2m/27 - PS			683	352	1035	21.2
4SR2m/39 - PS			929	402	1331	24.7
4SR4m/7 - PS			314	257	571	11.7
4SR4m/9 - PS			358	272	630	13.4
4SR4m/14 - PS			468	312	780	16.6
4SR4m/18 - PS	580	352	932	20.0		
4SR4m/26 - PS	756	402	1158	22.5		
4SR6m/4 - PS	2"	98	281	257	538	11.6
4SR6m/6 - PS			341	272	613	13.1
4SR6m/9 - PS			431	312	743	16.0
4SR6m/13 - PS			576	352	928	19.5
4SR6m/17 - PS			695	402	1097	21.5
4SR8m/4 - PS			281	272	553	12.6
4SR8m/7 - PS			371	312	683	15.4
4SR8m/9 - PS			431	352	783	18.1
4SR8m/13 - PS			576	402	978	20.3
4SR10m/6 -N - PS			616	272	888	14.6
4SR10m/8 -N - PS			762	312	1074	17.9
4SR10m/11 -N - PS			981	352	1333	21.9
4SR10m/16 -N - PS	1346	402	1748	25.7		
4SR12m/4 -N - PS	470	272	742	13.0		
4SR12m/6 -N - PS	616	312	928	16.7		
4SR12m/8 -N - PS	762	352	1114	20.1		
4SR12m/12 -N - PS	1054	402	1456	23.3		
4SR15m/6 -N - PS	616	312	928	16.7		
4SR15m/8 -N - PS	762	352	1114	20.1		
4SR15m/11 -N - PS	981	402	1383	22.7		

MODEL	PORT DN	DIMENSIONS mm			kg			
		\varnothing	h1	h2		h		
Three-phase					3~			
4SR1/13 - PS	1 1/4"	98	400	237	637	11.5		
4SR1/18 - PS			517	237	754	12.8		
4SR1/25 - PS			646	257	903	15.3		
4SR1/35 - PS			856	272	1128	18.5		
4SR1/45 - PS			1065	297	1362	22.6		
4SR1.5/8 - PS			308	237	545	10.6		
4SR1.5/13 - PS			400	237	637	11.3		
4SR1.5/17 - PS			499	257	756	13.6		
4SR1.5/25 - PS			646	272	918	16.4		
4SR1.5/32 - PS			800	297	1097	20.4		
4SR1.5/46 - PS			1134	352	1486	26.6		
4SR2/7 - PS			290	237	527	10.4		
4SR2/10 - PS			345	237	582	11.0		
4SR2/13 - PS			400	257	657	12.7		
4SR2/20 - PS			554	272	826	15.5		
4SR2/27 - PS			683	297	980	19.0		
4SR2/39 - PS			929	352	1281	23.9		
4SR4/7 - PS			314	237	551	10.6		
4SR4/9 - PS			358	257	615	12.2		
4SR4/14 - PS			468	272	740	14.5		
4SR4/18 - PS			580	297	877	17.8		
4SR4/26 - PS			756	352	1108	21.7		
4SR4/35 - PS			978	418	1396	27.6		
4SR4/46 - PS			1295	574	1869	38.4		
4SR4/60 - PS			1652	664	2316	47.2		
4SR6/4 - PS			98	98	281	237	518	10.5
4SR6/6 - PS					341	257	598	11.9
4SR6/9 - PS					431	272	703	13.9
4SR6/13 - PS					576	297	873	17.3
4SR6/17 - PS					695	352	1047	20.7
4SR6/23 - PS	900	418			1318	26.2		
4SR6/31 - PS	1164	574			1738	35.0		
4SR6/42 - PS	1519	664			2183	43.5		
4SR6/56 - PS	2063	764			2827	53.4		
4SR8/4 - PS	281	257			538	11.4		
4SR8/7 - PS	371	272			643	13.3		
4SR8/9 - PS	431	297			728	15.9		
4SR8/13 - PS	576	352			928	19.5		
4SR8/17 - PS	695	418			1113	24.1		
4SR8/23 - PS	900	574			1474	32.7		
4SR8/31 - PS	1164	664			1828	39.6		
4SR8/42 - PS	1519	764			2283	46.3		
4SR10/6 -N - PS	2"	98			616	257	873	13.4
4SR10/8 -N - PS			762	272	1034	15.8		
4SR10/11 -N - PS			981	297	1278	19.7		
4SR10/16 -N - PS			1346	352	1698	24.9		
4SR10/22 -N - PS			1784	418	2202	31.9		
4SR10/30 -N - PS			2368	574	2942	43.4		
4SR10/41 -N - PS			3171	664	3835	54.3		
4SR12/4 -N - PS			470	257	727	11.8		
4SR12/6 -N - PS			616	272	888	14.6		
4SR12/8 -N - PS			762	297	1059	17.9		
4SR12/12 -N - PS			1054	352	1406	22.5		
4SR12/17 -N - PS			1419	418	1837	28.9		
4SR12/23 -N - PS			1857	574	2431	39.0		
4SR12/31 -N - PS			2441	664	3105	48.2		
4SR15/6 -N - PS			616	272	888	14.6		
4SR15/8 -N - PS	762	297	1059	17.9				
4SR15/11 -N - PS	981	352	1333	21.9				
4SR15/15 -N - PS	1273	418	1691	27.8				
4SR15/21 -N - PS	1711	574	2285	37.8				
4SR15/29 -N - PS	2295	664	2959	47.0				

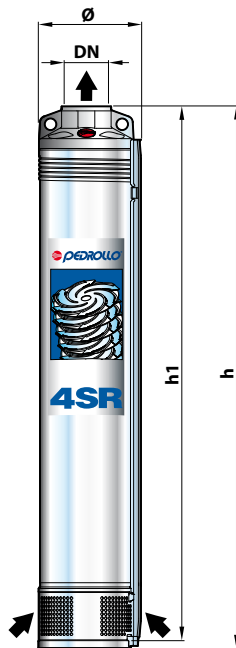
DIMENSIONS AND WEIGHT



MODEL	PORT DN	DIMENSIONS mm			kg	
		Ø	h1	h2		h
Single-phase						
4SR1m/13 - FK	1 1/4"	98	400	228	628	12.7
4SR1m/18 - FK			517	253	770	15.2
4SR1m/25 - FK			646	283	929	17.8
4SR1m/35 - FK			856	307	1163	21.2
4SR1m/45 - FK			1065	339	1404	24.3
4SR1.5m/8 - FK			308	228	536	11.8
4SR1.5m/13 - FK			400	253	653	13.7
4SR1.5m/17 - FK			499	283	782	16.1
4SR1.5m/25 - FK			646	307	953	19.1
4SR1.5m/32 - FK			800	339	1139	22.1
4SR1.5m/46 - FK			1134	437	1571	30.5
4SR2m/7 - FK			290	228	518	11.6
4SR2m/10 - FK			345	253	598	13.4
4SR2m/13 - FK			400	283	683	15.2
4SR2m/20 - FK			554	307	861	18.2
4SR2m/27 - FK			683	339	1022	20.7
4SR2m/39 - FK			929	437	1366	27.8
4SR4m/7 - FK			314	253	567	13.0
4SR4m/9 - FK			358	283	641	14.7
4SR4m/14 - FK			468	307	775	17.2
4SR4m/18 - FK	580	339	919	19.5		
4SR4m/26 - FK	756	437	1193	25.6		
4SR6m/4 - FK	2"	98	281	253	534	12.9
4SR6m/6 - FK			341	283	624	14.4
4SR6m/9 - FK			431	307	738	16.6
4SR6m/13 - FK			576	339	915	19.0
4SR6m/17 - FK			695	437	1132	24.6
4SR8m/4 - FK			281	283	564	13.9
4SR8m/7 - FK			371	307	678	16.0
4SR8m/9 - FK			431	339	770	17.6
4SR8m/13 - FK			576	437	1013	23.4
4SR10m/6 -N - FK			616	283	899	15.9
4SR10m/8 -N - FK			762	307	1069	18.5
4SR10m/11 -N - FK			981	339	1320	21.4
4SR10m/16 -N - FK	1346	437	1783	28.8		
4SR12m/4 -N - FK	470	283	753	14.3		
4SR12m/6 -N - FK	616	307	923	17.3		
4SR12m/8 -N - FK	762	339	1101	19.6		
4SR12m/12 -N - FK	1054	437	1491	26.4		
4SR15m/6 -N - FK	616	307	923	17.3		
4SR15m/8 -N - FK	762	339	1101	19.6		
4SR15m/11 -N - FK	981	437	1418	25.8		

MODEL	PORT DN	DIMENSIONS mm			kg	
		Ø	h1	h2		h
Three-phase						
4SR1/13 - FK	1 1/4"	98	400	214	614	11.9
4SR1/18 - FK			517	228	745	13.7
4SR1/25 - FK			646	248	894	16.1
4SR1/35 - FK			856	283	1139	19.6
4SR1/45 - FK			1065	307	1372	22.6
4SR1.5/8 - FK			308	214	522	11.0
4SR1.5/13 - FK			400	228	628	12.2
4SR1.5/17 - FK			499	248	747	14.4
4SR1.5/25 - FK			646	283	929	17.5
4SR1.5/32 - FK			800	307	1107	20.4
4SR1.5/46 - FK			1134	339	1473	25.8
4SR2/7 - FK			290	214	504	10.8
4SR2/10 - FK			345	228	573	11.9
4SR2/13 - FK			400	248	648	13.5
4SR2/20 - FK			554	283	837	16.6
4SR2/27 - FK			683	307	990	19.0
4SR2/39 - FK			929	339	1268	23.1
4SR4/7 - FK			314	228	542	11.5
4SR4/9 - FK			358	248	606	13.0
4SR4/14 - FK			468	283	751	15.6
4SR4/18 - FK	580	307	887	17.8		
4SR4/26 - FK	756	339	1095	20.9		
4SR4/35 - FK	978	394	1372	25.7		
4SR4/46 - FK	1295	543	1838	35.0		
4SR4/60 - FK	1652	693	2345	46.0		
4SR6/4 - FK	98	98	281	228	509	11.4
4SR6/6 - FK			341	248	589	12.7
4SR6/9 - FK			431	283	714	15.0
4SR6/13 - FK			576	307	883	17.3
4SR6/17 - FK			695	339	1034	19.9
4SR6/23 - FK			900	394	1294	24.3
4SR6/31 - FK			1164	543	1707	31.6
4SR6/42 - FK			1519	693	2212	42.3
4SR6/56 - FK			2063	731	2794	52.6
4SR8/4 - FK			281	248	529	12.2
4SR8/7 - FK			371	283	654	14.4
4SR8/9 - FK			431	307	738	15.9
4SR8/13 - FK	576	339	915	18.7		
4SR8/17 - FK	695	394	1089	22.2		
4SR8/23 - FK	900	543	1443	29.3		
4SR8/31 - FK	1164	693	1857	38.4		
4SR8/42 - FK	1519	731	2250	45.5		
4SR10/6 -N - FK	2"	98	616	248	864	14.2
4SR10/8 -N - FK			762	283	1045	16.9
4SR10/11 -N - FK			981	307	1288	19.7
4SR10/16 -N - FK			1346	339	1685	24.1
4SR10/22 -N - FK			1784	394	2178	30.0
4SR10/30 -N - FK			2368	543	2911	40.0
4SR10/41 -N - FK			3171	693	3864	53.1
4SR12/4 -N - FK			470	248	718	12.6
4SR12/6 -N - FK			616	283	899	15.7
4SR12/8 -N - FK			762	307	1069	17.9
4SR12/12 -N - FK			1054	339	1393	21.7
4SR12/17 -N - FK			1419	394	1813	27.0
4SR12/23 -N - FK	1857	543	2400	35.6		
4SR12/31 -N - FK	2441	693	3134	47.0		
4SR15/6 -N - FK	616	283	899	15.7		
4SR15/8 -N - FK	762	307	1069	17.9		
4SR15/11 -N - FK	981	339	1320	21.1		
4SR15/15 -N - FK	1273	394	1667	25.9		
4SR15/21 -N - FK	1711	543	2254	34.4		
4SR15/29 -N - FK	2295	693	2988	45.8		

DIMENSIONS AND WEIGHT (PUMP ONLY)



MODEL Pump	PORT DN	DIMENSIONS mm			kg
		Ø	h1	h	
4SR1/13 - HYD	1 1/4"	98	400	403	4.7
4SR1/18 - HYD			517	520	6
4SR1/25 - HYD			646	649	7.4
4SR1/35 - HYD			856	859	9.4
4SR1/45 - HYD			1065	1068	11.4
4SR1.5/8 - HYD			308	311	3.8
4SR1.5/13 - HYD			400	403	4.5
4SR1.5/17 - HYD			499	502	5.7
4SR1.5/25 - HYD			646	649	7.3
4SR1.5/32 - HYD			800	803	9.2
4SR1.5/46 - HYD			1134	1137	13.2
4SR2/7 - HYD			290	293	3.6
4SR2/10 - HYD			345	348	4.2
4SR2/13 - HYD			400	403	4.8
4SR2/20 - HYD			554	557	6.4
4SR2/27 - HYD			683	686	7.8
4SR2/39 - HYD			929	932	10.5
4SR4/7 - HYD			314	317	3.8
4SR4/9 - HYD			358	361	4.3
4SR4/14 - HYD			468	471	5.4
4SR4/18 - HYD			580	583	6.6
4SR4/26 - HYD			756	759	8.3
4SR4/35 - HYD			978	981	10.7
4SR4/46 - HYD			1295	1298	15.0
4SR4/60 - HYD	1652	1655	19.4		
4SR6/4 - HYD	2"	98	281	284	3.7
4SR6/6 - HYD			341	344	4.0
4SR6/9 - HYD			431	434	4.8
4SR6/13 - HYD			576	579	6.1
4SR6/17 - HYD			695	698	7.3
4SR6/23 - HYD			900	903	9.3
4SR6/31 - HYD			1164	1167	11.6
4SR6/42 - HYD			1519	1522	15.7
4SR6/56 - HYD			2063	2066	22.0
4SR8/4 - HYD			281	284	3.5
4SR8/7 - HYD			371	374	4.2
4SR8/9 - HYD			431	434	4.7
4SR8/13 - HYD	576	579	6.1		
4SR8/17 - HYD	695	698	7.2		
4SR8/23 - HYD	900	903	9.3		
4SR8/31 - HYD	1164	1167	11.8		
4SR8/42 - HYD	1519	1522	14.9		
4SR10/6 -N - HYD	616	619	5.5		
4SR10/8 -N - HYD	762	765	6.7		
4SR10/11 -N - HYD	981	984	8.5		
4SR10/16 -N - HYD	1346	1349	11.5		
4SR10/22 -N - HYD	1784	1787	15.0		
4SR10/30 -N - HYD	2368	2371	20.0		
4SR10/41 -N - HYD	3171	3174	26.5		
4SR12/4 -N - HYD	470	473	3.9		
4SR12/6 -N - HYD	616	619	5.5		
4SR12/8 -N - HYD	762	765	6.7		
4SR12/12 -N - HYD	1054	1057	9.1		
4SR12/17 -N - HYD	1419	1422	12.0		
4SR12/23 -N - HYD	1857	1860	15.6		
4SR12/31 -N - HYD	2441	2444	20.4		
4SR15/6 -N - HYD	616	619	5.5		
4SR15/8 -N - HYD	762	765	6.7		
4SR15/11 -N - HYD	981	984	8.5		
4SR15/15 -N - HYD	1273	1276	10.9		
4SR15/21 -N - HYD	1711	1714	14.4		
4SR15/29 -N - HYD	2295	2298	19.2		

6SR

6" submersible pump

-  Clean water
(Maximum sand content 100 g/m³)
-  Civil use
-  Agricultural use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **1000 l/min** (60 m³/h)
- Head up to **390 m**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **100 g/m³**
- **100 m** immersion limit
- Installation:
 - vertical
 - horizontal, with the following limits: up to **12 stages** or **11 kW**
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **16 cm/s** (0.5 m/s for 30 kW)
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

ELECTRIC MOTOR

– Three-phase 400 V - 50 Hz

4 m long power cable

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

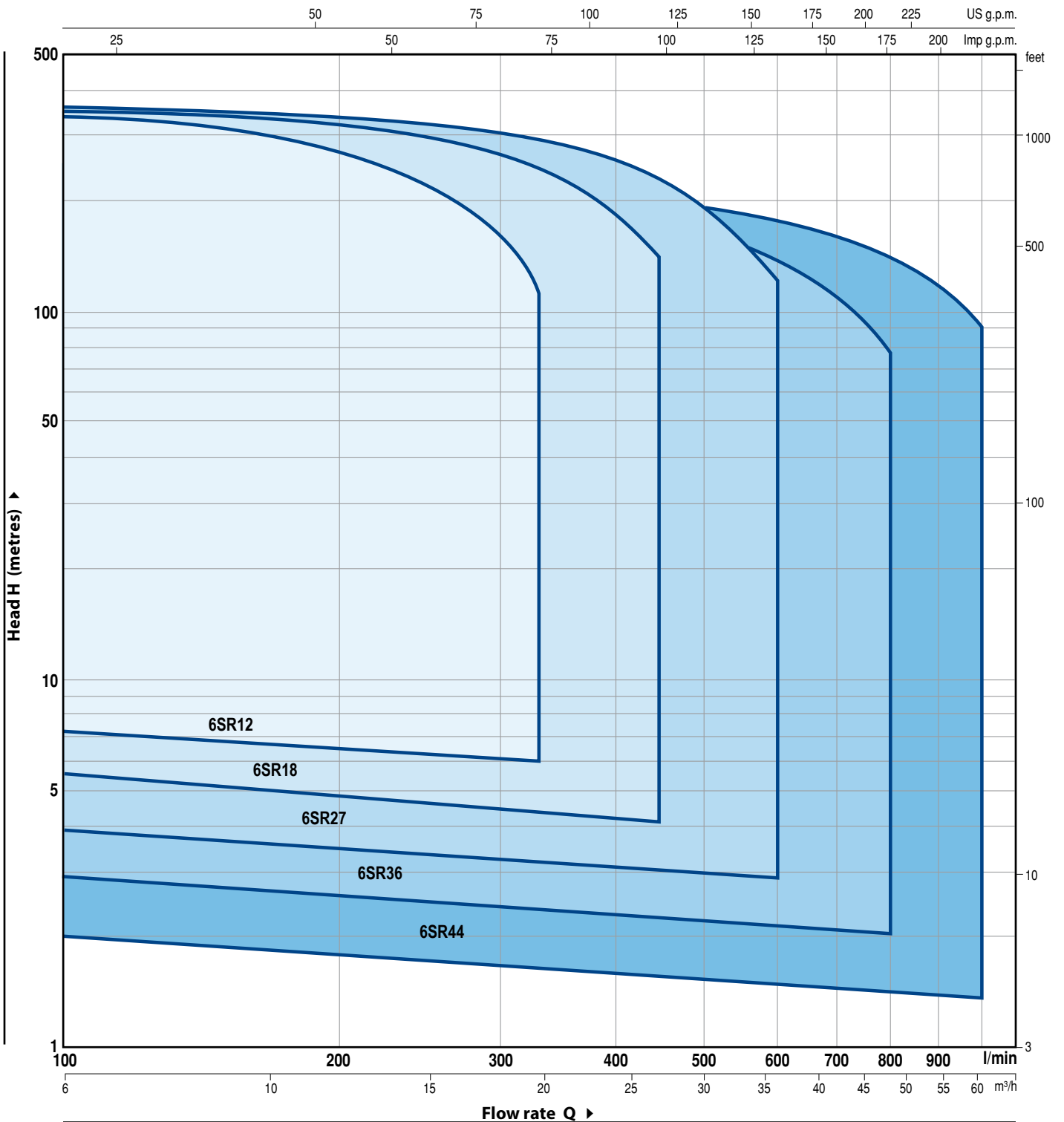
Suitable for use with clean water with a sand content of no more than 100 g/m³. Because of their high efficiency and reliability, they are suitable for use in civil, agricultural and industrial applications such as the distribution of water in combination with pressure tanks, for irrigation and for pressure boosting in fire-fighting sets, etc.

OPTIONS AVAILABLE ON REQUEST

- Kit of cooling jacket complete with filter and supports
- 6SR-HYD pumps with double cable cover suitable for dual voltage 400/690 V (star/delta) motors from 11 kW to 30 kW
- Other voltages or 60 Hz frequency

PERFORMANCE RANGE

50 Hz n = 2900 rpm



NOMENCLATURE

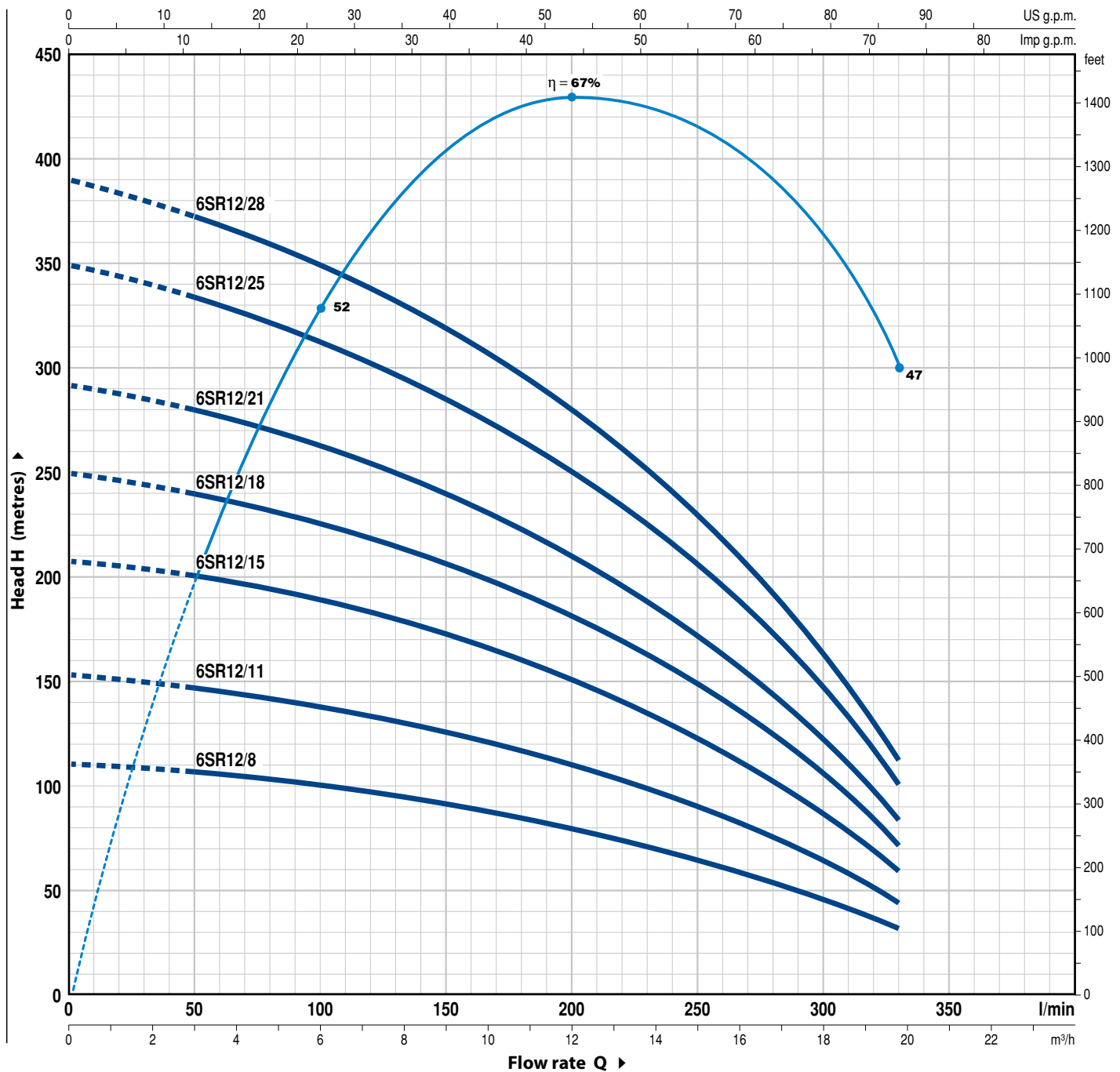
6 SR 12 / 8 - PD or HYD

- Borehole diameter in inches _____
- Series _____
- Flow rate in m³/h at the point of highest efficiency _____
- Number of stages _____
- PD:** pump with "6PD PEDROLLO" motor _____
- HYD:** pump without motor _____

6SR12

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



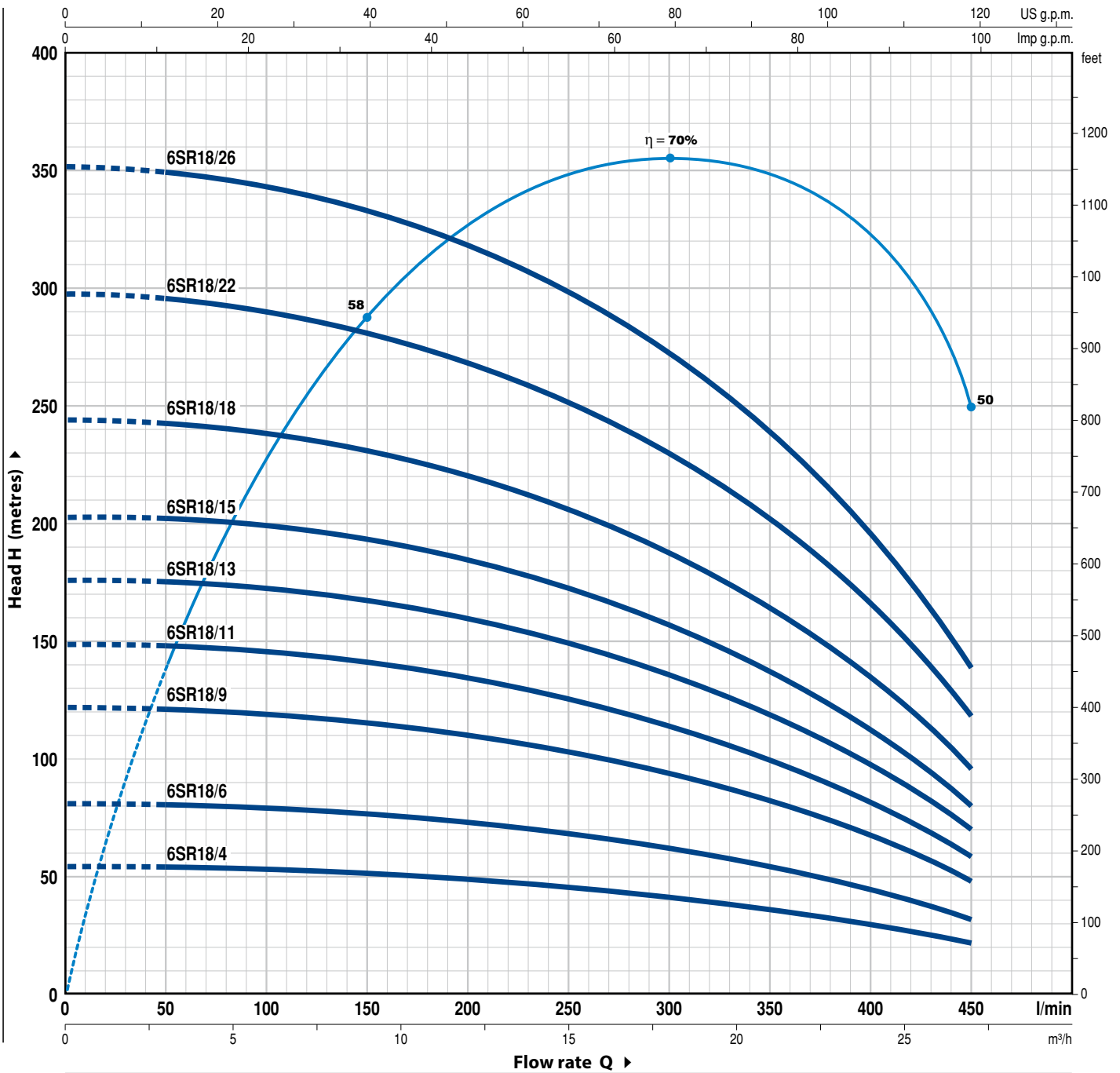
MODEL	POWER (P ₂)		Q	Flow rate								
	kW	HP		0	3.0	6.0	9.0	12.0	15.0	18.0	19.8	
Three-phase				0	50	100	150	200	250	300	330	
6SR12/8	4	5.5	H metres	111	106	100	91	80	66	47	32	
6SR12/11	5.5	7.5		153	146	138	125	110	91	65	44	
6SR12/15	7.5	10		208	199	189	171	150	124	88	60	
6SR12/18	9.2	12.5		250	239	225	205	180	149	106	72	
6SR12/21	11	15		292	279	263	239	210	174	124	84	
6SR12/25	13	17.5		349	331	313	285	250	206	147	100	
6SR12/28	15	20		390	371	350	319	280	231	165	112	

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



MODEL	POWER (P ₂)		Q	Flow rate (l/min)											
	kW	HP		0	3	6	9	12	15	18	21	24	27		
Three-phase				0	50	100	150	200	250	300	350	400	450		
6SR18/4	4	5.5	H metres	54	53.8	53	51	49	46	42	37	30	22		
6SR18/6	5.5	7.5		81	80.5	79	77	74	69	63	55	45	32		
6SR18/9	7.5	10		122	121	119	116	111	103	94	83	68	48		
6SR18/11	9.2	12.5		149	148	145.5	141	135	126	115	101	83	59		
6SR18/13	11	15		176	175	172	167	160	149	136	120	98	70		
6SR18/15	13	17.5		203	202	199	193	185	172	157	138	113	80		
6SR18/18	15	20		244	242	238	231	221	206	188	165	135	96		
6SR18/22	18.5	25		298	296	291	282	270	252	230	202	165	118		
6SR18/26	22	30		352	350	344	334	320	298	272	239	195	139		

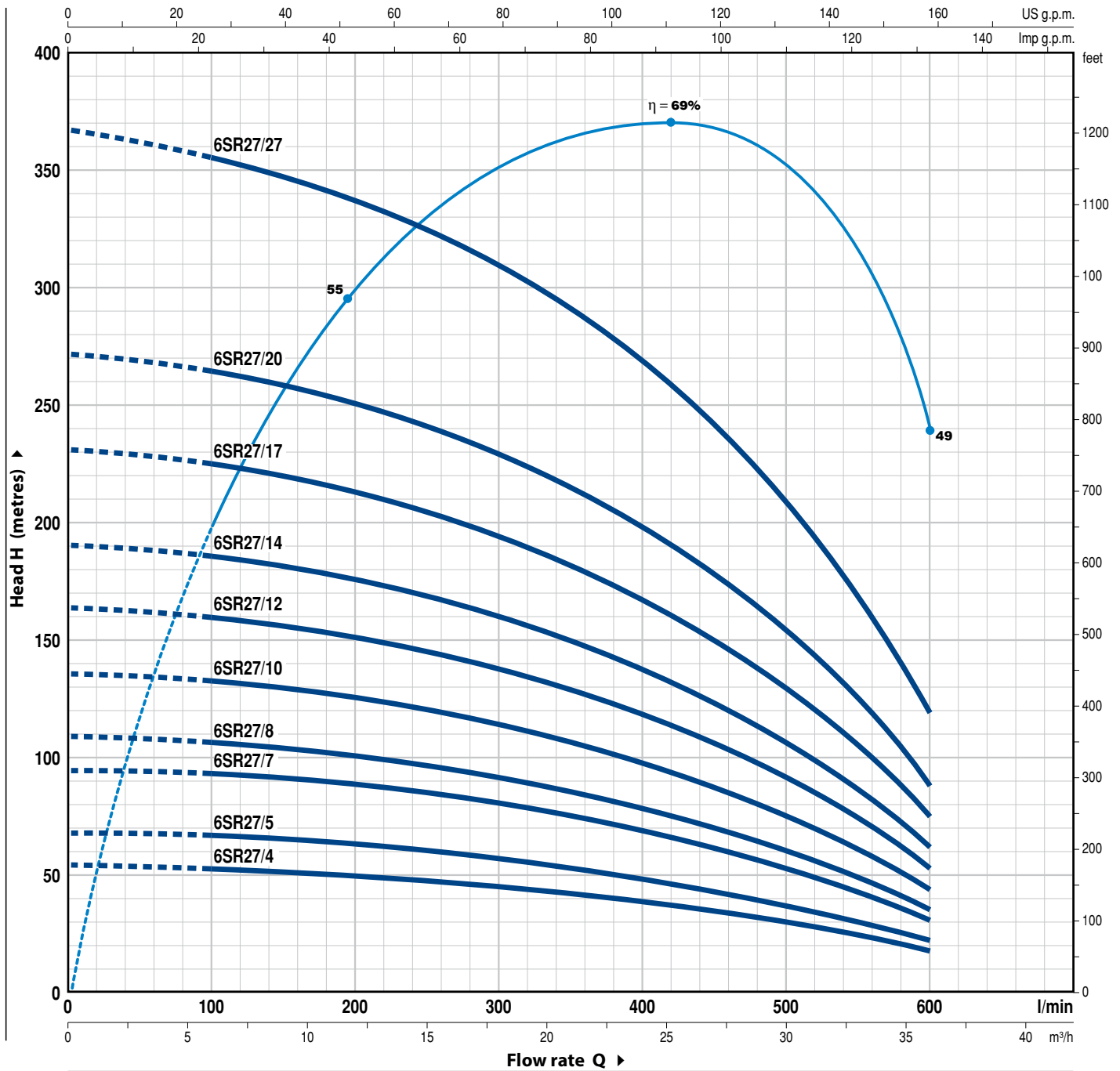
Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

6SR27

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



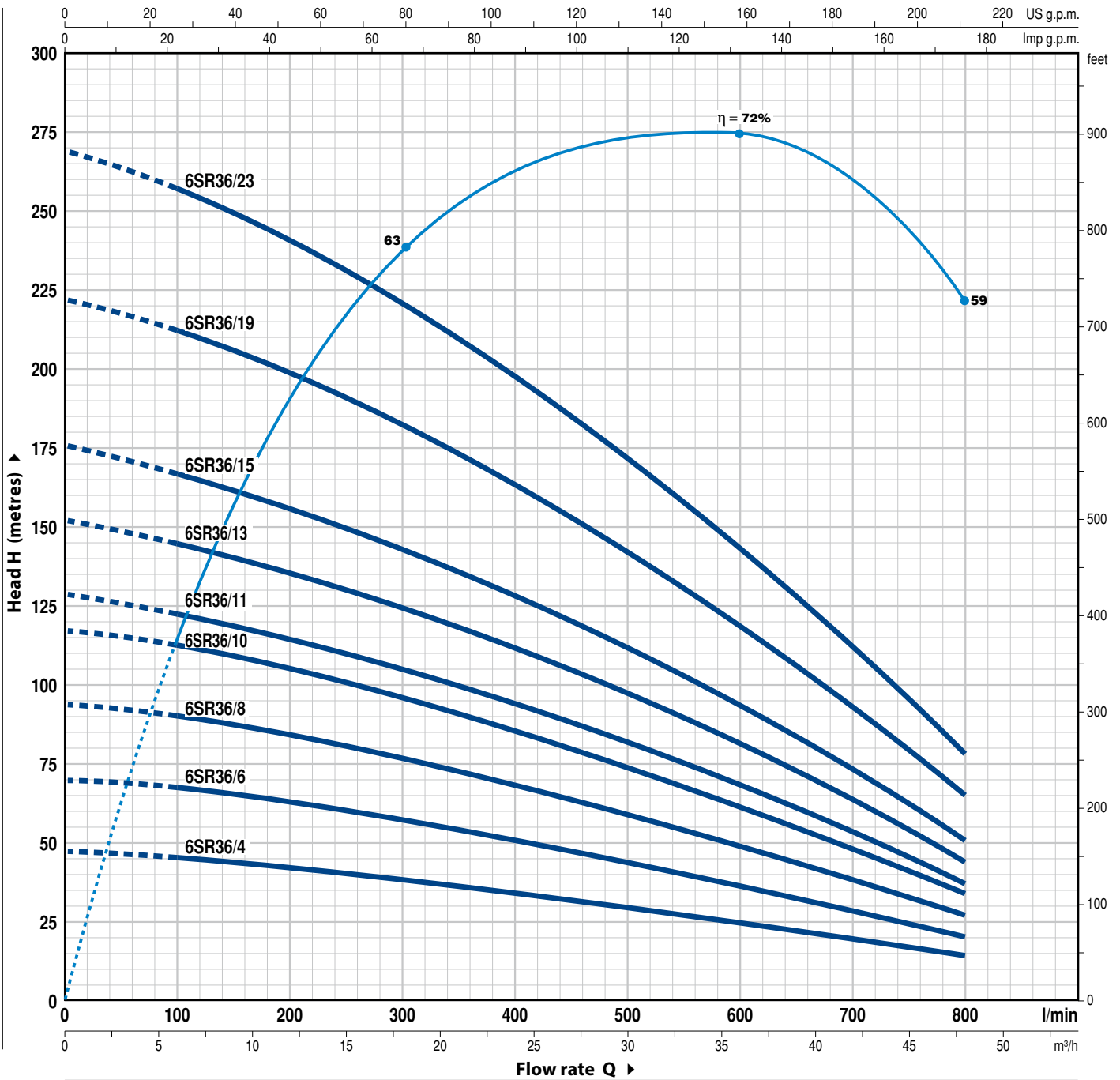
MODEL	POWER (P ₂)		Q	H metres							
	kW	HP		0	6	12	18	24	30	36	
Three-phase				0	100	200	300	400	500	600	
6SR27/4	4	5.5		54	53	49	45	40	30	18	
6SR27/5	5.5	7.5		68	66	62	57	50	37	22	
6SR27/7	7.5	10		95	92	87	80	70	52	31	
6SR27/8	9.2	12.5		109	106	99	91	80	59	35	
6SR27/10	11	15		136	132	124	114	100	74	44	
6SR27/12	13	17.5		164	159	149	137	120	89	53	
6SR27/14	15	20		191	185	174	160	140	104	62	
6SR27/17	18.5	25		231	224	211	194	170	126	75	
6SR27/20	22	30		272	264	248	228	200	148	88	
6SR27/27	30	40		367	356	335	308	270	205	119	

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



MODEL	POWER (P ₂)		Q	Flow rate											
	kW	HP		0	6	12	18	24	30	36	42	48			
Three-phase				0	100	200	300	400	500	600	700	800			
6SR36/4	4	5.5	H metres	47	45	42	38	34	29	25	19	14			
6SR36/6	5.5	7.5		70	67	63	57	51	44	37	29	20			
6SR36/8	7.5	10		94	89	84	76	68	59	50	39	27			
6SR36/10	9.2	12.5		117	111	105	95	85	74	62	48	34			
6SR36/11	11	15		129	123	115	105	93	81	68	53	37			
6SR36/13	13	17.5		152	145	136	124	110	96	81	63	44			
6SR36/15	15	20		176	167	157	143	127	110	93	72	51			
6SR36/19	18.5	25		222	212	199	181	161	140	118	92	65			
6SR36/23	22	30		269	256	241	219	195	169	143	111	78			

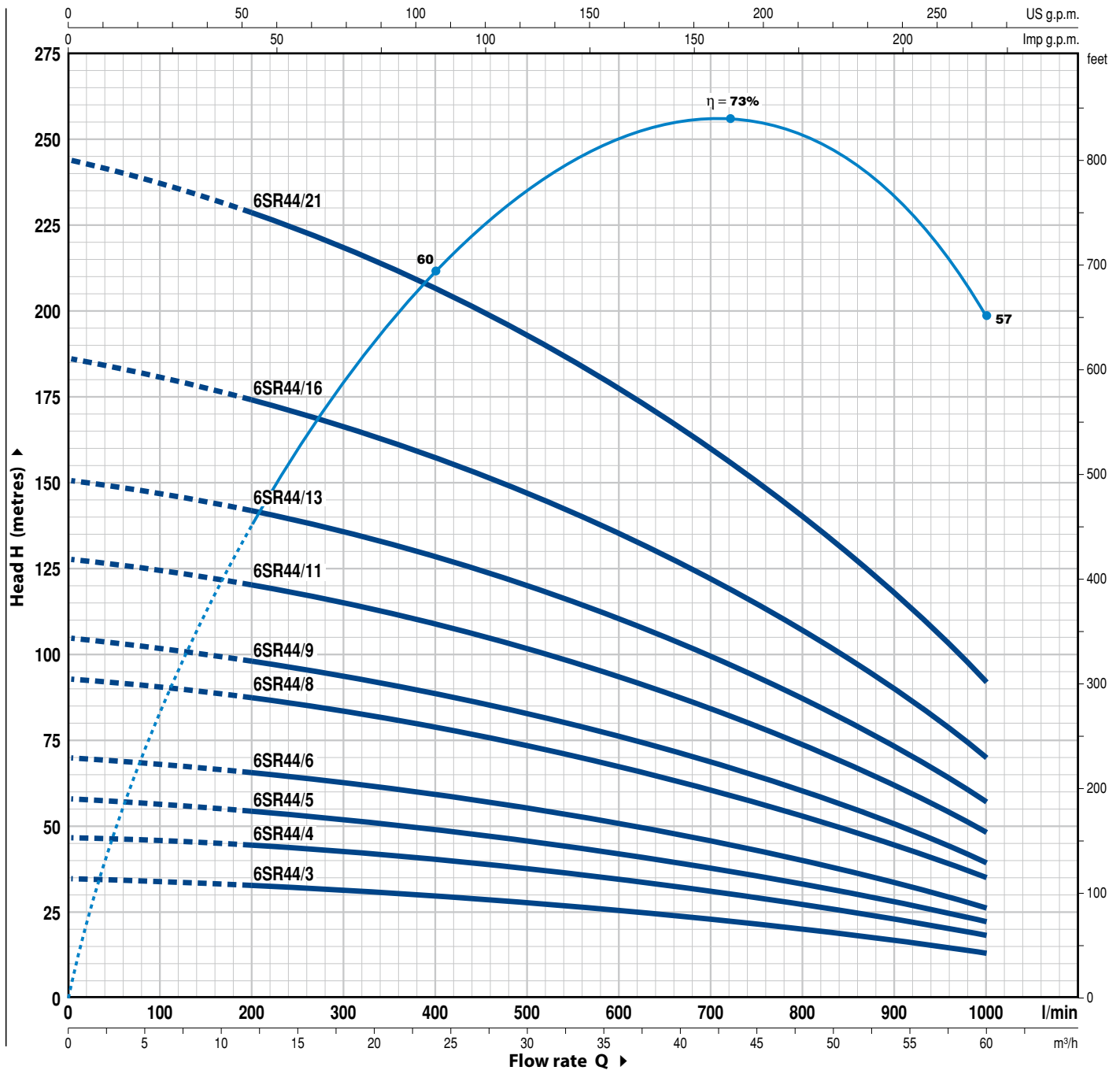
Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

6SR44

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm

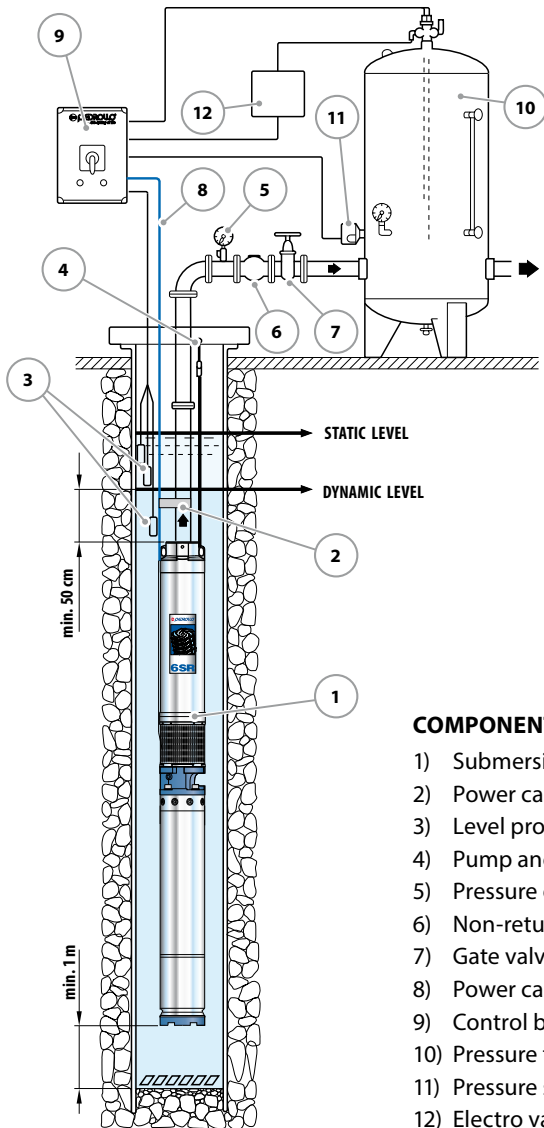


MODEL	POWER (P ₂)		Q	Flow rate (l/min)											
	kW	HP		0	12	18	24	30	36	42	48	54	60		
Three-phase				0	200	300	400	500	600	700	800	900	1000		
6SR44/3	4	5.5	H metres	35	33	31	30	28	26	23	20	17	13		
6SR44/4	5.5	7.5		47	44	42	40	37	34	31	27	23	18		
6SR44/5	7.5	10		58	54	52	49	46	43	38	33	28	22		
6SR44/6	9.2	12.5		70	65	62	59	56	51	46	40	34	26		
6SR44/8	11	15		93	87	83	79	74	68	61	53	45	35		
6SR44/9	13	17.5		105	98	93	89	83	77	69	60	51	39		
6SR44/11	15	20		128	120	114	109	102	94	84	73	62	48		
6SR44/13	18.5	25		151	141	135	128	120	111	99	86	73	57		
6SR44/16	22	30		186	174	166	158	148	136	122	106	90	70		
6SR44/21	30	40		244	228	218	207	194	179	160	139	118	92		

Q = Flow rate H = Total manometric head

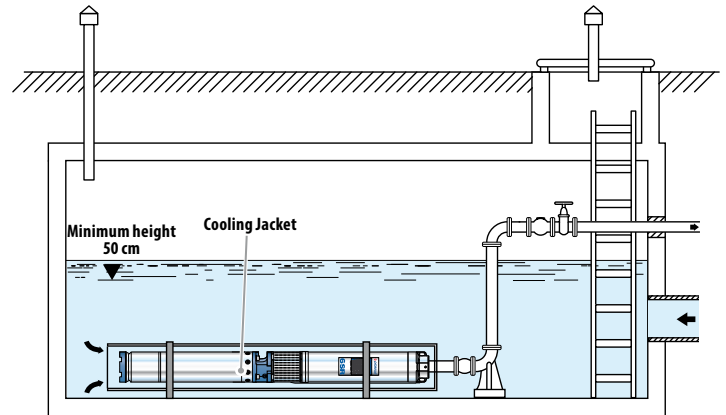
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

STANDARD INSTALLATION



COMPONENTS

- 1) Submersible pump
- 2) Power cable clamps
- 3) Level probes
- 4) Pump anchorage
- 5) Pressure gauge
- 6) Non-return valve
- 7) Gate valve; for flow rate regulation
- 8) Power cable
- 9) Control box
- 10) Pressure tank
- 11) Pressure switch
- 12) Electro valve/electro-compressor

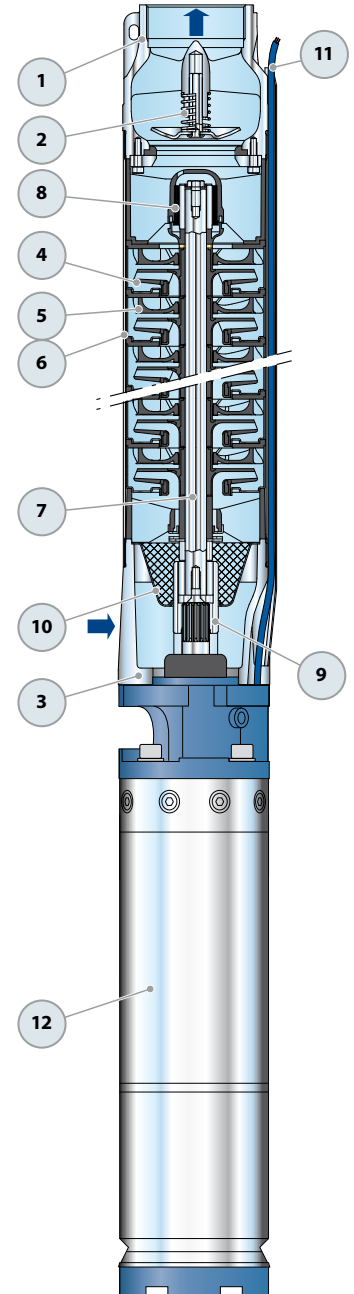


Cooling jacket

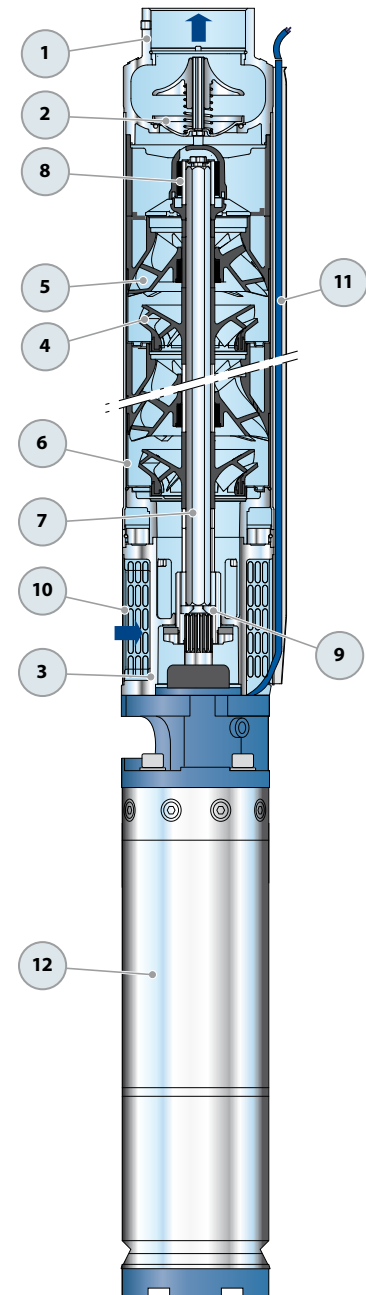
When the pump is installed in storage tanks, rivers or lakes an external jacket must be fitted to establish a flow of cooling water to prevent overheating of the motor.

➡ The **6SR** series pumps should be installed in boreholes of at least 6" (150 mm) in diameter. The pump should be lowered into the borehole, by means of the delivery pipe, to such a depth (min. 50 cm and at least one metres from the bottom) that it is completely immersed during operation when the level of water in the borehole may reduce. It is good practice to secure the pump by attaching a stainless steel cable to the anchorage points present on the delivery body.

POS. COMPONENT	CONSTRUCTION CHARACTERISTICS
1 DELIVERY BODY	Nickel-plated cast iron complete with threaded delivery port in compliance with ISO 228/1
2 NON-RETURN VALVE	Stainless steel AISI 304
3 MOTOR BRACKET	Nickel-plated cast iron in compliance with NEMA standards
4 IMPELLERS	Special-rubber coated Noryl FE1520PW
5 DIFFUSERS	Noryl FE1520PW
6 DIFFUSOR CASING	Stainless steel AISI 304
7 PUMP SHAFT	Stainless steel AISI 304
8 PUMP BEARINGS	Elastomer housing with stainless steel AISI 316, chrome oxide coated, sand resistant shaft bushing
9 DRIVE COUPLING	Stainless steel AISI 420
10 FILTER	Stainless steel AISI 304
11 CABLE COVER	Stainless steel AISI 304
12 MOTOR 6"	6PD = "PEDROLLO" oil filled rewindable motor

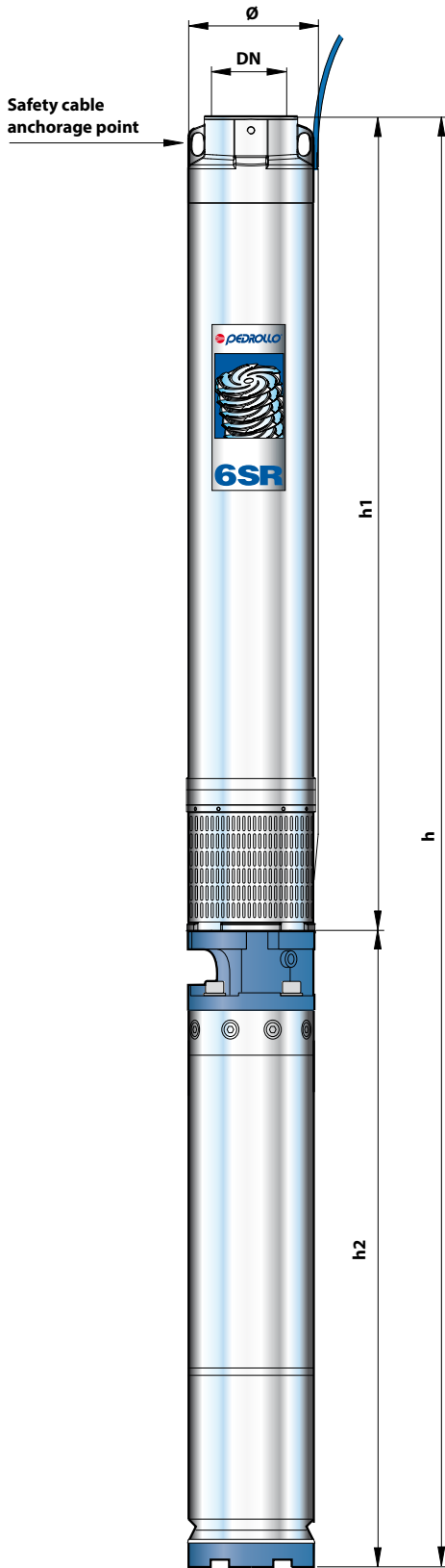


POS. COMPONENT	CONSTRUCTION CHARACTERISTICS
1 DELIVERY BODY	Stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1
2 NON-RETURN VALVE	Stainless steel AISI 304
3 MOTOR BRACKET	Nickel-plated cast iron in compliance with NEMA standards
4 IMPELLERS	Special-rubber coated Noryl FE1520PW
5 DIFFUSERS	Noryl FE1520PW
6 DIFFUSOR CASING	Stainless steel AISI 304
7 PUMP SHAFT	Stainless steel AISI 304
8 PUMP BEARINGS	Special technopolymer housing with stainless steel AISI 316, chrome oxide coated, sand resistant shaft bushing
9 DRIVE COUPLING	Stainless steel AISI 420
10 FILTER	Stainless steel AISI 304
11 CABLE COVER	Stainless steel AISI 304
12 MOTOR 6"	6PD = "PEDROLLO" oil filled rewindable motor



6SR-PD

DIMENSIONS AND WEIGHT



MODEL	PORT DN	Ø	DIMENSIONS mm			kg 3~
			h1	h2	h	
6SR 12/8 - PD	3"	149.5	719	633	1352	53.8
6SR 12/11 - PD			849	667	1516	60.9
6SR 12/15 - PD			1068	698	1766	66.8
6SR 12/18 - PD			1198	731	1929	73.0
6SR 12/21 - PD			1328	826	2154	83.9
6SR 12/25 - PD			1502	894	2396	96.0
6SR 12/28 - PD			1632	894	2526	98.1
6SR 18/4 - PD			545	633	1178	49.6
6SR 18/6 - PD			632	667	1299	53.6
6SR 18/9 - PD			762	698	1460	60.3
6SR 18/11 - PD			849	731	1580	67.0
6SR 18/13 - PD			981	826	1807	76.9
6SR 18/15 - PD			1068	894	1962	84.6
6SR 18/18 - PD			1198	894	2092	87.6
6SR 18/22 - PD			1371	959	2330	99.7
6SR 18/26 - PD			1545	1116	2661	125.7
6SR 27/4 - PD			583	633	1216	47.9
6SR 27/5 - PD			636	667	1303	53.5
6SR 27/7 - PD			742	698	1440	58.8
6SR 27/8 - PD			795	731	1526	63.0
6SR 27/10 - PD			901	826	1727	74.1
6SR 27/12 - PD			1051	894	1945	83.6
6SR 27/14 - PD			1157	894	2051	85.9
6SR 27/17 - PD			1316	959	2275	97.5
6SR 27/20 - PD			1474	1116	2590	123.0
6SR 27/27 - PD			1845	1243	3088	135.8
6SR 36/4 - PD			823	633	1456	55.4
6SR 36/6 - PD			1049	667	1716	64.0
6SR 36/8 - PD			1275	698	1973	71.0
6SR 36/10 - PD			1501	731	2232	76.2
6SR 36/11 - PD			1613	826	2439	90.0
6SR 36/13 - PD			1839	894	2733	102.0
6SR 36/15 - PD			2065	894	2959	107.0
6SR 36/19 - PD			2517	959	3476	121.0
6SR 36/23 - PD			2969	1116	4085	154.0
6SR 44/3 - PD			710	633	1343	54.0
6SR 44/4 - PD			823	667	1490	57.5
6SR 44/5 - PD			936	698	1634	63.1
6SR 44/6 - PD			1049	731	1780	70.0
6SR 44/8 - PD			1275	826	2101	82.2
6SR 44/9 - PD			1388	894	2282	92.0
6SR 44/11 - PD			1613	894	2507	97.0
6SR 44/13 - PD	1839	959	2798	110.0		
6SR 44/16 - PD	2178	1116	3294	141.0		
6SR 44/21 - PD	2743	1243	3986	154.3		

DIMENSIONS AND WEIGHT



MODEL Pump	PORT DN	DIMENSIONS mm		kg
		Ø	h	
6SR 12/8 - HYD	3"	149.5	719	19.8
6SR 12/11 - HYD			849	24.9
6SR 12/15 - HYD			1068	27.8
6SR 12/18 - HYD			1198	31.0
6SR 12/21 - HYD			1328	33.9
6SR 12/25 - HYD			1502	39.0
6SR 12/28 - HYD			1632	41.1
6SR 18/4 - HYD			545	15.6
6SR 18/6 - HYD			632	17.6
6SR 18/9 - HYD			762	21.3
6SR 18/11 - HYD			849	25.0
6SR 18/13 - HYD			981	26.9
6SR 18/15 - HYD			1068	27.6
6SR 18/18 - HYD			1198	30.6
6SR 18/22 - HYD			1371	34.7
6SR 18/26 - HYD			1545	38.7
6SR 27/4 - HYD			583	13.9
6SR 27/5 - HYD			636	17.5
6SR 27/7 - HYD			742	19.8
6SR 27/8 - HYD			795	21.0
6SR 27/10 - HYD			901	24.1
6SR 27/12 - HYD			1051	26.6
6SR 27/14 - HYD			1157	28.9
6SR 27/17 - HYD			1316	32.5
6SR 27/20 - HYD			1474	36.0
6SR 27/27 - HYD			1845	44.8
6SR 36/4 - HYD			823	21.4
6SR 36/6 - HYD			1049	28.0
6SR 36/8 - HYD			1275	32.0
6SR 36/10 - HYD			1501	34.2
6SR 36/11 - HYD			1613	40.0
6SR 36/13 - HYD			1839	45.0
6SR 36/15 - HYD			2065	50.0
6SR 36/19 - HYD			2517	56.0
6SR 36/23 - HYD			2969	67.0
6SR 44/3 - HYD			710	20.0
6SR 44/4 - HYD			823	21.5
6SR 44/5 - HYD			936	24.1
6SR 44/6 - HYD			1049	28.0
6SR 44/8 - HYD			1275	32.2
6SR 44/9 - HYD			1388	35.0
6SR 44/11 - HYD			1613	40.0
6SR 44/13 - HYD	1839	45.0		
6SR 44/16 - HYD	2178	54.0		
6SR 44/21 - HYD	2743	63.3		

4PD

4" PEDROLLO submersible motors

 Domestic use

 Civil use

 Industrial use



PERFORMANCE

- Power from **0.37 to 7.5 kW**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- **100 m** immersion limit
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **8 cm/s**
- Continuous service **S1**

ELECTRIC MOTOR

- 2 pole electric motor, 50 Hz (n ~ 2900 rpm)
- Voltage:
 - single-phase **230 V**
 - three-phase **400 V**
- Insulation: class F
- Protection: IP 68

EN 60034-1
IEC 60034-1
CEI 2-3



CONSTRUCTION AND SAFETY STANDARDS

- Oil filled **rewindable** motors (non-toxic oil for use with food)
- **Jacket: AISI 316 stainless steel**
- **Shaft: "DUPLEX" stainless steel**
- Dimensions of the flange connection in compliance with **NEMA** standards.

Complete with power cable of the following length:

- **1.7 m** powers from 0.37 to 3 kW
- **2.7 m** powers from 4 to 7.5 kW.

⇒ **Single-phase versions supplied with a capacitor included in the packaging.**

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

SACRIFICIAL ANODE

(Supplied on request - code ASS4PDA01)

- Manufactured with a special zinc-aluminium cadmium-free alloy, suitable for contact with drinking water.
- It is easily fitted to the lower extremity of 4PD motors to protect them from corrosion in the presence of irregular currents or particularly aggressive waters, greatly increasing the life of the motor component.



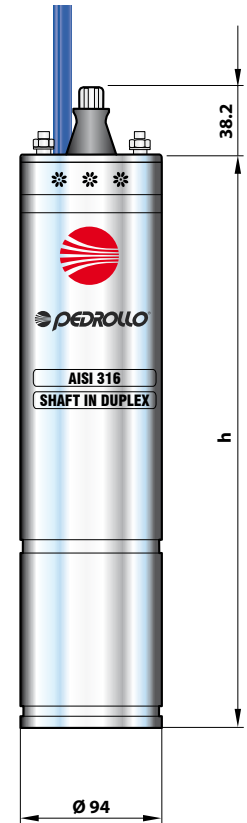
PERFORMANCE DATA

Single-phase versions

MODEL	Rated power P ₂		Axial load N	Revs rpm	Starting current Rated current	Power factor cos φ	Capacitor (VL=450V) μF	h mm	Weight kg
	kW	HP							
230 V / 50 Hz									
4PDm / 0.50	0.37	0.50	2000	2800	3.3	0.86	20	311	6.5
4PDm / 0.75	0.55	0.75		2810	3.5	0.89	25	331	7.2
4PDm / 1	0.75	1		2825	3.2	0.91	35	356	8.5
4PDm / 1.5	1.1	1.5		2840	3.2	0.93	40	386	10.2
4PDm / 2	1.5	2		2845	3.3	0.93	60	436	11.7
4PDm / 3	2.2	3		2820	3.1	0.94	75	481	14.9

Three-phase versions

MODEL	Rated power P ₂		Axial load N	Revs 1/min	Starting current Rated current	Power factor cos φ	h mm	Weight kg
	kW	HP						
400 V / 50 Hz								
4PD / 0.50	0.37	0.50	2000	2855	3.2	0.52	311	6.5
4PD / 0.75	0.55	0.75		2835	4	0.63	331	7.2
4PD / 1	0.75	1		2825	3.8	0.71	356	8.5
4PD / 1.5	1.1	1.5		2825	4.6	0.79	371	9.4
4PD / 2	1.5	2		2835	3.8	0.66	386	10.2
4PD / 3	2.2	3		2810	6.5	0.73	436	11.7
4PD / 4	3	4	3000	2840	5.6	0.79	505	15.0
4PD / 5.5	4	5.5	5000	2835	5.4	0.77	610	20.1
4PD / 7.5	5.5	7.5		2830	5.5	0.87	700	24.7
4PD / 10	7.5	10		2840	5.4	0.76	800	29.0



ABSORPTION

MODEL	VOLTAGE
Single-phase	230 V
4PDm / 0.50	3.6 A
4PDm / 0.75	4.7 A
4PDm / 1	5.9 A
4PDm / 1.5	8.3 A
4PDm / 2	10.7 A
4PDm / 3	15.2 A

MODEL	VOLTAGE	
	230 V	400 V
Three-phase		
4PD / 0.50	2.2 A	1.8 A
4PD / 0.75	3.4 A	2.0 A
4PD / 1	4.1 A	2.5 A
4PD / 1.5	5.9 A	3.4 A
4PD / 2	8.1 A	4.8 A
4PD / 3	10.6 A	6.1 A
4PD / 4	12.8 A	7.1 A
4PD / 5.5	15.6 A	9.2 A
4PD / 7.5	22.7 A	11.7 A
4PD / 10	-	16.4 A

4" encapsulated PEDROLLO submersible motors

 Domestic use

 Civil use

 Industrial use



PERFORMANCE

- Power from **0.37 to 7.5 kW**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- **100 m** immersion limit
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **8 cm/s**
- Continuous service **S1**

ELECTRIC MOTOR

- 2 pole electric motor, 50 Hz (n ~ 2900 rpm)
- Voltage:
 - single-phase **230 V** up to 2.2 kW
 - three-phase **400 V**
- Insulation: class F
- Protection: IP 68

CONSTRUCTION AND SAFETY STANDARDS

- **Encapsulated** water filled submersible motors
- **Jacket: AISI 316 stainless steel**
- **Shaft: "DUPLEX" stainless steel**
- Dimensions of the flange connection in accordance **NEMA** standards.

