45 years
ANNIVERSARY

PEDROLLO®
the spring of life

CATALOGUE 2020

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CONTENTS

Pumps with peripheral impeller

Clean water

Domestic use

PERFORMANCE RANGE

- Flow rate up to **90 l/min** (5.4 m^3/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** (**+50 °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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

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.
Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

PATENTS - TRADE MARKS - MODELS

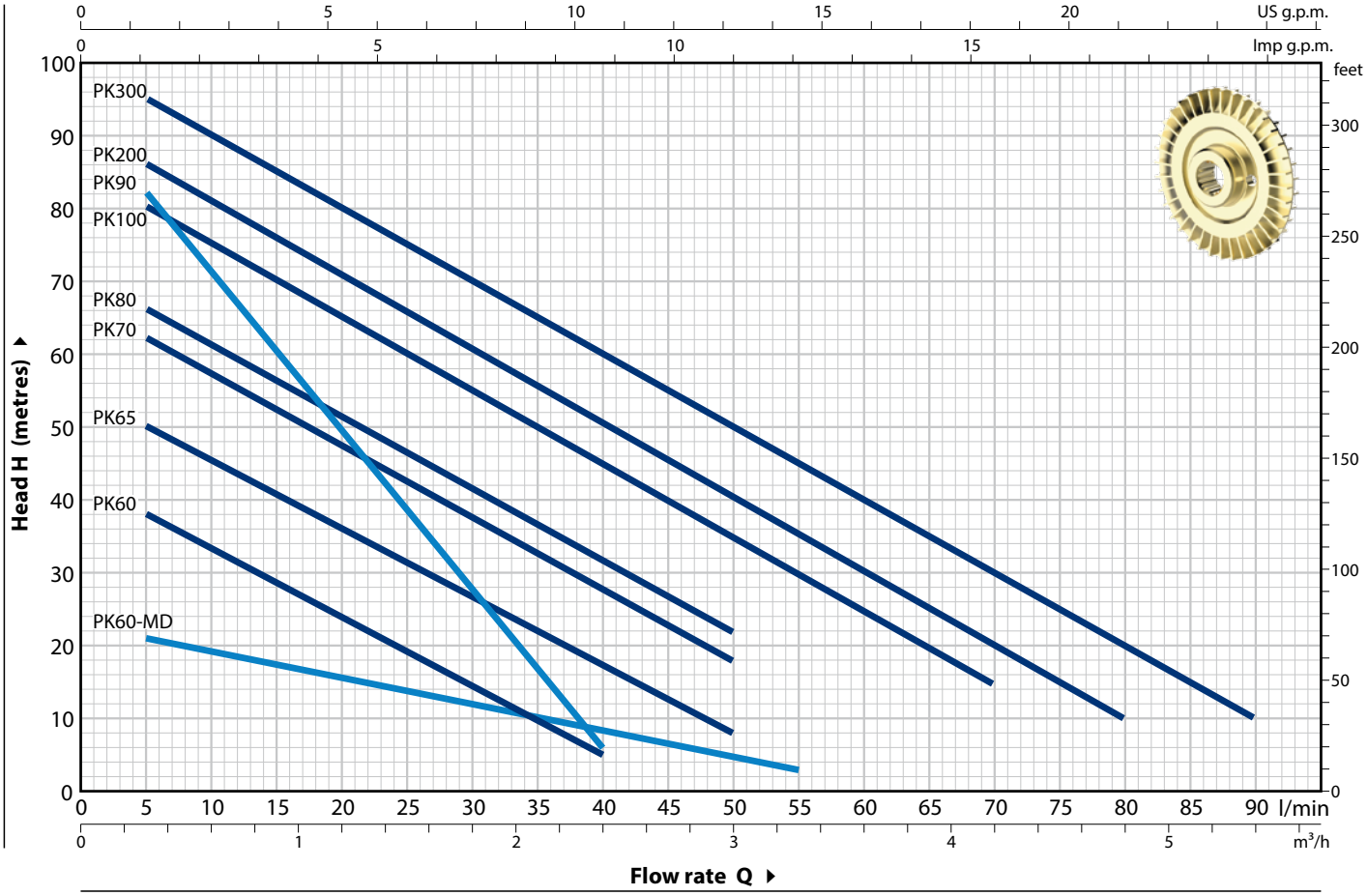
- Motor bracket: patent n. IT1243605
- Shaft: patent n. 0000275945 (PK60, PK65)
- Pump body: patent n. 0000275946 (PK60, PK65)
- Registered EU Design n. 004673192
- **PKm 60®** Registered Trade Mark n. 009875394

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 min^{-1}** HS= 0 m



MODEL		POWER (P2)			Q	m³/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
Single-phase	**Three-phase**	**kW**	**HP**	▲		l/min	**0**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**50**	**55**	**70**	**80**	**90**
PKm 60	**PK 60**	0.37	0.50	**IE2**	**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**	0.55	0.75				55	50	45.5	40.5	36	31	27	22	17	8				
PKm 70	**PK 70**	0.60	0.85	**IE3**			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	
PKm 300	**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.

▲ Three-phase motor efficiency class (IEC 60034-30-1)

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

POS. COMPONENT — CONSTRUCTION CHARACTERISTICS

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS
1	**PUMP BODY**	Cast iron, with threaded ports in compliance with ISO 228/1 (PK 60, PK 60-MD with an Epoxy Electro Coating treatment)
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 AISI 431 (EN 10088-3 - 1.4104 for PK 60, PK 60-MD, PK 65)

5 MECHANICAL SEAL

Pump	*Seal*	*Shaft*	*Materials*		
Model	***Model***	***Diameter***	*Stationary ring*	*Rotational ring*	*Elastomer*
PK 60-65-70-80 PK 60-MD	**AR-12**	**Ø 12** mm	Ceramic	Graphite	NBR
PK 90	**ST1-12**	**Ø 12** mm	Silicon carbide	Graphite	NBR
PK 100-200-300	**FN-14**	**Ø 14** mm	Graphite	Ceramic	NBR

6 BEARINGS

Pump	*Model*
PK 60-65 PK 60-MD	**6201 ZZ / 6201 ZZ**
PK 70-80-90	**6203 ZZ / 6203 ZZ**
PK 100-200-300	**6204 ZZ / 6204 ZZ**

7 CAPACITOR

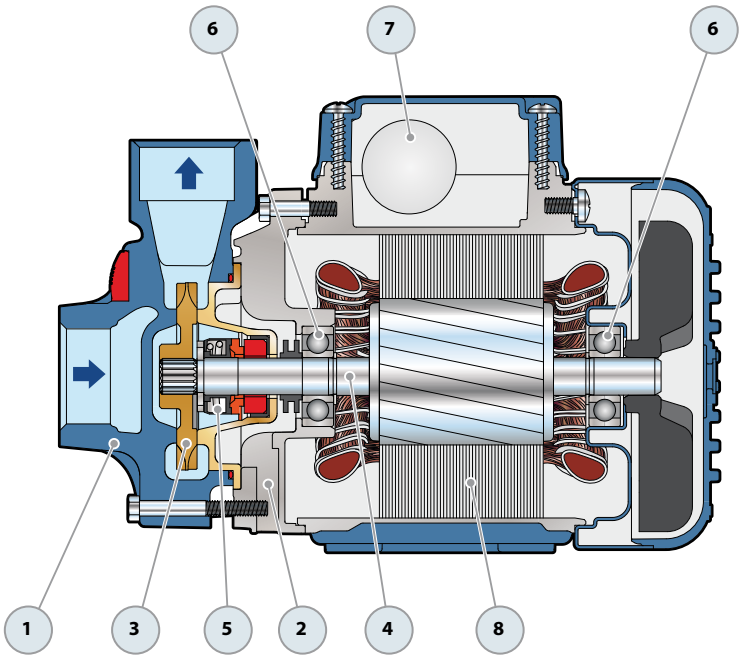
Pump	*Capacitance*	
Single-phase	***(230 V or 240 V)***	***(110 V)***
PKm 60 PKm 60-MD	**10** µF - 450 VL	**25** µF - 250 VL
PKm 65	**14** µF - 450 VL	**25** µF - 250 VL
PKm 70	**16** µF - 450 VL	**60** µF - 300 VL
PKm 80	**20** µF - 450 VL	**60** µF - 300 VL
PKm 90	**20** µF - 450 VL	**60** µF - 300 VL
PKm 100	**31.5** µF - 450 VL	**60** µF - 250 VL
PKm 200	**45** µF - 450 VL	**80** µF - 250 VL
PKm 300	**50** µF - 450 VL	–

8 ELECTRIC MOTOR

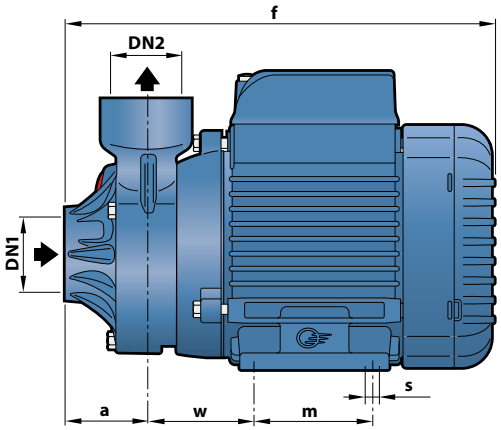
PKm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.
PK: three-phase 230/400 V - 50 Hz.

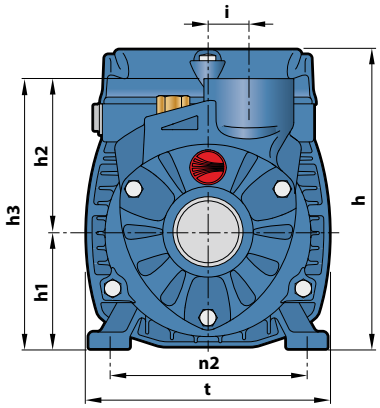
➠ **The three-phase pumps are fitted with high performance motors up to P_2=0.55 kW in class IE2 and from P_2=0.60 kW in class IE3 (IEC 60034-30-1)**

– 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	t	n2	w	s	1~	3~
PKm 60®	PK 60®			38	208	145	56	75	131	20	55	118	94-100	53	7	5.2	5.2
PKm 60®-MD	PK 60®-MD															5.2	5.2
PKm 65	PK 65	1"	1"		237	153	63		138		80	120	100			7.0	6.3
PKm 70	PK 70			55	285	179 *	71	85	156		90	140	112	62		10.0	10.0
PKm 80	PK 80															9.9	10.0
PKm 90	PK 90	¾"	¾"	46	278			84	155	19						10.2	10.1
PKm 100	PK 100	1"	1"	62	356	212	80	88	168	19	100	152	125	95	9	15.0	14.9
PKm 200	PK 200															15.9	15.9
PKm 300	PK 300				376											—	18.6

(*) h=199 mm for single-phase versions at 110 V

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	**2.0** A	**1.9** A	**4.0** A
PKm 65	**3.7** A	**3.4** A	**7.4** A
PKm 70	**5.2** A	**4.8** A	**10.4** A
PKm 80	**5.2** A	**4.8** A	**10.4** 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	**23.0** A
PKm 300	—	—	—

MODEL	VOLTAGE				
Three-phase	230 V	400 V	690 V	240 V	415 V
PK 60®	**2.0** A	**1.15** A	**0.7** A	**1.9** A	**1.1** A
PK 60®-MD	**1.7** A	**1.0** A	**0.6** A	**1.7** A	**1.0** A
PK 65	**3.0** A	**1.7** A	**1.0** A	**2.8** A	**1.6** A
PK 70	**3.8** A	**2.2** A	**1.3** A	**3.3** A	**1.9** A
PK 80	**3.8** A	**2.2** A	**1.3** A	**3.3** A	**1.9** A
PK 90	**4.0** A	**2.3** A	**1.3** A	**3.8** A	**2.2** A
PK 100	**6.2** A	**3.6** A	**2.1** A	**5.9** A	**3.4** A
PK 200	**8.3** A	**4.8** A	**2.8** A	**8.0** A	**4.6** A
PK 300	**9.0** A	**5.2** A	**3.0** 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**
PKm 300	PK 300	**72**	**96**

CP

Centrifugal pumps

Clean water
Civil use
Agricultural use
Industrial use

PERFORMANCE RANGE

- Flow rate up to **900 l/min** (54 m^3/h)
- Head up to **76 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

CE

EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

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.
Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

PATENTS - TRADE MARKS - MODELS

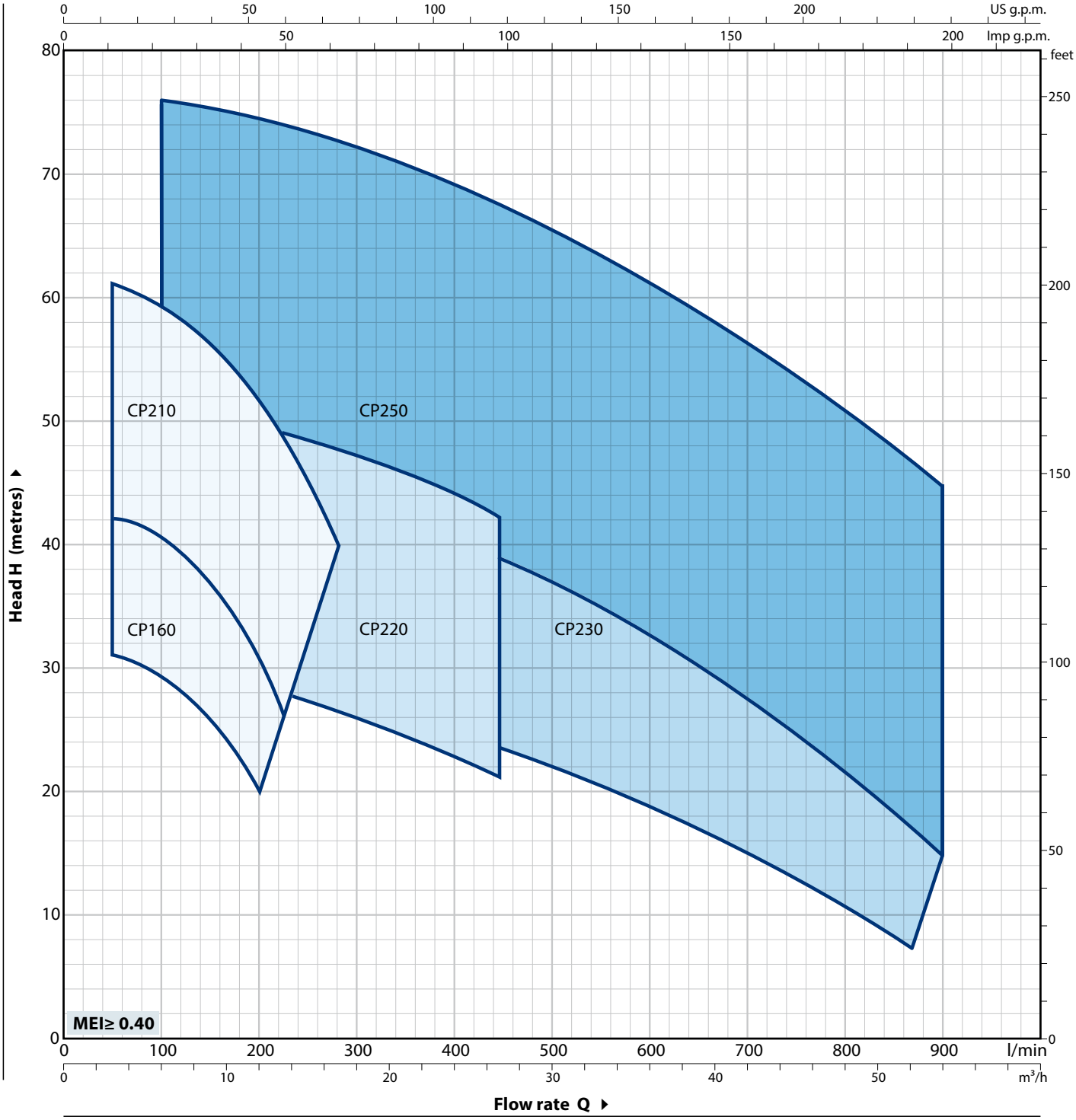
- Registered EU Design n. 002098434 for CP 160, CP210, CP250
- Registered Italian model n. 72753 for CP 220, CP 230

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

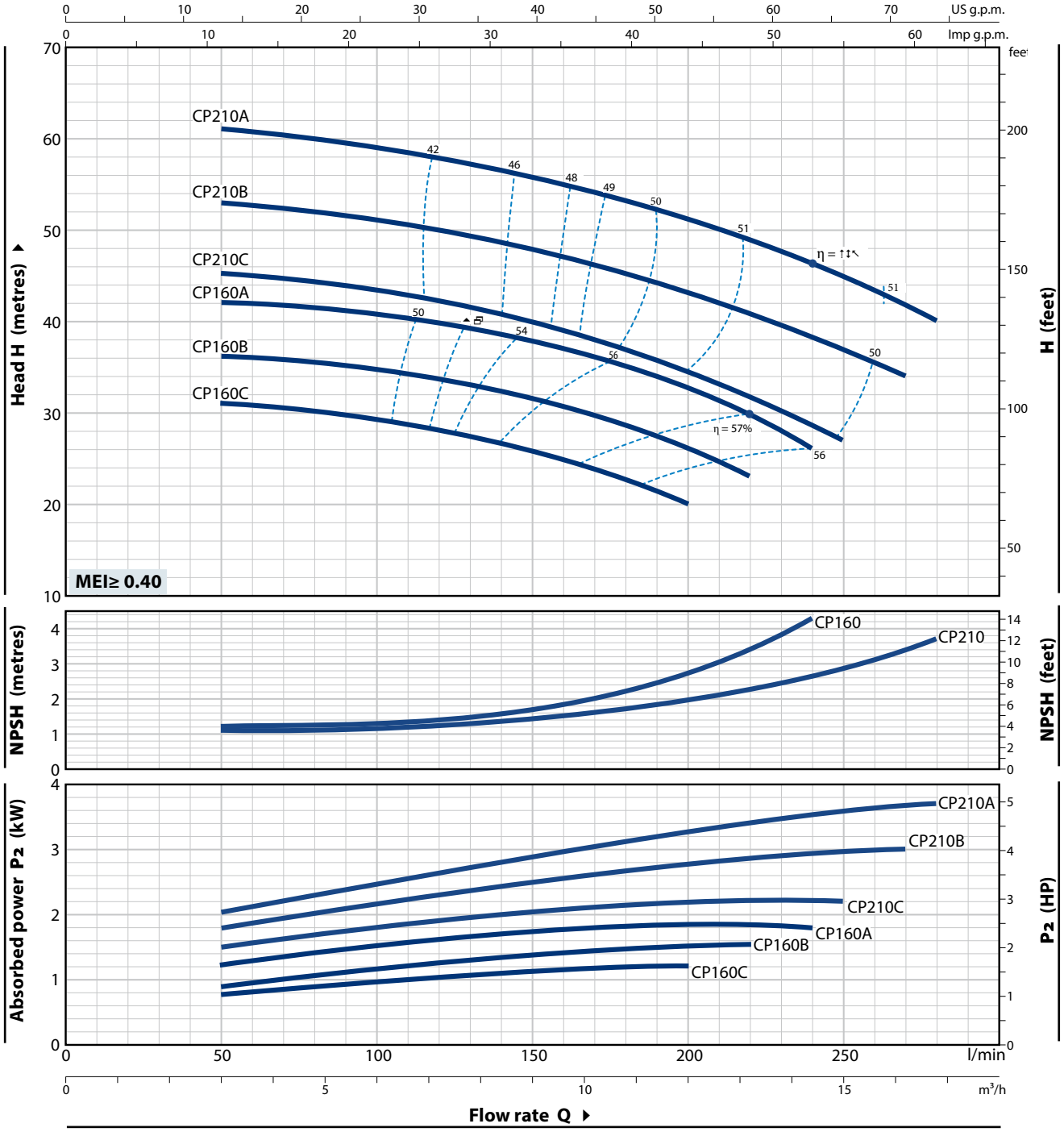
50 Hz **n= 2900 min^{-1}** HS= 0 m



CP 160-210

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz **n= 2900 min^{-1}** HS= 0 m



MODEL		POWER (P2)			Q	m³/h	0	3	4.5	6	7.5	9	10.5	12	13.2	14.4	15	16.2	16.8
Single-phase	**Three-phase**	**kW**	**HP**	▲		l/min	**0**	**50**	**75**	**100**	**125**	**150**	**175**	**200**	**220**	**240**	**250**	**270**	**280**
CPm 160C	**CP 160C**	1.1	1.5	**IE3**	**H** metres		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				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

▲ Three-phase motor efficiency class (IEC 60034-30-1)

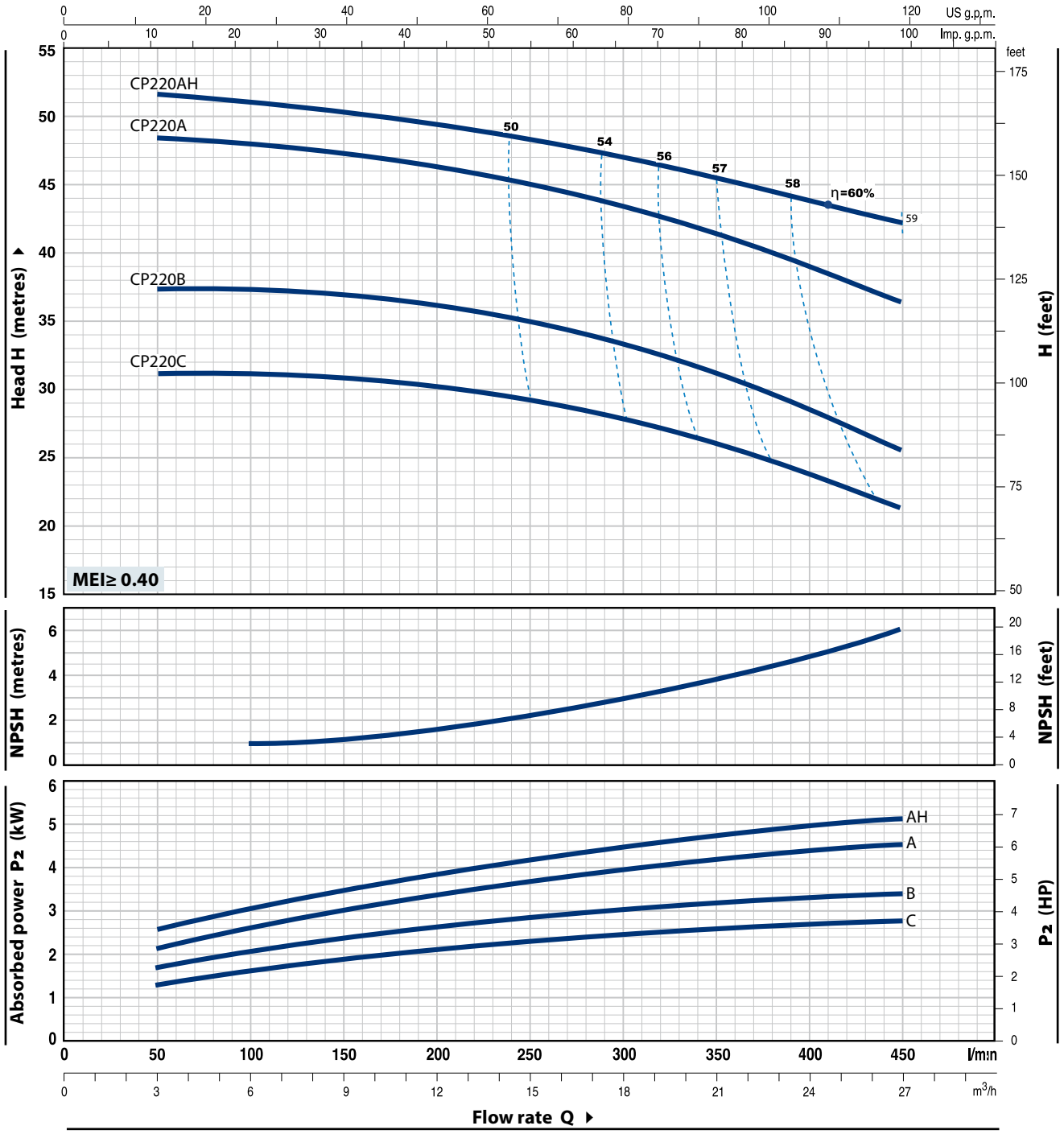
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz **n= 2900 min^{-1}** HS= 0 m



MODEL		POWER (P2)			Q	m³/h	0	3	6	12	18	24	27
Single-phase	Three-phase	kW	HP	▲		l/min	0	50	100	200	300	400	450
CPm 220C	CP 220C	2.2	3	IE3	H metres		32	31.5	31	30	28	24	21
–	CP 220B	3	4				38	37.5	37	36	33.5	29	25
–	CP 220A	4	5.5				49	48.5	48	46	43.5	39.5	36
–	CP 220AH	5.5	7.5				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.

▲ Three-phase motor efficiency class (IEC 60034-30-1)

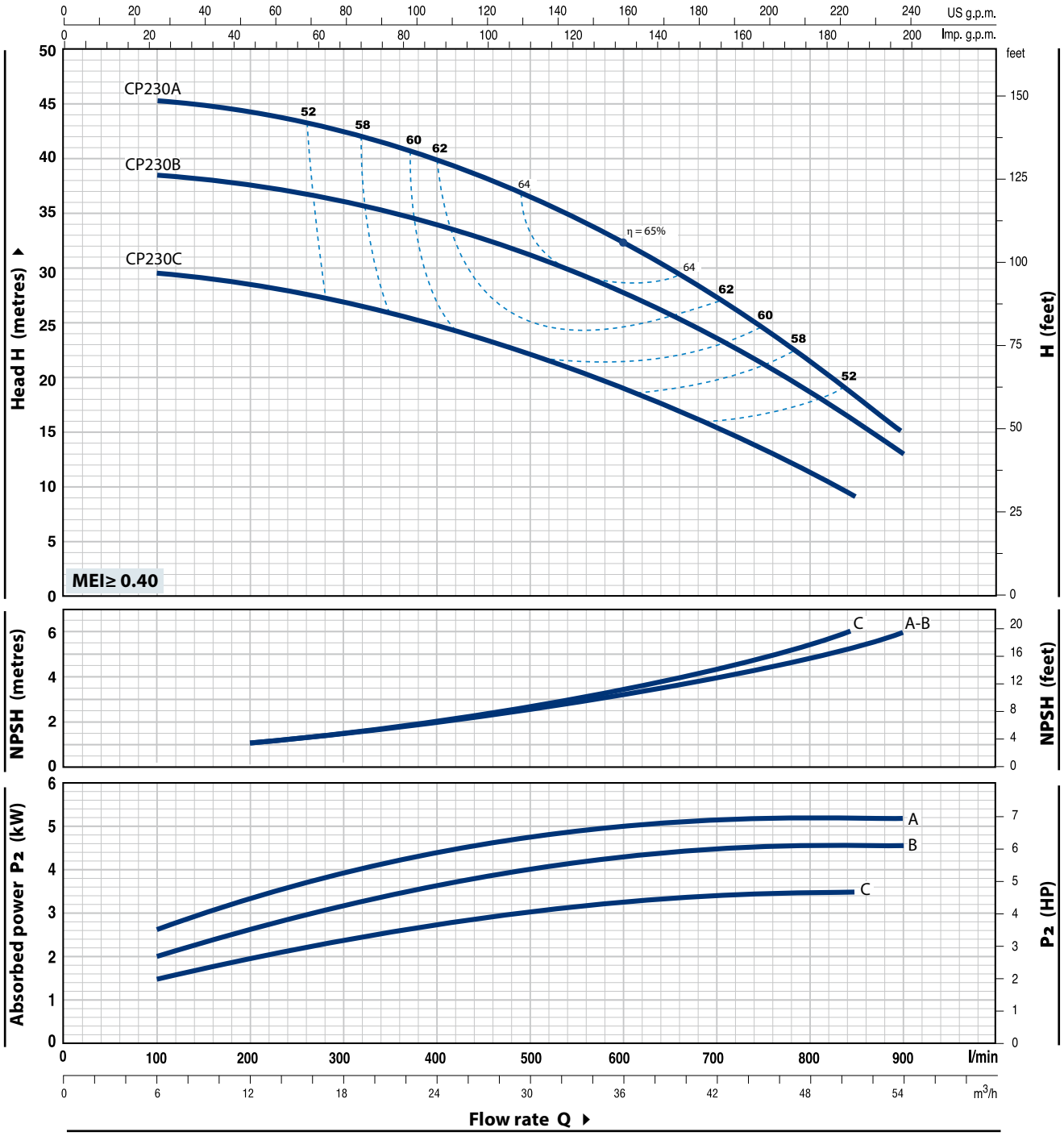
= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

CP 230

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz **n= 2900 min^{-1}** HS= 0 m



MODEL	POWER (P2)			Q	m³/h	0	6	12	18	24	30	36	42	48	51	54
Three-phase	kW	HP	▲		l/min	0	100	200	300	400	500	600	700	800	850	900
CP 230C	3	4				30	29.5	28.5	27	25	22	19.5	15.5	11.5	9	
CP 230B	4	5.5	IE3	H	metres	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.

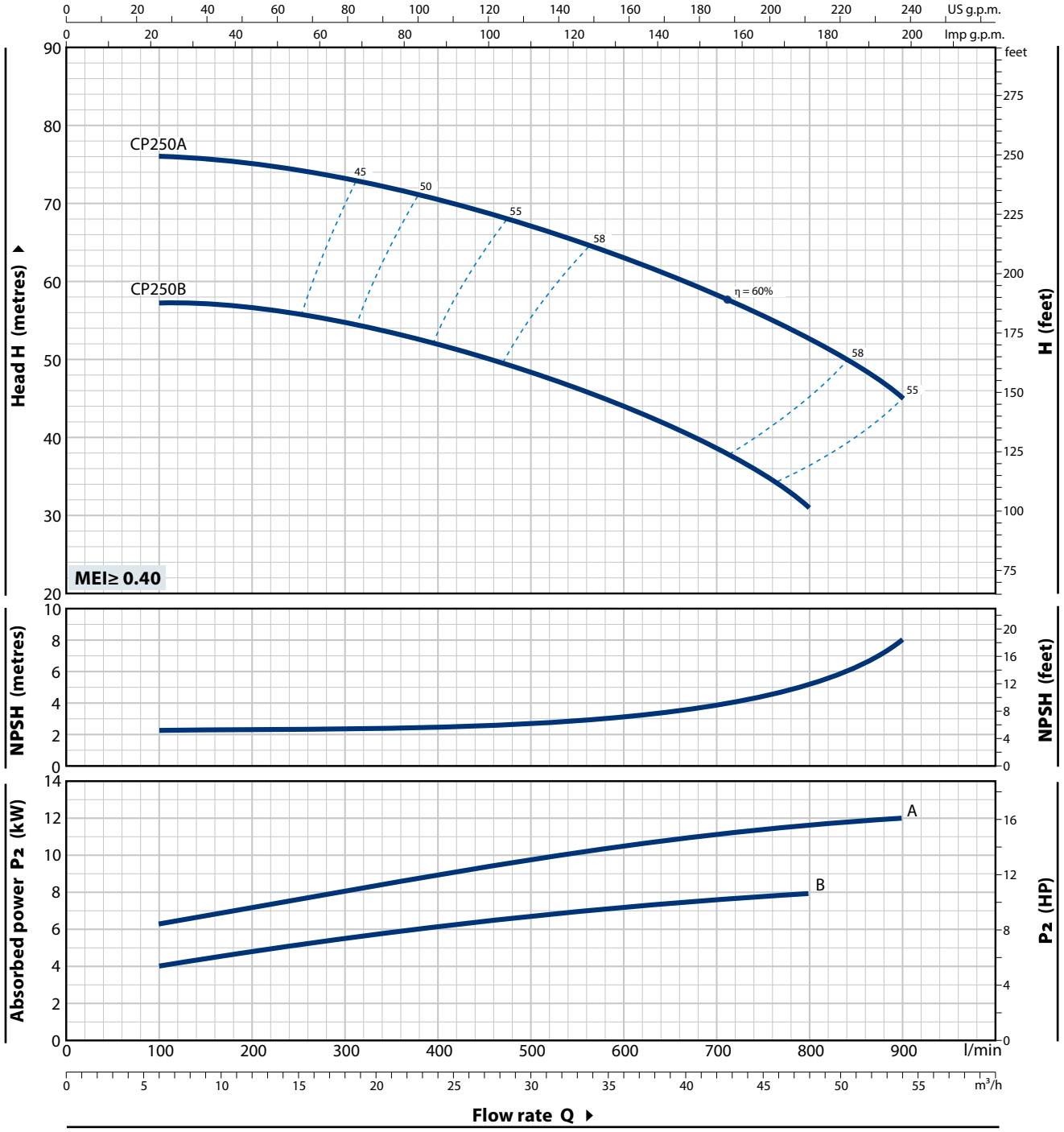
▲ Three-phase motor efficiency class (IEC 60034-30-1)

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz **n= 2900 min^{-1}** HS= 0 m



MODEL	POWER (P2)			Q	m³/h	0	6	12	18	24	30	36	42	48	54
Three-phase	kW	HP	▲		l/min	**0**	**100**	**200**	**300**	**400**	**500**	**600**	**700**	**800**	**900**
CP 250B	7.5	10	IE3	H	metres	57	57.4	56.8	54.8	52	48.4	44.1	38.8	31.3	
CP 250A	11	15				76.1	76	74.9	73.2	70.7	67.3	63	58.1	52.7	45.2

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

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

▲ Three-phase motor efficiency class (IEC 60034-30-1)

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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**	Stainless steel for CP160 Brass for CP 210
4	**MOTOR SHAFT**	Stainless steel AISI 431

5 MECHANICAL SEAL

Pump	*Seal*	*Shaft*	*Materials*		
Model	*Model*	*Diameter*	*Stationary ring*	*Rotational ring*	*Elastomer*
CP 160	**FN-18**	**Ø 18** mm	Graphite	Ceramic	NBR
CP 210	**FN-24**	**Ø 24** mm	Graphite	Ceramic	NBR

6 BEARINGS

Pump	*Model*
CP 160	**6204 ZZ / 6204 ZZ**
CP 210	**6206 ZZ - C3 / 6205 ZZ**

7 CAPACITOR

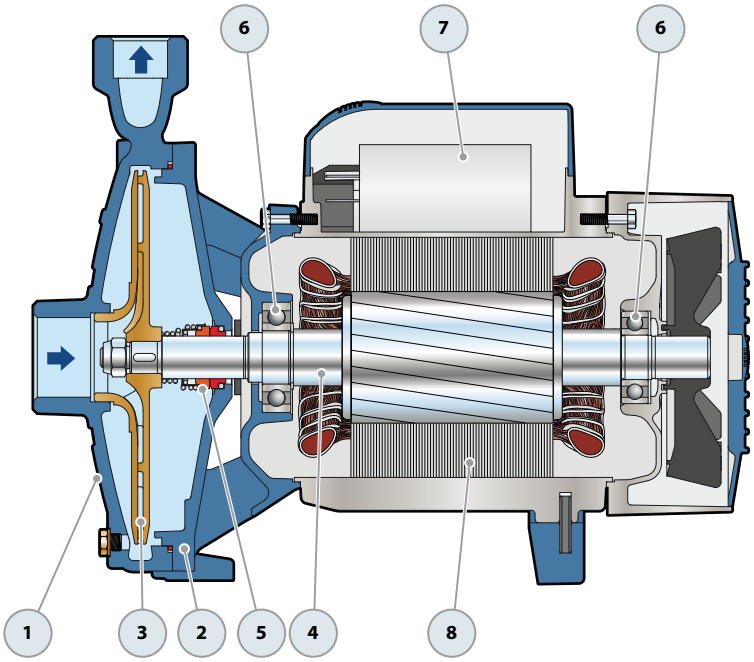
Pump	*Capacitance*	
Single-phase	*(230 V or 240 V)*	*(110 V)*
CPm 160C	**31.5** µF - 450 VL	**60** µF - 250 VL
CPm 160B	**45** µF - 450 VL	**80** µF - 250 VL
CPm 210C	**70** µF - 450 VL	**–**

8 ELECTRIC MOTOR

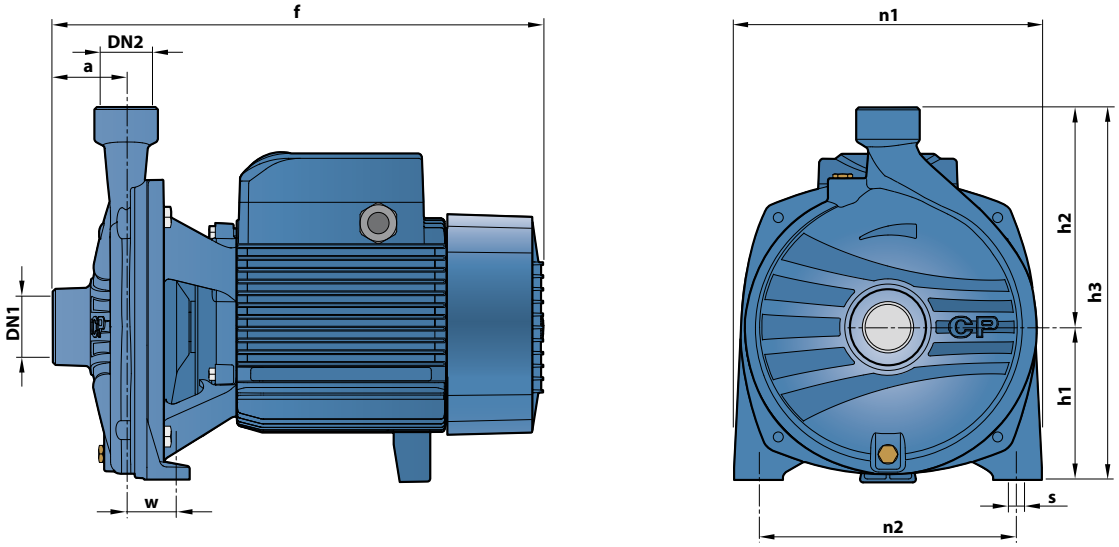
CPm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding (up to 1.5 kW).
CP: three-phase 230/400 V - 50 Hz.

➠ **The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)**

– Insulation: class F
– Protection: IP X4



DIMENSIONS AND WEIGHT



MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h1	h2	h3	n1	n2	w	s	1~	3~
CPm 160C	**CP 160C**	1½"	1"	54	370	110	150	260	206	165	44.5	11	**19.3**	**18.8**
CPm 160B	**CP 160B**												**20.0**	**20.5**
–	**CP 160A**				391								–	**23.5**
CPm 210C	**CP 210C**			60	402	125	180	305	252	210	39.5	11	**29.0**	**29.2**
–	**CP 210B**												–	**31.0**
–	**CP 210A**												–	**31.2**

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
CPm 160C	**8.5** A	**8.2** A	**17.0** A
CPm 160B	**10.3** A	**10.0** A	**20.6** A
CPm 210C	**14.5** A	**12.7** A	**29.0** A

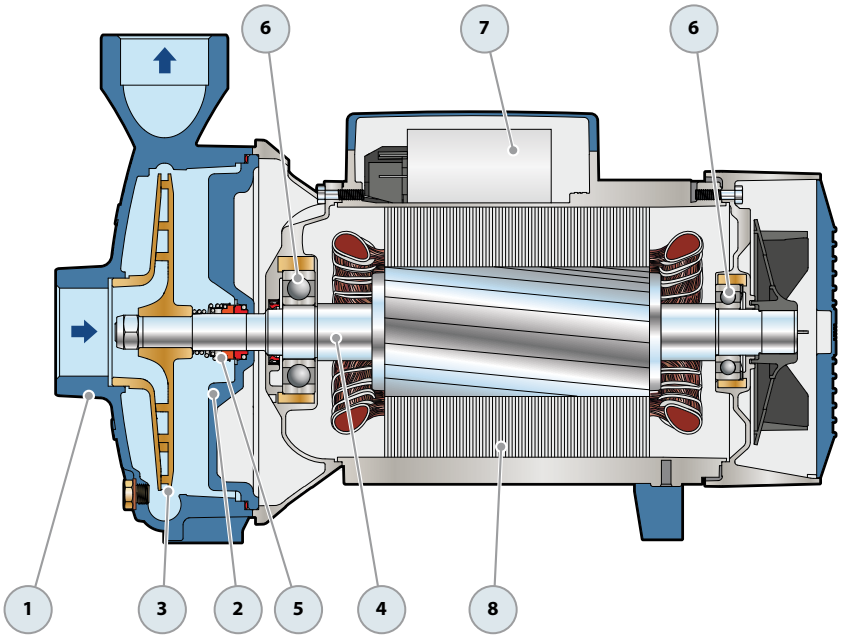
MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
CP 160C	**5.7** A	**3.3** A	**1.9** A	**5.5** A	**3.2** A	**1.8** A
CP 160B	**6.9** A	**4.0** A	**2.3** A	**6.7** A	**3.8** A	**2.2** A
CP 160A	**8.9** A	**5.1** A	**2.9** A	**8.3** A	**4.8** A	**2.8** A
CP 210C	**9.2** A	**5.3** A	**3.1** 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

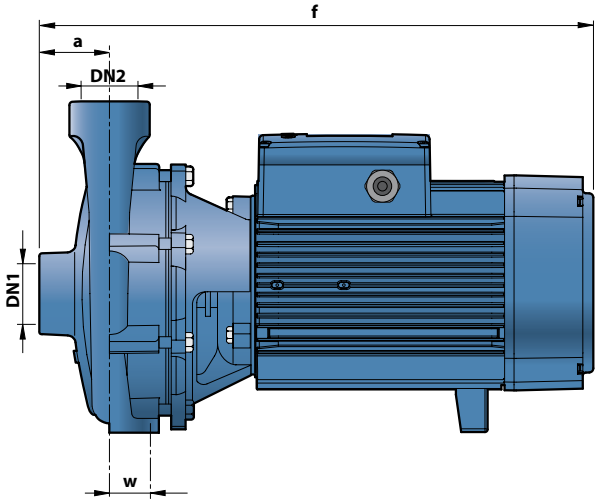
POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS					
1	**PUMP BODY**	Cast iron complete with threaded ports in compliance with ISO 228/1					
2	**BODY BACKPLATE**	Cast iron					
3	**IMPELLER**	Brass for CP 220, CP 230 Cast iron for CP 250					
4	**MOTOR SHAFT**	Stainless steel AISI 431					
5	**MECHANICAL SEAL**	***Pump***	***Seal***	***Shaft***		*Materials*	
		Model	***Model***	***Diameter***	*Stationary ring*	*Rotational ring*	*Elastomer*
		CP 220C-B **CP 230C**	**FN-20**	**Ø 20** mm	Graphite	Ceramic	NBR
		CP 220A-AH **CP 230B-A** **CP 250B**	**FN-24**	**Ø 24** mm	Graphite	Ceramic	NBR
		CP 250A	**FN-32 NU**	**Ø 32** mm	Graphite	Ceramic	NBR
6	**BEARINGS**	***Pump***	***Model***				
		CP 220C	**6206 ZZ - C3 / 6204 ZZ**				
		CPm 220C **CP 220B** **CP 230C**	**6206 ZZ - C3 / 6205 ZZ**				
		CP 220A-AH **CP 230B-A** **CP 250B**	**6307 ZZ - C3 / 6206 ZZ - C3**				
		CP 250A	**6310 ZZ - C3 / 6308 ZZ - C3**				
7	**CAPACITOR**	***Pump***	***Capacitance***				
		Single-phase	***(230 V or 240 V)***				
		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.					

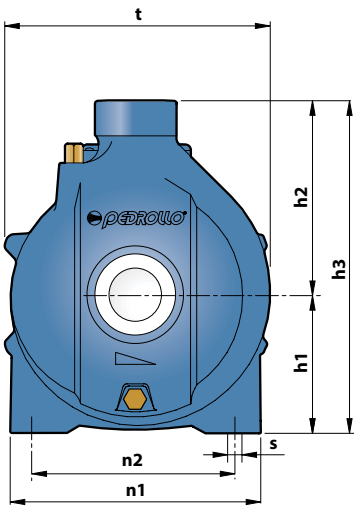
➠ **The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)**

– Insulation: class F
– Protection: IP X5



DIMENSIONS AND WEIGHT





MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	**Three-phase**	**DN1**	**DN2**	a	f	h1	h2	h3	t	n1	n2	w	s	1~	3~
CPm 220C	**CP 220C**	**2"**	**2"**	70	440/429	132	183	315	243	230	170	40	14	**34.1**	**32.8**
–	**CP 220B**				441									–	**36.2**
–	**CP 220A**				459	136	192	328	273	250	190			–	**41.0**
–	**CP 220AH**				505									–	**47.8**
–	**CP 230C**				440	132	183	315	243	230	170			–	**31.9**
–	**CP 230B**				460	136	192	328	273	250	190			–	**41.0**
–	**CP 230A**				505									–	**46.0**
–	**CP 250B**			65	506	160	232	392	317	294	230	45		–	**74.0**
–	**CP 250A**				570									–	**103.0**

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	**4.2** 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	**25.9** A	**15.0** A	**8.7** A	**25.0** A	**14.5** A	**8.4** A
CP 250A	**39.0** A	**22.5** A	**13.0** A	**38.9** A	**22.5** A	**13.0** A

HF

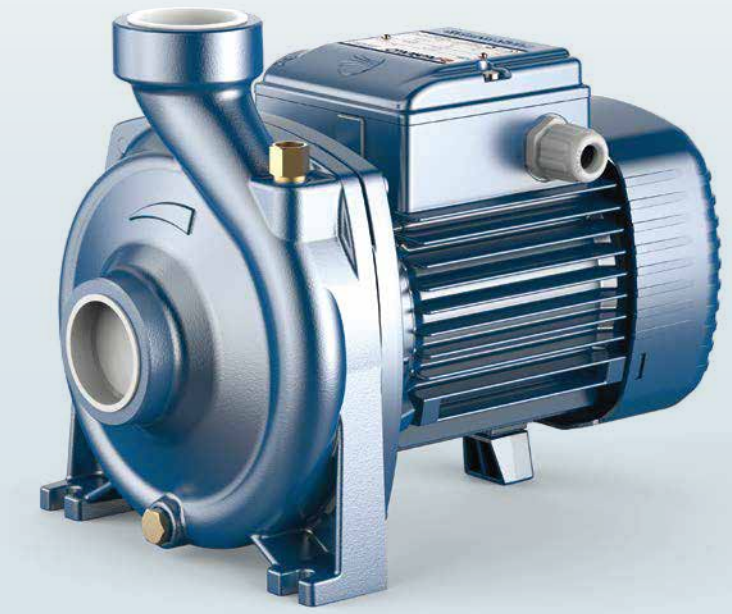
Centrifugal pumps

Medium flow

Clean water

Agricultural use

Industrial use



PERFORMANCE RANGE

- Flow rate up to **600 l/min** (36 m^3/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

CE

EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

INSTALLATION AND USE

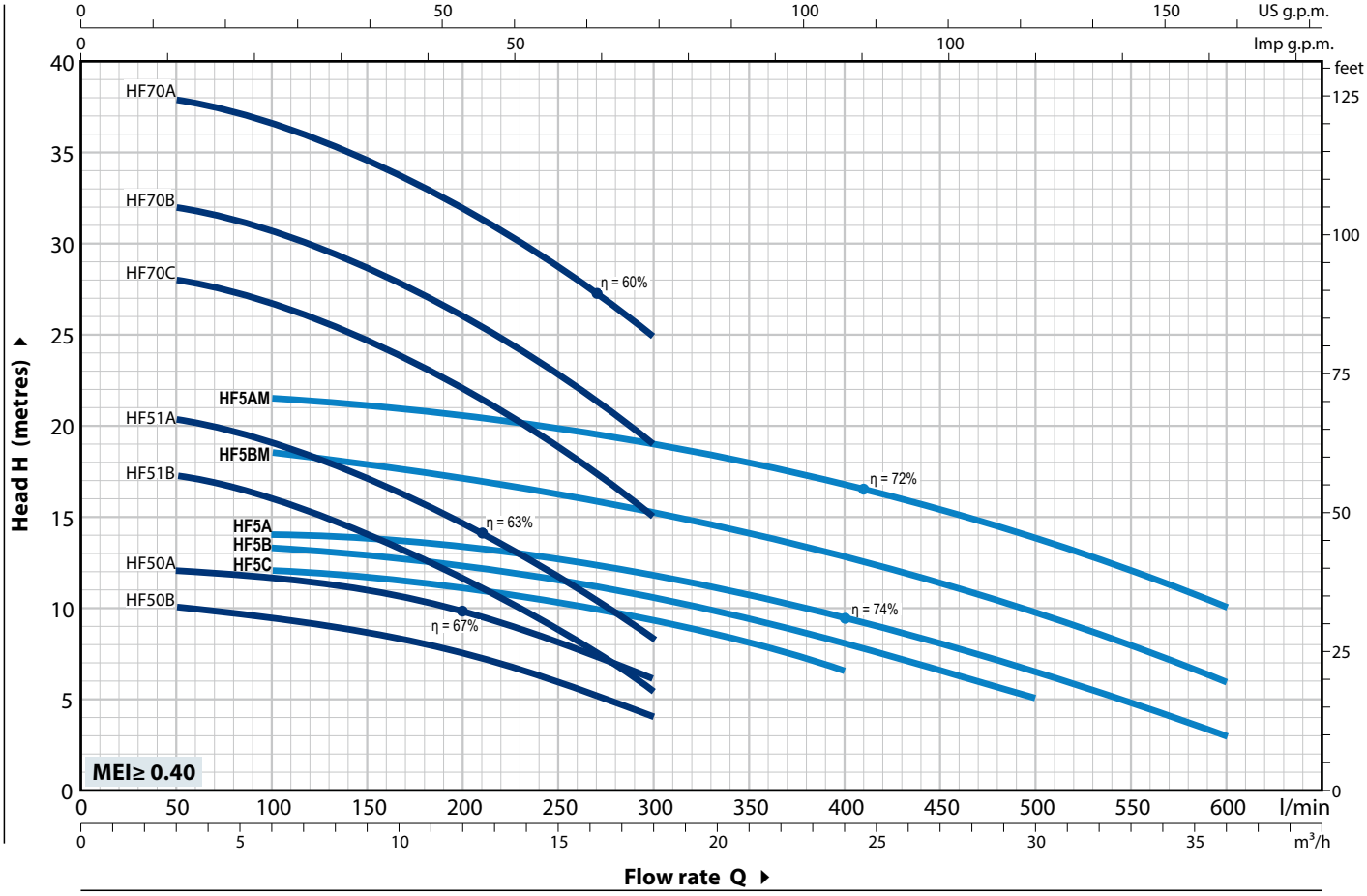
Suitable for use in civil and agricultural applications. The high efficiency and continuous duty capabilities makes these pumps ideal for use in applications such as flood and spray irrigation, drawing water from lakes, rivers and wells, or for any number of different industrial applications where the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

OPTIONS AVAILABLE ON REQUEST

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

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz **n= 2900 min^{-1}** HS= 0 m



MODEL		POWER (P2)			Q	m³/h	0	3	6	9	12	15	18	21	24	30	36
Single-phase	**Three-phase**	**kW**	**HP**	▲		l/min	**0**	**50**	**100**	**150**	**200**	**250**	**300**	**350**	**400**	**500**	**600**
HFm 50B	**HF 50B**	0.37	0.50	**IE2**	**H** metres		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**	0.55	0.75	**IE3**			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				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				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	**IE3**			13.7	–	13.2	13	12.5	11.6	10.5	9.2	8	5	
HFm 5A	**HF 5A**	1.1	1.5				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				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.

▲ Three-phase motor efficiency class (IEC 60034-30-1)

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

POS. COMPONENT — CONSTRUCTION CHARACTERISTICS

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 AISI 431

5 MECHANICAL SEAL

Pump	*Seal*	*Shaft*	*Materials*		
Model	*Model*	*Diameter*	*Stationary ring*	*Rotational ring*	*Elastomer*
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

Pump	*Model*
HF 50	**6201 ZZ / 6201 ZZ**
HF 5-51	**6203 ZZ / 6203 ZZ**
HF 5M-70	**6204 ZZ / 6204 ZZ**

7 CAPACITOR

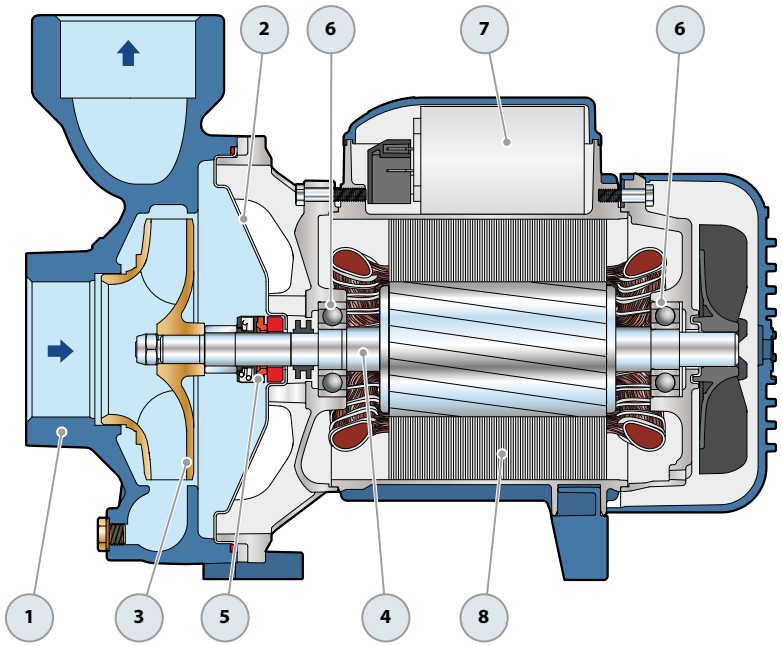
Pump	*Capacitance*	
Single-phase	*(230 V or 240 V)*	*(110 V)*
HFm 50B	**10** µF - 450 VL	**25** µF - 250 VL
HFm 50A	**14** µF - 450 VL	**25** µF - 250 VL
HFm 51B	**20** µF - 450 VL	**60** µF - 300 VL
HFm 51A	**20** µF - 450 VL	**60** µF - 300 VL
HFm 70C	**25** µF - 450 VL	**60** µF - 250 VL
HFm 70B	**45** µF - 450 VL	**80** 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

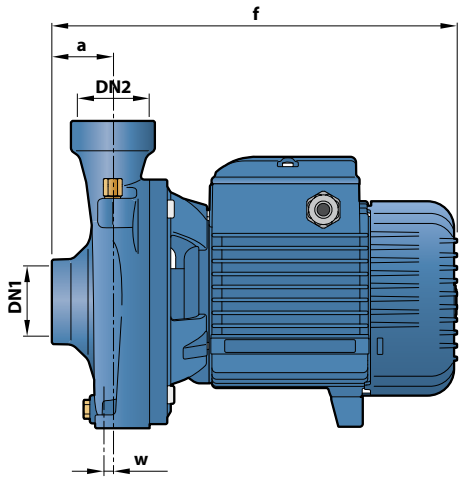
HFm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.
HF: three-phase 230/400 V - 50 Hz.

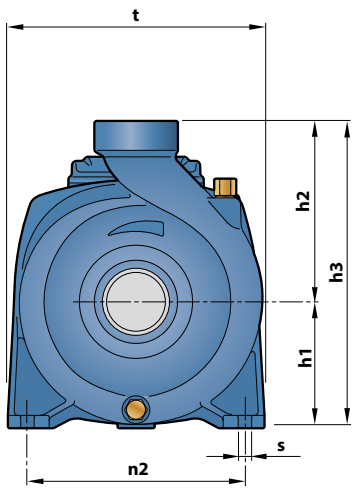
➠ **The three-phase pumps are fitted with high performance motors up to P_2=0.55 kW in class IE2 and from P_2=0.75 kW in class IE3 (IEC 60034-30-1)**

– Insulation: class F
– Protection: IP X4



DIMENSIONS AND WEIGHT





MODEL		PORTS		DIMENSIONS mm									kg	
Single-phase	Three-phase	DN1	DN2	a	f	h1	h2	h3	t	n2	w	s	1~	3~
HFm 50B	HF 50B	1½"	1½"	42	270	82	118	200	166	135	-8	10	8.0	8.1
HFm 50A	HF 50A												8.9	8.2
HFm 51B	HF 51B			45	303	92	133	225	190	160	2		12.9	12.7
HFm 51A	HF 51A												13.0	13.0
HFm 70C	HF 70C			48.5	373	114	155	269	216	171	12	12	18.8	20.1
HFm 70B	HF 70B												21.4	21.5
–	HF 70A				393								–	24.2
HFm 5C	HF 5C	2"	2"	43	316	97	141	238	192	160	-68	10	14.3	14.2
HFm 5B	HF 5B												14.3	14.3
HFm 5A	HF 5A												14.6	14.7
HFm 5BM	HF 5BM			59	386	110	150	260	208		12.5	11	19.2	20.3
HFm 5AM	HF 5AM												21.6	21.6

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
HFm 50B	2.8 A	2.6 A	5.6 A
HFm 50A	3.8 A	3.6 A	7.6 A
HFm 51B	4.7 A	4.5 A	9.4 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	9.8 A
HFm 5A	6.2 A	5.7 A	12.4 A
HFm 5BM	7.7 A	7.1 A	15.4 A
HFm 5AM	10.1 A	9.7 A	20.2 A

MODEL	VOLTAGE					
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	2.1 A	1.2 A	0.7 A
HF 50A	3.0 A	1.7 A	1.0 A	2.8 A	1.6 A	0.9 A
HF 51B	3.6 A	2.1 A	1.2 A	3.5 A	2.0 A	1.2 A
HF 51A	4.4 A	2.5 A	1.2 A	4.0 A	2.3 A	1.4 A
HF 70C	6.1 A	3.3 A	2.0 A	5.5 A	3.2 A	1.9 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	3.0 A
HF 5C	3.5 A	2.0 A	1.2 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	1.2 A
HF 5A	5.0 A	2.9 A	1.7 A	3.6 A	2.1 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	2.3 A

JCR1

Self-priming “JET” pumps

Clean water

Domestic use

PERFORMANCE RANGE

- Flow rate up to **60 l/min** (3.6 m^3/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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

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.
Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

PATENTS - TRADE MARKS - MODELS

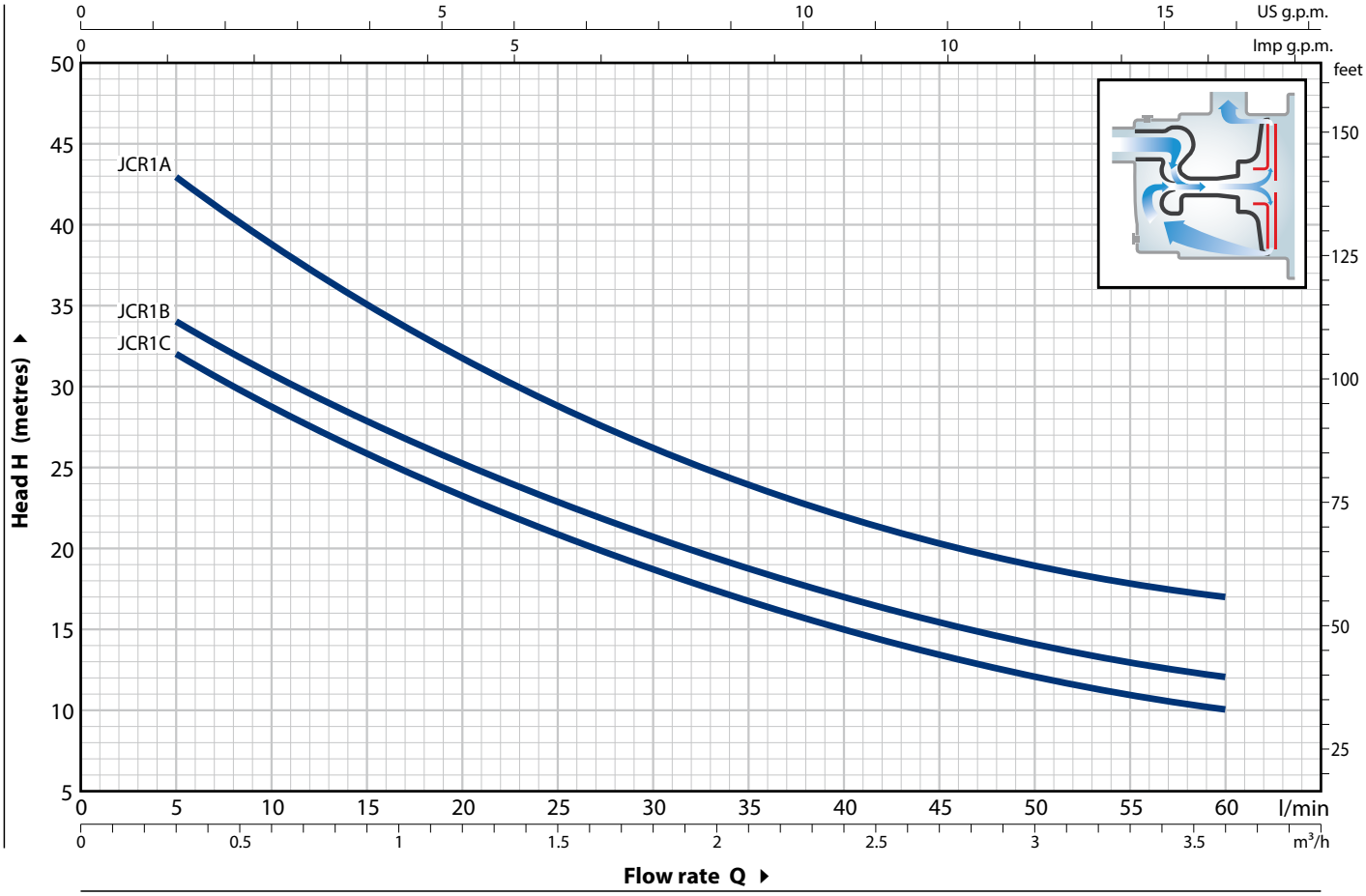
- European Patent n. 1 510 696

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz **n= 2900 min^{-1}** HS= 0 m



MODEL		POWER (P2)			Q	m³/h	0	0.3	0.6	1.2	1.5	1.8	2.4	2.7	3.0	3.6
Single-phase	**Three-phase**	**kW**	**HP**	▲		l/min	**0**	**5**	**10**	**20**	**25**	**30**	**40**	**45**	**50**	**60**
JCRm 1C	**JCR 1C**	0.37	0.50	**IE2**	**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	**IE3**			48	43	39	31.5	28.5	26	22	20.5	19	17

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

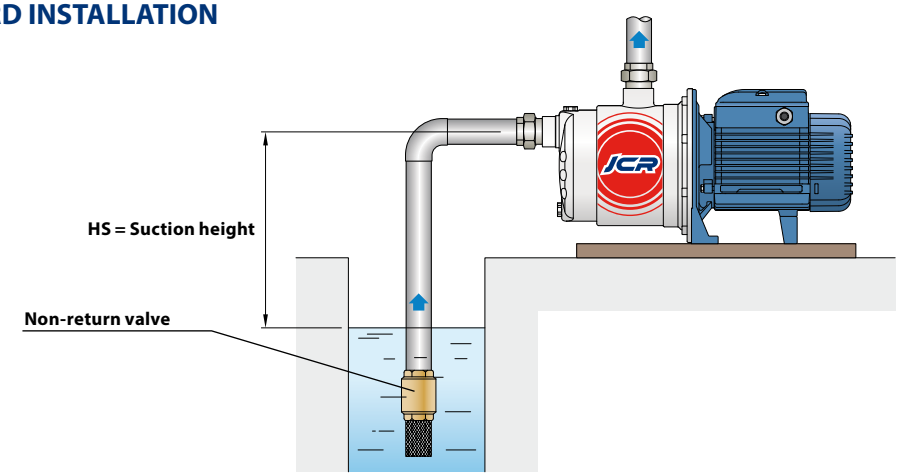
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Three-phase motor efficiency class (IEC 60034-30-1)

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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 AISI 431

6 MECHANICAL SEAL

Seal ***Model***	***Shaft*** ***Diameter***	*Materials* *Stationary ring*	*Rotational ring*	*Elastomer*
AR-12	**Ø 12** mm	Ceramic	Graphite	NBR

7 BEARINGS — **6201 ZZ / 6201 ZZ**

8 CAPACITOR

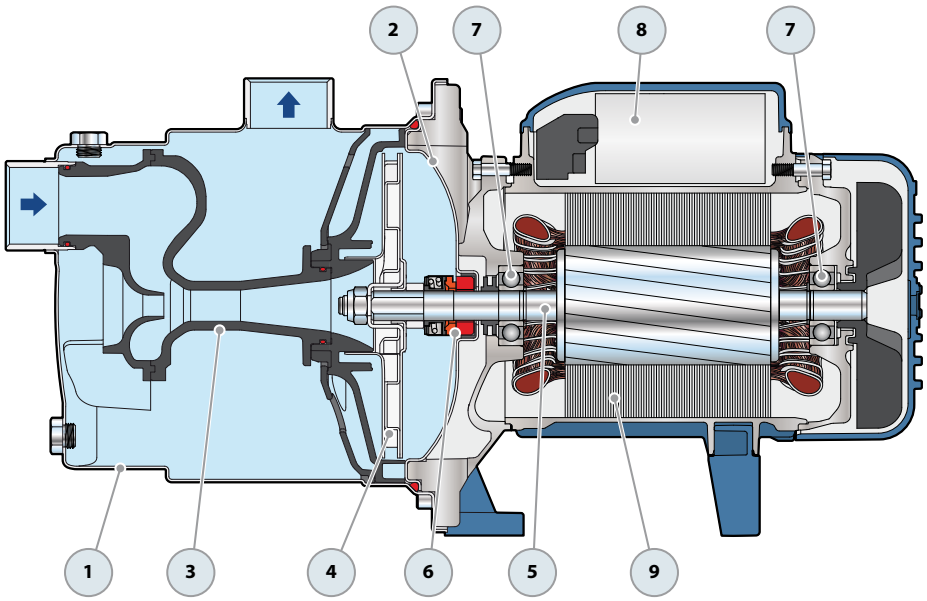
Pump ***Single-phase***	***Capacitance*** ***(230 V or 240 V)***	***(110 V)***
JCRm 1C	**10** µF - 450 VL	**25** µF - 250 VL
JCRm 1B	**10** µF - 450 VL	**25** µF - 250 VL
JCRm 1A	**14** µF - 450 VL	**25** µF - 250 VL

9 ELECTRIC MOTOR

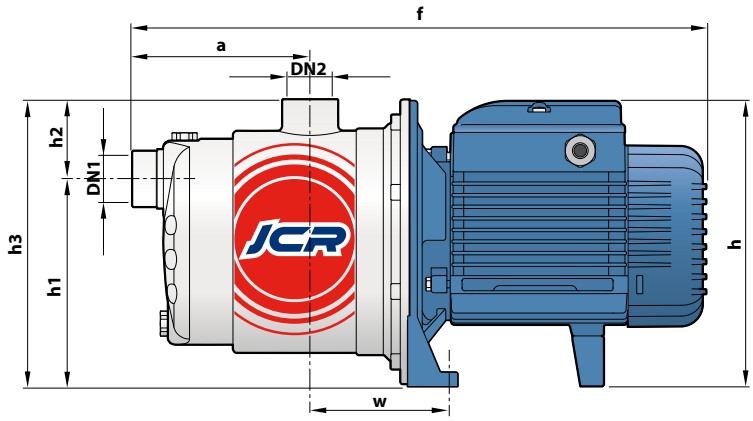
JCRm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.
JCR: three-phase 230/400 V - 50 Hz.