Complete with power cable of the following length:

- **2 m** powers from 0.37 to 3 kW
- **3 m** powers from 4 to 7.5 kW.

⇒ **Single-phase versions supplied with a capacitor included in the packaging.**

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

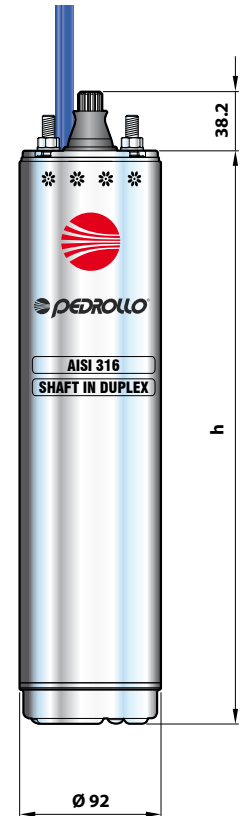
PERFORMANCE DATA

Single-phase versions

MODEL	Rated power P ₂		Axial load N	Revs rpm	Starting current Rated current	Power factor cos φ	Capacitor (VL=450V) μF	h mm	Weight kg
	kW	HP							
230 V / 50 Hz									
4PSm / 0.50	0.37	0.50	2000	2845	3.4	0.88	20	237	6.8
4PSm / 0.75	0.55	0.75		2840	3.8	0.93	25	257	7.9
4PSm / 1	0.75	1		2835	3.8	0.92	35	272	9.1
4PSm / 1.5	1.1	1.5		2820	3.3	0.91	40	312	11.2
4PSm / 2	1.5	2	3000	2830	3.2	0.94	60	352	13.4
4PSm / 3	2.2	3		2810	3.6	0.94	75	402	14.2

Three-phase versions

MODEL	Rated power P ₂		Axial load N	Revs 1/min	Starting current Rated current	Power factor cos φ	h mm	Weight kg
	kW	HP						
400 V / 50 Hz								
4PS / 0.50	0.37	0.50	2000	2855	4.2	0.64	237	6.8
4PS / 0.75	0.55	0.75		2835	4.1	0.70	237	6.8
4PS / 1	0.75	1		2830	4.4	0.68	257	7.9
4PS / 1.5	1.1	1.5		2825	4.6	0.69	272	9.1
4PS / 2	1.5	2	3000	2820	4.7	0.73	297	11.2
4PS / 3	2.2	3		2805	5.2	0.74	352	13.4
4PS / 4	3	4		2845	5.7	0.82	418	16.9
4PS / 5.5	4	5.5	6500	2850	5.9	0.78	574	23.4
4PS / 7.5	5.5	7.5		2845	5.9	0.84	664	27.8
4PS / 10	7.5	10		2830	5.8	0.84	764	31.4



ABSORPTION

MODEL	VOLTAGE
Single-phase	230 V
4PSm / 0.50	3.5 A
4PSm / 0.75	4.4 A
4PSm / 1	5.9 A
4PSm / 1.5	8.1 A
4PSm / 2	10.7 A
4PSm / 3	17.0 A

MODEL	VOLTAGE
Three-phase	400 V
4PS / 0.50	1.6 A
4PS / 0.75	1.8 A
4PS / 1	2.5 A
4PS / 1.5	3.4 A
4PS / 2	4.3 A
4PS / 3	6.0 A
4PS / 4	6.9 A
4PS / 5.5	9.6 A
4PS / 7.5	12.4 A
4PS / 10	16.9 A

4FK

4" encapsulated FRANKLIN ELECTRIC submersible motors

 Domestic use

 Civil use

 Industrial use



PERFORMANCE

- Power from **0.37** to **7.5 kW**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- **100 m** immersion limit
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **8 cm/s**
- Continuous service **S1**

ELECTRIC MOTOR

- 2 pole electric motor, 50 Hz (n ~ 2900 rpm)
- Voltage:
 - single-phase **230 V** up to 2.2 kW
 - three-phase **400 V**
- Insulation: class B
- Protection: IP 68

CONSTRUCTION AND SAFETY STANDARDS

- Encapsulated water filled submersible motors
- Dimensions of the flange connection in accordance **NEMA** standards.

Complete with power cable of the following length:

- **1.5m** powers from 0.37 to 3 kW
- **2.5 m** powers from 4 to 7.5 kW

⇒ **Single-phase versions supplied with a capacitor included in the packaging.**

EN 60034-1
IEC 60034-1
CEI 2-3



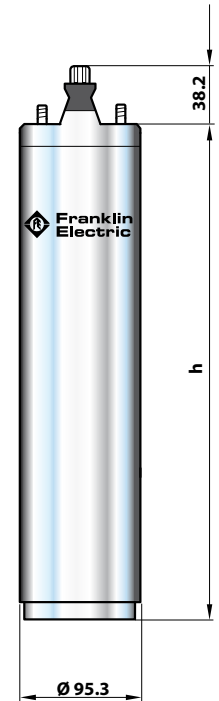
OPTIONS AVAILABLE ON REQUEST

- Other voltages

PERFORMANCE DATA

Single-phase versions

MODEL	Rated power P ₂		Axial load N	Revs rpm	Starting current Rated current	Power factor cos φ	Capacitor (VL=450V) μF	h mm	Weight kg
	kW	HP							
230 V / 50 Hz									
4FKm / 0.50	0.37	0.50	3000	2860	3.8	0.91	16	228	8.0
4FKm / 0.75	0.55	0.75		2850	4.1	0.94	20	253	9.2
4FKm / 1	0.75	1		2845	4.0	0.98	35	283	10.4
4FKm / 1.5	1.1	1.5		2845	4.0	0.92	40	307	11.8
4FKm / 2	1.5	2		2830	3.9	0.95	50	339	12.9
4FKm / 3	2.2	3	4000	2840	4.2	0.97	70	437	17.3



Three-phase versions

MODEL	Rated power P ₂		Axial load N	Revs 1/min	Starting current Rated current	Power factor cos φ	h mm	Weight kg
	kW	HP						
400 V / 50 Hz								
4FK / 0.50	0.37	0.5	3000	2870	4.9	0.74	214	7.2
4FK / 0.75	0.55	0.75		2870	4.6	0.74	228	7.7
4FK / 1	0.75	1		2865	5.3	0.77	248	8.7
4FK / 1.5	1.1	1.5		2850	5.7	0.78	283	10.2
4FK / 2	1.5	2		2855	5.3	0.78	307	11.2
4FK / 3	2.2	3	4000	2845	5.4	0.77	339	12.6
4FK / 4	3	4		2845	5.6	0.77	394	15
4FK / 5.5	4	5.5	6500	2840	5.8	0.77	543	20
4FK / 7.5	5.5	7.5		2865	6.1	0.81	693	26.6
4FK / 10	7.5	10		2855	5.8	0.81	731	30.6

ABSORPTION

MODEL	VOLTAGE
Single-phase	230 V
4FKm / 0.50	3.3 A
4FKm / 0.75	4.3 A
4FKm / 1	5.7 A
4FKm / 1.5	8.4 A
4FKm / 2	10.7 A
4FKm / 3	14.7 A

MODEL	VOLTAGE
Three-phase	400 V
4FK / 0.50	1.1 A
4FK / 0.75	1.6 A
4FK / 1	2.0 A
4FK / 1.5	2.8 A
4FK / 2	3.9 A
4FK / 3	5.5 A
4FK / 4	7.5 A
4FK / 5.5	9.9 A
4FK / 7.5	12.6 A
4FK / 10	17.1 A

6PD

6" PEDROLLO submersible motors



Civil use



Agricultural use



Industrial use



PERFORMANCE

- Power from **4** to **30 kW**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- **100 m** immersion limit
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **16 cm/s** (50 cm/s for 30 kW)
- Continuous service **S1**

ELECTRIC MOTOR

- 2 pole electric motor, 50 Hz (n ~ 2900 rpm)
- Three-phase voltage **400 V**
- Insulation: class F
- Protection: IP 68

CONSTRUCTION AND SAFETY STANDARDS

- **Rewindable** submersible oil filled motor (vegetable oil).
- Flange coupling dimensions in compliance with **NEMA** standards.
- Complete with **4 m** long power cable.

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY

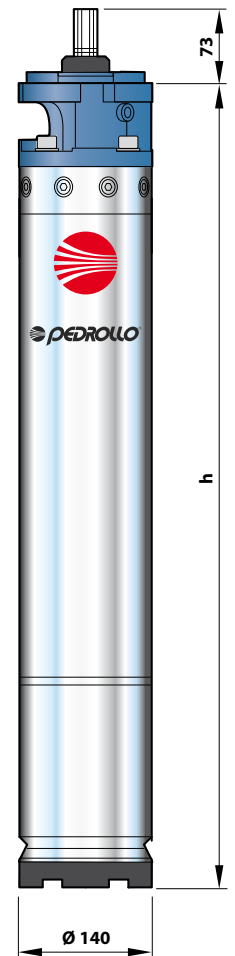


OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

PERFORMANCE DATA

MODEL	Rated power		Axial load	Revs	Starting current Rated current	Efficiency	Power factor	Rated torque	Starting torque Rated torque	h	Weight
	Three-phase	P ₂									
400 V / 50 Hz	kW	HP	N	1/min		η	$\cos \varphi$	Nm		mm	kg
6PD / 5.5	4	5.5	10000	2840	4.0	76	0.81	13.5	1.6	633	34
6PD / 7.5	5.5	7.5		2850	4.0	79	0.79	18.5	1.6	667	36
6PD / 10	7.5	10		2835	4.0	79	0.82	25.3	1.5	698	39
6PD / 12.5	9.2	12.5		2850	4.1	81	0.80	30.1	1.6	731	42
6PD / 15	11	15		2895	5.4	85	0.75	36.4	2.2	826	50
6PD / 20	15	20		2875	5.5	84	0.79	49.9	2.7	894	57
6PD / 25	18.5	25		2870	4.6	85	0.79	61.9	2.4	959	65
6PD / 30	22	30	20000	2890	5.5	85	0.71	72.7	2.5	1116	87
6PD / 40	30	40		2850	5.0	84	0.85	100.9	1.8	1243	91



ABSORPTION

MODEL	VOLTAGE
Three-phase	400 V
6PD / 5.5	9.5 A
6PD / 7.5	13.0 A
6PD / 10	16.8 A
6PD / 12.5	20.9 A
6PD / 15	25.3 A
6PD / 20	33.4 A
6PD / 25	40.7 A
6PD / 30	53.3 A
6PD / 40	61.9 A

6FK

6" encapsulated FRANKLIN ELECTRIC submersible motors



Civil use



Agricultural use



Industrial use



PERFORMANCE

- Power from **4 to 30 kW**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- **100 m** immersion limit
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **16 cm/s**
- Continuous service **S1**

ELECTRIC MOTOR

- 2 pole electric motor, 50 Hz (n ~ 2900 rpm)
- Three-phase voltage **400 V**
- Insulation: class F
- Protection: IP 68

CONSTRUCTION AND SAFETY STANDARDS

- Encapsulated water filled submersible motors
- Dimensions of the flange connection in compliance with **NEMA** standards.
- Complete with **4 m** long power cable

EN 60034-1
IEC 60034-1
CEI 2-3

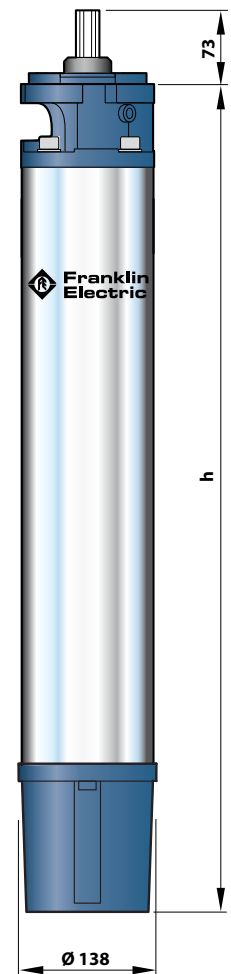


OPTIONS AVAILABLE ON REQUEST

- Other voltages

PERFORMANCE DATA

MODEL	Rated power		Axial load	Revs	Starting current / Rated current	Efficiency	Power factor	Rated torque	Starting torque / Rated torque	h	Weight
	Three-phase	P ₂									
400 V / 50 Hz	kW	HP	N	1/min		η	cos φ	Nm		mm	kg
6FK / 5.5	4	5.5	15500	2860	4.6	78	0.82	12.3	1.6	581	41.3
6FK / 7.5	5.5	7.5		2870	5.1	79	0.82	18.6	1.9	614	44.9
6FK / 10	7.5	10		2860	5.2	79	0.86	25.0	1.9	646	49.0
6FK / 12.5	9.2	12.5		2870	5.4	81	0.80	31.1	2.2	679	51.3
6FK / 15	11	15		2860	5.5	81	0.85	37.3	2.1	711	54.7
6FK / 20	15	20		2860	5.4	81	0.85	49.9	2.2	776	60.5
6FK / 25	18.5	25		2850	6.0	82	0.85	62.4	2.5	842	67.1
6FK / 30	22	30		2860	5.9	83	0.84	74.5	2.5	907	73.1
6FK / 40	30	40	27500	2860	6.2	83	0.84	99.4	2.6	1037	87.7



ABSORPTION

MODEL	VOLTAGE
Three-phase	400 V
6FK / 5.5	9.3 A
6FK / 7.5	12.5 A
6FK / 10	16.0 A
6FK / 12.5	20.7 A
6FK / 15	23.3 A
6FK / 20	31.3 A
6FK / 25	38.5 A
6FK / 30	45.3 A
6FK / 40	63.5 A

TOP MULTI

Submersible multi-stage pumps

 Clean water

 Domestic use

 Civil use



PERFORMANCE RANGE

- Flow rate up to **120 l/min** (7.2 m³/h)
- Head up to **42 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Suction down to **22 mm** above ground level
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

Complete with:

- **10 m** long power cable
- float switch
- hose connector Ø 35 mm
- complete connector with flap-check valve

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



INSTALLATION AND USE

TOP MULTI® pumps are recommended for pumping **clean water** and liquids that are not chemically aggressive for the materials from which the pump is made.

Because of their high efficiency and reliability they are suitable for use in applications such as domestic water supply from reservoirs, tanks or relatively deep wells, for drawing rain water from cisterns to water gardens or for use in irrigation systems, etc.

PATENTS - TRADE MARKS - MODELS

- Registered EU Design n. 000885587
- Registered Trade Mark n. 0001334477 **TOP MULTI**®

OPTIONS AVAILABLE ON REQUEST

- Pumps without float switch
- Other voltages or 60 Hz frequency

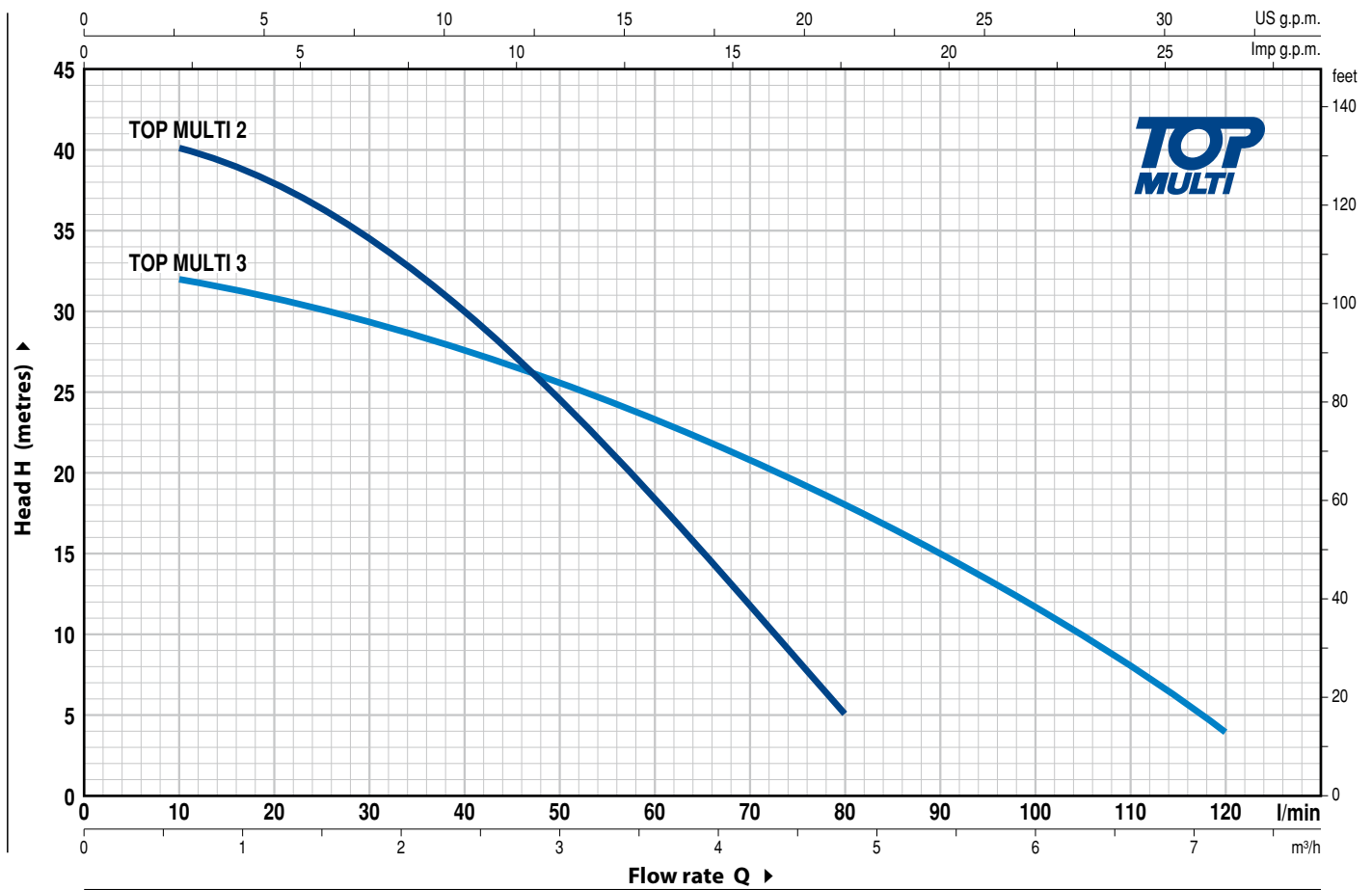
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL Single-phase	POWER (P ₂)		Q	0	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2
	kW	HP		0	10	20	30	40	50	60	70	80	90	100	110	120
TOP MULTI 2	0.55	0.75	H metres	42	40	38	34	30	24	18	11.5	5				
TOP MULTI 3	0.55	0.75		33	32	31	29.5	28	25.5	23	20.5	18	15	12	8	4

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

TOP MULTI

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	DELIVERY BODY	Glass fibre reinforced technopolymer complete with threaded delivery port in compliance with ISO 228/1
2	PUMP BODY AND SUCTION FILTER	Glass fibre reinforced technopolymer
3	MOTOR SLEEVE	Stainless steel AISI 304
4	IMPELLERS	Noryl FE1520PW
5	DIFFUSERS	Noryl complete with anti-wear ring
6	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104

7 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-13R	Ø 13 mm	Motor side	Ceramic	Graphite	NBR
STA-12R SIC	Ø 12 mm	Pump side	Ceramic	Silicon carbide	NBR

8 BEARINGS 6202 ZZ - C3 / 6201 ZZ

9 CAPACITOR

Capacitance

(230 V or 240 V)	(110 V)
12.5 µF 450 VL	25 µF - 250 VL

10 ELECTRIC MOTOR

TOP MULTI: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.

- Insulation: class F
- Protection: IP X8

11 POWER CABLE

"H07 RN-F" with Schuko plug
Standard length 10 metres

12 FLOAT SWITCH

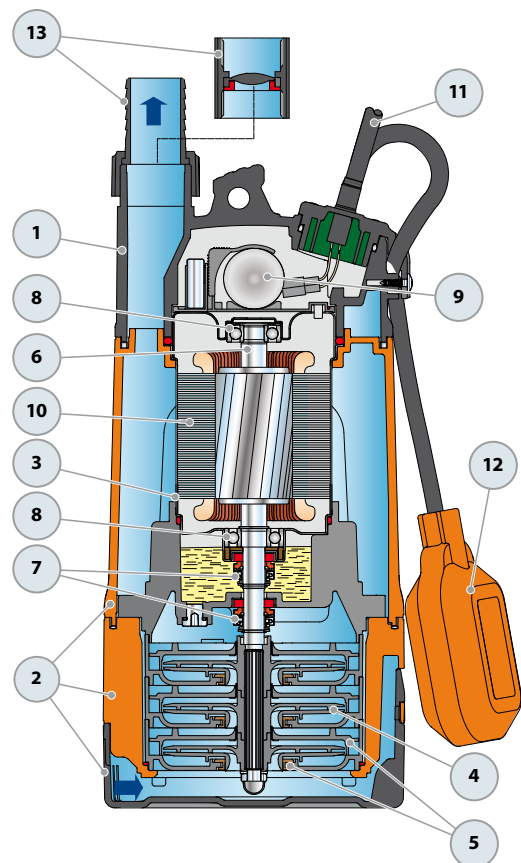
13 HOSE CONNECTOR WITH RING NUT

Ø 35 mm hose connection

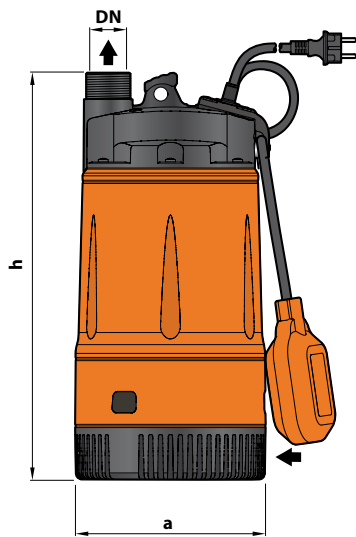
PIPE COUPLING

Threaded 1¼" in compliance with ISO 228/1, complete with flap-check valve

(Included in the equipment)



DIMENSIONS AND WEIGHT



Standard installation



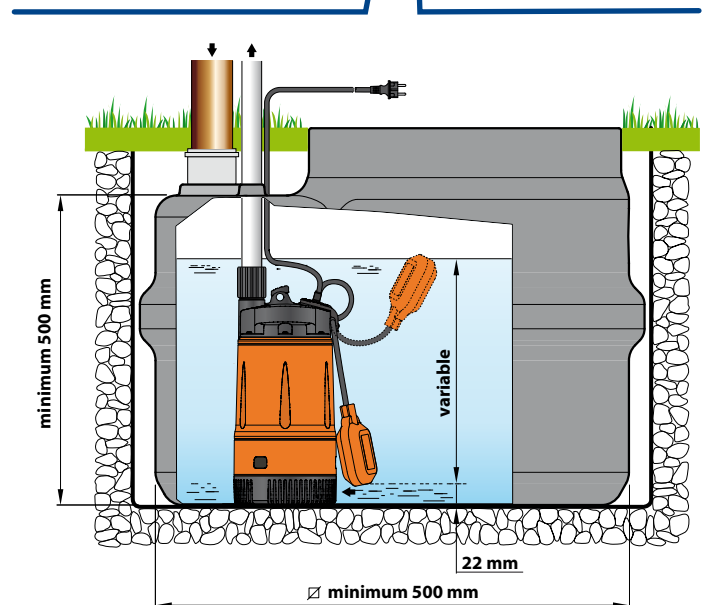
MODEL	PORT	N. STAGES	DIMENSIONS mm		kg
			a	h	
Single-phase	DN				
TOP MULTI 2	1 1/4"	3	178	380	9.4
TOP MULTI 3					

ABSORPTION

MODEL	VOLTAGE		
	Single-phase	230 V	240 V
TOP MULTI 2	3.4 A	3.3 A	6.8 A
TOP MULTI 3	3.6 A	3.5 A	7.2 A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
Single-phase	n. pumps	n. pumps
TOP MULTI 2	60	80
TOP MULTI 3	60	80



TOP MULTI-TECH

Multi-stage automatic submersible pumps

-  Clean water
-  Domestic use
-  Civil use

**AUTOMATIC
START & STOP**



PERFORMANCE RANGE

- Flow rate up to **120 l/min** (7.2 m³/h)
- Head up to **42 m**
- Restart pressure: **1.5 bar**

APPLICATION LIMITS

- **5 m** maximum immersion depth
- Maximum height between pump and point of use **10 m**
- Maximum liquid temperature **+40 °C**
- Suction down to **22 mm** above ground level
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

Complete with:

- **10 m** long power cable
- internal electronic device for pump starting (when tap opened) and stopping (when tap closed)
- threaded connector 1¼" (delivery)
- hose connector Ø 35 mm

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

TOP-MULTI-TECH pumps are recommended for pumping **clean water** and liquids that are not chemically aggressive for the materials from which the pump is made.

Because of their high efficiency and reliability they are suitable for use in applications such as domestic water supply from reservoirs, tanks or relatively deep wells, for drawing rain water from cisterns to water gardens or for use in irrigation systems, etc.

An internal electronic device starts or stops the pump automatically when the tap is opened or closed.

PATENTS - TRADE MARKS - MODELS

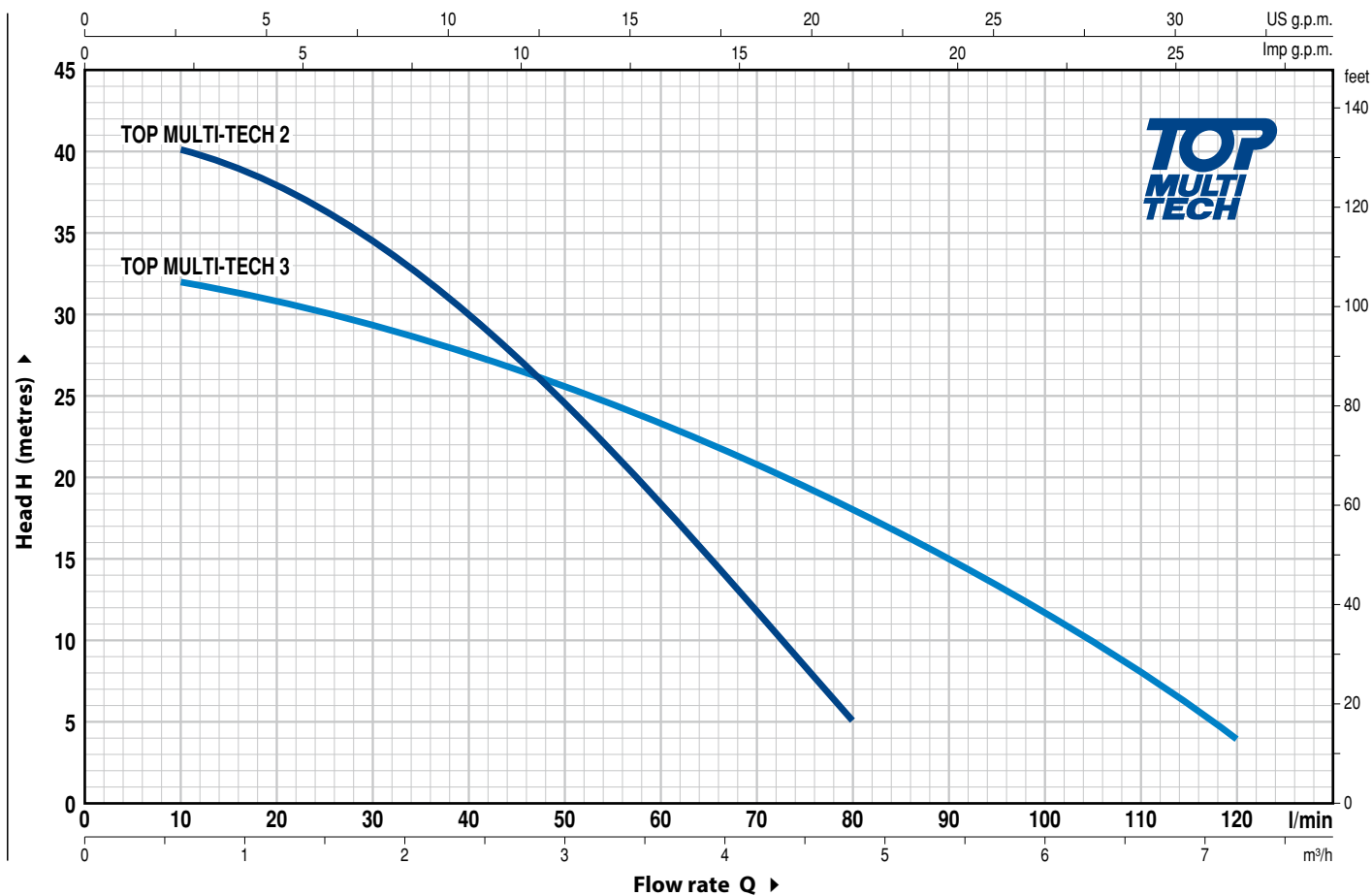
- Patent Pending n. VR2014A000217
- Registered Trade Mark n. 0001334477 TOP MULTI®

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL Single-phase	POWER (P ₂)		Q	0	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2
	kW	HP		0	10	20	30	40	50	60	70	80	90	100	110	120
TOP MULTI-TECH 2	0.55	0.75	H metres	42	40	38	34	30	24	18	11.5	5				
TOP MULTI-TECH 3	0.55	0.75		33	32	31	29.5	28	25.5	23	20.5	18	15	12	8	4

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

TOP MULTI-TECH

POS. COMPONENT

CONSTRUCTION CHARACTERISTICS

1	DELIVERY BODY	Glass fibre reinforced technopolymer
2	PUMP BODY E SUCTION FILTER	Glass fibre reinforced technopolymer
3	MOTOR SLEEVE	Stainless steel AISI 304
4	IMPELLERS	Noryl FE1520PW
5	DIFFUSERS	Noryl complete with anti-wear ring
6	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104
7	ELECTRONIC DEVICE	<p>TOP MULTI-TECH pumps are fitted with an internal electronic device which starts the pump when the pressure of the system falls below 1.5 bar (eg. when opening a tap) and stops it when the flow falls below 3 litre per minute.</p> <p>It protects the pump:</p> <ul style="list-style-type: none"> - against dry running; - against starting too frequently; - against blockage: after long periods of pump inactivity the electronic device starts the pump every 48 hours for 10 seconds.

8 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-13R	Ø 13 mm	Motor side	Ceramic	Graphite	NBR
STA-12R SIC	Ø 12 mm	Pump side	Ceramic	Silicon carbide	NBR

9 BEARINGS 6202 ZZ - C3 / 6201 ZZ

10 CAPACITOR

Capacitance

(230 V or 240 V)	(110 V)
12.5 µF 450 VL	25 µF - 250 VL

11 ELECTRIC MOTOR

TOP MULTI-TECH: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.

- Insulation: class F
- Protection: IP X8

12 POWER CABLE

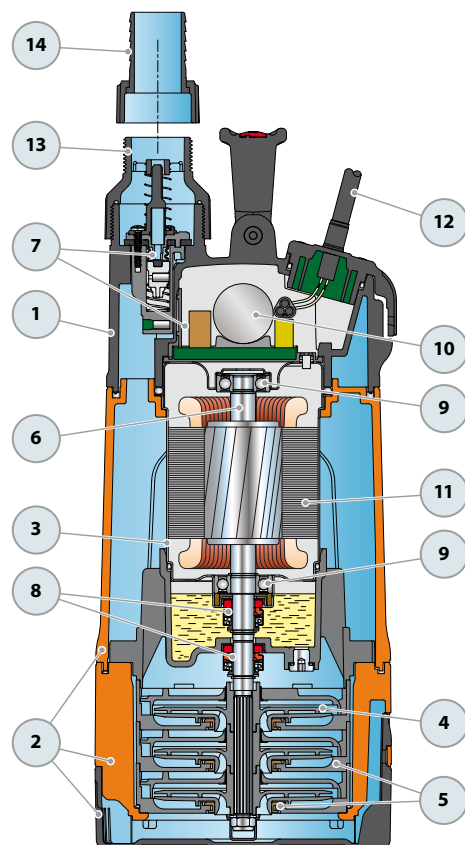
"H07 RN-F" with Schuko plug
Standard length 10 metres

13 THREADED CONNECTOR

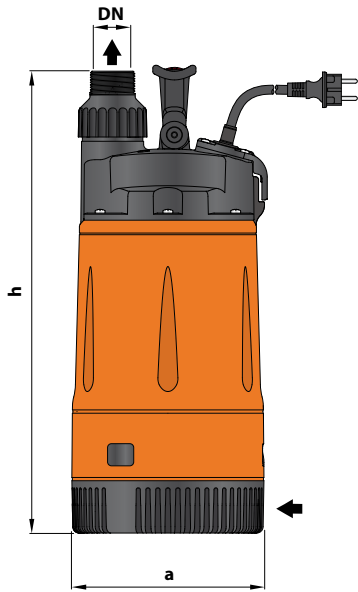
Threaded connector 1¼"

14 HOSE CONNECTOR WITH RING NUT

Ø 35 mm hose connection



DIMENSIONS AND WEIGHT



Standard installation



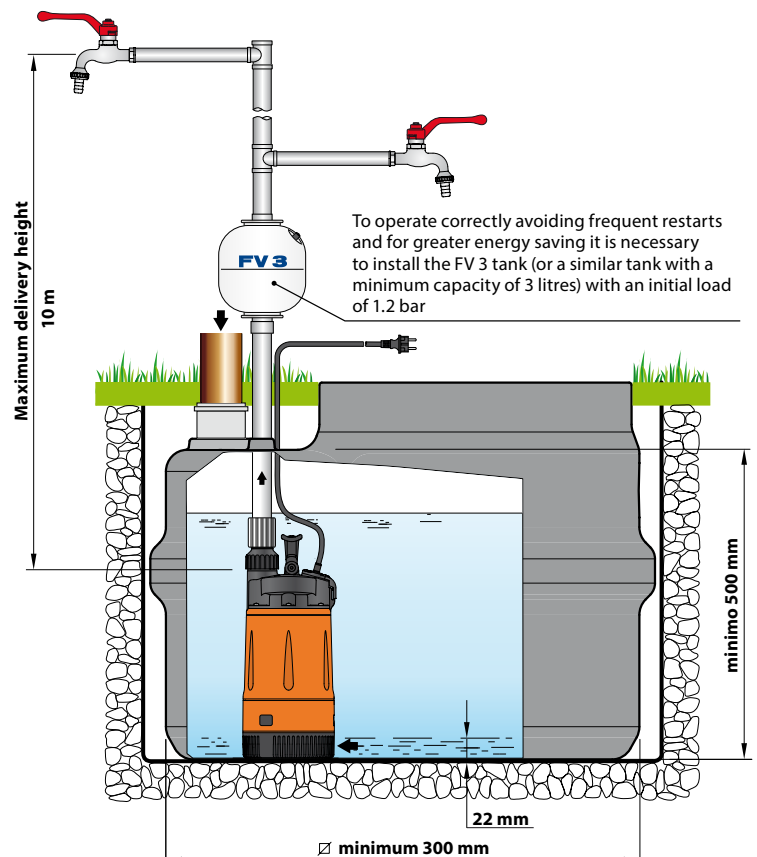
MODEL	PORT	N. STAGES	DIMENSIONS mm		kg
Single-phase	DN		a	h	
TOP MULTI-TECH 2	1 1/4"	3	178	428	9.5
TOP MULTI-TECH 3					

ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	110 V
TOP MULTI-TECH 2	3.4 A	6.8 A
TOP MULTI-TECH 3	3.6 A	7.2 A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
Single-phase	n. pumps	n. pumps
TOP MULTI-TECH 2	60	80
TOP MULTI-TECH 3	60	80





PERFORMANCE RANGE

- Flow rate up to **360 l/min** (21.6 m³/h)
- Head up to **15.5 m**

APPLICATION LIMITS

- Immersion depth:
 - up to **3 m** for TOP 1-2-3
 - up to **5 m** for TOP 4-5
(with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
(Maximum liquid temperature +90 °C for a maximum of 3 minutes intermittent service)
- Passage of suspended solids up to **Ø 10 mm**
- Suction level:
 - **14 mm** above ground level for TOP 1-2-3
 - **30 mm** above ground level for TOP 4-5
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

The pumps are complete with:

- **5 m** long power cable for TOP 1-2-3
- **10 m** long power cable for TOP 4-5
- float switch

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The **TOP** series is suitable for use with **clear water** that does not contain abrasive particles.

Because of the design solutions that have been adopted, such as the complete cooling of the motor and the shaft with double seal, these pumps are easy to use and reliable.

They are suitable for use in applications such as draining small flooded areas (rooms, cellars, garages) in the event of an emergency, for the disposal of waste water in the home (from dishwashers, washing machines) and for emptying drainage traps.

PATENTS - TRADE MARKS - MODELS

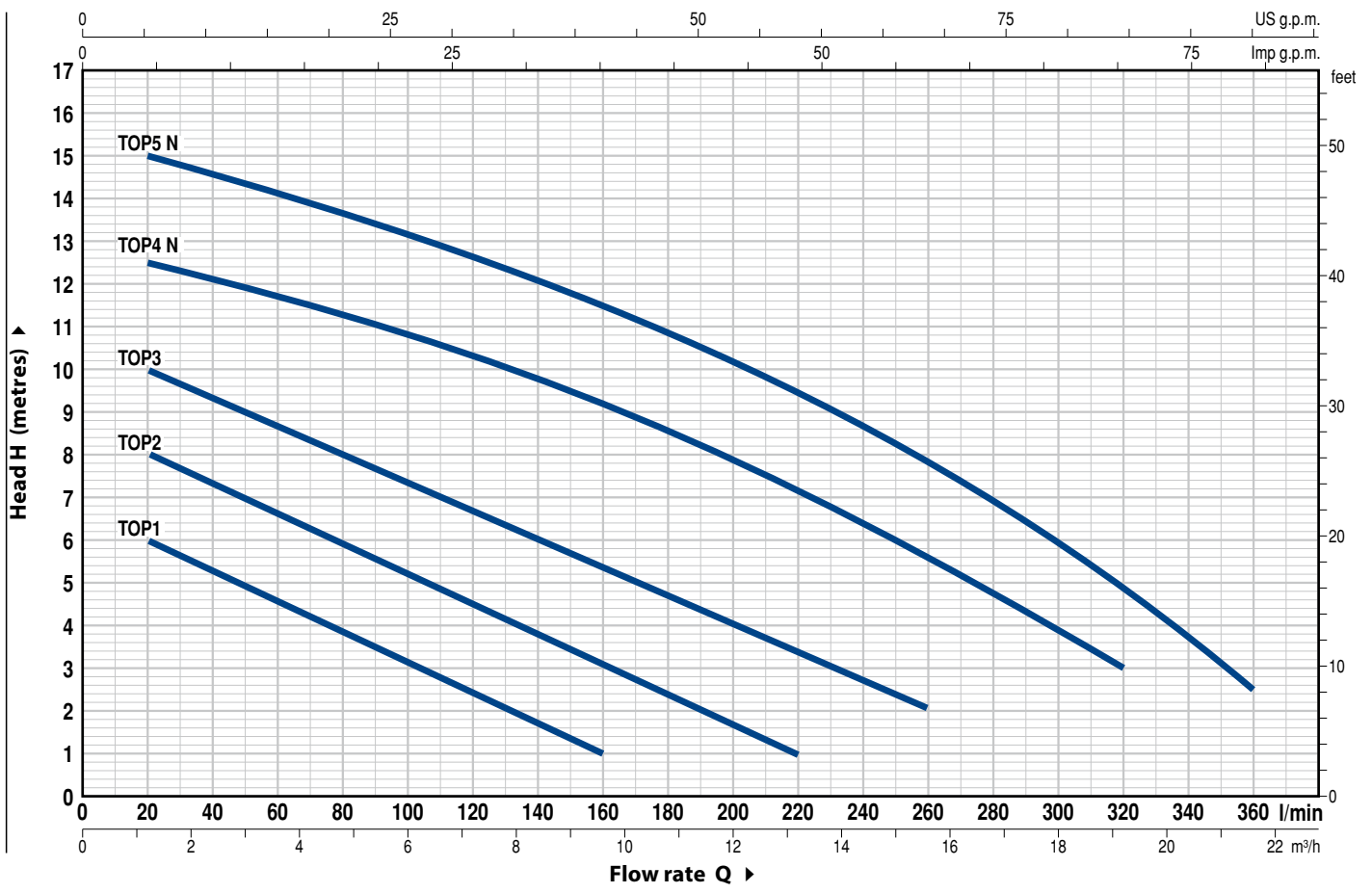
- Registered EU Design n. 342159-0011

OPTIONS AVAILABLE ON REQUEST

- **"TOP-GM"** pumps with vertical float switch (suitable for particularly small wells)
- **"TOP 2-3 LA"** pumps intended for use with aggressive liquids
- Special mechanical seal
- TOP 1-2-3 pumps with **10 m** long power cable
 - ➡ N.B. Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL Single-phase	POWER (P ₂)		Q	H metres																				
	kW	HP		0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12	13.2	14.4	15.6	16.8	18.0	19.2	20.4	21.6		
			l/min	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360		
TOP 1	0.25	0.33		7	6	5.5	4.5	4	3	2.5	1.5	1												
TOP 2	0.37	0.50		9	8	7.5	6.5	6	5.5	4.5	4	3	2.5	1.8	1									
TOP 3	0.55	0.75		10.5	10	9	8.8	8	7.5	6.5	6	5.5	4.8	4	3.5	2.5	2							
TOP 4 N	0.75	1		13	12.5	12.1	11.6	11.3	10.8	10.3	9.8	9.2	8.5	7.9	7.1	6.4	5.5	4.7	3.9	3				
TOP 5 N	0.92	1.25		15.5	15	14.5	14.1	13.6	13.2	12.6	12	11.5	10.8	10	9.4	8.5	7.8	6.8	6	4.8	3.6	2.5		

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

TOP 1-2-3

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Technopolymer
2	SUCTION FILTER	Technopolymer
3	SUCTION PLATE	Stainless steel AISI 304 (AISI 316L for LA versions)
4	DIFFUSER	Technopolymer
5	IMPELLER	Noryl FE1520PW
6	MOTOR CASING	Stainless steel AISI 304 (AISI 316L for LA versions)
7	MOTOR CASING PLATE	Stainless steel AISI 304
8	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104 (AISI 316L for LA versions)

9 SHAFT WITH DOUBLE SEAL AND OIL CHAMBER

Pump Model	Seal Model	Shaft Diameter	Materials			
			Stationary ring	Rotational ring	Elastomer	Metals
TOP 1-2-3 TOP 1-2-3 GM	STA-12R	Ø 12 mm	Ceramic	Graphite	NBR	AISI 304
TOP 2-3 LA	AR-12R LA	Ø 12 mm	Ceramic	Graphite	NBR	AISI 316

10	LIP SEAL	Ø 12 x Ø 19 x H 5 mm
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11	BEARINGS	6201 ZZ / 6201 ZZ
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12 CAPACITOR

Pump Model	Capacitance	
Single-phase	(230 V or 240 V)	(110 V)
TOP 1	10 µF 450 VL	16 µF - 250 VL
TOP 2	10 µF 450 VL	16 µF - 250 VL
TOP 3	14 µF 450 VL	16 µF - 250 VL

13 ELECTRIC MOTOR

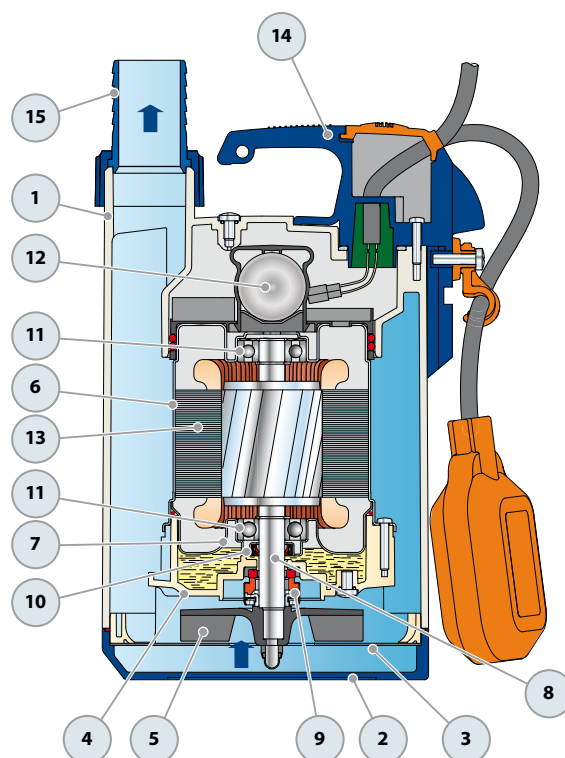
TOP: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.
 – Insulation: class F
 – Protection: IP X8

14 HANDLE ASSEMBLY (resin sealed)

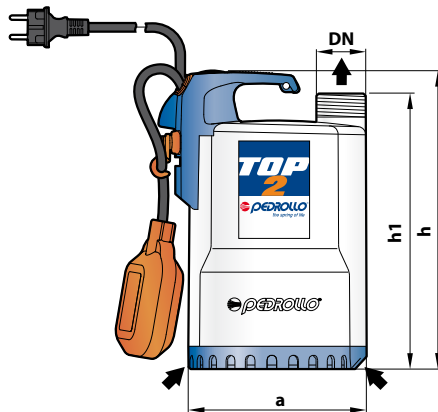
Complete with:
 – 5 metres long "H07 RN-F" power cable with Schuko plug
 – Float switch
 (Vertical float switch in the GM versions)

15 HOSE CONNECTOR WITH RING NUT

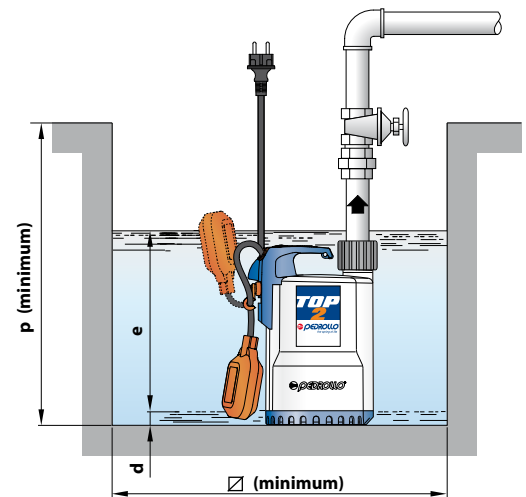
Ø 25 mm hose connection for TOP 1
 Ø 35 mm for TOP 2-3



DIMENSIONS AND WEIGHT

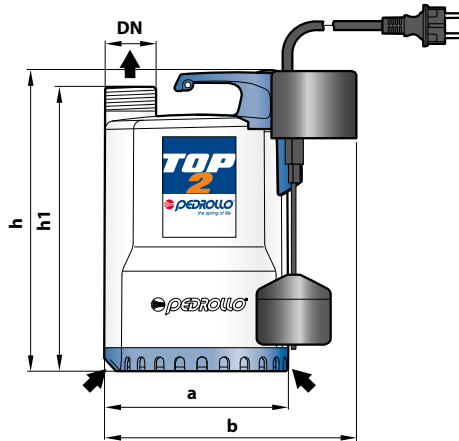


Standard installation

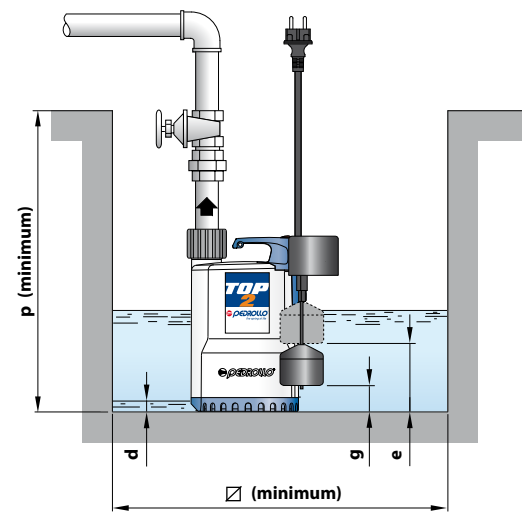


MODEL	PORT	DIMENSIONS mm							kg	
		DN	a	h	h1	d	e	p		Ø
Single-phase										
TOP 1	1¼"	152		257	237	14	variable	350	350	5.2
TOP 2				287	267					5.2
TOP 3										6.6

Version with vertical float switch



Standard installation



MODEL	PORT	DIMENSIONS mm									kg	
		DN	a	b	h	h1	d	e	g	p		Ø
Single-phase												
TOP 1-GM	1¼"	152	200		257	237	14	140	35	350	220	5.3
TOP 2-GM					287	267		170	40			5.3
TOP 3-GM								6.7				

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase			
TOP 1	1.5 A	1.4 A	3.0 A
TOP 2	2.0 A	1.9 A	5.3 A
TOP 3	3.2 A	3.1 A	7.9 A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
Single-phase	n. pumps	n. pumps
TOP 1	96	144
TOP 2	96	144
TOP 3	96	144

TOP 4-5 N

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Technopolymer
2	SUCTION FILTER	Technopolymer
3	SUCTION PLATE	Stainless steel AISI 304
4	DIFFUSER	Technopolymer
5	IMPELLER	Noryl FE1520PW
6	MOTOR CASING	Stainless steel AISI 304
7	MOTOR CASING PLATE	Stainless steel AISI 304
8	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104

9 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
MG1-14D SIC	Ø 14 mm	Motor side	Silicon carbide	Graphite	NBR
		Pump side	Silicon carbide	Silicon carbide	NBR

10	BEARINGS	6203 ZZ / 6203 ZZ
11	CAPACITOR	
	Pump	Capacitance
	<i>Single-phase</i>	<i>(230 V or 240 V) (110 V)</i>
	TOP 4 N	16 µF 450 VL 30 µF - 250 VL
	TOP 5 N	20 µF 450 VL 30 µF - 250 VL

12 ELECTRIC MOTOR

TOP: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.
 – Insulation: class F
 – Protection: IP X8

13 HANDLE ASSEMBLY (resin sealed)

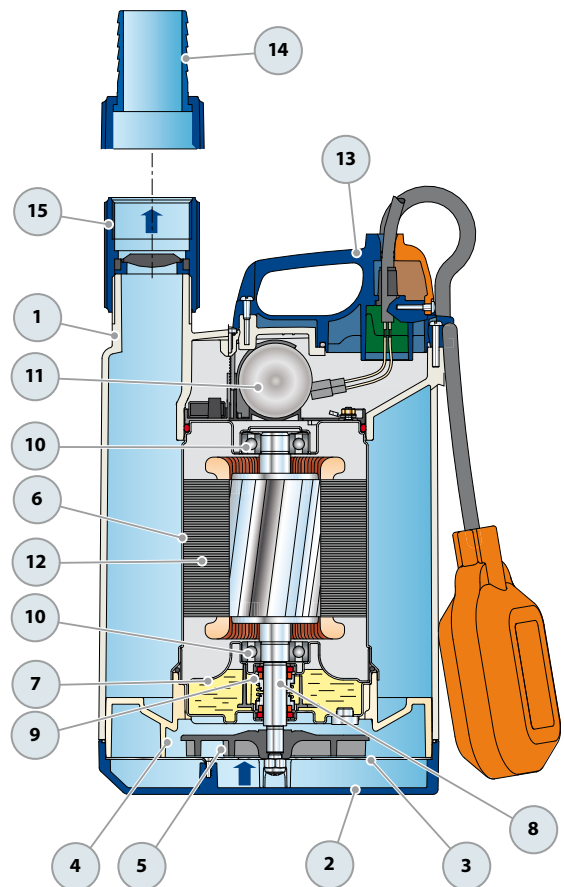
Complete with:
 – **10 metres** long "H07 RN-F" power cable with Schuko plug
 – Float switch
 (Vertical float switch in the GM versions)

14 HOSE CONNECTOR WITH RING NUT

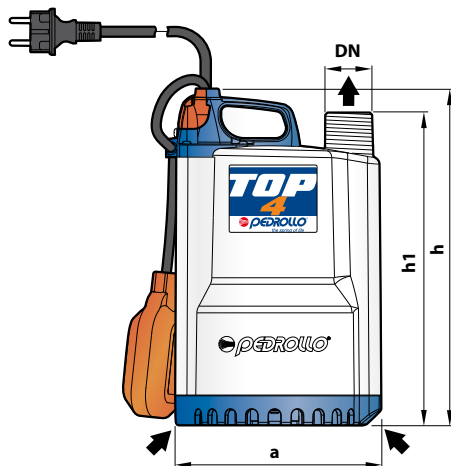
Hose connection Ø 41 mm

15 PIPE COUPLING

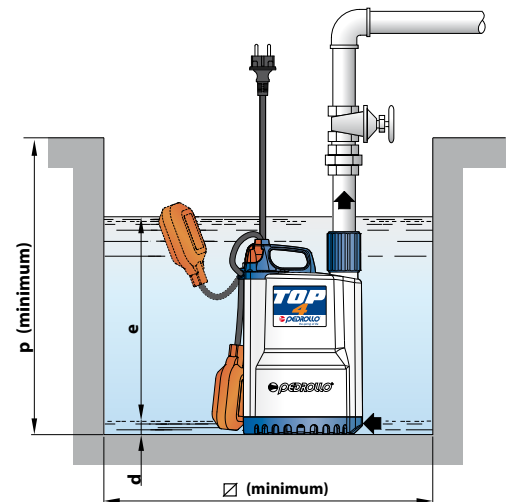
In technopolymer with 1½" thread and non-return valve



DIMENSIONS AND WEIGHT

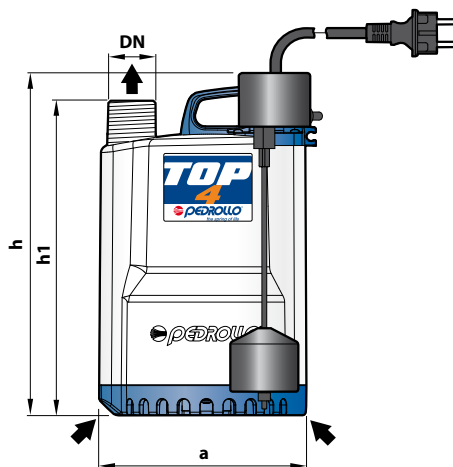


Standard installation

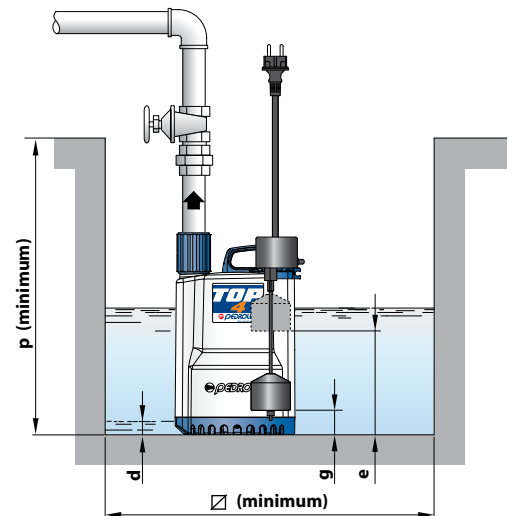


MODEL	PORT DN	DIMENSIONS mm							kg
		a	h	h1	d	e	p	∅	
Single-phase	DN								
TOP 4 N	1½"	204	337	313	30	variable	450	450	10.2
TOP 5 N									11.1

Version with vertical float switch



Standard installation



MODEL	PORT DN	DIMENSIONS mm							kg	
		a	h	h1	d	e	g	p		∅
Single-phase	DN									
TOP 4 N - GM	1½"	204	337	313	30	220	65	450	300	10.3
TOP 5 N - GM										11.2

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase			
TOP 4 N	4.5 A	4.4 A	9.0 A
TOP 5 N	5.5 A	5.4 A	11.0 A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
Single-phase	n. pumps	n. pumps
TOP 4 N	60	100
TOP 5 N	60	100

TOP-FLOOR

Submersible DRAINAGE pumps

 Clear water

 Domestic use



PERFORMANCE RANGE

- Flow rate up to **160 l/min** (9.6 m³/h)
- Head up to **9 m**

APPLICATION LIMITS

- **3 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C** (Maximum liquid temperature +90 °C for a maximum of 3 minutes intermittent service)
- Passage of suspended solids up to **Ø 2 mm**
- Suction down to **2 mm** above ground level
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

The pumps are complete with a **5 m** power cable

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The **TOP-FLOOR** series is suitable for use with **clear water** that does not contain abrasive particles.

Because of their ability to drain water to a level of 2 millimetres above ground level, they are suitable for use in domestic emergencies where a small area must be drained to the lowest possible level.

PATENTS - TRADE MARKS - MODELS

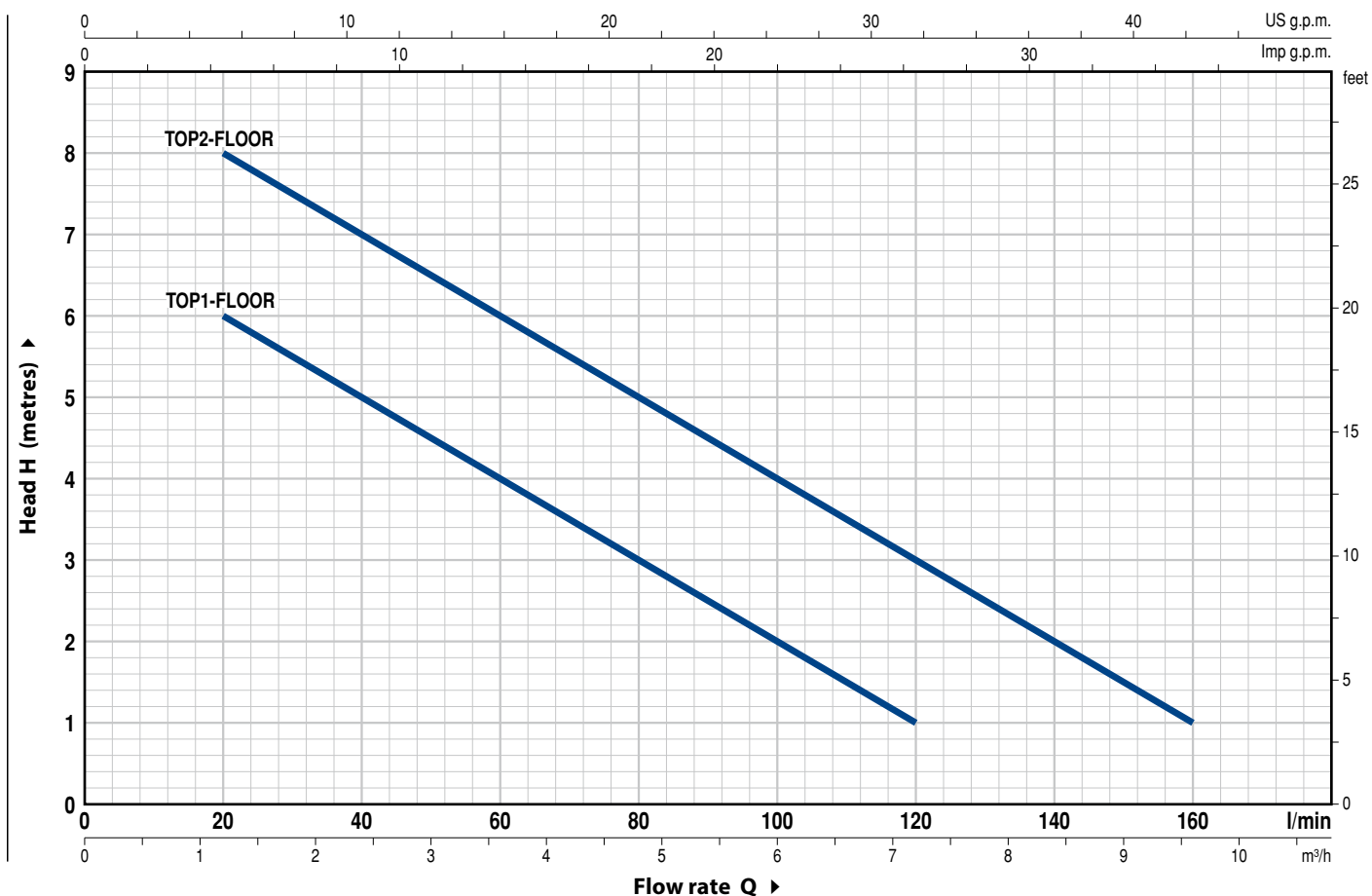
- Registered EU Design n. 342159-0011

OPTIONS AVAILABLE ON REQUEST

- Pumps with float switch
- Special mechanical seal
- Pumps with a **10 m** long power cable.
 ➔ N.B.: Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL	POWER (P ₂)		Q	0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6
	kW	HP		0	20	40	60	80	100	120	140	160
Single-phase												
TOP 1-FLOOR	0.25	0.33	H metres	7	6	5	4	3	2	1		
TOP 2-FLOOR	0.37	0.50	H metres	9	8	7	6	5	4	3	2	1

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

TOP-FLOOR

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Technopolymer			
2	SUCTION FILTER	Technopolymer			
3	SUCTION PLATE	Stainless steel AISI 304			
4	DIFFUSER	Technopolymer			
5	IMPELLER	Noryl FE1520PW			
6	MOTOR CASING	Stainless steel AISI 304			
7	MOTOR CASING PLATE	Stainless steel AISI 304			
8	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104			
9	SHAFT WITH DOUBLE SEAL AND OIL CHAMBER				
	Seal	Shaft	Materials		
	Model	Diameter	Stationary ring	Rotational ring	Elastomer
	STA-12R	Ø 12 mm	Ceramic	Graphite	NBR
10	LIP SEAL	Ø 12 x Ø 19 x H 5 mm			
11	BEARINGS	6201 ZZ / 6201 ZZ			

12	CAPACITOR		
	Pump	Capacitance	
	Single-phase	(230 V or 240 V)	(110 V)
	TOP 1-FLOOR	10 µF 450 VL	16 µF - 250 VL
	TOP 2-FLOOR	10 µF 450 VL	16 µF - 250 VL

13 ELECTRIC MOTOR

TOP-FLOOR: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.

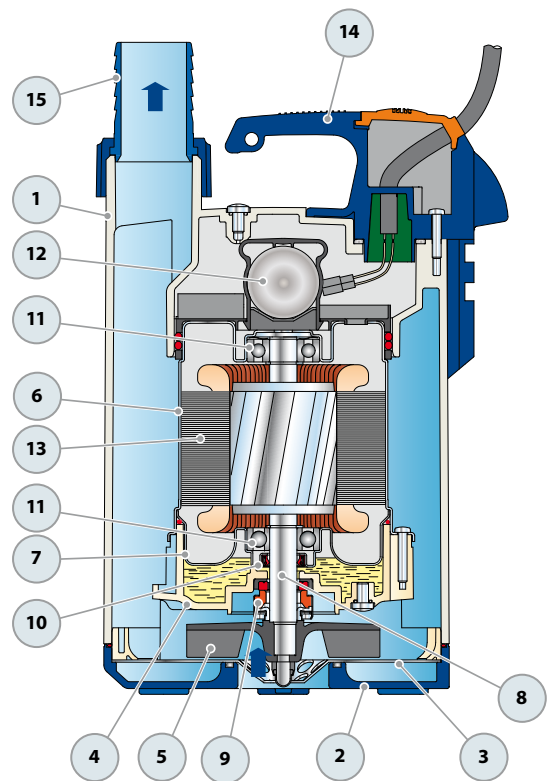
- Insulation: class F
- Protection: IP X8

14 HANDLE ASSEMBLY (resin sealed)

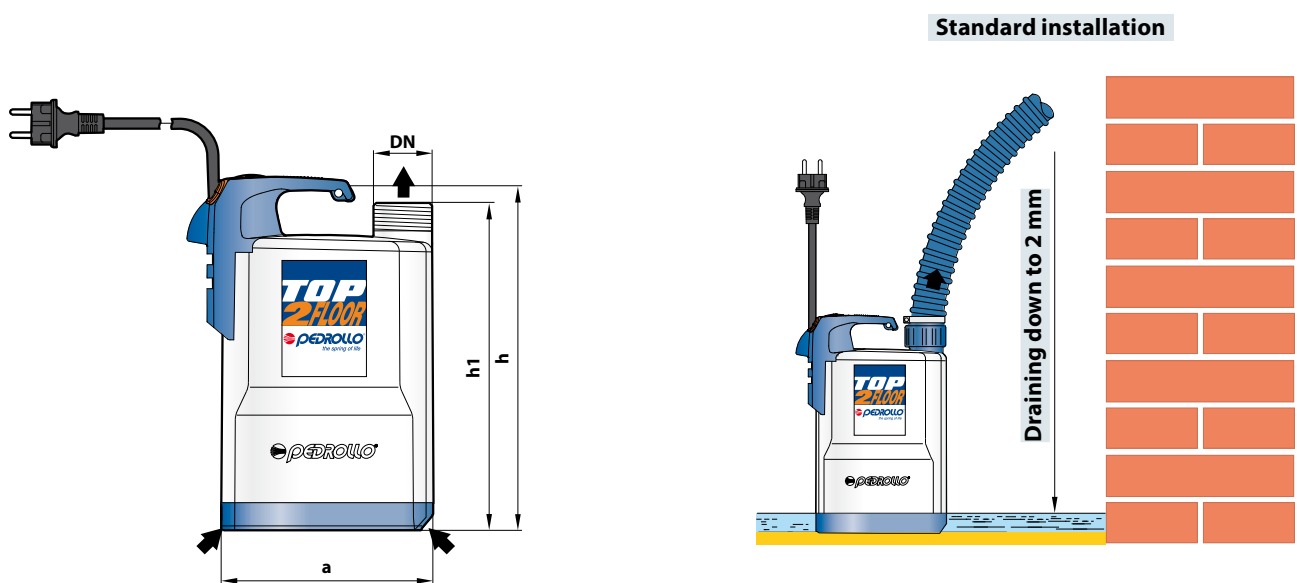
Complete with 5 metres long "H07 RN-F" **power cable** with Schuko plug

15 HOSE CONNECTOR WITH RING NUT

Ø 25 mm hose connection for TOP1 - FLOOR
 Ø 35 mm for TOP2 - FLOOR



DIMENSIONS AND WEIGHT



MODEL	PORT	DIMENSIONS mm			Minimum drying level	kg
		a	h	h1		
Single-phase	DN					
TOP 1-FLOOR	1¼"	152	257	237	2 mm	5.0
TOP 2-FLOOR						5.0

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase			
TOP 1-FLOOR	1.5 A	1.4 A	3.0 A
TOP 2-FLOOR	2.0 A	1.9 A	5.3 A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
Single-phase	n. pumps	n. pumps
TOP 1-FLOOR	96	144
TOP 2-FLOOR	96	144

TOP-VORTEX

Submersible pumps

 Dirty water

 Domestic use



PERFORMANCE RANGE

- Flow rate up to **180 l/min** (10.8 m³/h)
- Head up to **8.5 m**

APPLICATION LIMITS

- **3 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C** (Maximum liquid temperature +90 °C for a maximum of 3 minutes intermittent service)
- Passage of suspended solids up to **Ø 20 mm**
- Suction down to **25 mm** above ground level
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

The pumps are complete with:

- **5 m** long power cable
- float switch

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The **TOP-VORTEX** pump is suitable for use with **dirty water** that is not chemically aggressive towards the materials from which the pump is made.

Because of the design solutions that have been adopted, such as the complete cooling of the motor and the shaft with double seal, these pumps are easy to use and reliable.

They are suitable for use in applications such as clearing dirty water, emptying tanks, discharging domestic waste water, and for emptying collection traps containing suspended solids up to a maximum of Ø 20 mm.

PATENTS - TRADE MARKS - MODELS

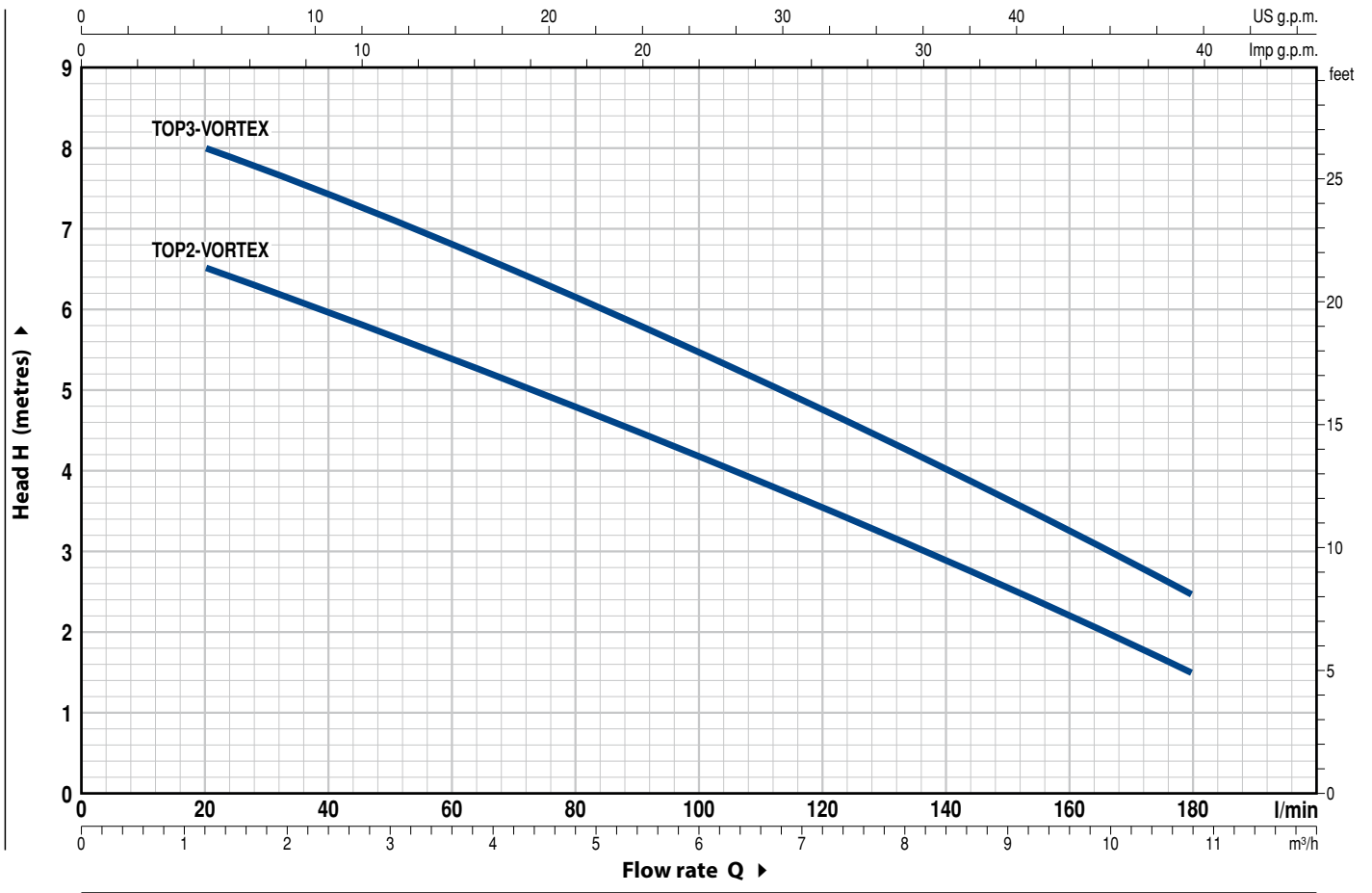
- Registered EU Design n. 342159-0011

OPTIONS AVAILABLE ON REQUEST

- “**TOP-VORTEX/GM**” pumps with vertical switch (suitable for particularly small wells)
- Special mechanical seal
- Pumps with a **10 m** long power cable.
 ➔ N.B.: Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL Single-phase	POWER (P ₂)		Q	0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8
	kW	HP		0	20	40	60	80	100	120	140	160	180
TOP 2 - VORTEX	0.37	0.50	H metres	7	6.5	6	5.4	4.8	4.2	3.5	2.9	2.2	1.5
				8.5	8	7.4	6.8	6.1	5.5	4.7	4	3.2	2.5
TOP 3 - VORTEX	0.55	0.75											

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

TOP-VORTEX

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Technopolymer			
2	SUCTION FILTER	Technopolymer			
3	SUCTION PLATE	Technopolymer			
4	DIFFUSER	Technopolymer			
5	IMPELLER	Technopolymer VORTEX type			
6	MOTOR CASING	Stainless steel AISI 304			
7	MOTOR CASING PLATE	Stainless steel AISI 304			
8	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104			
9	SHAFT WITH DOUBLE SEAL AND OIL CHAMBER				
	Seal	Shaft	Materials		
	Model	Diameter	Stationary ring	Rotational ring	Elastomer
	STA-12R	Ø 12 mm	Ceramic	Graphite	NBR
10	LIP SEAL	Ø 12 x Ø 19 x H 5 mm			

11	BEARINGS	6201 ZZ / 6201 ZZ
----	-----------------	-------------------

12	CAPACITOR		
	Pump	Capacitance	
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>
	TOP 2 - VORTEX	10 µF 450 VL	16 µF - 250 VL
	TOP 3 - VORTEX	14 µF 450 VL	16 µF - 250 VL

13 ELECTRIC MOTOR

TOP-VORTEX: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.

- Insulation: class F
- Protection: IP X8

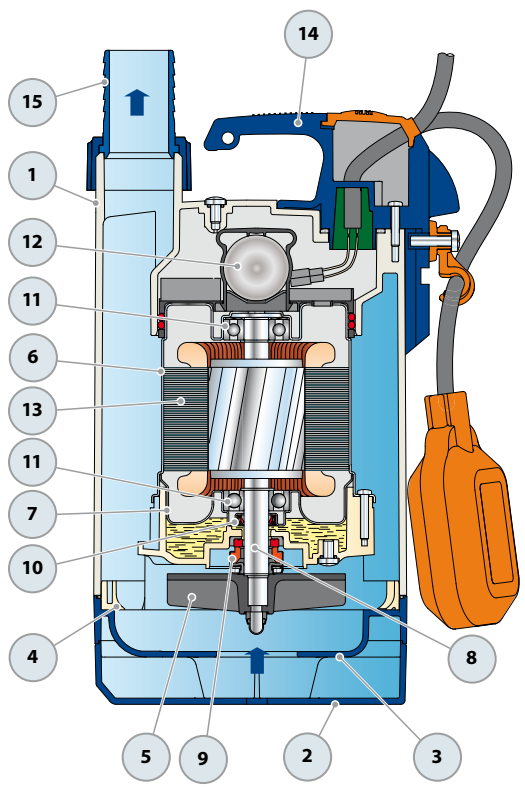
14 HANDLE ASSEMBLY (resin sealed)

Complete with:

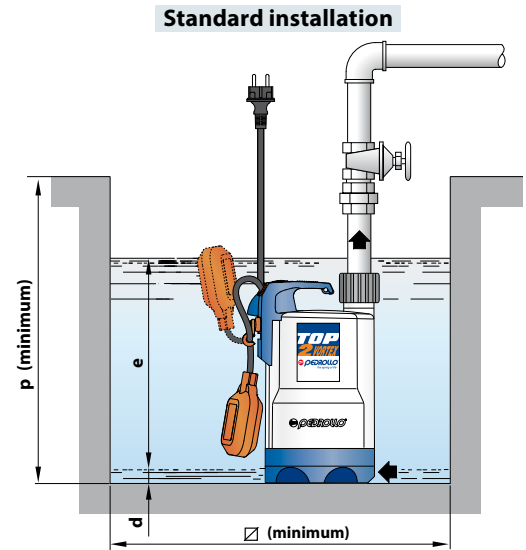
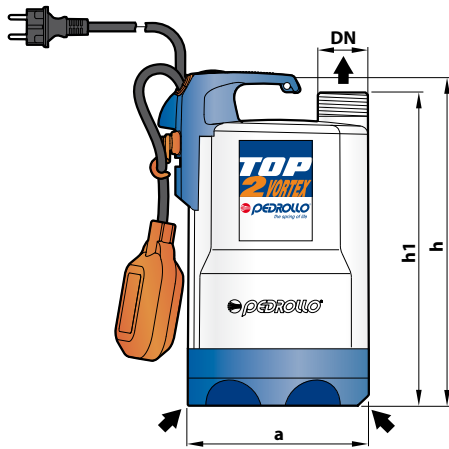
- **5 metres** long "H07 RN-F" power cable with Schuko plug
- Float switch (Vertical float switch in the GM versions)

15 HOSE CONNECTOR WITH RING NUT

Hose connection Ø 35 mm

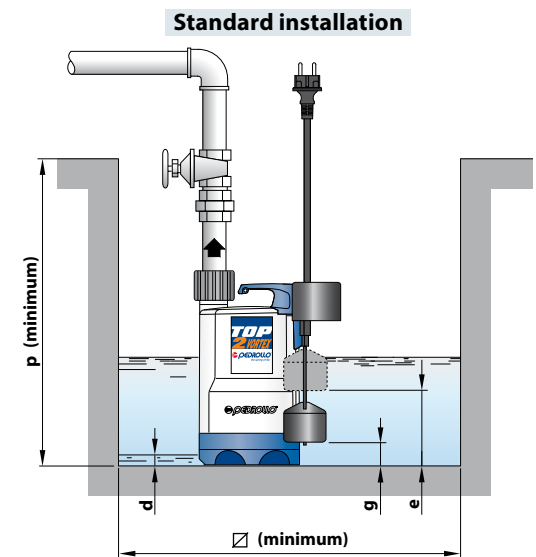
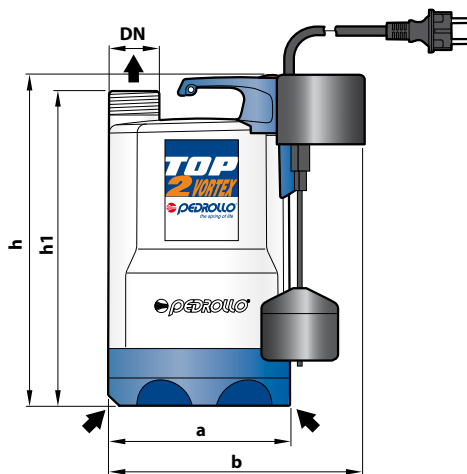


DIMENSIONS AND WEIGHT



MODEL	PORT	DIMENSIONS mm							kg
		a	h	h1	d	e	p	Ø	
Single-phase	DN								
TOP 2 - VORTEX	1 1/4"	152	288	268	25	variable	350	350	5.2
TOP 3 - VORTEX			318	298					6.6

Version with vertical float switch



MODEL	PORT	DIMENSIONS mm									kg
		a	b	h	h1	d	e	g	p	Ø	
Single-phase	DN										
TOP 2 - VORTEX/GM	1 1/4"	152	200	288	268	25	170	40	350	220	5.3
TOP 3 - VORTEX/GM				318	298		200	65			6.7

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase			
TOP 2 - VORTEX	2.0 A	1.9 A	4.0 A
TOP 3 - VORTEX	2.9 A	2.8 A	5.8 A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
	n. pumps	n. pumps
Single-phase		
TOP 2 - VORTEX	96	144
TOP 3 - VORTEX	96	144

-  Clear water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **300 l/min** (18 m³/h)
- Head up to **20 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+50 °C** (Maximum liquid temperature +90 °C for a maximum of 3 minutes intermittent service)
- Passage of suspended solids up to **Ø 10 mm**
- Suction level:
 - **14 mm** above ground level for RX 1-2-3
 - **25 mm** above ground level for RX 4-5
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

The pumps are complete with:

- **5 m** long power cable for RX 1-2-3
- **10 m** long power cable for RX 4-5
- float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The **RX** series pumps are suitable for use with **clear water** that does not contain abrasive particles.

Because of the design solutions that have been adopted, such as the complete cooling of the motor and the shaft with double seal, these pumps are easy to use and reliable.

They are suitable for use in fixed installations and applications such as draining small flooded areas (rooms, cellars, garages) in the event of an emergency, for the disposal of waste water in the home (from dishwashers, washing machines) and for emptying drainage traps.

PATENTS - TRADE MARKS - MODELS

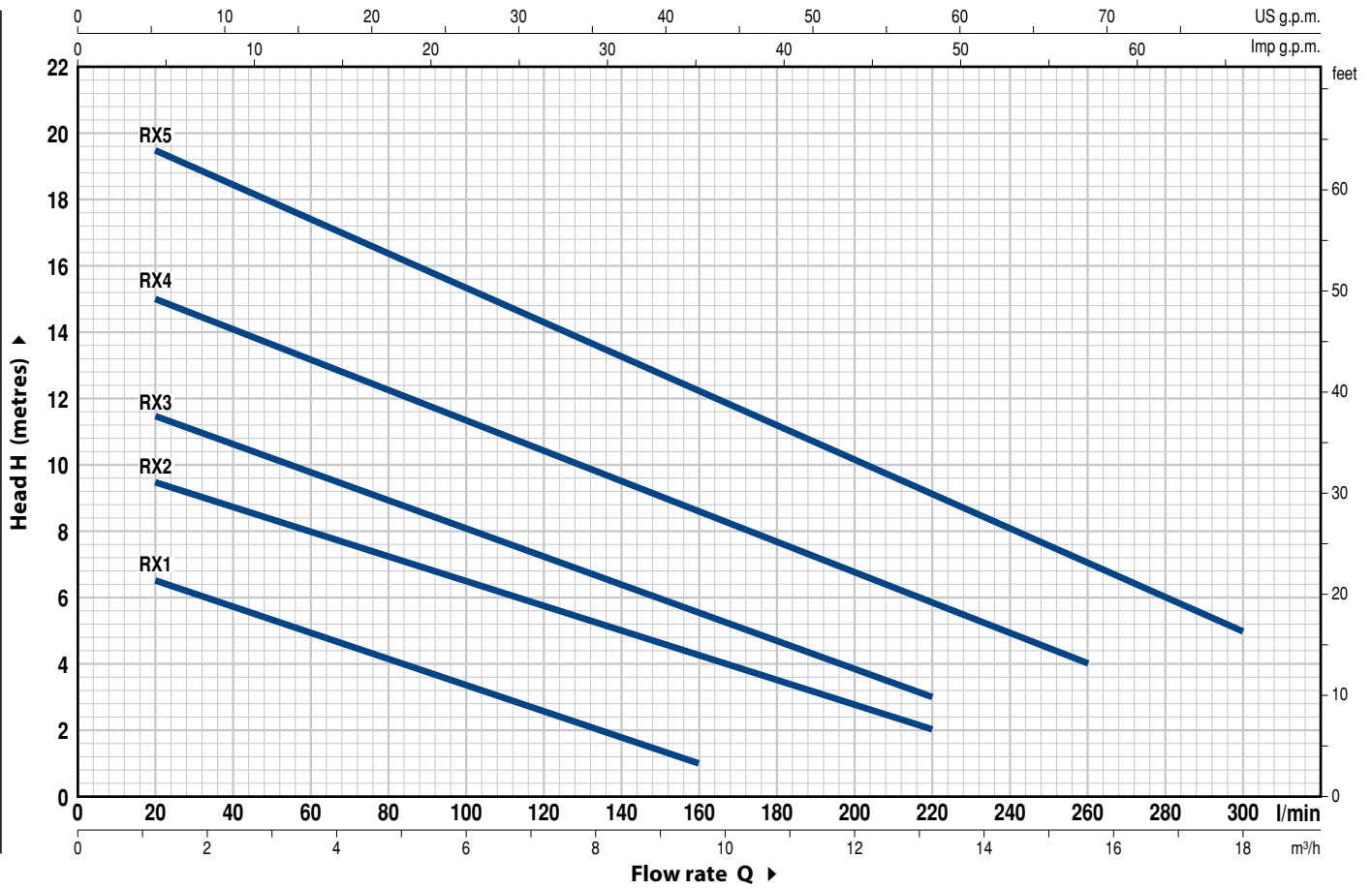
- Patent n. IT0001390742 (RX 4-5)
- Registered EU Design n. 342159-0013 (RX 1-2-3)

OPTIONS AVAILABLE ON REQUEST

- “**RX-GM**” pumps with a vertical float switch (suitable for particularly small wells)
- Special mechanical seal
- RX 1-2-3 pumps with a **10 m** long power cable.
 - ➔ N.B.: Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate												
Single-phase	Three-phase	kW	HP		m ³ /h	0	1.2	3.6	6.0	8.4	9.6	12.0	13.2	15.6	18.0		
				l/min	0	20	60	100	140	160	200	220	260	300			
RXm 1	RX 1	0.25	0.33	H metres	7.5	6.5	5	3.5	2	1							
RXm 2	RX 2	0.37	0.50		10	9.5	8	6.5	5	4.5	2.5	2					
RXm 3	RX 3	0.55	0.75		12	11.5	9.5	8	6.5	5.5	3.5	3					
RXm 4	RX 4	0.75	1		16	15	13	11.5	9.5	8.5	6.5	5.5	4				
RXm 5	RX 5	1.1	1.5		20	19.5	17.5	15.5	13.5	12.5	10	9	7	5			

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

RX 1-2-3

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 with threaded port in compliance with ISO 228/1			
2	SUCTION FILTER	Stainless steel AISI 304			
3	DIFFUSER	Stainless steel AISI 304			
4	IMPELLER	Stainless steel AISI 304			
5	MOTOR CASING	Stainless steel AISI 304			
6	MOTOR CASING PLATE	Stainless steel AISI 304			
7	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104			
8	SHAFT WITH DOUBLE SEAL AND OIL CHAMBER				
	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
	STA-12R	Ø 12 mm	Ceramic	Graphite	NBR
9	LIP SEAL	Ø 12 x Ø 19 x H 5 mm			
10	BEARINGS	6201 ZZ / 6201 ZZ			

11	CAPACITOR		
	<i>Pump</i>	<i>Capacitance</i>	
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>
	RXm 1	10 µF 450 VL	16 µF - 250 VL
	RXm 2	10 µF 450 VL	16 µF - 250 VL
	RXm 3	14 µF 450 VL	16 µF - 250 VL

12 ELECTRIC MOTOR

RXm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

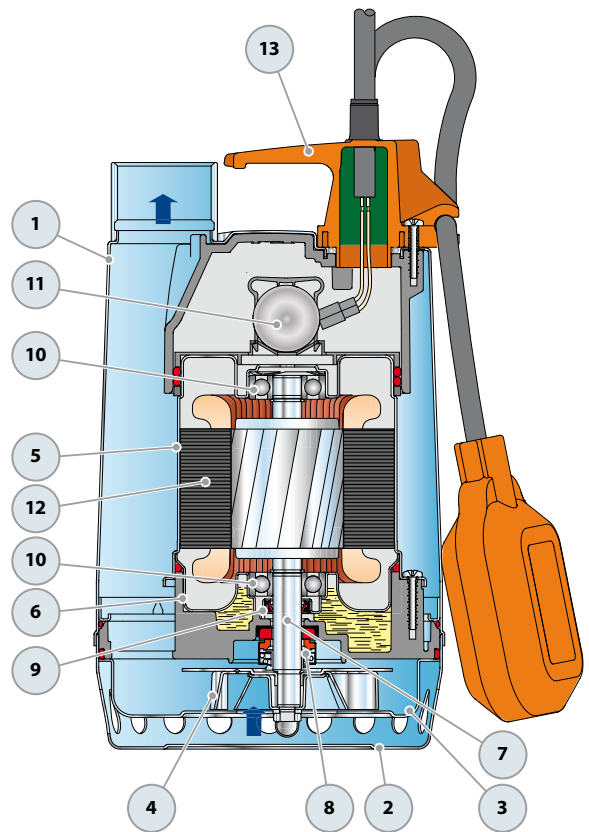
RX: three-phase 400 V - 50 Hz

- Insulation: class F
- Protection: IP X8

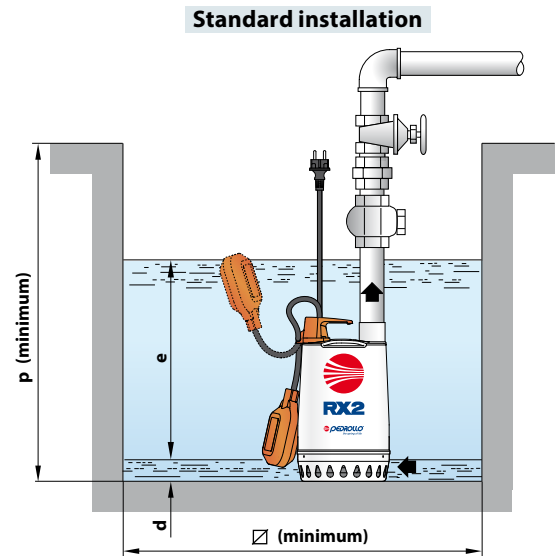
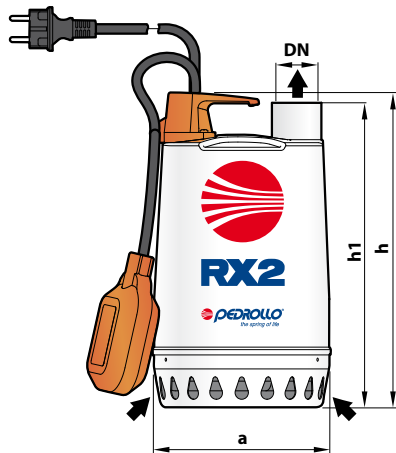
13 HANDLE ASSEMBLY (resin sealed)

Complete with:

- 5 metres long "H07 RN-F" power cable with Schuko plug
- Float switch (Vertical float switch in the GM versions).

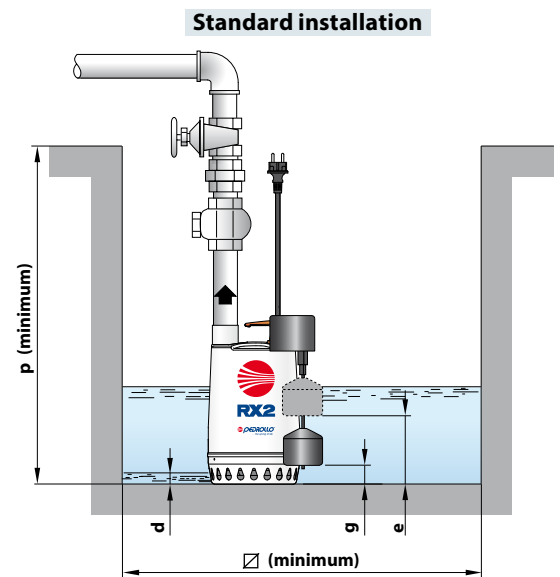
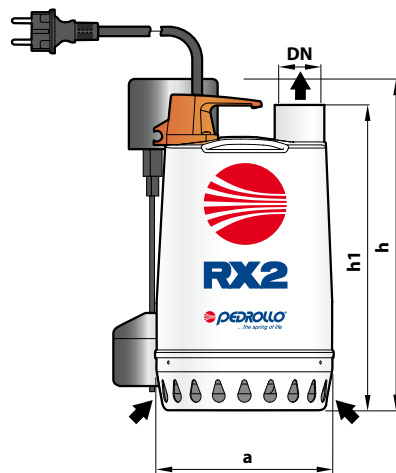


DIMENSIONS AND WEIGHT



MODEL		PORT	DIMENSIONS mm							kg		PALLETIZATION	
Single-phase	Three-phase	DN	a	h	h1	d	e	p	Ø	1~	3~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 1	RX 1	1 1/4"	147	255	247	14	variable	350	350	5.8	5.5	96	144
RXm 2	RX 2			285	277					5.8	5.5		
RXm 3	RX 3			285	277					7.2	7.2		

Version with vertical float switch



MODEL	PORT	DIMENSIONS mm								kg	PALLETIZATION	
Single-phase	DN	a	h	h1	d	e	g	p	Ø	1~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 1-GM	1 1/4"	147	270	247	14	145	40	350	240	5.9	80	120
RXm 2-GM										5.9		
RXm 3-GM										7.3		

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
RXm 1	1.5 A	1.4 A	3.0 A
RXm 2	2.0 A	1.9 A	5.3 A
RXm 3	3.6 A	3.5 A	7.5 A

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
RX 1	1.6 A	0.9 A	1.5 A	0.85 A
RX 2	1.8 A	1.0 A	1.7 A	0.95 A
RX 3	2.8 A	1.6 A	2.7 A	1.55 A

RX 4-5

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 with threaded port in compliance with ISO 228/1
2	SUCTION FILTER	Stainless steel AISI 304
3	DIFFUSER	Stainless steel AISI 304
4	IMPELLER	Stainless steel AISI 304
5	MOTOR CASING	Stainless steel AISI 304
6	MOTOR CASING PLATE	Stainless steel AISI 304
7	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104

8 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
MG1-14D SIC	Ø 14 mm	Motor side	Silicon carbide	Graphite	NBR
		Pump side	Silicon carbide	Silicon carbide	NBR

9 BEARINGS 6203 ZZ-C3E / 6203 ZZ-C3E

10 CAPACITOR

Pump	Capacitance	
Single-phase	(230 V or 240 V)	(110 V)
RXm 4	20 µF 450 VL	30 µF - 250 VL
RXm 5	25 µF 450 VL	30 µF - 250 VL

11 ELECTRIC MOTOR

RXm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

RX: three-phase 400 V - 50 Hz

- Insulation: class F
- Protection: IP X8

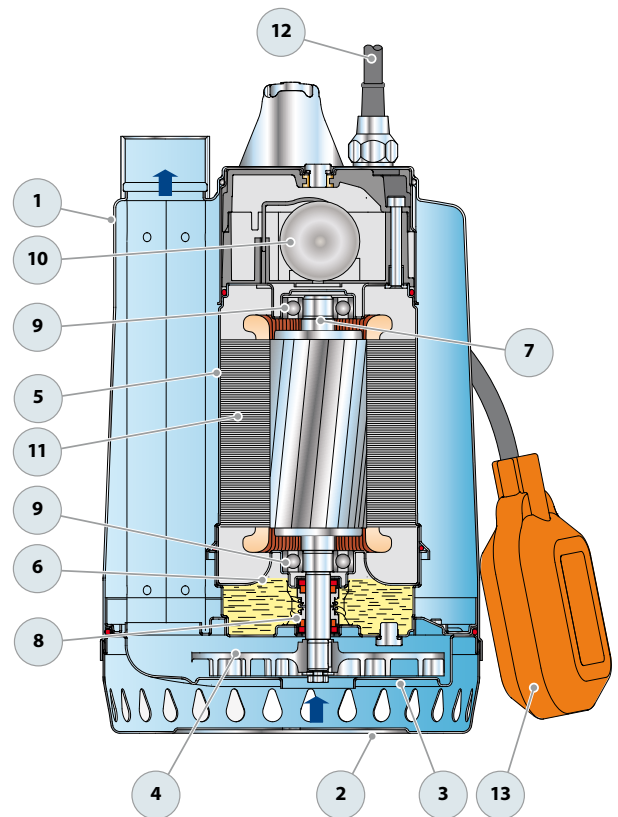
12 POWER CABLE

"H07 RN-F" type
(with Schuko plug for single-phase versions only)

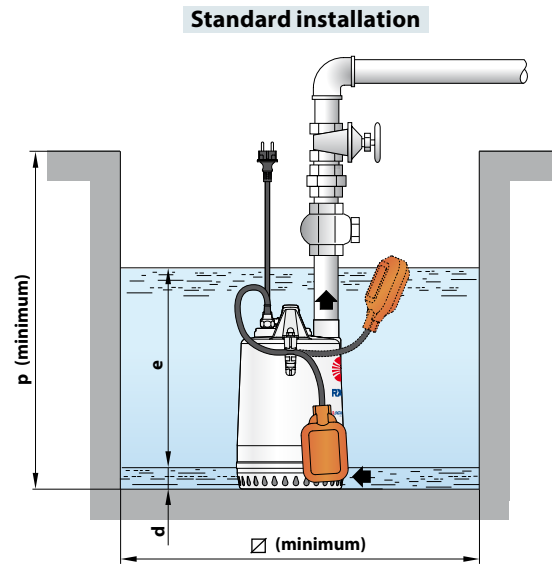
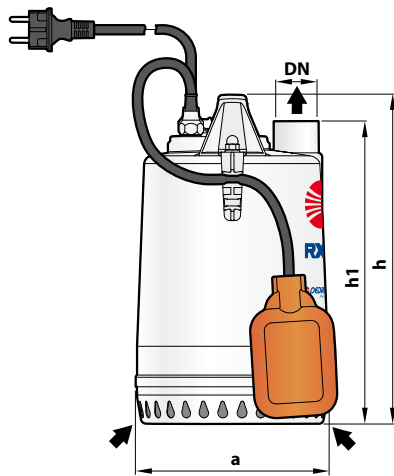
Standard length 10 metres

13 FLOAT SWITCH

Only for single-phase versions
(Vertical float switch in the GM versions).

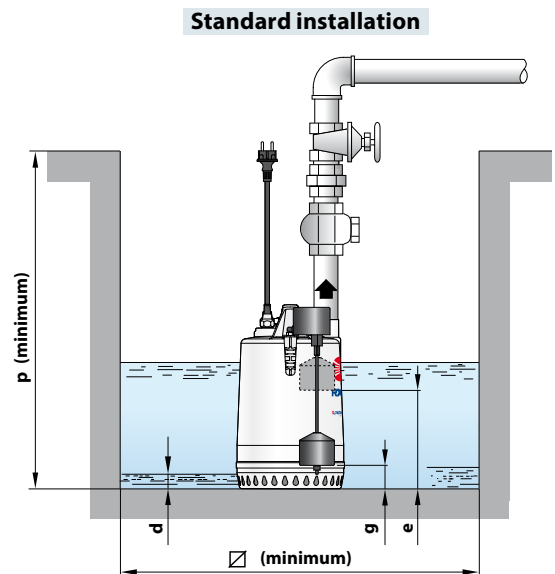
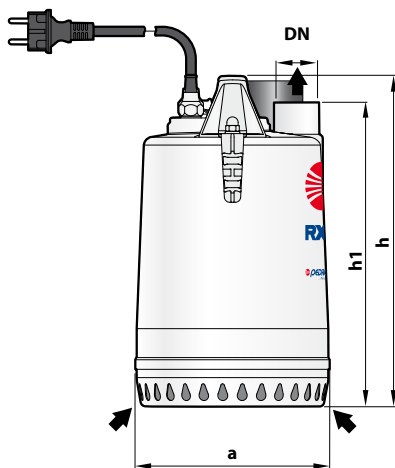


DIMENSIONS AND WEIGHT



MODEL		PORT DN	DIMENSIONS mm							kg		PALLETIZATION	
Single-phase	Three-phase		a	h	h1	d	e	p	Ø	1~	3~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 4	RX 4	1½"	220	367	336	25	variable	500	500	12.7	11.9	45	60
RXm 5	RX 5									13.7	12.7		

Version with vertical float switch



MODEL	PORT DN	DIMENSIONS mm								kg	PALLETIZATION	
		a	h	h1	d	e	g	p	Ø		GROUPAGE n. pumps	CONTAINER n. pumps
RXm 4 - GM	1½"	220	367	336	25	250	50	500	300	14.0	36	48
RXm 5 - GM										15.0		

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
RXm 4	5.4 A	5.3 A	10.8 A
RXm 5	7.5 A	7.4 A	15.0 A

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
Three-phase	230 V	400 V	240 V	415 V
RX 4	3.6 A	2.1 A	3.5 A	2.0 A
RX 5	6.0 A	3.5 A	5.9 A	3.4 A



Dirty water



Domestic use



Civil use



PERFORMANCE RANGE

- Flow rate up to **380 l/min** (22.8 m³/h)
- Head up to **13 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+50 °C** (Maximum liquid temperature +90 °C for a maximum of 3 minutes intermittent service)
- Passage of solids:
 - up to **Ø 20 mm** for RX 2/20, RX 3/20
 - up to **Ø 40 mm** for RX 4/40, RX 5/40
- Suction level:
 - **25 mm** above ground level for RX 2/20, RX 3/20
 - **50 mm** above ground level for RX 4/40, RX 5/40
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

The pumps are complete with:

- **5 m** long power cable for RX 2/20, RX 3/20
- **10 m** long power cable for RX 4/40, RX 5/40
- float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The **RX-VORTEX** series pumps are suitable for use with **dirty water**. The design solutions that have been adopted, such as the complete cooling of the motor, guarantee the reliability of the pump. They are suitable for use in domestic applications such as for discharging dirty water containing suspended solids.

PATENTS - TRADE MARKS - MODELS

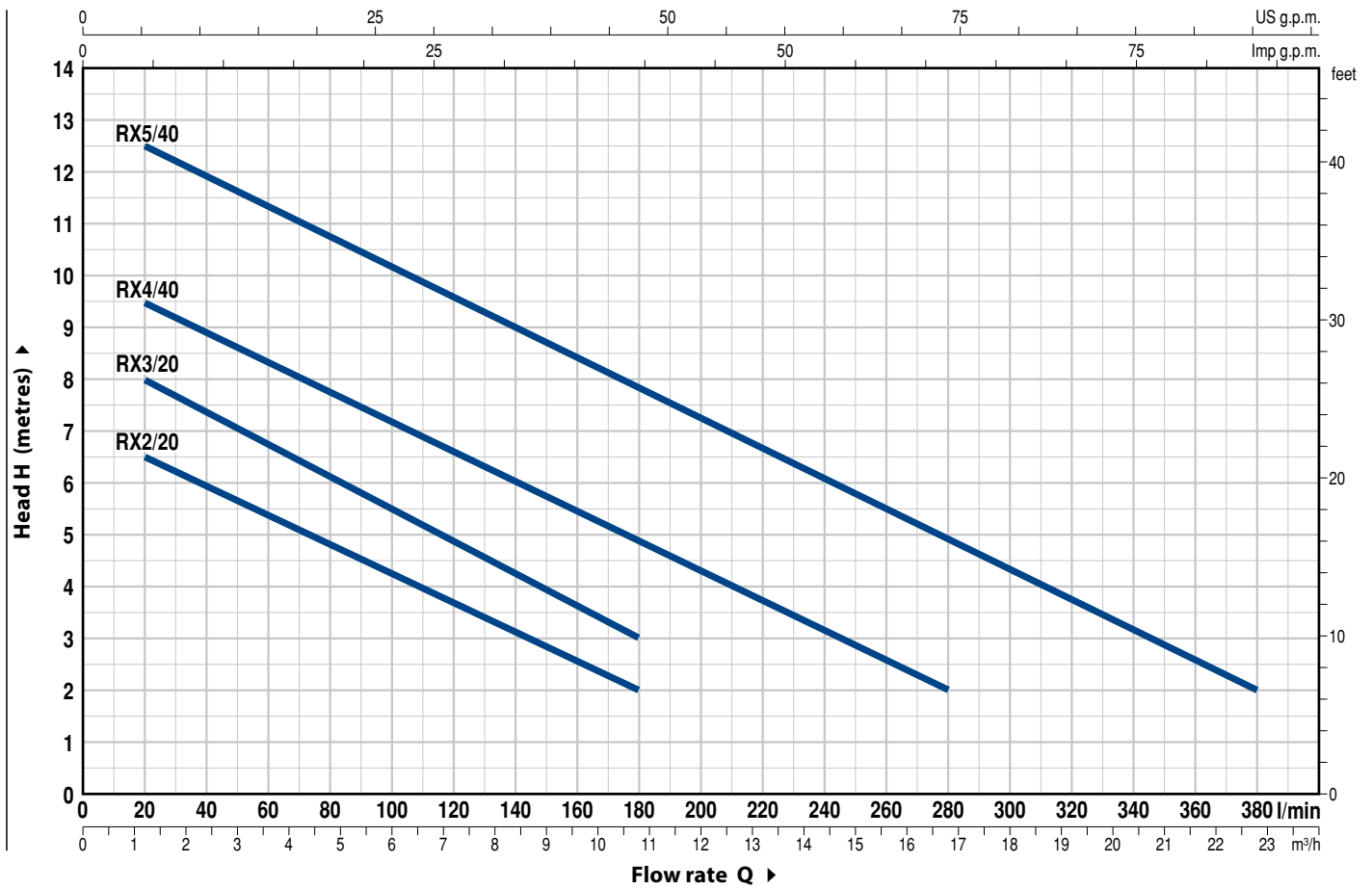
- Patent n. IT0001390742 (RX 4-5/40)
- Registered EU Design n. 342159-0014 (RX 2-3/20)

OPTIONS AVAILABLE ON REQUEST

- “**RX-VORTEX GM**” pumps with a vertical float switch (suitable for particularly small wells)
- Special mechanical seal
- RX 2-3/20 pumps with a **10 m** long power cable
 - ➔ N.B.: Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	H metres																	
Single-phase	Three-phase	kW	HP		m ³ /h	0	1.2	2.4	3.6	4.8	6	7.2	8.4	9.6	10.8	13.2	16.8	20.4	22.8			
				l/min	0	20	40	60	80	100	120	140	160	180	220	280	340	380				
RXm 2/20	RX 2/20	0.37	0.50		7	6.5	6	5.5	4.8	4.3	3.7	3	2.5	2								
RXm 3/20	RX 3/20	0.55	0.75		9	8	7.5	6.5	6	5.5	4.7	4.2	3.5	3								
RXm 4/40	RX 4/40	0.75	1		10	9.5	8.7	8.5	7.7	7	6.5	6	5.5	4.7	3.7	2						
RXm 5/40	RX 5/40	1.1	1.5		13	12.5	12	11.5	10.7	10	9.5	9	8.3	7.7	6.5	5	3	2				

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

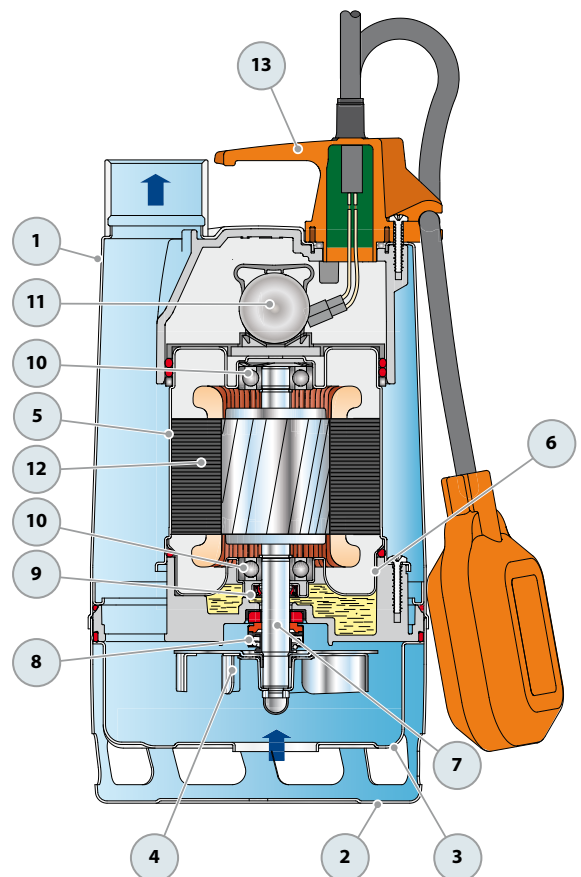
1 PUMP BODY	Stainless steel AISI 304 with threaded port in compliance with ISO 228/1			
2 SUCTION FILTER	Stainless steel AISI 304			
3 DIFFUSER	Stainless steel AISI 304			
4 IMPELLER	Stainless steel AISI 304 VORTEX type			
5 MOTOR CASING	Stainless steel AISI 304			
6 MOTOR CASING PLATE	Stainless steel AISI 304			
7 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104			
8 SHAFT WITH DOUBLE SEAL AND OIL CHAMBER				
<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
STA-12R SIC	Ø 12 mm	Ceramic	Silicon carbide	NBR
9 LIP SEAL	Ø 12 x Ø 19 x H 5 mm			
10 BEARINGS	6201 ZZ / 6201 ZZ			
11 CAPACITOR				
<i>Pump</i>	<i>Capacitance</i>			
<i>Single-phase</i>	<i>(230 V or 240 V)</i>		<i>(110 V)</i>	
RXm 2/20	10 µF 450 VL	16 µF - 250 VL		
RXm 3/20	14 µF 450 VL	16 µF - 250 VL		

12 ELECTRIC MOTOR

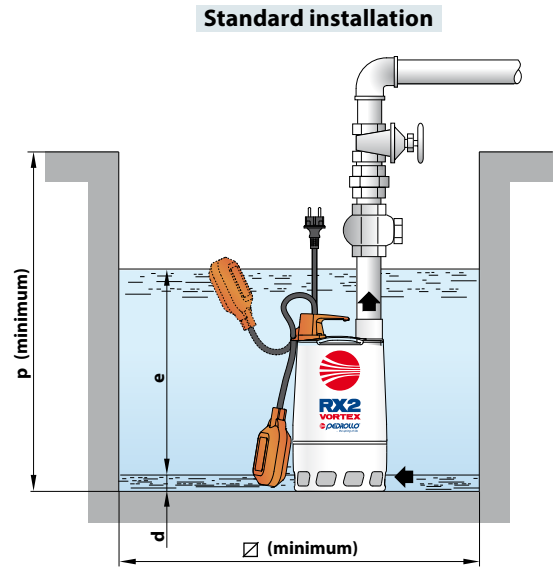
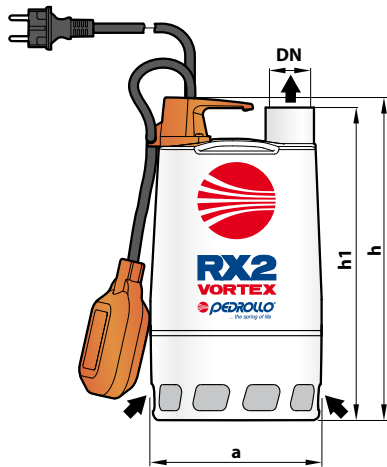
RXm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding
RX: three-phase 400 V - 50 Hz
– Insulation: class F
– Protection: IP X8

13 HANDLE ASSEMBLY (resin sealed)

Complete with:
– **5 metres** long “H07 RN-F” power cable with Schuko plug
– Float switch
(Vertical float switch in the GM versions)

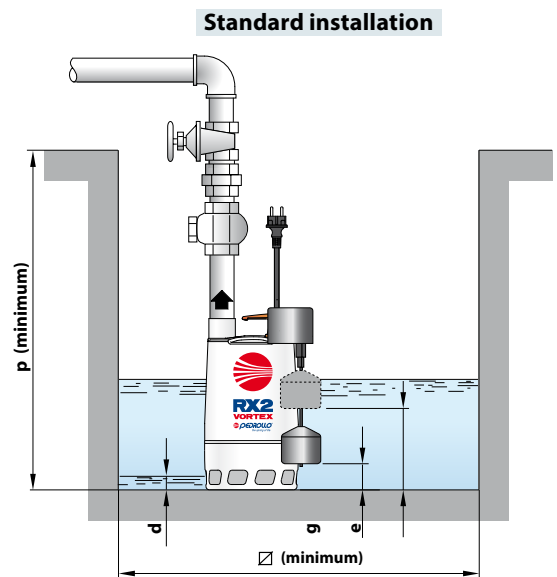
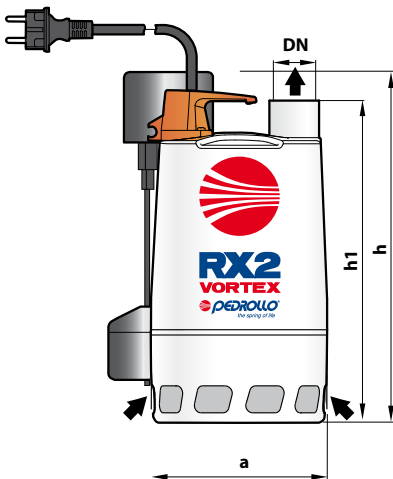


DIMENSIONS AND WEIGHT



MODEL		PORT	DIMENSIONS mm							kg		PALLETIZATION	
Single-phase	Three-phase	DN	a	h	h1	d	e	p	Ø	1~	3~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 2/20	RX 2/20	1¼"	147	290	278	25	variable	350	350	6.1	6.1	72	120
RXm 3/20	RX 3/20			320	308					7.9	7.9	72	120

Version with vertical float switch



MODEL		PORT	DIMENSIONS mm							kg		PALLETIZATION	
Single-phase	DN	a	h	h1	d	e	g	p	Ø	1~	3~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 2/20-GM	1¼"	147	305	278	25	180	50	350	240	6.2		60	100
RXm 3/20-GM			335	308		210	80			8.0	60	100	

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
RXm 2/20	2.6 A	2.5 A	5.2 A
RXm 3/20	3.2 A	3.1 A	6.4 A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
RX 2/20	1.9 A	1.1 A	1.8 A	1.05 A
RX 3/20	2.6 A	1.5 A	2.5 A	1.45 A

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Stainless steel AISI 304 with threaded port in compliance with ISO 228/1
2	SUCTION FILTER	Stainless steel AISI 304
3	DIFFUSER	Stainless steel AISI 304
4	IMPELLER	Stainless steel AISI 304 VORTEX type
5	MOTOR CASING	Stainless steel AISI 304
6	MOTOR CASING PLATE	Stainless steel AISI 304
7	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104

8 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
MG1-14D SIC	Ø 14 mm	Motor side	Silicon carbide	Graphite	NBR
		Pump side	Silicon carbide	Silicon carbide	NBR

9 BEARINGS 6203 ZZ-C3E / 6203 ZZ-C3E

CAPACITOR

Pump	Capacitance	
10 Single-phase	(230 V or 240 V)	(110 V)
RXm 4/40	20 µF 450 VL	30 µF - 250 VL
RXm 5/40	25 µF 450 VL	30 µF - 250 VL

11 ELECTRIC MOTOR

RXm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

RX: three-phase 400 V - 50 Hz

- Insulation: class F
- Protection: IP X8

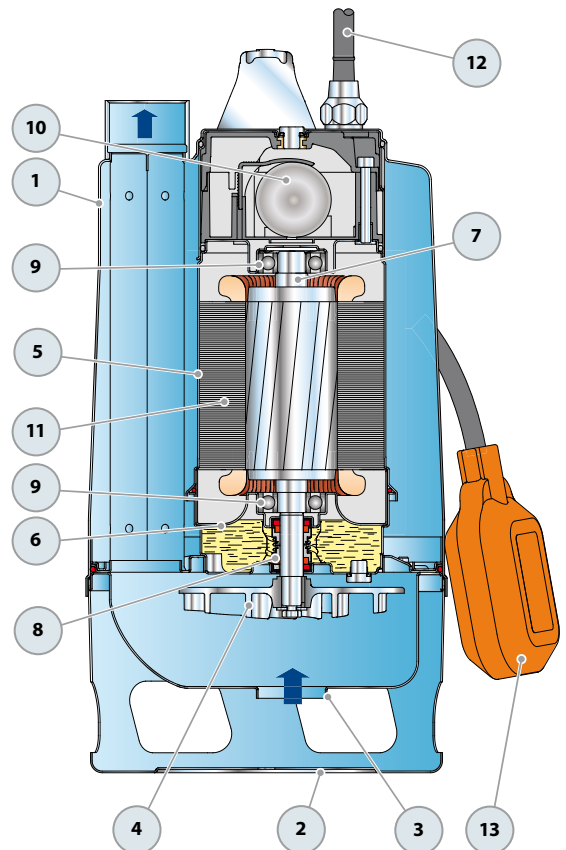
12 POWER CABLE

"H07 RN-F" type
(with Schuko plug for single-phase versions only)

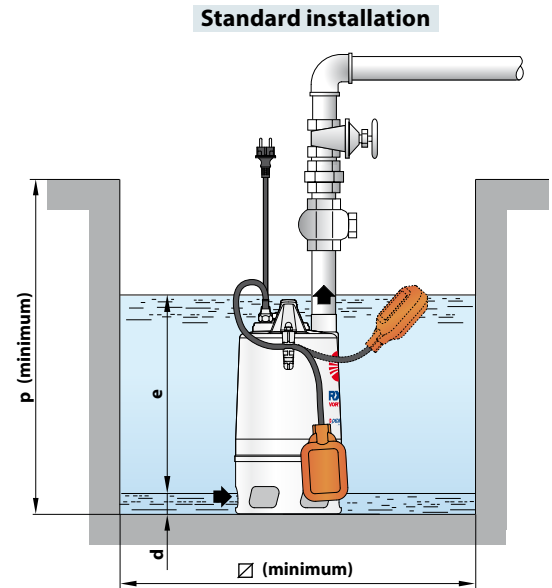
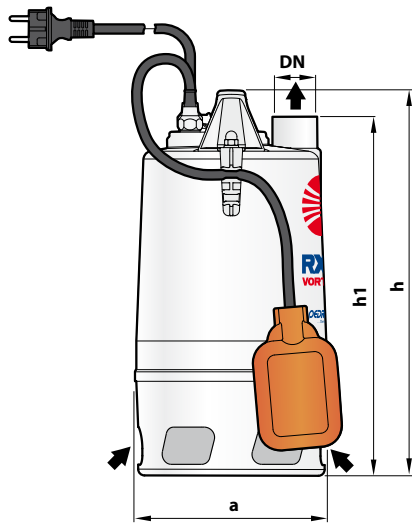
Standard length 10 metres

13 FLOAT SWITCH

Only for single-phase versions
(Vertical float switch in the GM versions).

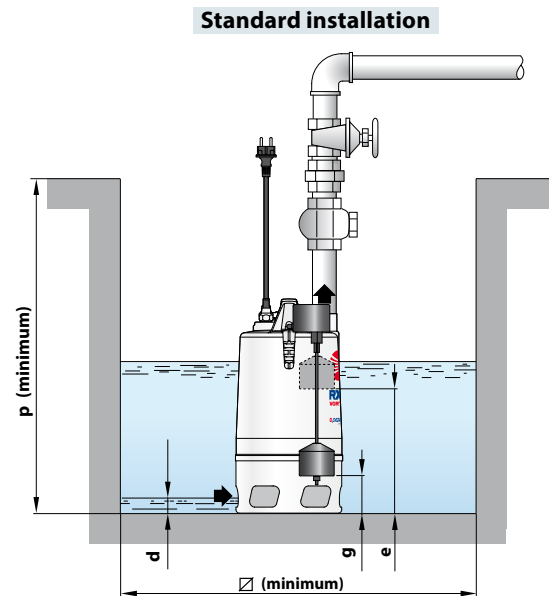
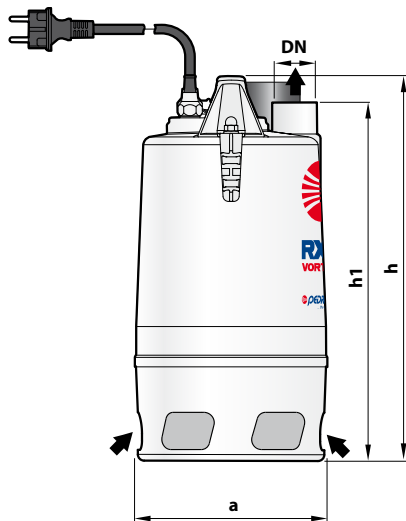


DIMENSIONS AND WEIGHT



MODEL		PORT	DIMENSIONS mm							kg		PALLETIZATION	
Single-phase	Three-phase	DN	a	h	h1	d	e	p	Ø	1~	3~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 4/40	RX 4/40	1½"	220	430	400	50	variable	500	500	13.0	12.2	45	60
RXm 5/40	RX 5/40									14.0	13.0	45	60

Version with vertical float switch



MODEL	PORT	DIMENSIONS mm								kg	PALLETIZATION	
Single-phase	DN	a	h	h1	d	e	g	p	Ø	1~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 4/40 - GM	1½"	220	430	400	50	320	80	500	350	14.3	36	48
RXm 5/40 - GM										15.3	36	48

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
RXm 4/40	5.2 A	5.1 A	10.4 A
RXm 5/40	6.5 A	6.4 A	13.0 A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
RX 4/40	3.6 A	2.1 A	3.5 A	2.05 A
RX 5/40	5.4 A	3.1 A	5.3 A	3.05 A



PERFORMANCE RANGE

- Flow rate up to **300 l/min** (18 m³/h)
- Head up to **14 m**

APPLICATION LIMITS

- **5 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of suspended solids up to **Ø 10 mm**
- Suction down to **21 mm** above ground level
- **180 mm** minimum immersion depth for continuous service

CONSTRUCTION AND SAFETY STANDARDS

- **5 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



INSTALLATION AND USE

Designed to pump **clear or slightly dirty water**, these pumps are suitable for use in domestic applications and in particular for draining flooded areas such as cellars or for emptying tanks and reservoirs; they distinguish themselves for the ease with which they are installed and their reliability under automatic operating conditions in fixed installations.