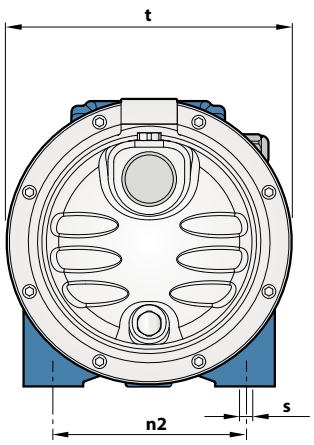
➠ **The three-phase pumps are fitted with high performance motors up to P_2=0.48 kW in class IE2 and from P_2=0.55 kW in class IE3 (IEC 60034-30-1)**

– 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	t	n2	w	s	1~	3~
JCRm 1C	JCR 1C	1"	1"	113	367	183	132	51	183	182	120	87	9	6.9	7.0
JCRm 1B	JCR 1B													6.9	6.9
JCRm 1A	JCR 1A													7.6	6.9

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
JCRm 1C	**2.5** A	**2.4** A	**5.0** A
JCRm 1B	**3.0** A	**2.9** A	**6.0** A
JCRm 1A	**3.6** A	**3.3** A	**7.3** A

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
JCR 1C	**1.7** A	**1.0** A	**0.6** A	**1.7** A	**1.0** A	**0.6** A
JCR 1B	**2.1** A	**1.2** A	**0.7** A	**2.1** A	**1.2** A	**0.7** A
JCR 1A	**2.8** A	**1.6** A	**0.9** A	**2.8** A	**1.6** A	**0.9** A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
JCRm 1C	JCR 1C	**84**	**108**
JCRm 1B	JCR 1B	**84**	**108**
JCRm 1A	JCR 1A	**84**	**108**

JSW2

Self-priming “JET” pumps

Clean water

Domestic use

Civil use

PERFORMANCE RANGE

- Flow rate up to **85 l/min** (5.1 m^3/h)
- Head up to **70 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 **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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

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.
Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

PATENTS - TRADE MARKS - MODELS

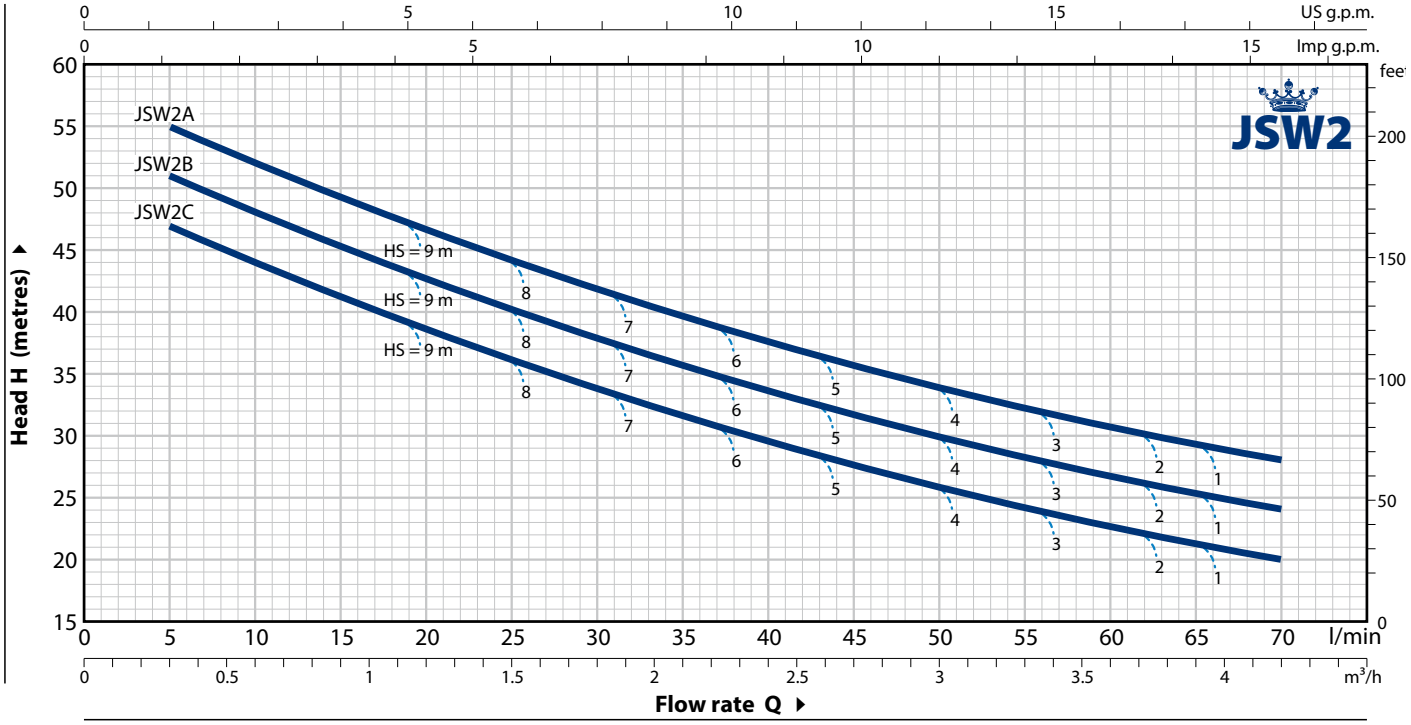
- Registered Trade Mark n. 013073135 JSW®
- Registered EU Design n. 002218610
- European Patent n. 1 510 696

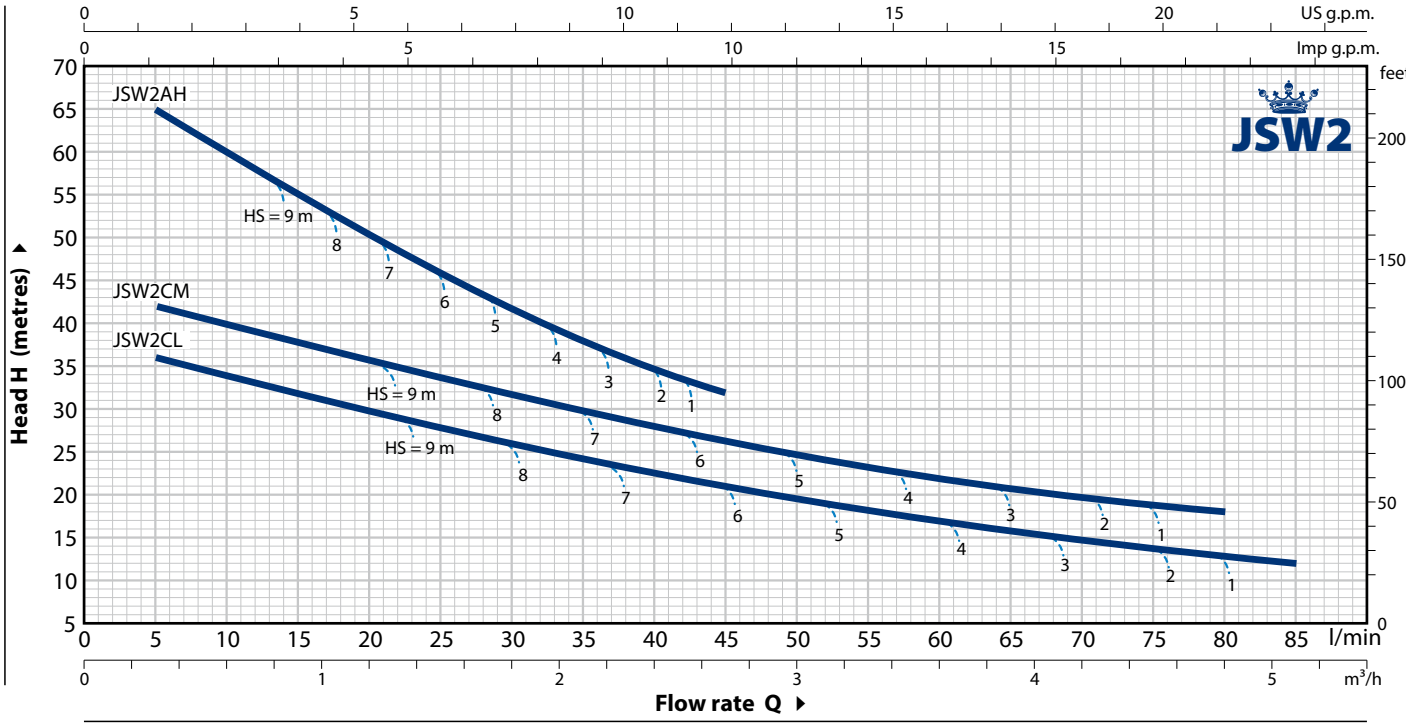
OPTIONS AVAILABLE ON REQUEST

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

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz **n= 2900 min^{-1}** HS= 0 m





MODEL		POWER (P2)			Q	m³/h	0	0.3	0.6	1.2	1.8	2.4	2.7	3.0	3.6	4.2	4.8	5.1
Single-phase	**Three-phase**	**kW**	**HP**	▲		l/min	**0**	**5**	**10**	**20**	**30**	**40**	**45**	**50**	**60**	**70**	**80**	**85**
JSWm 2C	**JSW 2C**	0.75	1				50	47	44	38.5	34	29.5	27.5	26	22.5	20		
JSWm 2B	**JSW 2B**	0.90	1.25				54	51	48	42.5	38	33.5	31.5	30	26.5	24		
JSWm 2A	**JSW 2A**	1.1	1.5	**IE3**	**H**	metres	58	55	52	46.5	42	37.5	35.5	34	31	28		
JSWm 2CM	**JSW 2CM**	0.75	1				44	42	40	35.5	31.5	28	26	24.5	22	19.5	18	
JSWm 2CL	**JSW 2CL**	0.75	1				38	36	34	30	26	22.5	21	19.5	17	14.5	13	12
JSWm 2AH	**JSW 2AH**	1.1	1.5				70	65	60	50.5	41.5	34.5	32					

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

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

▲ Three-phase motor efficiency class (IEC 60034-30-1)

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

JSW2

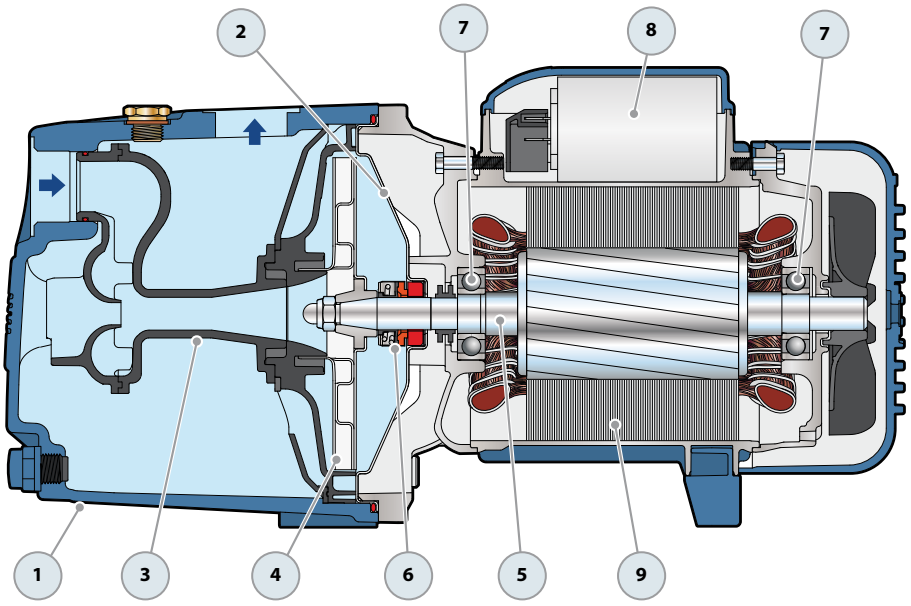
POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS
1	**PUMP BODY**	Cast iron, complete with threaded ports in compliance with ISO 228/1
2	**BODY BACKPLATE**	Stainless steel AISI 304
3	**NOZZLE ASSEMBLY**	Noryl FE1520PW
4	**IMPELLER**	Stainless steel AISI 304
5	**MOTOR SHAFT**	Stainless steel AISI 431
6	**MECHANICAL SEAL**	

Seal ***Model***	***Shaft*** ***Diameter***	*Materials* *Stationary ring*	*Rotational ring*	*Elastomer*
AR-14	**Ø 14** mm	Ceramic	Graphite	NBR

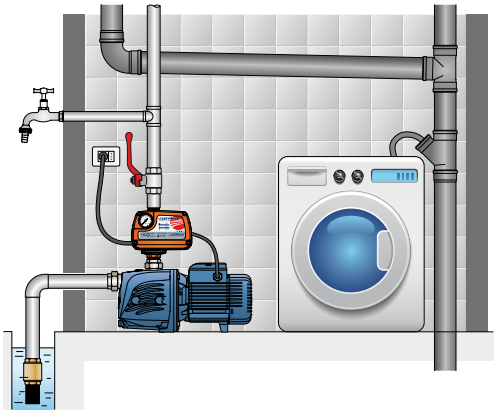
7	**BEARINGS**	**6203 ZZ / 6203 ZZ**

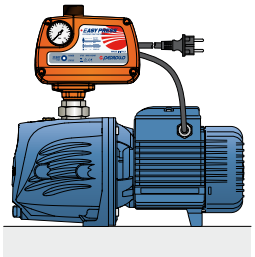
8	**CAPACITOR**	***Pump*** ***Single-phase***	***Capacitance*** ***(230 V or 240 V)***	***(110 V)***
		JSWm 2C-CL-CM	**20** µF - 450 VL	**60** µF - 300 VL
		JSWm 2B	**25** µF - 450 VL	**60** µF - 300 VL
		JSWm 2A-AH	**25** µF - 450 VL	**60** µF - 300 VL

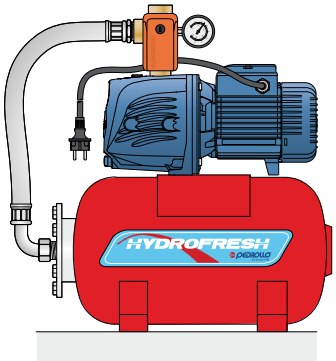
9	**ELECTRIC MOTOR**	**JSWm**: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding. **JSW**: three-phase 230/400 V - 50 Hz. ➠ **The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)** – Insulation: class F – Protection: IP X4



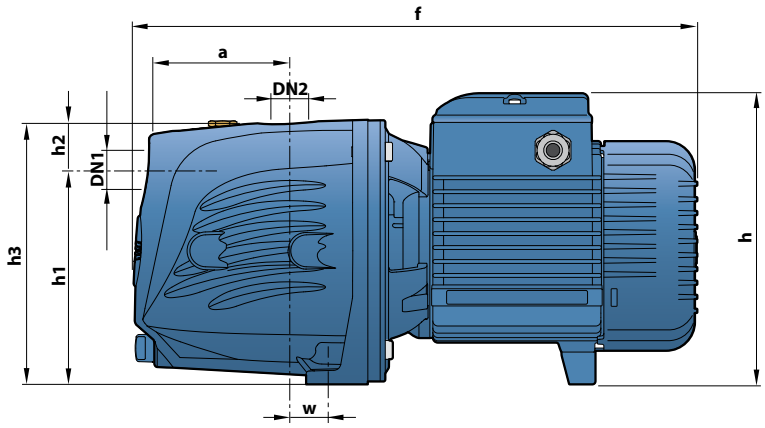
STANDARD INSTALLATION

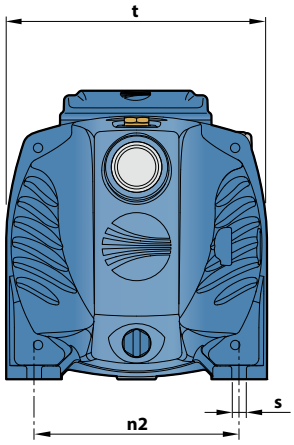






DIMENSIONS AND WEIGHT





MODEL		PORTS		DIMENSIONS mm										kg	
Single-phase	**Three-phase**	**DN1**	**DN2**	a	f	h	h1	h2	h3	t	n2	w	s	1~	3~
JSWm 2C	**JSW 2C**	**1"**	**1"**	96	389	200 *	147	33	180	180	142	22	10	**13.1**	**12.9**
JSWm 2B	**JSW 2B**													**14.0**	**13.9**
JSWm 2A	**JSW 2A**													**14.7**	**14.4**
JSWm 2CM	**JSW 2CM**													**12.9**	**13.0**
JSWm 2CL	**JSW 2CL**													**13.0**	**13.0**
JSWm 2AH	**JSW 2AH**													**14.2**	**14.3**

(*) h=220 mm for single-phase versions at 110 V

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 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
JSWm 2CM	**4.7** A	**4.5** A	**9.4** A
JSWm 2CL	**3.8** A	**3.6** A	**7.6** A
JSWm 2AH	**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
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	**4.5** A	**2.6** A	**1.5** A
JSW 2A	**5.1** A	**3.0** A	**1.7** A	**4.9** A	**2.8** A	**1.7** A
JSW 2CM	**3.5** A	**2.0** A	**1.2** A	**3.3** A	**1.9** A	**1.1** A
JSW 2CL	**3.2** A	**1.8** A	**1.0** A	**2.9** A	**1.7** A	**1.0** A
JSW 2AH	**5.1** A	**3.0** A	**1.7** A	**5.0** A	**2.9** A	**1.7** A

PALLETIZATION

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

JSW3

Self-priming “JET” pumps

Clean water
Domestic use
Civil use
Industrial use

PERFORMANCE RANGE

- Flow rate up to **160 l/min** (9.6 m^3/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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

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.
Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

PATENTS - TRADE MARKS - MODELS

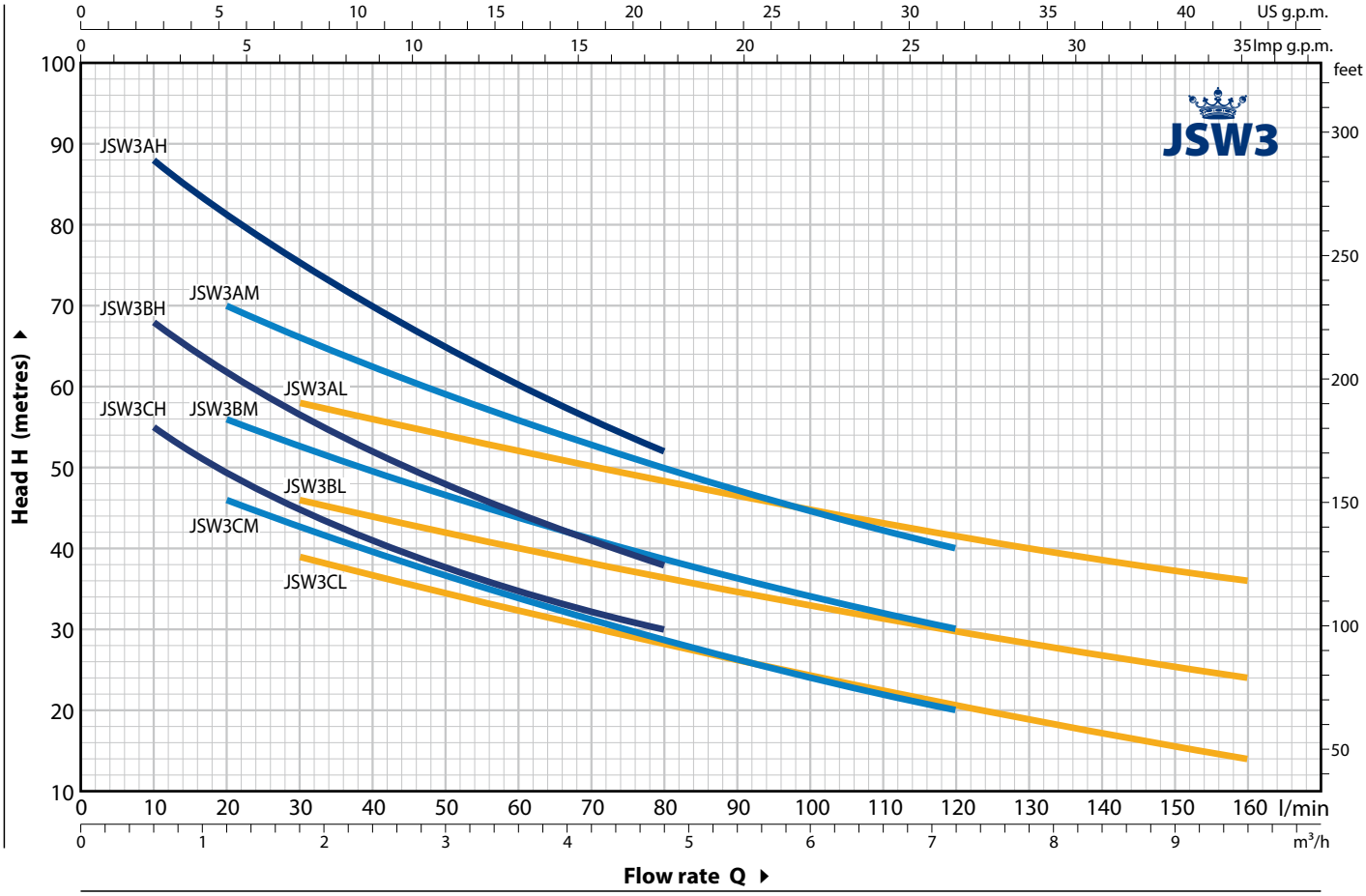
- Registered Trade Mark n. 013073135 JSW®
- Registered EU Design n. 002218610

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency
- IPX5 protection

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz **n= 2900 min^{-1}** HS= 0 m



MODEL		POWER (P2)			Q m³/h	0	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	6.0	7.2	8.4	9.6
Single-phase	**Three-phase**	**kW**	**HP**	▲	l/min	**0**	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**100**	**120**	**140**	**160**
JSWm 3CH	**JSW 3CH**	1.1	1.5			62	55	49	45	41	38	35	32	30				
JSWm 3BH	**JSW 3BH**	1.5	2			73	68	62	56.5	52	48	44	41	38				
JSWm 3AH	**JSW 3AH**	2.2	3			97	88	81	75	70	65	60.5	56	52				
JSWm 3CM	**JSW 3CM**	1.1	1.5			54	–	46	43	39.5	36.5	34	31	28.5	24	20		
JSWm 3BM	**JSW 3BM**	1.5	2	**IE3**	**H** metres	63	–	56	53	49.5	47.5	44	41	39	34	30		
JSWm 3AM	**JSW 3AM**	2.2	3			78	–	70	66	62	59	56	53	50	45	40		
JSWm 3CL	**JSW 3CL**	1.1	1.5			44	–	–	39	37	34	32	30	28	24	21	17	14
JSWm 3BL	**JSW 3BL**	1.5	2			51	–	–	46	44	42	40	38	36	33	30	27	24
JSWm 3AL	**JSW 3AL**	2.2	3			64	–	–	58	56	54	52	50	48	45	41.5	38.5	36

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

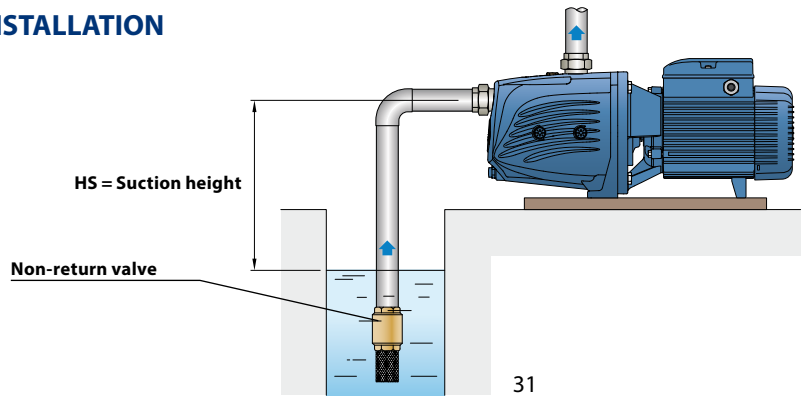
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Three-phase motor efficiency class (IEC 60034-30-1)

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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**	Cast iron
3	**NOZZLE ASSEMBLY**	Noryl FE1520PW
4	**IMPELLER**	Stainless steel AISI 304
5	**MOTOR SHAFT**	Stainless steel AISI 431

6 MECHANICAL SEAL

Seal	***Shaft***	*Materials*		
Model	***Diameter***	*Stationary ring*	*Rotational ring*	*Elastomer*
FN-18	**Ø 18** mm	Graphite	Ceramic	NBR

7 BEARINGS — **6204 ZZ / 6204 ZZ**

8 CAPACITOR

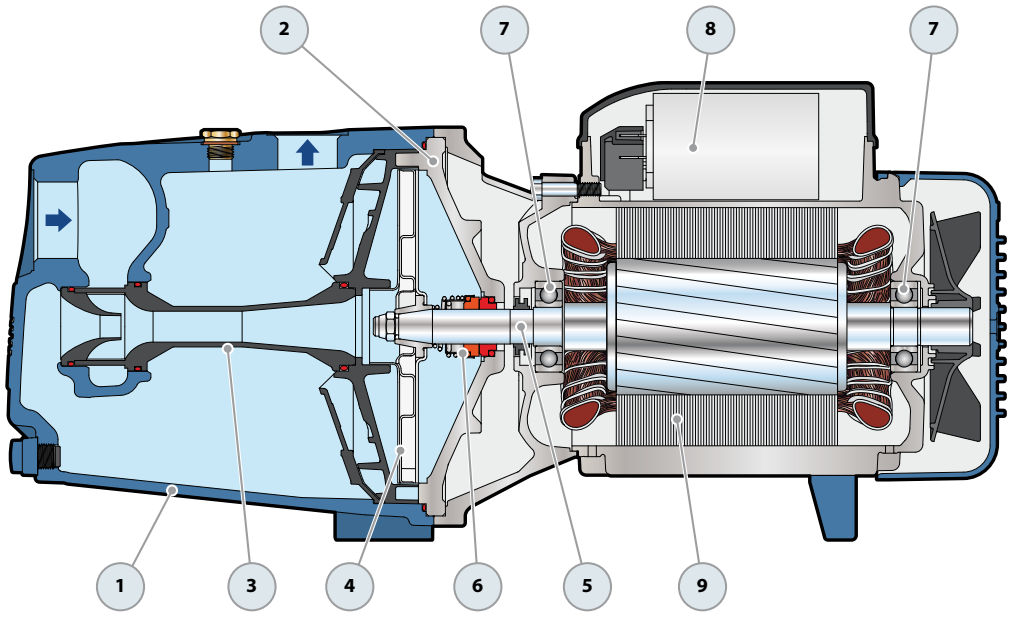
Pump	***Capacitance***	
Single-phase	***(230 V or 240 V)***	***(110 V)***
JSWm 3C	**31.5** µF - 450 VL	**60** µF - 250 VL
JSWm 3B	**45** µF - 450 VL	**80** µF - 250 VL
JSWm 3A	**50** µF - 450 VL	**–**

9 ELECTRIC MOTOR

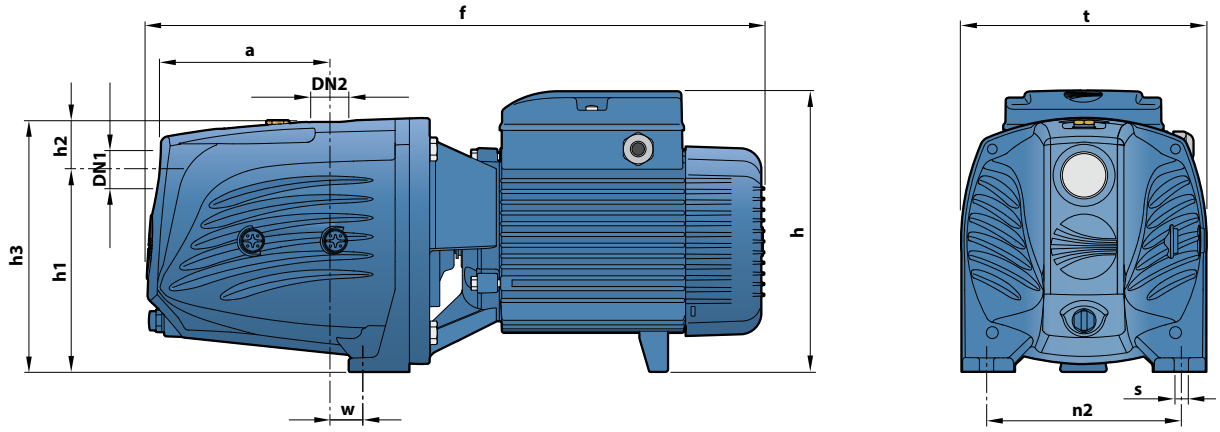
JSWm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.
JSW: three-phase 230/400 V - 50 Hz.

➠ **The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)**

– 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	t	n2	w	s	1~	3~
JSWm 3CH	JSW 3CH	1¼"	1"	143	522	240	165	39	204	206	164	30	11	24.2	28.2
JSWm 3BH	JSW 3BH													25.5	25.4
JSWm 3AH	JSW 3AH				542									28.2	28.0
JSWm 3CM	JSW 3CM				522									24.4	24.4
JSWm 3BM	JSW 3BM													25.6	25.5
JSWm 3AM	JSW 3AM				542									28.0	28.2
JSWm 3CL	JSW 3CL				522									24.4	24.3
JSWm 3BL	JSW 3BL													25.6	25.5
JSWm 3AL	JSW 3AL				542									28.2	28.2

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
JSWm 3CH	8.1 A	7.8 A	16.2 A
JSWm 3BH	9.5 A	9.2 A	19.0 A
JSWm 3AH	12.7 A	12.4 A	–
JSWm 3CM	8.1 A	7.8 A	16.2 A
JSWm 3BM	9.7 A	9.4 A	19.4 A
JSWm 3AM	13.0 A	12.5 A	–
JSWm 3CL	8.1 A	7.8 A	16.2 A
JSWm 3BL	10.1 A	9.8 A	20.2 A
JSWm 3AL	13.6 A	13.1 A	–

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
JSW 3CH	5.2 A	3.0 A	1.7 A	5.0 A	2.9 A	1.7 A
JSW 3BH	6.0 A	3.5 A	2.0 A	5.8 A	3.4 A	1.9 A
JSW 3AH	8.8 A	5.1 A	2.9 A	8.5 A	4.9 A	2.8 A
JSW 3CM	5.2 A	3.0 A	1.7 A	5.0 A	2.9 A	1.7 A
JSW 3BM	6.0 A	3.5 A	2.0 A	5.8 A	3.4 A	1.9 A
JSW 3AM	9.0 A	5.2 A	3.0 A	8.6 A	5.0 A	2.9 A
JSW 3CL	5.2 A	3.0 A	1.7 A	5.0 A	2.9 A	1.7 A
JSW 3BL	6.4 A	3.7 A	2.1 A	6.1 A	3.6 A	2.0 A
JSW 3AL	9.3 A	5.4 A	3.1 A	9.0 A	5.2 A	3.0 A

PALLETIZATION

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

2-5CR 60-80-100

Multi-stage centrifugal pumps

Clean water

Domestic use

Civil use

PERFORMANCE RANGE

- Flow rate up to **130 l/min** (7.8 m^3/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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

INSTALLATION AND USE

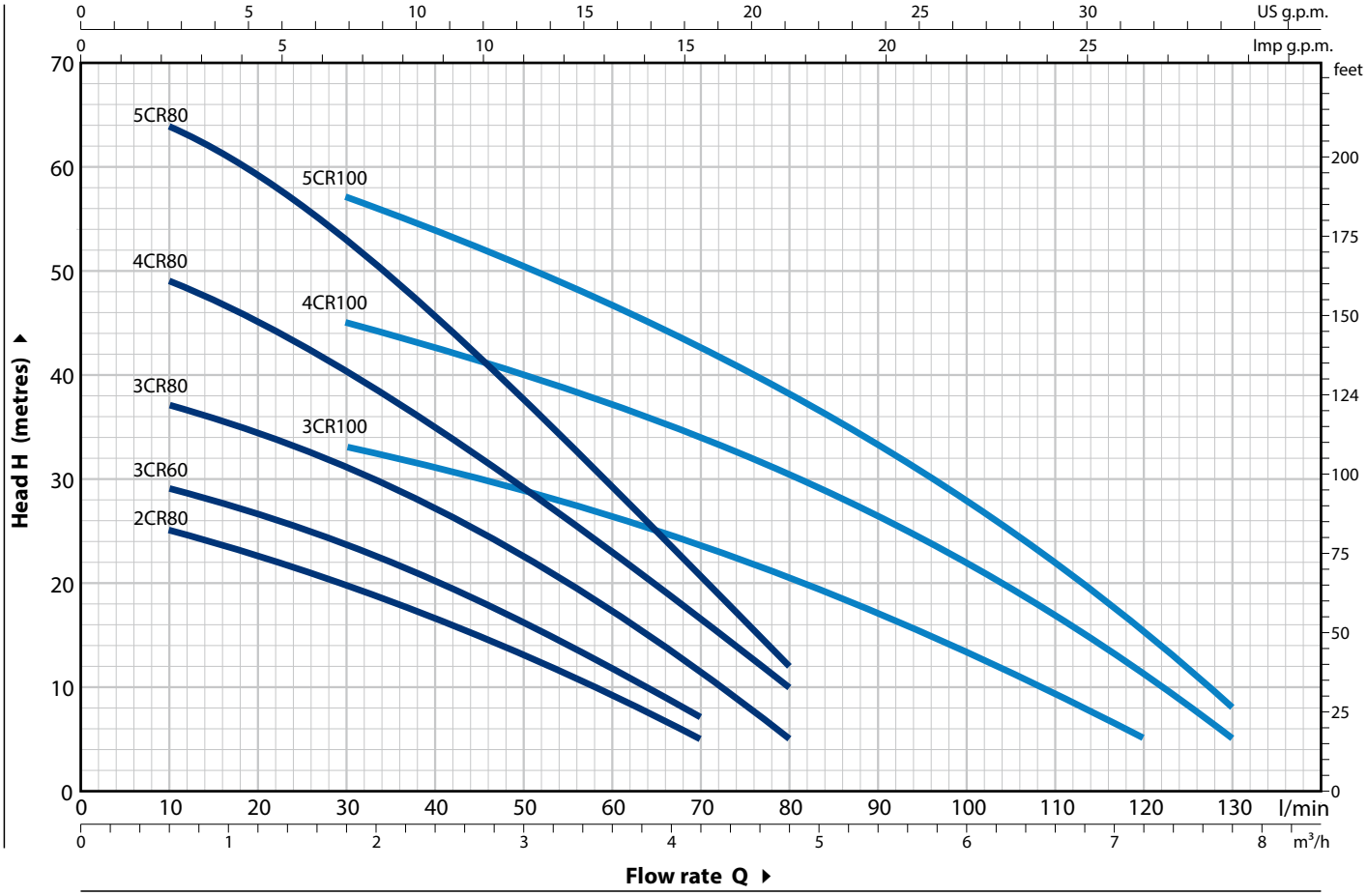
Suitable for use with clean water and with liquids that are not chemically aggressive towards the materials from which the pump is made. As a result of their quietness these pumps are widely used in domestic applications such as the distribution of water in combination with small and medium sized pressure 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 min^{-1}** HS= 0 m



MODEL		POWER (P2)			Q																
Single-phase	Three-phase	kW	HP	▲	m³/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	**2CR 80**	0.37	0.50			27	26	25	24	22.5	21	20	16.5	13	9	5						
3CRm 60	**3CR 60**	0.37	0.50	IE2		31	30	29	28	26.5	25	23.5	20	16	11.5	7						
3CRm 80	**3CR 80**	0.45	0.60			40	38	37	36	34.5	33	31	27	22.5	17	11	5					
4CRm 80	**4CR 80**	0.55	0.75			52	50	49	47	44.5	42	40	34	28.5	22.5	16	10					
5CRm 80	**5CR 80**	0.75	1	IE3	H metres	67	66	64	62	59	56	53	45.5	37.5	29.5	20.5	12					
3CRm 100	**3CR 100**	0.55	0.75	IE2		38	37	36	35	34.5	33.5	33	31	28	26	23	20	17	13.5	10	5	
4CRm 100	**4CR 100**	0.75	1			50	50	49	48	47	46	45	42	39.5	37	34	30.5	26.5	22	17	11	5
5CRm 100	**5CR 100**	1.1	1.5	IE3		63	62	61.5	60.5	59.5	58	57	53.5	50.5	46.5	42.5	38	33	28	22	15	8

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 60034-30-1)

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

2-5CR 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 FE1520PW complete with anti-wear ring
5	**MOTOR SHAFT**	Stainless steel EN 10088-3 - 1.4104 (AISI 431 for 4CR 100, 5CR)

6 MECHANICAL SEAL

Seal *Model*	*Shaft* *Diameter*	*Materials* *Stationary ring*	*Rotational ring*	*Elastomer*
AR-13	**Ø 13** mm	Ceramic	Graphite	NBR

7 BEARINGS

Pump	*Model*
2CR 80 **3CR 60** **3CR 80** **4CR 80** **3CR 100**	**6202 ZZ - C3 / 6201 ZZ**
4CR 100 **5CR 80** **5CR 100**	**6203 ZZ / 6203 ZZ**

8 CAPACITOR

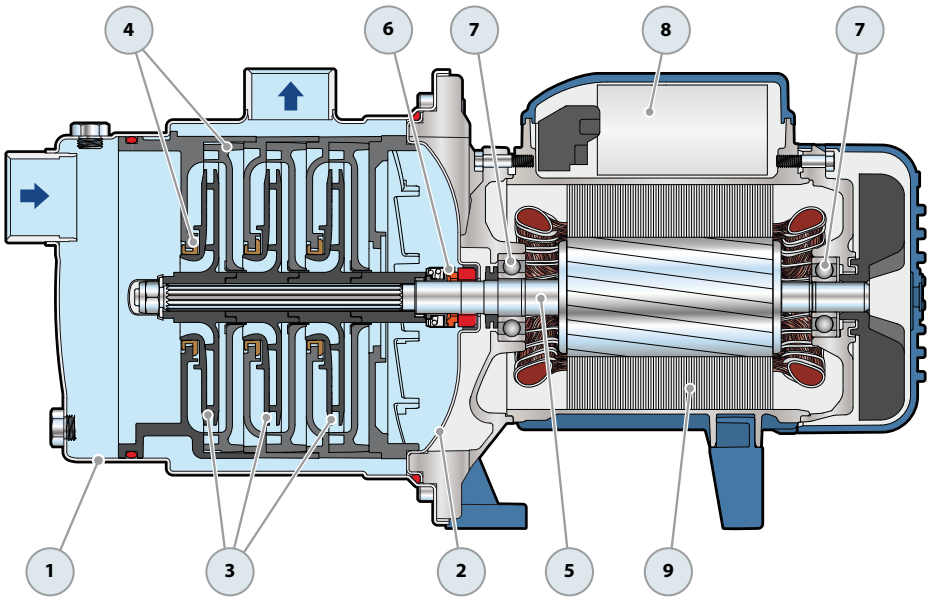
Pump *Single-phase*	*Capacitance* *(230 V or 240 V)*	*(110 V)*
2CRm 80 **3CRm 60**	**10** µF - 450 VL	**25** µF - 250 VL
3CRm 80	**12.5** µF - 450 VL	**25** µF - 250 VL
4CRm 80 **3CRm 100**	**14** µF - 450 VL	**25** µF - 250 VL
4CRm 100 **5CRm 80**	**20** µF - 450 VL	**60** µF - 300 VL
5CRm 100	**25** µF - 450 VL	**–**

9 ELECTRIC MOTOR

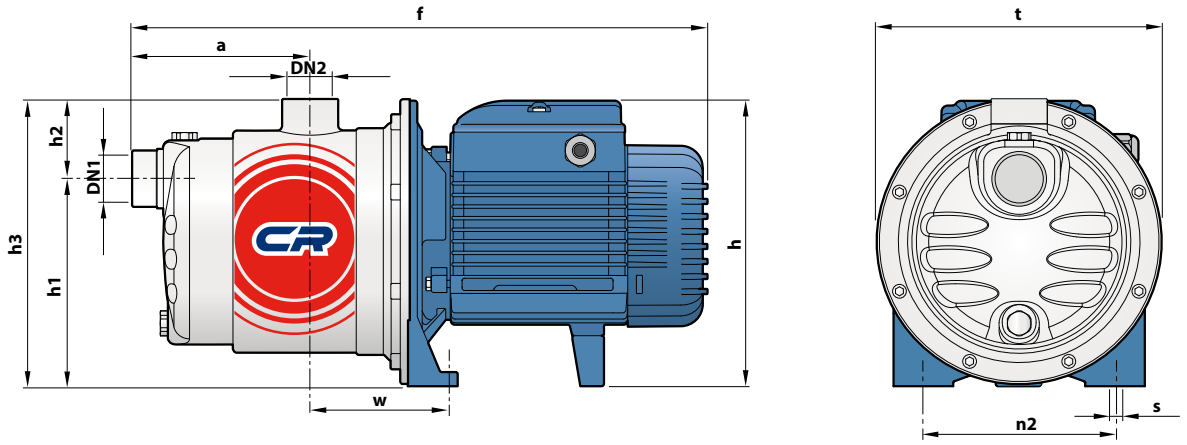
2-5CRm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.
2-5CR: three-phase 230/400 V - 50 Hz.