OPTIONS AVAILABLE ON REQUEST

- Pumps with a **10 m** long power cable.
 - ➔ N.B.: Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

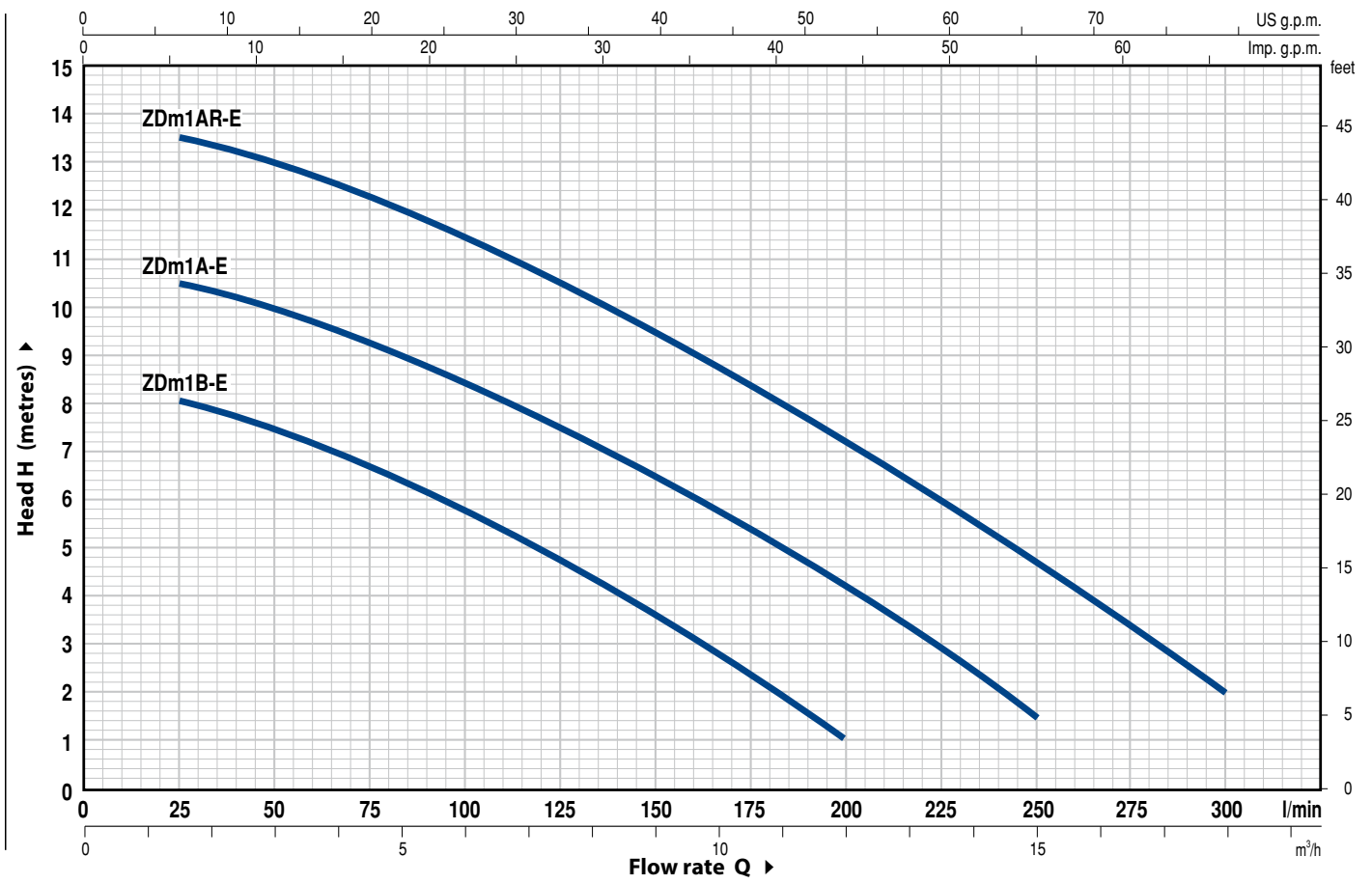
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



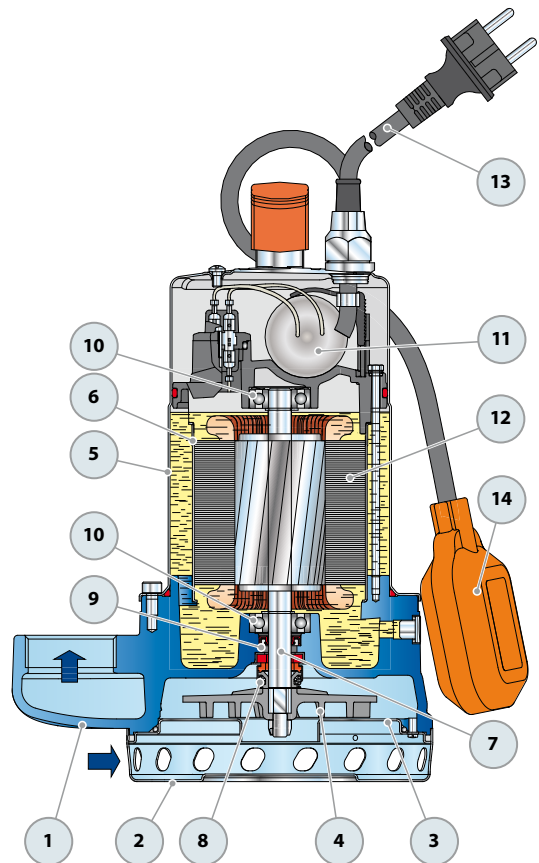
MODEL Single-phase	POWER (P ₂)		Q	Flow rate														
	kW	HP		m ³ /h	0	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	
			l/min	0	25	50	75	100	125	150	175	200	225	250	275	300		
ZDm 1B-E	0.37	0.50	H metres	8.5	8	7.5	6.5	5.5	4.8	3.5	2.5	1						
ZDm 1A-E	0.50	0.70		11	10.5	10	9	8.5	7.5	6.5	5.5	4	2.5	1.5				
ZDm 1AR-E	0.60	0.85		14	13.5	13	12.2	11.5	10.5	9.5	8.3	7	5.7	4.5	3.2	2		

Q = Flow rate H = Total manometric head

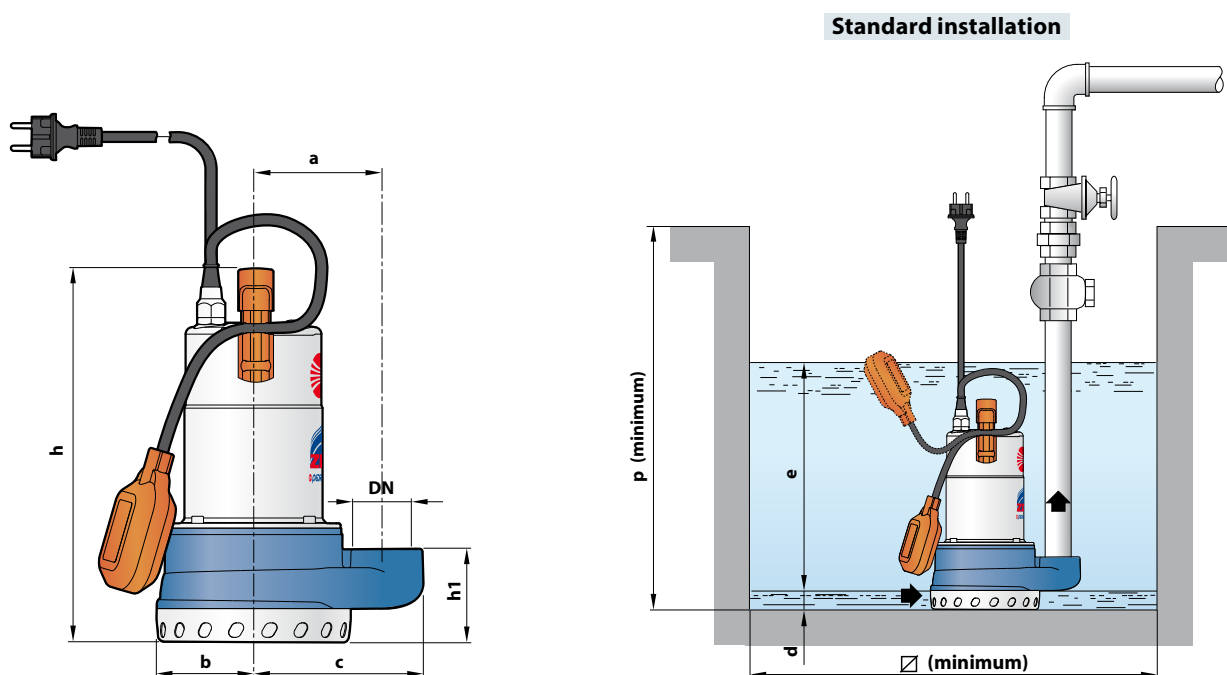
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with threaded port in compliance with ISO 228/1			
2	SUCTION FILTER	Stainless steel AISI 304			
3	SUCTION PLATE	Stainless steel AISI 304			
4	IMPELLER	Noryl FE1520PW open type			
5	MOTOR SLEEVE	Stainless steel AISI 304			
6	MOTOR CASING	Steel			
7	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104			
8	SHAFT WITH DOUBLE SEAL				
	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>		
	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
	STA-12R	Ø 12 mm	Ceramic	Graphite	NBR
9	LIP SEAL	Ø 12 x Ø 22 x H 6 mm			
10	BEARINGS	6201 ZZ / 6201 ZZ			
11	CAPACITOR				
	<i>Pump</i>	<i>Capacitance</i>			
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>		
	ZDm 1B-E	12.5 µF 450 VL	16 µF - 250 VL		
	ZDm 1A-E	12.5 µF 450 VL	30 µF - 250 VL		
	ZDm 1AR-E	16 µF 450 VL	30 µF - 250 VL		
12	ELECTRIC MOTOR				
	ZDm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding				
	– Insulation: class F				
	– Protection: IP X8				
13	POWER CABLE				
	"H07 RN-F" with Schuko plug				
	Standard length 5 metres				
14	FLOAT SWITCH				
	(only for single-phase versions)				



DIMENSIONS AND WEIGHT



MODEL	PORT DN	DIMENSIONS mm									kg	
		a	b	c	h	h1	d	e	p	∅		
Single-phase												
ZDm 1B-E	1½"	110	81	142	316	77	21	variable	450	450	10.9	
ZDm 1A-E											11.5	
ZDm 1AR-E											11.8	

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase			
ZDm 1B-E	2.5 A	2.4 A	5.0 A
ZDm 1A-E	3.3 A	3.2 A	6.6 A
ZDm 1AR-E	4.4 A	4.3 A	9.0 A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
	n. pumps	n. pumps
Single-phase		
ZDm 1B-E	60	100
ZDm 1A-E	60	100
ZDm 1AR-E	60	100

Submersible pumps

 Dirty water

 Domestic use



PERFORMANCE RANGE

- Flow rate up to **400 l/min** (24 m³/h)
- Head up to **11 m**

APPLICATION LIMITS

- **5 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of suspended solids up to **Ø 40 mm**
- Suction down to **50 mm** above ground level
- **240 mm** minimum immersion depth for continuous service

CONSTRUCTION AND SAFETY STANDARDS

- **5 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

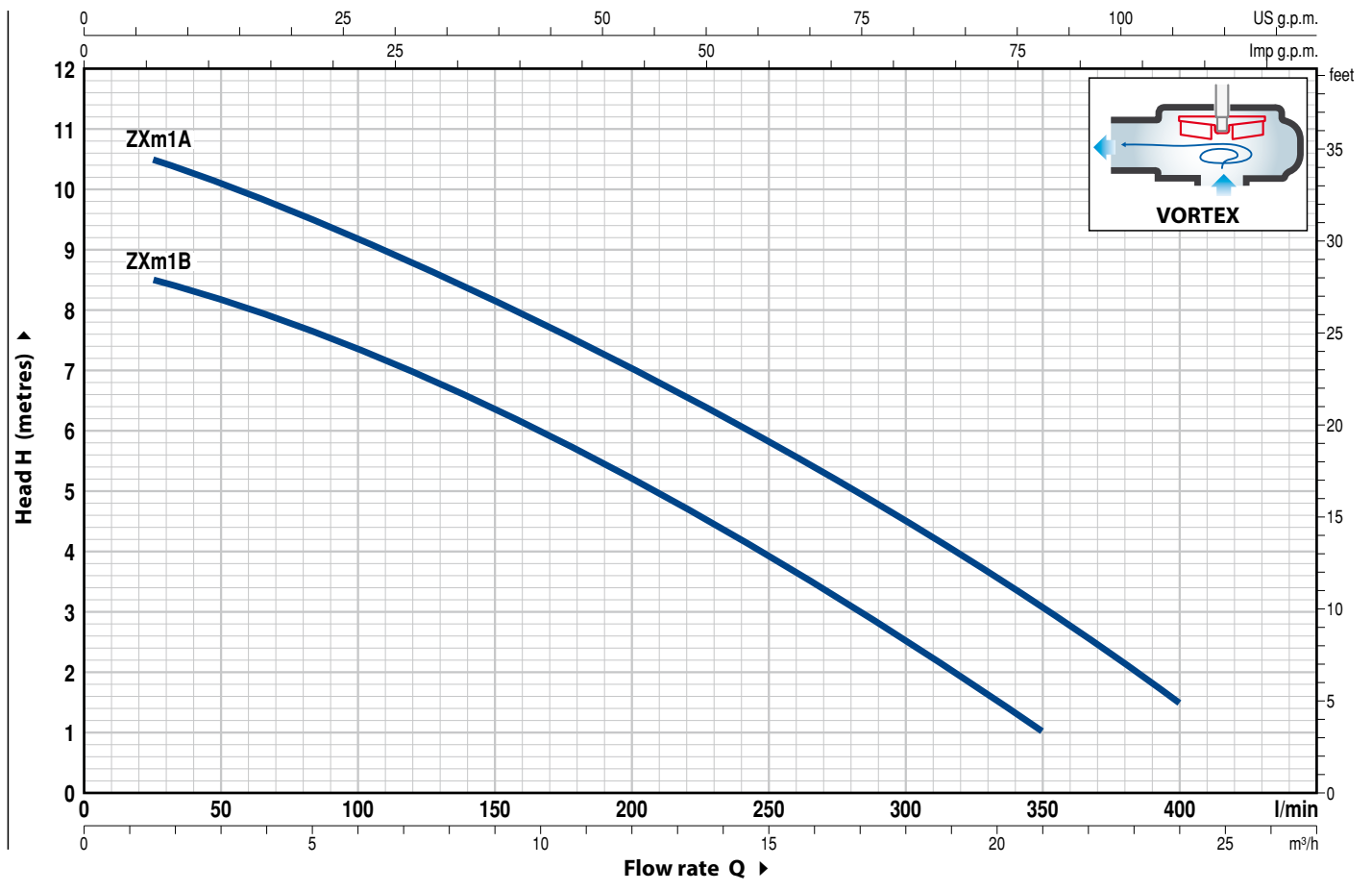
ZX series pumps are suitable for draining **dirty water** in domestic applications and for pumping dirty water containing suspended solids up to Ø 40 mm. They distinguish themselves for the ease with which they are installed and their reliability under automatic operating conditions in fixed installations.

OPTIONS AVAILABLE ON REQUEST

- Pumps with a **10 m** long power cable.
 - ➔ N.B.: Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL Single-phase	POWER (P ₂)		Q	Flow rate												
	kW	HP		m ³ /h	0	1.5	3.0	4.5	6.0	9.0	12.0	15.0	18.0	21.0	24.0	
ZXm 1B/40	0.50	0.70	l/min	0	25	50	75	100	150	200	250	300	350	400		
ZXm 1A/40	0.60	0.85	H metres	11	10.5	10	9.5	9.2	8.2	7	5.7	4.3	2.8	1.5		

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron with threaded port in compliance with ISO 228/1			
2 BASE	Stainless steel AISI 304			
3 IMPELLER	Technopolymer VORTEX type			
4 MOTOR SLEEVE	Stainless steel AISI 304			
5 MOTOR CASING	Stainless steel			
6 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104			
7 SHAFT WITH DOUBLE SEAL				
<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Materials</i>		<i>Elastomer</i>
STA-12R	Ø 12 mm	<i>Stationary ring</i> Ceramic	<i>Rotational ring</i> Graphite	NBR
8 LIP SEAL	Ø 12 x Ø 22 x H 6 mm			
9 BEARINGS	6201 ZZ / 6201 ZZ			

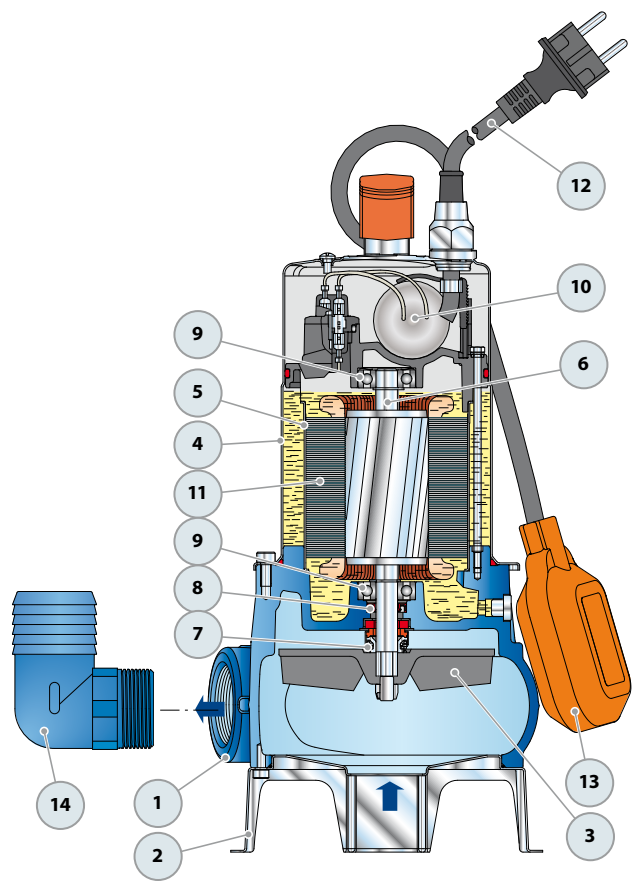
10 CAPACITOR		
<i>Pump</i>	<i>Capacitance</i>	
<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>
ZXm 1B/40	12.5 µF 450 VL	30 µF - 250 VL
ZXm 1A/40	16 µF 450 VL	30 µF - 250 VL

11 ELECTRIC MOTOR
 ZXm: single-phase 230 V - 50 Hz
 with thermal overload protector incorporated into the winding
 – Insulation: class F
 – Protection: IP X8

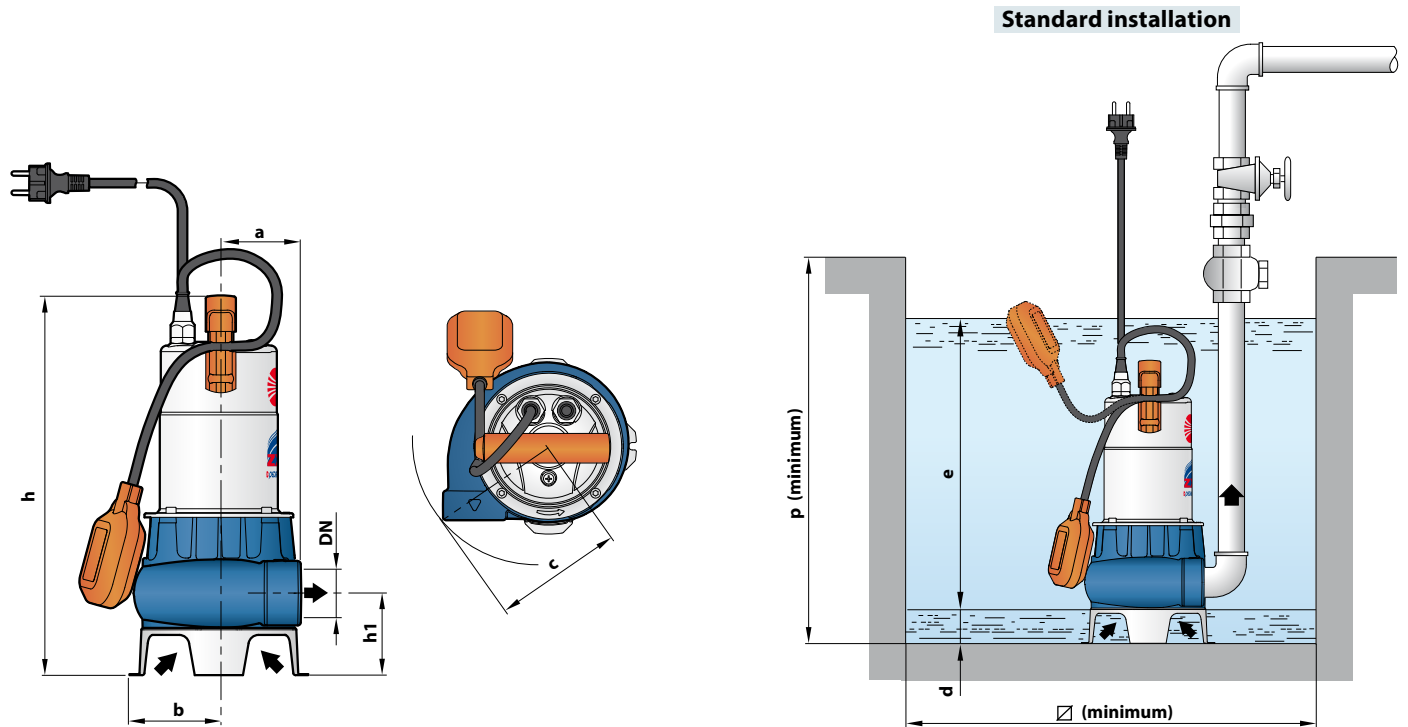
12 POWER CABLE
 "H07 RN-F" with Schuko plug
Standard length 5 metres

13 FLOAT SWITCH
 (only for single-phase versions)

14 HOSE CONNECTION
 Ø 50 mm



DIMENSIONS AND WEIGHT



MODEL	PORT DN	Passage of solids	DIMENSIONS mm									kg	
			a	b	c	h	h1	d	e	p	Ø		
Single-phase													1~
ZXm 1B/40	1½"	Ø 40 mm	75	87	130	378	82	50	variable	450	450	11.5	
ZXm 1A/40												11.9	

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase			
ZXm 1B/40	3.3 A	3.2 A	6.6 A
ZXm 1A/40	4.5 A	4.4 A	9.0 A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
Single-phase		
ZXm 1B/40	60	80
ZXm 1A/40	60	80

Submersible pumps in stainless steel

-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **650 l/min** (39 m³/h)
- Head up to **15 m**

APPLICATION LIMITS

- **5 m** maximum immersion depth
- Maximum liquid temperature **+40 °C**
- Passage of solids:
 - up to **Ø 40 mm** for VX /35-ST
 - up to **Ø 50 mm** for VX /50-ST
- Minimum immersion depth for continuous service:
 - **280 mm** for VX /35-ST
 - **300 mm** for VX /50-ST

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The **VX-ST** submersible pumps in stainless steel are recommended for draining **filthy water** in domestic, civil and industrial applications, in every case where there are solid bodies in suspension, for example water mixed with mud, groundwater, surface water. They are suitable for draining flooded areas such as cellars, underground car parks, car washes, for emptying cesspools and for sewage disposal. These pumps distinguish themselves for their reliability, which can be best appreciated under automatic operating conditions in fixed installations.

PATENTS - TRADE MARKS - MODELS

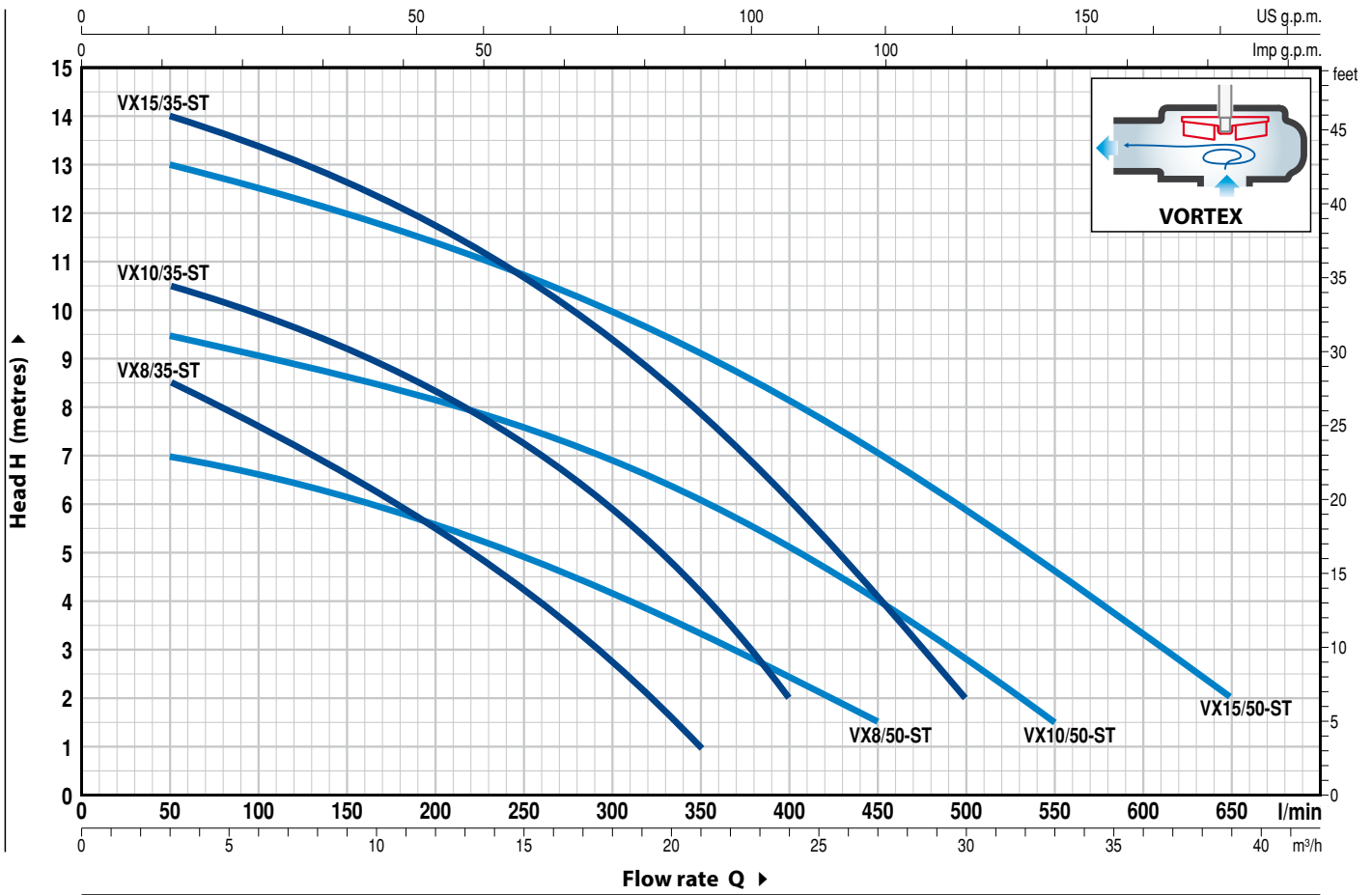
- Patent Pending n. BO2015A000116

OPTIONS AVAILABLE ON REQUEST

- Single-phase pumps without float switch
- AISI 304 stainless steel pump shaft
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate														
Single-phase	Three-phase	kW	HP		m ³ /h	0	3	6	12	18	21	24	27	30	33	36	39		
				l/min	0	50	100	200	300	350	400	450	500	550	600	650			
VXm 8/35 -ST	VX 8/35 -ST	0.55	0.75	H metres	9.5	8.5	7.5	5.4	2.7	1									
VXm 10/35 -ST	VX 10/35 -ST	0.75	1		11.5	10.5	10	8.3	6	4	2								
VXm 15/35 -ST	VX 15/35 -ST	1.1	1.5		15	14	13.5	11.7	9.2	7.7	6	4.1	2						
VXm 8/50 -ST	VX 8/50 -ST	0.55	0.75		7.5	7	6.6	5.7	4.2	3.5	2.5	1.5							
VXm 10/50 -ST	VX 10/50 -ST	0.75	1		10	9.5	9.2	8.5	7	6	5	3.8	2.7	1.5					
VXm 15/50 -ST	VX 15/50 -ST	1.1	1.5		13.5	13	12.5	11.5	10	9	8	7	6	4.7	3.3	2			

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Stainless steel AISI 304 with threaded port in compliance with ISO 228/1
2 BASE	Stainless steel AISI 304
3 IMPELLER	Stainless steel AISI 304 VORTEX type
4 MOTOR CASING	Stainless steel AISI 304
5 MOTOR CASING PLATE	Stainless steel AISI 304
6 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104

7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
MG1-14D SIC	Ø 14 mm	Motor side	Silicon carbide	Graphite	NBR
		Pump side	Silicon carbide	Silicon carbide	NBR

8 BEARINGS 6203 ZZ / 6203 ZZ

9 CAPACITOR

Pump	Capacitance	
Single-phase	(230 V or 240 V)	(110 V)
VXm 8/35 -ST	20 µF 450 VL	30 µF - 250 VL
VXm 8/50 -ST		
VXm 10/35-ST		
VXm 10/50-ST	25 µF 450 VL	-
VXm 15/35-ST		
VXm 15/50-ST		

10 ELECTRIC MOTOR

VXm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

VX: three-phase 400 V - 50 Hz

- Insulation: class F
- Protection: IP X8

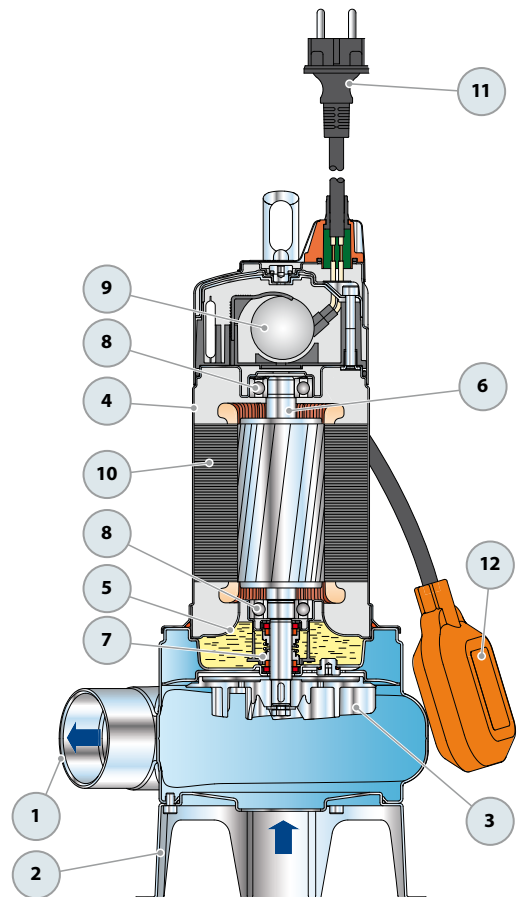
11 POWER CABLE

"H07 RN-F" type
(with Schuko plug for single-phase versions only)

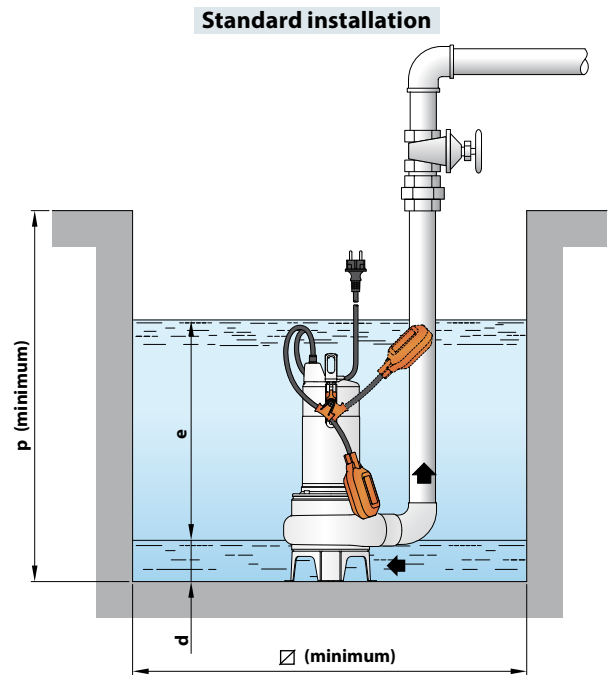
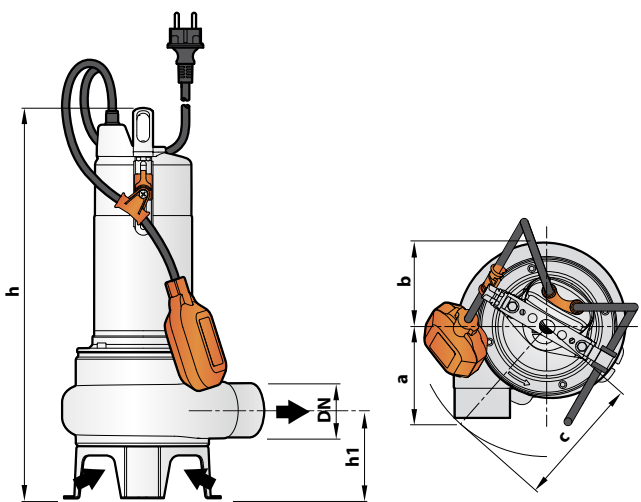
Standard length 10 metres

12 FLOAT SWITCH

(only for single-phase versions)



DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	Ø	1~	3~
VXm 8/35 -ST	VX 8/35 -ST	1½"	Ø 40 mm	95	95	140	406	87	50	variable	500	500	10.3	10.0
VXm 10/35 -ST	VX 10/35 -ST						421						11.1	10.0
VXm 15/35 -ST	VX 15/35 -ST						430						13.1	12.1
VXm 8/50 -ST	VX 8/50 -ST	2"	Ø 50 mm	102	95	145	430	102	60	variable	500	500	10.4	10.1
VXm 10/50 -ST	VX 10/50 -ST						445						11.2	10.1
VXm 15/50 -ST	VX 15/50 -ST						445						13.2	12.2

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
VXm 8/35 -ST	3.5 A	3.4 A	7.0 A
VXm 10/35 -ST	4.8 A	4.6 A	9.6 A
VXm 15/35 -ST	7.4 A	7.1 A	-
VXm 8/50 -ST	3.7 A	3.5 A	7.4 A
VXm 10/50 -ST	5.0 A	4.8 A	10.0 A
VXm 15/50 -ST	7.1 A	6.8 A	-

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
Three-phase	230 V	400 V	240 V	415 V
VX 8/35 -ST	3.0 A	1.7 A	2.9 A	1.65 A
VX 10/35 -ST	3.5 A	2.0 A	3.4 A	1.95 A
VX 15/35 -ST	5.2 A	3.0 A	5.0 A	2.9 A
VX 8/50 -ST	3.2 A	1.8 A	3.1 A	1.75 A
VX 10/50 -ST	3.5 A	2.0 A	3.4 A	1.95 A
VX 15/50 -ST	5.2 A	3.0 A	5.0 A	2.9 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
VXm 8/35 -ST	VX 8/35 -ST	60	80
VXm 10/35 -ST	VX 10/35 -ST	60	80
VXm 15/35 -ST	VX 15/35 -ST	54	72
VXm 8/50 -ST	VX 8/50 -ST	54	72
VXm 10/50 -ST	VX 10/50 -ST	54	72
VXm 15/50 -ST	VX 15/50 -ST	54	72

Submersible pumps in stainless steel

-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 m³/h)
- Head up to **15 m**

APPLICATION LIMITS

- **5 m** maximum immersion depth
- Maximum liquid temperature **+40 °C**
- Passage of suspended solids up to **Ø 50 mm**
- Minimum immersion depth for continuous service: **300 mm**

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

BC-ST submersible pumps in stainless steel are recommended for draining **dirty and filthy water** in domestic, civil and industrial applications. They come equipped with a **DOUBLE-CHANNEL** impeller and are capable of pumping liquids containing short fibred suspended solids up to Ø 50 mm. They are ideal for pumping sewage, waste water, surface water and water mixed with mud in locations such as blocks of flats and detached houses. These pumps distinguish themselves for their reliability, which can be best appreciated under automatic operating conditions in fixed installations.

PATENTS - TRADE MARKS - MODELS

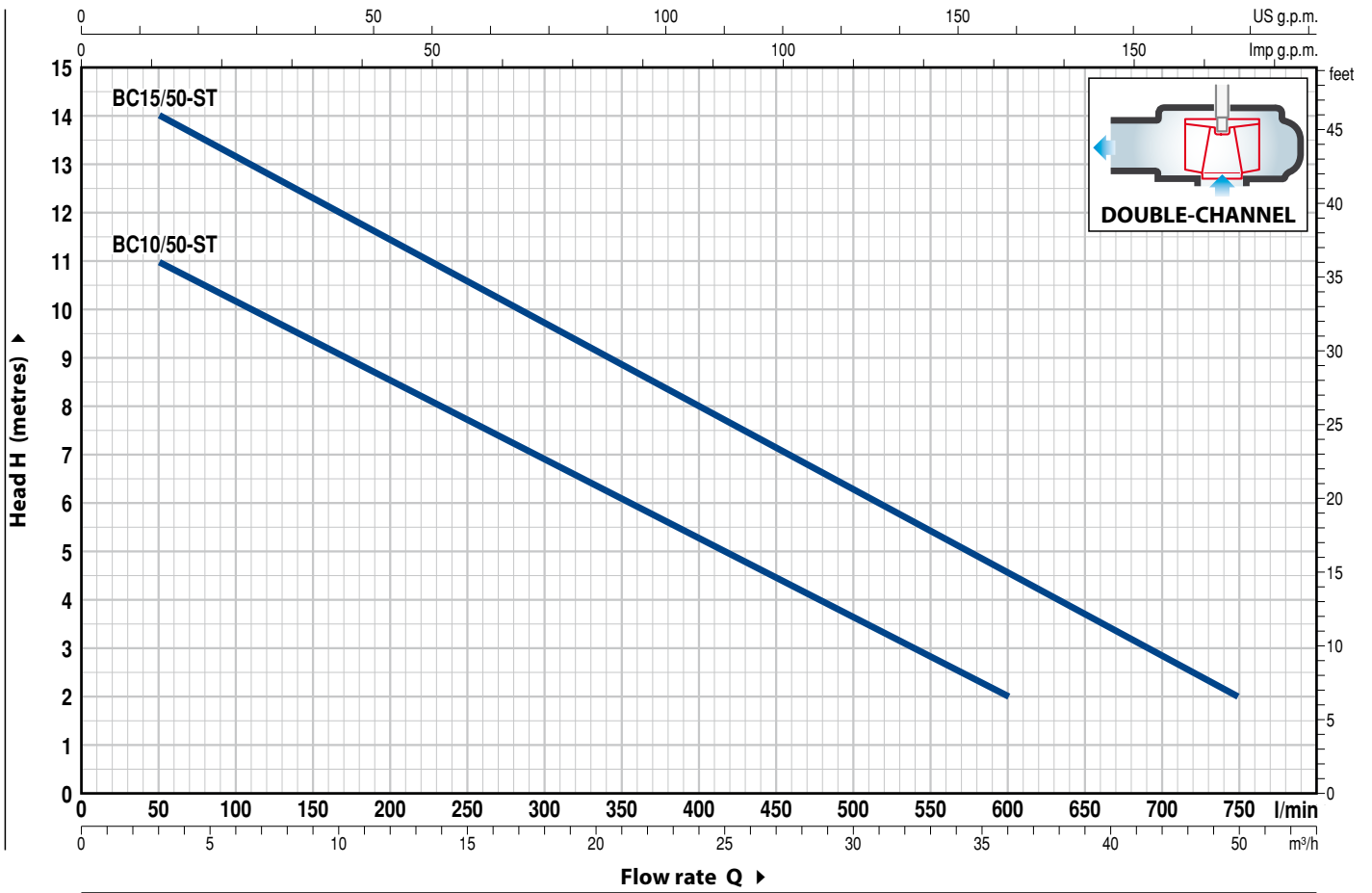
- Patent Pending n. BO2015A000116

OPTIONS AVAILABLE ON REQUEST

- Single-phase pumps without float switch
- AISI 304 stainless steel pump shaft
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m ³ /h	0	3	6	12	18	24	30	36	42	45			
				l/min	0	50	100	200	300	400	500	600	700	750				
BCm 10/50-ST	BC 10/50-ST	0.75	1	H metres	12	11	10	8.5	7	5	3.6	2						
BCm 15/50-ST	BC 15/50-ST	1.1	1.5		15	14	13	11.5	9.7	8	6.3	4.6	2.9	2				

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Stainless steel AISI 304 with threaded port in compliance with ISO 228/1				
2 BASE	Stainless steel AISI 304				
3 IMPELLER	Precision cast stainless steel AISI 304 DOUBLE-CHANNEL type				
4 MOTOR CASING	Stainless steel AISI 304				
5 MOTOR CASING PLATE	Stainless steel AISI 304				
6 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER					
<i>Seal</i>	<i>Shaft</i>	<i>Position</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Materials</i>
<i>Model</i>	<i>Diameter</i>				<i>Elastomer</i>
MG1-14D SIC	Ø 14 mm	Motor side Pump side	Silicon carbide Silicon carbide	Graphite Silicon carbide	NBR NBR
8 BEARINGS	6203 ZZ / 6203 ZZ				

9 CAPACITOR	
<i>Pump</i>	<i>Capacitance</i>
<i>Single-phase</i>	<i>(230 V or 240 V)</i> <i>(110 V)</i>
BCm 10/50-ST	20 µF 450 VL 30 µF - 250 VL
BCm 15/50-ST	25 µF 450 VL -

10 ELECTRIC MOTOR

BCm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

BC: three-phase 400 V - 50 Hz

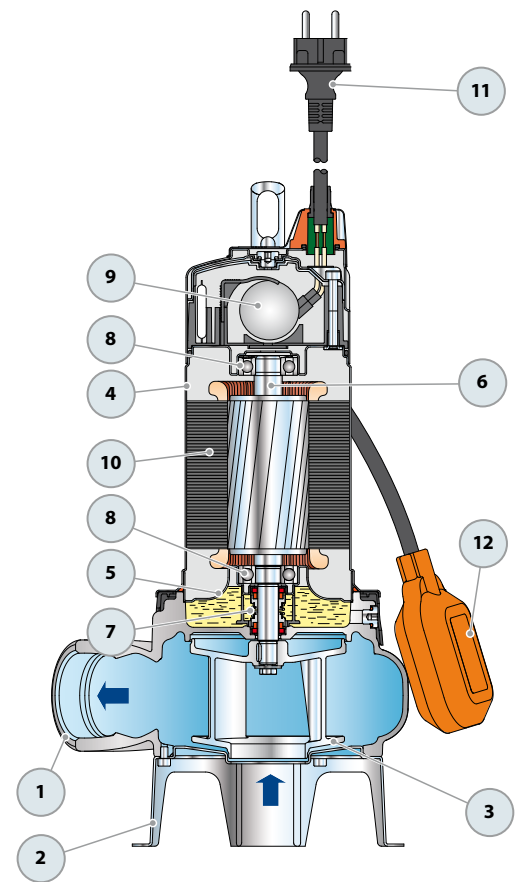
- Insulation: class F
- Protection: IP X8

11 POWER CABLE

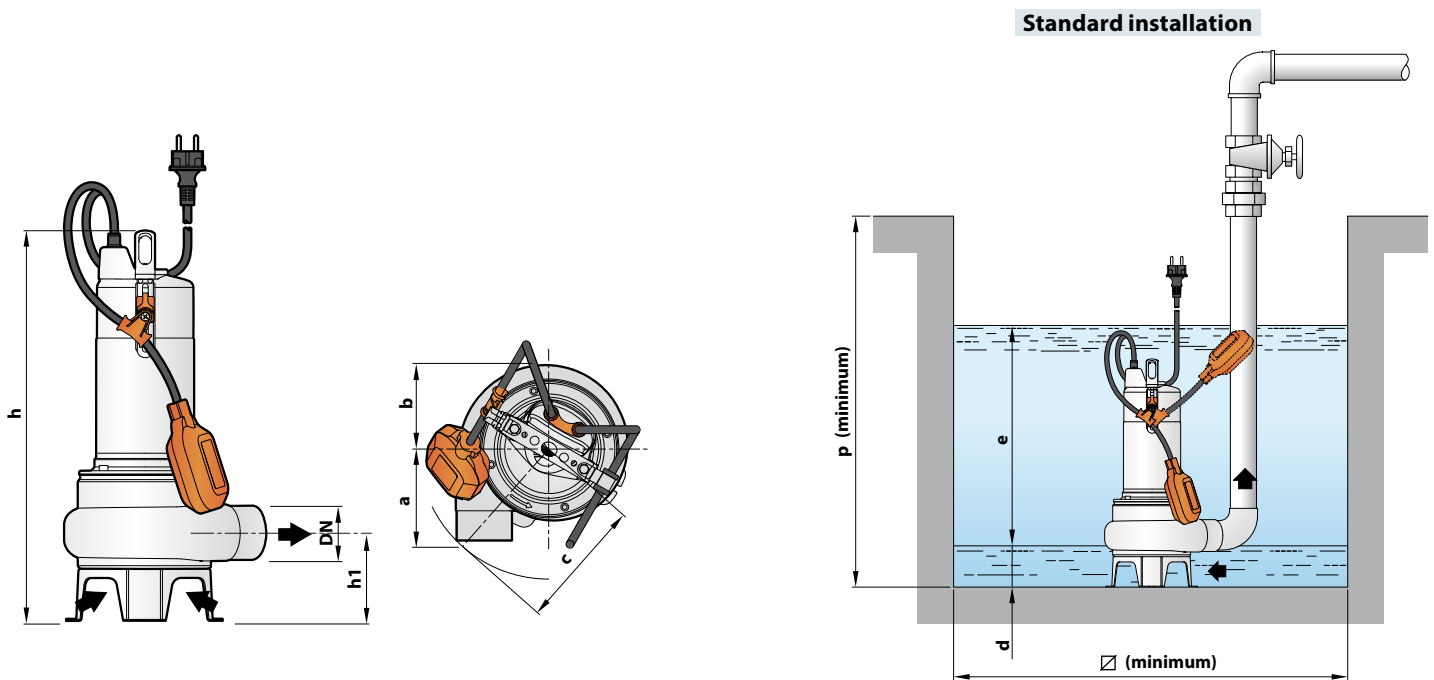
"H07 RN-F" type
(with Schuko plug for single-phase versions only)

Standard length 10 metres

12 FLOAT SWITCH
(only for single-phase versions)



DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	∅	1~	3~
BCm 10/50-ST	BC 10/50-ST	2"	Ø 50 mm	102	95	145	430	102	60	variable	500	500	11.9	10.8
BCm 15/50-ST	BC 15/50-ST						445							

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
BCm 10/50-ST	5.0 A	4.8 A	10.0 A
BCm 15/50-ST	8.2 A	7.9 A	-

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
BC 10/50-ST	3.7 A	2.1 A	3.5 A	2.0 A
BC 15/50-ST	5.6 A	3.2 A	5.4 A	3.1 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
BCm 10/50-ST	BC 10/50-ST	54	72
BCm 15/50-ST	BC 15/50-ST	54	72

Submersible pumps in stainless steel

-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **650 l/min** (39 m³/h)
- Head up to **14 m**

APPLICATION LIMITS

- **5 m** maximum immersion depth
- Maximum liquid temperature **+40 °C**
- Passage of solids:
 - up to **Ø 40 mm** for VX /35-MF
 - up to **Ø 50 mm** for VX /50-MF
- Minimum immersion depth for continuous service:
 - **280 mm** for VX /35-MF
 - **300 mm** for VX /50-MF

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

VX-MF submersible pumps in stainless steel are recommended for draining **filthy water** in domestic, civil and industrial applications, in every case where there are solid bodies in suspension, for example water mixed with mud, groundwater, surface water. They are suitable for draining flooded areas such as cellars, underground car parks, car washes, for emptying cesspools and for sewage disposal.

These pumps distinguish themselves for their reliability, which can be best appreciated under automatic operating conditions in fixed installations.

PATENTS - TRADE MARKS - MODELS

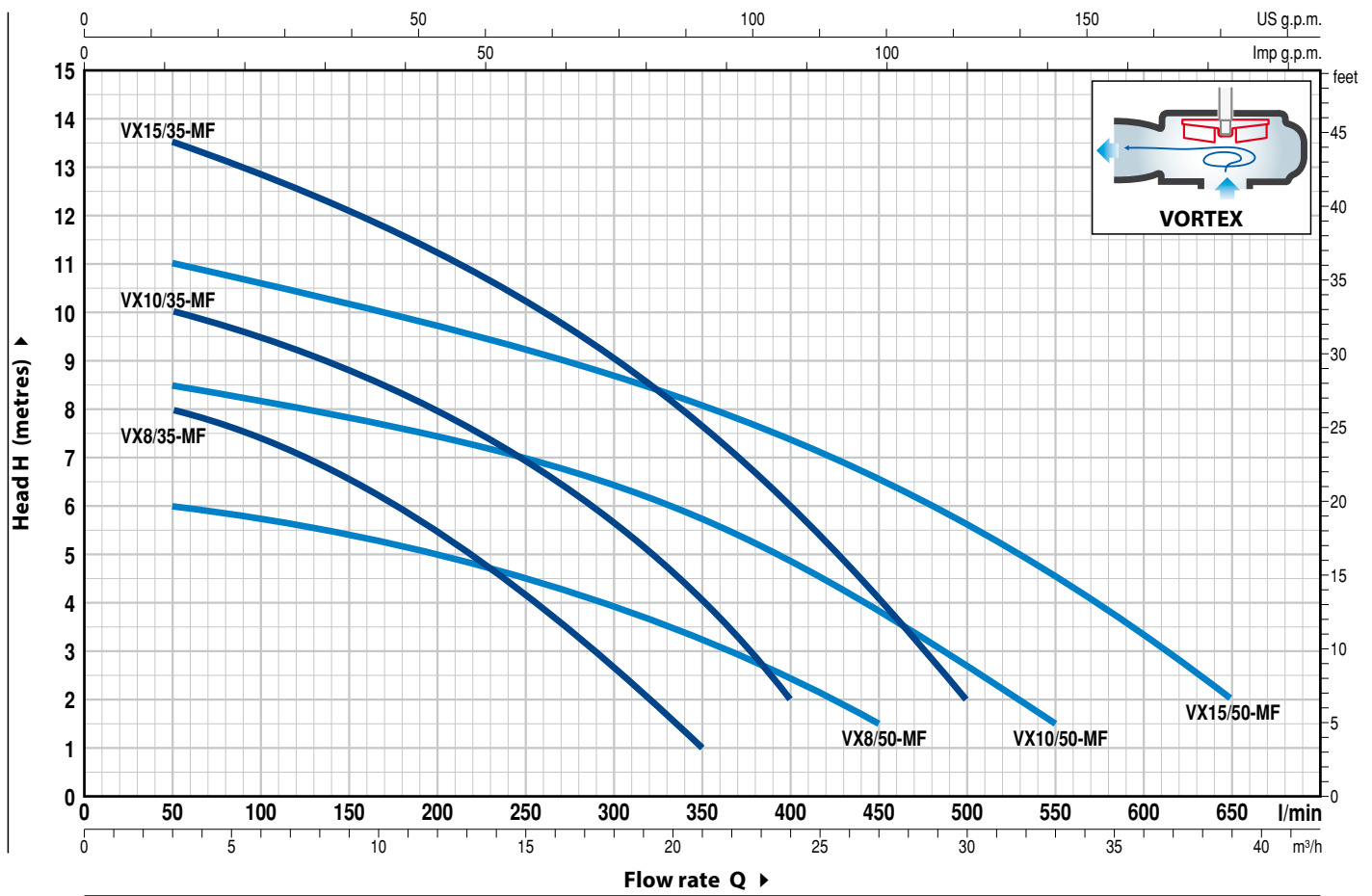
- Patent Pending n. BO2015A000116

OPTIONS AVAILABLE ON REQUEST

- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate															
Single-phase	Three-phase	kW	HP		m ³ /h	0	3	6	12	18	21	24	27	30	33	36	39			
				l/min	0	50	100	200	300	350	400	450	500	550	600	650				
VXm 8/35 -MF	VX 8/35 -MF	0.55	0.75	H metres	9	8	7.5	5.5	2.7	1										
VXm 10/35 -MF	VX 10/35 -MF	0.75	1		11	10	9.5	8	5.7	4	2									
VXm 15/35 -MF	VX 15/35 -MF	1.1	1.5		14	13.5	12.8	11.2	9	7.7	6	4	2							
VXm 8/50 -MF	VX 8/50 -MF	0.55	0.75		6.5	6	5.8	5	4	3.3	2.5	1.5								
VXm 10/50 -MF	VX 10/50 -MF	0.75	1		9	8.5	8.2	7.5	6.5	5.8	5	3.8	2.5	1.5						
VXm 15/50 -MF	VX 15/50 -MF	1.1	1.5		11.5	11	10.5	9.8	8.7	8	7.5	6.5	5.5	4.5	3.5	2				

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Precision cast stainless steel AISI 304 with threaded port in compliance with ISO 228/1				
2 BASE	Stainless steel AISI 304				
3 IMPELLER	Stainless steel AISI 304 VORTEX type				
4 MOTOR CASING	Stainless steel AISI 304				
5 MOTOR CASING PLATE	Stainless steel AISI 304				
6 MOTOR SHAFT	Stainless steel AISI 304				
7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER					
Seal Model	Shaft Diameter	Position	Stationary ring	Rotational ring	Materials
MG1-14D SIC	Ø 14 mm	Motor side Pump side	Silicon carbide Silicon carbide	Graphite Silicon carbide	NBR NBR
8 BEARINGS	6203 ZZ / 6203 ZZ				

9 CAPACITOR		
Pump	Capacitance	
<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>
VXm 8/35 -MF VXm 8/50 -MF VXm 10/35-MF VXm 10/50-MF	20 µF 450 VL	30 µF - 250 VL
VXm 15/35-MF VXm 15/50-MF	25 µF 450 VL	-

10 ELECTRIC MOTOR

VXm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

VX: three-phase 400 V - 50 Hz

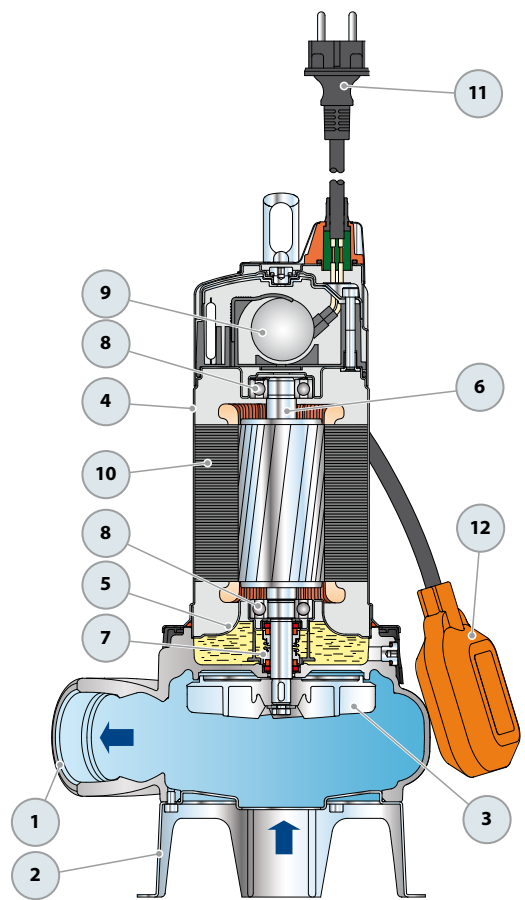
- Insulation: class F
- Protection: IP X8

11 POWER CABLE

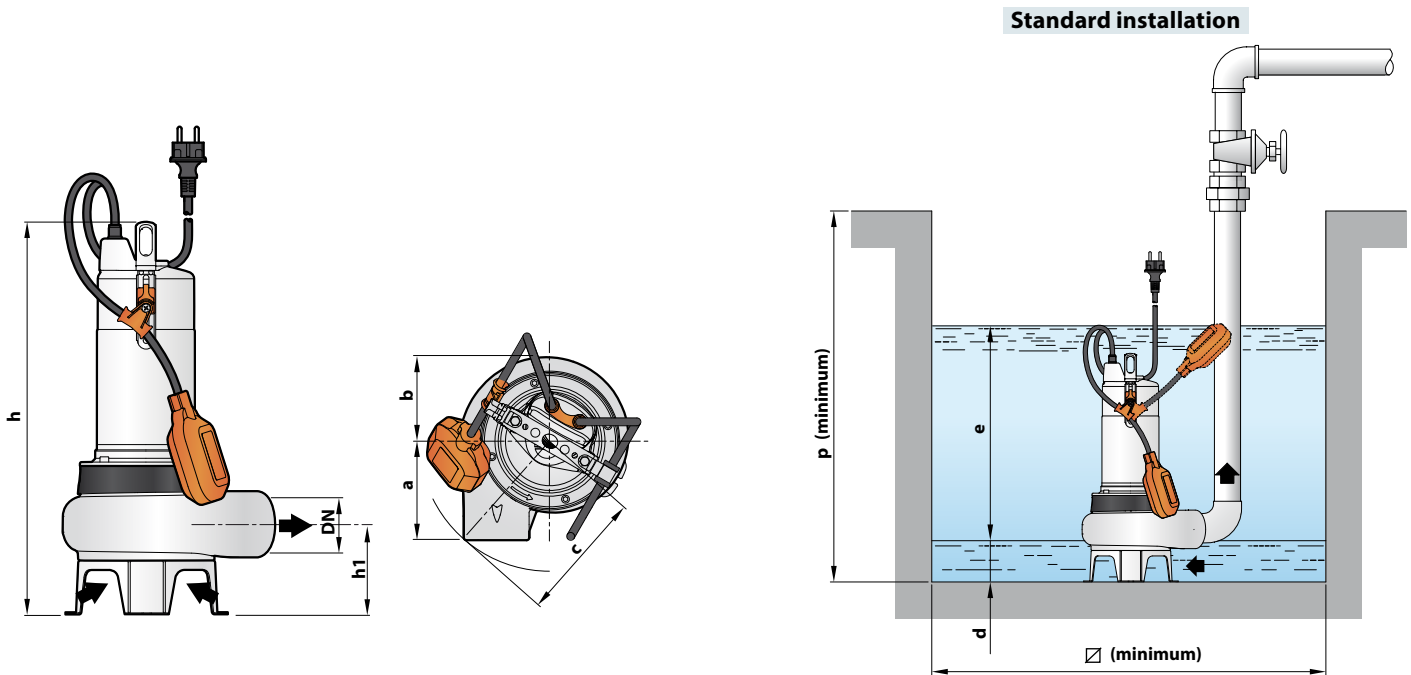
"H07 RN-F" type
(with Schuko plug for single-phase versions only)

Standard length 10 metres

12 FLOAT SWITCH
(only for single-phase versions)



DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	∅	1~	3~
VXm 8/35 -MF	VX 8/35 -MF	1½"	∅ 40 mm	107	98	150	406	86	50	variable	500	500	12.9	12.6
VXm 10/35 -MF	VX 10/35 -MF						421						13.7	12.6
VXm 15/35 -MF	VX 15/35 -MF						431						15.0	14.0
VXm 8/50 -MF	VX 8/50 -MF	2"	∅ 50 mm	112	98	150	431	102	60	variable	500	500	13.4	13.1
VXm 10/50 -MF	VX 10/50 -MF						446						14.2	13.1
VXm 15/50 -MF	VX 15/50 -MF						446						15.5	14.5

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
VXm 8/35 -MF	3.5 A	3.4 A	7.0 A
VXm 10/35 -MF	4.8 A	4.6 A	9.6 A
VXm 15/35 -MF	7.4 A	7.1 A	-
VXm 8/50 -MF	3.7 A	3.5 A	7.4 A
VXm 10/50 -MF	5.0 A	4.8 A	10.0 A
VXm 15/50 -MF	7.1 A	6.8 A	-

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
Three-phase	230 V	400 V	240 V	415 V
VX 8/35 -MF	3.0 A	1.7 A	2.9 A	1.65 A
VX 10/35 -MF	3.5 A	2.0 A	3.4 A	1.95 A
VX 15/35 -MF	5.2 A	3.0 A	5.0 A	2.9 A
VX 8/50 -MF	3.2 A	1.8 A	3.1 A	1.75 A
VX 10/50 -MF	3.5 A	2.0 A	3.4 A	1.95 A
VX 15/50 -MF	5.2 A	3.0 A	5.0 A	2.9 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
VXm 8/35 -MF	VX 8/35 -MF	60	80
VXm 10/35 -MF	VX 10/35 -MF	60	80
VXm 15/35 -MF	VX 15/35 -MF	54	72
VXm 8/50 -MF	VX 8/50 -MF	54	72
VXm 10/50 -MF	VX 10/50 -MF	54	72
VXm 15/50 -MF	VX 15/50 -MF	54	72

Submersible pumps in stainless steel



-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use

PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 m³/h)
- Head up to **15 m**

APPLICATION LIMITS

- **5 m** maximum immersion depth
- Maximum liquid temperature **+40 °C**
- Passage of suspended solids up to **Ø 50 mm**
- Minimum immersion depth for continuous service: **300 mm**

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

BC-MF submersible pumps are recommended for draining **dirty and filthy water** in domestic, civil and industrial applications. They come equipped with a **DOUBLE-CHANNEL** impeller and are capable of pumping liquids containing short fibred suspended solids up to Ø 50 mm. They are ideal for pumping sewage, waste water, surface water and water mixed with mud in locations such as blocks of flats and detached house.

These pumps distinguish themselves for their reliability, which can be best appreciated under automatic operating conditions in fixed installations.

PATENTS - TRADE MARKS - MODELS

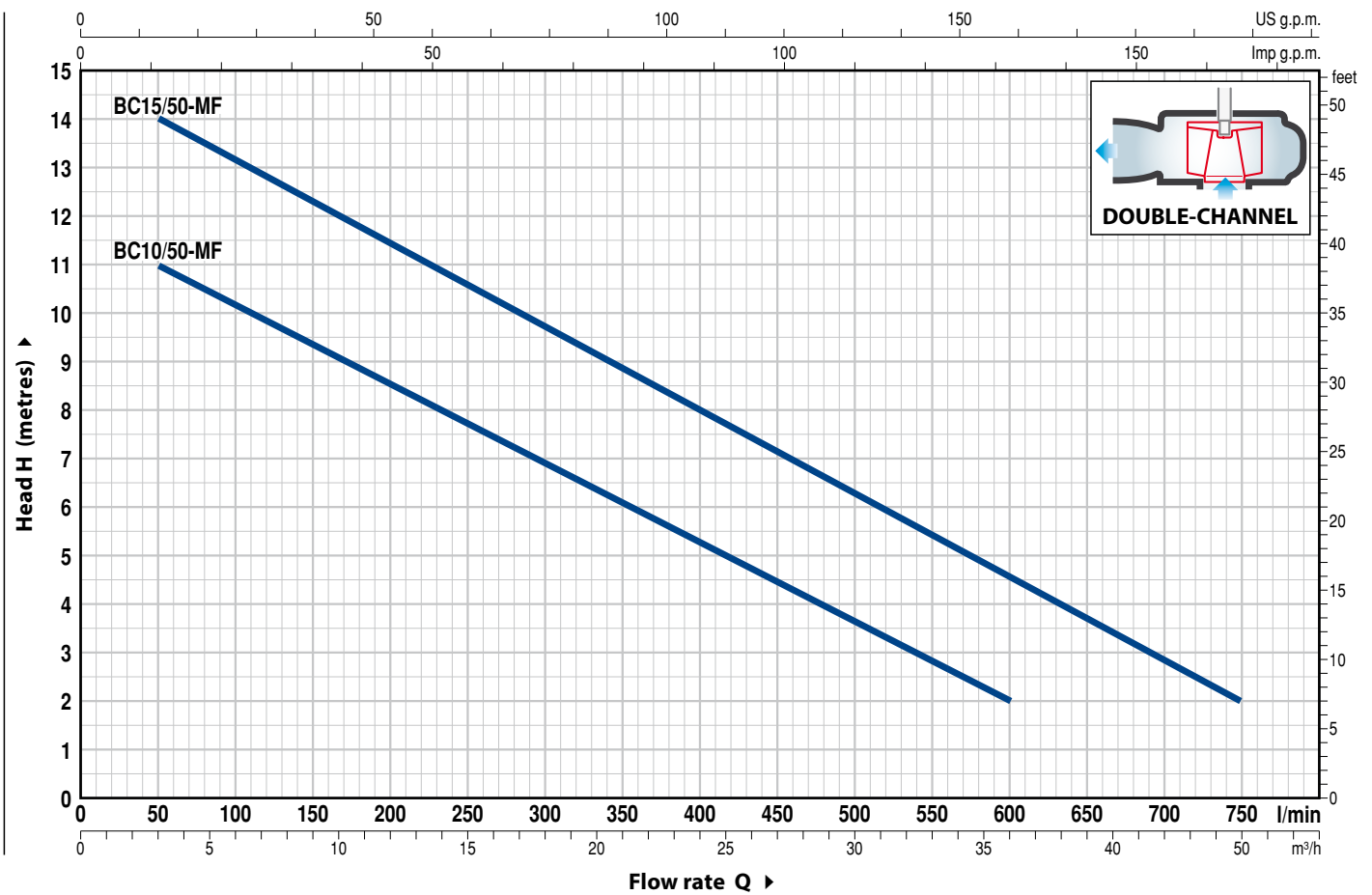
- Patent Pending n. BO2015A000116

OPTIONS AVAILABLE ON REQUEST

- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m ³ /h	0	3	6	12	18	24	30	36	42	45			
				l/min	0	50	100	200	300	400	500	600	700	750				
BCm 10/50-MF	BC 10/50-MF	0.75	1	H metres	12	11	10	8.5	7	5	3.5	2						
BCm 15/50-MF	BC 15/50-MF	1.1	1.5		15	14	13	11.5	9.7	8	6.3	4.5	3	2				

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Precision cast stainless steel AISI 304 with threaded port in compliance with ISO 228/1				
2 BASE	Stainless steel AISI 304				
3 IMPELLER	Precision cast stainless steel AISI 304 DOUBLE-CHANNEL type				
4 MOTOR CASING	Stainless steel AISI 304				
5 MOTOR CASING PLATE	Stainless steel AISI 304				
6 MOTOR SHAFT	Stainless steel AISI 304				
7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER					
<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Position</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
MG1-14D SIC	Ø 14 mm	Motor side Pump side	Silicon carbide Silicon carbide	Graphite Silicon carbide	NBR NBR
8 BEARINGS	6203 ZZ / 6203 ZZ				

9 CAPACITOR		
<i>Pump</i>	<i>Capacitance</i>	
<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>
BCm 10/50-MF	20 µF 450 VL	30 µF - 250 VL
BCm 15/50-MF	25 µF 450 VL	–

10 ELECTRIC MOTOR

BCm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

BC: three-phase 400 V - 50 Hz

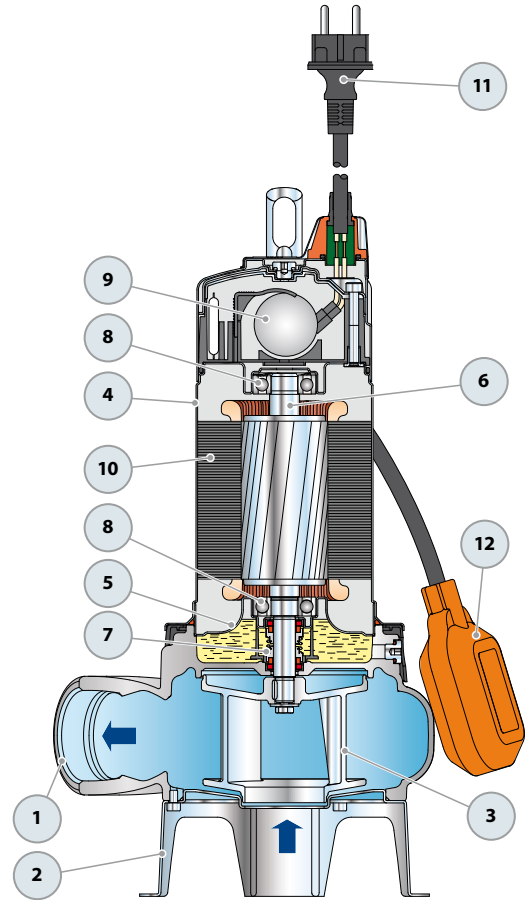
- Insulation: class F
- Protection: IP X8

11 POWER CABLE

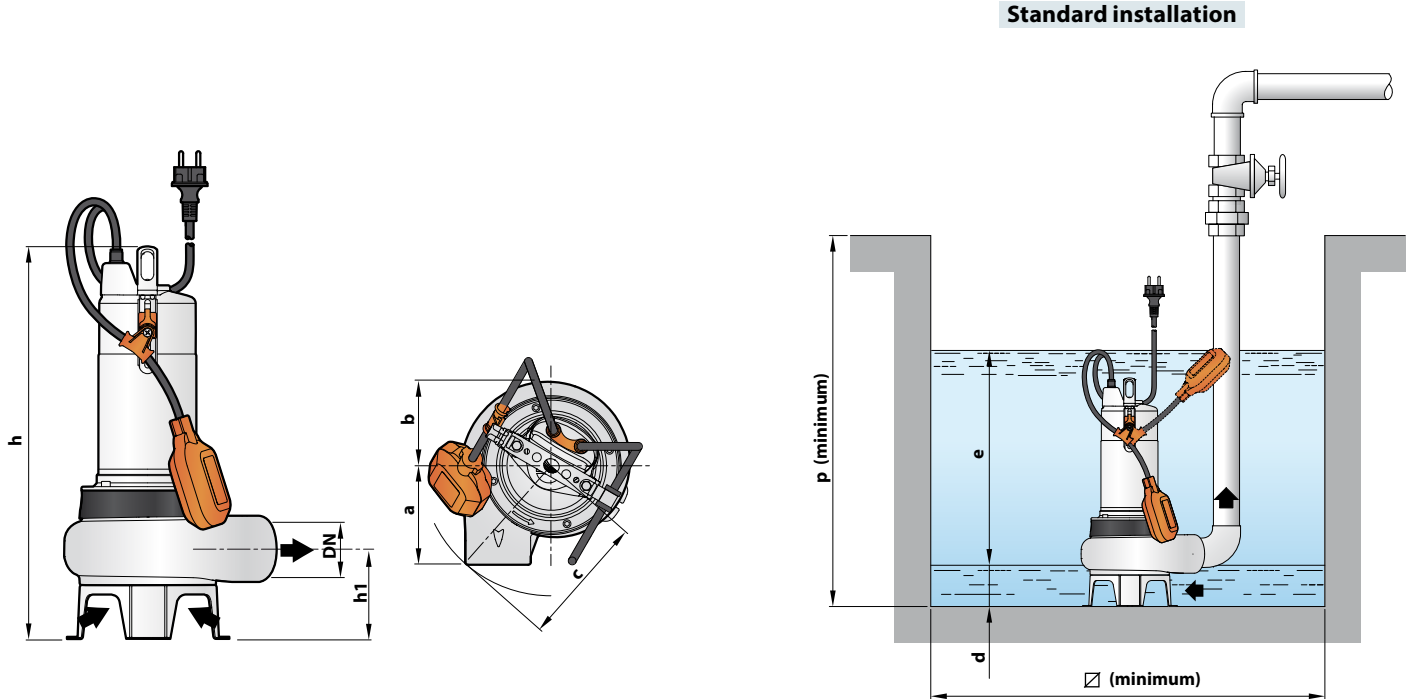
“H07 RN-F” type
(with Schuko plug for single-phase versions only)

Standard length 10 metres

12 FLOAT SWITCH
(only for single-phase versions)



DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm										kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	∅	1~	3~	
BCm 10/50-MF	BC 10/50-MF	2"	Ø 50 mm	112	98	150	431	102	60	variable	500	500	14.9	13.8	
BCm 15/50-MF	BC 15/50-MF						446								15.8

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
BCm 10/50-MF	5.0 A	4.8 A	10.0 A
BCm 15/50-MF	8.2 A	7.9 A	-

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
BC 10/50-MF	3.7 A	2.1 A	3.5 A	2.0 A
BC 15/50-MF	5.6 A	3.2 A	5.4 A	3.1 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
BCm 10/50-MF	BC 10/50-MF	54	72
BCm 15/50-MF	BC 15/50-MF	54	72

Submersible pumps

-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **650 l/min** (39 m³/h)
- Head up to **14 m**

APPLICATION LIMITS

- **5 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of solids:
 - up to **Ø 40 mm** for VX /35-N
 - up to **Ø 50 mm** for VX /50-N
- Minimum immersion depth for continuous service:
 - **280 mm** for VX /35-N
 - **300 mm** for VX /50-N

CONSTRUCTION AND SAFETY STANDARDS

- Power cable length:
 - **5 m** for VX8-10/35-N, VX8-10/50-N
 - **10 m** for VX15/35-N, VX15/50-N
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

VX pumps are recommended for domestic, civil and industrial applications in all cases where the water contains suspended solids up to Ø 50 mm, for example **groundwater, surface water, filthy and dirty water**.