➠ **The three-phase pumps are fitted with high performance motors up to P_2=0.55 kW in class IE2 and from P_2=0.75 kW in class IE3 (IEC 60034-30-1)**

– 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	t	n2	w	s	1~	3~
2CRm 80	2CR 80	1"	1"	113	367	182	132	51	183	182	120	87	9	6.5	6.5
3CRm 60	3CR 60													6.5	6.5
3CRm 80	3CR 80													7.3	7.3
4CRm 80	4CR 80			138	392									8.3	7.7
5CRm 80	5CR 80				411	202 *							10	10.7	10.7
3CRm 100	3CR 100			113	367	182							9	7.9	7.3
4CRm 100	4CR 100			138	410	202 *							10	10.6	10.6
5CRm 100	5CR 100													11.0	10.6

(*) h=221 mm for single phase versions at 110V

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
2CRm 80	**2.2** A	**2.1** A	**4.4** A
3CRm 60	**2.4** A	**2.3** A	**4.8** A
3CRm 80	**3.3** A	**3.3** A	**6.6** A
4CRm 80	**3.8** A	**3.6** A	**7.6** A
5CRm 80	**5.5** A	**5.2** A	**11.0** A
3CRm 100	**3.9** A	**3.7** A	**7.8** A
4CRm 100	**6.0** A	**6.0** A	**12.0** A
5CRm 100	**6.3** A	**6.1** A	**12.6** A

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
2CR 80	**1.7** A	**1.0** A	**0.6** A	**1.7** A	**1.0** A	**0.6** A
3CR 60	**1.7** A	**1.0** A	**0.6** A	**1.7** A	**1.0** A	**0.6** A
3CR 80	**2.5** A	**1.5** A	**0.9** A	**2.4** A	**1.4** A	**0.8** A
4CR 80	**3.4** A	**2.0** A	**1.2** A	**3.3** A	**1.9** A	**1.1** A
5CR 80	**4.3** A	**2.5** A	**1.4** A	**4.1** A	**2.4** A	**1.3** A
3CR 100	**3.4** A	**2.0** A	**1.2** A	**3.3** A	**1.9** A	**1.1** A
4CR 100	**4.0** A	**2.3** A	**1.3** A	**3.8** A	**2.2** A	**1.3** A
5CR 100	**4.3** A	**2.5** A	**1.4** A	**4.2** A	**2.4** A	**1.4** A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
2CRm 80	2CR 80	**84**	**108**
3CRm 60	3CR 60	**84**	**108**
3CRm 80	3CR 80	**84**	**108**
4CRm 80	4CR 80	**72**	**108**
5CRm 80	5CR 80	**72**	**108**
3CRm 100	3CR 100	**84**	**108**
4CRm 100	4CR 100	**72**	**108**
5CRm 100	5CR 100	**72**	**108**

3-7CR 90-130-200

STAINLESS STEEL IMPELLERS

Multi-stage centrifugal pumps

Clean water

Domestic use

Civil use

PERFORMANCE RANGE

- Flow rate up to **200 l/min** (12 m^3/h)
- Head up to **111 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 **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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

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.
Installation needs to be undertaken in well ventilated closed areas or anyway protected from bad weather.

PATENTS - TRADE MARKS - MODELS

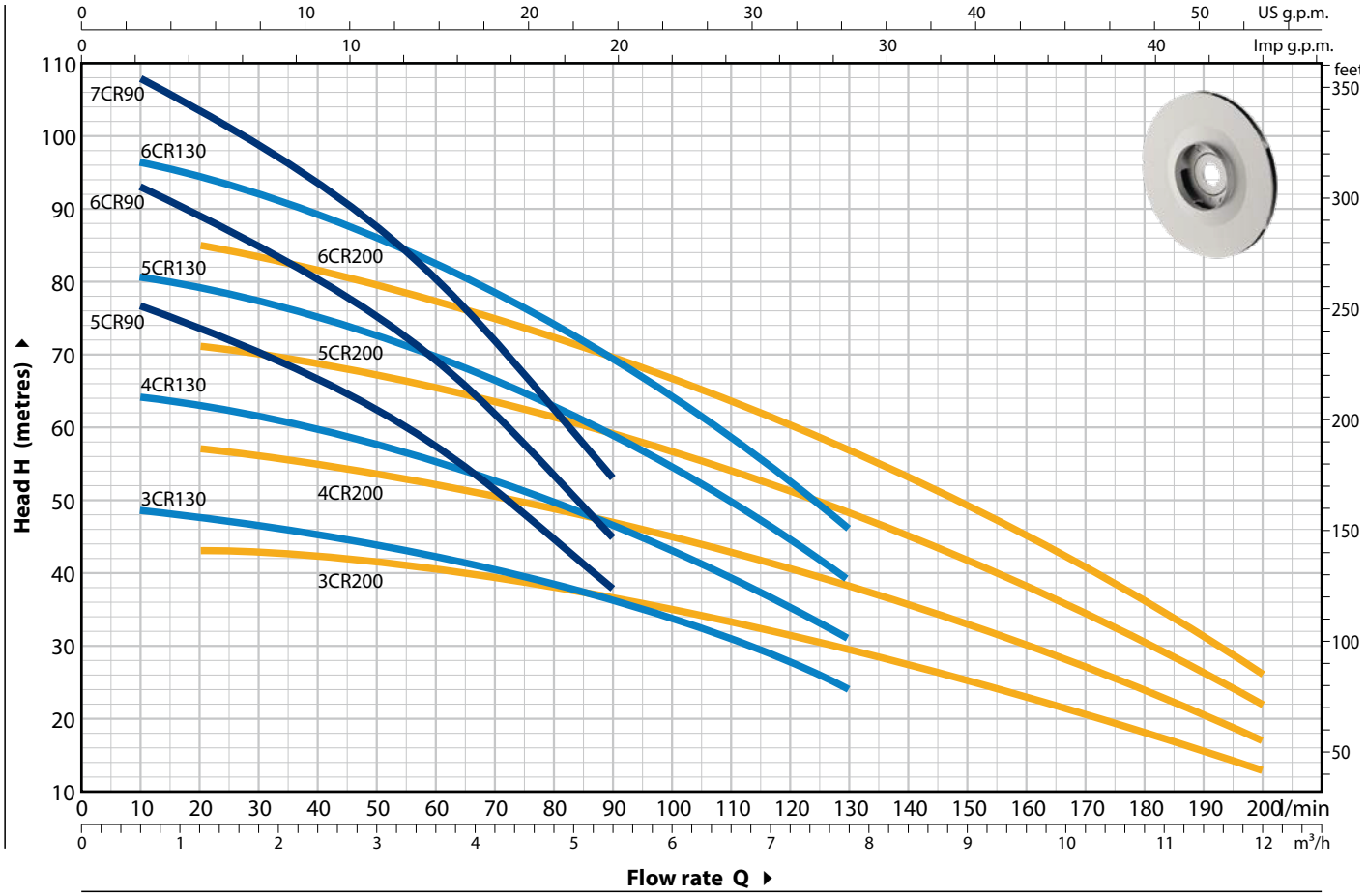
- Patent n. EP14755156.8

OPTIONS AVAILABLE ON REQUEST

- Special mechanical seal
- Other voltages or 60 Hz frequency
- IPX5 class protection

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz **n= 2900 min^{-1}** HS= 0 m



MODEL		POWER (P2)			Q	m³/h	0	0.3	0.6	1.2	2.4	3.6	4.8	5.4	6.0	7.8	8.4	9.6	10.8	12.0
Single-phase	**Three-phase**	**kW**	**HP**	▲		l/min	**0**	**5**	**10**	**20**	**40**	**60**	**80**	**90**	**100**	**130**	**140**	**160**	**180**	**200**
5CRm 90	**5CR 90**	1.1	1.5				80	78	77	74	67	57	45	38						
6CRm 90	**6CR 90**	1.5	2				96	94	92	88	80	69	53	45						
7CRm 90	**7CR 90**	1.8	2.5				111	110	108	103	93	80	63	53						
3CRm 130	**3CR 130**	1.1	1.5				49	49	48.5	47.5	45	42.5	38.5	36	33.5	24				
4CRm 130	**4CR 130**	1.5	2				65	65	64	63	60	56	50	47	43	31				
5CRm 130	**5CR 130**	1.8	2.5	**IE3**	**H**	metres	81	81	80.5	79	75	70	62.5	59	54	39				
–	**6CR 130**	2.2	3				97	97	96.5	94.5	90	83	74.5	69	64	46				
3CRm 200	**3CR 200**	1.1	1.5				44	43.5	43.5	43	42	40.5	38	36.5	35	29	27.5	23	18	13
4CRm 200	**4CR 200**	1.5	2				58	57.5	57.5	57	55	52.5	49.5	47	45	38	35.5	30	24	17
5CRm 200	**5CR 200**	1.8	2.5				73	72	71.5	71	69	65.5	62	59	56.5	48	44.5	38	30	22
–	**6CR 200**	2.2	3				87	86	85.5	85	82	78	73	69	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.

▲ Three-phase motor efficiency class (IEC 60034-30-1)

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

3-7CR 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**	Stainless steel AISI 304
4	**DIFFUSERS**	Stainless steel AISI 304
5	**MOTOR SHAFT**	Stainless steel AISI 431

6 MECHANICAL SEAL

Seal	*Shaft*	*Materials*		
Model	*Diameter*	*Stationary ring*	*Rotational ring*	*Elastomer*
FN-18	**Ø 18** mm	Graphite	Silicon carbide	EPDM

7 BEARINGS — **6304 2RS - C3 / 6204 ZZ - C3E**

8 CAPACITOR

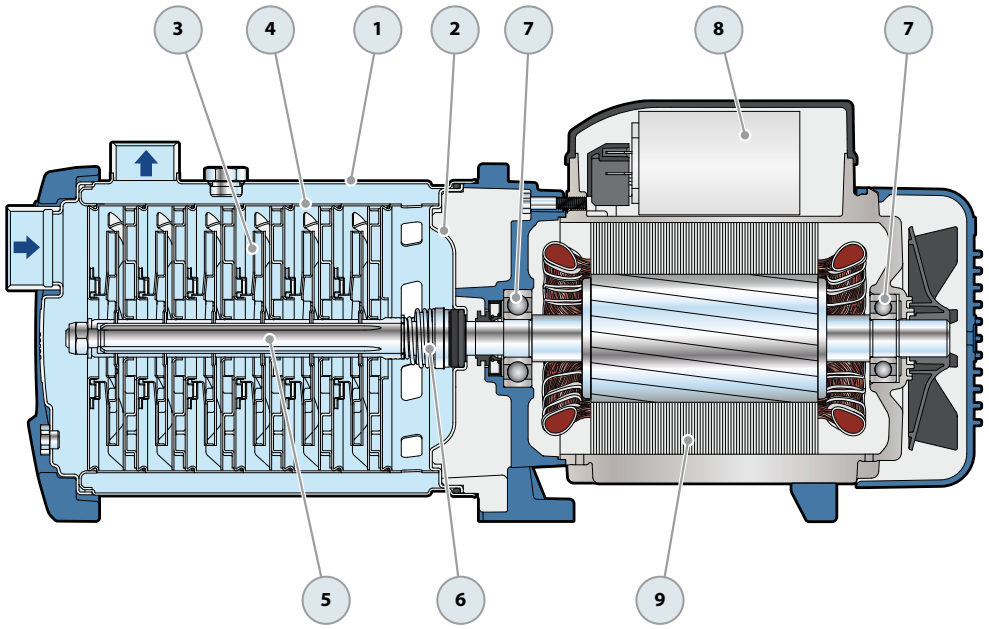
Pump	*Capacitance*	
Single-phase	*(230 V or 240 V)*	*(110 V)*
5CRm 90 **3CRm 130** **3CRm 200**	**31.5** µF - 450 VL	**60** µF - 250 VL
6CRm 90 **4CRm 130** **4CRm 200**	**45** µF - 450 VL	**80** µF - 250 VL
7CRm 90 **5CRm 130** **5CRm 200**	**50** µF - 450 VL	–

9 ELECTRIC MOTOR

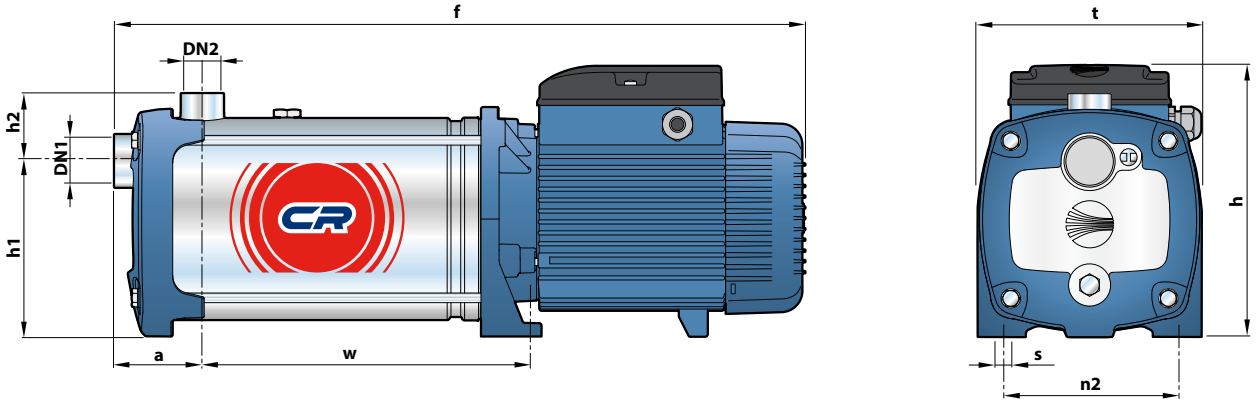
3-7CRm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.
3-7CR: three-phase 230/400 V - 50 Hz.

➠ **The three-phase pumps are fitted with high performance motors in class IE3 (IEC 60034-30-1)**

– 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	t	n2	w	s	1~	3~
5CRm 90	5CR 90				497						193		20.3	19.8
6CRm 90	6CR 90				523						219		21.0	21.9
7CRm 90	7CR 90				569						245		26.0	26.0
3CRm 130	3CR 130				445						141		18.1	18.1
4CRm 130	4CR 130				471						167		20.0	20.1
5CRm 130	5CR 130	1¼"	1"	73	517	228	145	56	185	145	193	11	23.7	23.8
–	6CR 130				543						219		–	24.8
3CRm 200	3CR 200				445						141		18.1	18.1
4CRm 200	4CR 200				471						167		20.0	20.1
5CRm 200	5CR 200				518						193		23.7	23.6
–	6CR 200				543						219		–	24.4

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
5CRm 90	9.0 A	8.6 A	18.0 A
6CRm 90	10.5 A	10.1 A	21.0 A
7CRm 90	12.5 A	12.0 A	–
3CRm 130	8.5 A	8.1 A	17.0 A
4CRm 130	10.3 A	9.9 A	26.0 A
5CRm 130	12.5 A	12.0 A	–
3CRm 200	8.7 A	8.3 A	17.4 A
4CRm 200	10.5 A	10.1 A	21.0 A
5CRm 200	12.5 A	12.0 A	–

MODEL	VOLTAGE					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
5CR 90	6.1 A	3.5 A	2.0 A	5.9 A	3.4 A	1.9 A
6CR 90	6.9 A	4.0 A	2.3 A	6.6 A	3.8 A	2.2 A
7CR 90	8.3 A	4.8 A	2.8 A	8.0 A	4.6 A	2.7 A
3CR 130	5.6 A	3.2 A	1.8 A	5.4 A	3.1 A	1.8 A
4CR 130	6.9 A	4.0 A	2.3 A	6.6 A	3.8 A	2.2 A
5CR 130	8.7 A	5.0 A	2.9 A	8.3 A	4.8 A	2.8 A
6CR 130	9.0 A	5.2 A	3.0 A	8.6 A	5.0 A	2.9 A
3CR 200	5.9 A	3.4 A	2.0 A	5.7 A	3.3 A	1.9 A
4CR 200	7.3 A	4.2 A	2.4 A	6.9 A	4.0 A	2.3 A
5CR 200	8.7 A	5.0 A	2.9 A	8.3 A	4.8 A	2.8 A
6CR 200	9.5 A	5.5 A	3.2 A	9.2 A	5.3 A	3.0 A

TISSEL-200

Pumps with inverter

Clean water

Domestic use

Civil use

TS2-MK

TS2-CR

TS2-PLURIJET

DESCRIPTION

- **TISSEL 200** are compact pumping units consisting of one centrifugal waterpump coupled with a variable speed device(inverter) with an external pressure sensor to be placed in a place inside the system.
- Sturdy and simple to use,**TISSEL 200** is ideal to keep always constant pressure inside system regardless variation of utilities.
- Built-in speed regulator with automatic fan ventilation and IP54 protection. Powered by single-phase alternate tension (230±10% V - 50/60 Hz) it gives an output alternate 3phase tension to run waterpump motor in IE3 class.
- Smooth start and stop of the pump .
- Lower wear of the waterpump due to modulation of running speed from the inverter.

PROTECTIONS

- **Dry running**
  Microchip action stops pump after few seconds and try scheduled set restarts to check water availability.
- **Running pressure lower than minimum set running**
  It stops the pump after few seconds
  (i.e. when there is a break in a pipe).
- **Currents-tensions-temperatures**
  It limits currents; it informs whether tension reaches the allowed limits, it protects from overheating as well as short circuits between the output phases.

CONSTRUCTION AND SAFETY STANDARDS

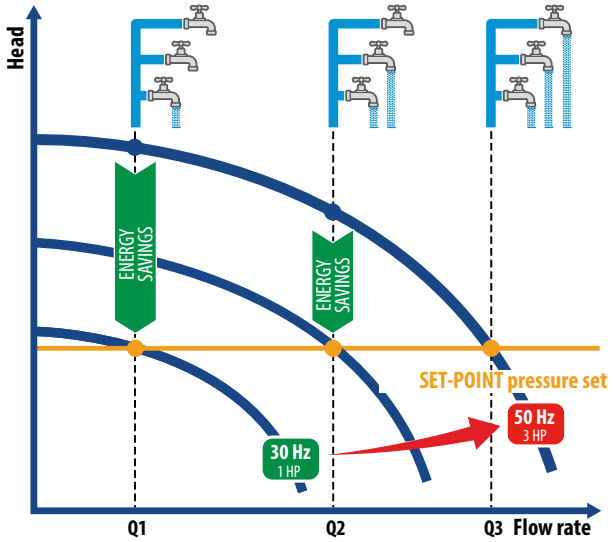
EN 60335-1
IEC 60335-1
CEI 61-150

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

CE

ENERGY SAVINGS

As it works at variable speed, TISSEL 200 uses only the necessary energy demand required by the system according to the water demand.

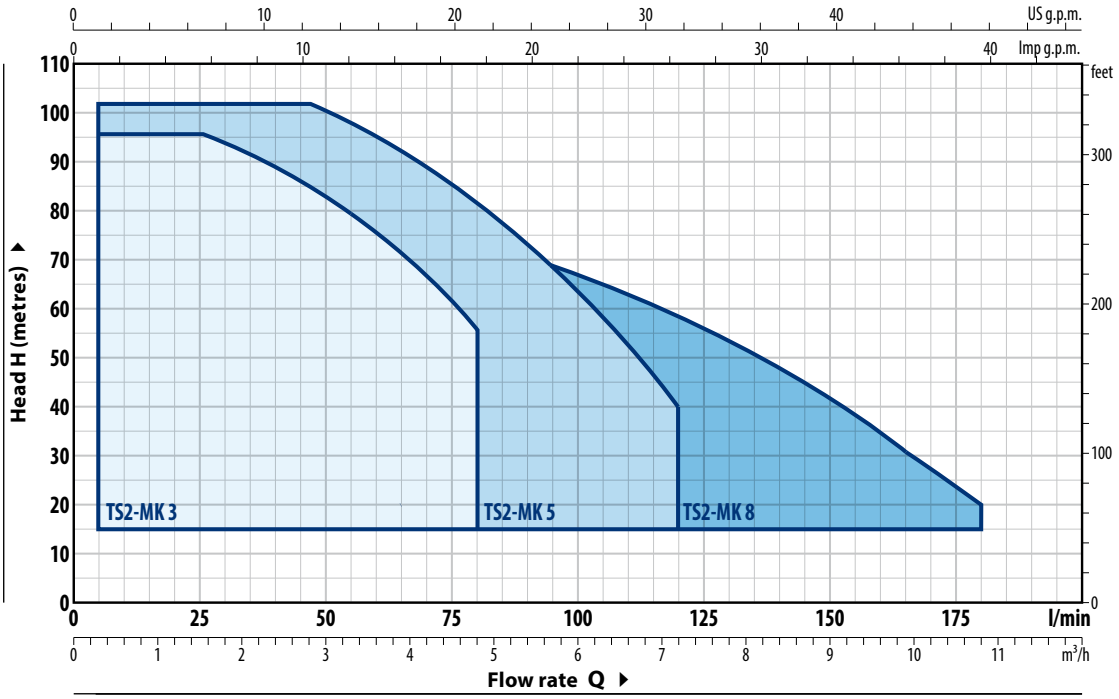


CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

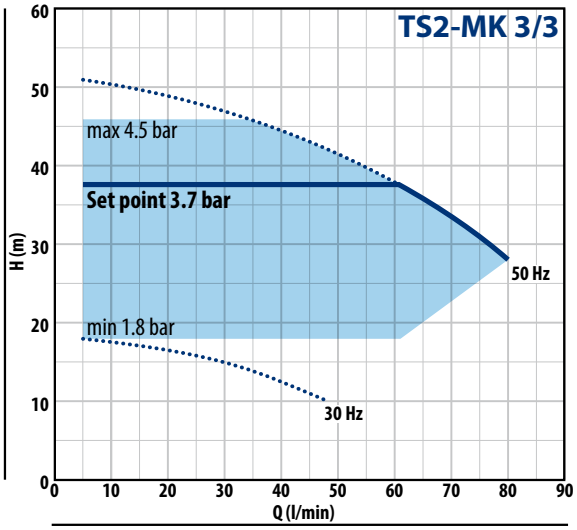
PERFORMANCE RANGE n= 2900 min^{-1}

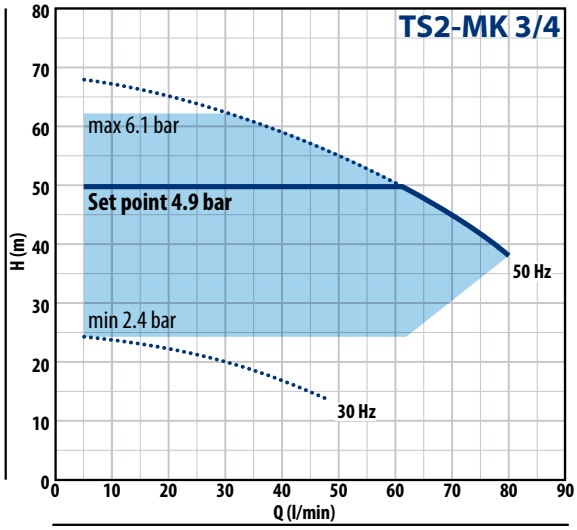


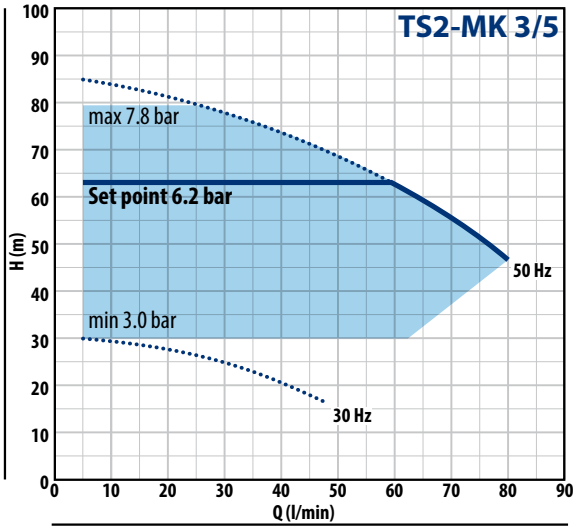
MODEL	POWER P2			ABSORPTION 230 V	MAX PERFORMANCES Q	MAX PERFORMANCES H	PERFORMANCES (ADJUSTABLE SET POINT) Min. Set Point		Set Point Stand. Setting		Max. Set Point	
Single-phase	kW	HP	▲		l/min	metres	bar	l/min	bar	l/min	bar	l/min
TS2-MK 3/3	0.75	1		**9.0** A	5 – 80	46 – 28	1.8	5 – 63	**3.7**	5 – **58**	4.5	5 – 35
TS2-MK 3/4	1.1	1.5		**9.0** A	5 – 80	62 – 38	2.4	5 – 62	**4.9**	5 – **58**	6.1	5 – 33
TS2-MK 3/5	1.1	1.5		**13.0** A	5 – 80	80 – 47	3.0	5 – 62	**6.2**	5 – **58**	7.8	5 – 28
TS2-MK 3/6	1.5	2		**13.0** A	5 – 80	96 – 56	3.6	5 – 63	**7.4**	5 – **58**	9.4	5 – 25
TS2-MK 5/4	1.1	1.5		**10.0** A	5 – 120	50 – 20	2.0	5 – 120	**3.7**	5 – **85**	4.9	5 – 48
TS2-MK 5/5	1.1	1.5		**12.0** A	5 – 120	63 – 25	2.5	5 – 120	**4.6**	5 – **85**	6.2	5 – 48
TS2-MK 5/6	1.5	2	**IE3**	**13.5** A	5 – 120	78 – 30	3.0	5 – 120	**5.5**	5 – **85**	7.6	5 – 45
TS2-MK 5/7	1.8	2.5		**16.0** A	5 – 120	92 – 34	3.5	5 – 118	**6.5**	5 – **85**	9.0	5 – 43
TS2-MK 5/8	2.2	3		**17.5** A	5 – 120	102 – 40	4.0	5 – 120	**7.5**	5 – **85**	10.0	5 – 46
TS2-MK 8/4	1.5	2		**14.0** A	5 – 180	50 – 15	2.0	5 – 167	**3.7**	5 – **120**	4.9	5 – 70
TS2-MK 8/5	1.8	2.5		**15.0** A	5 – 180	64 – 18	2.5	5 – 167	**4.8**	5 – **120**	6.3	5 – 70
TS2-MK 8/6	2.2	3		**16.0** A	5 – 180	80 – 20	3.1	5 – 163	**5.5**	5 – **120**	7.8	5 – 53

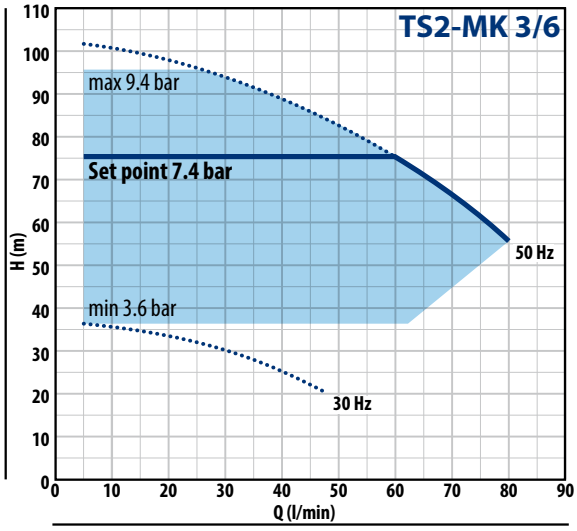
TISSEL-200 MK

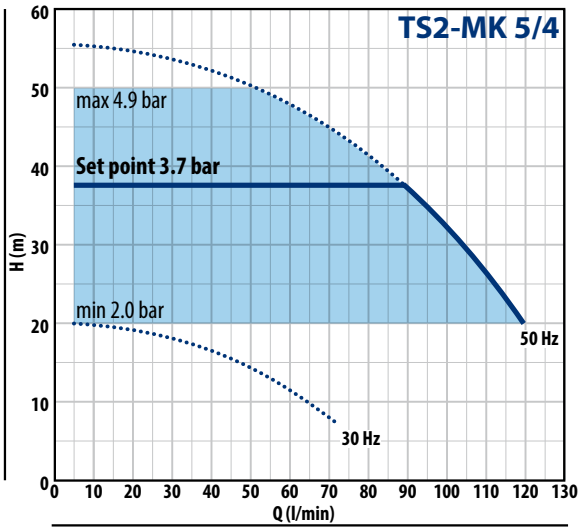
CHARACTERISTIC CURVES n= 2900 min^{-1}

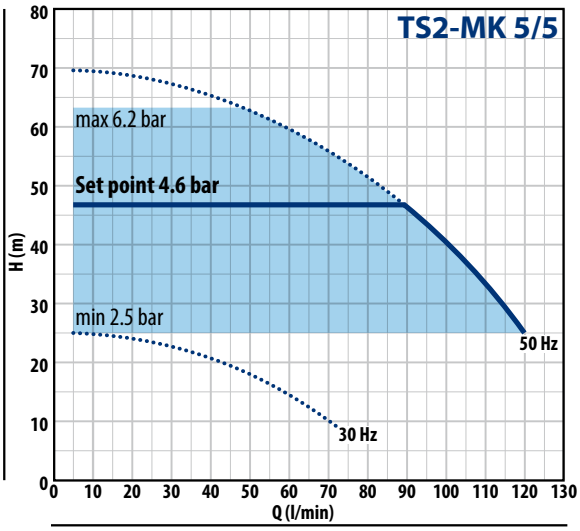




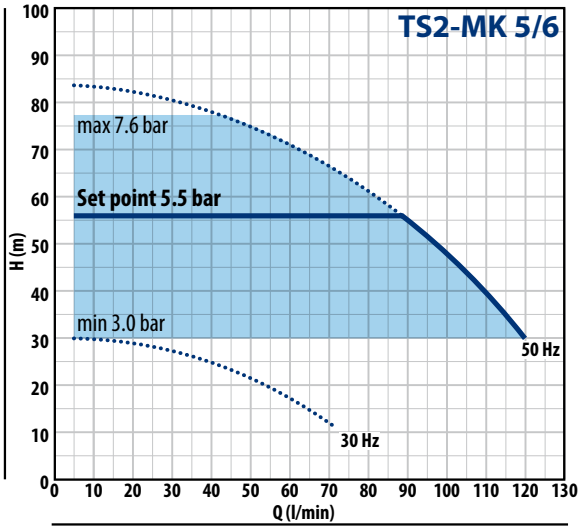


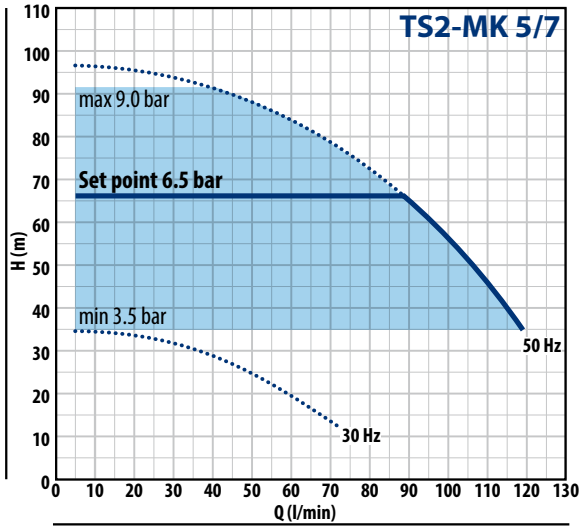


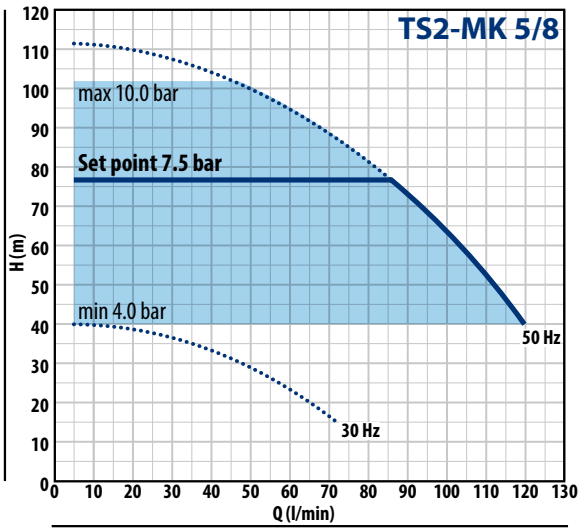


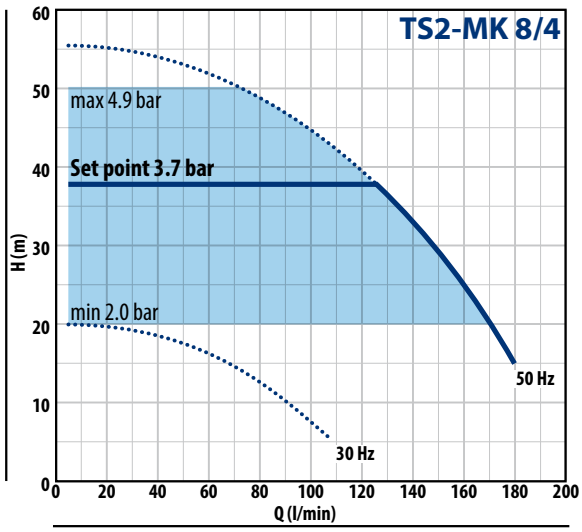


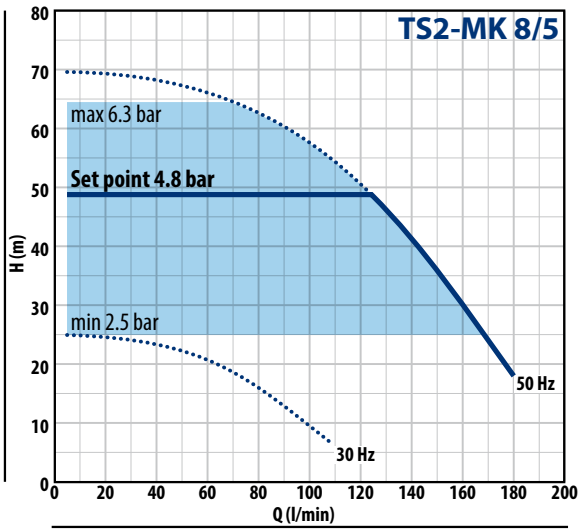
CHARACTERISTIC CURVES n= 2900 min^{-1}

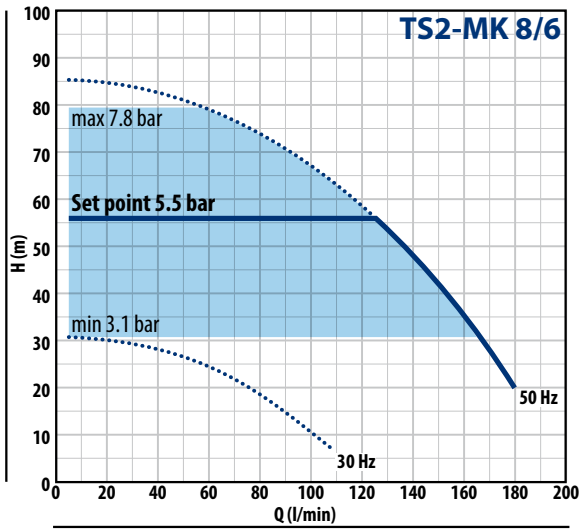






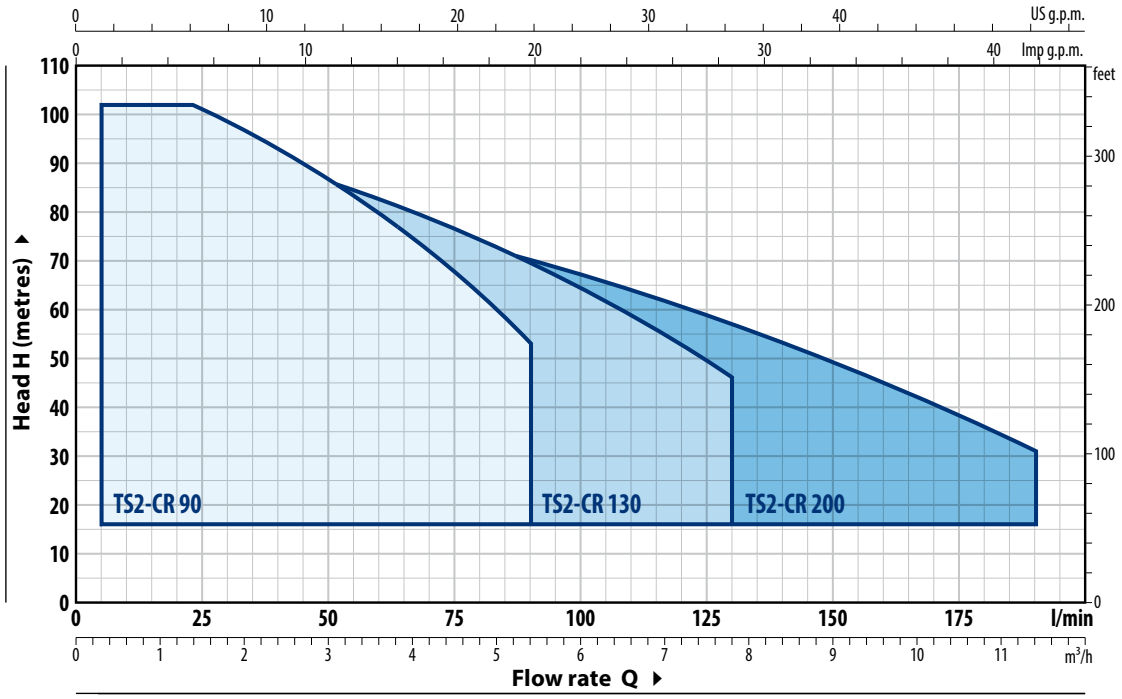






TISSEL-200 CR

CHARACTERISTIC CURVES n= 2900 min^{-1}

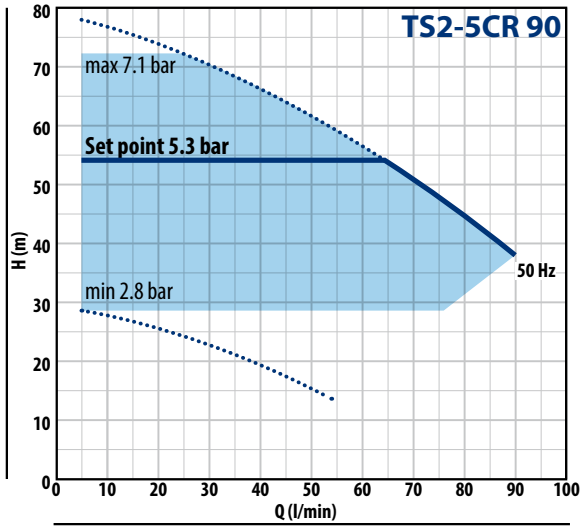


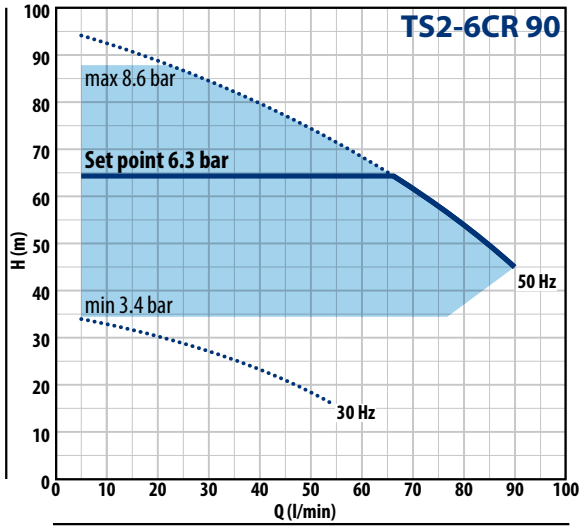
MODEL	POWER P2			ABSORPTION 230 V	MAX PERFORMANCES Q	MAX PERFORMANCES H	PERFORMANCES (ADJUSTABLE SET POINT) Min. Set Point		Set Point Stand. Setting		Max. Set Point	
Single-phase	kW	HP	▲		l/min	metres	bar	l/min	bar	l/min	bar	l/min
TS2-5CR 90	1.1	1.5		**13.0** A	5 – 90	78 – 38	2.80	5 – 75	**5.30**	5 – **65**	7.10	5 – 23
TS2-6CR 90	1.5	2		**13.5** A	5 – 90	94 – 45	3.40	5 – 75	**6.30**	5 – **65**	8.60	5 – 21
TS2-7CR 90	1.8	2.5		**16.0** A	5 – 90	110 – 53	4.00	5 – 75	**7.50**	5 – **65**	10.00	5 – 21
TS2-3CR 130	1.1	1.5		**12.5** A	5 – 130	49 – 24	1.80	5 – 110	**3.40**	5 – **92**	4.30	5 – 48
TS2-4CR 130	1.5	2		**14.5** A	5 – 130	65 – 31	2.30	5 – 110	**4.40**	5 – **92**	5.80	5 – 45
TS2-5CR 130	1.8	2.5	**IE3**	**18.5** A	5 – 130	81 – 39	2.90	5 – 110	**5.50**	5 – **92**	7.40	5 – 38
TS2-6CR 130	2.2	3		**20.5** A	5 – 130	97 – 45	3.50	5 – 110	**6.50**	5 – **92**	9.00	5 – 33
TS2-3CR 200	1.1	1.5		**10.0** A	5 – 200	43 – 13	1.60	5 – 185	**2.80**	5 – **133**	3.80	5 – 72
TS2-4CR 200	1.5	2		**13.0** A	5 – 200	57 – 17	2.10	5 – 185	**3.60**	5 – **133**	5.10	5 – 65
TS2-5CR 200	1.8	2.5		**16.0** A	5 – 200	72 – 22	2.60	5 – 185	**4.60**	5 – **133**	6.50	5 – 56
TS2-6CR 200	2.2	3		**22.0** A	5 – 200	86 – 26	3.10	5 – 185	**5.50**	5 – **133**	7.90	5 – 45