They are for example suitable for draining flooded areas such as cellars, underground car parks, car washes, for emptying cesspools and for sewage disposal.

These pumps distinguish themselves for their reliability, which can be best appreciated under automatic operating conditions in fixed installations.

PATENTS - TRADE MARKS - MODELS

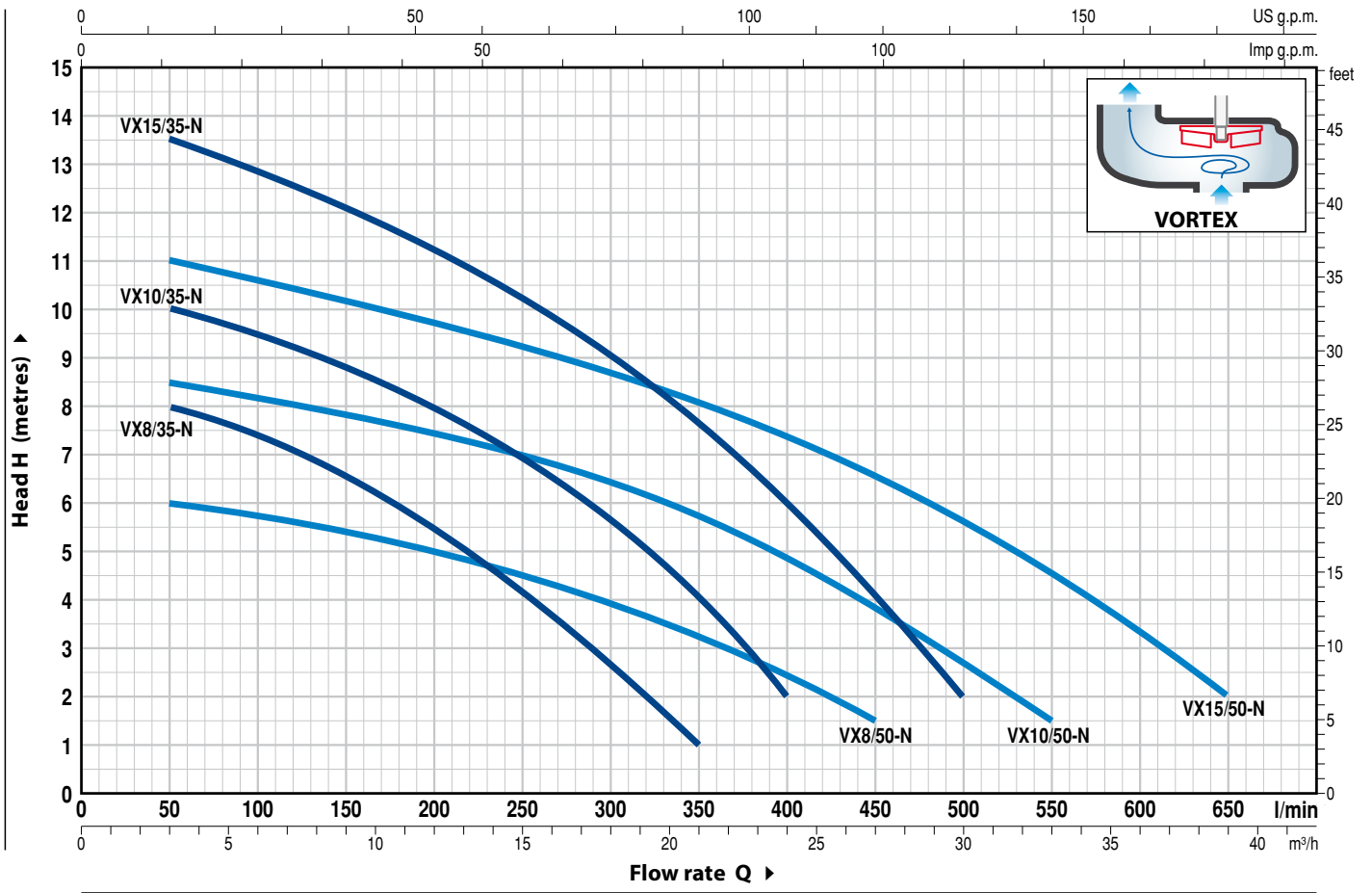
- Patent Pending n. BO2015A000116

OPTIONS AVAILABLE ON REQUEST

- VX8-10 pumps with a **10 m** power cable.
 - ⇒ N.B.: Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	H metres												
Single-phase	Three-phase	kW	HP		m ³ /h	0	3	6	12	18	21	24	27	30	33	36	39
				l/min	0	50	100	200	300	350	400	450	500	550	600	650	
VXm 8/35 -N	VX 8/35 -N	0.55	0.75	H metres	9	8	7.5	5.5	2.7	1							
VXm 10/35-N	VX 10/35 -N	0.75	1		11	10	9.5	8	5.7	4	2						
VXm 15/35-N	VX 15/35 -N	1.1	1.5		14	13.5	12.8	11.2	9	7.7	6	4	2				
VXm 8/50 -N	VX 8/50 -N	0.55	0.75		6.5	6	5.8	5	4	3.3	2.5	1.5					
VXm 10/50-N	VX 10/50 -N	0.75	1		9	8.5	8.2	7.5	6.5	5.8	5	3.8	2.5	1.5			
VXm 15/50-N	VX 15/50 -N	1.1	1.5		11.5	11	10.5	9.8	8.7	8	7.5	6.5	5.5	4.5	3.5	2	

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/1				
2 BASE	Stainless steel AISI 304				
3 IMPELLER	Stainless steel AISI 304 VORTEX type				
4 MOTOR CASING	Stainless steel AISI 304				
5 MOTOR CASING PLATE	Stainless steel AISI 304				
6 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER					
<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Position</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
MG1-14D SIC	Ø 14 mm	Motor side	Silicon carbide	Graphite	NBR
		Pump side	Silicon carbide	Silicon carbide	NBR
8 BEARINGS	6203 ZZ / 6203 ZZ				

9 CAPACITOR		
<i>Pump</i>	<i>Capacitance</i>	
<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>
VXm 8/35-N	20 µF 450 VL	30 µF - 250 VL
VXm 8/50-N		
VXm 10/35-N		
VXm 10/50-N	25 µF 450 VL	-
VXm 15/35-N		
VXm 15/50-N		

10 ELECTRIC MOTOR

VXm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

VX: three-phase 400 V - 50 Hz

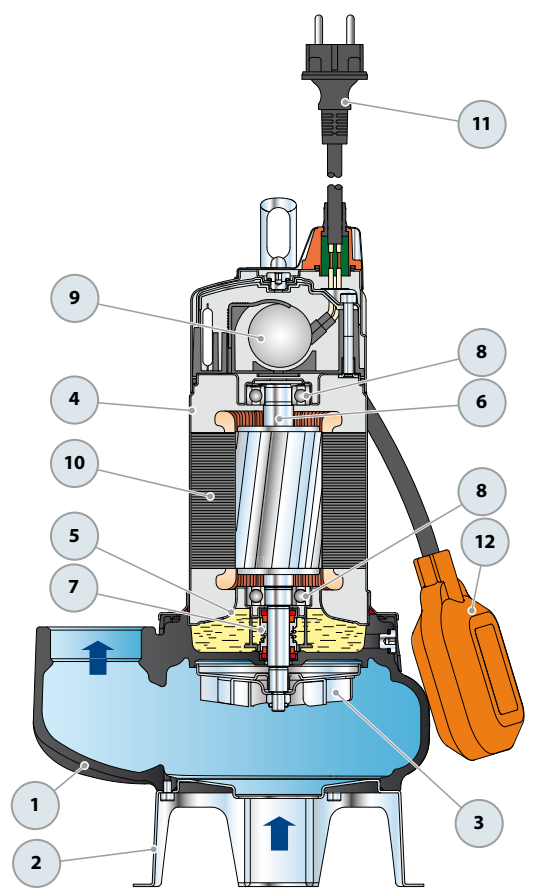
- Insulation: class F
- Protection: IP X8

11 POWER CABLE

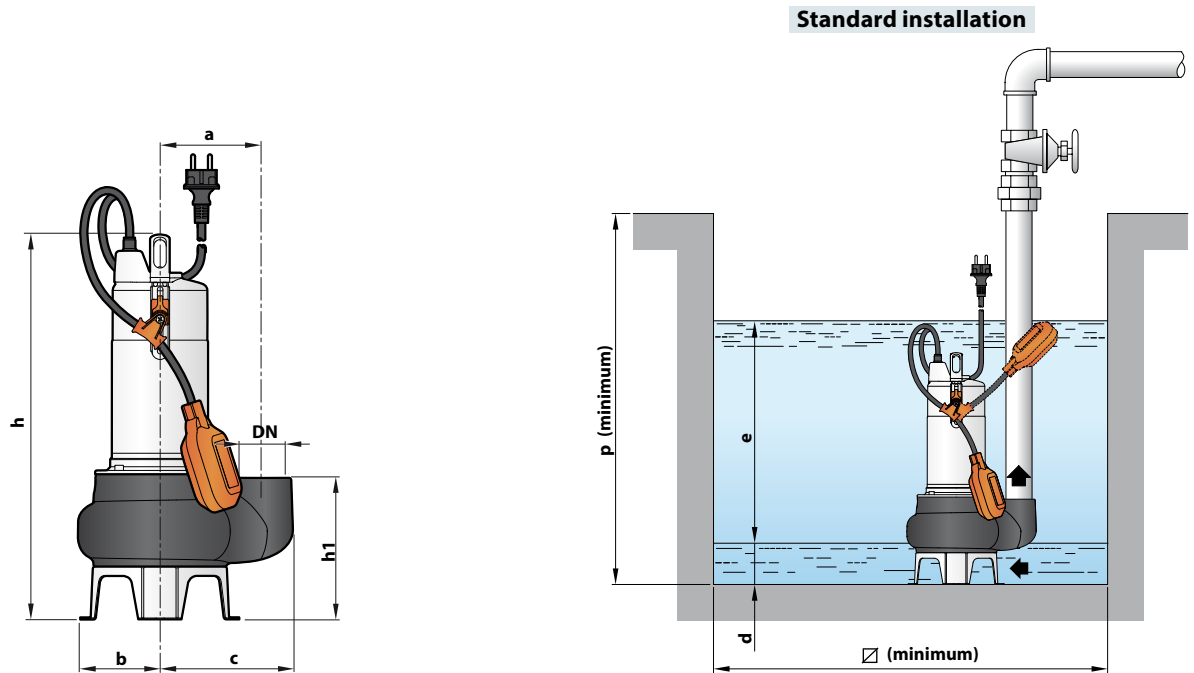
"H07 RN-F" type
(with Schuko plug for single-phase versions only)

Standard length 5 metres (10 metres for VX15/35-50)

12 FLOAT SWITCH
(only for single-phase versions)



DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	∅	1~	3~
VXm 8/35 -N	VX 8/35 -N	1½"	∅ 40 mm	115	95	148	406	139	50	variable	500	500	12.9	12.6
VXm 10/35 -N	VX 10/35 -N						421						13.7	12.6
VXm 15/35 -N	VX 15/35 -N						421						15.7	14.7
VXm 8/50 -N	VX 8/50 -N	2"	∅ 50 mm			155	431	164	60				13.4	13.1
VXm 10/50 -N	VX 10/50 -N						446						14.2	13.1
VXm 15/50 -N	VX 15/50 -N						446						16.2	15.2

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
VXm 8/35 -N	3.5 A	3.4 A	7.0 A
VXm 10/35 -N	4.8 A	4.6 A	9.6 A
VXm 15/35 -N	7.4 A	7.1 A	-
VXm 8/50 -N	3.7 A	3.5 A	7.4 A
VXm 10/50 -N	5.0 A	4.8 A	10.0 A
VXm 15/50 -N	7.1 A	6.8 A	-

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
Three-phase	230 V	400 V	240 V	415 V
VX 8/35 -N	3.0 A	1.7 A	2.9 A	1.65 A
VX 10/35 -N	3.5 A	2.0 A	3.4 A	1.95 A
VX 15/35 -N	5.2 A	3.0 A	5.0 A	2.9 A
VX 8/50 -N	3.2 A	1.8 A	3.1 A	1.75 A
VX 10/50 -N	3.5 A	2.0 A	3.4 A	1.95 A
VX 15/50 -N	5.2 A	3.0 A	5.0 A	2.9 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
VXm 8/35 -N	VX 8/35 -N	60	80
VXm 10/35 -N	VX 10/35 -N	60	80
VXm 15/35 -N	VX 15/35 -N	54	72
VXm 8/50 -N	VX 8/50 -N	54	72
VXm 10/50 -N	VX 10/50 -N	54	72
VXm 15/50 -N	VX 15/50 -N	54	72

Submersible pumps

-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 m³/h)
- Head up to **15 m**

APPLICATION LIMITS

- **5 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of suspended solids up to **Ø 50 mm**
- Minimum immersion depth for continuous service: **300 mm**

CONSTRUCTION AND SAFETY STANDARDS

- Power cable length:
 - **5 m** for BC10/50-N
 - **10 m** for BC15/50-N
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

BC submersible pumps are suitable for draining **dirty and filthy water** in domestic and civil applications. They come equipped with a **DOUBLE-CHANNEL** stainless steel impeller and are capable of pumping liquids containing short fibred suspended solids up to Ø 50 mm.

They are ideal for pumping sewage, waste water, surface water and water mixed with mud in locations such as blocks of flats and detached houses.

These pumps distinguish themselves for their reliability, which can be best appreciated under automatic operating conditions in fixed installations.

PATENTS - TRADE MARKS - MODELS

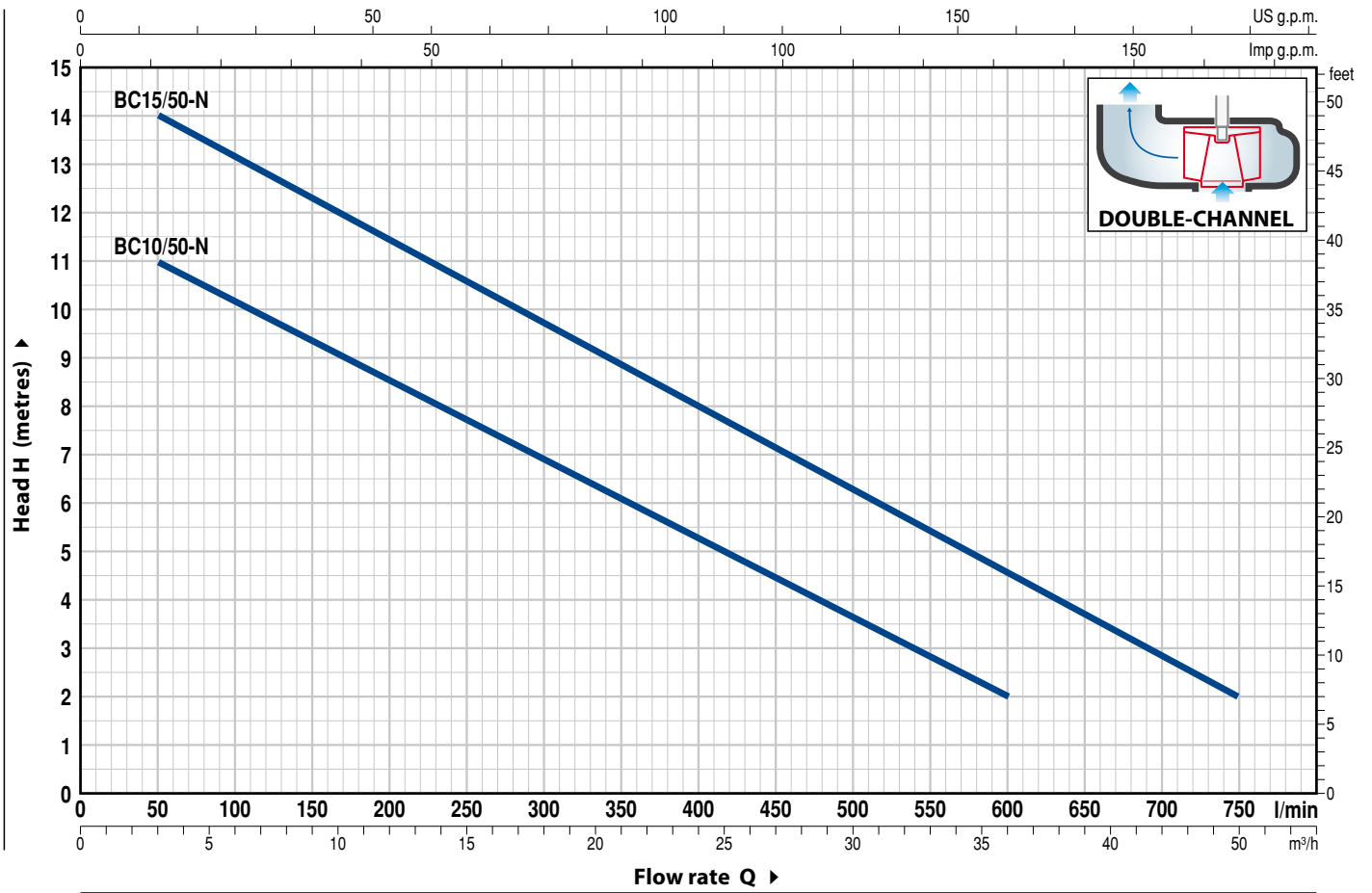
- Patent Pending n. BO2015A000116

OPTIONS AVAILABLE ON REQUEST

- BC10/50-N pumps with a **10 m** power cable.
 - ➔ N.B.: Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m ³ /h	0	3	6	12	18	24	30	36	42	45			
				l/min	0	50	100	200	300	400	500	600	700	750				
BCm 10/50-N	BC 10/50-N	0.75	1	H metres	12	11	10	8.5	7	5	3.5	2						
BCm 15/50-N	BC 15/50-N	1.1	1.5		15	14	13	11.5	9.7	8	6.3	4.5	3	2				

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/1
2	BASE	Stainless steel AISI 304
3	IMPELLER	Precision cast stainless steel AISI 304 DOUBLE-CHANNEL type
4	MOTOR CASING	Stainless steel AISI 304
5	MOTOR CASING PLATE	Stainless steel AISI 304
6	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104

7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
MG1-14D SIC	Ø 14 mm	Motor side	Silicon carbide	Graphite	NBR
		Pump side	Silicon carbide	Silicon carbide	NBR

8 BEARINGS 6203 ZZ / 6203 ZZ

9 CAPACITOR

Pump	Capacitance	
Single-phase	(230 V or 240 V)	(110 V)
BCm 10/50-N	20 µF 450 VL	30 µF - 250 VL
BCm 15/50-N	25 µF 450 VL	-

10 ELECTRIC MOTOR

BCm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

BC: three-phase 400 V - 50 Hz

- Insulation: class F
- Protection: IP X8

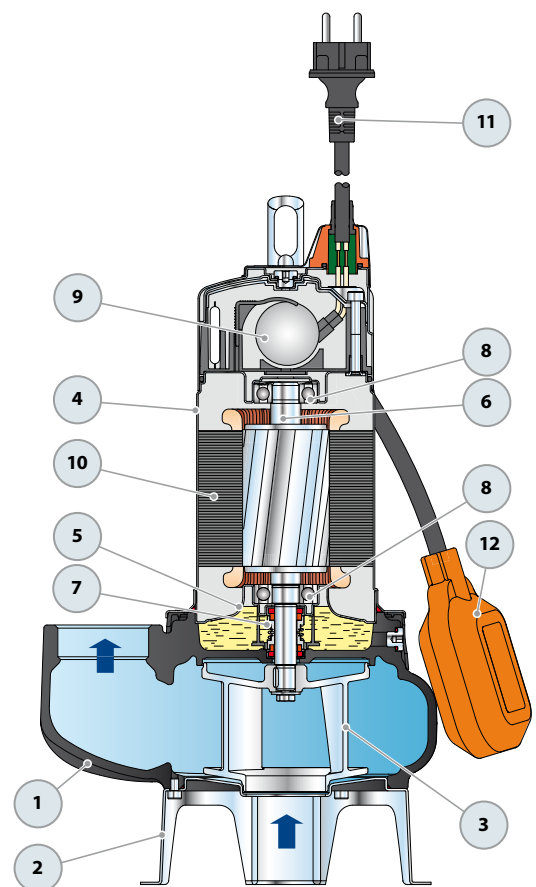
11 POWER CABLE

"H07 RN-F" type
(with Schuko plug for single-phase versions only)

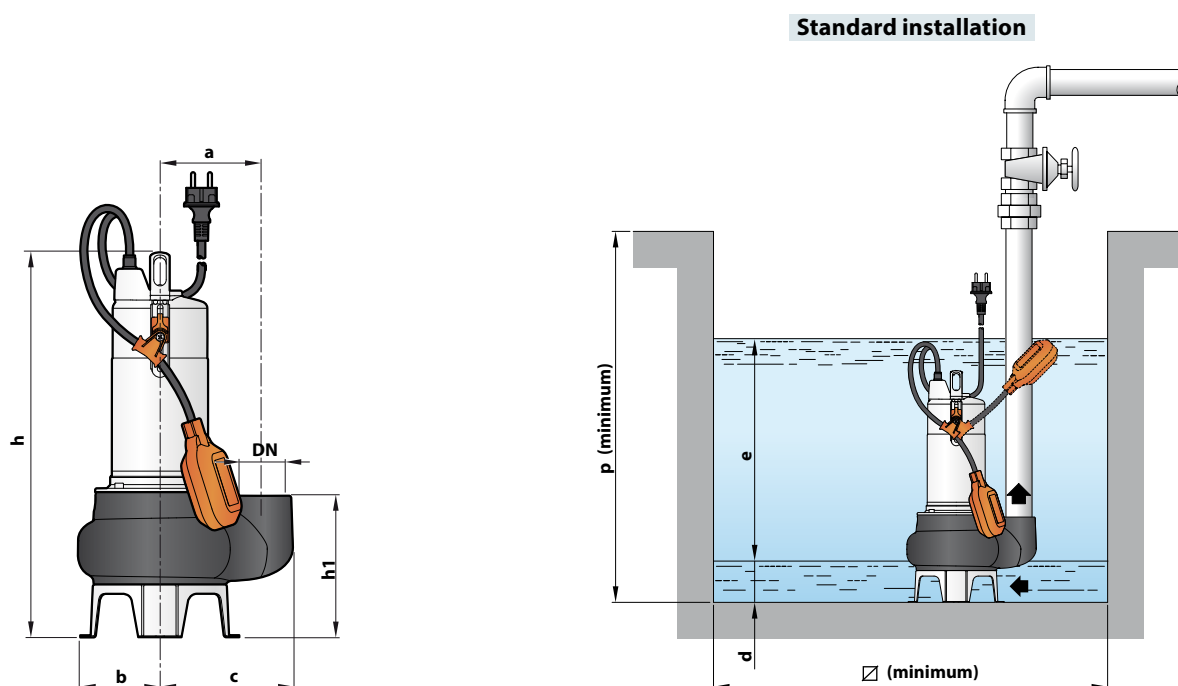
Standard length 5 metres (10 metres for BC15/50)

12 FLOAT SWITCH

(only for single-phase versions)



DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	∅	1~	3~
BCm 10/50-N	BC 10/50-N	2"	Ø 50 mm	115	95	155	431	164	60	variable	500	500	14.9	13.8
BCm 15/50-N	BC 15/50-N						446							

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
BCm 10/50-N	5.0 A	4.8 A	10.0 A
BCm 15/50-N	8.2 A	7.9 A	-

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
BC 10/50-N	3.7 A	2.1 A	3.5 A	2.0 A
BC 15/50-N	5.6 A	3.2 A	5.4 A	3.1 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
BCm 10/50-N	BC 10/50-N	54	72
BCm 15/50-N	BC 15/50-N	54	72

D

Submersible drainage pumps

-  Clear water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **300 l/min** (18 m³/h)
- Head up to **26 m**

APPLICATION LIMITS

- **5 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of suspended solids up to **Ø 10 mm**
- Suction down to **17 mm** above ground level
- Minimum immersion depth for continuous service: **220 mm**

CONSTRUCTION AND SAFETY STANDARDS

- Power cable length:
 - **5 m** for D8-N, D10-N, D20-N
 - **10 m** for D30-N
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

Designed for draining **clear or slightly dirty water**, the **D** series pumps are recommended for domestic, civil and professional applications for draining flooded interiors such as basements and garages, for emptying swimming pools and tanks, for disposal of waste water which is not filthy.

These pumps distinguish themselves for their reliability, which can be best appreciated under automatic operating conditions in fixed installations.

PATENTS - TRADE MARKS - MODELS

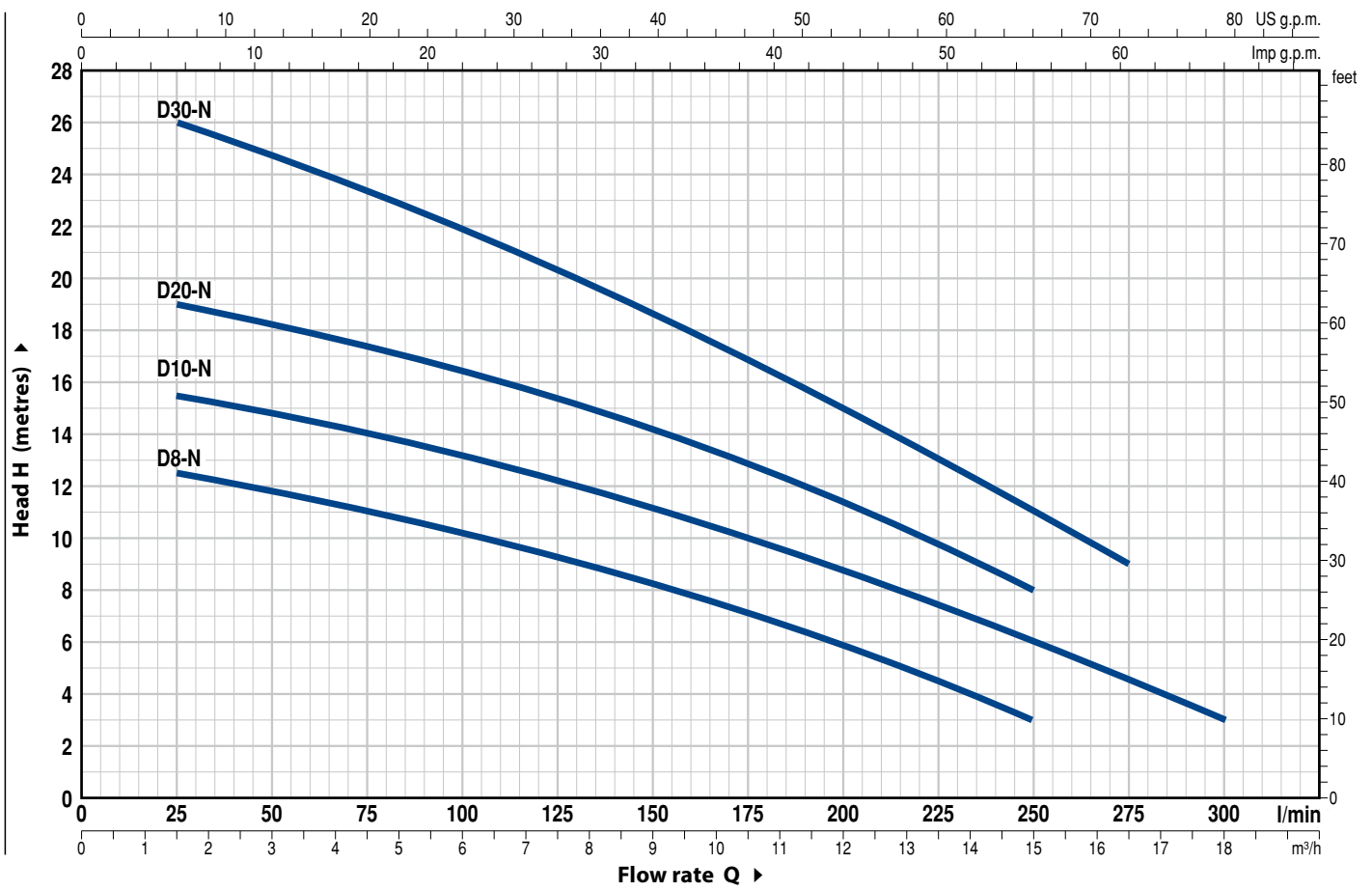
- Patent Pending n. BO2015A000116

OPTIONS AVAILABLE ON REQUEST

- D8-10-20 pumps with a **10 m** power cable.
 - ➔ N.B.: Standard EN 60335-2-41 states that the power cable must be 10 m long for outdoor applications
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate																
Single-phase	Three-phase	kW	HP		m ³ /h	0	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.2	15.0	16.5	18.0			
				l/min	0	25	50	75	100	125	150	175	200	220	250	275	300				
Dm 8 -N	D 8 -N	0.55	0.75	H metres	13	12.5	12	11	10	9	8	7	6	4.7	3						
Dm 10-N	D 10-N	0.75	1		16	15.5	15	14	13.2	12.2	11.2	10	8.8	7.8	6	4.5	3				
Dm 20-N	D 20-N	0.75	1		20	19	18.5	17.5	16.5	15.5	14.3	13	11.5	10	8						
Dm 30-N	D 30-N	1.1	1.5		26	26	25	23.5	22	20.5	18.7	17	15	13.5	11	9					

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/1
2	SUCTION FILTER	Stainless steel AISI 304
3	SUCTION PLATE	Stainless steel AISI 304
4	IMPELLER	Technopolymer open type
5	MOTOR CASING	Stainless steel AISI 304
6	MOTOR CASING PLATE	Stainless steel AISI 304
7	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104

8 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Pump Model	Seal Model	Shaft Diameter	Position	Materials		
				Stationary ring	Rotational ring	Elastomer
D8 -N	MG1-14D SIC	Ø 14 mm	Motor side	Silicon carbide	Graphite	NBR
D10 -N			Pump side	Silicon carbide	Silicon carbide	NBR
D20 -N			Pump side	Silicon carbide	Silicon carbide	NBR
(Double seal on shaft with a ring seal Ø 16 x Ø 24 x H 5 mm)						
D30 -N	ST1-14 SIC	Ø 14 mm		Ceramic	Silicon carbide	NBR

9	BEARINGS	6203 ZZ / 6203 ZZ
10	CAPACITOR	
	Pump	Capacitance
	Single-phase	(230 V or 240 V) (110 V)
	Dm8 -N	
	Dm10 -N	20 µF 450 VL 30 µF - 250 VL
	Dm20 -N	
	Dm30 -N	25 µF 450 VL -

11 ELECTRIC MOTOR

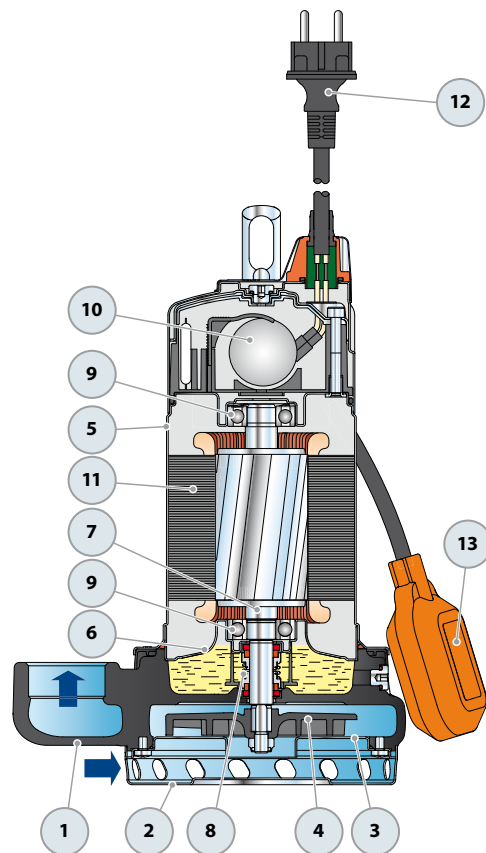
Dm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding
D: three-phase 400 V - 50 Hz
– Insulation: class F
– Protection: IP X8

12 POWER CABLE

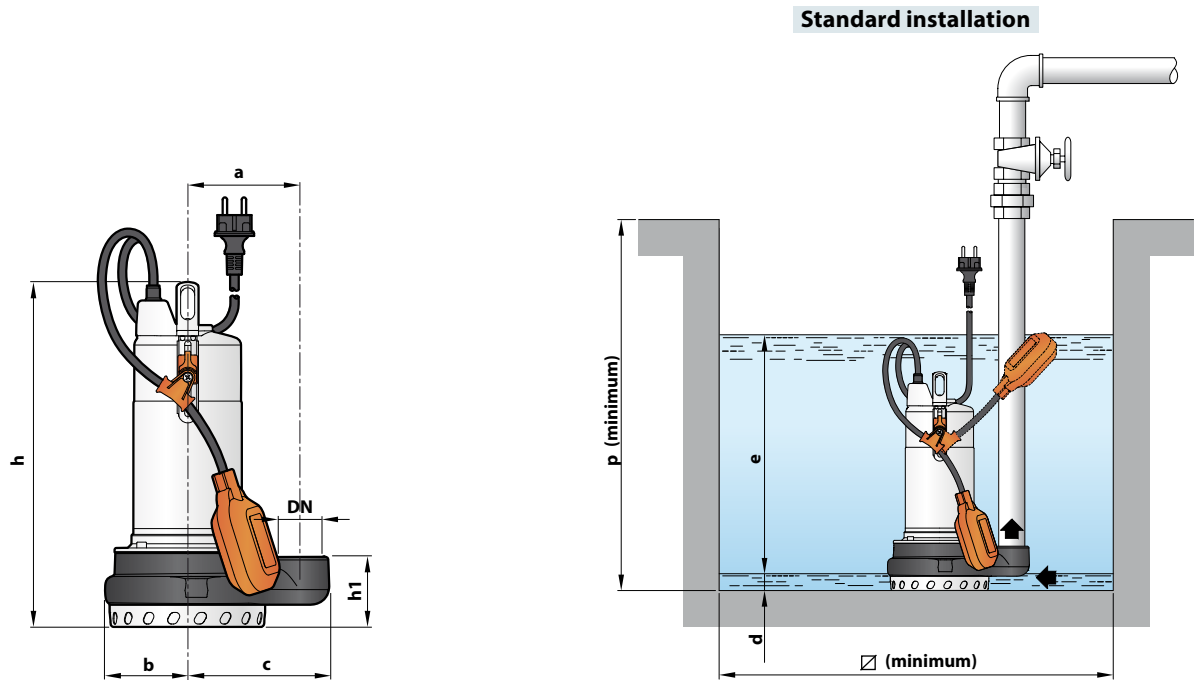
“H07 RN-F” type
(with Schuko plug for single-phase versions only)
Standard length 5 metres (10 metres for D30-N)

13 FLOAT SWITCH

(only for single-phase versions)



DIMENSIONS AND WEIGHT



MODEL		PORT DN	DIMENSIONS mm									kg	
Single-phase	Three-phase		a	b	c	h	h1	d	e	p	∅	1~	3~
Dm 8 -N	D 8 -N	1½"	115	85	147	340	72	17	variable	500	500	12.0	11.7
Dm 10 -N	D 10 -N											13.1	12.0
Dm 20 -N	D 20 -N											13.1	12.0
Dm 30 -N	D 30 -N			93	355	84	15.1	14.1					

ABSORPTION

MODEL	VOLTAGE		
	Single-phase	230 V	240 V
Dm 8 -N	3.2 A	3.1 A	6.4 A
Dm 10 -N	4.7 A	4.5 A	9.4 A
Dm 20 -N	5.7 A	5.5 A	11.4 A
Dm 30 -N	7.2 A	6.9 A	-

MODEL	VOLTAGE			
	Three-phase	230 V	400 V	240 V
D 8 -N	2.8 A	1.6 A	2.7 A	1.55 A
D 10 -N	3.5 A	2.0 A	3.4 A	1.95 A
D 20 -N	4.2 A	2.4 A	4.0 A	2.3 A
D 30 -N	5.2 A	3.0 A	5.0 A	2.9 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
Dm 8 -N	D 8 -N	60	80
Dm 10 -N	D 10 -N	60	80
Dm 20 -N	D 20 -N	60	80
Dm 30 -N	D 30 -N	60	80

Submersible pumps

-  Filthy water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **650 l/min** (39 m³/h)
- Head up to **14 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of solids:
 - up to **Ø 40 mm** for VXC /35-N
 - up to **Ø 50 mm** for VXC /45-N
- Minimum immersion depth for continuous service:
 - **280 mm** for VXC /35-N
 - **300 mm** for VXC /45-N

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

VXC series pumps, made from heavy gauge cast iron offering exceptional sturdiness and abrasion resistance, come equipped with a VORTEX impeller and are therefore suitable for draining **waste water containing suspended solids, filthy water and mixed with mud.**

PATENTS - TRADE MARKS - MODELS

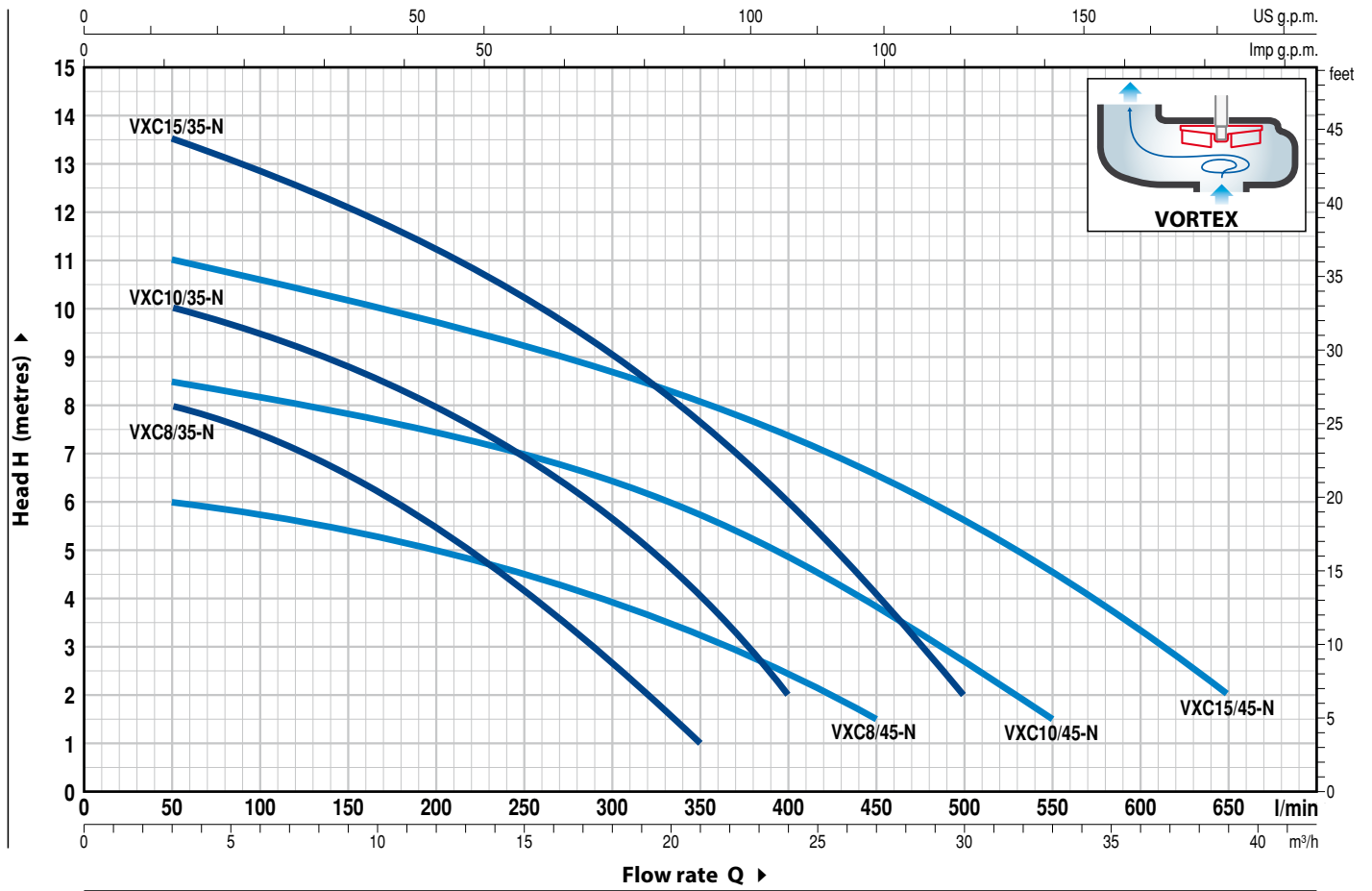
- Patent Pending n. BO2015A000116
- Registered EU Design n. 002501486-0003

OPTIONS AVAILABLE ON REQUEST

- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	H metres													
Single-phase	Three-phase	kW	HP		0	3	6	12	18	21	24	27	30	33	36	39		
				l/min	0	50	100	200	300	350	400	450	500	550	600	650		
VXCm 8/35 -N	VXC 8/35 -N	0.55	0.75		9	8	7.5	5.5	2.7	1								
VXCm 10/35-N	VXC 10/35-N	0.75	1		11	10	9.5	8	5.7	4	2							
VXCm 15/35-N	VXC 15/35-N	1.1	1.5		14	13.5	12.8	11.2	9	7.7	6	4	2					
VXCm 8/45 -N	VXC 8/45 -N	0.55	0.75		6.5	6	5.8	5	4	3.3	2.5	1.5						
VXCm 10/45-N	VXC 10/45-N	0.75	1		9	8.5	8.2	7.5	6.5	5.8	5	3.8	2.5	1.5				
VXCm 15/45-N	VXC 15/45-N	1.1	1.5		11.5	11	10.5	9.8	8.7	8	7.5	6.5	5.5	4.5	3.5	2		

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/1				
2 BASE	Stainless steel AISI 304				
3 IMPELLER	Stainless steel AISI 304 VORTEX type				
4 MOTOR CASING	Cast iron with an Epoxy Electro Coating treatment				
5 MOTOR CASING PLATE	Stainless steel AISI 304				
6 MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER					
<i>Seal Model</i>	<i>Shaft Diameter</i>	<i>Position</i>	<i>Stationary ring</i>	<i>Rotational ring</i>	<i>Elastomer</i>
MG1-14D SIC	Ø 14 mm	Motor side Pump side	Silicon carbide Silicon carbide	Graphite Silicon carbide	NBR NBR
8 BEARINGS	6203 ZZ / 6203 ZZ				

9 CAPACITOR		
<i>Pump</i>	<i>Capacitance</i>	
<i>Single-phase</i>	<i>(230 V or 240 V)</i>	<i>(110 V)</i>
VXCm 8/35 -N VXCm 8/45 -N VXCm 10/35 -N VXCm 10/45 -N	20 µF 450 VL	30 µF - 250 VL
VXCm 15/35 -N VXCm 15/45 -N	25 µF 450 VL	-

10 ELECTRIC MOTOR

VXCm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

VXC: three-phase 400 V - 50 Hz

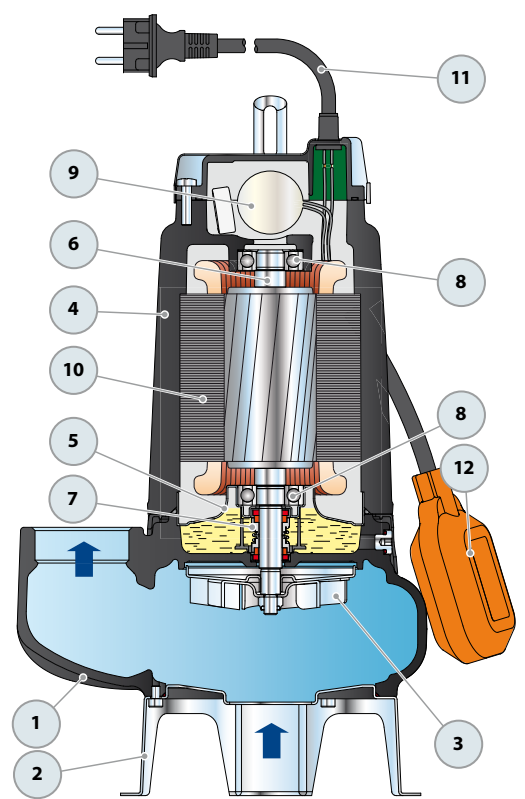
- Insulation: class F
- Protection: IP X8

11 POWER CABLE

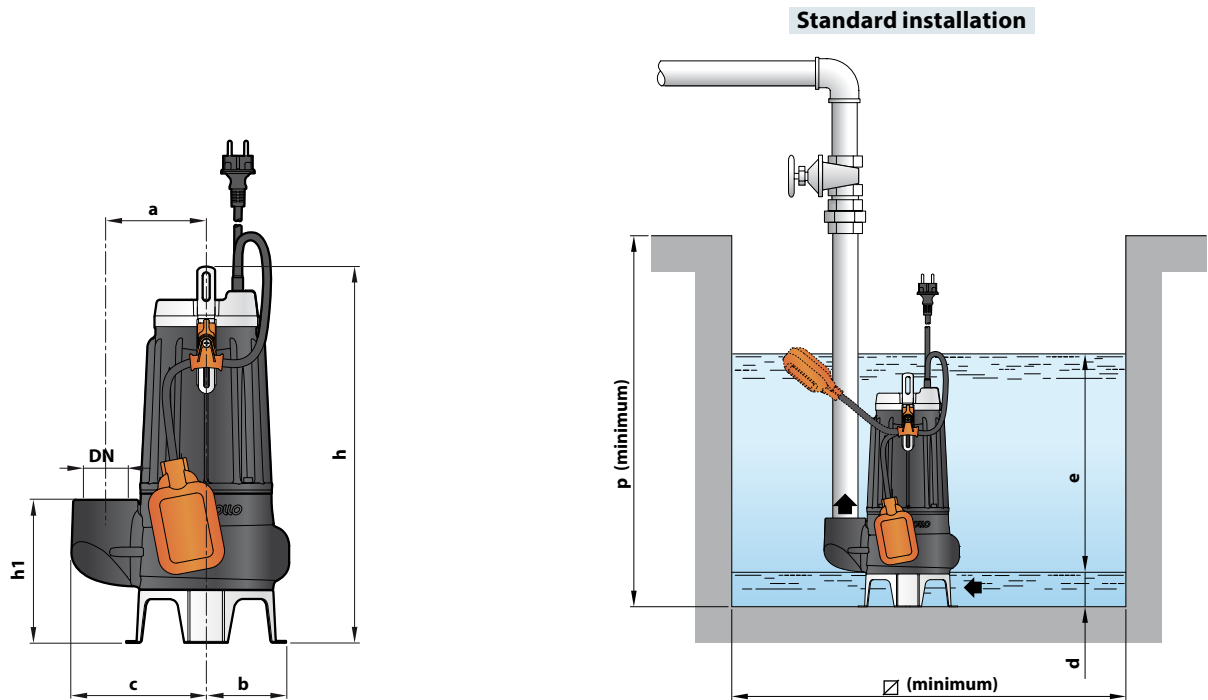
"H07 RN-F" type
(with Schuko plug for single-phase versions only)

Standard length 10 metres

12 FLOAT SWITCH
(only for single-phase versions)



DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm									kg						
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	Ø	1~	3~					
VXCm 8/35 -N	VXC 8/35 -N	1½"	Ø 40 mm	115	95	148	388	139	50	variable	500	500	17.0	16.7					
VXCm 10/35-N	VXC 10/35-N						403						17.8	16.7					
VXCm 15/35-N	VXC 15/35-N						403						19.4	18.4					
VXCm 8/45 -N	VXC 8/45 -N	2"	Ø 50 mm			115	95	155	413				164	60	variable	500	500	17.5	17.2
VXCm 10/45-N	VXC 10/45-N								428									18.3	17.2
VXCm 15/45-N	VXC 15/45-N								428									19.9	18.9

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
Single-phase	230 V	240 V	110 V
VXCm 8/35 -N	3.5 A	3.4 A	7.0 A
VXCm 10/35-N	4.8 A	4.6 A	9.6 A
VXCm 15/35-N	7.4 A	7.1 A	-
VXCm 8/45 -N	3.7 A	3.5 A	7.4 A
VXCm 10/45-N	5.0 A	4.8 A	10.0 A
VXCm 15/45-N	7.1 A	6.8 A	-

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
Three-phase	230 V	400 V	240 V	415 V
VXC 8/35 -N	3.0 A	1.7 A	2.9 A	1.65 A
VXC 10/35-N	3.5 A	2.0 A	3.4 A	1.95 A
VXC 15/35-N	5.2 A	3.0 A	5.0 A	2.9 A
VXC 8/45 -N	3.2 A	1.8 A	3.1 A	1.75 A
VXC 10/45-N	3.5 A	2.0 A	3.4 A	1.95 A
VXC 15/45-N	5.2 A	3.0 A	5.0 A	2.9 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
VXCm 8/35 -N	VXC 8/35 -N	60	80
VXCm 10/35-N	VXC 10/35-N	60	80
VXCm 15/35-N	VXC 15/35-N	60	80
VXCm 8/45 -N	VXC 8/45 -N	54	72
VXCm 10/45-N	VXC 10/45-N	54	72
VXCm 15/45-N	VXC 15/45-N	54	72

Submersible pumps

-  Filthy water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 m³/h)
- Head up to **15 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of suspended solids up to **Ø 50 mm**
- Minimum immersion depth for continuous service: **300 mm**

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

MC series pumps, made from heavy gauge cast iron offering exceptional sturdiness, abrasion resistance and durability, come equipped with a **DOUBLE-CHANNEL** impeller and are capable of pumping liquids containing short fibred suspended solids up to Ø 50 mm.

Recommended for conveying **drained water and sewage, waste water, water mixed with mud, groundwater and surface water** for applications in blocks of flats, industries, multi-storey and underground car parks, wash areas, etc.

PATENTS - TRADE MARKS - MODELS

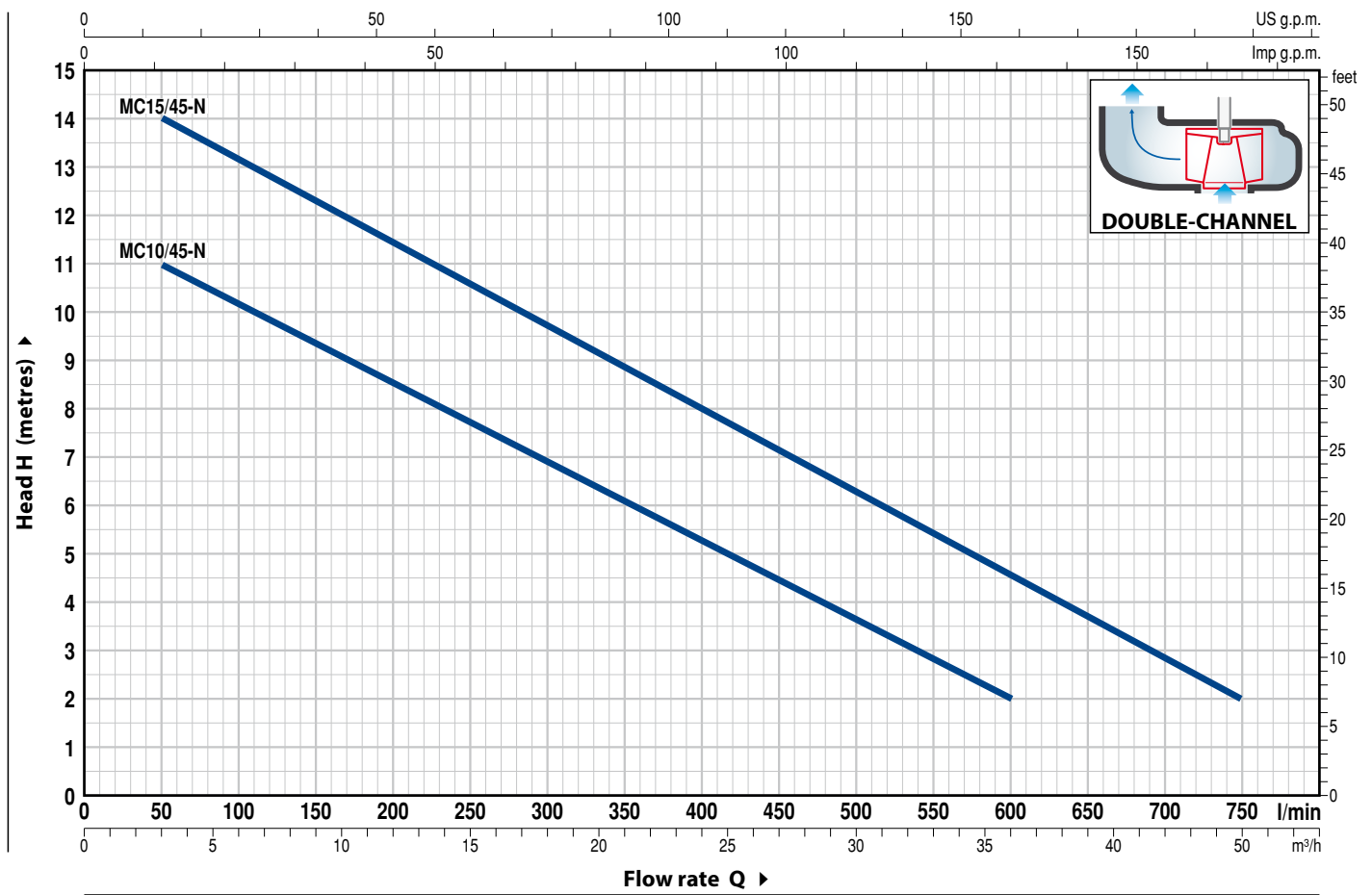
- Patent Pending n. BO2015A000116
- Registered EU Design n. 002501486-0003

OPTIONS AVAILABLE ON REQUEST

- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate													
Single-phase	Three-phase	kW	HP		m ³ /h	0	3	6	12	18	24	30	36	42	45			
MCm 10/45-N	MC 10/45-N	0.75	1	l/min	0	50	100	200	300	400	500	600	700	750				
				H metres	12	11	10	8.5	7	5	3.5	2						
MCm 15/45-N	MC 15/45-N	1.1	1.5		15	14	13	11.5	9.7	8	6.3	4.5	3	2				

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/1
2	BASE	Stainless steel AISI 304
3	IMPELLER	Precision cast stainless steel AISI 304 DOUBLE-CHANNEL type
4	MOTOR CASING	Cast iron with an Epoxy Electro Coating treatment
5	MOTOR CASING PLATE	Stainless steel AISI 304
6	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104

7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
MG1-14D SIC	Ø 14 mm	Motor side	Silicon carbide	Graphite	NBR
		Pump side	Silicon carbide	Silicon carbide	NBR

8 BEARINGS 6203 ZZ / 6203 ZZ

9 CAPACITOR

Pump	Capacitance	
Single-phase	(230 V or 240 V)	(110 V)
MCm 10/45-N	20 µF 450 VL	30 µF - 250 VL
MCm 15/45-N	25 µF 450 VL	-

10 ELECTRIC MOTOR

MCm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding

MC: three-phase 400 V - 50 Hz

- Insulation: class F
- Protection: IP X8

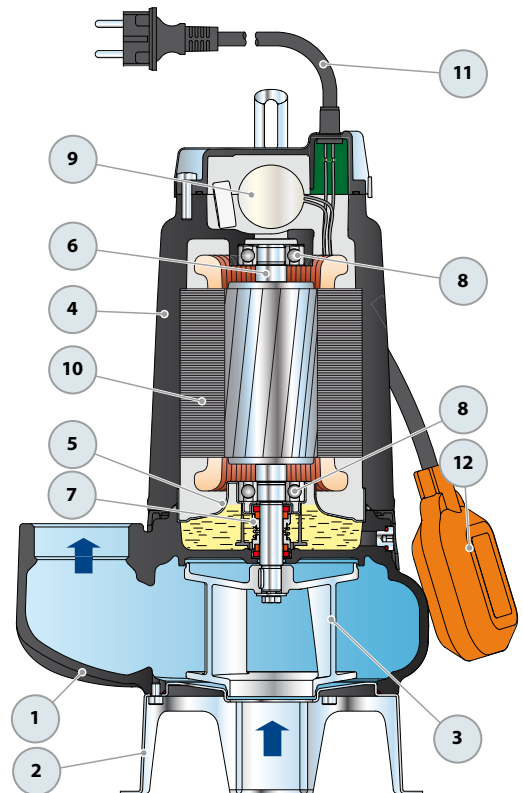
11 POWER CABLE

"H07 RN-F" type
(with Schuko plug for single-phase versions only)

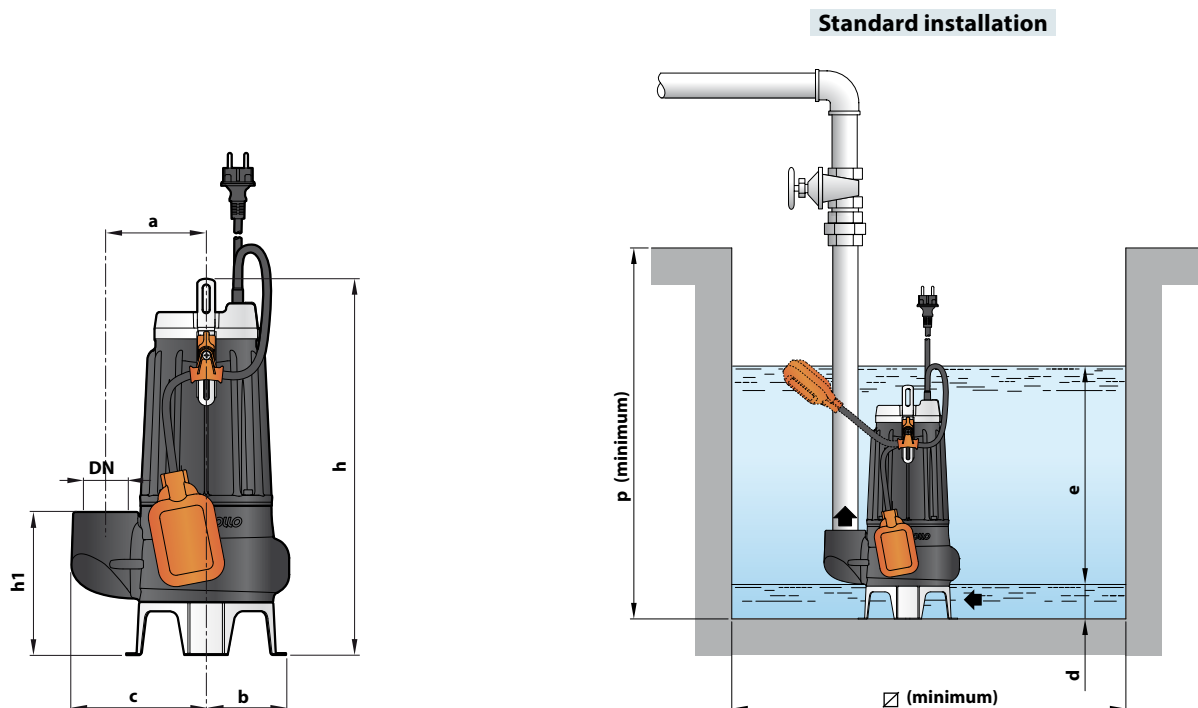
Standard length 10 metres

12 FLOAT SWITCH

(only for single-phase versions)



DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm										kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	∅	1~	3~	
MCm 10/45-N	MC 10/45-N	2"	Ø 50 mm	115	95	155	413	164	60	variable	500	500	19.0	17.9	
MCm 15/45-N	MC 15/45-N						428								20.2

ABSORPTION

MODEL	VOLTAGE		
	230 V	240 V	110 V
MCm 10/45-N	5.0 A	4.8 A	10.0 A
MCm 15/45-N	8.2 A	7.9 A	-

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
MC 10/45-N	3.7 A	2.1 A	3.5 A	2.0 A
MC 15/45-N	5.6 A	3.2 A	5.4 A	3.1 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
MCm 10/45-N	MC 10/45-N	54	72
MCm 15/45-N	MC 15/45-N	54	72

Submersible drainage pumps

-  Clear water
-  Domestic use
-  Civil use



PERFORMANCE RANGE

- Flow rate up to **300 l/min** (18 m³/h)
- Head up to **26 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of suspended solids up to **Ø 10 mm**
- Suction down to **17 mm** above ground level
- Minimum immersion depth for continuous service: **220 mm**

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- Float switch for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



INSTALLATION AND USE

DC submersible pumps, made from heavy gauge cast iron offering exceptional sturdiness, abrasion resistance and durability, are suitable for draining **clear or slightly dirty water**. They distinguish themselves for their sturdiness and reliability under automatic operating conditions in fixed installations.

PATENTS - TRADE MARKS - MODELS

- Patent Pending n. BO2015A000116
- Registered EU Design n. 002501486-0001

OPTIONS AVAILABLE ON REQUEST

- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

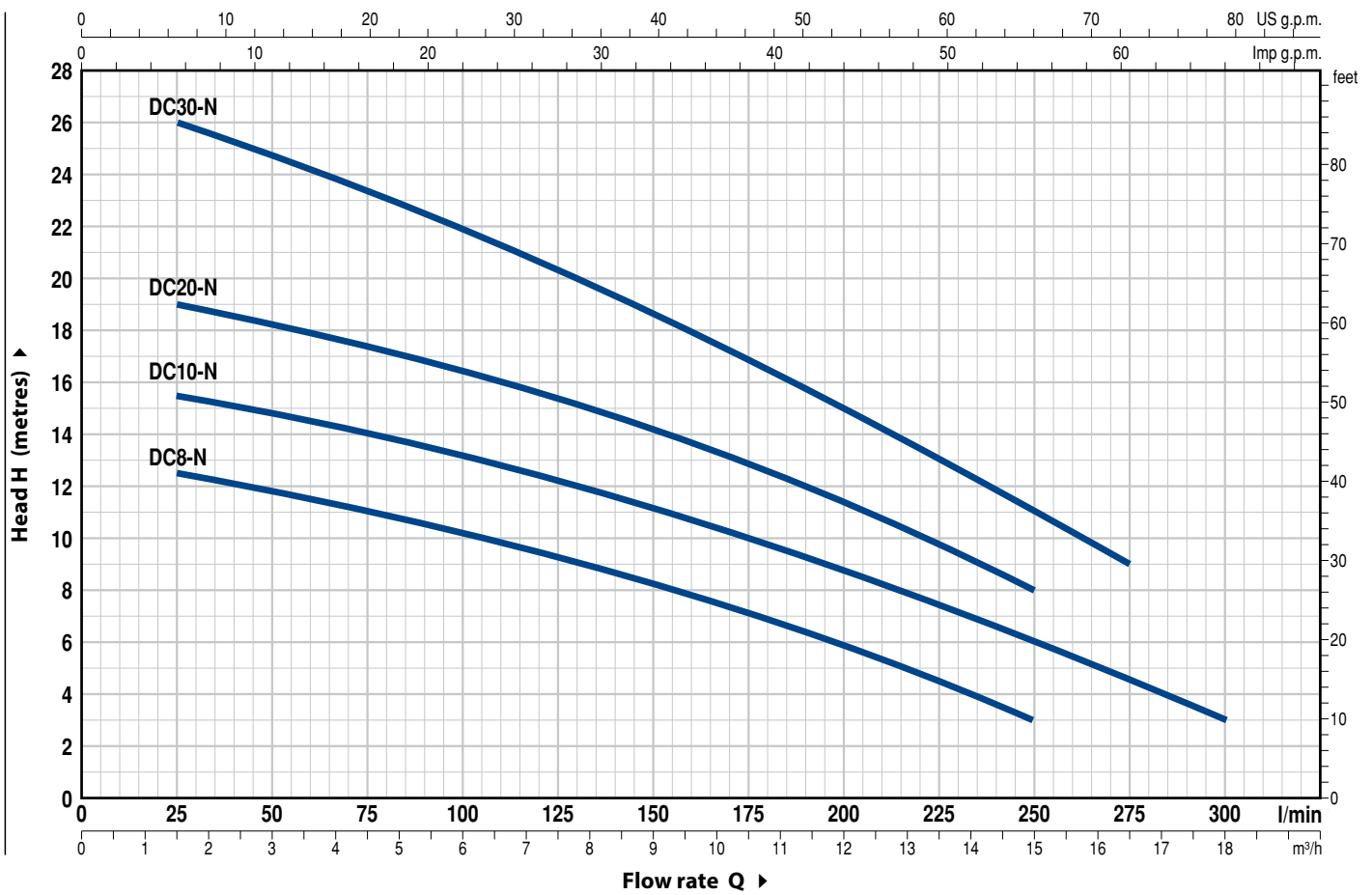
CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	H metres																	
Single-phase	Three-phase	kW	HP		m ³ /h	0	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.2	15.0	16.5	18.0				
				l/min	0	25	50	75	100	125	150	175	200	220	250	275	300					
DCm 8 -N	DC 8 -N	0.55	0.75	H metres	13	12.5	11.8	11	10.2	9.2	8.2	7	5.8	4.7	3							
DCm 10-N	DC 10-N	0.75	1		16	15.5	14.8	14	13.2	12.2	11.2	10	8.8	7.8	6	4.5	3					
DCm 20-N	DC 20-N	0.75	1		20	19	18.5	17.5	16.5	15.5	14.3	13	11.5	10	8							
DCm 30-N	DC 30-N	1.1	1.5		26	26	24.8	23.5	22	20.4	18.7	16.9	15	13.5	11	9						

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/1
2	SUCTION FILTER	Stainless steel AISI 304
3	SUCTION PLATE	Stainless steel AISI 304
4	IMPELLER	Technopolymer open type
5	MOTOR CASING	Cast iron with an Epoxy Electro Coating treatment
6	MOTOR CASING PLATE	Stainless steel AISI 304
7	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104

8 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Pump Model	Seal Model	Shaft Diameter	Position	Materials		
				Stationary ring	Rotational ring	Elastomer
DC8 -N	MG1-14D SIC	Ø 14 mm	Motor side	Silicon carbide	Graphite	NBR
DC10-N			Pump side	Silicon carbide	Silicon carbide	NBR
DC20-N						
(Double seal on shaft with a ring seal Ø 16 x Ø 24 x H 5 mm)						
DC30-N	ST1-14 SIC	Ø 14 mm		Ceramic	Silicon carbide	NBR

9 BEARINGS 6203 ZZ / 6203 ZZ

10 CAPACITOR

Pump Model	Capacitance	
Single-phase	(230 V or 240 V)	(110 V)
DCm8 -N		
DCm10-N	20 µF 450 VL	30 µF - 250 VL
DCm20-N		
DCm30-N	25 µF 450 VL	-

11 ELECTRIC MOTOR

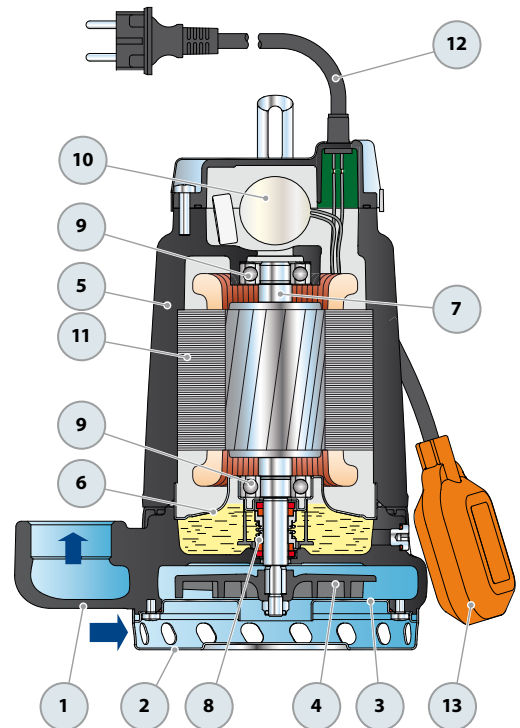
DCm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding
DC: three-phase 400 V - 50 Hz
– Insulation: class F
– Protection: IP X8

12 POWER CABLE

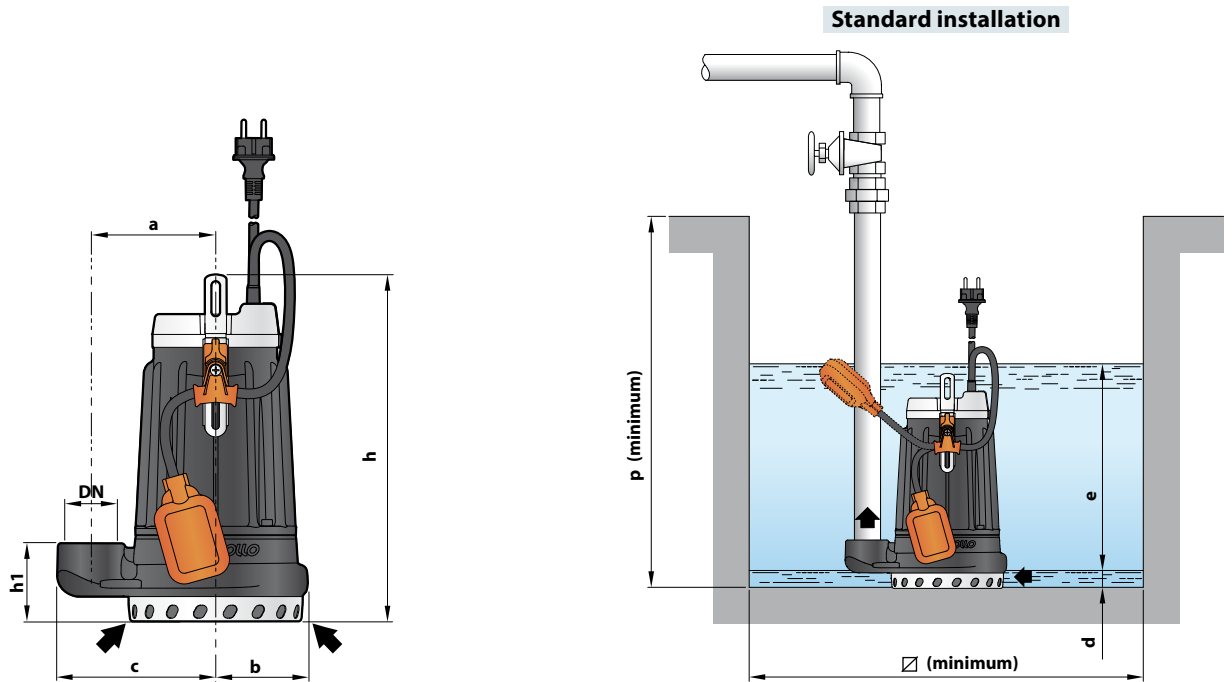
“H07 RN-F” type
(with Schuko plug for single-phase versions only)
Standard length 10 metres

13 FLOAT SWITCH

(only for single-phase versions)



DIMENSIONS AND WEIGHT



MODEL		PORT DN	DIMENSIONS mm									kg	
Single-phase	Three-phase		a	b	c	h	h1	d	e	p	∅	1~	3~
DCm 8 -N	DC 8 -N	1½"	115	85	147	322	72	17	variable	500	500	16.1	15.8
DCm 10-N	DC 10-N											17.2	16.1
DCm 20-N	DC 20-N			17.2		16.1							
DCm 30-N	DC 30-N			93		337	84					18.8	17.8

ABSORPTION

MODEL	VOLTAGE		
	Single-phase	230 V	240 V
DCm 8 -N	3.2 A	3.1 A	6.4 A
DCm 10-N	4.7 A	4.5 A	9.4 A
DCm 20-N	5.7 A	5.5 A	11.4 A
DCm 30-N	7.2 A	6.9 A	-

MODEL	VOLTAGE			
	Three-phase	230 V	400 V	240 V
DC 8 -N	2.8 A	1.6 A	2.7 A	1.55 A
DC 10-N	3.5 A	2.0 A	3.4 A	1.95 A
DC 20-N	4.2 A	2.4 A	4.0 A	2.3 A
DC 30-N	5.2 A	3.0 A	5.0 A	2.9 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
DCm 8 -N	DC 8 -N	60	80
DCm 10-N	DC 10-N	60	80
DCm 20-N	DC 20-N	60	80
DCm 30-N	DC 30-N	60	80

TRITUS

Submersible pumps with grinder

 Filthy water

 Domestic use

 Civil use



PERFORMANCE RANGE

- Flow rate up to **220 l/min** (13.2 m³/h)
- Head up to **30 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Suction down to **50 mm** above ground level
- Minimum immersion depth for continuous service:
 - **300 mm** for TR 0.75-1.1
 - **350 mm** for TR 1.5-2.2

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- External float switch and control box for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS


Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The **TRITUS** series of grinder pumps manufactured from heavy gauge robust cast iron, resistant to abrasion and long-lasting, are fitted with a **GRINDER in tempered stainless steel of great resistance** which completely grinds up solid bodies and fibres in waste and reflux water from domestic and civil applications and conveys it under pressure into the sewers through small diameter pipes.

PATENTS - TRADE MARKS - MODELS

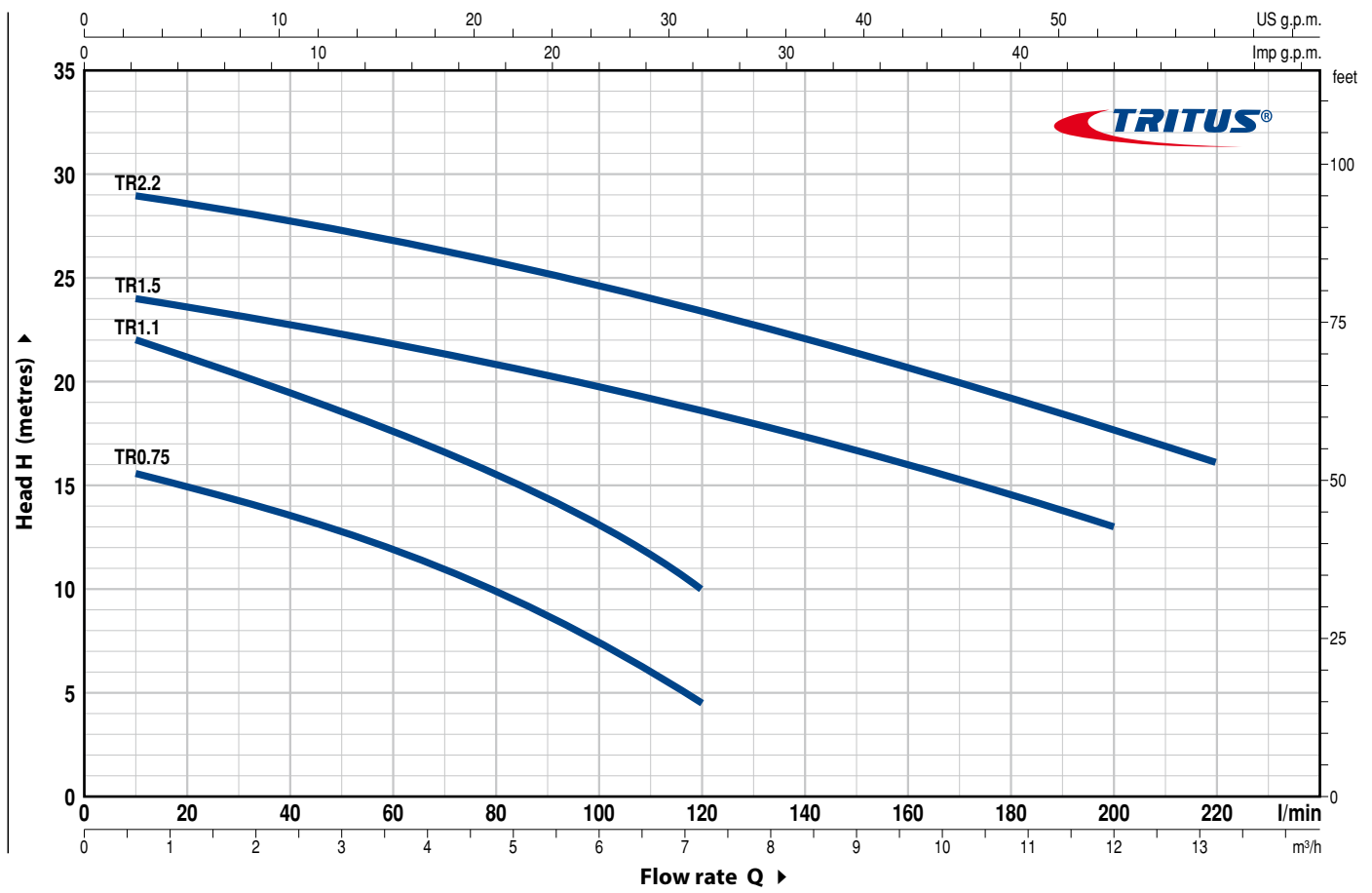
- Registered Trade Mark n. 013017181 
- Patent Pending n. BO2015A000116
- Registered EU Design n. 002501486-0002

OPTIONS AVAILABLE ON REQUEST

- Version with adjustable supports for TR 0.75-1.1
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	H metres																
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.6	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12	13.2			
				l/min	0	10	20	40	60	80	100	120	140	160	180	200	220				
TRm 0.75	TR 0.75	0.75	1	H metres	16.5	15.5	15	13.5	11.8	10	7.5	4.5									
TRm 1.1	TR 1.1	1.1	1.5		23	22	21	19.5	17.5	15.5	13	10									
TRm 1.5	TR 1.5	1.5	2		25	24	23.5	22.8	22	21	19.8	18.5	17.3	16	14.5	13					
-	TR 2.2	2.2	3		30	29	28.5	27.8	26.8	25.8	24.7	23.5	22	20.5	19	17.8	16				

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/1
2 IMPELLER	Open type: – technopolymer for TR 0.75, TR 1.1 – precision cast stainless steel AISI 304 for TR 1.5, TR 2.2
3 GRINDER	Tempered AISI 440C stainless steel
4 MOTOR SHAFT	– Stainless steel EN 10088-3 - 1.4104 for TR 0.75, TR 1.1 – Stainless steel AISI 431 for TR 1.5, TR 2.2
5 MOTOR CASING	Cast iron with an Epoxy Electro Coating treatment

6 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Pump Model	Seal Model	Shaft Diameter	Position	Materials		
				Stationary ring	Rotational ring	Elastomer
TR 0.75, TR 1.1	MG1-14D SIC	Ø 14 mm	Motor side	Silicon carbide	Graphite	NBR
			Pump side	Silicon carbide	Silicon carbide	NBR
TR 1.5, TR 2.2	STA-20	Ø 20 mm	Motor side	Ceramic	Graphite	NBR
	STA-19	Ø 19 mm	Pump side	Silicon carbide	Silicon carbide	NBR

7 BEARINGS

Pump Model	Model
TR 0.75, TR 1.1	6203 ZZ-C3E / 6203 ZZ-C3E
TR 1.5, TR 2.2	5304 ZZ-C3 / 6304 ZZ-C3

8 ELECTRIC MOTOR

TRm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding
TR: three-phase 400 V - 50 Hz
– Insulation: class F
– Protection: IP X8

9 POWER CABLE

“H07 RN-F” type
(with Schuko plug for single-phase versions only)
Standard length 10 metres

10 FLOAT SWITCH

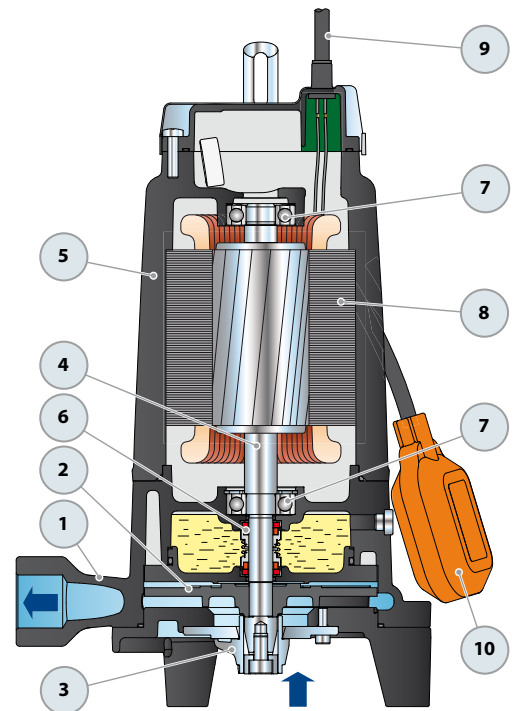
(only for single-phase versions)

11 CONTROL BOX

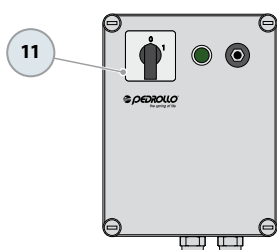
(only for single-phase versions)

With manual overload cut-out and with capacitors for starting and operating.

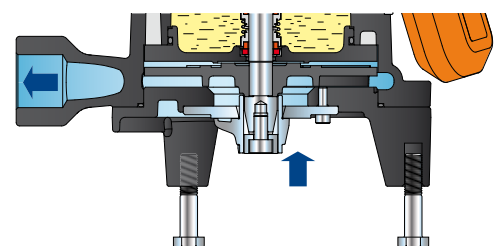
Pump Model	Capacitance of the operating capacitor	Capacitance of the starting capacitor
TRm 0.75, TRm 1.1	25 µF 450 VL	80 µF 450 VL
TRm 1.5	50 µF 450 VL	100 µF 450 VL



Standard features

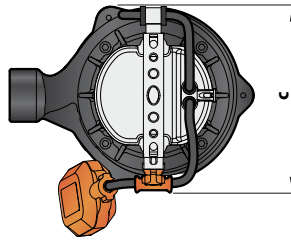
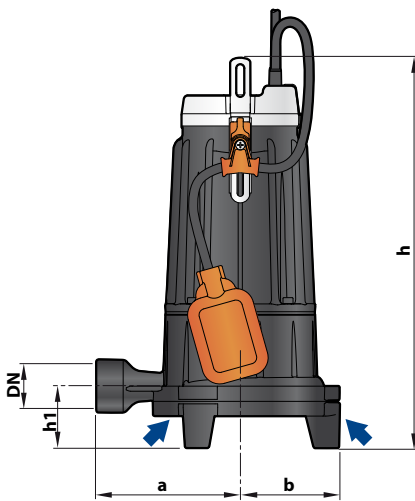


Control box
(only for single-phase versions)

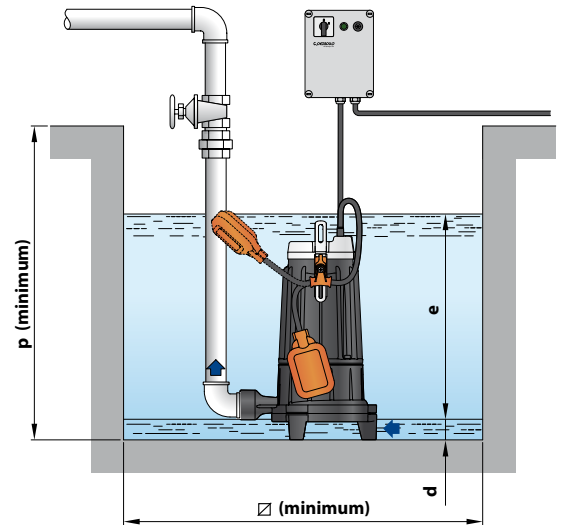


Version with adjustable supports
(on request for TR 0.75, TR 1.1)

DIMENSIONS AND WEIGHT



Standard installation (for single-phase version)



MODEL		PORT DN	DIMENSIONS mm									kg *	
Single-phase	Three-phase		a	b	c	h	h1	d	e	p	∅	1~	3~
TRm 0.75	TR 0.75	1¼"	140	100	200	372	61	50	variable	500	500	21.2	21.2
TRm 1.1	TR 1.1					387						23.5	22.7
TRm 1.5	TR 1.5	1½"	170	120	216	424	68					38.0	37.0
-	TR 2.2					-	38.5						

(* weight of pump without control box)

ABSORPTION

MODEL	VOLTAGE	
	230 V	240 V
Single-phase		
TRm 0.75	5.5 A	5.3 A
TRm 1.1	7.4 A	7.1 A
TRm 1.5	10.5 A	10.1 A

MODEL	VOLTAGE			
	230 V	400 V	240 V	415 V
Three-phase				
TR 0.75	4.0 A	2.5 A	3.9 A	2.5 A
TR 1.1	5.2 A	3.0 A	5.0 A	2.9 A
TR 1.5	7.5 A	4.3 A	7.3 A	4.2 A
TR 2.2	10.2 A	5.9 A	9.9 A	5.7 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
TRm 0.75	TR 0.75	40	60
TRm 1.1	TR 1.1	40	60
TRm 1.5	TR 1.5	16	16
-	TR 2.2	16	16

Submersible pumps

-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **1200 l/min** (72 m³/h)
- Head up to **16 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of solids:
 - up to **Ø 50 mm** for VXC /50
 - up to **Ø 70 mm** for VXC /70
- Minimum immersion depth for continuous service:
 - **390 mm** for VXC /50
 - **430 mm** for VXC /70

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- External float switch and control box for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The **VXC** series of pumps, manufactured from heavy gauge robust cast iron, resistant to abrasion and long-lasting, are fitted with a VORTEX impeller and are therefore suitable for draining **dirty, filthy and reflux water, and water mixed with putrid mud**. They are suitable for installation in sewers, tunnels, excavations, canals, underground car parks, etc.

PATENTS - TRADE MARKS - MODELS

- Registered EU Design n. 342159-0017

OPTIONS AVAILABLE ON REQUEST

- QES control box for three-phase pumps
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

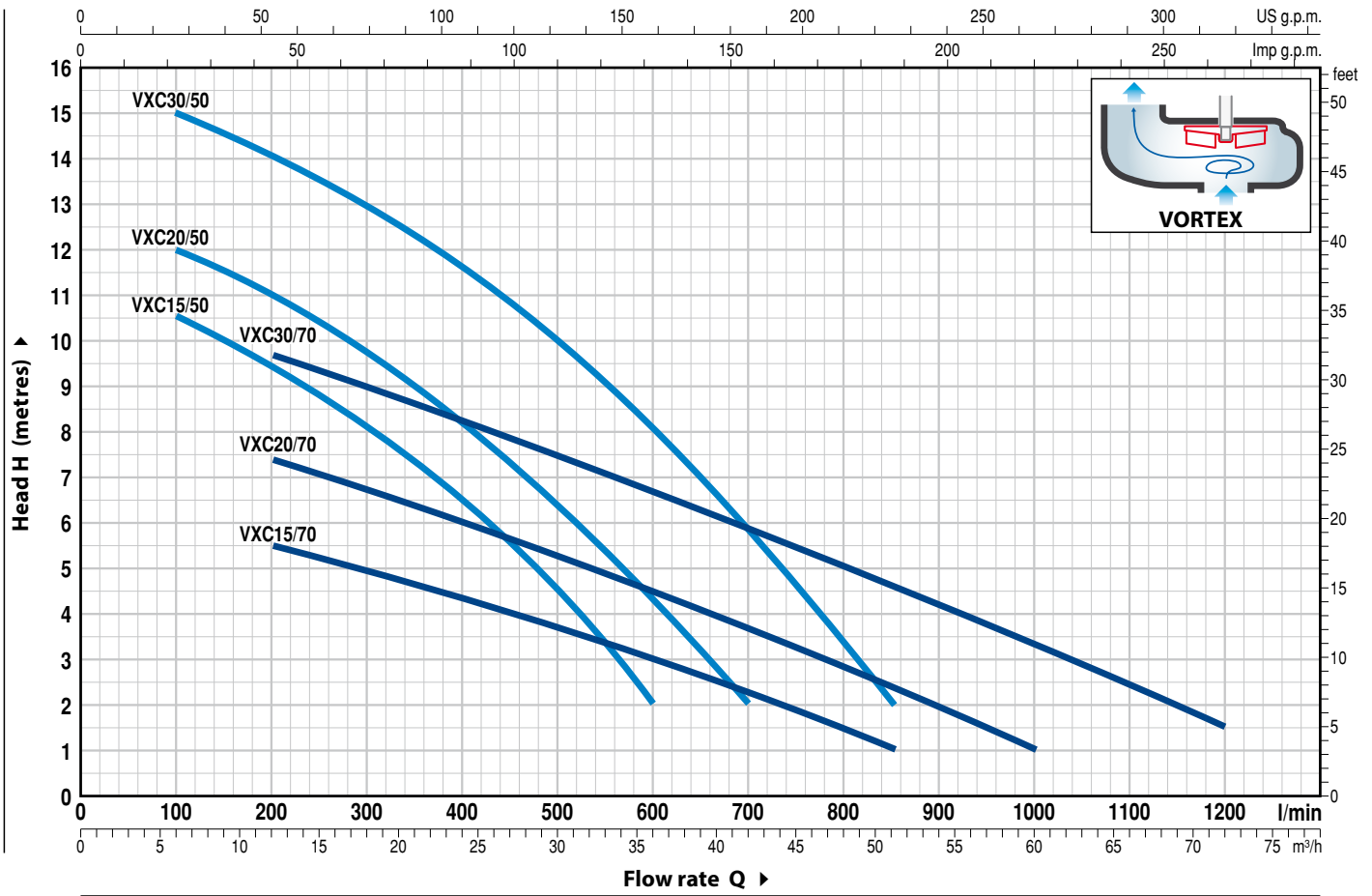
GUARANTEE

➔ **For the following versions the incorporated thermal overload protector must be connected to the control box for the guarantee to be considered valid:**

- | | |
|--------------|-------------------|
| single-phase | three-phase |
| – VXCm 30/50 | – VXC 15-20-30/50 |
| – VXCm 30/70 | – VXC 15-20-30/70 |

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	H metres																
Single-phase	Three-phase	kW	HP		m ³ /h	0	6	12	18	21	24	30	36	42	48	51	54	60	66	72	
				l/min	0	100	200	300	350	400	500	600	700	800	850	900	1000	1100	1200		
VXCm 15/50	VXC 15/50	1.1	1.5	H metres	11.5	10.5	9.5	8.2	7.2	6.5	4.5	2									
VXCm 20/50	VXC 20/50	1.5	2		13	12	11	9.5	9	8	6.5	4.5	2								
VXCm 30/50	VXC 30/50	2.2	3		16	15	14	13	12.3	11.5	10	8	5.9	3.3	2						
VXCm 15/70	VXC 15/70	1.1	1.5		6.5	-	5.5	5	4.7	4.4	3.7	3	2.2	1.5	1						
VXCm 20/70	VXC 20/70	1.5	2		8.5	-	7.4	6.7	6.3	6	5.2	4.5	3.6	2.8	2.4	2	1				
VXCm 30/70	VXC 30/70	2.2	3		11	-	9.7	9	8.6	8.2	7.5	6.7	5.8	5	4.6	4.2	3.3	2.5	1.5		

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with threaded port in compliance with ISO 228/1
2	BASE	Stainless steel AISI 304
3	IMPELLER	VORTEX type in cast iron with an Epoxy Electro Coating treatment
4	MOTOR CASING	Cast iron
5	MOTOR CASING PLATE	Cast iron
6	MOTOR SHAFT	Stainless steel AISI 431

7 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-20	Ø 20 mm	Motor side	Ceramic	Graphite	NBR
STA-19	Ø 19 mm	Pump side	Silicon carbide	Silicon carbide	NBR

8 BEARINGS 6304 ZZ - C3 / 6304 ZZ - C3

9 CAPACITOR

Pump Single-phase	Capacitance (230 V or 240 V)
VXCm 15/50	31.5 µF 450 VL
VXCm 15/70	
VXCm 20/50	50 µF 450 VL
VXCm 20/70	
VXCm 30/50	60 µF 450 VL
VXCm 30/70	

10 ELECTRIC MOTOR

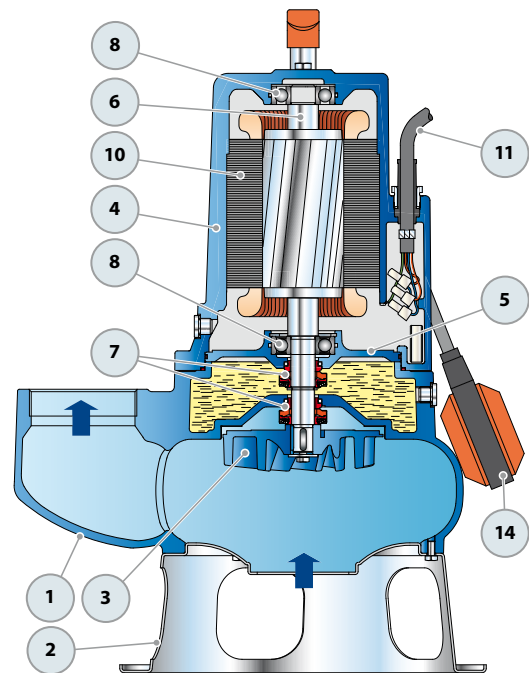
VXCm 15-20: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding

⇒ **VXCm 30:** single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding to be connected to the control box

⇒ **VXC:** three-phase 400 V - 50 Hz with thermal overload protector incorporated into the winding to be connected to the control box (supplied on demand)

– Insulation: class F

– Protection: IP X8



11 POWER CABLE

10 metres long "H07 RN-F" cable

12 CONTROL BOX for VXCm 15-20

(only for single-phase versions)

Complete with capacitor and manual reset motor protector

13 CONTROL BOX for VXCm 30

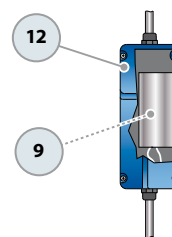
(only for single-phase versions)

QES 300 MONO series

14 FLOAT SWITCH

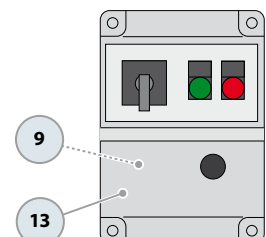
(only for single-phase versions)

Standard features



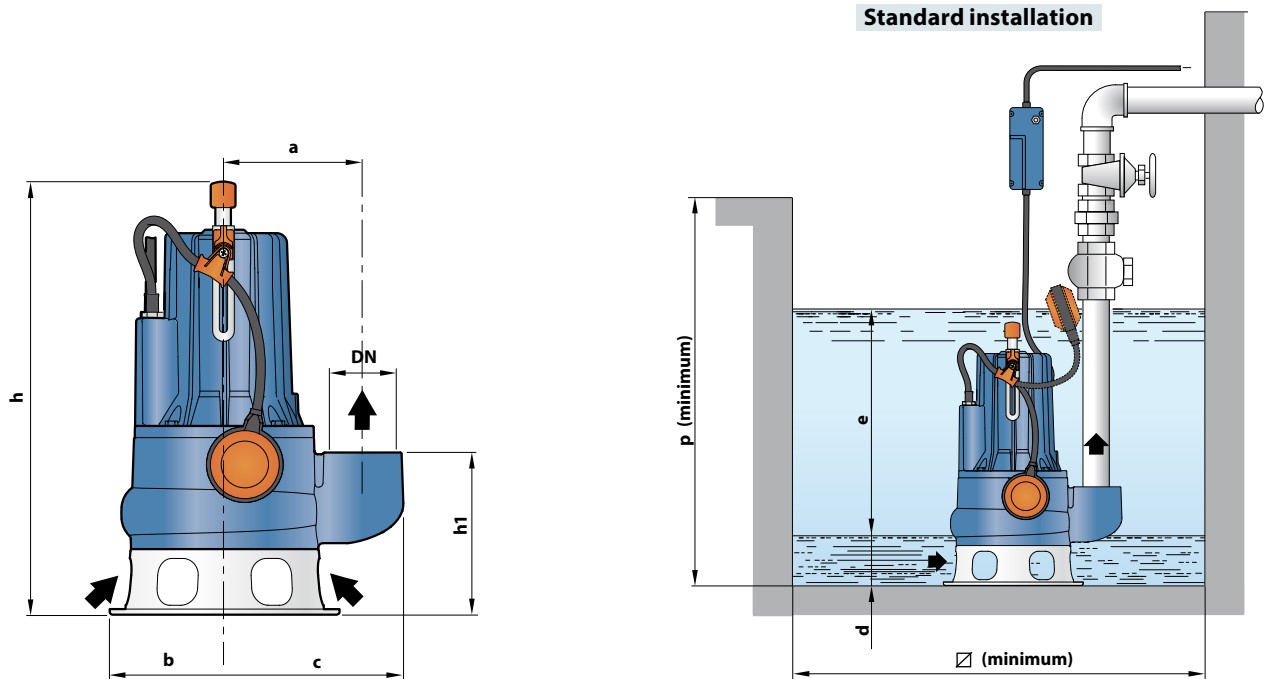
Control box for VXCm 15-20 (only for single-phase versions)

Standard features



Control box for VXCm 30 (only for single-phase versions)

DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	Ø	1~	3~
VXCm 15/50	VXC 15/50	2½"	Ø 50 mm	162	135	210	509	191	75	variable	800	800	36.2	34.9
VXCm 20/50	VXC 20/50						522/509						37.3	36.0
VXCm 30/50	VXC 30/50						522/509						41.2	38.0
VXCm 15/70	VXC 15/70	3"	Ø 70 mm	180	150	237	548	233	85	variable	800	800	39.0	37.7
VXCm 20/70	VXC 20/70						562/548						40.1	38.8
VXCm 30/70	VXC 30/70						562/548						44.0	40.8

ABSORPTION

MODEL	VOLTAGE	
	230 V	240 V
Single-phase		
VXCm 15/50	8.8 A	8.7 A
VXCm 20/50	10.2 A	10.1 A
VXCm 30/50	15.6 A	15.5 A
VXCm 15/70	8.7 A	8.6 A
VXCm 20/70	10.0 A	9.9 A
VXCm 30/70	15.0 A	14.9 A

MODEL	VOLTAGE		
	230÷240 V	400÷415 V	690÷720 V
Three-phase			
VXC 15/50	5.9 A	3.4 A	2.0 A
VXC 20/50	7.3 A	4.2 A	2.4 A
VXC 30/50	9.9 A	5.7 A	3.3 A
VXC 15/70	5.7 A	3.3 A	1.9 A
VXC 20/70	7.3 A	4.2 A	2.4 A
VXC 30/70	9.5 A	5.5 A	3.2 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
VXCm 15/50	VXC 15/50	16	24
VXCm 20/50	VXC 20/50	16	24
VXCm 30/50	VXC 30/50	16	24
VXCm 15/70	VXC 15/70	12	12
VXCm 20/70	VXC 20/70	12	12
VXCm 30/70	VXC 30/70	12	12

Submersible pumps

-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **1600 l/min** (96 m³/h)
- Head up to **25 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of solids:
 - up to **Ø 50 mm** for MC /50
 - up to **Ø 70 mm** for MC /70
- Minimum immersion depth for continuous service:
 - **390 mm** for MC /50
 - **430 mm** for MC /70

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- External float switch and control box for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

MC series pumps, made from heavy gauge robust cast iron, resistant to abrasion and long-lasting, are fitted with a **DOUBLE-CHANNEL** impeller and are capable of pumping liquids containing short fibred suspended solids. They are ideal for pumping **sewage, waste water, water mixed with mud, groundwater and surface water** in locations such as blocks of flats, public buildings, factories, multi-storey and underground car parks, washing areas, etc.

PATENTS - TRADE MARKS - MODELS

- Registered EU Design n. 342159-0017

OPTIONS AVAILABLE ON REQUEST

- QES control box for three-phase pumps
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

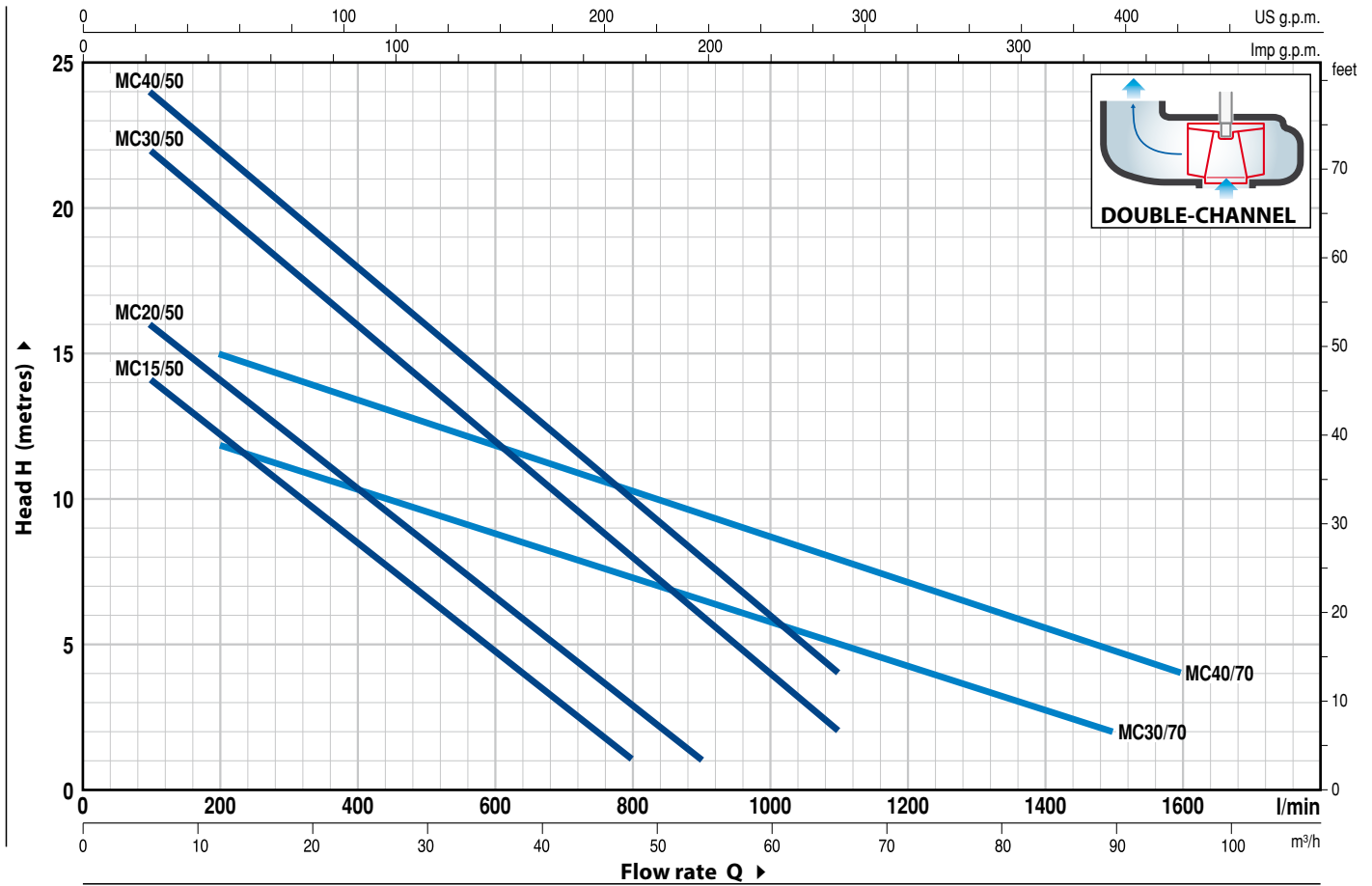
GUARANTEE

➔ **For the following versions the incorporated thermal overload protector must be connected to the control box for the guarantee to be considered valid:**

- | | |
|--------------------|----------------------------|
| single-phase | three-phase |
| – MCm 30/50 | – MC 15-20-30-40/50 |
| – MCm 30/70 | – MC 30-40/70 |

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate															
Single-phase	Three-phase	kW	HP		m ³ /h	0	6	12	18	24	30	36	42	48	54	60	66	72	90	96
				l/min	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1600	
MCm 15/50	MC 15/50	1.1	1.5	H metres	16	14	12.5	10.5	8.5	6.5	4.5	3	1							
MCm 20/50	MC 20/50	1.5	2		18	16	14	12.5	10.5	8.5	6.5	5	3	1						
MCm 30/50	MC 30/50	2.2	3		24	22	20	18	16	14	12	10	8	6	4	2				
-	MC 40/50	3	4		25	24	22	20	18	16	14	12	10	8	6	4				
MCm 30/70	MC 30/70	2.2	3		13	-	12	11	10.5	9.7	9	8	7.5	6.5	6	5	4.5	2		
-	MC 40/70	3	4		17	-	15	14	13.5	12.5	12	11	10.5	9.5	8.5	8	7	4.8	4	

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with threaded port in compliance with ISO 228/1
2	BASE	Stainless steel AISI 304
3	IMPELLER	Precision cast stainless steel AISI 304 DOUBLE-CHANNEL type
4	MOTOR CASING	Cast iron
5	MOTOR CASING PLATE	Cast iron
6	MOTOR SHAFT	Stainless steel AISI 431

7 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-20	Ø 20 mm	Motor side	Ceramic	Graphite	NBR
STA-19	Ø 19 mm	Pump side	Silicon carbide	Silicon carbide	NBR

8 BEARINGS 6304 ZZ - C3 / 6304 ZZ - C3

9 CAPACITOR

Pump	Capacitance
Single-phase	(230 V or 240 V)
MCm 15/50	31.5 µF 450 VL
MCm 20/50	50 µF 450 VL
MCm 30/50	60 µF 450 VL
MCm 30/70	

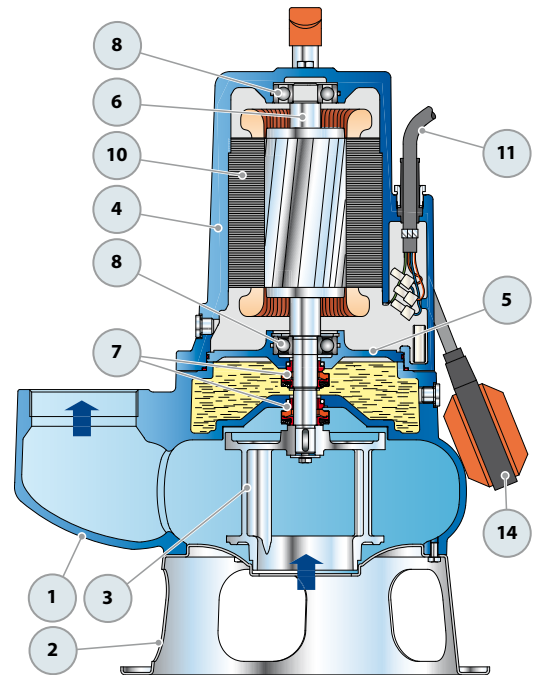
10 ELECTRIC MOTOR

MCm 15-20: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding

⇒ **MCm 30:** single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding to be connected to the control box

⇒ **MC:** three-phase 400 V - 50 Hz. with thermal overload protector incorporated into the winding to be connected to the control box (supplied on demand)

- Insulation: class F
- Protection: IP X8



11 POWER CABLE

10 metres long "H07 RN-F" cable

12 CONTROL BOX for MCm 15-20

(only for single-phase versions)

Complete with capacitor and manual reset motor protector

13 CONTROL BOX per MCm 30

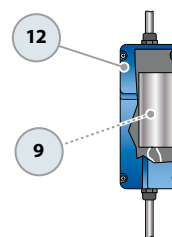
(only for single-phase versions)

QES 300 MONO series

14 FLOAT SWITCH

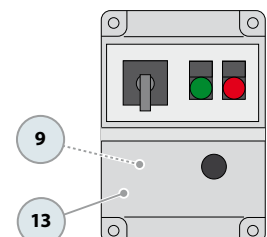
(only for single-phase versions)

Standard features



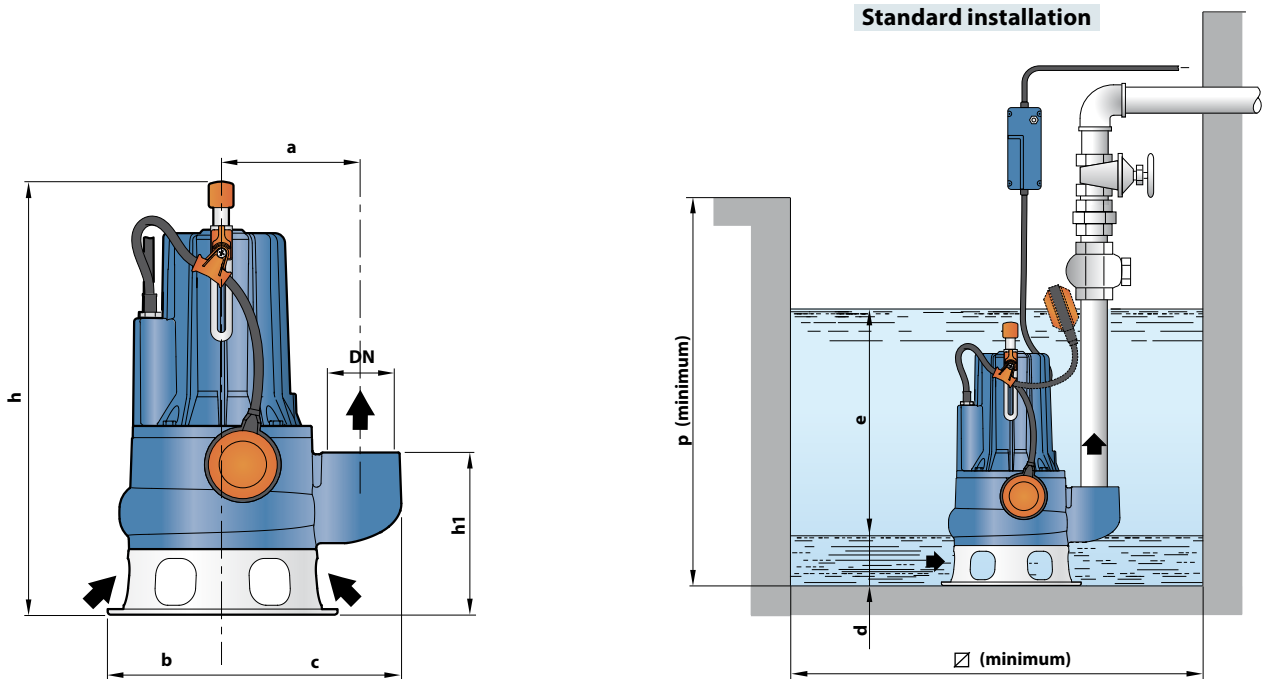
Control box for MCm 15-20 (only for single-phase versions)

Standard features



Control box for MCm 30 (only for single-phase versions)

DIMENSIONS AND WEIGHT



MODEL		PORT DN	Passage of solids	DIMENSIONS mm										kg	
Single-phase	Three-phase			a	b	c	h	h1	d	e	p	Ø	1~	3~	
MCm 15/50	MC 15/50	2½"	Ø 50 mm	162	135	210	509	191	75	variable	800	800	36.7	35.4	
MCm 20/50	MC 20/50						522/509						37.7	36.4	
MCm 30/50	MC 30/50						522						41.9	38.6	
-	MC 40/50						562/548						-	42.2	
MCm 30/70	MC 30/70	3"	Ø 70 mm	180	150	237	562/548	233	85				45.0	41.7	
-	MC 40/70						562						-	45.3	

ABSORPTION

MODEL	VOLTAGE	
	Single-phase	Three-phase
MCm 15/50	230 V	240 V
MCm 20/50	9.0 A	8.9 A
MCm 30/50	10.5 A	10.4 A
MCm 30/70	15.2 A	15.1 A
MCm 40/70	15.2 A	15.1 A

MODEL	VOLTAGE		
	Three-phase	230÷240 V	400÷415 V
MC 15/50	6.1 A	3.5 A	2.0 A
MC 20/50	7.4 A	4.3 A	2.5 A
MC 30/50	9.9 A	5.7 A	3.3 A
MC 40/50	13.5 A	7.8 A	4.5 A
MC 30/70	10.2 A	5.9 A	3.4 A
MC 40/70	13.5 A	7.8 A	4.5 A

PALLETIZATION

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
MCm 15/50	MC 15/50	16	24
MCm 20/50	MC 20/50	16	24
MCm 30/50	MC 30/50	16	24
-	MC 40/50	16	24
MCm 30/70	MC 30/70	12	12
-	MC 40/70	12	12

Submersible pumps

-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **1200 l/min** (72 m³/h)
- Head up to **16 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of solids:
 - up to **Ø 50 mm** for VXC /50-F
 - up to **Ø 70 mm** for VXC /70-F
- Minimum immersion depth for continuous service:
 - **390 mm** for VXC /50-F
 - **440 mm** for VXC /70-F

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- External float switch and control box for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The **VXC-F** series of pumps, manufactured from heavy gauge robust cast iron, resistant to abrasion and long lasting, are fitted with a VORTEX impeller and therefore suitable for drainage of **refluent water, water mixed with mud, liquids containing air or gas, and putrid muds**. They are recommended for fixed installations, when placed in suitable wells, in sewers, tunnels, wells, underground car parks, etc.

OPTIONS AVAILABLE ON REQUEST

- Connection support KIT for PVXC
- **QES** control box for three-phase pumps
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

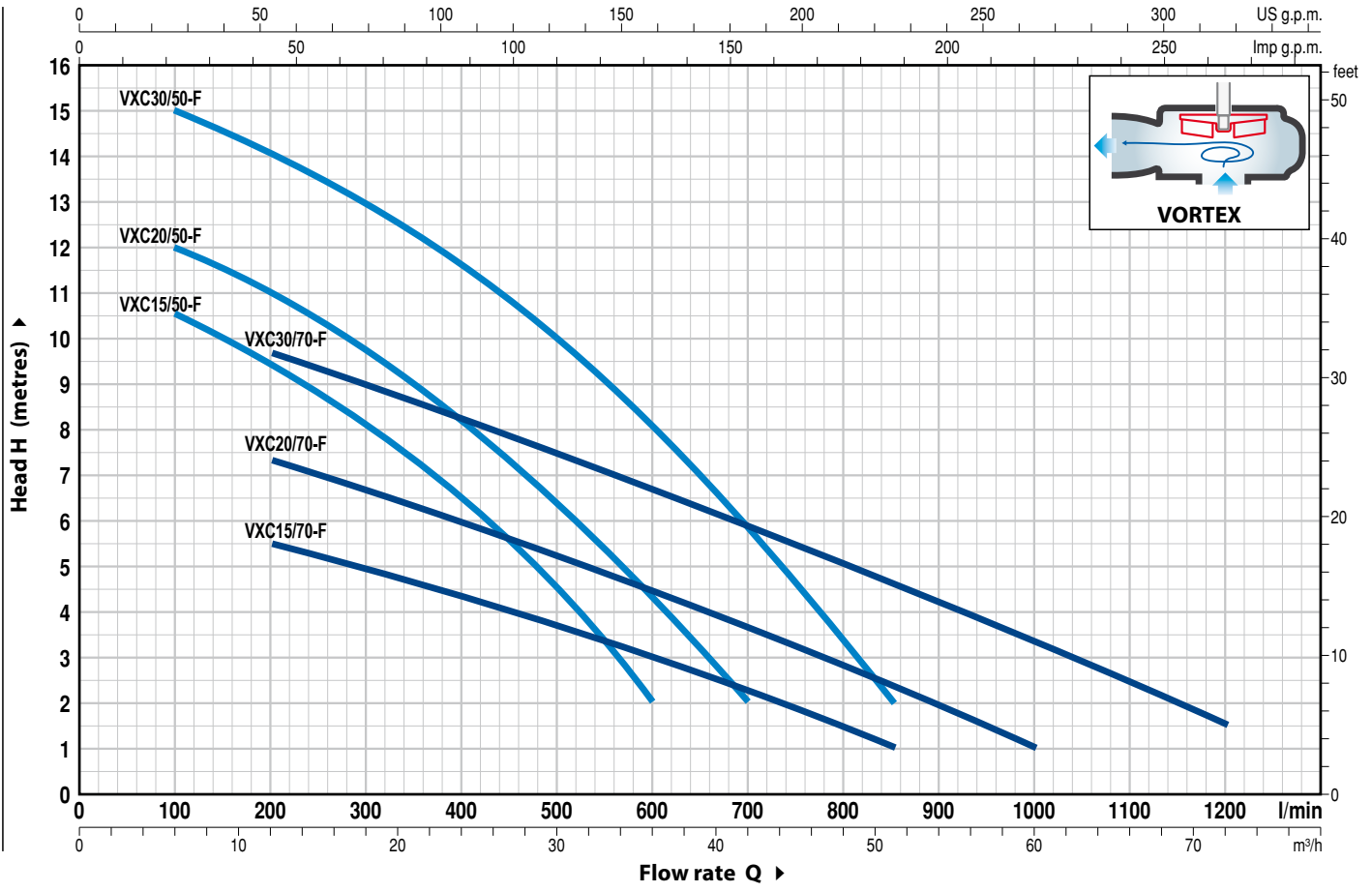
GUARANTEE

➔ **For the following versions the incorporated thermal overload protector must be connected to the control box for the guarantee to be considered valid:**

single-phase	three-phase
– VXCm 30/50-F	– VXC 15-20-30/50-F
– VXCm 30/70-F	– VXC 15-20-30/70-F

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 rpm



MODEL		POWER (P ₂)		Q	H metres																	
Single-phase	Three-phase	kW	HP		m ³ /h	0	6	12	18	21	24	27	30	36	42	48	51	54	60	66	72	
				l/min	0	100	200	300	350	400	450	500	600	700	800	850	900	1000	1100	1200		
VXCm 15/50-F	VXC 15/50-F	1.1	1.5	H metres	11.5	10.5	9.5	8.2	7.2	6.5	5.6	4.5	2									
VXCm 20/50-F	VXC 20/50-F	1.5	2		13	12	11	9.5	9	8	7.2	6.5	4.5	2								
VXCm 30/50-F	VXC 30/50-F	2.2	3		16	15	14	13	12.3	11.5	10.8	10	8	5.9	3.3	2						
VXCm 15/70-F	VXC 15/70-F	1.1	1.5		6.5	-	5.5	5	4.7	4.4	4	3.7	3	2.2	1.5	1						
VXCm 20/70-F	VXC 20/70-F	1.5	2		8.5	-	7.4	6.7	6.3	6	5.6	5.2	4.5	3.6	2.8	2.4	2	1				
VXCm 30/70-F	VXC 30/70-F	2.2	3		11	-	9.7	9	8.6	8.2	7.8	7.5	6.7	5.8	5	4.6	4.2	3.3	2.5	1.5		

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
VXCm 15/50-F	8.8 A	8.7 A
VXCm 20/50-F	10.2 A	10.1 A
VXCm 30/50-F	15.6 A	15.5 A
VXCm 15/70-F	8.7 A	8.6 A
VXCm 20/70-F	10.0 A	9.9 A
VXCm 30/70-F	15.0 A	14.9 A

MODEL	VOLTAGE		
Three-phase	230÷240 V	400÷415 V	690÷720 V
VXC 15/50-F	5.9 A	3.4 A	2.0 A
VXC 20/50-F	7.3 A	4.2 A	2.4 A
VXC 30/50-F	9.9 A	5.7 A	3.3 A
VXC 15/70-F	5.7 A	3.3 A	1.9 A
VXC 20/70-F	7.3 A	4.2 A	2.4 A
VXC 30/70-F	9.5 A	5.5 A	3.2 A

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with flanged ports
2	SUCTION PLATE	Cast iron
3	IMPELLER	VORTEX type in cast iron with an Epoxy Electro Coating treatment
4	MOTOR CASING	Cast iron
5	MOTOR CASING PLATE	Cast iron
6	MOTOR SHAFT	Stainless steel AISI 431

7 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-20	Ø 20 mm	Motor side	Ceramic	Graphite	NBR
STA-19	Ø 19 mm	Pump side	Silicon carbide	Silicon carbide	NBR

8 BEARINGS 6304 ZZ - C3 / 6304 ZZ - C3

9 CAPACITOR

Pump	Capacitance
Single-phase	(230 V or 240 V)
VXCm 15/50-70-F	31.5 µF 450 VL
VXCm 20/50-70-F	50 µF 450 VL
VXCm 30/50-70-F	60 µF 450 VL

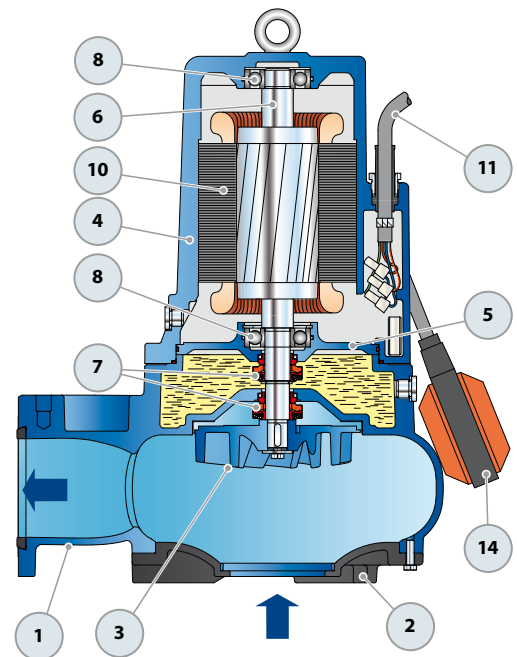
10 ELECTRIC MOTOR

VXCm 15-20-F: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding

⇒ **VXCm 30-F:** single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding to be connected to the control box

⇒ **VXC-F:** three-phase 400 V - 50 Hz with thermal overload protector incorporated into the winding to be connected to the control box (supplied on demand)

- Insulation: class F
- Protection: IP X8



11 POWER CABLE

10 metres long "H07 RN-F" cable

12 CONTROL BOX per VXCm 15-20-F

(only for single-phase versions)

Complete with capacitor and manual reset motor protector

13 CONTROL BOX per VXCm 30-F

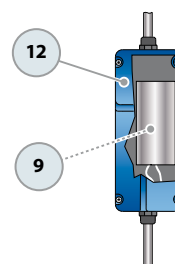
(only for single-phase versions)

QES 300 MONO series

14 FLOAT SWITCH

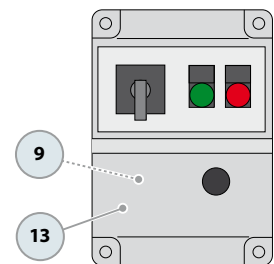
(only for single-phase versions)

Standard features



Control box for VXCm 15-20-F (HP 1.5-2.0) (only for single-phase versions)

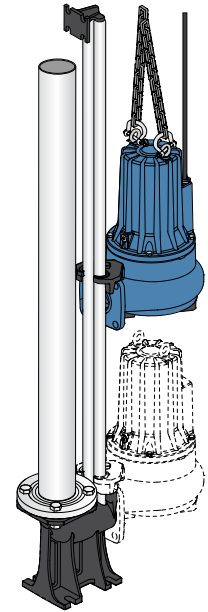
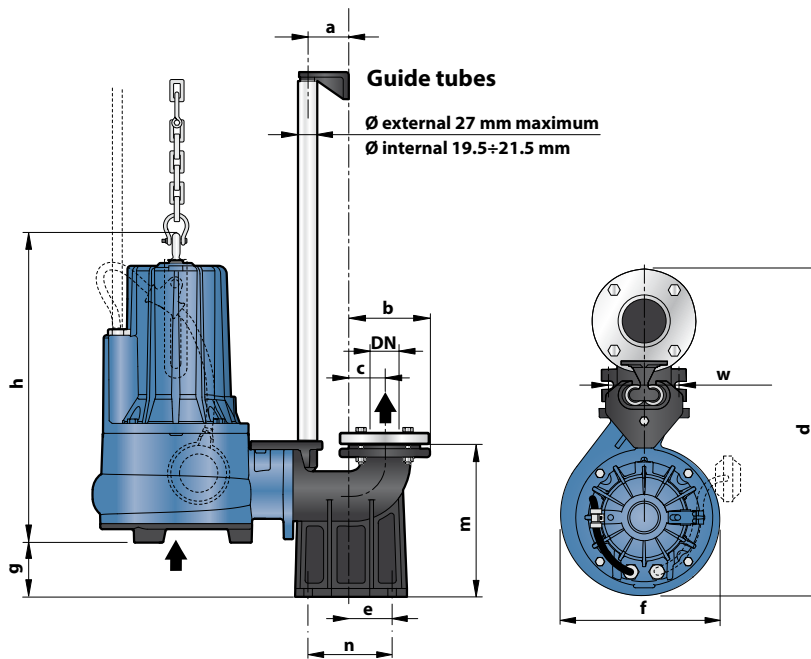
Standard features



Control box for VXC 30-F (HP 3.0) (only for single-phase versions)

DIMENSIONS AND WEIGHT (VXC-F pumps with connection support KIT)

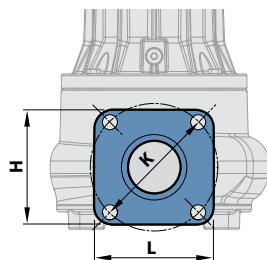
Standard installation



MODEL		CONTERFLANGE DN	Passage of solids	DIMENSIONS mm											
Single-phase	Three-phase			a	b	c	d	e	f	g	h	m	n	w	
PVXCm 15/50	PVXC 15/50	2½"	Ø 50 mm	60	116	51	490	62	248	52	442	198	120	72	
PVXCm 20/50	PVXC 20/50										457 / 442				
PVXCm 30/50	PVXC 30/50														
PVXCm 15/70	PVXC 15/70	3"	Ø 70 mm		60	150	70	570	85	268	92	458	255	130	112
PVXCm 20/70	PVXC 20/70											472 / 458			
PVXCm 30/70	PVXC 30/70														

MODEL		Weight of VXC-F pumps kg		Weight of connection support KIT kg	Weight of PVXC kg	
Single-phase	Three-phase	1~	3~		1~	3~
PVXCm 15/50	PVXC 15/50	36.9	35.6	9.8	46.7	45.4
PVXCm 20/50	PVXC 20/50	38.0	36.7		47.8	46.5
PVXCm 30/50	PVXC 30/50	41.9	38.7		51.7	48.5
PVXCm 15/70	PVXC 15/70	41.4	40.1	15.2	56.6	55.3
PVXCm 20/70	PVXC 20/70	42.5	41.2		57.7	56.4
PVXCm 30/70	PVXC 30/70	46.4	43.2		61.6	58.4

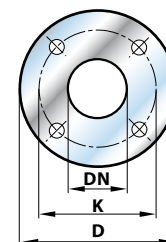
PORT FLANGE



MODEL	L mm	H mm	K mm	HOLES	
				N.	Ø (mm)
VXC /50-F	140	130	145	4	17
VXC /70-F	140	140			

COUNTERFLANGE

(INCLUDED IN THE CONNECTION SUPPORT KIT)



MODEL	DN CONTERFLANGE	D mm	K mm	HOLES	
				N.	Ø (mm)
PVXC /50	2½"	165	125	4	18
PVXC /70	3"	190	150		

Submersible pumps

-  Filthy water
-  Domestic use
-  Civil use
-  Industrial use



PERFORMANCE RANGE

- Flow rate up to **1600 l/min** (96 m³/h)
- Head up to **25 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Passage of solids:
 - up to **Ø 50 mm** for MC /50-F
 - up to **Ø 70 mm** for MC /70-F
- Minimum immersion depth for continuous service:
 - **390 mm** for MC /50-F
 - **440 mm** for MC /70-F

CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- External float switch and control box for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



INSTALLATION AND USE

The **MC-F** series of pumps, manufactured from heavy gauge robust cast iron, resistant to abrasion and long lasting, are fitted with a **DOUBLE CHANNEL** impeller in stainless steel which allows the drainage of liquids with short fibre solids in suspension. They are suitable for carrying **discharged and sewer water, dirty water, water mixed with mud, groundwater** and surface water, for applications, when placed in suitable wells, in blocks of flats, public buildings, industries, multi-storey and underground car parks and wash areas.