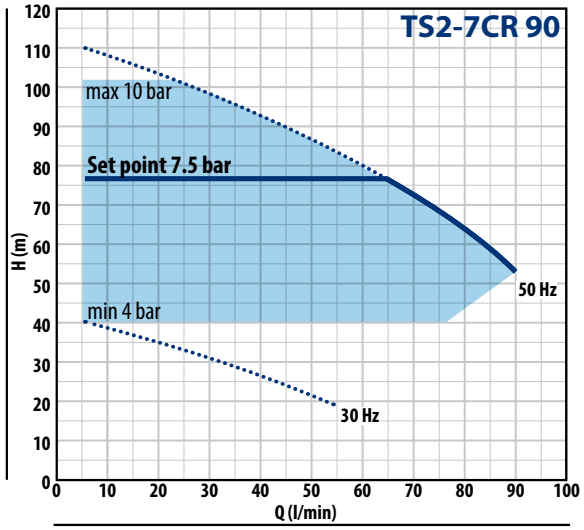
= **Stocked in Australia**

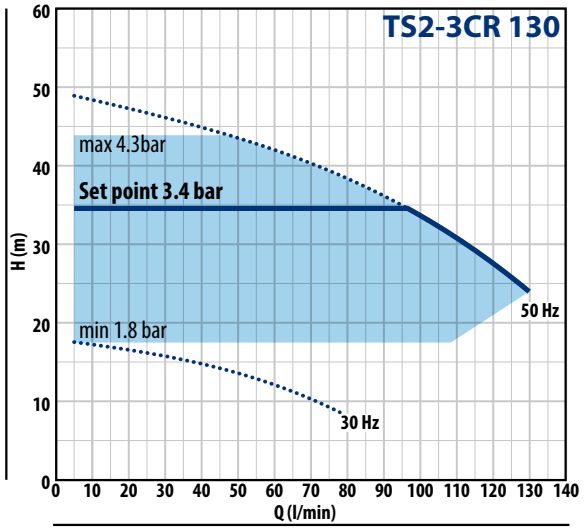
Other models available upon request with 6 to 8 weeks lead time.

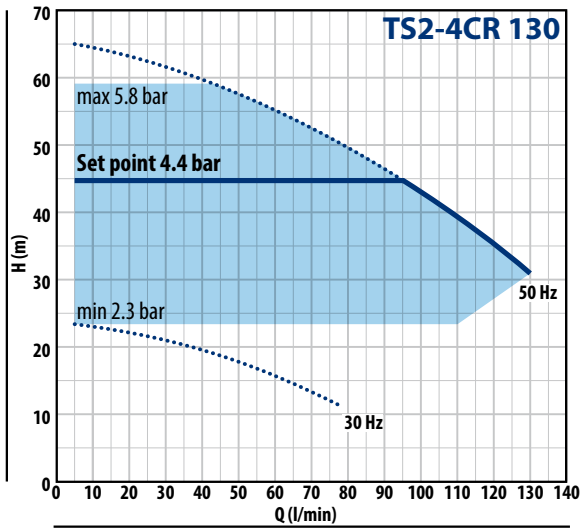
CHARACTERISTIC CURVES n= 2900 min^{-1}

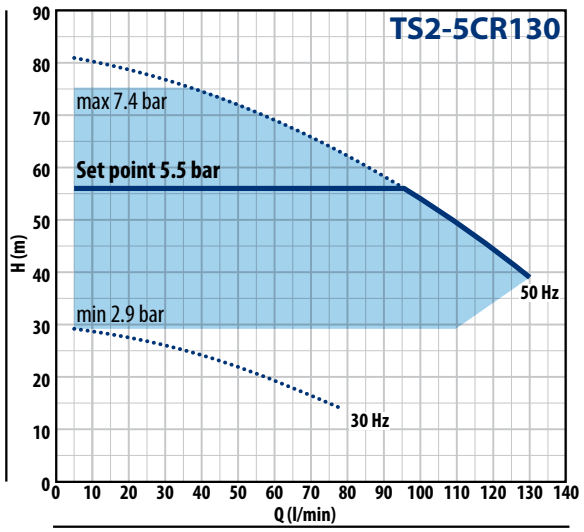






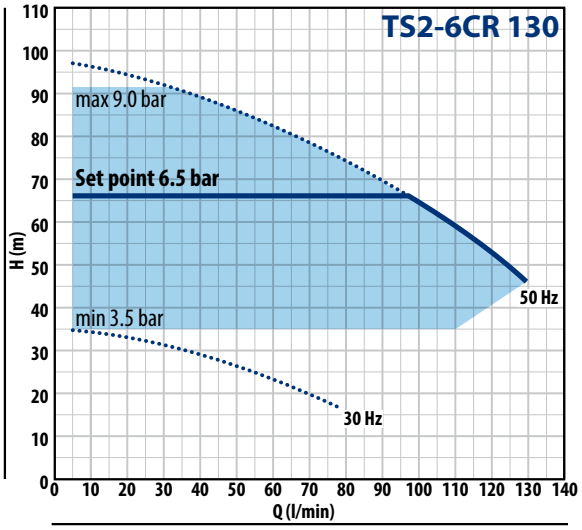


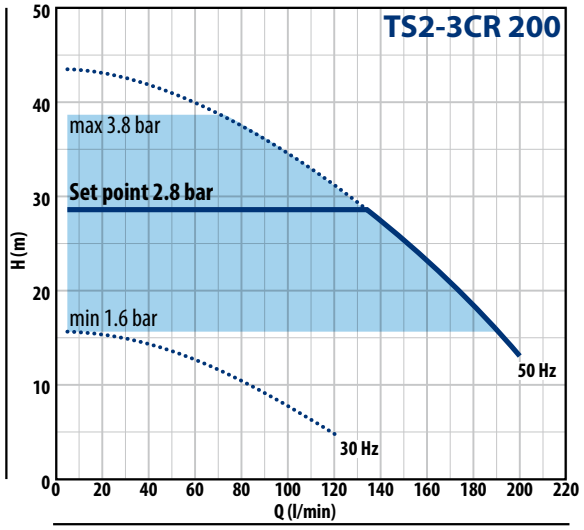


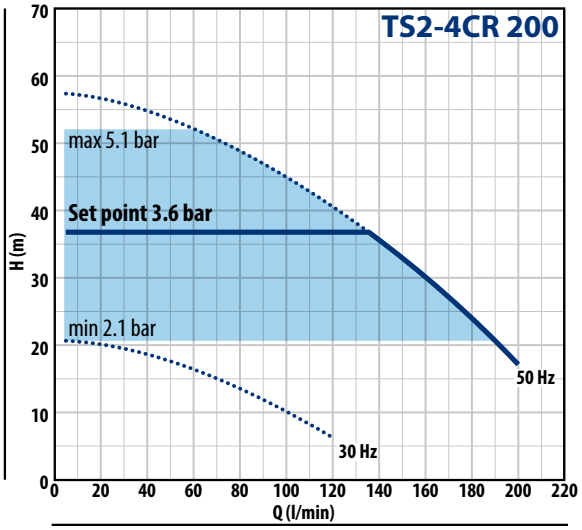


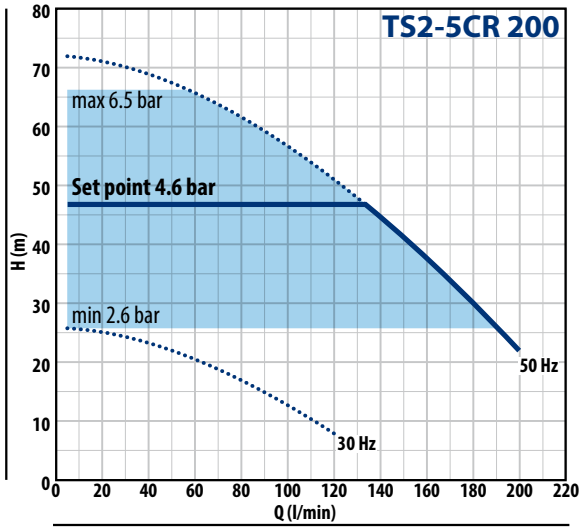
TISSEL-200 CR

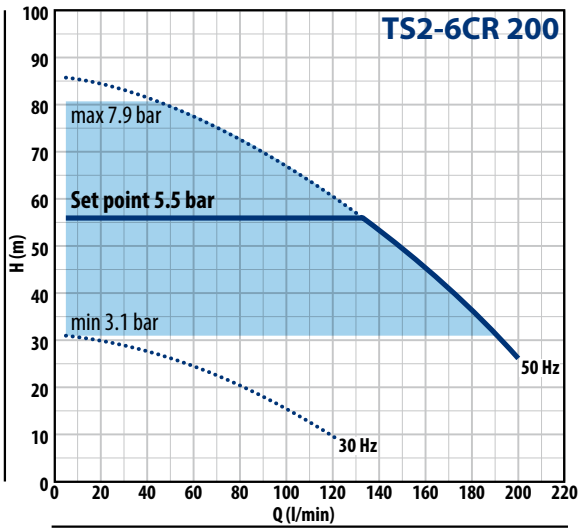
CHARACTERISTIC CURVES n= 2900 min^{-1}





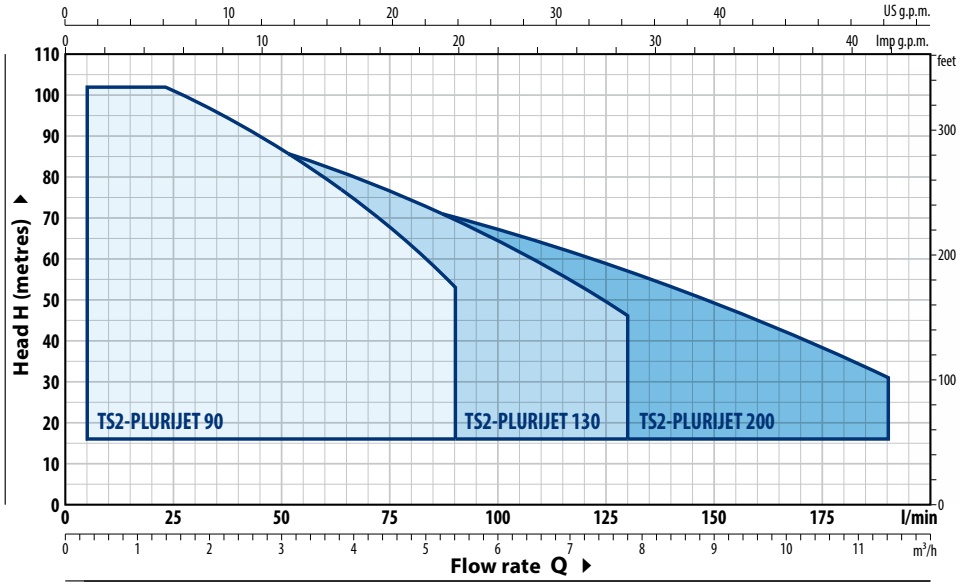






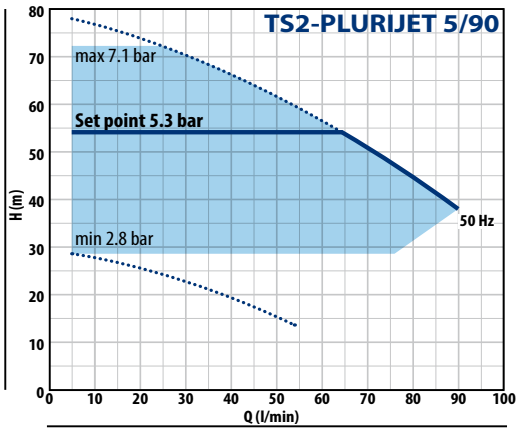
TISSEL-200 PLURIJET

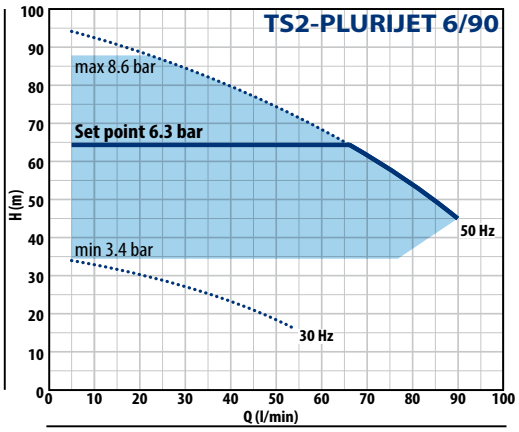
CHARACTERISTIC CURVES n= 2900 min⁻¹

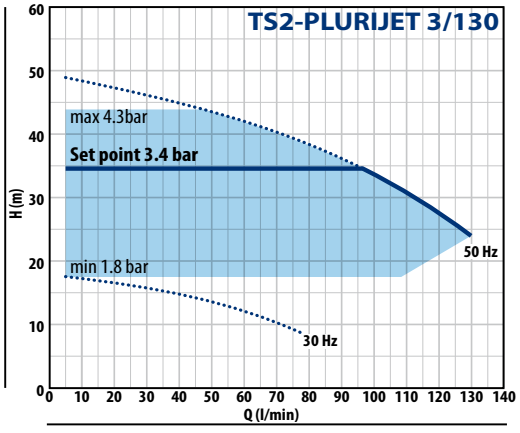


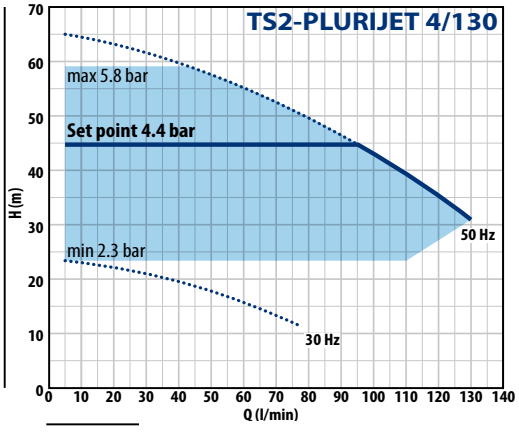
MODEL	POWER P2			ABSORPTION	MAX PERFORMANCES		PERFORMANCES (ADJUSTABLE SET POINT)					
				230 V	Q	H	Min. Set Point		Set Point Stand. Setting		Max. Set Point	
Single-phase	kW	HP	▲		l/min	metres	bar	l/min	bar	l/min	bar	l/min
TS2-PLURIJET 5/90	1.1	1.5	IE3	**11.5** A	5 – 90	78 – 38	2.80	5 – 75	**5.30**	5 – **65**	7.10	5 – 23
TS2-PLURIJET 6/90	1.5	2		**13.5** A	5 – 90	94 – 45	3.40	5 – 75	**6.30**	5 – **65**	8.60	5 – 21
TS2-PLURIJET 3/130	1.1	1.5		**12.5** A	5 – 130	49 – 24	1.80	5 – 110	**3.40**	5 – **92**	4.30	5 – 48
TS2-PLURIJET 4/130	1.5	2		**14.5** A	5 – 130	65 – 31	2.30	5 – 110	**4.40**	5 – **92**	5.80	5 – 45
TS2-PLURIJET 5/130	1.8	2.5		**18.5** A	5 – 130	81 – 39	2.90	5 – 110	**5.50**	5 – **92**	7.40	5 – 38
TS2-PLURIJET 6/130	2.2	3		**20.0** A	5 – 130	97 – 45	3.50	5 – 110	**6.50**	5 – **92**	9.00	5 – 33
TS2-PLURIJET 3/200	1.1	1.5		**10.0** A	5 – 200	43 – 13	1.60	5 – 185	**2.80**	5 – **133**	3.80	5 – 72
TS2-PLURIJET 4/200	1.5	2		**16.0** A	5 – 200	57 – 17	2.10	5 – 185	**3.60**	5 – **133**	5.10	5 – 65
TS2-PLURIJET 5/200	1.8	2.5		**16.0** A	5 – 200	72 – 22	2.60	5 – 185	**4.60**	5 – **133**	6.50	5 – 56
TS2-PLURIJET 6/200	2.2	3		**22.0** A	5 – 200	86 – 26	3.10	5 – 185	**5.50**	5 – **133**	7.90	5 – 45

CHARACTERISTIC CURVES n= 2900 min⁻¹



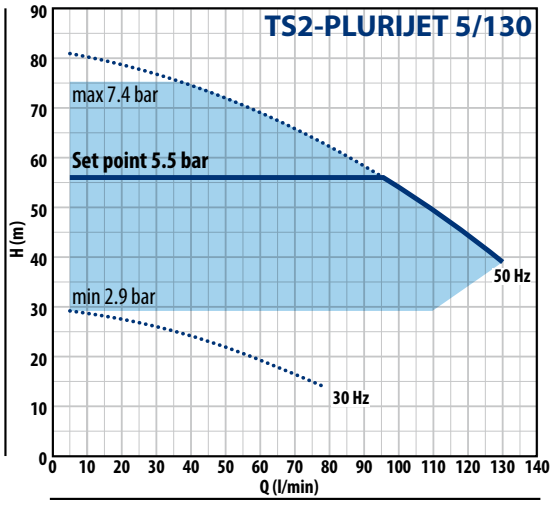


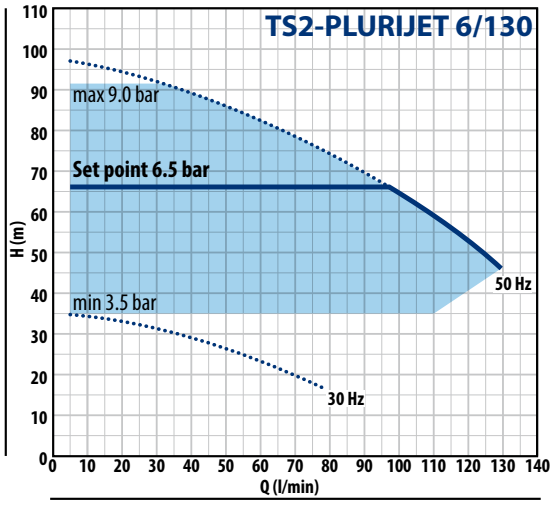


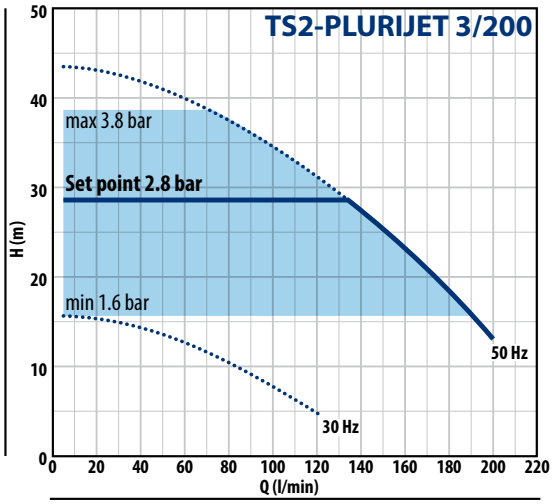


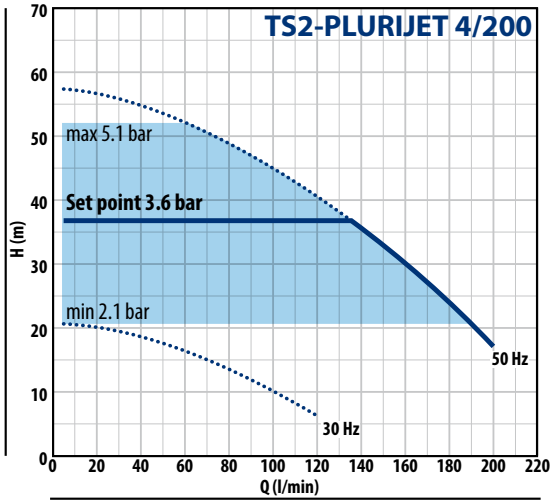
TISSEL-200 PLURIJET

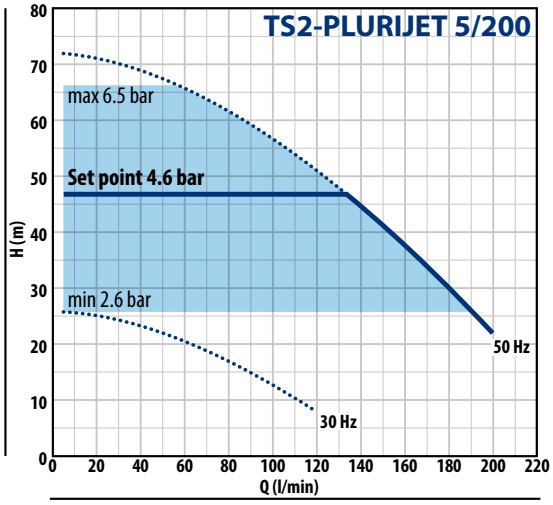
CHARACTERISTIC CURVES n= 2900 min^{-1}

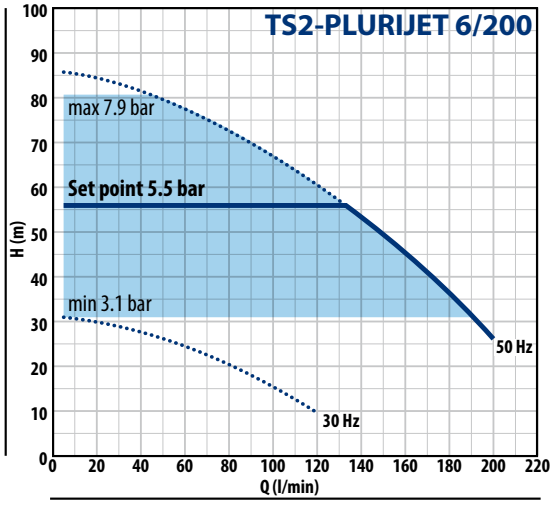




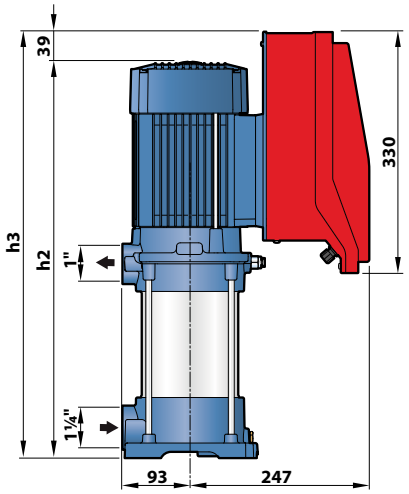


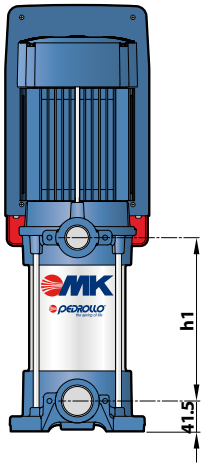


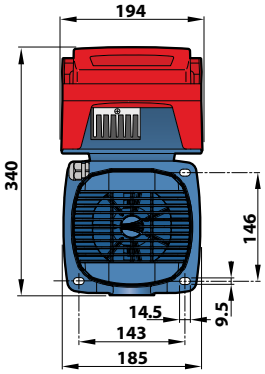




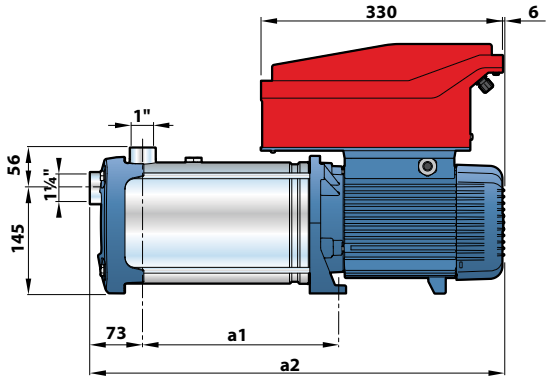
DIMENSIONS (mm)

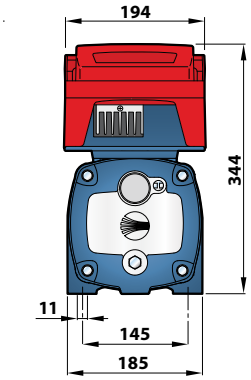






MODEL	h1	h2	h3	kg
TS2-MK 3/3	132.5	450	489	**26.7**
TS2-MK 3/4	159.5	477	516	**27.0**
TS2-MK 3/5	186.5	504	543	**28.6**
TS2-MK 3/6	213.5	531	570	**30.1**
TS2-MK 5/4	159.5	477	516	**26.9**
TS2-MK 5/5	186.5	504	543	**28.5**
TS2-MK 5/6	213.5	531	570	**30.3**
TS2-MK 5/7	240.5	558	597	**30.7**
TS2-MK 5/8	267.5	585	624	**30.9**
TS2-MK 8/4	159.5	477	516	**28.0**
TS2-MK 8/5	186.5	504	543	**29.6**
TS2-MK 8/6	213.5	531	570	**30.4**





MODEL	a1	a2	kg
TS2-5CR 90	193	497	**26.3**
TS2-6CR 90	219	523	**28.4**
TS2-7CR 90	245	569	**32.5**
TS2-3CR 130	141	445	**25.0**
TS2-4CR 130	167	471	**26.9**
TS2-5CR 130	193	517	**30.3**
TS2-6CR 130	219	543	**31.2**
TS2-3CR 200	141	445	**25.0**
TS2-4CR 200	167	471	**26.9**
TS2-5CR 200	193	517	**30.3**
TS2-6CR 200	219	543	**31.2**

MODEL	a1	a2	kg
TS2-PLURIJET 5/90	245	549	**27.0**
TS2-PLURIJET 6/90	271	575	**29.0**
TS2-PLURIJET 3/130	193	497	**25.1**
TS2-PLURIJET 4/130	219	523	**27.1**
TS2-PLURIJET 5/130	245	569	**30.7**
TS2-PLURIJET 6/130	271	595	**31.8**
TS2-PLURIJET 3/200	193	497	**25.1**
TS2-PLURIJET 4/200	219	523	**27.1**
TS2-PLURIJET 5/200	245	569	**30.7**
TS2-PLURIJET 6/200	271	595	**31.8**

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

AUTOMATIC PRESSURISATION SYSTEM WITH INVERTER

Clean water

Domestic use

Civil use

DESCRIPTION

- **DG PED** is an automatic pressurisation system with inverter which integrates: a high efficiency self-priming pump; an expansion vessel; pressure and flow rate sensors; a non-return valve.
- **DG PED is a compact, autonomous, quiet and high performance pumping system.**
- **A sophisticated electronically controlled inverter, at the heart of the system, in an intuitive way:**
  - maintains the pressure of the installation constant by regulating the speed of the pump in accordance with the required flow rate;
  - controls the hydraulic and electric operating parameters and protects the pump from anomalies;
  - can be equipped with an expansion card that makes it possible to work in parallel with other inverters in the pumping groups by managing input and output signals;
  - it adapts to every type of pressurisation system, including existing ones;
  - it limits the starting and operating currents in order to provide a greater saving of energy.

TECHNICAL DATA

- Supply voltage **~ 230 V** ± 10%
- Frequency **50/60 Hz**
- Insulation: **class F**
- Max absorbed current: **7.5 A** DG PED 3 - **10.5 A** DG PED 5
- P1 Maximum absorbed power: **1.0 kW** DG PED 3 - **1.5 kW** DG PED 5
- Protection IP X4
- Factory set point **3 bar**

APPLICATION LIMITS

- Manometric suction lift up to **8 m**
- Liquid temperature between 0 °C and **+40 °C**
- Ambient temperature between 0 °C and **+40 °C**
- Max. working pressure **10 bar**
- Continuous service **S1**
- Operates in a **vertical** position

ALL IN ONE

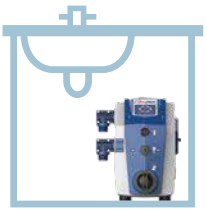
Main components:
Multistage self-priming pump
Expansion vessel
Non-return valve
Intuitive control panel

LOW-NOISE

CONSTANT PRESSURE

EASY TO USE

INSTALLABLE ANYWHERE



Thanks to its compactness and low noise level the DG PED can be installed anywhere

COMPACT DIMENSIONS

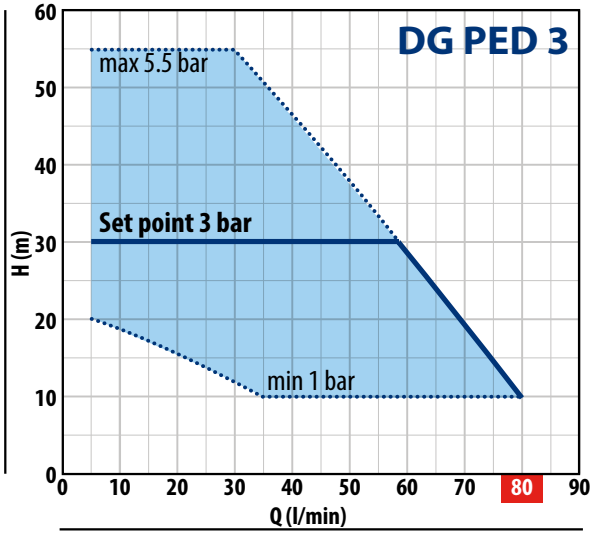
DOMESTIC USE

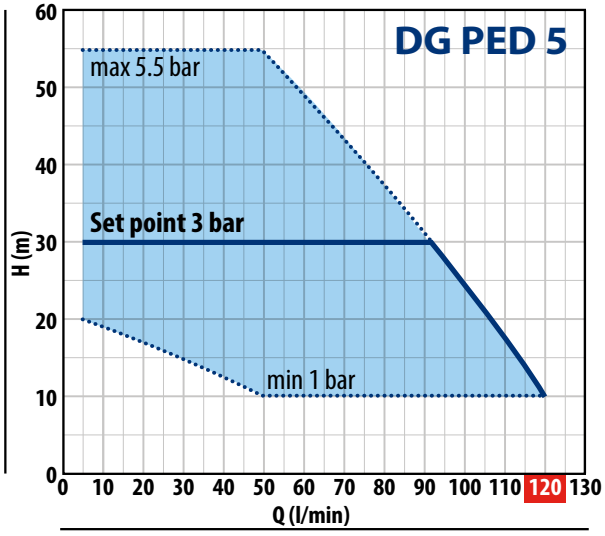
A single DG PED meets the requirements of single apartments or small houses.

RESIDENTIAL USE

Two DG PED assembled as a set meet the requirements of more than one apartment.

CHARACTERISTIC CURVES





MODEL	POWER			MAX PERFORMANCES		PERFORMANCES (ADJUSTABLE SET POINT)					
	P_2			Q	H	Min. Set Point		Set Point Stand. Setting		Max. Set Point	
Single-phase	kW	HP	▲	l/min	metres	bar	l/min	bar	l/min	bar	l/min
DG PED 3	0.75	1	IE3	5 – **80**	55 – 10	1	35 – **80**	**3**	5 – **58**	5.5	5 – 30
DG PED 5	1.1	1.5		5 – **120**	55 – 10	1	50 – **120**	**3**	5 – **92**	5.5	5 – 50

Q = Flow rate **H** = Total manometric head Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B. ▲ Three-phase motor efficiency class (IEC 60034-30-1)

= **Stocked in Australia**

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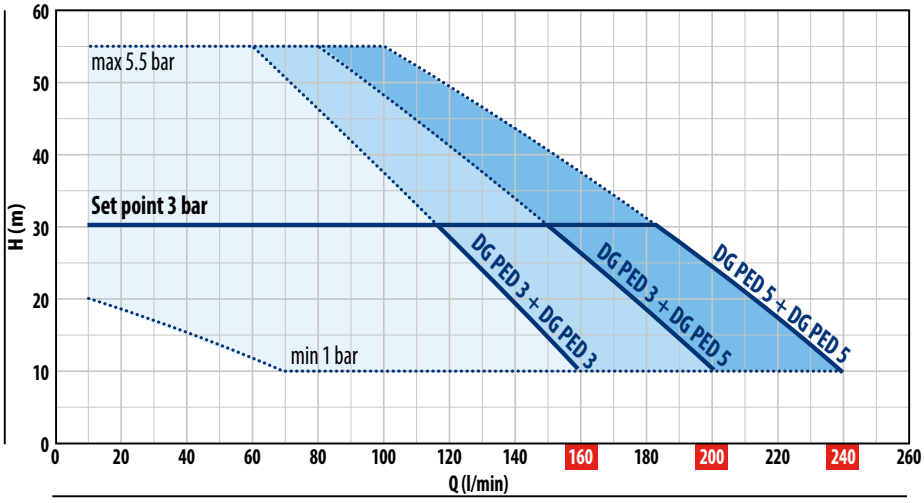
CHARACTERISTIC CURVES FOR GROUPS OF TWO DG PED 3 OR 5



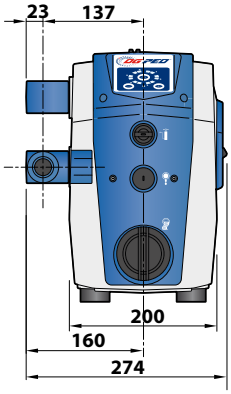
OPTIONAL ACCESSORIES

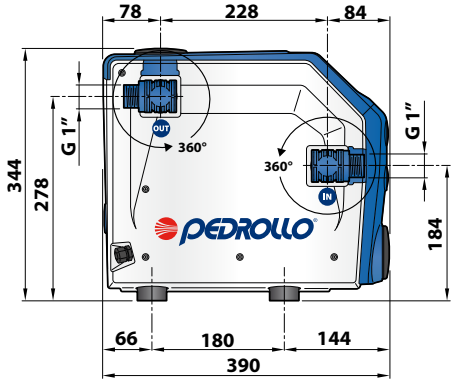
Connection kit for two DG PED units

Electronic expansion circuit board

Kit for wall-mounting a single DG PED

Kit for wall-mounting a group of two units





COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

EAC CE IE3 Premium Efficiency ErP ready RoHS2 COMPLIANT REACH COMPLIANT EMC COMPLIANT

MADE IN ITALY

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 m^3/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 **34 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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

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

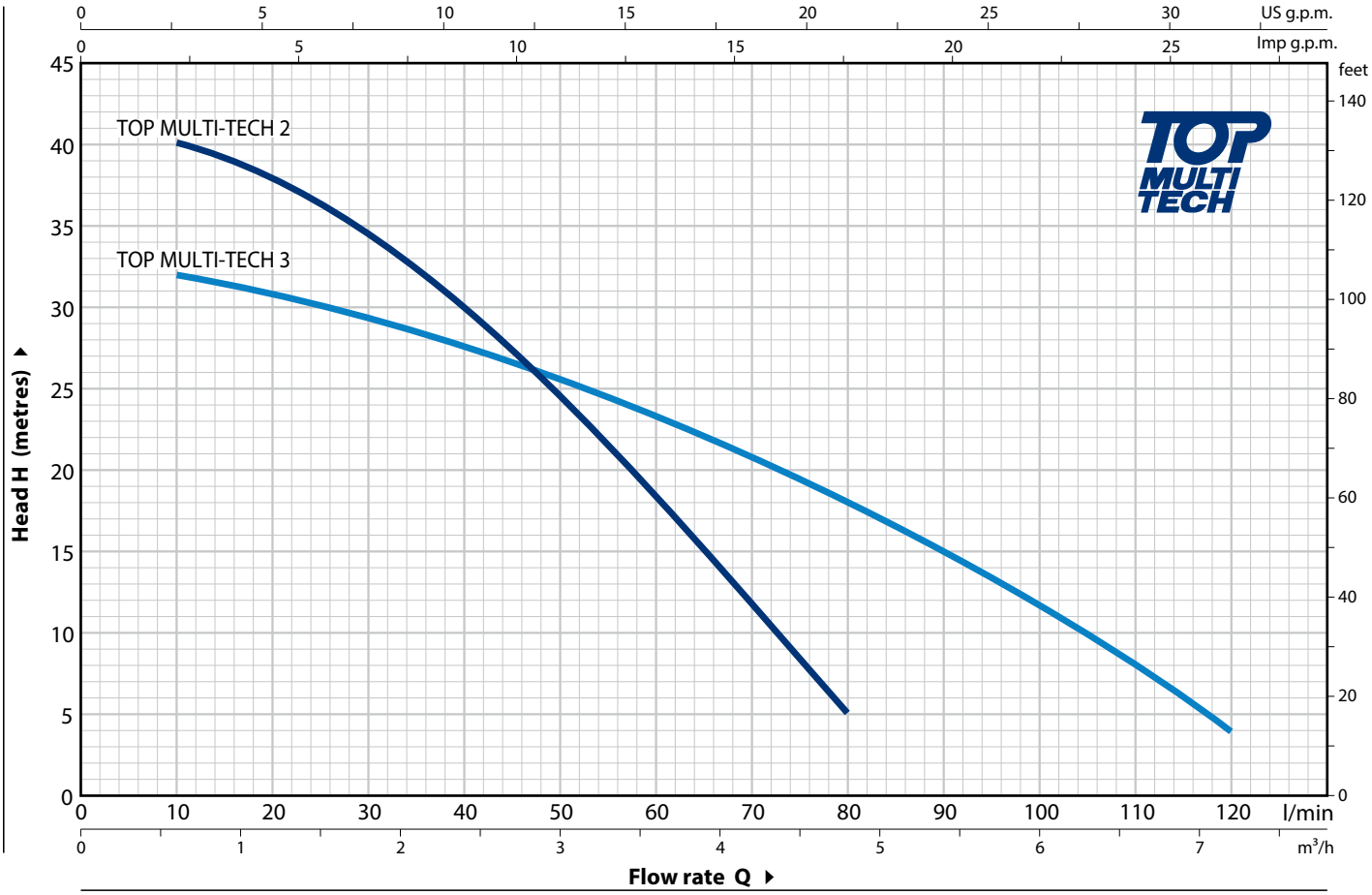
- Patent n. EP2990653
- TOP MULTI® Registered Trade Mark n. 0001334477

OPTIONS AVAILABLE ON REQUEST

- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min^{-1}



MODEL	POWER (P2)		Q													
Single-phase	kW	HP	m³/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
			l/min	**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.

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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	**DIFFUSER**	Glass fibre reinforced technopolymer
4	**MOTOR SLEEVE**	Stainless steel AISI 304
5	**IMPELLERS**	Noryl FE1520PW
6	**DIFFUSER AND STAGE BOXES**	Noryl complete with anti-wear ring
7	**MOTOR SHAFT**	Stainless steel AISI 431
8	**ELECTRONIC DEVICE**	**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.** **It protects the pump:** **– against dry running;** **– against blockage: after long periods of pump inactivity the electronic device starts the pump every 48 hours for 10 seconds.**

9 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal	*Shaft*	*Position*		*Materials*	
Model	***Diameter***		*Stationary ring*	*Rotational ring*	*Elastomer*
STA-13R	**Ø 13** mm	Motor side	Ceramic	Graphite	NBR
STA-12R SG	**Ø 12** mm	Pump side	Silicon carbide	Graphite	NBR

10 BEARINGS — **6202 ZZ - C3 / 6201 ZZ**

11 CAPACITOR

Capacitance

(230 V or 240 V)	*(110 V)*
12.5 µF 450 VL	**30** µF 250 VL

12 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

13 POWER CABLE

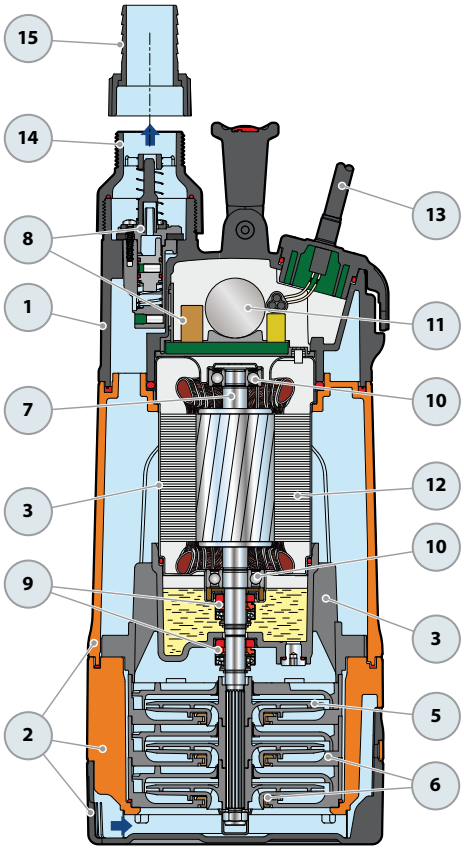
"H07 RN-F" with Schuko plug
Standard length 10 metres

14 THREADED CONNECTOR

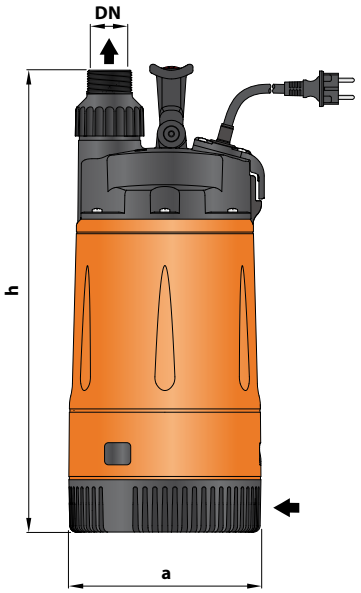
Threaded connector 1¼"

15 HOSE CONNECTOR WITH RING NUT

Ø 35 mm hose connection

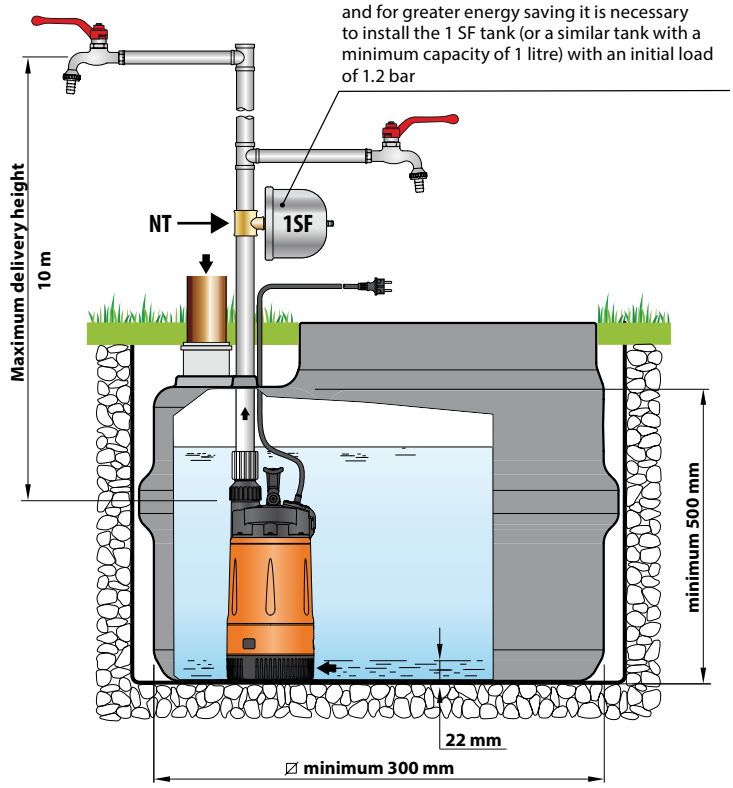


DIMENSIONS AND WEIGHT



MODEL Single-phase	PORT DN	N. STAGES	DIMENSIONS mm a	 h	kg
TOP MULTI-TECH 2	1¼"	3	178	428	9.3
TOP MULTI-TECH 3					

Standard installation



ABSORPTION

MODEL Single-phase	VOLTAGE 230 V
TOP MULTI-TECH 2	3.4 A
TOP MULTI-TECH 3	3.6 A

PALLETIZATION

MODEL Single-phase	GROUPAGE n. pumps	CONTAINER n. pumps
TOP MULTI-TECH 2	60	80
TOP MULTI-TECH 3	60	80

ACCESSORIES (CAN BE ORDERED SEPARATELY)

MODEL	Code	FITTING	CAPACITY	PRE-SET	MAXIMUM WORKING PRESSURE
Tank **1 SF** 	500667	½" (male)	1 litre	1.2 bar	10 bar
3-way fitting **NT 1.25** 	500160001	1¼"- 1¼" - ½" gas	–	–	–

NK

Multi-stage submersible pumps

Clean water
(Maximum sand content 150 g/m³)

Domestic use

Civil use

Agricultural use

PERFORMANCE RANGE

- Flow rate up to **160 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

- **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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

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

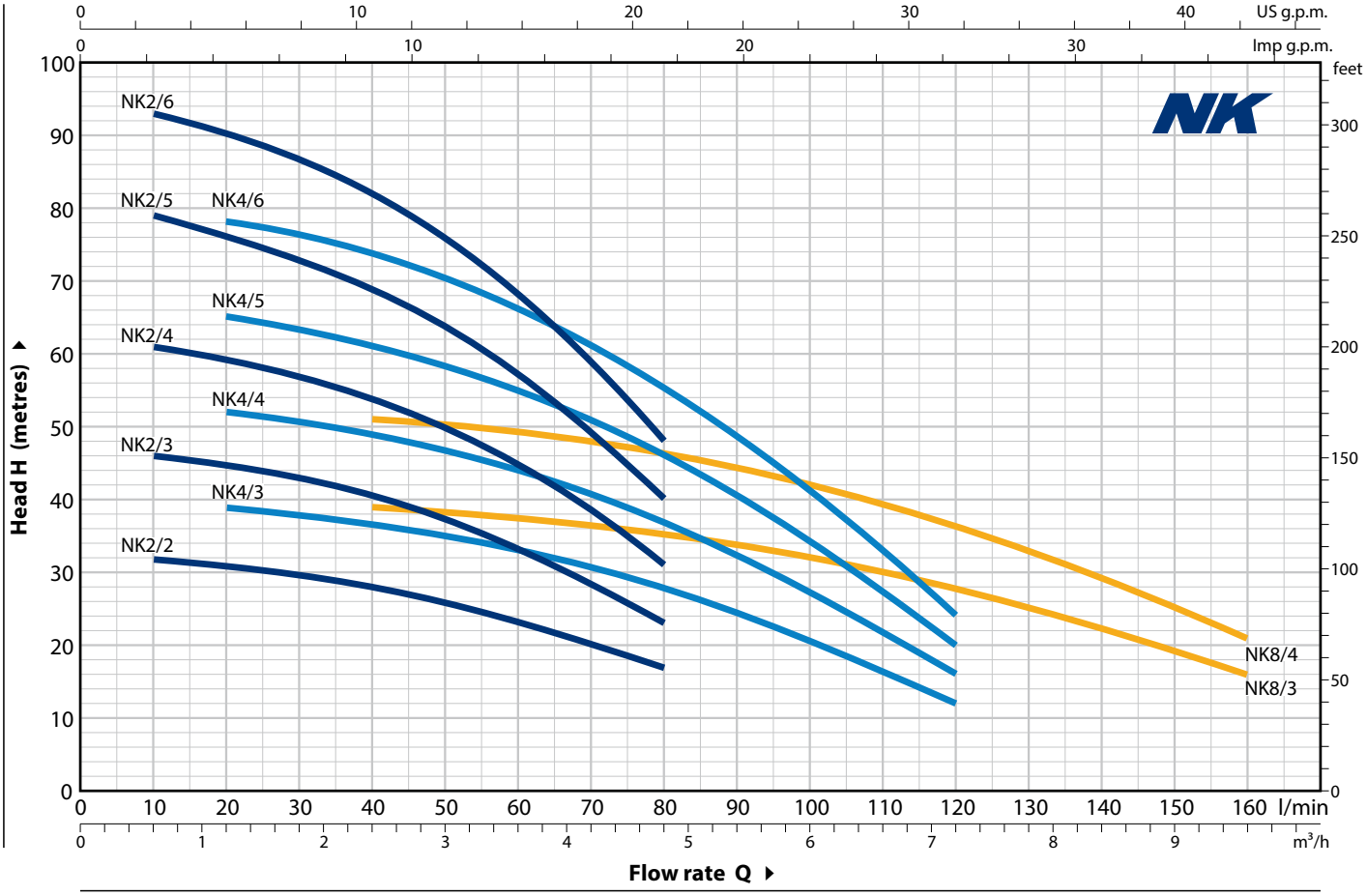
- Patent n. EP14755156.8
- Patent n. EP2313658

OPTIONS AVAILABLE ON REQUEST

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

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min^{-1}



MODEL		POWER (P2)		Q	m³/h	0	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	6.0	6.6	7.2	8.4	9.6
Single-phase	**Three-phase**	**kW**	**HP**		l/min	**0**	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**100**	**110**	**120**	**140**	**160**
NKm 2/2 GE	**NK 2/2**	0.37	0.5			33	32	31	29.5	28	26	23.5	20.5	17					
NKm 2/3 GE	**NK 2/3**	0.55	0.75			48	46	44.5	42.8	40.5	37.5	33.5	29	23					
NKm 2/4 GE	**NK 2/4**	0.75	1			63	61	59	57	54	50	45	39	31					
NKm 2/5 GE	**NK 2/5**	1.1	1.5			81	79	75.5	73	68.5	63.5	57.5	49.5	40					
NKm 2/6 GE	**NK 2/6**	1.5	2			95	93	90	87	82	76	68.5	59.5	48					
NKm 4/3 GE	**NK 4/3**	0.55	0.75	**H**	metres	40	–	39	38	37	35	33	30.5	28	20.5	16.5	12		
NKm 4/4 GE	**NK 4/4**	0.75	1			53	–	52	50.5	49	46.5	44	40.5	37	27.5	22	16		
NKm 4/5 GE	**NK 4/5**	1.1	1.5			67	–	65	63.5	61.5	58	55	50.5	46.5	34	27.5	20		
NKm 4/6 GE	**NK 4/6**	1.5	2			80	–	78	76	74	70	66	61	56	41	33	24		
NKm 8/3 GE	**NK 8/3**	1.1	1.5			40	–	–	–	39	38	37.5	36.5	35	32	30	28	22.5	16
NKm 8/4 GE	**NK 8/4**	1.5	2			52	–	–	–	51	50	49	48	46	42	39	36	29	21

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**

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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 AISI 431

7 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	Ceramic	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 **NKm 2/3 GE** **NKm 4/3 GE**	**16** µF - 500 VL	**30** µF - 250 VL
NKm 2/4 GE **NKm 4/4 GE**	**20** µF - 450 VL	–
NKm 2/5 GE **NKm 4/5 GE** **NKm 8/3 GE**	**25** µF - 450 VL	–
NKm 2/6 GE **NKm 4/6 GE** **NKm 8/4 GE**	**35** µF - 450 VL	–

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

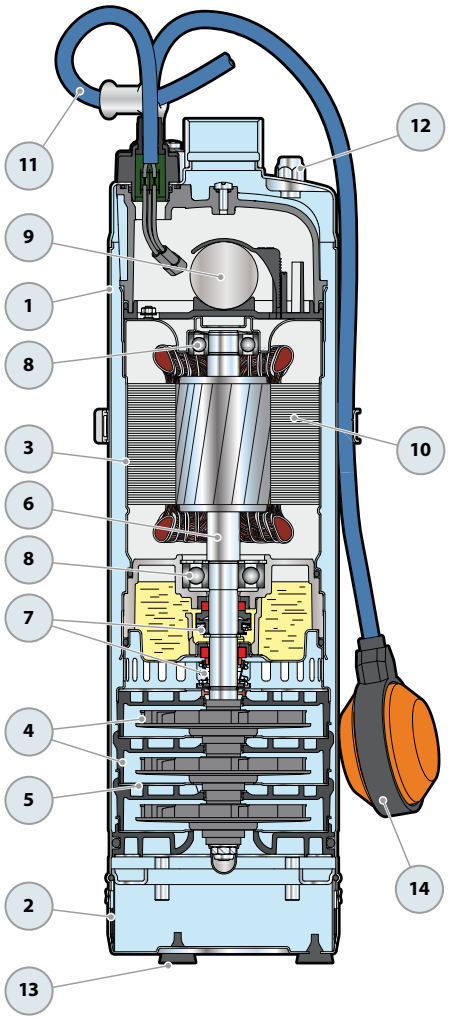
11 POWER CABLE

➡ **DRINCABLE® type**
approved for use in drinking water by "WRAS"
in compliance with BS 6920, approval n. 7513
Standard length 10 metres

12 AUTOMATIC VENT VALVE

13 ANTI-VIBRATION SUPPORTS

14 FLOAT SWITCH
(only for single-phase versions)



DIMENSIONS AND WEIGHT

MODEL		PORT	N. STAGES	DIMENSIONS mm		kg	
Single-phase	Three-phase	DN		Ø	h	1~	3~
NKm 2/2 GE	NK 2/2		2		459	13.0	13.0
NKm 2/3 GE	NK 2/3		3		486	13.4	13.4
NKm 2/4 GE	NK 2/4		4		543	15.6	14.2
NKm 2/5 GE	NK 2/5		5		570	15.6	15.4
NKm 2/6 GE	NK 2/6		6		617	18.6	17.2
NKm 4/3 GE	NK 4/3	1¼"	3	135	486	13.4	13.4
NKm 4/4 GE	NK 4/4		4		543	15.2	14.0
NKm 4/5 GE	NK 4/5		5		570	16.5	15.5
NKm 4/6 GE	NK 4/6		6		617	18.4	17.0
NKm 8/3 GE	NK 8/3		3		516	15.5	14.4
NKm 8/4 GE	NK 8/4		4		563	17.6	15.9

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
NKm 2/2 GE	4.3 A	3.9 A	8.6 A
NKm 2/3 GE	5.5 A	4.8 A	11.0 A
NKm 2/4 GE	6.2 A	5.9 A	–
NKm 2/5 GE	7.6 A	7.6 A	–
NKm 2/6 GE	9.2 A	9.0 A	–
NKm 4/3 GE	5.0 A	4.8 A	10.0 A
NKm 4/4 GE	6.2 A	5.9 A	–
NKm 4/5 GE	7.5 A	6.9 A	–
NKm 4/6 GE	8.7 A	8.4 A	–
NKm 8/3 GE	7.1 A	6.8 A	–
NKm 8/4 GE	9.2 A	9.0 A	–

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
NK 2/2	2.8 A	1.6 A	2.7 A	1.5 A
NK 2/3	3.3 A	1.9 A	3.2 A	1.8 A
NK 2/4	4.0 A	2.3 A	3.9 A	2.2 A
NK 2/5	5.2 A	3.0 A	4.9 A	2.8 A
NK 2/6	5.9 A	3.4 A	5.5 A	3.2 A
NK 4/3	3.2 A	1.8 A	3.1 A	1.7 A
NK 4/4	3.8 A	2.2 A	3.7 A	2.1 A
NK 4/5	4.8 A	2.8 A	4.7 A	2.7 A
NK 4/6	5.5 A	3.2 A	5.4 A	3.1 A
NK 8/3	5.0 A	2.9 A	4.7 A	2.7 A
NK 8/4	5.9 A	3.4 A	5.4 A	3.1 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
NKm 2/2 GE	NK 2/2	30	54
NKm 2/3 GE	NK 2/3	30	54
NKm 2/4 GE	NK 2/4	25	45
NKm 2/5 GE	NK 2/5	25	45
NKm 2/6 GE	NK 2/6	25	45
NKm 4/3 GE	NK 4/3	30	54
NKm 4/4 GE	NK 4/4	25	45
NKm 4/5 GE	NK 4/5	25	45
NKm 4/6 GE	NK 4/6	25	45
NKm 8/3 GE	NK 8/3	30	–
NKm 8/4 GE	NK 8/4	25	45

UP

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

- **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

CE

PATENTS - TRADE MARKS - MODELS

- Patent n. EP14755156.8
- Patent n. IT0001428923
- Patent n. EP2419642.2

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

INSTALLATION AND USE

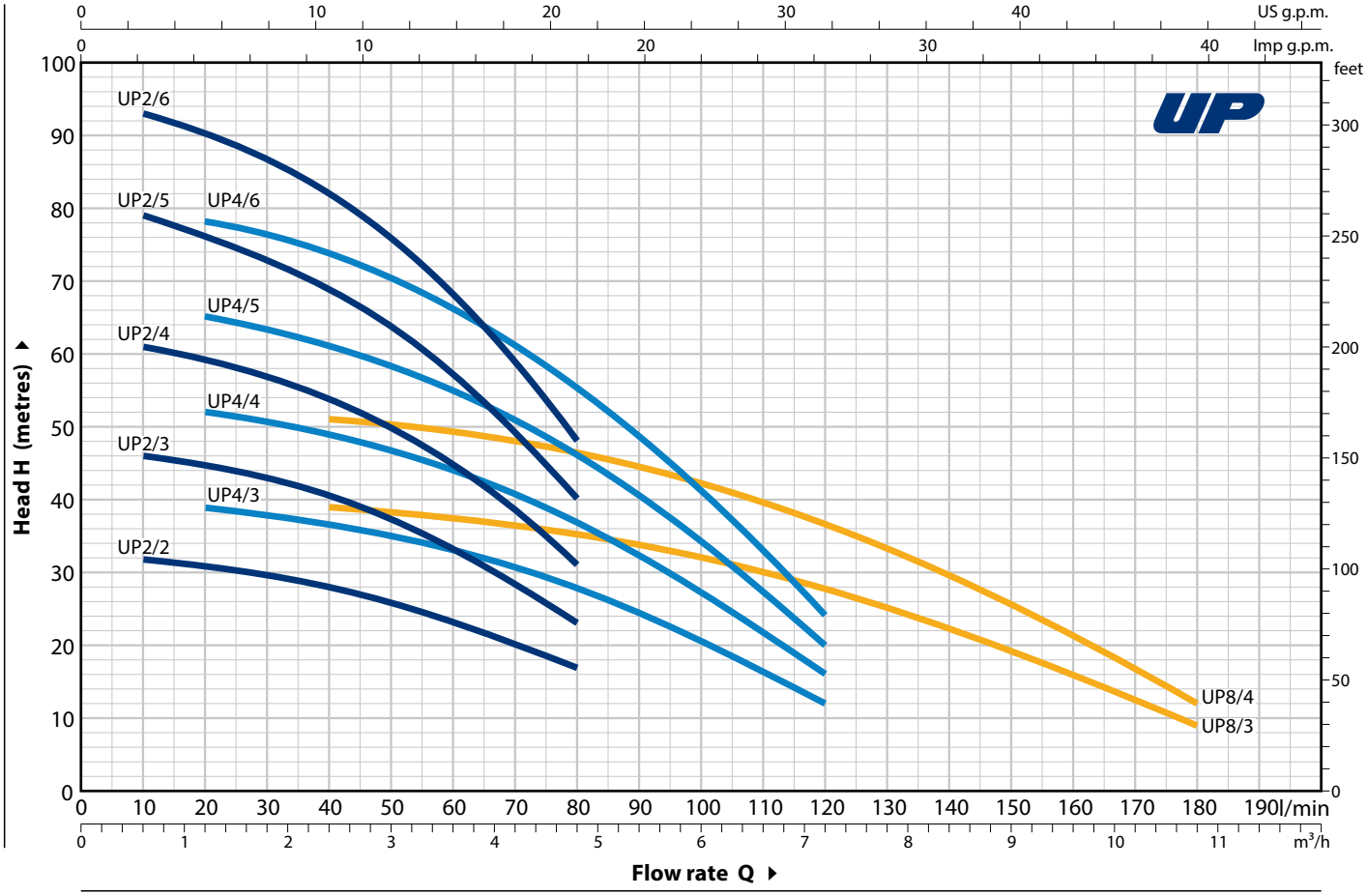
A new concept range of submersible multi-stage pumps designed guarantee even greater reliability, thanks to patented innovative technical solutions which prevent blockage of the pumps even after prolonged periods of inactivity.
Because of their high efficiency and reliability they are suitable for use 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 min^{-1}



MODEL		POWER (P2)		Q	m³/h	0	0.6	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8
Single-phase	**Three-phase**	**kW**	**HP**		l/min	**0**	**10**	**20**	**40**	**60**	**80**	**100**	**120**	**140**	**160**	**180**
UPm 2/2-GE	**UP 2/2**	0.37	0.5			33	32	31	28	23.5	17					
UPm 2/3-GE	**UP 2/3**	0.55	0.75			48	46	44.5	40.5	33.5	23					
UPm 2/4-GE	**UP 2/4**	0.75	1			63	61	59	54	45	31					
UPm 2/5-GE	**UP 2/5**	1.1	1.5			81	79	75.5	68.5	57.5	40					
UPm 2/6-GE	**UP 2/6**	1.5	2			95	93	90	82	68.5	48					
UPm 4/3-GE	**UP 4/3**	0.55	0.75	**H**	metres	40	–	39	37	33	28	20.5	12			
UPm 4/4-GE	**UP 4/4**	0.75	1			53	–	52	49	44	37	27.5	16			
UPm 4/5-GE	**UP 4/5**	1.1	1.5			67	–	65	61.5	55	46.5	34	20			
UPm 4/6-GE	**UP 4/6**	1.5	2			80	–	78	74	66	56	41	24			
UPm 8/3-GE	**UP 8/3**	1.1	1.5			40	–	–	39	37.5	35.2	32	27.8	22.2	16	9
UPm 8/4-GE	**UP 8/4**	1.5	2			52	–	–	51	49.2	46.5	42	36.5	29.5	21.2	12

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**

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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 AISI 431

6 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	Ceramic	Graphite	NBR
ST1-16	**Ø 16** mm	Pump side	Silicon carbide	Graphite	NBR

7 BEARINGS **6303 2RS - C3 / 6203 ZZ - C3E**

8 CAPACITOR

Pump	*Capacitance*	
Single-phase	*(230 V or 240 V)*	*(110 V)*
UPm 2/2-GE **UPm 2/3-GE** **UPm 4/3-GE**	**16** µF - 500 VL	**30** µF - 250 VL
UPm 2/4-GE **UPm 4/4-GE**	**20** µF - 450 VL	–
UPm 2/5-GE **UPm 4/5-GE** **UPm 8/3-GE**	**25** µF - 450 VL	–
UPm 2/6-GE **UPm 4/6-GE** **UPm 8/4-GE**	**35** µF - 450 VL	–

9 ELECTRIC MOTOR

UPm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding.
UP: three-phase 400 V - 50 Hz.

– Insulation: class F
– Protection: IP X8

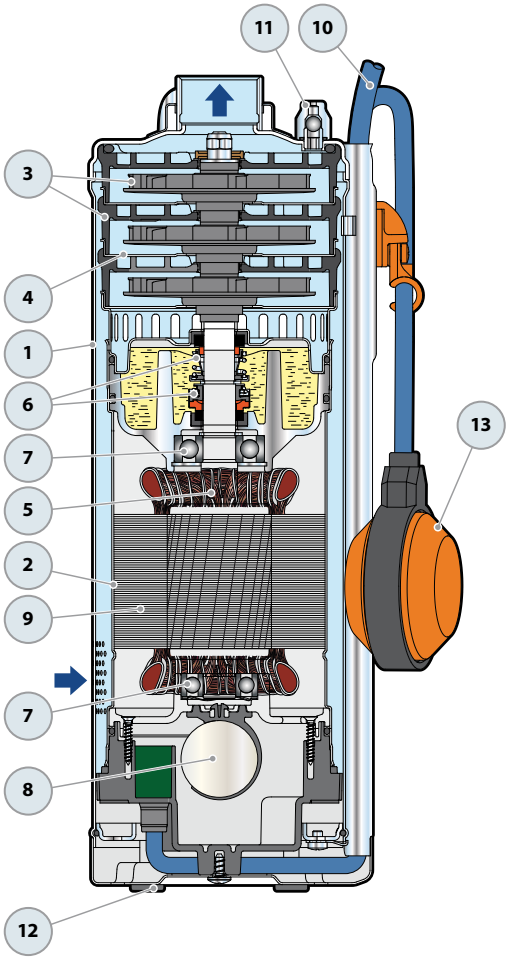
10 POWER CABLE

➠ **DRINCABLE® type**
approved for use in drinking water by "WRAS"
in compliance with BS 6920, approval n. 7513
Standard length 10 metres

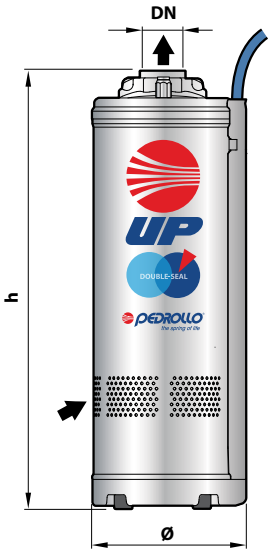
11 AUTOMATIC VENT VALVE

12 ANTI-VIBRATION SUPPORTS

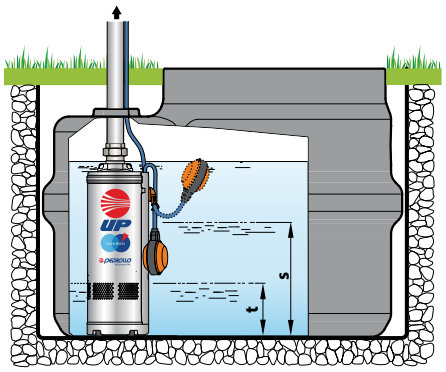
13 FLOAT SWITCH
(only for single-phase versions)



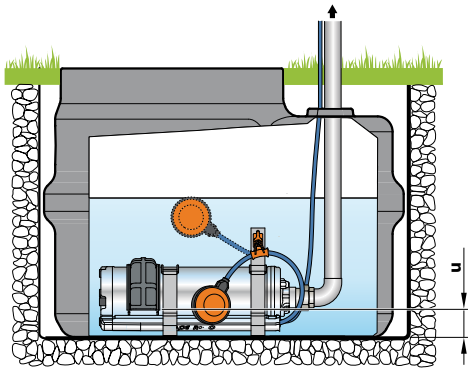
DIMENSIONS AND WEIGHT



Vertical installation



Horizontal installation



MODEL		PORT	N. STAGES	DIMENSIONS mm		kg	
Single-phase	Three-phase	DN		Ø	h	1~	3~
UPm 2/2-GE	UP 2/2	1¼"	2	150	398	12.8	12.5
UPm 2/3-GE	UP 2/3		3		425	13.1	13.1
UPm 2/4-GE	UP 2/4		4		482	14.8	13.7
UPm 2/5-GE	UP 2/5		5		509	16.4	15.1
UPm 2/6-GE	UP 2/6		6		556	18.0	16.6
UPm 4/3-GE	UP 4/3		3		425	12.9	12.9
UPm 4/4-GE	UP 4/4		4		482	14.6	13.5
UPm 4/5-GE	UP 4/5		5		509	16.2	15.3
UPm 4/6-GE	UP 4/6		6		556	18.1	16.9
UPm 8/3-GE	UP 8/3		3		455	15.2	13.8
UPm 8/4-GE	UP 8/4		4		502	17.0	15.5

MODEL	LEVELS mm		
	s	t	u
UP 2/2 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		
Single-phase	230 V	240 V	110 V
UPm 2/2-GE	4.4 A	4.2 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	–
UPm 2/5-GE	7.6 A	7.3 A	–
UPm 2/6-GE	8.8 A	8.5 A	–
UPm 4/3-GE	5.0 A	4.8 A	10.0 A
UPm 4/4-GE	6.2 A	5.9 A	–
UPm 4/5-GE	7.2 A	6.9 A	–
UPm 4/6-GE	8.7 A	8.4 A	–
UPm 8/3-GE	6.8 A	6.5 A	–
UPm 8/4-GE	8.5 A	8.4 A	–

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

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

TOP MULTI

Submersible multi-stage pumps

Clean water

Domestic use

Civil use

TOP MULTI 1

TOP MULTI 2
TOP MULTI 3

PERFORMANCE RANGE

- Flow rate up to **120 l/min** (7.2 m^3/h)
- Head up to **42 m**

APPLICATION LIMITS

- Immersion depth:
  – up to **3 m** for TOP MULTI 1
  – up to **10 m** for TOP MULTI 2-3
  (with a sufficiently long power cable)
- Maximum liquid temperature **+40 °C**
- Suction level:
  – **25 mm** above ground level for TOP MULTI 1
  – **35 mm** above ground level for TOP MULTI 2-3
- 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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

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

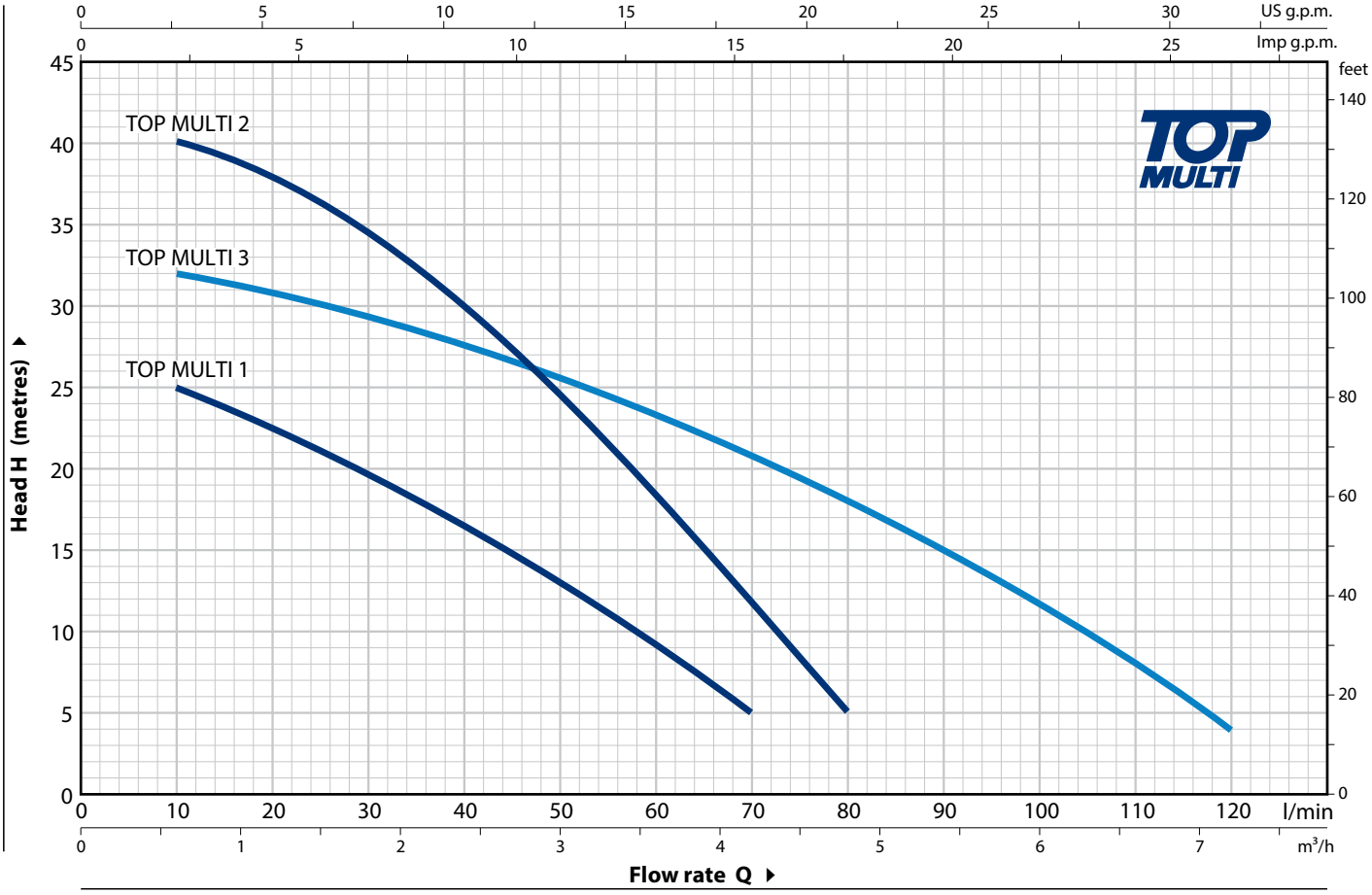
- Registered EU Design n. 000885587 for TOP MULTI 2-3
- TOP MULTI® Registered Trade Mark n. 0001334477

OPTIONS AVAILABLE ON REQUEST

- Pumps without float switch
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min^{-1}



MODEL	POWER (P2)		Q													
Single-phase	kW	HP		m³/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
				l/min	**0**	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**110**	**120**
TOP MULTI 1	0.37	0.50	**H**	metres	27	25	22.5	19.5	16.5	13	9	5					
TOP MULTI 2	0.55	0.75			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.