OPTIONS AVAILABLE ON REQUEST

- Connection support KIT for PMC
- **QES** control box for three-phase pumps
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

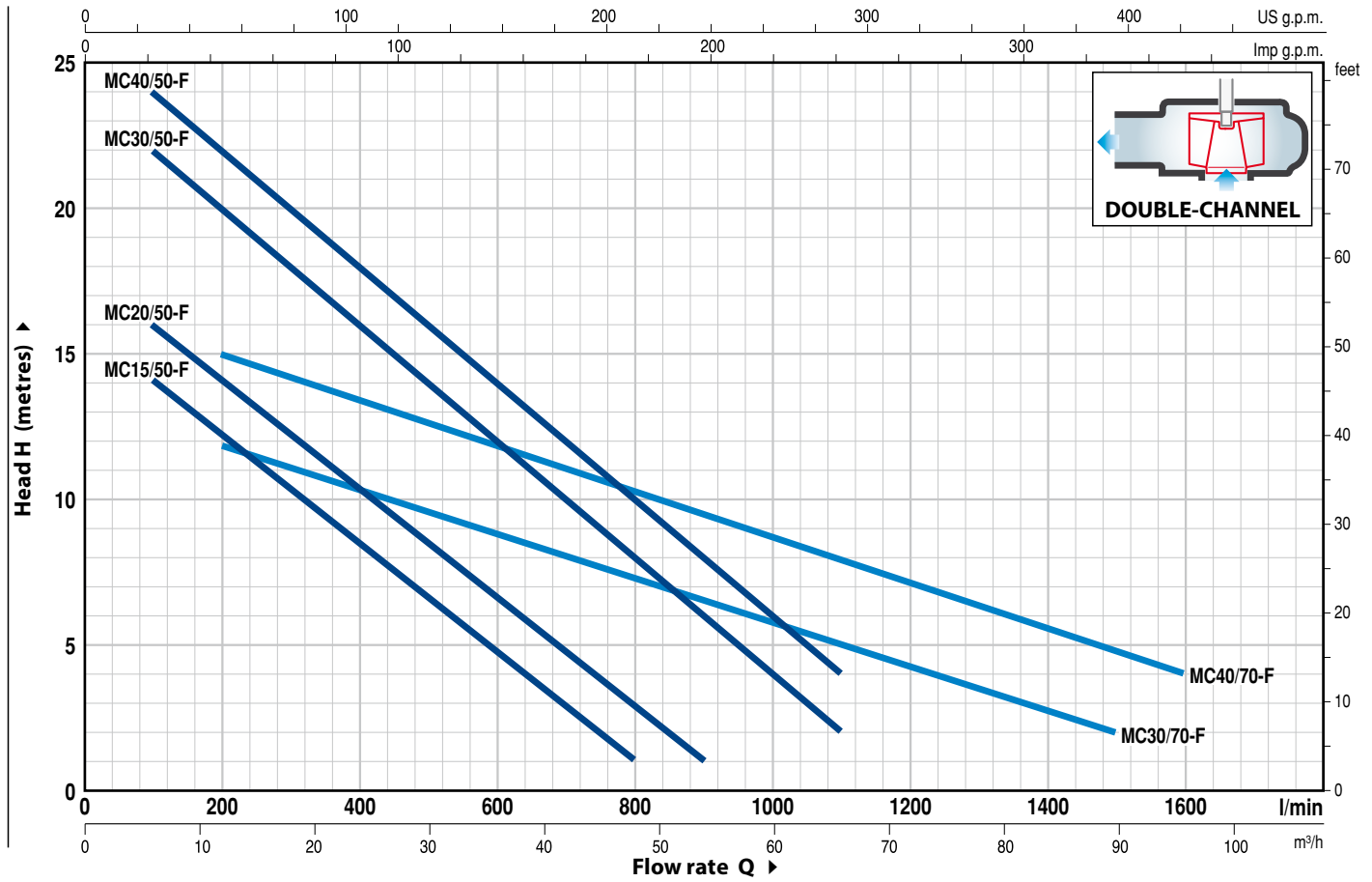
GUARANTEE

➔ **For the following versions the incorporated thermal overload protector must be connected to the control box for the guarantee to be considered valid:**

- | | |
|---------------|-----------------------|
| single-phase | three-phase |
| – MCm 30/50-F | – MC 15-20-30-40/50-F |
| – MCm 30/70-F | – MC 30-40/70-F |

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



MODEL		POWER (P ₂)		Q	Flow rate															
Single-phase	Three-phase	kW	HP		m ³ /h	0	6	12	18	24	30	36	42	48	54	60	66	72	90	96
					0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1500	1600	
MCm 15/50-F	MC 15/50-F	1.1	1.5	H metres	16	14	12.5	10.5	8.5	6.5	4.5	3	1							
MCm 20/50-F	MC 20/50-F	1.5	2		18	16	14	12.5	10.5	8.5	6.5	5	3	1						
MCm 30/50-F	MC 30/50-F	2.2	3		24	22	20	18	16	14	12	10	8	6	4	2				
-	MC 40/50-F	3	4		25	24	22	20	18	16	14	12	10	8	6	4				
MCm 30/70-F	MC 30/70-F	2.2	3		13	-	12	11	10.5	9.7	9	8	7.5	6.5	6	5	4.5	2		
-	MC 40/70-F	3	4		17	-	15	14	13.5	12.5	12	11	10.5	9.5	8.5	8	7	4.8	4	

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

ABSORPTION

MODEL	VOLTAGE	
	230 V	240 V
MCm 15/50-F	9.0 A	8.9 A
MCm 20/50-F	10.5 A	10.4 A
MCm 30/50-F	15.2 A	15.1 A
MCm 30/70-F	15.2 A	15.1 A

MODEL	VOLTAGE		
	230÷240 V	400÷415 V	690÷720 V
MC 15/50-F	6.1 A	3.5 A	2.0 A
MC 20/50-F	7.4 A	4.3 A	2.5 A
MC 30/50-F	9.9 A	5.7 A	3.3 A
MC 40/50-F	13.5 A	7.8 A	4.5 A
MC 30/70-F	10.2 A	5.9 A	3.4 A
MC 40/70-F	13.5 A	7.8 A	4.5 A

POS. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron complete with flanged ports
2	SUCTION PLATE	Cast iron
3	IMPELLER	Precision cast stainless steel AISI 304 DOUBLE-CHANNEL type
4	MOTOR CASING	Cast iron
5	MOTOR CASING PLATE	Cast iron
6	MOTOR SHAFT	Stainless steel AISI 431

7 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-20	Ø 20 mm	Motor side	Ceramic	Graphite	NBR
STA-19	Ø 19 mm	Pump side	Silicon carbide	Silicon carbide	NBR

8 BEARINGS 6304 ZZ - C3 / 6304 ZZ - C3

9 CAPACITOR

Pump	Capacitance
Single-phase	(230 V or 240 V)
MCm 15/50-F	31.5 µF 450 VL
MCm 20/50-F	50 µF 450 VL
MCm 30/50-70-F	60 µF 450 VL

10 ELECTRIC MOTOR

MCm 15-20-F: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding

⇒ **MCm 30-F:** single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding to be connected to the control box

⇒ **MC-F:** three-phase 400 V - 50 Hz with thermal overload protector incorporated into the winding to be connected to the control box (supplied on demand)

- Insulation: class F
- Protection: IP X8

11 POWER CABLE

10 metres long "H07 RN-F" cable

12 CONTROL BOX for MCm 15-20-F

(only for single-phase versions)

Complete with capacitor and manual reset motor protector

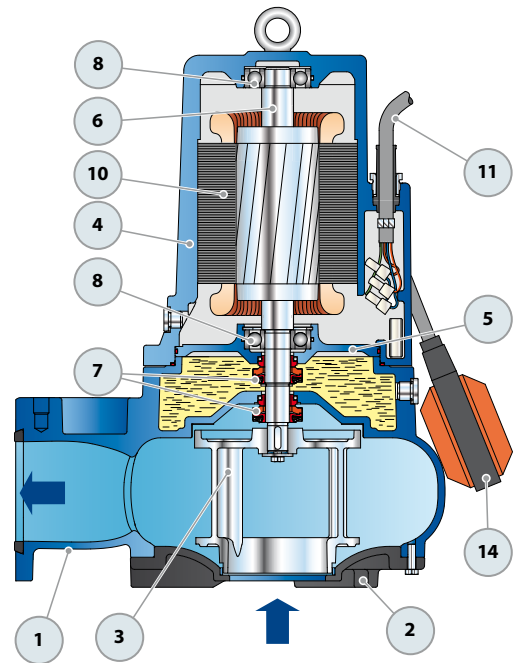
13 CONTROL BOX for MCm 30-F

(only for single-phase versions)

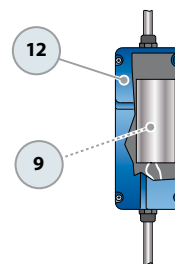
QES 300 MONO series

14 FLOAT SWITCH

(only for single-phase versions)

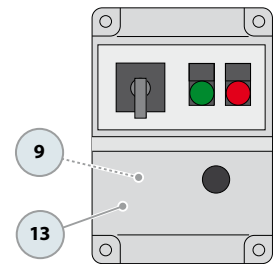


Standard features



Control box for MCm 15-20-F (HP 1.5-2.0) (only for single-phase versions)

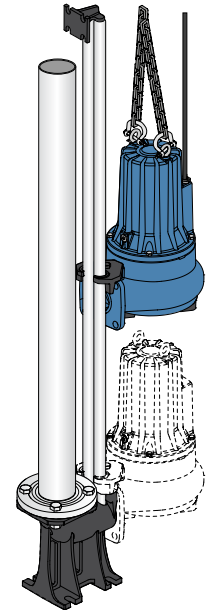
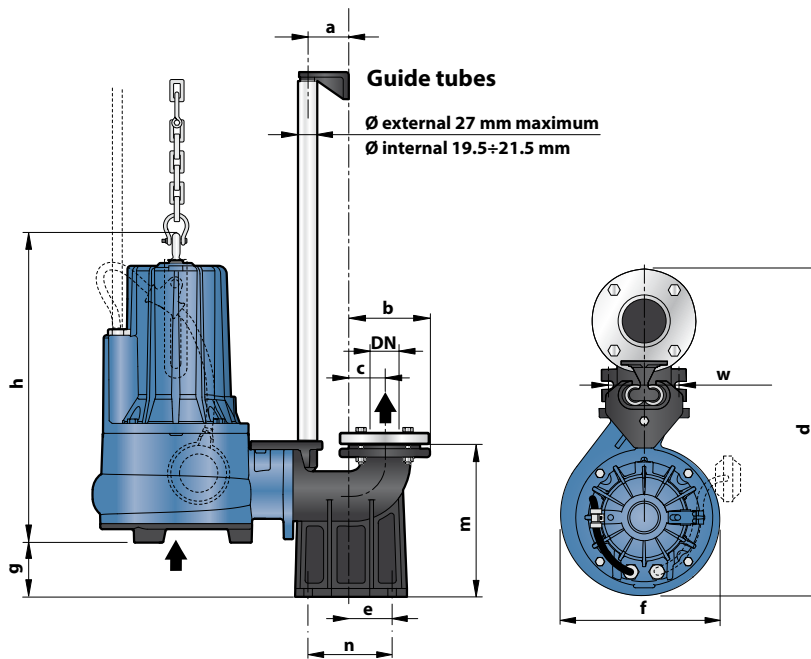
Standard features



Control box for MCm 30-F (HP 3.0) (only for single-phase versions)

DIMENSIONS AND WEIGHT (MC-F pumps with connection support KIT)

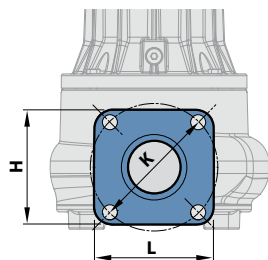
Standard installation



MODEL		CONTERFLANGE DN	Passage of solids	DIMENSIONS mm										
Single-phase	Three-phase			a	b	c	d	e	f	g	h	m	n	w
PMcM 15/50	PMC 15/50	2½"	Ø 50 mm	60	116	51	490	62	248	52	442	198	120	72
PMcM 20/50	PMC 20/50										457 / 442			
PMcM 30/50	PMC 30/50										457			
-	PMC 40/50	3"	Ø 70 mm	150	70	570	85	268	92	472 / 458	255	130	112	
PMcM 30/70	PMC 30/70									472				
-	PMC 40/70													

MODEL		Weight of MC-F pumps kg		Weight of connection support KIT kg	Weight of PMC kg	
Single-phase	Three-phase	1~	3~		1~	3~
PMcM 15/50	PMC 15/50	37.4	36.1	9.8	47.2	45.9
PMcM 20/50	PMC 20/50	38.4	37.1		48.2	46.9
PMcM 30/50	PMC 30/50	42.4	39.3		52.2	49.1
-	PMC 40/50	-	42.9		-	52.7
PMcM 30/70	PMC 30/70	47.4	44.1	15.2	62.6	59.3
-	PMC 40/70	-	47.7		-	-

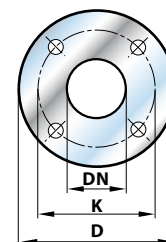
PORT FLANGE



MODEL	L mm	H mm	K mm	HOLES	
				N.	Ø (mm)
MC /50-F	140	130	145	4	17
MC /70-F	140	140			

COUNTERFLANGE

(INCLUDED IN THE CONNECTION SUPPORT KIT)



MODEL	DN CONTERFLANGE	D mm	K mm	HOLES	
				N.	Ø (mm)
PMC /50	2½"	165	125	4	18
PMC /70	3"	190	150		

 Domestic use

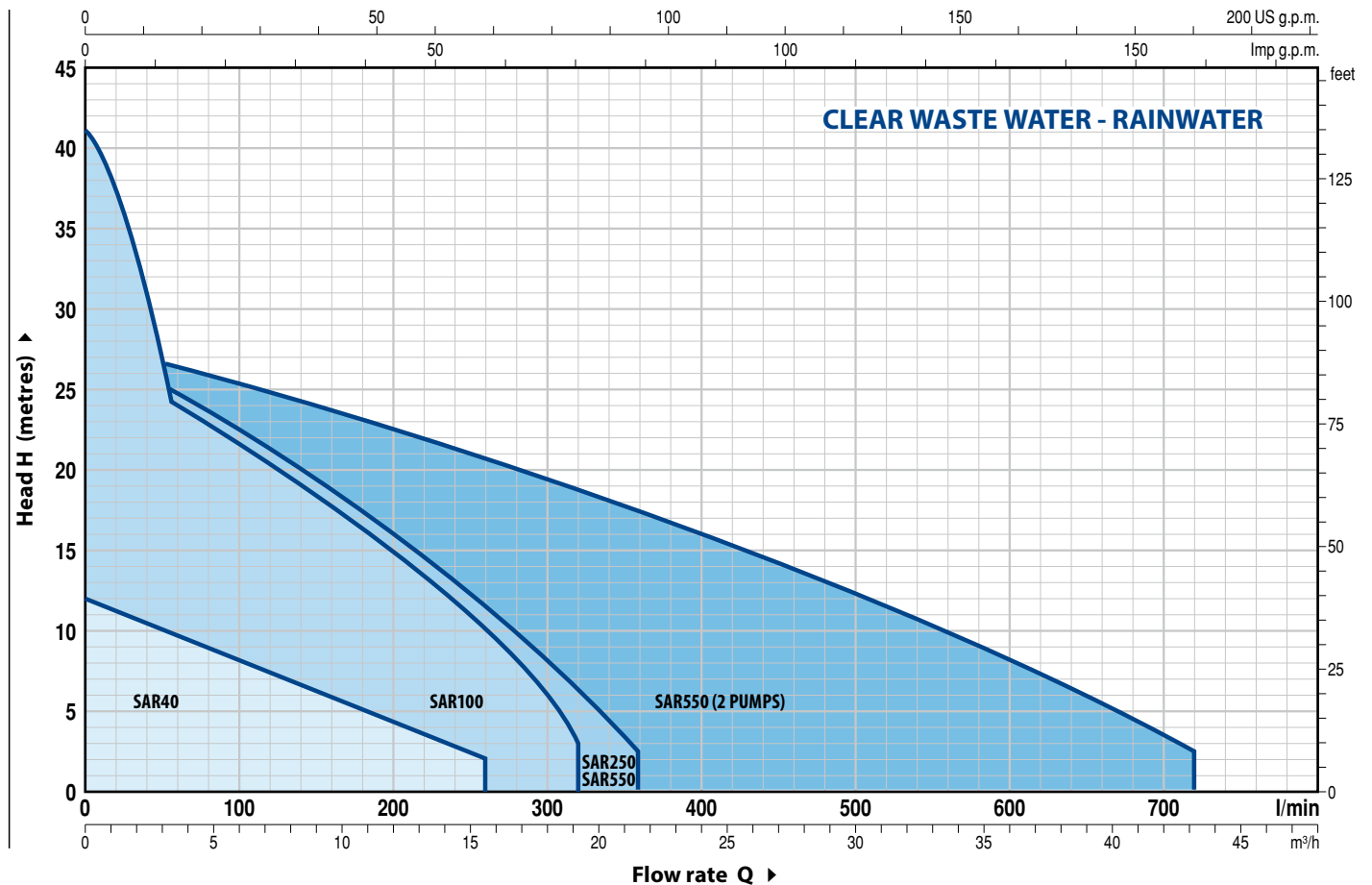
 Agricultural use

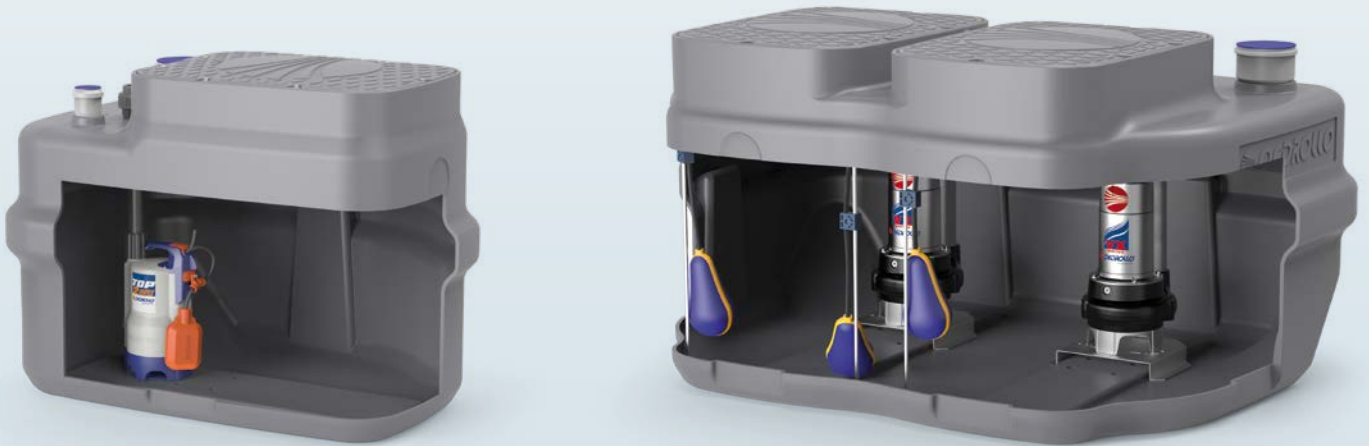
 Civil use



PERFORMANCE RANGE

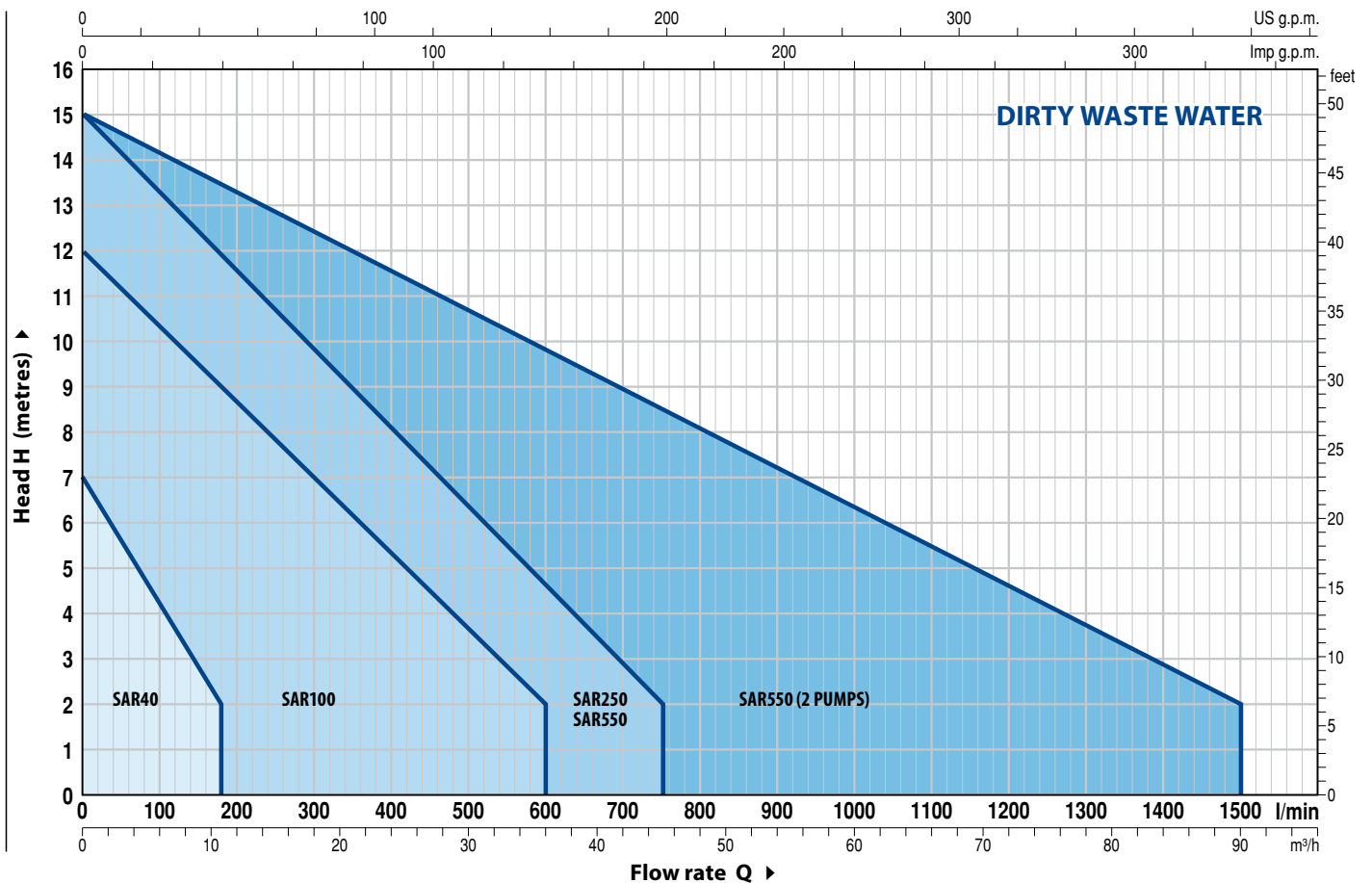
50 Hz n = 2900 rpm





PERFORMANCE RANGE

50 Hz n= 2900 rpm



CLEAR WASTE WATER - RAINWATER

MODEL	POWER (P ₂)		TANK CAPACITY litres	MAXIMUM FLOW RATE litres/min	MAXIMUM HEAD metres
	kW	HP			
SAR 40 - TOP 1	0.25	0.33	40	160	6
SAR 40 - TOP 2	0.37	0.50	40	220	8
SAR 40 - TOP 3	0.55	0.75	40	260	10
SAR 40 - RXm 1	0.25	0.33	40	160	6.5
SAR 40 - RXm 2	0.37	0.50	40	220	9.5
SAR 40 - RXm 3	0.55	0.75	40	220	11.5



DIRTY WASTE WATER

MODEL	POWER (P ₂)		TANK CAPACITY litres	MAXIMUM FLOW RATE litres/min	MAXIMUM HEAD metres
	kW	HP			
SAR 40 - TOP 2-VORTEX	0.37	0.50	40	180	6.5
SAR 40 - RXm2/20	0.37	0.50	40	180	6.5

COMPONENTS

- **40 litres** polyethylene tank with cover plate
- Pump complete with float switch
- Power cable: **supplied with standard 5 metres cable** with Schuko plug (EN 60335-2-41 standard states that the power cable must be 10 metres long for outside use)
- Non-return valve
- Accumulation stations with **inlet tube 1½"** gas, **outlet 1¼"** gas and **vent ½"** gas

CLEAR WASTE WATER - RAINWATER



MODEL	POWER (P ₂)		TANK CAPACITY litres	MAXIMUM FLOW RATE litres/min	MAXIMUM HEAD metres
	kW	HP			
SAR 100 - TOP 2	0.37	0.50	100	220	8
SAR 100 - TOP 3	0.55	0.75	100	260	10
SAR 100 - TOP 4 N	0.75	1	100	320	12.5
SAR 100 - TOP MULTI 2	0.55	0.75	100	80	40
SAR 100 - TOP MULTI 3	0.55	0.75	100	120	32
SAR 100 - RXm 2	0.37	0.50	100	220	9.5
SAR 100 - RXm 3	0.55	0.75	100	220	11.5
SAR 100 - Dm 10-N	0.75	1	100	300	15.5
SAR 100 - Dm 20-N	0.75	1	100	250	19
SAR 100 - Dm 30-N	1.1	1.5	100	275	26

DIRTY WASTE WATER

MODEL	POWER (P ₂)		TANK CAPACITY litres	MAXIMUM FLOW RATE litres/min	MAXIMUM HEAD metres
	kW	HP			
SAR 100 - TOP 2-VORTEX	0.37	0.50	100	180	6.5
SAR 100 - TOP 3-VORTEX	0.55	0.75	100	180	8
SAR 100 - RXm 2/20	0.37	0.50	100	180	6.5
SAR 100 - RXm 3/20	0.55	0.75	100	180	8
SAR 100 - ZXm 1A/40	0.60	0.85	100	400	10.5
SAR 100 - VXm 8/35-N	0.55	0.75	100	350	8
SAR 100 - VXm 10/35-N	0.75	1	100	400	10
SAR 100 - VXm 8/50-N	0.55	0.75	100	450	6
SAR 100 - VXm 10/50-N	0.75	1	100	550	8.5
SAR 100 - BCm 10/50-N	0.75	1	100	600	11

COMPONENTS

- 100 litres polyethylene tank with cover plate
- Pump complete with float switch
- Power cable: **supplied with standard 10 metres cable** with Schuko plug
- Accumulation stations with **inlet tube** Ø 110 mm, **outlet** 1¼" or 1½" or 2" gas and **vent** Ø 50 mm

CLEAR WASTE WATER - RAINWATER

MODEL	POWER (P ₂)		TANK CAPACITY litres	MAXIMUM FLOW RATE litres/min	MAXIMUM HEAD metres
	kW	HP			
SAR 250 - TOP 3	0.55	0.75	250	260	10
SAR 250 - TOP 4 N	0.75	1	250	320	12.5
SAR 250 - TOP 5 N	0.92	1.25	250	360	15
SAR 250 - RXm 3	0.55	0.75	250	220	11.5
SAR 250 - RXm 4	0.75	1	250	260	15
SAR 250 - RXm 5	1.1	1.5	250	300	19.5
SAR 250 - Dm 10-N	0.75	1	250	300	15.5
SAR 250 - Dm 20-N	0.75	1	250	250	19
SAR 250 - Dm 30-N	1.1	1.5	250	275	26



DIRTY WASTE WATER

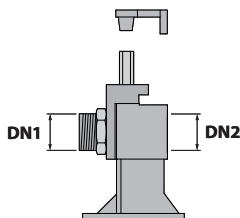
MODEL	POWER (P ₂)		TANK CAPACITY litres	MAXIMUM FLOW RATE litres/min	MAXIMUM HEAD metres
	kW	HP			
SAR 250 - TOP 2-VORTEX	0.37	0.50	250	180	6.5
SAR 250 - TOP 3-VORTEX	0.55	0.75	250	180	8
SAR 250 - RXm 3/20	0.55	0.75	250	180	8
SAR 250 - RXm 4/40	0.75	1	250	280	9.5
SAR 250 - RXm 5/40	1.1	1.5	250	380	12.5
SAR 250 - VXm10/35-ST	0.75	1	250	400	10.5
SAR 250 - VXm10/50-ST	0.75	1	250	550	9.5
SAR 250 - BCm10/50-ST	0.75	1	250	600	11
SAR 250 - VXm 10/35-N	0.75	1	250	400	10
SAR 250 - VXm 15/35-N	1.1	1.5	250	500	13.5
SAR 250 - VXm 10/50-N	0.75	1	250	550	8.5
SAR 250 - VXm 15/50-N	1.1	1.5	250	650	11
SAR 250 - BCm 10/50-N	0.75	1	250	600	11
SAR 250 - BCm 15/50-N	1.1	1.5	250	750	14

COMPONENTS

- 250 litres polyethylene tank with cover plate
- Pump complete with float switch
- Power cable: **supplied with standard 10 metres cable** with Schuko plug
- Accumulation stations with **inlet tube** Ø 110 mm, **outlet** 1¼" or 1½" or 2" gas and **vent** Ø 50 mm
- Coupling support and guide tubes for lowering of pump (only for VX-ST and BC-ST)

BASE PEDESTAL ELBOW (DUCT FOOT)

MODEL	PORTS	
	DN1	DN2
PA/1 (VX/35-ST)	1½"	2"
PA/2 (VX/50-ST and BC/50-ST)	2"	



OPTIONS AVAILABLE ON REQUEST

Alarm KIT (Cod. KSKIT-ALLARME)

Kit includes:

- Control box, self-powered siren, float

300 mm extension kit (Cod. KSKIT-300MA)

Kit includes:

- Extension kit for the installation of the polyethylene "SAR" tank at greater depths

300 mm extension kit for VX-ST and BC-ST versions (Cod. KSKIT-300MM)

Kit includes:

- Extension kit for the installation of the polyethylene "SAR" tank at greater depths
- Longer guide tubes

CLEAR WASTE WATER - RAINWATER

MODEL	POWER (P ₂)		TANK CAPACITY litres	MAXIMUM FLOW RATE (1 pump) litres/min	MAXIMUM HEAD metres
	kW	HP			
SAR 550 - TOP4 N	0.75	1	550	320	12.5
SAR 550 - TOP5 N	0.92	1.25	550	360	15
SAR 550 - RXm4	0.75	1	550	260	15
SAR 550 - RXm5	1.1	1.5	550	300	19.5
SAR 550 - Dm10-N	0.75	1	550	300	15.5
SAR 550 - Dm20-N	0.75	1	550	250	19
SAR 550 - Dm30-N	1.1	1.5	550	275	26



DIRTY WASTE WATER

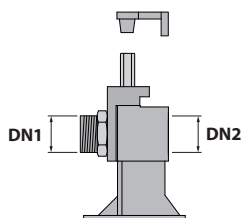
MODEL	POWER (P ₂)		TANK CAPACITY litres	MAXIMUM FLOW RATE (1 pump) litres/min	MAXIMUM HEAD metres
	kW	HP			
SAR 550 - RXm 4/40	0.75	1	550	280	9.5
SAR 550 - RXm 5/40	1.1	1.5	550	380	12.5
SAR 550 - VXm10/35-ST	0.75	1	550	400	10.5
SAR 550 - VXm10/50-ST	0.75	1	550	550	9.5
SAR 550 - BCm10/50-ST	0.75	1	550	600	11
SAR 550 - VXm 10/35-N	0.75	1	550	400	10
SAR 550 - VXm 15/35-N	1.1	1.5	550	500	13.5
SAR 550 - VXm 10/50-N	0.75	1	550	550	8.5
SAR 550 - VXm 15/50-N	1.1	1.5	550	650	11
SAR 550 - BCm 10/50-N	0.75	1	550	600	11
SAR 550 - BCm 15/50-N	1.1	1.5	550	750	14

COMPONENTS

- 550 litre polyethylene tank with two lids
- Two single-phase pumps
- Power cable: **supplied with standard 10 metres cable** with Schuko plug
- Control box
- Three floats for: **1)** alternating switch-on of one of the two pumps, **2)** maximum level with switch-on of second pump, **3)** minimum level with switch-off of pumps
- Accumulation stations with two **inlet tubes** Ø 110 mm, **outlet** 1½" or 2" gas and **vent** Ø 50 mm
- Coupling support and guide tubes for lowering of pump (only for VX-ST and BC-ST)

BASE PEDESTAL ELBOW (DUCT FOOT)

MODEL	PORTS	
	DN1	DN2
PA/1 (VX /35-ST)	1½"	2"
PA/2 (VX /50-ST and BC /50-ST)	2"	



OPTIONS AVAILABLE ON REQUEST

Alarm KIT (Cod. KSKIT-ALLARME)

Kit includes:

- Control box, self-powered siren, float

300 mm extension kit (Cod. KSKIT-300MA)

Kit includes:

- Extension kit for the installation of the polyethylene "SAR" tank at greater depths

ATTENTION: the tank is fitted with two lids.

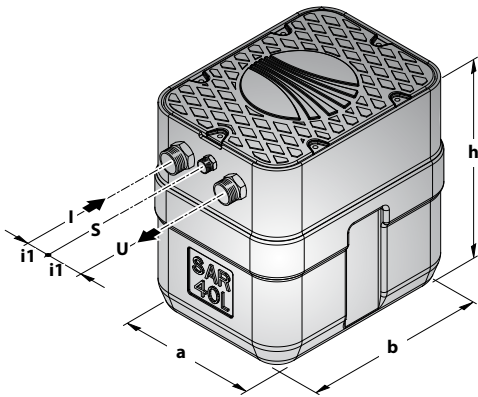
300 mm extension kit for VX-ST and BC-ST versions (Cod. KSKIT-300MM)

Kit includes:

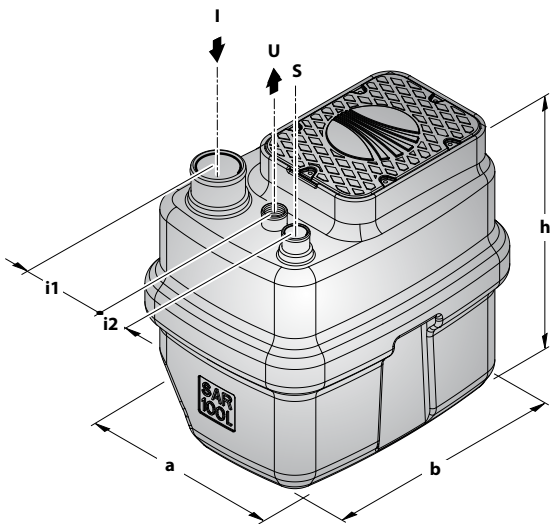
- Extension kit for the installation of the polyethylene "SAR" tank at greater depths
- Longer guide tubes

ATTENTION: the tank is fitted with two lids.

DIMENSIONS AND WEIGHT

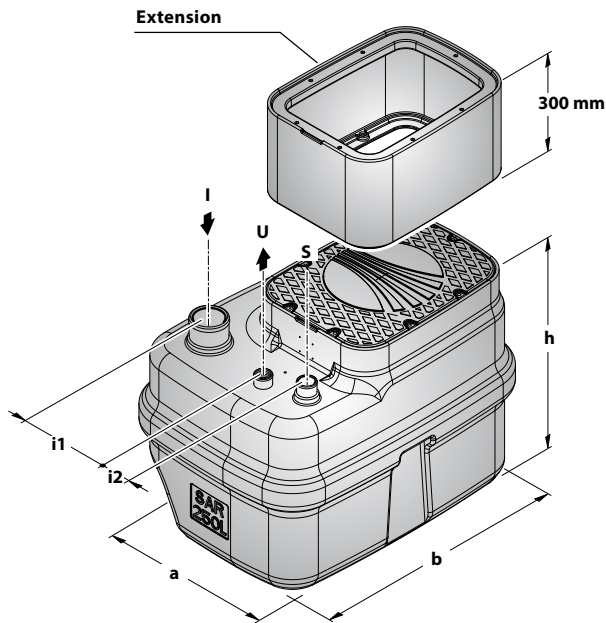


MODEL	PORTS			DIMENSIONS mm				kg
	I	U	S	a	b	h	i1	
SAR 40 - TOP1								14.0
SAR 40 - TOP2								14.7
SAR 40 - TOP3								16.1
SAR 40 - RXm1	1½"	1¼"	½"	310	410	410	60	14.2
SAR 40 - RXm2								15.3
SAR 40 - RXm3								16.9
SAR 40 - TOP 2-VORTEX								14.6
SAR 40 - RXm 2/20								15.6

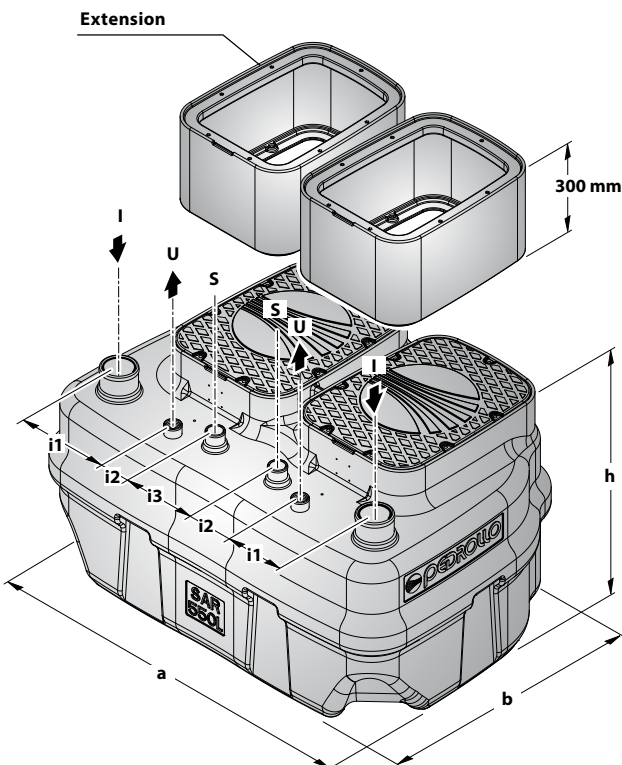


MODEL	PORTS			DIMENSIONS mm						kg
	I	U	S	a	b	h	i1	i2		
SAR 100 - TOP2		1¼"							28.7	
SAR 100 - TOP3									30.1	
SAR 100 - TOP4 N		1½"							33.7	
SAR 100 - TOP MULTI 2									32.9	
SAR 100 - TOP MULTI 3									32.9	
SAR 100 - RXm2		1¼"							29.3	
SAR 100 - RXm3									29.6	
SAR 100 - Dm10-N									36.6	
SAR 100 - Dm20-N		1½"							36.6	
SAR 100 - Dm30-N	Ø 110 mm		Ø 50 mm	500	690	645	145	100	38.6	
SAR 100 - TOP 2-VORTEX									28.7	
SAR 100 - TOP 3-VORTEX		1¼"							30.1	
SAR 100 - RXm 2/20									29.6	
SAR 100 - RXm 3/20									29.8	
SAR 100 - ZXm 1A/40									35.2	
SAR 100 - VXm 8/35-N		1½"							36.4	
SAR 100 - VXm 10/35-N									37.2	
SAR 100 - VXm 8/50-N									36.9	
SAR 100 - VXm 10/50-N		2"							37.7	
SAR 100 - BCm 10/50-N									38.4	

DIMENSIONS AND WEIGHT



MODEL	PORTS			DIMENSIONS mm					kg
	I	U	S	a	b	h	i1	i2	
SAR 250 - TOP3		1¼"							42.6
SAR 250 - TOP4 N		1½"							46.2
SAR 250 - TOP5 N		1½"							47.1
SAR 250 - RXm3		1¼"							43.4
SAR 250 - RXm4		1½"							48.7
SAR 250 - RXm5		1½"							49.7
SAR 250 - Dm10-N		1½"							49.1
SAR 250 - Dm20-N		1½"							49.1
SAR 250 - Dm30-N		1½"							51.1
SAR 250 - TOP 2-VORTEX		1¼"							41.2
SAR 250 - TOP 3-VORTEX	∅	1¼"	∅	700	970	715	250	130	42.6
SAR 250 - RXm 3/20	110 mm		50 mm						43.8
SAR 250 - RXm 4/40		1½"							49.0
SAR 250 - RXm 5/40		1½"							50.0
SAR 250 - VXm10/35-ST		2"							47.1
SAR 250 - VXm10/50-ST		2"							47.2
SAR 250 - BCm10/50-ST		1½"							47.9
SAR 250 - VXm 10/35-N		1½"							49.7
SAR 250 - VXm 15/35-N		1½"							51.7
SAR 250 - VXm 10/50-N		2"							50.2
SAR 250 - VXm 15/50-N		2"							52.2
SAR 250 - BCm 10/50-N		2"							50.9
SAR 250 - BCm 15/50-N		2"							52.5

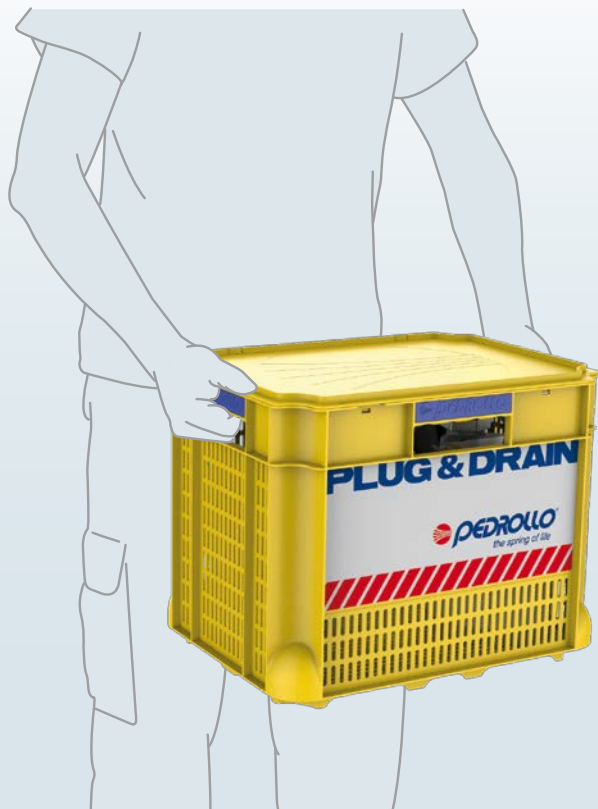


MODEL	PORTS			DIMENSIONS mm						kg
	I	U	S	a	b	h	i1	i2	i3	
SAR 550 - TOP4 N										93.4
SAR 550 - TOP5 N										95.2
SAR 550 - RXm4										98.4
SAR 550 - RXm5										100.4
SAR 550 - Dm10-N		1½"								99.2
SAR 550 - Dm20-N		1½"								99.2
SAR 550 - Dm30-N		1½"								103.2
SAR 550 - RXm 4/40		1½"								99.0
SAR 550 - RXm 5/40	∅	110 mm	∅	1350	970	715	250	130	240	101.0
SAR 550 - VXm 10/35-ST		2"								95.2
SAR 550 - VXm 10/50-ST		2"								95.4
SAR 550 - BCm10/50-ST		1½"								96.8
SAR 550 - VXm 10/35-N		1½"								100.4
SAR 550 - VXm 15/35-N		1½"								104.4
SAR 550 - VXm 10/50-N		2"								101.4
SAR 550 - VXm 15/50-N		2"								105.4
SAR 550 - BCm 10/50-N		2"								102.8
SAR 550 - BCm 15/50-N		2"								106.0

PLUG & DRAIN

Emergency KIT for emptying or preventing floods

 Domestic use



PLUG & DRAIN is the indispensable and practical emergency kit for tackling flooding in garages, cellars and basements with efficacy and speed.

Thanks to the versatile drainage pump and the 15 metres long PVC hose it is possible to swiftly drain the flooded area, if necessary using the plastic crate as a filter.

With **PLUG & DRAIN** you can completely drain the area affected by flooding: the pump can in fact suck up water down to a level of only 2 mm from the bottom.

With **PLUG & DRAIN** you have everything you require ready for use:

- pump with a ready-fitted connector, a 10 metres long power cable with Schuko plug and an external float switch;
- PVC hose with a rapid connector;
- Crate-filter to prevent possible bulky residues blocking water drainage.

TYPICAL USE

In the case of flooded premises place **PLUG & DRAIN** on the floor, attach the flat hose to the pump by means of the rapid connector, plug into the electricity network and empty the water through the hose. The plastic crate will act as a filter, making it possible to drain down to a level of about 2 cm from the bottom.

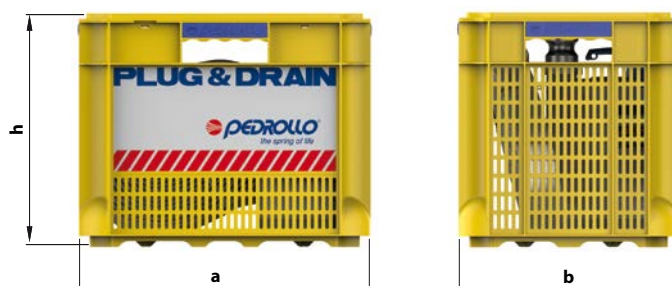
In order to drain the residual water disconnect the pump from the crate and place it on the floor. The pump will be able to drain down to a level of only 2 mm from the bottom.

PLUG & DRAIN also has the advantage that it can be stored on a shelf so as to have everything necessary in order and ready for use.

DIMENSIONS AND WEIGHTS

TYPE	DIMENSIONS mm			kg*
	a	b	h	
PLUG & DRAIN	400	300	320	9.3

(* Overall weight: pump, hose, connectors and crate)





COMPONENTS

SUBMERSIBLE TOP2-FLOOR PUMP

- Single-phase **230 V - 50 Hz**
- Thermal overload protector incorporated in the winding
- **10 metres** power cable fitted with Schuko plug
- External float switch
- "CAMLOCK" rapid connection
- Performance:
 - **H max= 9 m**
 - **Q max= 160 l/min**
- Emptying level down to **2 mm** from the bottom



PVC HOSE

- "CAMLOCK" rapid connection
- Length of tube **15 m**
- Diameter of tube **1¼"**



CRATE-FILTER

- Complete with a system for fixing the pump for a stable operation and an easy detachment for use of the pump without the crate-filter
- Complete with a lid so as to put away **PLUG & DRAIN** in order and have it always ready for use



AUTOMATIC PRESSURE BOOSTING SETS (AUTOCLAVES)



HYDROFRESH 05 VT



HYDROFRESH 24 SF



HYDROFRESH 24 CL



HYDROFRESH 60 CL

PERFORMANCE

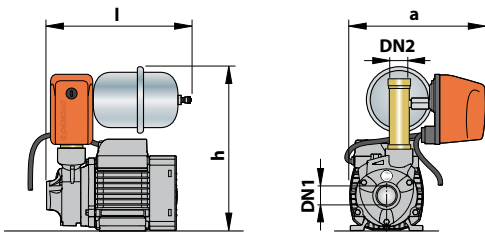
MODEL	POWER (P ₂)		FLOW RATE (1) litres/min	FLOW RATE (2) bar
	kW	HP		
HYDROFRESH 5VT				
PKm 60 – 05 VT	0.37	0.50	32	1.4 ÷ 2.8
JSWm1 CX – 05 VT	0.37	0.50	50	1.2 ÷ 2.6
JSWm1 BX – 05 VT	0.48	0.65	50	1.4 ÷ 2.8
JSWm1 AX – 05 VT	0.55	0.75	55	1.8 ÷ 3.2
HYDROFRESH 24 SF				
PKm 60 – 24 SF	0.37	0.50	32	1.4 ÷ 2.8
PKm 65 – 24 SF	0.50	0.70	40	1.5 ÷ 3.0
JSWm 1CX – 24 SF	0.37	0.50	50	1.2 ÷ 2.6
JSWm 1BX – 24 SF	0.48	0.65	50	1.4 ÷ 2.8
JSWm 1AX – 24 SF	0.55	0.75	55	1.8 ÷ 3.2
JSWm 2CX – 24 SF	0.75	1	70	2.0 ÷ 3.5
JSWm 2BX – 24 SF	0.90	1.25	70	2.4 ÷ 3.8
JSWm 2AX – 24 SF	1.1	1.5	70	2.8 ÷ 4.0
HYDROFRESH 24 CL				
PKm 60 – 24 CL	0.37	0.50	32	1.4 ÷ 2.8
PKm 65 – 24 CL	0.50	0.70	40	1.5 ÷ 3.0
CPm 158 – 24 CL	0.75	1	90	2.4 ÷ 3.8
CPm 170 – 24 CL	1.1	1.5	120	2.2 ÷ 3.5
JSWm 1BX – 24 CL	0.48	0.65	50	1.4 ÷ 2.8
JSWm 1AX – 24 CL	0.55	0.75	55	1.8 ÷ 3.2
JSWm 2CX – 24 CL	0.75	1	70	2.0 ÷ 3.5
JSWm 2BX – 24 CL	0.90	1.25	70	2.4 ÷ 3.8
JSWm 2AX – 24 CL	1.1	1.5	70	2.8 ÷ 4.0
JCRm 1B – 24 CL	0.48	0.65	50	1.4 ÷ 2.8
JCRm 1A – 24 CL	0.55	0.75	55	1.8 ÷ 3.2
JCRm 2C – 24 CL	0.75	1	70	1.9 ÷ 3.4
JCRm 2A – 24 CL	1.1	1.5	70	2.7 ÷ 4.0
HYDROFRESH 60 CL				
JSWm 2CX – 60 CL	0.75	1	70	2.0 ÷ 3.5
JSWm 2BX – 60 CL	0.90	1.25	70	2.4 ÷ 3.8
JSWm 2AX – 60 CL	1.1	1.5	70	2.8 ÷ 4.0

COMPONENTS:

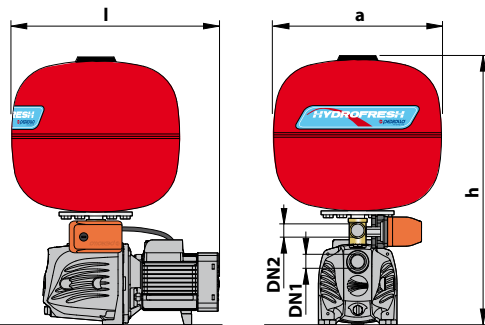
- Single-phase pump
- Tank
- Pressure switch PSG-1
- Pressure gauge (for 24SF, 24CL and 60CL)
- Hose (for 24CL and 60CL)
- Brass connector
- 1.5 m power cable with Schuko plug

- (1) Maximum flow rate at the minimum recommended pressure switch pressure
 (2) Recommended pressure range

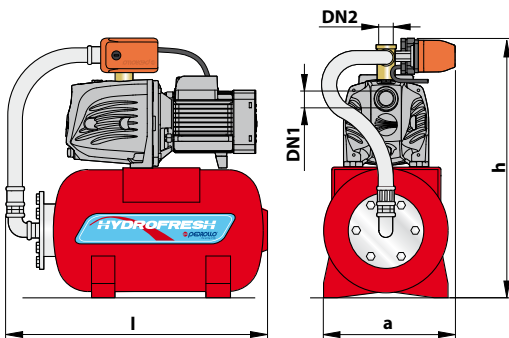
DIMENSIONS AND WEIGHT



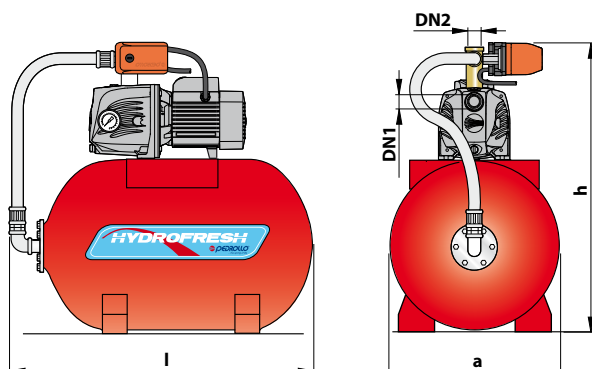
MODEL	PORTS		DIMENSIONS mm			WEIGHT kg
	DN1	DN2	l	a	h	
PKm 60 - 05 VT	1"	1"	210	230	245	6.8
JSWm1 CX - 05 VT	1"	1"	430	220	260	11.4
JSWm1 BX - 05 VT	1"	1"	430	220	260	11.5
JSWm1 AX - 05 VT	1"	1"	430	220	260	12.1



MODEL	PORTS		DIMENSIONS mm			WEIGHT kg
	DN1	DN2	l	a	h	
PKm 60 - 24 SF	1"	1"	350	350	560	12.7
PKm 65 - 24 SF	1"	1"	370	350	570	14.5
JSWm 1CX - 24 SF	1"	1"	394	350	590	17.3
JSWm 1BX - 24 SF	1"	1"	394	350	590	17.4
JSWm 1AX - 24 SF	1"	1"	394	350	590	18.0
JSWm 2CX - 24 SF	1"	1"	430	350	610	20.4
JSWm 2BX - 24 SF	1"	1"	430	350	610	21.3
JSWm 2AX - 24 SF	1"	1"	430	350	610	21.6



MODEL	PORTS		DIMENSIONS mm			WEIGHT kg
	DN1	DN2	l	a	h	
PKm 60 - 24 CL	1"	1"	550	255	500	12.7
PKm 65 - 24 CL	1"	1"	550	255	510	14.5
CPm 158 - 24 CL	1"	1"	550	255	600	19.5
CPm 170 - 24 CL	1¼"	1"	550	255	620	25.3
JSWm 1BX - 24 CL	1"	1"	550	255	520	17.4
JSWm 1AX - 24 CL	1"	1"	550	255	520	18.0
JSWm 2CX - 24 CL	1"	1"	550	255	530	20.4
JSWm 2BX - 24 CL	1"	1"	550	255	530	21.3
JSWm 2AX - 24 CL	1"	1"	550	255	530	21.6
JCRm 1B - 24 CL	1"	1"	550	255	560	14.7
JCRm 1A - 24 CL	1"	1"	550	255	560	15.3
JCRm 2C - 24 CL	1"	1"	550	255	570	17.8
JCRm 2A - 24 CL	1"	1"	550	255	570	19.0



MODEL	PORTS		DIMENSIONS mm			WEIGHT kg
	DN1	DN2	l	a	h	
JSWm 2CX - 60 CL	1"	1"	730	340	675	28.1
JSWm 2BX - 60 CL	1"	1"	730	340	675	29.0
JSWm 2AX - 60 CL	1"	1"	730	340	675	29.3

COMBIPRESS "CB2"

Pressure boosting sets

 Domestic use

 Agricultural use

 Civil use

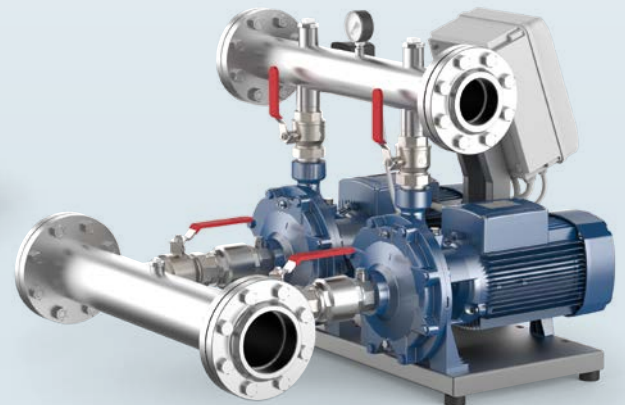
 Industrial use



CB2 - MK



CB2 - 2CP



CB2 - 2CP

OPERATING PRINCIPLE

COMBIPRESS are pressure boosting sets consisting of two pumps assembled in a ready to be mounted unit.

The sets are arranged so that, at each increase in demand by the users, one or both pumps in succession start automatically. The operation of the number of pumps necessary to satisfy the demand for water results in a marked reduction in power consumption.

The electronic circuit in the control box alternates the operation of the pumps.

USES

- Clean water and chemically non-aggressive liquids.
- Water supply: pressure boosting in industrial applications, blocks of flats, hotels, communities, water treatment plants, campsites, schools, hospitals, barracks, etc.
- Irrigation: playing fields in general (football, golf, etc), agriculture, artificial snow systems.

CONSTRUCTION CHARACTERISTICS

- **PUMPS** complete with intake and exhaust manifolds, spherical valves and non-return valves.
- **BLOCK** constructed from a metal section.
- **COMPONENTS** of command and control installed on the exhaust manifold and consisting of a pressure gauge and two pressure switches which can be set by the user (the factory setting is regulated based on the average use of the set).
- **CONTROL BOX** fitted with a gate block switch, a low voltage pressure switch control circuit, an electronic circuit to alternate the operation of the pumps, an amperometric protection (overload cut-out) and an anti-rebound system at the start of the pumps (to avoid continuous false starts in the case of short and limited requests by the user).

CB2m: single-phase 230 V - 50 Hz.

CB2: three-phase 230/400 V - 50 Hz up to 4 kW.

400/690 V - 50 Hz from 5.5 to 7.5 kW.