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

TOP MULTI 1

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS
1	**PUMP BODY**	Glass fibre reinforced technopolymer complete with threaded delivery port in compliance with ISO 228/1
2	**SUCTION FILTER**	Glass fibre reinforced technopolymer
3	**STAGE CASING**	Glass fibre reinforced technopolymer
4	**IMPELLERS**	Noryl FE1520PW
5	**DIFFUSER AND STAGE BOXES**	Noryl FE1520PW complete with anti-wear ring
6	**VANE DIFFUSER**	Glass fibre reinforced technopolymer
7	**MOTOR CASING**	Stainless steel AISI 304
8	**MOTOR CASING PLATE**	Stainless steel AISI 304
9	**MOTOR SHAFT**	Stainless steel AISI 431

10 SHAFT WITH DOUBLE SEAL AND OIL CHAMBER

Seal	*Shaft*	*Materials*			
Model	***Diameter***	*Stationary ring*	*Rotational ring*	*Elastomer*	*Metals*
STA-12R	**Ø 12** mm	Ceramic	Graphite	NBR	AISI 304

11 LIP SEAL — **Ø 12** x **Ø 19** x **H 5** mm

12 BEARINGS — **6201 ZZ - C3E / 6201 ZZ - C3E**

13 CAPACITOR

Capacitance

(230 V or 240 V)	*(110 V)*
10 µF 450 VL	**16** µF 250 VL

14 ELECTRIC MOTOR

TOP MULTI 1: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding.
– Insulation: class F
– Protection: IP X8

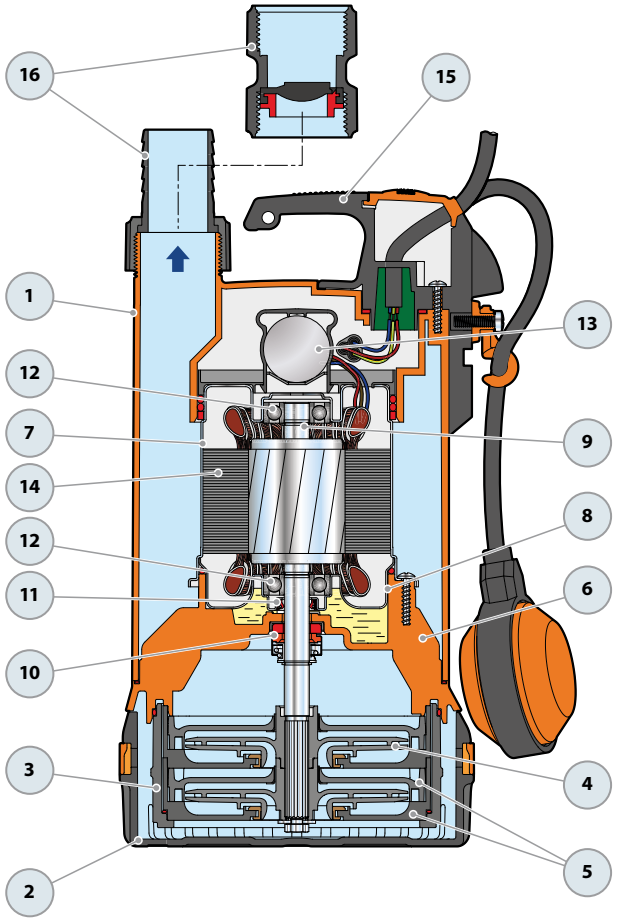
15 HANDLE ASSEMBLY (resin sealed)

Complete with:
– **10 metres** long "H07 RN-F" power cable with Schuko plug
– Float switch

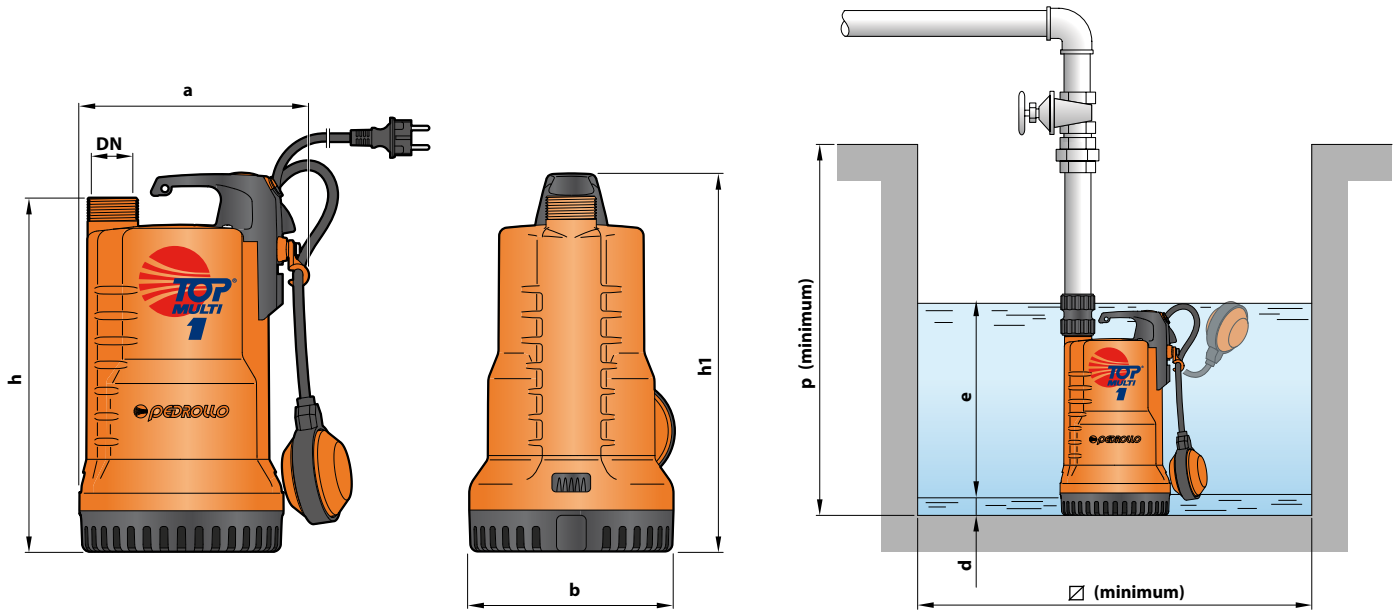
16 HOSE CONNECTOR WITH RING NUT
Ø 35 mm hose connection

PIPE COUPLING
Threaded 1¼" in compliance with ISO 228/1, complete with flap-check valve

(Included in the equipment)



DIMENSIONS AND WEIGHT



MODEL	PORT	N. STAGES	DIMENSIONS mm								kg
Single-phase	DN		a	b	h	h1	d	e	p	⍁	
TOP MULTI 1	**1¼"**	2	192	170	295	315	25	variable	350	350	**6.8**

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
TOP MULTI 1	**2.0** A	**2.0** A	**4.0** A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
Single-phase	n. pumps	n. pumps
TOP MULTI 1	**60**	**100**

TOP MULTI 2-3

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	**DIFFUSER**	Glass fibre reinforced technopolymer
4	**MOTOR SLEEVE AND MOTOR CASING PLATE**	Stainless steel AISI 304
5	**IMPELLERS**	Noryl FE1520PW
6	**DIFFUSERS**	Noryl complete with anti-wear ring
7	**MOTOR SHAFT**	Stainless steel AISI 431

8 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

Seal	***Shaft***	*Position*		*Materials*	
Model	***Diameter***		*Stationary ring*	*Rotational ring*	*Elastomer*
STA-13R	**Ø 13** mm	Motor side	Ceramic	Graphite	NBR
STA-12R SG	**Ø 12** mm	Pump side	Silicon carbide	Graphite	NBR

9 BEARINGS — **6202 ZZ - C3 / 6201 ZZ**

10 CAPACITOR

Capacitance

(230 V or 240 V)	*(110 V)*
12.5 µF 450 VL	**30** µF 250 VL

11 ELECTRIC MOTOR

TOP MULTI: 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

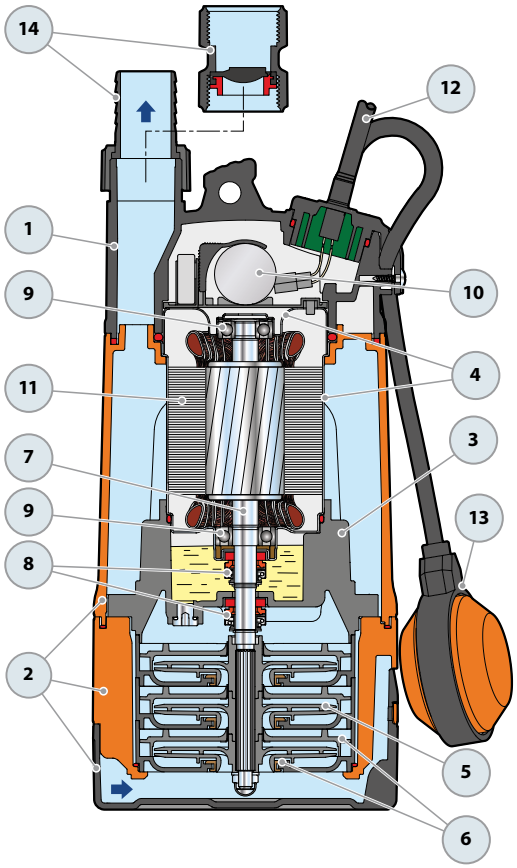
Standard length 10 metres

13 FLOAT SWITCH

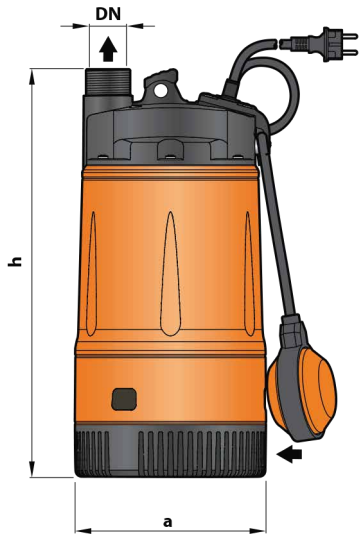
14 HOSE CONNECTOR WITH RING NUT
Ø 35 mm hose connection

PIPE COUPLING
Threaded 1¼" in compliance with ISO 228/1, complete with flap-check valve

(Included in the equipment)

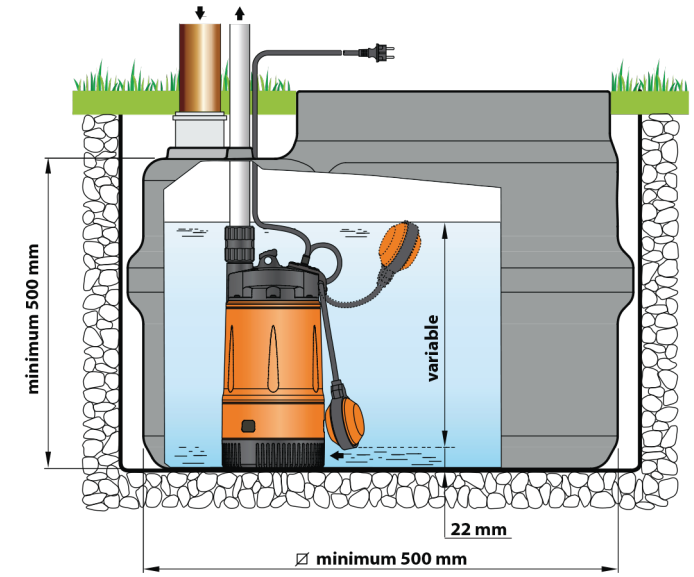


DIMENSIONS AND WEIGHT



MODEL Single-phase	PORT DN	N. STAGES	DIMENSIONS mm a	 h	kg
TOP MULTI 2	**1¼"**	3	178	380	**9.2**
TOP MULTI 3					**9.3**

Standard installation



ABSORPTION

MODEL Single-phase	VOLTAGE 230 V	 240 V	 110 V
TOP MULTI 2	**3.4** A	**3.3** A	**6.6** A
TOP MULTI 3	**3.6** A	**3.5** A	**7.2** A

PALLETIZATION

MODEL Single-phase	GROUPAGE n. pumps	CONTAINER n. pumps
TOP MULTI 2	**60**	**80**
TOP MULTI 3	**60**	**80**

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 **200 l/min** (12 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

CE

EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV ISO 9001: QUALITY

EAC

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 n. EP2300717 - EP2419642

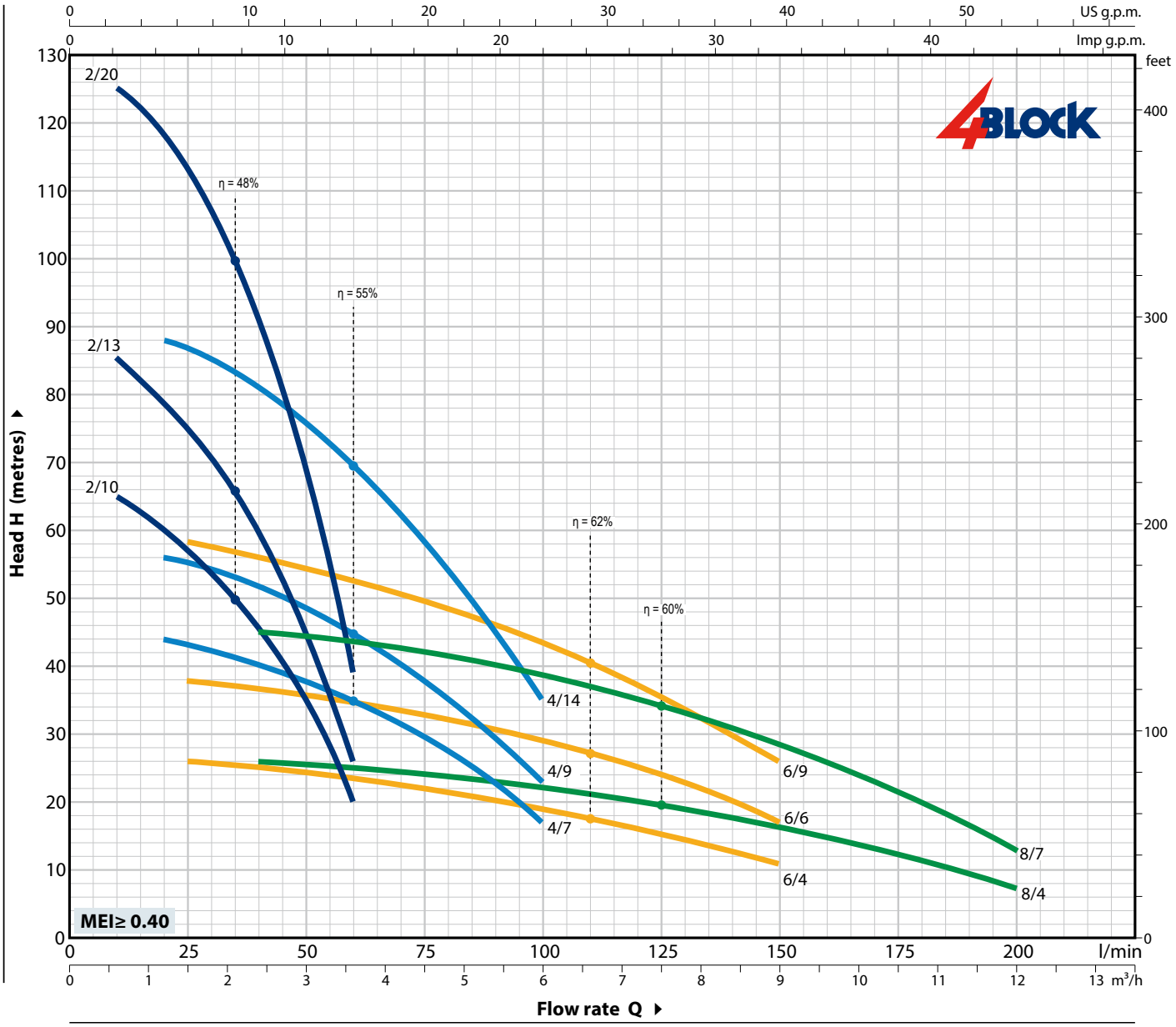
OPTIONS AVAILABLE ON REQUEST

- **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 min^{-1}



MODEL	POWER (P2)		Q	m³/h	0	0.6	1.2	1.5	2.4	3.6	4.5	6.0	7.5	9.0	10.5	12.0
Single-phase	**kW**	**HP**		l/min	**0**	**10**	**20**	**25**	**40**	**60**	**75**	**100**	**125**	**150**	**175**	**200**
4BLOCKm 2/10	0.55	0.75			66	65	60	57	46	20						
4BLOCKm 2/13	0.75	1			86	85	79	75	60	26						
4BLOCKm 2/20	1.1	1.5			128	125	118	113	91	39						
4BLOCKm 4/7	0.55	0.75			46	–	44	43	40	35	29.5	17				
4BLOCKm 4/9	0.75	1			60	–	56	55	52	45	37.5	23				
4BLOCKm 4/14	1.1	1.5	**H**	metres	92	–	88	87	81	70	58	35				
4BLOCKm 6/4	0.55	0.75			28	–	–	26	25	23.5	22	19	15	11		
4BLOCKm 6/6	0.75	1			40	–	–	38	37	35	33	29	24	17		
4BLOCKm 6/9	1.1	1.5			61	–	–	58	56	52.5	50	44	35	26		
4BLOCKm 8/4	0.75	1			26.5	–	–	–	26	25	24	22	19.5	16.2	12.5	7.5
4BLOCKm 8/7	1.1	1.5			46	–	–	–	45	44	42	39	34	28.5	21.5	13

Q = Flow rate **H** = Total manometric head

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

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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 AISI 431
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	Ceramic	Graphite	NBR
ST1-16	**Ø 16** mm	Pump side	Silicon carbide	Graphite	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

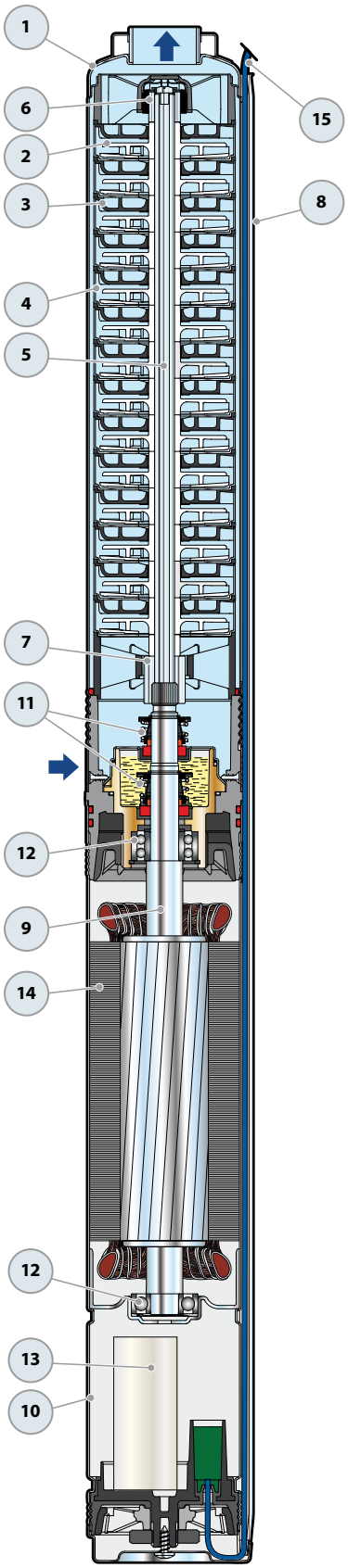
Submersible PEDROLLO motor, suitable for continuous duty (with dry, rewindable stator).

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

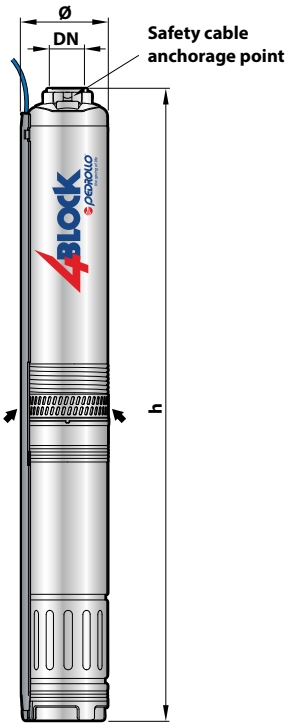
15 POWER CABLE

➠ **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

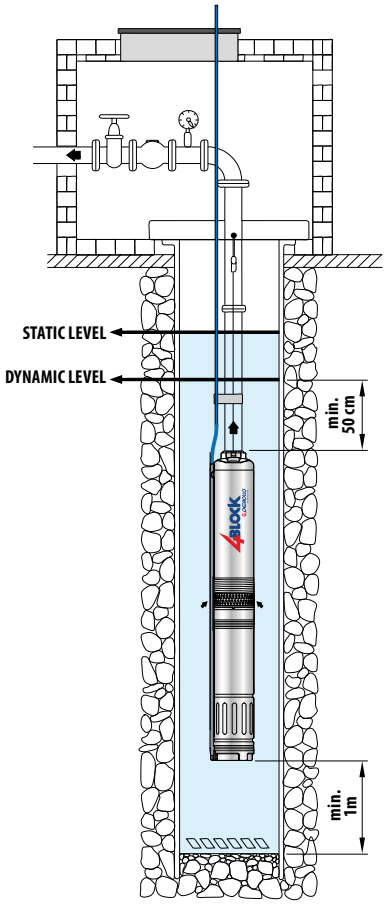


DIMENSIONS AND WEIGHT

MODEL	PORT	DIMENSIONS mm			kg
Single-phase	DN	N.STAGES	Ø	h	1~
4BLOCKm 2/10		10		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	1¼"	14	100	925	**17.0**
4BLOCKm 6/4		4		641	**10.7**
4BLOCKm 6/6		6		725	**13.3**
4BLOCKm 6/9		9		887	**16.5**
4BLOCKm 8/4		4		665	**13.8**
4BLOCKm 8/7		7		827	**17.0**



Standard installation



ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
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
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**
4BLOCKm 8/4	**55**
4BLOCKm 8/7	**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 **180 l/min** (10.8 m³/h)
- Head up to **180 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
- Installation:
  – vertical
  – horizontal

CONSTRUCTION AND SAFETY STANDARDS

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

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

CE

EU REGULATION N. 547/2012

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

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**.

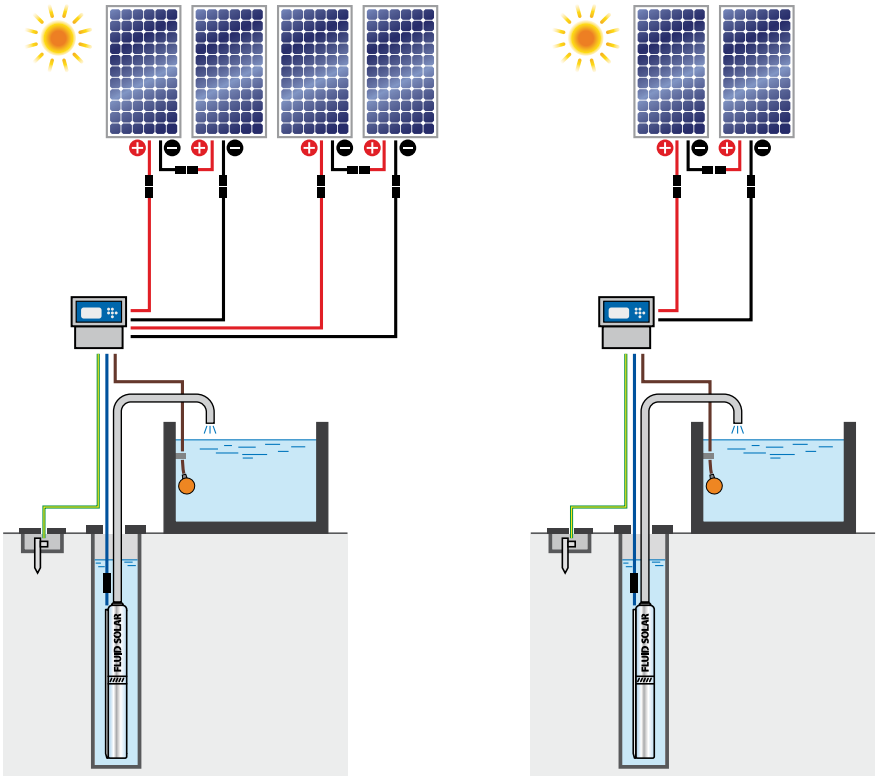
PATENTS - TRADE MARKS

- Patent n. 0001413386, EP2419642
- Patent n. EP2300717
- FLUID SOLAR® Registered Trade Mark n. 0001516301

Installation examples for electric water pump as P1=750 W

FLUID SOLAR 1/10 - 2/6 - 4/4 - 6/3

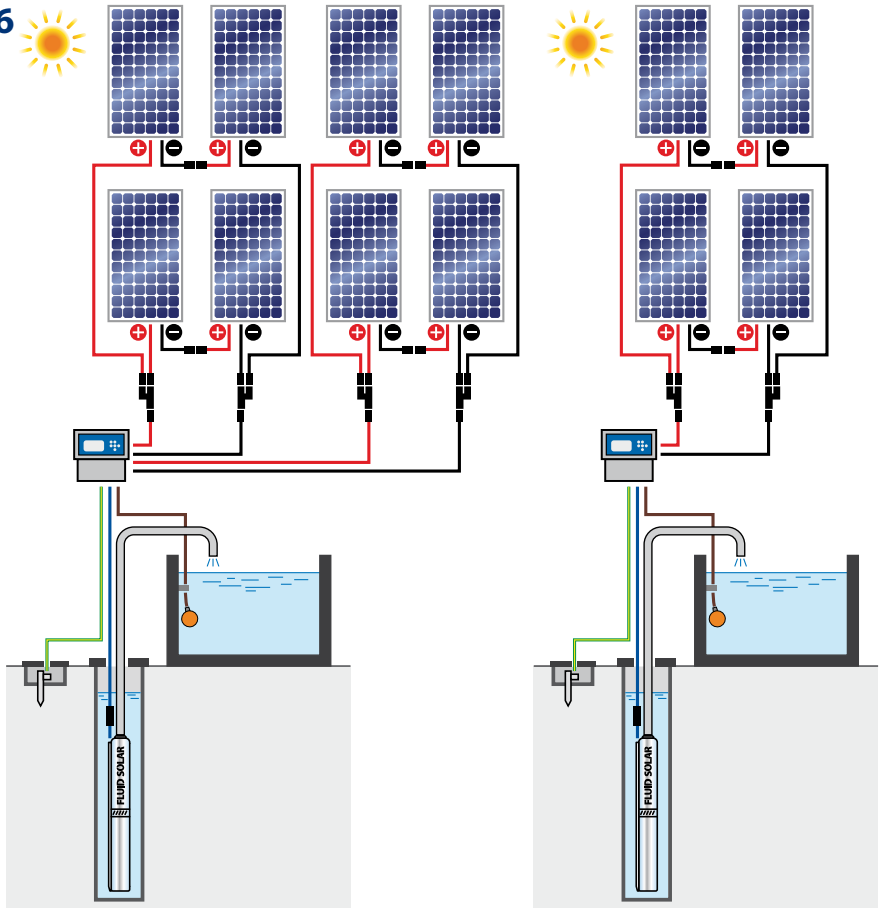
- To get the nominal maximum performances waterpump has to be powered by **n. 4 photovoltaic modules** with a nominal total power of **980 Wp** at least.
- Waterpump can be powered even by only **2 photovoltaic modules**: in this case performances are lower than maximum nominal performances that can be achieved with 4 modules.
- Empty tension for any single module has to range between **35** to **50 VDC**.



Installation examples for electric water pump as P1=1500 W

FLUID SOLAR 1/20 - 2/14 - 4/8 - 6/6

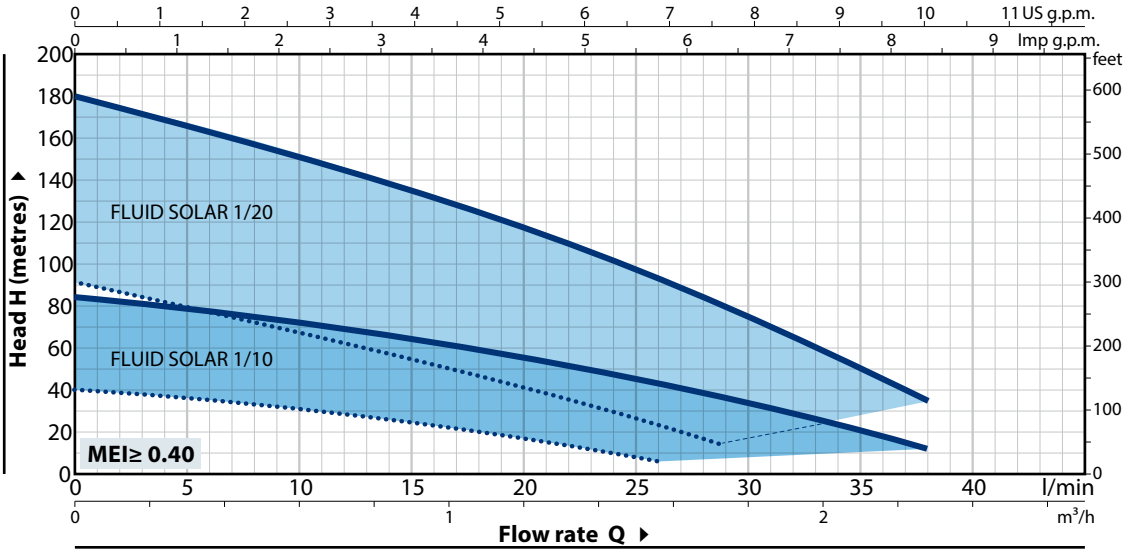
- To get the nominal maximum performances waterpump has to be powered by **n. 8 photovoltaic modules** with a nominal total power of **1960 Wp** at least.
- Waterpump can be powered even by only **4 photovoltaic modules**: in this case performances are lower than maximum nominal performances that can be achieved with 8 modules.
- Empty tension for any single module has to range between **35** to **50 VDC**.