CONSTRUCTION AND SAFETY STANDARDS

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



PERFORMANCE DATA

50 Hz n= 2900 rpm HS= 0 m

MODEL	POWER (P ₂)		Q* m ³ /h l/min	H metres												
	1~	3~		kW	HP	0	1.2	2.4	4.8	7.2	9.6	12	14.4	16.8	19.2	21.6
					0	20	40	80	120	160	200	240	280	320	360	
CB2 - MK 3/3-N	●	●	2x0.75	2x1	52	50	49	45	38	28						
CB2 - MK 3/4-N	●	●	2x1.1	2x1.5	69.5	67	65.5	60	50.5	38						
CB2 - MK 3/5-N	●	●	2x1.1	2x1.5	87	83	82	75	63.5	47						
CB2 - MK 3/6-N	●	●	2x1.5	2x2	104	100	98	90	76	56						
CB2 - MK 5/4-N	●	●	2x1.1	2x1.5	56	-	55	52.5	48	41.5	32	20				
CB2 - MK 5/5-N	●	●	2x1.1	2x1.5	70	-	69	66	60	51.5	40	25				
CB2 - MK 5/6-N	●	●	2x1.5	2x2	84	-	83	79	72	62	48	30				
CB2 - MK 5/7-N		●	2x1.8	2x2.5	98	-	96	92.5	84	72.5	56	34				
CB2 - MK 5/8-N		●	2x2.2	2x3	112	-	110	105.5	96	82.5	64	40				
CB2 - MK 8/4-N	●	●	2x1.5	2x2	56	-	-	54	52	50	46	39	31.5	24	15	
CB2 - MK 8/5-N		●	2x1.8	2x2.5	70	-	-	67.5	66	63	58	50	40	30	18	
CB2 - MK 8/6-N		●	2x2.2	2x3	86	-	-	82	78	74	68	58	46.5	35	20	

MODEL	POWER (P ₂)		Q* m ³ /h l/min	H metres														
	1~	3~		kW	HP	0	0.6	1.2	2.4	3.6	4.8	7.2	8.4	9.6	10.8	12.0	13.2	14.4
					0	10	20	40	60	80	120	140	160	180	200	220	240	260
CB2 - 4CP 100-C	●		2x0.75	2x1	50	50	49	47	45	42	37	34	30.5	26.5	22	17	11	5

MODEL	POWER (P ₂)		Q* m ³ /h l/min	H metres																	
	1~	3~		kW	HP	0	2.4	4.8	7.2	9.6	12.0	13.2	14.4	16.8	19.2	21.6	24.0	30.0	36.0	42.0	48.0
					0	40	80	120	160	200	220	240	280	320	360	400	500	600	700	800	
CB2 - 2CP 25/130N	●	●	2x0.75	2x1	42	39	34	28.5	22	15											
CB2 - 2CP 25/14B	●	●	2x1.1	2x1.5	54	52	47.5	41	33	22											
CB2 - 2CP 25/16C	●	●	2x1.1	2x1.5	47	46	44	40	35	30	27	24									
CB2 - 2CP 25/16B	●	●	2x1.5	2x2	58	56	54	51	47	43	40	37	30								
CB2 - 2CP 25/16A		●	2x2.2	2x3	68	67	64.5	62	58	54	51	48	41	32							
CB2 - 2CP 32/200C		●	2x3	2x4	70	-	66.5	65	63	60.5	59	58	55	52	49.5	46.5	36				
CB2 - 2CP 32/200B		●	2x4	2x5.5	85	-	81	79	77	75	74	72	69	66	62	58	49				
CB2 - 2CP 32/210B		●	2x5.5	2x7.5	94	-	94	93	91	89	87	86	83	79	75	70	56				
CB2 - 2CP 32/210A		●	2x7.5	2x10	112	-	111	110.5	110	108	107	106	102	99	94	89	74				
CB2 - 2CP 40/180C		●	2x4	2x5.5	64	-	-	-	-	62	61.3	60.5	59	57.5	56	54.5	49	43	35		
CB2 - 2CP 40/180B		●	2x5.5	2x7.5	76	-	-	-	-	73	72.5	72	71	70	69	67.5	64	59.5	54	46	
CB2 - 2CP 40/180A		●	2x7.5	2x10	88	-	-	-	-	85	84.5	84	83	82	81	79.5	76	72	67	60	

Q = Flow rate H = Total manometric head HS = Suction height

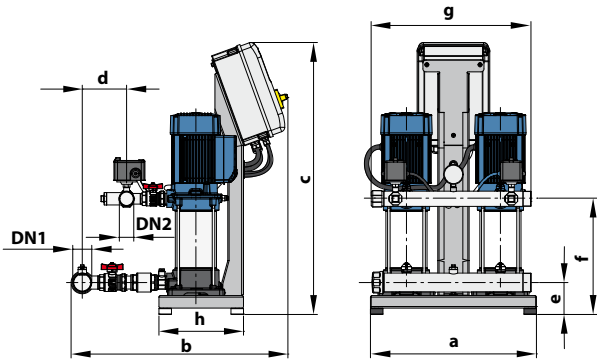
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

* The delivery capacity of the two pumps is indicated

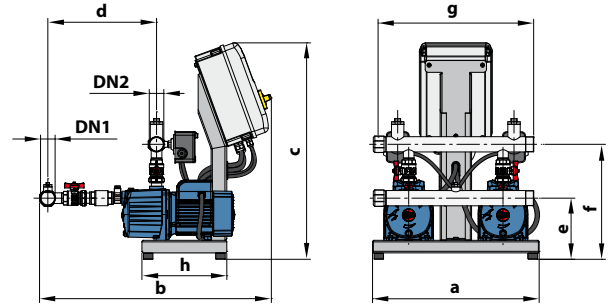
► The three-phase pumps are fitted with high performance motors up to P2=1.1kW in class IE2 and from P2=1.5kW in class IE3 (IEC 60034-30)

COMBIPRESS "CB2"

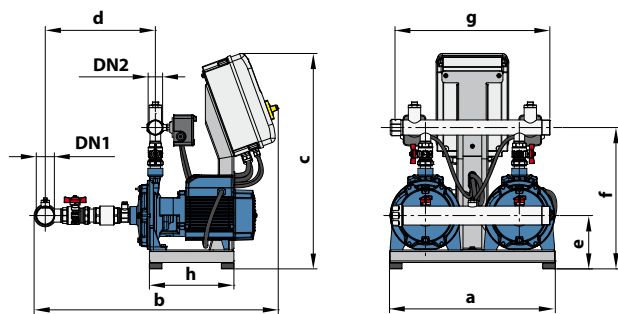
DIMENSIONS AND WEIGHT



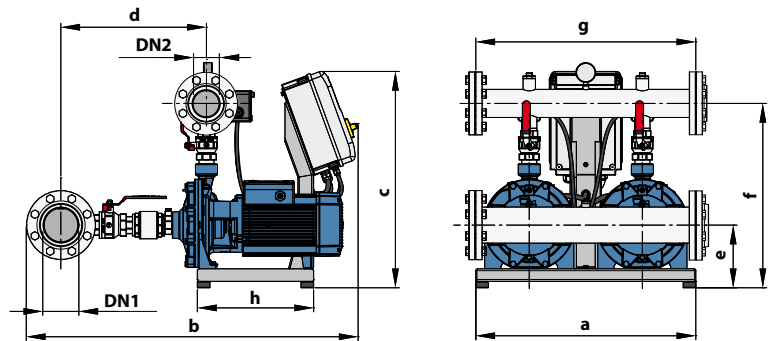
CB2-MK



CB2-4CP



CB2-2CP 25/ • CB2-2CP 32/



CB2-2CP 40/

MODEL		PORTS		DIMENSIONS mm								kg					
Single-phase	Three-phase	DN1	DN2	a	b	c	d	e	f	g	h	1~	3~				
CB2 - MKm 3/3-N	CB2 - MK 3/3-N	2"	1 1/2"	530	692	868	142	102	251	500	270	58.0	59.0				
CB2 - MKm 3/4-N	CB2 - MK 3/4-N								275			59.0	59.0				
CB2 - MKm 3/5-N	CB2 - MK 3/5-N								299			60.0	60.0				
CB2 - MKm 3/6-N	CB2 - MK 3/6-N								323			66.0	64.0				
CB2 - MKm 5/4-N	CB2 - MK 5/4-N								275			59.0	59.0				
CB2 - MKm 5/5-N	CB2 - MK 5/5-N								299			59.0	60.0				
CB2 - MKm 5/6-N	CB2 - MK 5/6-N								323			65.0	63.0				
-	CB2 - MK 5/7-N	347	-	66.0													
-	CB2 - MK 5/8-N	371	-	67.0													
CB2 - MKm 8/4-N	CB2 - MK 8/4-N	2 1/2"	1 1/2"	530	737	868	178	102	261	500	270	67.0	65.0				
-	CB2 - MK 8/5-N								285			-	68.0				
-	CB2 - MK 8/6-N								309			-	68.0				
CB2 - 4CPm100-C	-	1 1/2"	1 1/2"	530	737	688	346	194	366	500	270	79.0	-				
CB2 - 2CPm 25/130N	CB2 - 2CP 25/130N	2"	1 1/2"	530	746	688	343	152	394	500	270	52.5	51.0				
CB2 - 2CPm 25/14B	CB2 - 2CP 25/14B											771	153	417	70.5	70.0	
CB2 - 2CPm 25/16C	CB2 - 2CP 25/16C											688	352	170	452	79.5	79.0
CB2 - 2CPm 25/16B	CB2 - 2CP 25/16B																
-	CB2 - 2CP 25/16A											780	170	452	-	82.0	
-	CB2 - 2CP 32/200C	3"	2"	700	982	688	450	192	535	700	370	-	112.0				
-	CB2 - 2CP 32/200B											-	118.0				
-	CB2 - 2CP 32/210B											-	149.0				
-	CB2 - 2CP 32/210A											-	156.0				
-	CB2 - 2CP 40/180C	4"	3"	700	1056	688	463	199	587	700	370	-	168.0				
-	CB2 - 2CP 40/180B											-	178.0				
-	CB2 - 2CP 40/180A											DN 100	DN 80	-	188.0		

Pumps with electronic pressure regulator

 Domestic use



PUMPS WITH EASYPRESS 1

MODEL Single-phase	POWER (P ₂)	
	kW	HP
PK series pumps		
PKm 60 - EP 1	0.37	0.50
PKm 65 - EP 1	0.50	0.70
2CP series pumps		
2CPm 25/130N - EP 1	0.75	1
3-4CP series pumps		
3CPm 60-C - EP 1	0.37	0.50
3CPm 80-C - EP 1	0.45	0.60
4CPm 80-C - EP 1	0.55	0.75
3CPm 100-C - EP 1	0.55	0.75
4CPm 100-C - EP 1	0.75	1
JSW series pumps		
JSWm 1B - EP 1	0.48	0.65
JSWm 1A - EP 1	0.55	0.75
JSWm 2C - EP 1	0.75	1
JSWm 2B - EP 1	0.90	1.25
JSWm 1BX - EP 1	0.48	0.65
JSWm 1AX - EP 1	0.55	0.75
JSWm 2CX - EP 1	0.75	1
JSWm 2BX - EP 1	0.90	1.25



PUMPS WITH EASYPRESS 2

MODEL Single-phase	POWER (P ₂)	
	kW	HP
2CP series pumps		
2CPm 25/14B - EP 2	1.1	1.5
JSW series pumps		
JSWm 2A - EP 2	1.1	1.5

→ EASYPRESS 2 for 1.5 HP pumps (1.1 kW)

EASYPUMP COMPONENTS:

- Single-phase pump
- EASYPRESS with pressure gauge
- GSR quick-fit joint
- 1.5 metres power cable with Schuko plug

EASYPUMP

Small pumps fitted with an electronic pressure switch that starts and stops the pump as required when a tap is turned on or off. The pump is also protected against dry running.

EASYPRESS®

Electronic pressure regulators

 Domestic use



PERFORMANCE RANGE

- Max flow rate: **200 l/min** (12 m³/h)
- Working pressure: **10 bar**
- Restarting pressure: **1.5 bar** ●

APPLICATION LIMITS

- Maximum liquid temperature **+65 °C**
- Ambient temperature up to **+40 °C**
- Burst pressure **> 40 bar**
- Protection: **IP 65**
- Voltage: **230 V** - Frequency: **50/60 Hz**
- Max current: – **10 A** EASYPRESS-1
– **16 A** EASYPRESS-2

CONSTRUCTION AND SAFETY STANDARDS

- Resinated and easily replaced electronic card for complete protection from humidity, fitted in the case with an IP 65 protection.
- The electronic card inside EASYPRESS has undergone the strictest EMC tests of electromagnetic compatibility.

INSTALLATION AND USE

The EASYPRESS series consists of electronic devices designed to start (when a tap is turned on) and stop (when a tap is turned off) single-phase pumps.

A **microprocessor protects** the pump from dry running, and allows the pump to be restarted either automatically or manually. It also prevents the pump from starting too often when small leaks are present within an installation.

PATENTS - TRADE MARKS - MODELS

- Registered EU Design n. 868062
- Patent n. IT 1388969, IT 1388970
- EASYPRESS® registered Trade Mark n. 0001334481

OPTIONS AVAILABLE ON REQUEST

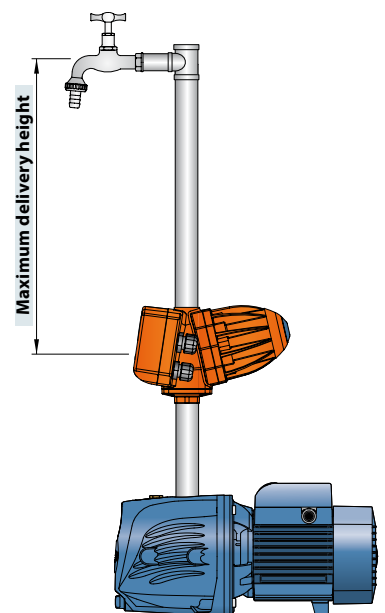
- EASYPRESS-1 version with restarting pressure **0.8 bar** ●
- EASYPRESS-2 version with restarting pressure **2.2 bar** ●
- Version with 1" NPT
- Version with cable and Schuko plug and socket
- Version with pressure gauge

STARTING PRESSURE

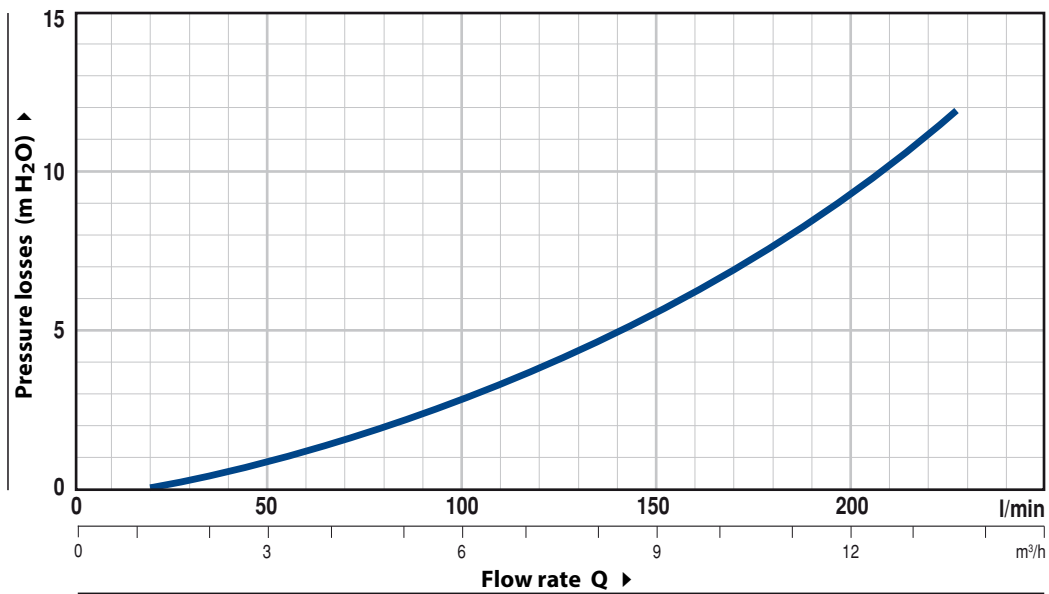
There are three different models available, each with a different starting pressure and easily identified by the coloured cap positioned at the rear of the EASYPRESS, for installations requiring delivery at various heights.

Maximum delivery height

- 2.2 bar version ● = **18 m**
- 1.5 bar version ● = **11 m**
- 0.8 bar version ● = **5 m**

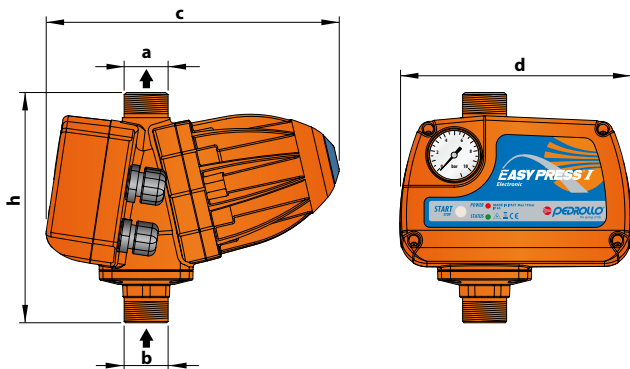


PRESSURE LOSSES



MODEL	POWER (P ₂)		Volt	Hz	Current	Fittings	Flow rate	Restarting pressure
	kW	HP						
EASYPRESS-1	0.75	1	230	50/60	10 A	1" x 1"	12 m ³ /h	1.5 bar
EASYPRESS-2	1.5	2	230	50/60	16 A	1" x 1"	12 m ³ /h	1.5 bar

DIMENSIONS AND WEIGHT



MODEL	PORTS		DIMENSIONS mm			kg
	a	b	c	d	h	
Single-phase	1"	1"	221	174	174	1.63
EASYPRESS 1-2	1"	1"	221	174	174	1.63

ACCESSORIES

- GSR Special three-piece joint with an o-ring seal (1" M)



PALLETIZATION

MODEL	
Single-phase	n. EASYPRESS
EASYPRESS 1-2	147

Electronic pressure regulators

 Domestic use



PERFORMANCE RANGE

- Max flow rate: **200 l/min** (12 m³/h)
- Working pressure: **10 bar**
- Restarting pressure: **1.5 bar**

APPLICATION LIMITS

- Maximum liquid temperature **+50 °C**
- Ambient temperature up to **+40 °C**
- Burst pressure **40 bar**
- Protection: **IP 65**
- Voltage: **230 V** - Frequency: **50/60 Hz**
- Max current:
 - **12 A** EASYSMALL-1
 - **16 A** EASYSMALL-2

PERFORMANCE DATA

MODEL	POWER (P ₂)		Volt	Hz	Current
	kW	HP			
Single-phase					
EASYSMALL-1	0.75	1	230	50/60	12 A
EASYSMALL-2	1.5	2	230	50/60	16 A

CONSTRUCTION AND SAFETY STANDARDS

- Tropicalised resinated and easily replaced electronic card for complete protection from humidity, fitted in the case with an IP 65 protection.
- The electronic card inside the EASYSMALL has undergone the strictest EMC tests of electromagnetic compatibility (low emission of interference and a high immunity to disturbance) as a guarantee of its reliable use everywhere.

INSTALLATION AND USE

Flow and pressure sensing device for control and protection of single-phase pumps up to 2 HP (for domestic applications). It starts the pump when there is a drop in system pressure (e.g. when opening a tap) and stops the pump when the flow drops below 2 l/min (tap closed).

PATENTS - TRADE MARKS - MODELS

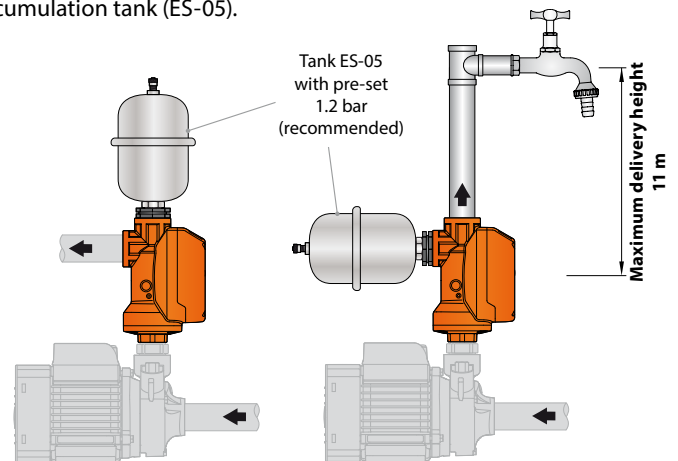
- Registered EU Design n. 001774928
- EASYSMALL® registered Trade Mark n. 0001511131

OPTIONS AVAILABLE ON REQUEST

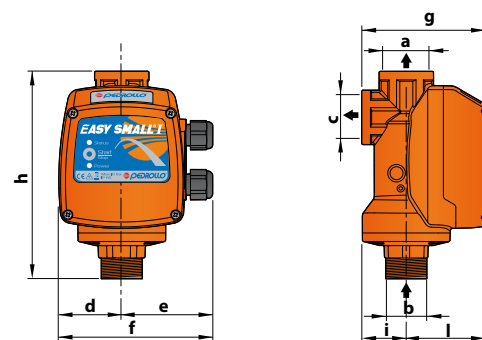
- Version with pressure gauge

STANDARD INSTALLATION

In order to avoid frequent restarts we advise installing a small accumulation tank (ES-05).



DIMENSIONS AND WEIGHT



MODEL	PORTS			DIMENSIONS mm						kg	
	a	b	c	d	e	f	g	h	i		l
EASYSMALL 1-2	1"	1"	1"	56	74	130	100	170	36	64	0.7

ACCESSORIES

- **ES-05** Stainless steel 0.5 litre tank (1")
- **GSR** Special three piece joint with an o-ring seal (1" M)



Electronic pressure regulator

 Domestic use



PERFORMANCE RANGE

- Max flow rate: **200 l/min** (12 m³/h)
- Working pressure: **8 bar**
- Restarting pressure: **2 bar**
(Adjustable between 1 and 5 bar)

APPLICATION LIMITS

- Maximum liquid temperature **+65 °C**
- Ambient temperature up to **+40 °C**
- Burst pressure **32 bar**
- Protection: **IP 65**
- Voltage: **230 V** - Frequency: **50/60 Hz** - Max current: **16 A**

PERFORMANCE DATA

MODEL	POWER (P ₂)		Volt	Hz	Current
	kW	HP			
EASYPRO	1.5	2	230	50/60	16 A

CONSTRUCTION AND SAFETY STANDARDS

- Resinated and easily replaced electronic card for a complete protection from humidity.
- The electronic card inside EASYPRO has undergone the strictest EMC tests of electromagnetic compatibility.

PATENTS - TRADE MARKS - MODELS

- Registered EU Design n. 976824
- Patent Pending n. IT 1388969, IT 1388970
- EASYPRO® registered Trade Mark n. 0001334546

OPTIONS AVAILABLE ON REQUEST

- Version with 1" NPT ports
- Version with cable and Schuko plug and socket

INSTALLATION AND USE

EASYPRO® stands out from the traditional PRESSURE FLOW SWITCHES because of a number of innovative characteristics:

- **the air filled integrated expansion tank;**
- **selection of the restart pressure of the pump;**
- **the back-lit LCD display.**

PUMP START PRESSURE

EASYPRO® enables you to select the restart pressure of the pump, between **1** and **5** bar.

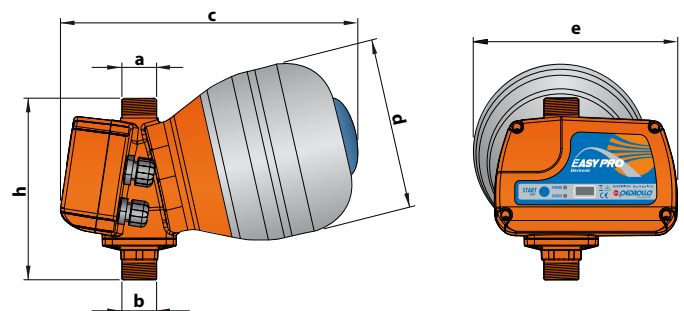
The pressure is selected using the control button and following the instructions on the LCD display. One model covers a wide range of installation requirements.

SURGE TANK

EASYPRO® includes an incorporated **3 litre** surge tank.

The substantial accumulation volume combined with its ability to absorb excess pressure, a typical surge tank characteristic, make it suitable for use in installations where other pressure flow regulators may prove inadequate. In order to guarantee optimum protection and accumulator performance, it is possible to adjust the tank pressure, the **factory setting is 1.8 bar**, based on the pump start pressure selected.

DIMENSIONS AND WEIGHT



MODEL	PORTS		DIMENSIONS mm				kg
	a	b	c	d	e	h	
EASYPRO	1"	1"	284	162	192	174	2.43

ACCESSORIES

- **GSR** Special three-piece joint with an o-ring seal (1" M)



GSR



SF - SPHERICAL TANK

MODEL	CODE	FITTING	CAPACITY	PALLETIZATION n. tanks
24 SF	50011	1"	24 litres	54
Membrane	50019			

- Maximum working pressure 8 bar
- Inter-changeable butyl rubber membrane

CL - CYLINDRICAL TANK



MODEL	CODE	FITTING	CAPACITY	PALLETIZATION n. tanks	
24 CL	50012	1"	20 litres	56	
60 CL	50031	1"	60 litres	15	
100 CL	50032	1"	100 litres	12	
200 CL	50033	1½"	200 litres	6	
300 CL	50034	1½"	300 litres	6	
Membrane	24 CL	60 CL	100 CL	200 CL	300 CL
CODE	50019	5001960	50019100	50019200C	50019300

- Maximum working pressure 10 bar
- Inter-changeable butyl rubber membrane

VT - VERTICAL TANKS



MODEL	CODE	FITTING	CAPACITY	PALLETIZATION n. tanks			
05 VT	500668/2P	½"	0.5 litres	800			
8 VT	50051	1"	8 litres	189			
19 VT	50052	1"	19 litres	63			
60 VT	50040	1"	60 litres	15			
100 VT	50041	1"	100 litres	12			
200 VT	50042	1½"	200 litres	6			
300 VT	50043	1½"	300 litres	6			
500 VT	50044	1½"	500 litres	1			
Membrane	8 VT	19 VT	60 VT	100 VT	200 VT	300 VT	500 VT
CODE	5001905/8	50019	5001960	50019100	50019200C	50019300	50019500

- Maximum working pressure 10 bar (8 bar for 8VT, 19VT)
- Inter-changeable butyl rubber membrane

SPHERICAL KIT



KSP-05



KSP-24

MODEL	CODE
KSP-05 <ul style="list-style-type: none"> • 0.5 litres spherical tank • 4-way fitting - 1" gas • Pressure switch "PSG-1" • 1.5 m long power cable with Schuko plug 	50008KSP05/1
KSP-24 <ul style="list-style-type: none"> • 24 litres spherical tank • 0 ÷ 6 bar pressure gauge • 5-way fitting - 1" gas • Pressure switch "PSG-1" 	50008SP24
KSD-24 <ul style="list-style-type: none"> • 24 litres spherical tank • 0 ÷ 6 bar pressure gauge • 5-way fitting - 1" gas • Pressure switch "FSG2" (Square D) 	50010

CYLINDRICAL KIT



KCP-24



KCP-60

MODEL	CODE
KCP-24 <ul style="list-style-type: none"> • 20 litres cylindrical tank • 0 ÷ 6 bar pressure gauge • 5-way fitting - 1" gas • Hose 1" gas (500 mm) • Pressure switch "PSG-1" 	50008CP24
KCD-24 <ul style="list-style-type: none"> • 20 litres cylindrical tank • 0 ÷ 6 bar pressure gauge • 5-way fitting - 1" gas • Hose 1" gas (500 mm) • Pressure switch "FSG2" (Square D) 	50009
KCP-60 <ul style="list-style-type: none"> • 60 litres cylindrical tank • 0 ÷ 6 bar pressure gauge • 5-way fitting - 1" gas • Hose 1" gas (600 mm) • Pressure switch "PSG-1" 	50008CP60
KCD-60 <ul style="list-style-type: none"> • 60 litres cylindrical tank • 0 ÷ 6 bar pressure gauge • 5-way fitting - 1" gas • Hose 1" gas (600 mm) • Pressure switch "FSG2" (Square D) 	50009/67

ACCESSORIES



AIRFLO - AUTOMATIC AIR FEEDERS

MODEL	CODE	SUITABLE FOR TANKS
AIRFLO 1	50021	100 ÷ 500 litres
AIRFLO 2	50022	750 ÷ 2000 litres

- Automatic air feeders suitable for maintaining the air cushion in surge tanks without a diaphragm.

NA - 3-WAY NIPPLE FOR AIR FEEDERS

MODEL	CODE	FITTING	DOUBLE CENTRAL FITTING
NA 1.00	50023	1" x 1"	½" x ¼" (male/female)
NA 1.25	50023/1	1¼" x 1¼"	½" x ¼" (male/female)
NA 1.50	50023/2	1½" x 1½"	½" x ¼" (male/female)
NA 2.00	50023/3	2" x 2"	½" x ¼" (male/female)

- 3-way brass fittings for connections with air feeders (AIRFLO)



PRESSURE SWITCHES

MODEL	CODE	FITTING	STANDARD SETTING (*)
PSG-1	50018/8	¼" female	1.4 ÷ 2.8 bar
PSG-1M	50018/8M	¼" male	1.4 ÷ 2.8 bar
FSG 2	50018	¼" female	1.4 ÷ 2.8 bar
FYG 22	50018/1	¼" female	5.4 ÷ 7.0 bar
FYG 32	50018/2	¼" female	8 ÷ 10.5 bar
PT/5 SK (Three-ph.)	50018/8T	¼" female	1.4 ÷ 2.8 bar

- PSG Registered EU Design n. 002248955
- (*) Adjustable

PRESSURE GAUGES



MC

MR



MCG

MRG

MODEL	CODE	FITTING	DIAMETER	SCALE
MC 6	50015/2	¼" - central	50 mm	0 ÷ 6 bar
MR 6	50015	¼" - radial	63 mm	0 ÷ 6 bar
MR 10	50015/0	¼" - radial	63 mm	0 ÷ 10 bar

GLYCERIN FILLED PRESSURE GAUGES

MODEL	CODE	FITTING	DIAMETER	SCALE
MCG 6	50015/2G	¼" - central	50 mm	0 ÷ 6 bar
MRG 6	50015G	¼" - radial	63 mm	0 ÷ 6 bar
MRG 10	50015/0G	¼" - radial	63 mm	0 ÷ 10 bar

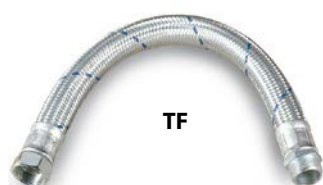


3 - 5 WAY FITTINGS

MODEL	CODE	FITTING
R 3 - 3 way	50017	1"
R 4 - 4 way	50016V8	1"
R 5 - 5 way	50016	1"

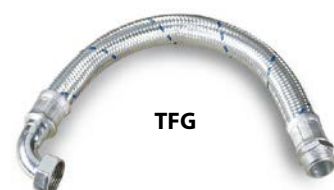
- **R 3:** three-way brass fittings with 1" gas connections
- **R 4:** four-way brass fittings with 1/2" gas and 1/4" gas connections
- **R 5:** five-way brass fittings with 1" gas and 1/4" gas connections

HOSES



MODEL	CODE	PIPE	FITTINGS	LENGTH
TF 5	50013	1"	1" x 1"	500 mm
TF 6	50013/1	1"	1" x 1"	600 mm
TF 10	50013/6	1"	1" x 1"	1000 mm

- Flexible EPDM rubber hoses
- Maximum working pressure 10 bar



HOSES COMPLETE WITH ELBOW

MODEL	CODE	PIPE	FITTINGS	LENGTH
TFG 5	50013/01	3/4"	1" x 1"	500 mm
TFG 6	50013/10	1"	1" x 1"	600 mm

- Flexible EPDM rubber hoses
- Maximum working pressure 10 bar

STRAIGHT HOSETAIL FITTINGS



MODEL	CODE	HOSETAIL	THREADED FITTING
RP 0.75	50210	Ø 25 mm	3/4"
RP 1	50211	Ø 30 mm	1"
RP 1.25	50212	Ø 35 mm	1 1/4"
RP 1.5	50213	Ø 40 mm	1 1/2"
RP 2	50214	Ø 50 mm	2"

- Nylon fittings

CURVED HOSETAIL FITTINGS



MODEL	CODE	HOSETAIL	THREADED FITTING
RPG 0.75	50220	Ø 25 mm	3/4"
RPG 1	50221	Ø 30 mm	1"
RPG 1.25	50222	Ø 35 mm	1 1/4"
RPG 1.5	50223	Ø 40 mm	1 1/2"
RPG 2	50224	Ø 50 mm	2"

- Nylon fittings

FLOAT SWITCHES



MODEL	CODE		LENGTH
	CABLE H07 RN-F	CABLE PVC	
0315/3	50014H	50014	3 metres
0315/5	500145H	500145	5 metres
0315/10	5001410H	5001410	10 metres

- With **H07 RN-F** cable: a simple function (**emptying**), with a 10 A switch
- With **PVC** cable: dual function (emptying and filling), with a 10 A switch



MODEL	CODE		LENGTH
	CABLE H07 RN-F	CABLE PVC	
T 80/3	50014/1H	50014/1	3 metres
T 80/5	50014/5H	50014/5	5 metres
T 80/10	50014/10H	50014/10	10 metres

- With **H07 RN-F** cable: simple function float switch (**emptying**), double watertight protection compartment with a 10 A switch
- With **PVC** cable: double function float switch (**emptying** and **filling**), double watertight protection compartment with a 10 A switch



MODEL	CODE		LENGTH
	CABLE H07 RN-F	CABLE PVC	
SMALL 3	50014S4	50014S3	3 metres
SMALL 5	50014S5	50014S51	5 metres

- With **H07 RN-F** cable: simple function float switch (**emptying**), double watertight protection compartment with a 10 A switch
- With **PVC** cable: double function float switch (**emptying** and **filling**), double watertight protection compartment with a 10 A switch



MODEL	CODE	CAVO	LENGTH
MAC 5	54SARGL001	PVC	10 metres

- Overturning float switch, dual function (**emptying** and **filling**), double watertight protection compartment with a 10 A switch
- Recommended for reflux water recovery stations (SAR)



VF - FOOT VALVES

MODEL	CODE	FITTING
VF 0.5	50100	1/2"
VF 0.75	50101	3/4"
VF 1	50102	1"
VF 1.25	50103	1 1/4"
VF 1.5	50104	1 1/2"
VF 2	50105	2"

- Brass foot valves, stainless steel suction filter



VR - CHECK VALVES

MODEL	CODE	FITTINGS
VR 0.5	50110	1/2"
VR 0.75	50111	3/4"
VR 1	50112	1"
VR 1.25	50113	1 1/4"
VR 1.5	50114	1 1/2"
VR 2	50115	2"

- Brass check valves



VR-FT - BALL CHECK VALVES

MODEL	CODE	FITTINGS
VR-FT 1.25 - THREADED	501201	1 1/4"
VR-FT 1.5 - THREADED	501202	1 1/2"
VR-FT 2 - THREADED	501203	2"

- Check valves for submersible pumps (sewage and waste water)
- Max. working pressure 10 bar
- Min. working pressure 0.3 bar
- Working temperature -10°C ÷ +80 °C



VR-FF - BALL CHECK VALVES

MODEL	CODE	FITTINGS
VR-FF/DN 65 - FLANGED	501210	Ø 65 mm
VR-FF/DN 80 - FLANGED	501212	Ø 80 mm

- Check valves for submersible pumps (sewage and waste water)
- Max. working pressure 10 bar
- Min. working pressure 0.3 bar
- Working temperature -10°C ÷ +80 °C

ACCESSORIES

F - FILTER HOLDERS WITH PLASTIC HEAD



MODEL	CODE	THREADED FITTINGS	CARTRIDGE HEIGHT
MEDIUM - F 0.75	504F075M	3/4"	5"
MEDIUM - F 1	504F100M	1"	5"
JUNIOR - F 0.75	504F075J	3/4"	7"
JUNIOR - F 1	504F100J	1"	7"
SENIOR - F 0.75	504F075S	3/4"	10"
SENIOR - F 1	504F100S	1"	10"

- Maximum working pressure 5 bar (at temperature +20 °C)
- Maximum temperature + 45°C (at pressure 2 bar)



KIT FOR DISASSEMBLY OF FILTER CARRIER F

(cod. 504KNPP)



RL - POLYESTER FILTER CARTRIDGES

MODEL	CODE	FILTRATION	CARTRIDGE HEIGHT	FILTER HOLDER
RL 5	504C05	50 µ	5"	MEDIUM F
RL 7	504C07	50 µ	7"	JUNIOR F
RL 10	504C10	50 µ	10"	SENIOR F



FA - POLYPROPYLENE FILTER CARTRIDGES

MODEL	CODE	FILTRATION	CARTRIDGE HEIGHT	FILTER HOLDER
FA 5	504F05	50 µ	5"	MEDIUM F
FA 7	504F07	50 µ	7"	JUNIOR F
FA 10	504F10	50 µ	10"	SENIOR F



HA - FILTER CARTRIDGE WITH POLYPHOSPHATE CRYSTALS

MODEL	CODE	CARTRIDGE HEIGHT	FILTER HOLDER
HA 10	504F08	10"	SENIOR F



LA - FILTER CARTRIDGE WITH ACTIVATED CARBON

MODEL	CODE	CARTRIDGE HEIGHT	FILTER HOLDER
LA 10 BX	504LA10BX	10"	SENIOR F

FLAT PVC HOSE



MODEL	CODE			FITTING
	Length 5 metres	Length 10 metres	Length 20 metres	
TP 1.25	50013P125A	50013P125B	50013P125C	1¼"
TP 1.50	50013P150A	50013P150B	50013P150C	1½"
TP 2.00	50013P200A	50013P200B	50013P200C	2"
TP 2.50	50013P250A	50013P250B	50013P250C	2½"
TP 3.00	50013P300A	50013P300B	50013P300C	3"

- Flat, abrasion and weather resistant plasticised delivery hoses, complete with hoesetail.
- ⇒ **Ideal for irrigation even with fertilisers and for draining water in combination with drainage pumps**



GARDEN KIT - SUCTION HOSE

MODEL	CODE	FITTING	LENGTH
GARDEN KIT	50200	1"	7 metres

- Hose complete with foot valve



MT 1 - MECHANICAL FLOW METERS

MODEL	CODE	MAXIMUM FLOW RATE	MAXIMUM PRESSURE	FITTINGS
MT 1	504550	120 l/min	3.5 bar	1" x 1"

- Mechanical litre counter for private use, suitable for the following liquids: diesel, kerosene (for heating), solvents, anti-freeze, very light oils (kinematic viscosity max. 300 cSt)

Please note: IT IS NOT COMPATIBLE with all other fluids, and in particular with water, petrol and hydrochloric acid.



NZ - DISPENSING NOZZLE WITH HOSE

MODEL	CODE	ELBOW CONNECTION
NZ-1	50430B	¾"
NZ-2	50430A	1"

- Pistol grip distributor in aluminium complete with a flexible tube, reinforced with steel spiral, 4 metres long with threaded fittings

⇒ **Recommended for use with "CKm 50-BP or CK 50-BP" series pumps**

ACCESSORIES

TEFLON TAPE FOR HYDRAULIC JOINTS



MODEL	CODE	LENGTH	WIDTH OF TAPE
TFN 1	14TFN/1	12 m	12 mm
TFN 2	14TFN/21	30 m	12 mm
TFN 3	14TFN/3	12 m	19 mm



AEROSOL PAINT

MODEL	CODE	COLOUR	CAPACITY
SPRAY 1	120200A/2	Pedrollo blue	400 ml



"3M" POWER CABLE RESIN JOINT KIT

MODEL	CODE	No. OF CORES	CABLE SECTION	EXTERNAL JUNCTION DIAMETRE
RPS 1	530GT3M82A1	4	1 ÷ 2.5 mm ²	Ø 32 mm
RPS 2	530GT3M82A2	4	1 ÷ 10 mm ²	Ø 42 mm
RPS 3	530GT3M92A1	4	4 ÷ 16 mm ²	Ø 48 mm

(RECOMMENDED)

"3M" POWER CABLE HEAT-SHRINK JOINT KIT



(ECONOMICAL)

MODEL	CODE	No. OF CORES	CABLE SECTION
GPS 1	530GT3MGPS1	4	1 ÷ 2.5 mm ²
GPS 2	530GT3MGPS2	4	4 ÷ 6 mm ²
GPS 3	530GT3MGPS3	4	10 mm ²
GPS 4	530GT3MGPS4	4	16 mm ²
GPS 5	530GT3MGPS5	4	25 mm ²
GPS 6	530GT3MGPS6	4	35 mm ²

CAPACITORS



Type F
Capacitors with Fastons

MODEL	CODE	CAPACITANCE	Voltage	Frequency
10 F	111010F	10 μF	450 V	50 ÷ 60 Hz
10 FC (*)	111010FC	10 μF	450 V	50 ÷ 60 Hz
12 F	111012F	12.5 μF	450 V	50 ÷ 60 Hz
14 F	111014F	14 μF	450 V	50 ÷ 60 Hz
16 F - 500	111016F5	16 μF	500 V	50 ÷ 60 Hz
16 F - 450	111016F		450 V	50 ÷ 60 Hz
16 F - 250	112016F		250 V	50 ÷ 60 Hz
20 F - 500	111020F5	20 μF	500 V	50 ÷ 60 Hz
20 F - 450	111020F		450 V	50 ÷ 60 Hz
25 F - 450	111025F	25 μF	450 V	50 ÷ 60 Hz
25 F - 250	112025F		250 V	50 ÷ 60 Hz
30 F - 450	111030F	30 μF	450 V	50 ÷ 60 Hz
30 F - 250	112030F		250 V	50 ÷ 60 Hz
31 F	111031F	31.5 μF	450 V	50 ÷ 60 Hz
35 F	111035F	35 μF	450 V	50 ÷ 60 Hz
40 F	111040F	40 μF	450 V	50 ÷ 60 Hz
45 F	111045F	45 μF	450 V	50 ÷ 60 Hz
50 F	111050F	50 μF	450 V	50 ÷ 60 Hz
60 F - 450	111060F	60 μF	450 V	50 ÷ 60 Hz
60 F - 300	112061F		300 V	50 ÷ 60 Hz
60 F - 250	112060F		250 V	50 ÷ 60 Hz
70 F	111070F	70 μF	450 V	50 ÷ 60 Hz
80 F	112080F	80 μF	250 V	50 ÷ 60 Hz
90 F	111090F	90 μF	450 V	50 ÷ 60 Hz

(*) FC = Special capacitor with reduced dimensions

- Capacitors with CE marking and VDE-IMQ approval

CAPACITORS



Type C
Capacitors with exit cables

MODEL	CODE	CAPACITANCE	Voltage	Frequency
10 C	1110102F	10 μF	450 VL	50 ÷ 60 Hz
12 C	1110122F	12.5 μF	450 VL	50 ÷ 60 Hz
16 C - 500	1110162F5	16 μF	500 VL	50 ÷ 60 Hz
16 C - 450	1110162F		450 VL	50 ÷ 60 Hz
20 C - 500	1110202F5	20 μF	500 VL	50 ÷ 60 Hz
20 C - 450	1110202F		450 VL	50 ÷ 60 Hz
25 C - 500	1110252F5	25 μF	500 VL	50 ÷ 60 Hz
25 C - 450	1110252F		450 VL	50 ÷ 60 Hz
30 C - 250	1120302F	30 μF	250 VL	50 ÷ 60 Hz
31 C - 500	1110312F5	31.5 μF	500 VL	50 ÷ 60 Hz
31 C - 450	1110312F		450 VL	50 ÷ 60 Hz
35 C - 500	1110352F5	35 μF	500 VL	50 ÷ 60 Hz
35 C b	1110352F		450 VL	50 ÷ 60 Hz
35 CC (*) - 450	1110352F1	35 μF	450 VL	50 ÷ 60 Hz
40 C	1110402F	40 μF	450 VL	50 ÷ 60 Hz
50 C	1110502F	50 μF	450 VL	50 ÷ 60 Hz
60 C	1120602F	60 μF	250 VL	50 ÷ 60 Hz
70 C	1120702F5	70 μF	250 VL	50 ÷ 60 Hz
75 C	1110752F	75 μF	450 VL	50 ÷ 60 Hz
80 C	1120802F	80 μF	250 VL	50 ÷ 60 Hz

(*) CC = Special capacitor with reduced dimensions

- Capacitors with CE marking and VDE-IMQ approval

ACCESSORIES



POWER CABLE FOR LEVEL PROBES

MODEL	CODE	SECTION	WEIGHT PER METRE
CSL	117FE00C	1.5 mm ²	0.019 kg



POWER CABLES FOR SUBMERSIBLE PUMPS

MODEL	CODE	MODEL	WEIGHT PER METRE
4 x 1 mm ²	117G100AN	H07 RN-F	0.165 kg
4 x 1.5 mm ²	117G150AN	H07 RN-F	0.205 kg
4 x 2.5 mm ²	117G200AN	H07 RN-F	0.290 kg
4 x 4 mm ²	117G250AN	H07 RN-F	0.420 kg
4 x 6 mm ²	117G300AN	H07 RN-F	0.505 kg
4 x 10 mm ²	117G350AN	H07 RN-F	1.030 kg
4 x 16 mm ²	117G400AN	H07 RN-F	2.050 kg



POWER CABLES WITH PLUG

MODEL	CODE	CABLE SECTION	LENGTH	PLUG
H05 VV-F (PVC)	117FGA21G	3 x 0.75 mm ²	150 cm	SCHUKO
H07 RN-F (NEOPRENE)	117GLA21G	3 x 1 mm ²	150 cm	SCHUKO



SOLAR POWER CABLES FOR PHOTOVOLTAIC INSTALLATIONS

MODEL FG21M21	CODE	WEIGHT PER METRE
1 x 4 mm ² red	117SF104R	0.060 kg
1 x 4 mm ² black	117SF104N	0.060 kg
1 x 6 mm ² red	117SF106R	0.080 kg
1 x 6 mm ² black	117SF106N	0.080 kg

BEARINGS



MODEL	CODE	DIMENSIONS
6201 ZZ	113001	12 x 32 x 10 mm
6201 2RS - C3	113001SC3E	12 x 32 x 10 mm
6202 ZZ - C3	113012	15 x 35 x 11 mm
6203 ZZ	113002	17 x 40 x 12 mm
6203 ZZ - C3E	113002C3E	17 x 40 x 12 mm
6203 2RS - C3E	113002RC3E	17 x 40 x 12 mm
6203 2RS	113002S	17 x 40 x 12 mm
6204 ZZ - C3	113003C3E	20 x 47 x 14 mm
6204 ZZ - C3E	113003	20 x 47 x 14 mm
6205 ZZ	113004	25 x 52 x 15 mm
6206 ZZ - C3	113005C3E	30 x 62 x 16 mm
6208 ZZ - C3	113008	40 x 80 x 18 mm
6212 ZZ - C3	113020	60 x 110 x 22 mm
6303 2RS - C3	113014SC3	17 x 47 x 14 mm
6304 ZZ	113013	20 x 52 x 15 mm
6304 ZZ - C3	113013C3E	20 x 52 x 15 mm
6304 2RS - C3	113013SC3	20 x 52 x 15 mm
6306 ZZ - C3	113015	30 x 72 x 19 mm
6307 ZZ - C3	113017	35 x 80 x 21 mm
6308 ZZ - C3	113018	40 x 90 x 23 mm
6309 ZZ - C3	1130185	45 x 100 x 25 mm
6310 ZZ - C3	113019	50 x 110 x 27 mm
6312 ZZ - C3	113021	60 x 130 x 31 mm
6313 ZZ - C3	113023	65 x 140 x 33 mm
6314 ZZ - C3	113024	70 x 150 x 35 mm
3203 B 2RS - C3	113040RC3E	17 x 40 x 17.5 mm

FANS



MODEL	CODE	DIMENSIONS	SHAFT DIAMETER
FAN-63	14VN059	104 x 21 mm	12 mm
FAN-71R	14VN07	125 x 24 mm	14.5 mm
FAN-71	14VN076	118 x 22 mm	14.5 mm
FAN-80R	14VN08	138 x 27 mm	20 mm
FAN-80	14VN081	132 x 27 mm	20 mm
FAN-80 IPX5	14VN0815	132 x 27 mm	20 mm
FAN-90R	14VN09	162 x 32 mm	24 mm
FAN-90	14VN095	148 x 33 mm	24 mm
FAN-100R	14VN10	176 x 38 mm	28 mm
FAN-100	14VN10162	155 x 37 mm	28 mm
FAN-132	14VN132	165 x 45 mm	36 mm
FAN-180	14VN180	240 x 60 mm	55 mm

CONTROL BOXES

QEM - CONTROL BOXES FOR 4" SINGLE-PH. BOREHOLE PUMPS



MODEL	CODE	MOTOR POWER (P ₂)		CAPACITOR	RATED CURRENT
		kW	HP	CAPACITANCE	A
Single-phase					
QEM 050	530ECN05A1	0.37	0.50	20 µF	5
QEM 075	530ECN07A1	0.55	0.75	25 µF	6
QEM 100	530ECN10A1	0.75	1	35 µF	7
QEM 150	530EC15A1	1.1	1.5	40 µF	11
QEM 200	530ECN20A1	1.5	2	60 µF	13
QEM 300	530EC30A1	2.2	3	75 µF	18

- Single-phase 230 V 50 Hz

QET - CONTROL BOXES FOR 4" AND 6" THREE-PH. BOREHOLE PUMPS



MODEL	CODE	MOTOR POWER (P ₂)		RATED CURRENT
		kW	HP	A
Three-phase				
QET 050	530TNF05A	0.37	0.50	1.7
QET 075	530TNF07A	0.55	0.75	2
QET 100	530TNF10A	0.75	1	2.5
QET 150	530TNF15A	1.1	1.5	3.9
QET 200	530TNF20A	1.5	2	4.8
QET 300	530TNF30A	2.2	3	7
QET 400	530TNF40A	3	4	9
QET 550	530TNF55A	4	5.5	11.5
QET 750	530TNF75A	5.5	7.5	15.5
QET 1000	530AD100A	7.5	10	21.5
QET 1250	530AD125A	9.2	12.5	23.5
QET 1500	530AD150A	11	15	27.5
QET 2000	530AD200A	15	20	36
QET 2500	530AD250A	18.5	25	45
QET 3000	530AD300A	22	30	54
QET 4000	530AD400A	30	40	68

- The control box is fitted with a selector for manual or automatic operation with the possibility of attaching a float (or a pressure valve, etc.).
- **Three-phase 400 V 50 Hz**

QSM - CONTROL BOXES FOR 4" SINGLE-PH. PUMPS WITH LEVEL PROBES



Level probes

MODEL	CODE	MOTOR POWER (P ₂)		CAPACITOR	RATED CURRENT
		kW	HP	CAPACITANCE	A
Single-phase					
QSM 050	530MFLCN05A1	0.37	0.50	20 µF	5
QSM 075	530MFLCN07A1	0.55	0.75	25 µF	6
QSM 100	530MFLCN10A1	0.75	1	35 µF	7
QSM 150	530MFLC15A1	1.1	1.5	40 µF	11
QSM 200	530MFLCN20A1	1.5	2	60 µF	13
QSM 300	530MFLC30A1	2.2	3	75 µF	18

- The control box is fitted with a selector for manual or automatic operation with the possibility of attaching a float (or a pressure valve, etc.) and fluid level probes which protect the pump from operating when dry.
- **Single-phase 230 V 50 Hz**

QST - CONTROL BOXES FOR 4" AND 6" THREE-PH. PUMPS WITH LEVEL PROBES



Level probes

MODEL	CODE	MOTOR POWER (P ₂)		RATED CURRENT
		kW	HP	A
Three-phase				
QST 50	530TFLC05A	0.37	0.50	1.7
QST 75	530TFLC07A	0.55	0.75	2
QST 100	530TFLC10A	0.75	1	2.5
QST 150	530TFLC15A	1.1	1.5	3.9
QST 200	530TFLC20A	1.5	2	4.8
QST 300	530TFLC30A	2.2	3	7
QST 400	530TFLC40A	3	4	9
QST 550	530TFLC55A	4	5.5	11.5
QST 750	530TFLC75A	5.5	7.5	15.5
QST 1000	530ADL100A	7.5	10	21.5
QST 1250	530ADL125A	9.2	12.5	23.5
QST 1500	530ADL150A	11	15	27.5
QST 2000	530ADL200A	15	20	36
QST 2500	530ADL250A	18.5	25	45
QST 3000	530ADL300A	22	30	54
QST 4000	530ADL400A	30	40	68

- The control box is fitted with a selector for manual or automatic operation with the possibility of attaching a float (or a pressure valve, etc.) and fluid level probes which protect the pump from operating when dry.
- **Three-phase 400 V 50 Hz**

CONTROL BOXES

EVOLUTION - CONTROL BOXES FOR 4" AND 6" BOREHOLE PUMPS



MODEL	CODE	VOLTAGE	RATED CURRENT A
EVOLUTION-MONO	532DOM003M	Single-phase 230 V 50 Hz	from 2 to 18
EVOLUTION-TRI/1	532DOM075T	Three-phase 400 V 50 Hz	from 2 to 16
EVOLUTION-TRI/2	532DOM100T	Three-phase 400 V 50 Hz	from 16 to 22

- The control box contains an electronic card which makes it possible to regulate the threshold at which the protection against power overloads and short circuits intervenes; the electronic card also controls the value of $\cos \varphi$ in order to prevent dry operating of the pump without the help of fluid level probes.
- The control box may be connected to a float switch (or a pressure switch, etc.).

QES - CONTROL BOXES FOR SINGLE-PHASE DRAINAGE PUMPS



MODEL	CODE	MOTOR POWER (P ₂)		CAPACITOR	RATED CURRENT A
		kW	HP	CAPACITANCE	
Single-phase					
QES 300 MONO	52VX300A1	2.2	3	60 μ F	16
QES 300 MONO-AL (*)	52VX300A1AL	2.2	3	60 μ F	16

- The control box is pre-set for connection with the thermal protector inserted in the winding of the drainage pumps VXCm30, VXCm30-F, MCm30, MCm30-F.
- **Single-phase 230 V 50 Hz**

(*) QES 300 MONO-AL, control box with contacts for connection to an auxiliary float switch for level alarm

QES - CONTROL BOXES FOR THREE-PHASE DRAINAGE PUMPS



MODEL	CODE	MOTOR POWER (P ₂)		RATED CURRENT
		kW	HP	A
Three-phase				
QES 150	532QES150A	1.1	1.5	4.2
QES 200	532QES200A	1.5	2	5.2
QES 300	532QES300A	2.2	3	6.5
QES 400	532QES400A	3	4	8

- The control box is fitted with a selector for manual or automatic operation with the possibility of attaching a float, and with the thermal protector inserted in the winding of the drainage pumps VXC, VXC-F, MC, MC-F
- **Three-phase 380 ÷ 415V 50 Hz**

QED1 - ELECTRONIC CONTROL BOX FOR ONE DRAINAGE PUMP



MODEL	CODE	VOLTAGE	RATED CURRENT A
QED1-MONO	533QED01M	Single-phase 230 V 50 Hz	from 2 to 18
QED1-TRI	533QED01T	Three-phase 400 V 50 Hz	from 2 to 9

- The control box contains an electronic card which makes it possible to regulate the value of the current at which the protection intervenes against power overloads and short circuits.
- The control box is pre-set for connection with the thermal protector inserted in the winding of the drainage pumps VXC, VXC-F, MC, MC-F and of three floats (operation, stop and alarm level).

QED2 - ELECTRONIC CONTROL BOX FOR TWO DRAINAGE PUMPS



MODEL	CODE	VOLTAGE	RATED CURRENT A
QED2-MONO	533QED02M	Single-phase 230 V 50 Hz	from 2 to 18
QED2-TRI	533QED02T	Three-phase 400 V 50 Hz	from 2 to 9

- The control box contains an electronic card which makes it possible to regulate the value of the current at which the protection intervenes against power overloads and short circuits.
- The control box is pre-set for connection with the thermal protector inserted in the winding of the drainage pumps VXC, VXC-F, MC, MC-F of four floats (successive operation of the first pump, operation of the second pump, stop and alarm level).

CABLE SIZES FOR SUBMERSIBLE MOTORS

SINGLE-PHASE 230 V - 50 Hz

MOTOR POWER (P ₂)		cable section in mm ²						
		4 x 1	4 x 1.5	4 x 2.5	4 x 4	4 x 6	4 x 10	4 x 16
kW	HP	maximum cable length in metres						
0.37	0.50	60	90	140				
0.55	0.75	45	70	110	180			
0.75	1	35	50	85	140	210		
1.1	1.5	25	35	60	95	145	240	
1.5	2		30	45	75	115	190	305
2.2	3			30	50	75	125	200

THREE-PHASE 230 V - 50 Hz

MOTOR POWER (P ₂)		cable section in mm ²										
		4x1	4 x 1.5	4 x 2.5	4 x 4	4 x 6	4 x 10	4 x 16	4 x 25	4 x 35	4 x 50	4 x 70
kW	HP	maximum cable length in metres										
0.37	0.50	100	152	255								
0.55	0.75	83	126	210	338							
0.75	1	65	99	165	265	405						
1.1	1.5	48	72	120	192	292	485					
1.5	2		53	88	142	215	360					
2.2	3			60	97	147	245	392				
3	4			47	73	110	183	295	510			
4	5.5				55	83	138	220	380			
5.5	7.5					60	100	160	275	385		
7.5	10					45	73	114	195	275	395	
9.2	12.5						64	100	157	220	315	
11	15						54	87	135	190	270	378
13	17.5							75	117	164	236	330
15	20							65	102	144	205	287
18.5	25								82	114	162	225
22	30								69	95	137	190
30	40									70	102	142

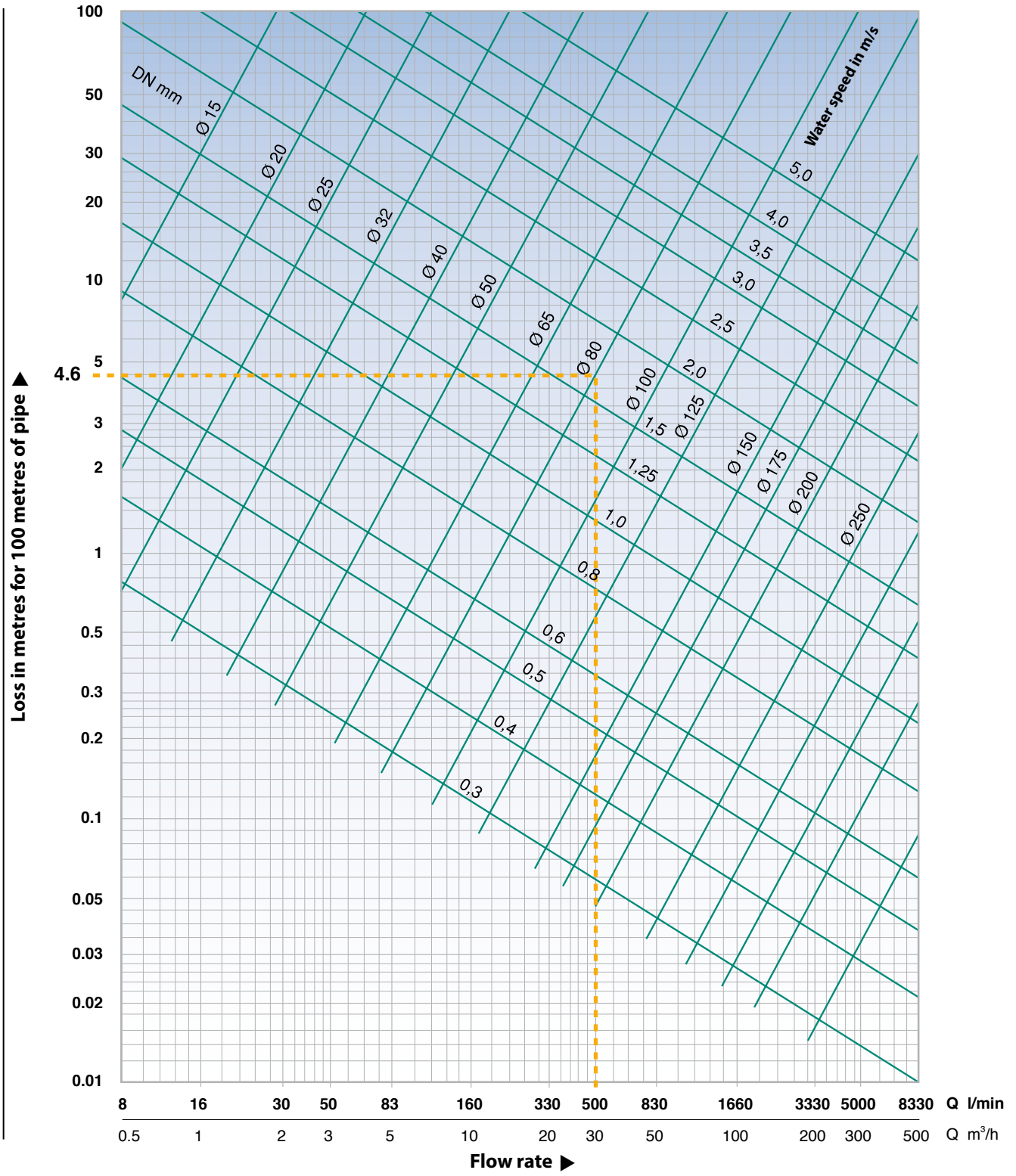
THREE-PHASE 400 V - 50 Hz

MOTOR POWER (P ₂)		cable section in mm ²										
		4x1	4 x 1.5	4 x 2.5	4 x 4	4 x 6	4 x 10	4 x 16	4 x 25	4 x 35	4 x 50	4 x 70
kW	HP	maximum cable length in metres										
0.37	0.50	300										
0.55	0.75	250	380									
0.75	1	195	295									
1.1	1.5	145	215	360								
1.5	2	105	160	265	425							
2.2	3	70	110	180	290	440						
3	4	55	85	140	220	330						
4	5.5	40	60	105	165	250	415					
5.5	7.5		45	75	120	180	300	480				
7.5	10		35	55	95	135	220	340	585			
9.2	12.5			47	75	115	190	300	470			
11	15			40	65	95	160	260	405			
13	17.5				60	85	140	225	350	490		
15	20				50	75	125	195	305	430		
18.5	25					58	100	155	245	340	485	
22	30						49	85	130	205	285	410
30	40							36	63	96	152	210

Voltage drop 3% - Maximum environment temperature + 30 °C

FRICION LOSS CHART

(for straight pipes with 15-250 mm internal diameter and flow rates from 8 to 8330 l/min)



The data in the table refers to cold water and other liquids with the same kinematic viscosity and new cast iron pipes. The load losses (h_v) indicated in the table must be multiplied by: **0.8** for new steel pipes, **1.25** for old, slightly rusty iron pipes, and **1.7** for old pipes where the build-up of incrustations must be taken into account.

➔ **EXAMPLE:** Flow rate data $Q = 500$ l/min, new steel pipe Ø 80 mm, pipe length 50 m.

Find the flow rate on the horizontal axis and move vertically until you meet the DN 80 mm line.

The corresponding load losses can thus be found on the vertical axis.

$h_v = 4,6$ m for every 100 m of pipe.

$h_{v1} = 4,6 \times 0,8 = 3,68$ m/100 (steel pipe).

Considering the real length of the pipe:

$h_{v2} = 3,68 \times 50:100 = 1,84$ m (for 50 m of pipe).

The flow speed is determined by considering the position of the intersection point, which is between the oblique lines with value of 1.5-2 m/sec. In the case considered that gives: **C = 1.7 metres/sec**

CONVERSION OF UNITS OF MEASUREMENT

LENGTH

millimetre	centimetre	metres	inch	foot	yard
mm	cm	m	in	ft	yd
1	0.1	0.001	0.0394	0.0033	0.0011
10	1	0.01	0.3937	0.0328	0.0109
1000	100	1	39.3701	3.2808	10.936
25.4	2.54	0.0254	1	0.0833	0.0278
304.8	30.48	0.3048	12	1	0.3333
914.4	91.44	0.9144	36	3	1

1 kilometre = 1000 metres = 0.62137 miles – 1 mile = 1609.34 metres = 1.60934 kilometre

VOLUME

cubic metres	litre	millilitre	Imperial gallon	US gallon	cubic foot
m ³	l	ml	Imp. gal.	US gal	ft ³
1	1000	1 x 10 ⁶	220	264.2	35.3147
0.001	1	1000	0.22	0.2642	0.0353
1 x 10 ⁻⁶	0.001	1	2.2 x 10 ⁻⁴	2.642 x 10 ⁻⁴	3.53 x 10 ⁻⁵
0.00455	4.546	4546	1	1.201	0.1605
0.00378	3.785	3785	0.8327	1	0.1337
0.0283	28.317	28.317	6.2288	7.4805	1

WEIGHT

kilogram	pound	hundredweight	ton	long ton	short ton
kg	lb	cwt	t	tn	sh. tn
1	2.205	0.0197	0.001	9.84 x 10 ⁻⁴	0.0011
0.454	1	0.0089	4.54 x 10 ⁻⁴	4.46 x 10 ⁻⁴	5.0 x 10 ⁻⁴
50.802	112	1	0.0508	0.05	0.056
1000	2204.6	19.684	1	0.9842	1.1023
1016	2240	20	1.0161	1	1.102
907.2	2000	17.857	0.9072	0.8929	1

VOLUMETRIC FLOW RATE

litres second	litres minute	cubic metres hour	cubic feet hour	cubic feet minute	Imp. gal. minute	US gal. minute	US barrel day
l/s	l/min	m ³ /h	ft ³ /h	ft ³ /min	Imp. gal/min	US gal/min	(crude oil) US barrel/g
1	60	3.6	127.133	2.1189	13.2	15.85	543.439
0.017	1	0.06	2.1189	0.0353	0.22	0.264	9.057
0.278	16.667	1	35.3147	0.5886	3.666	4.403	150.955
0.008	0.472	0.0283	1	0.0167	0.104	0.125	4.275
0.472	28.317	1.6990	60	1	6.229	7.480	256.475
0.076	4.546	0.2728	9.6326	0.1605	1	1.201	41.175
0.063	3.785	0.2271	8.0209	0.1337	0.833	1	34.286
0.002	0.110	0.0066	0.2339	0.0039	0.024	0.029	1

PRESSURE AND HEAD

Newton square metres	kiloPascal	bar	kilogram force square centimetre	pound force square inch	foot of water	metres of water	millimetre mercury	inch mercury
N/m ²	kPa	bar	kgf/cm ²	psi	ft H ₂ O	m H ₂ O	mm Hg	In Hg
(Pa)	kPa	bar	kgf/cm ²	psi	ft H ₂ O	m H ₂ O	mm Hg	In Hg
1	0.001	1 x 10 ⁻⁵	1.02 x 10 ⁻⁵	1.45 x 10 ⁻⁴	3.35 x 10 ⁻⁴	1.02 x 10 ⁻⁴	0.0075	2.95 x 10 ⁻⁴
1000	1	0.01	1.02 x 10 ⁻²	0.145	0.335	0.102	7.5	0.295
100000	100	1	1.02	14.5	33.52	10.2	750.1	29.53
98067	98.07	0.981	1	14.22	32.81	10	735.6	28.96
6895	6.895	0.069	0.0703	1	2.31	0.703	51.72	2.036
2984	2.984	0.03	0.0305	0.433	1	0.305	22.42	0.882
9789	9.789	0.098	0.1	1.42	3.28	1	73.42	2.891
133.3	0.133	0.0013	0.0014	0.019	0.045	0.014	1	0.039
3386	3.386	0.0338	0.0345	0.491	1.133	0.345	25.4	1



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