FLUID SOLAR

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 total rated power of 980 Wp

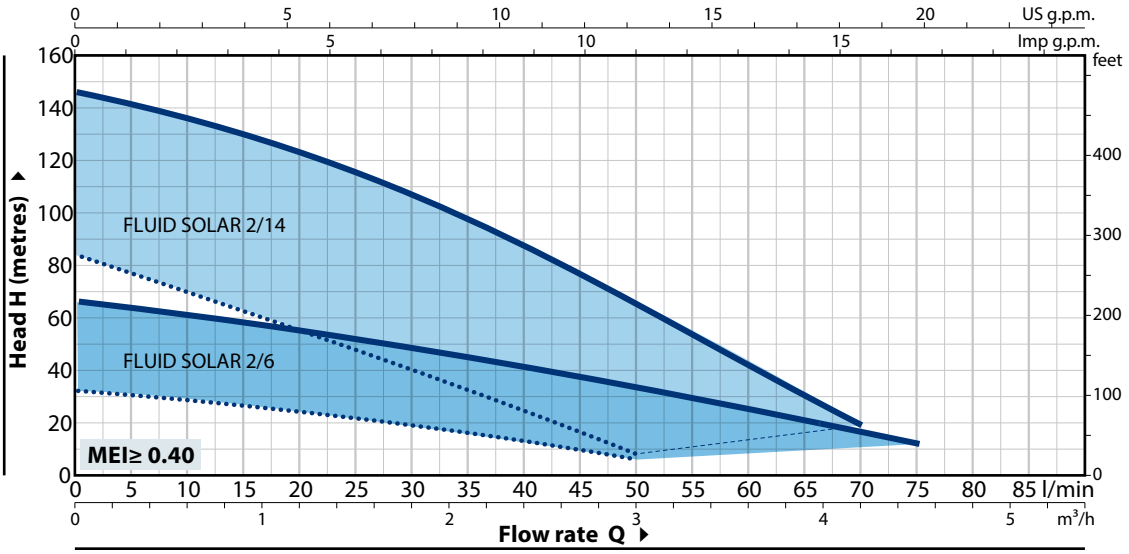
Q	m³/h	0	0.3	0.6	1.2	1.6	1.8	2.3
	l/min	**0**	**5**	**10**	**20**	**26**	**30**	**38**
H metres	▬	84	79	72	56	42	33	12
	••••	40	36	31	17	6		

FLUID SOLAR 1/20

ABSORBED POWER P1 **1500 W**

Performance with **8 photovoltaic panels** with a total rated power of 1960 Wp

Q	m³/h	0	0.3	0.6	1.2	1.6	1.74	1.8	2.3
	l/min	**0**	**5**	**10**	**20**	**26**	**29**	**30**	**38**
H metres	▬	180	165	150	118	92	79	75	35
	••••	90	80	67	41	22	13		



FLUID SOLAR 2/6

ABSORBED POWER P1 **750 W**

Performance with **4 photovoltaic panels** with a total rated power of 980 Wp

Q	m³/h	0	0.3	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.5
	l/min	**0**	**5**	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**75**
H metres	▬	66	64	61	55	48	41	33	25	16	12
	••••	32	31	28	24	19	13	6			

FLUID SOLAR 2/14

ABSORBED POWER P1 **1500 W**

Performance with **8 photovoltaic panels** with a total rated power of 1960 Wp

Q	m³/h	0	0.3	0.6	1.2	1.8	2.4	3.0	3.6	4.2
	l/min	**0**	**5**	**10**	**20**	**30**	**40**	**50**	**60**	**70**
H metres	▬	146	140	136	123	107	87	65	42	20
	••••	82	77	70	55	40	24	8		

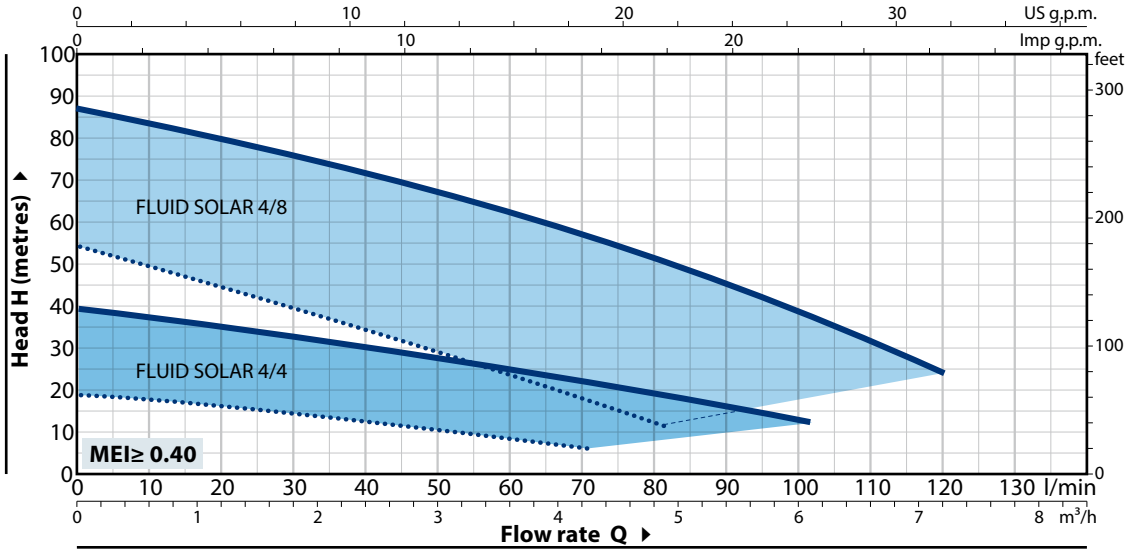
▬ **Performance with a solar radiation of 1000 W/m² and with an available voltage of the photovoltaic panels of 100 VDC**

•••• **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

CHARACTERISTIC CURVES AND PERFORMANCE DATA

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



FLUID SOLAR 4/4

ABSORBED POWER P1 **750 W**

Performance with **4 photovoltaic panels** with a total rated power of 980 Wp

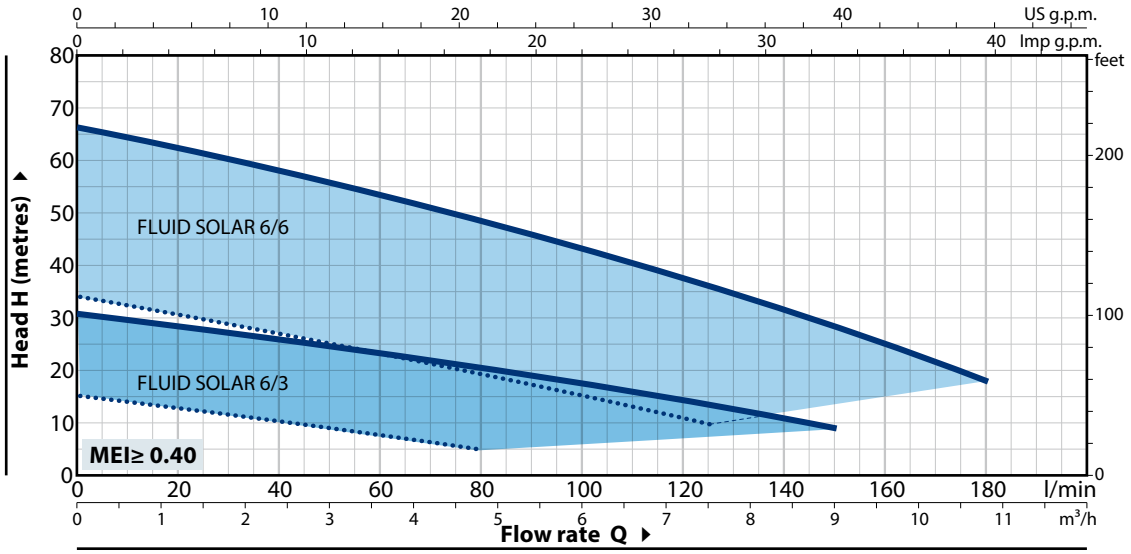
Q	m³/h	0	0.3	0.6	1.2	1.8	3.0	3.6	4.3	4.5	4.8	5.7	6.1
	l/min	**0**	**5**	**10**	**20**	**30**	**50**	**60**	**71**	**75**	**80**	**95**	**102**
H metres	▬	39	38.5	37	35	32.5	27	25	22	21	18	14	12
	••••	19	18.5	17.5	16	14	10	8	6				

FLUID SOLAR 4/8

ABSORBED POWER P1 **1500 W**

Performance with **8 photovoltaic panels** with a total rated power of 1960 Wp

Q	m³/h	0	0.3	0.6	1.2	2.4	3.6	4.9	6.0	7.2
	l/min	**0**	**5**	**10**	**20**	**40**	**60**	**82**	**100**	**120**
H metres	▬	87	85	83	80	71	62	50	39	24
	••••	54	52	49	45	34	23	11		



FLUID SOLAR 6/3

ABSORBED POWER P1 **750 W**

Performance with **4 photovoltaic panels** with a total rated power of 980 Wp

Q	m³/h	0	0.3	1.8	3.6	4.8	5.4	7.2	9.0
	l/min	**0**	**5**	**30**	**60**	**80**	**90**	**120**	**150**
H metres	▬	31	30	27	23	20	19	14	9
	••••	15	14	11	8	5			

FLUID SOLAR 6/6

ABSORBED POWER P1 **1500 W**

Performance with **8 photovoltaic panels** with a total rated power of 1960 Wp

Q	m³/h	0	0.3	1.8	3.6	5.4	7.2	7.5	9.0	10.8
	l/min	**0**	**5**	**30**	**60**	**90**	**120**	**125**	**150**	**180**
H metres	▬	66	65	60	53	46	37	36	28	18
	••••	34	33	29	23	17	11	10		

▬ **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 P1 = 750 W

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, 6/3 Delrin for FLUID SOLAR 2/6
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, 4/4, 4/8, 6/3
7	**DRIVE COUPLING**	Stainless steel AISI 316L for FLUID SOLAR 1/10, 4/4, 4/8, 6/3
8	**MOTOR SHAFT**	Stainless steel AISI 431
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	**Ø 16** mm	Pump side	Silicon carbide	Graphite	NBR

11	**BEARINGS**	**6203 2RS - C3E / 6203 ZZ - C3E**
12	**INVERTER**	
13	**ELECTRIC MOTOR**	

– Submersible motor, suitable for continuous duty (with dry, rewindable stator).
– High performance motor with permanent magnets
– Insulation: class F
– Protection: IP X8

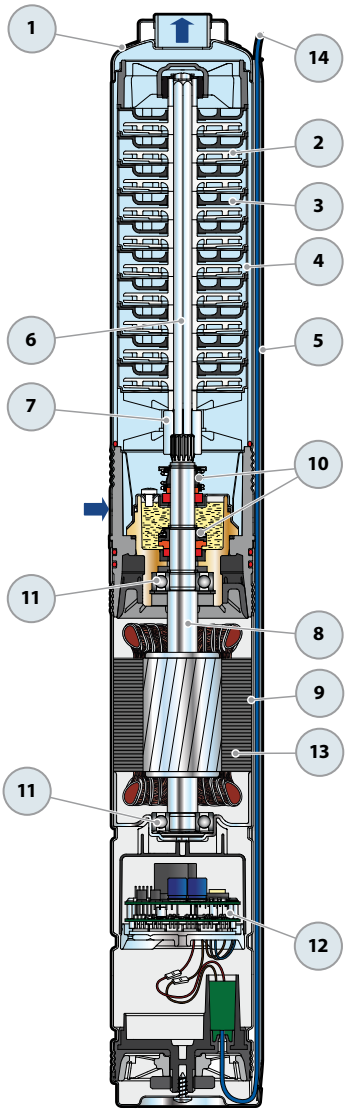
14 POWER CABLE

➠ **PBS-P type**
approved for use in drinking water by "ACS"
in compliance with BS 6920, approval n. 04 ACCLI 201
Standard length 2 metres

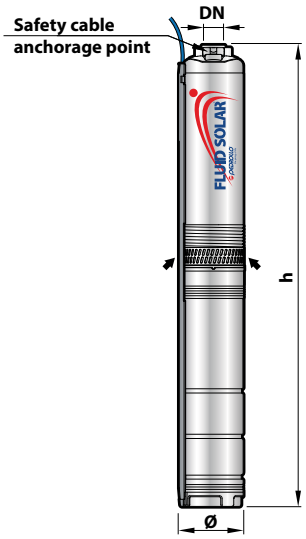
Equipment supplied: connection kit for RPS2 cables

15	**CONTROL BOX**	
16	**CONNECTORS**	

– 2 SMK male connectors
– 2 SMK female connectors



Equipment supplied



DIMENSIONS AND WEIGHT

MODEL	PORT DN	N. STAGES	DIMENSIONS mm Ø	h	kg *
FLUID SOLAR 1/10	**1"**	10	100	710	12.3
FLUID SOLAR 2/6		6		587	11.4
FLUID SOLAR 4/4		4		614	11.0
FLUID SOLAR 6/3	**1¼"**	3		616	11.0

(* weight of the pump with control box)

FLUID SOLAR P1 = 1500 W

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 BOXES / STAGE LIDS**	Stainless steel AISI 304
5	**CABLE COVER**	Stainless steel AISI 304
6	**PUMP SHAFT**	Stainless steel AISI 304
7	**DRIVE COUPLING**	Stainless steel AISI 316L
8	**MOTOR SHAFT**	Stainless steel AISI 431
9	**MOTOR SLEEVE**	Stainless steel AISI 304
10	**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	**Ø 16** mm	Pump side	Silicon carbide	Graphite	NBR

11	**BEARINGS**	**3203 B 2RS - C3E / 6203 ZZ - C3E**
12	**INVERTER**	

13 ELECTRIC MOTOR

– Submersible motor, suitable for continuous duty (with dry, rewindable stator).
– High performance motor with permanent magnets
– Insulation: class F
– Protection: IP X8

14 POWER CABLE

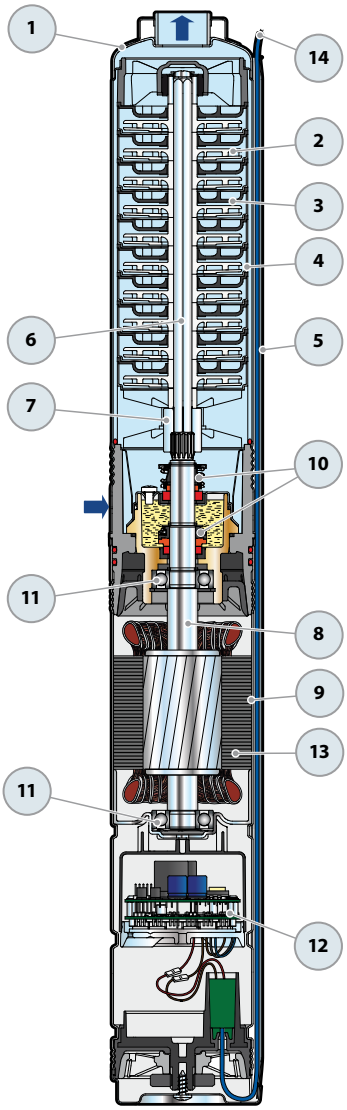
➠ **PBS-P type**
approved for use in drinking water by "ACS"
in compliance with BS 6920, approval n. 04 ACCLI 201
Standard length 2 metres

Equipment supplied: connection kit for RPS2 cables

15 CONTROL BOX

16 CONNECTORS

N. 2 SMK male connectors
N. 2 SMK female connectors
N. 2 Y female/male-male connectors type MC4
N. 2 Y male/female-female connectors type MC4

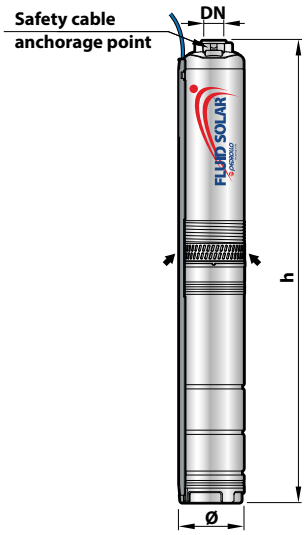


Equipment supplied

DIMENSIONS AND WEIGHT

MODEL	PORT DN	N. STAGES	DIMENSIONS mm Ø	DIMENSIONS mm h	kg *
FLUID SOLAR 1/20	**1"**	20	100	990	13.9
FLUID SOLAR 2/14		14		855	13.8
FLUID SOLAR 4/8		8		772	13.7
FLUID SOLAR 6/6	**1¼"**	6		776	13.7

(* weight of the pump with control box)



TOP MULTI-AD

Elettropompa sommergibile per liquido AdBlue®

Uso industriale

CAMPO DELLE PRESTAZIONI

- Portata fino a **70 l/min** (4.2 m^3/h)
- Prevalenza fino a **27 m**

LIMITI D'IMPIEGO

- Profondità d'impiego sotto il livello dell'acqua fino a **3 m** (con cavo di alimentazione di lunghezza adeguata)
- Temperatura del liquido fino a **+40 °C**
- Livello di svuotamento finno a **25 mm** dal fondo
- Servizio continuo **S1**

ESECUZIONE E NORME DI SICUREZZA

L'elettropompa è completa di:
– cavo di alimentazione di lunghezza **5 metri** con guaina H07BN4-F
– raccordo completo con valvola a clapet

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

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

CE

CERTIFICAZIONI

Azienda con sistema di gestione certificato DNV
ISO 9001: QUALITÀ

EAC

UTILIZZI E INSTALLAZIONI

Le elettropompe sommergibili multigiranti **TOP MULTI 1-AD** sono progettate per pompare liquido pulito definito secondo lo standard ISO 22241 come AUS32 (Aqueous Urea Solution 32.5%).

Questo liquido equivale ad altri nomi commerciali conosciuti come:
– **AdBlue®** (marchio registrato da parte di Verband der Automobilindustrie VDA);
– **DEF** (Diesel Exhaust Fluid);
– **Arla 32** (Agente Redutor Liquido de Óxido de Nitrogênio Automotivo).

Le elettropompe sommergibili multigiranti **TOP MULTI 1-AD** sono costruite con materiali appropriati a venire in contatto con questo liquido. Il loro utilizzo è subordinato alle direttive delle legislazioni locali.

ESECUZIONI A RICHIESTA

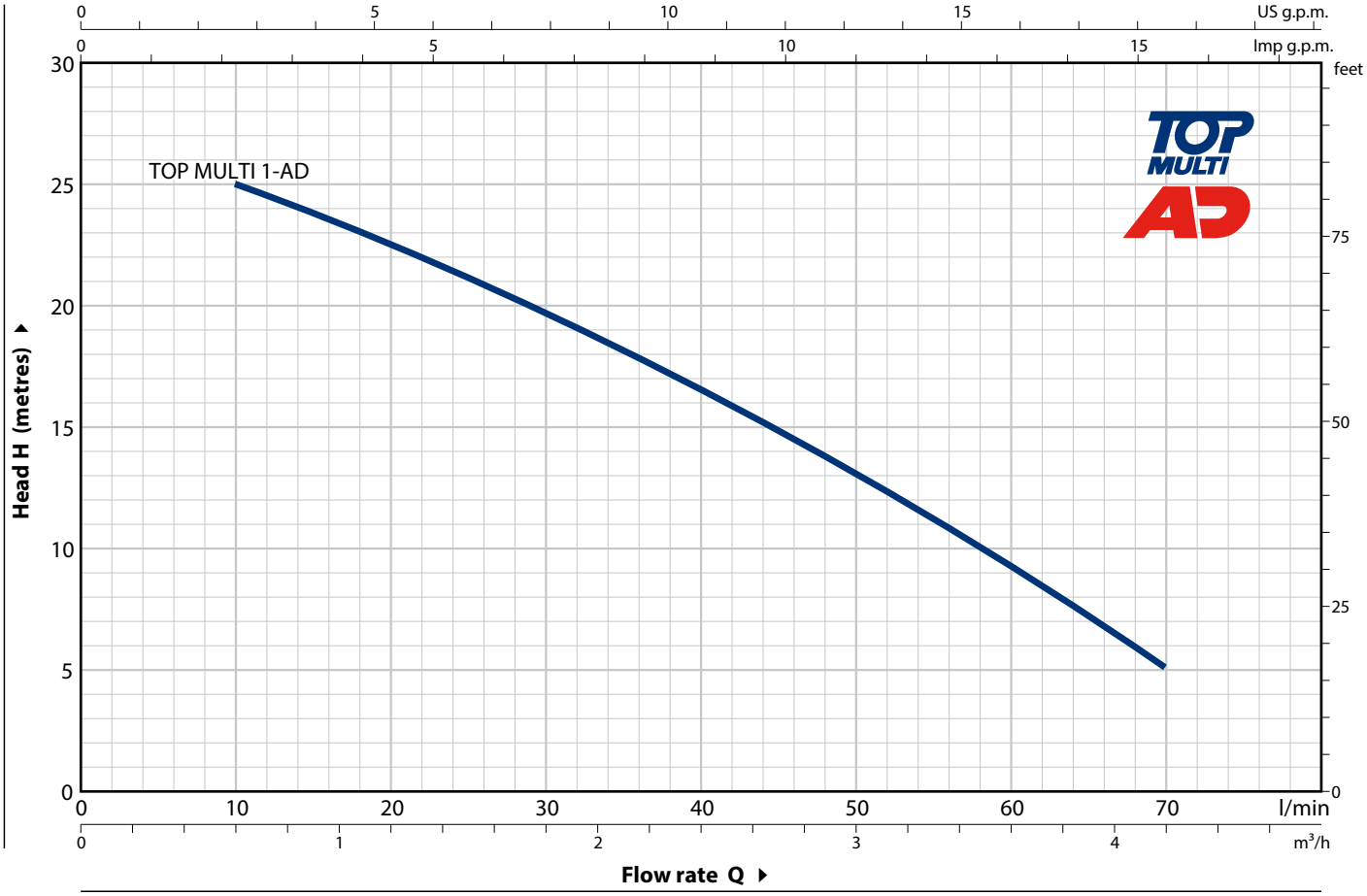
- Altre tensioni o frequenza a 60 Hz

GARANZIA

2 anni secondo le nostre condizioni generali di vendita

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min^{-1}



MODEL	POWER (P2)		Q	m³/h	0	0.6	1.2	1.8	2.4	3.0	3.6	4.2
Single-phase	**kW**	**HP**		l/min	**0**	**10**	**20**	**30**	**40**	**50**	**60**	**70**
TOP MULTI 1-AD	0.37	0.50	**H**	metres	27	25	22.5	19.5	16.5	13	9	5

Q = Flow rate **H** = Total manometric head

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

TOP MULTI-AD

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS
1	**DELIVERY BODY**	Glass fibre reinforced technopolymer complete with threaded delivery port in compliance with ISO 228/1
2	**SUCTION FILTER**	Glass fibre reinforced technopolymer
3	**STAGE CASING**	Glass fibre reinforced technopolymer
4	**IMPELLER**	Noryl FE1520PW
5	**DIFFUSER**	Noryl FE1520PW complete with anti-wear ring
6	**VANE DIFFUSER**	Glass fibre reinforced technopolymer
7	**MOTOR CASING**	Stainless steel AISI 304
8	**MOTOR CASING PLATE**	Stainless steel AISI 304
9	**MOTOR SHAFT**	Stainless steel AISI 431

10 SHAFT WITH DOUBLE SEAL

Seal	***Shaft***	*Materials*			
Model	***Diameter***	*Stationary ring*	*Rotational ring*	*Elastomer*	*Metals*
STA-12R SGE	**Ø 12** mm	Silicon carbide	Graphite	EPDM	AISI 304

11 LIP SEAL — **Ø 12** x **Ø 19** x **H 5** mm

12 BEARINGS — **6201 ZZ - C3E / 6201 ZZ - C3E**

13 CAPACITOR

Capacitance	
(230 V or 240 V)	***(110 V)***
10 µF 450 VL	**16** µF 250 VL

14 ELECTRIC MOTOR

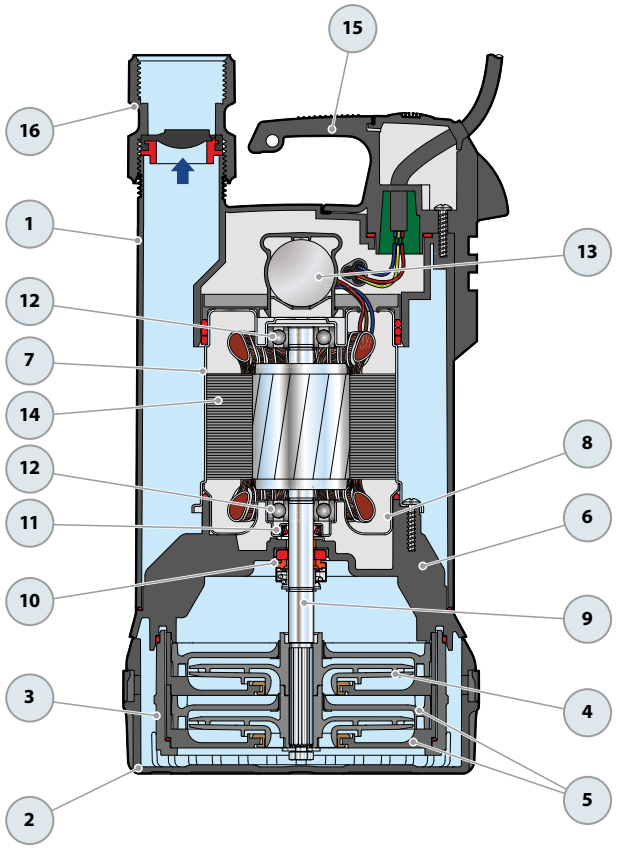
TOP MULTI 1-AD: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding.
– Insulation: class F
– Protection: IP X8

15 HANDLE ASSEMBLY (resin sealed)

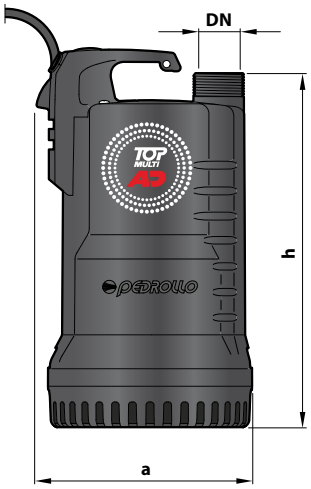
Complete with **5 metres** long "H07BN4-F" power cable

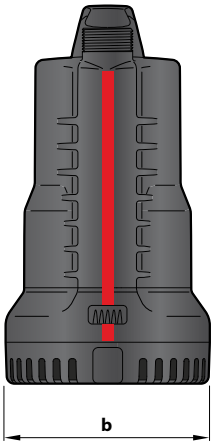
16 PIPE COUPLING
Threaded 1¼" in compliance with ISO 228/1, complete with flap-check valve

(Included in the equipment)

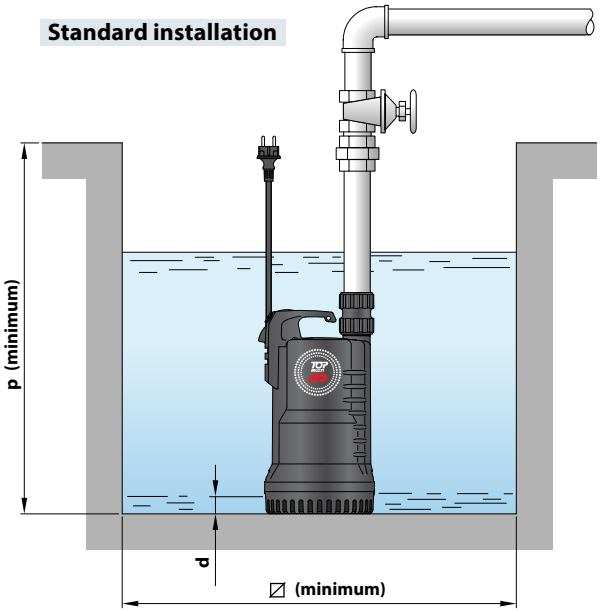


DIMENSIONS AND WEIGHT





Standard installation



MODEL Single-phase	PORT DN	N. STAGES	DIMENSIONS mm a	 b	 h	 d	 ⍁	kg
TOP MULTI 1-AD	**1¼"**	2	180	170	295	25	220	**5.8**

ABSORPTION

MODEL Single-phase	VOLTAGE 230 V	 240 V	 110 V
TOP MULTI 1-AD	**2.0** A	**1.9** A	**4.0** A

PALLETIZATION

MODEL Single-phase	GROUPAGE n. pumps	CONTAINER n. pumps
TOP MULTI 1-AD	**60**	**100**

TOP-FLOOR

Submersible DRAINAGE pumps

Clear water

Domestic use

PERFORMANCE RANGE

- Flow rate up to **160 l/min** (9.6 m^3/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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

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

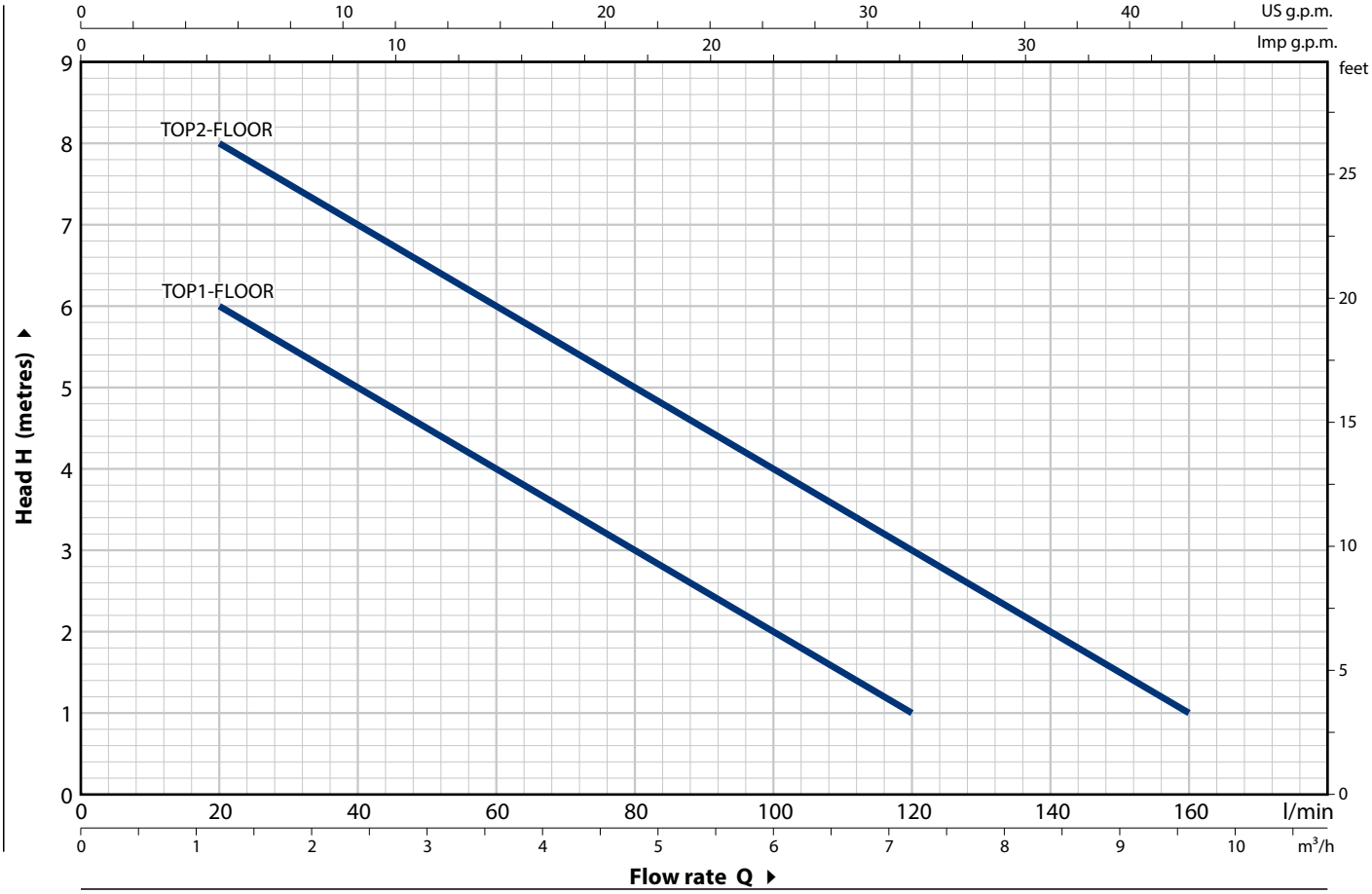
- Registered EU Design n. 342159-0011

OPTIONS AVAILABLE ON REQUEST

- Pumps with float switch
- Pumps intended for use with aggressive liquids:
  - TOP 1-FLOOR/LA
  - TOP 2-FLOOR/LA
- 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 min^{-1}



MODEL	POWER (P2)		Q									
Single-phase	kW	HP	m³/h	0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6
			l/min	**0**	**20**	**40**	**60**	**80**	**100**	**120**	**140**	**160**
TOP 1-FLOOR	0.25	0.33	**H** metres	7	6	5	4	3	2	1		
TOP 2-FLOOR	0.37	0.50		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.

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

TOP-FLOOR

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 AISI 431 (AISI 316L for LA versions)

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

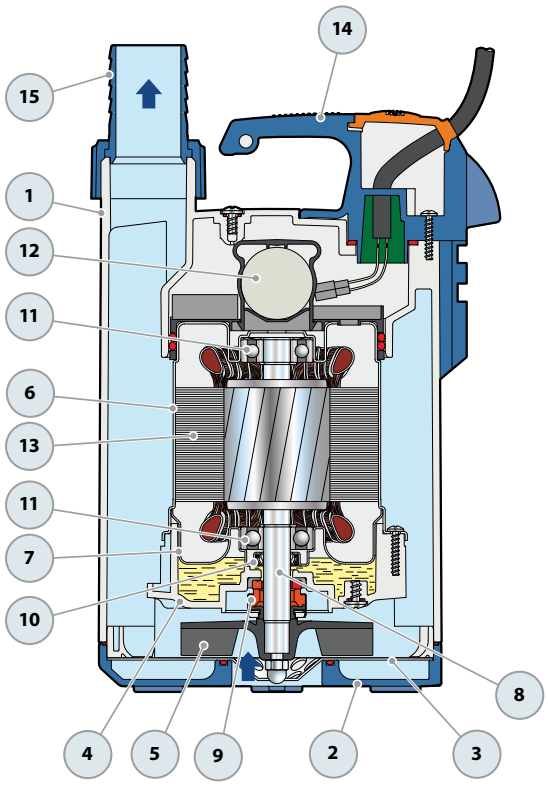
TOP-FLOOR: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding.
– Insulation: class F
– Protection: IP X8

14 HANDLE ASSEMBLY (resin sealed)

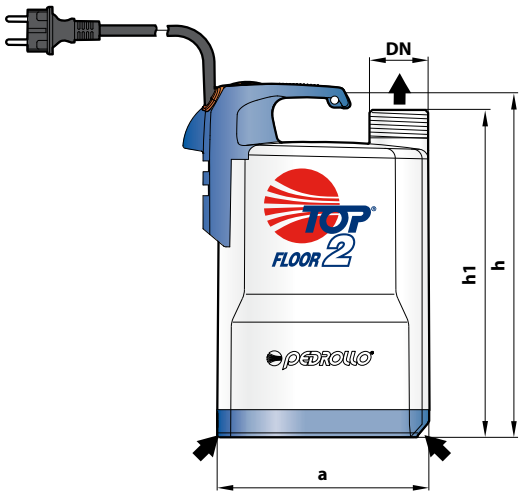
Complete with 5 metres long "H07 RN-F" **power c**able with Schuko plug

15 HOSE CONNECTOR WITH RING NUT

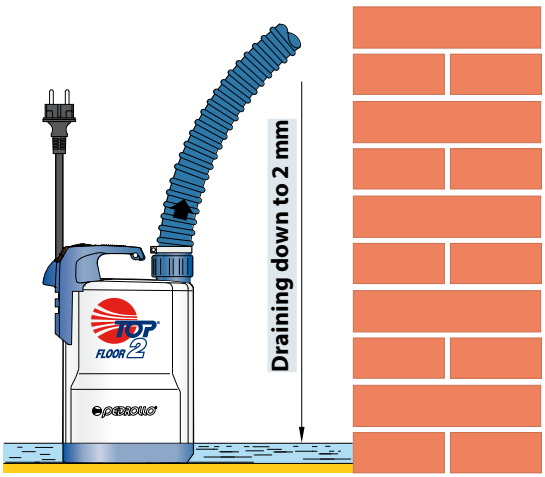
Ø 25 mm hose connection for TOP1 - FLOOR
Ø 35 mm hose connection for TOP2 - FLOOR



DIMENSIONS AND WEIGHT



Standard installation



MODEL	PORT	DIMENSIONS mm			Minimum drying level	kg
Single-phase	DN	a	h	h1		
TOP 1-FLOOR	**1¼"**	152	257	237	**2 mm**	**5.1**
TOP 2 -FLOOR						**5.2**

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
TOP 1-FLOOR	**1.5** A	**1.4** A	**3.0** A
TOP 2-FLOOR	**2.0** A	**1.9** A	**4.0** A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
Single-phase	n. pumps	n. pumps
TOP 1-FLOOR	**96**	**144**
TOP 2-FLOOR	**96**	**144**

Submersible pumps

Sewage water

Domestic use

PERFORMANCE RANGE

- Flow rate up to **240 l/min** (14.4 m^3/h)
- Head up to **10 m**

APPLICATION LIMITS

- **5 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 30 mm**
- Suction down to **35 mm** above ground level
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

The pumps are complete with:
– **5 m** long power cable
– Liquid level vertical sliding magnetic float switch (adjustable)

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

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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

INSTALLATION AND USE

The **TEX** 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 30 mm.

PATENTS - TRADE MARKS - MODELS

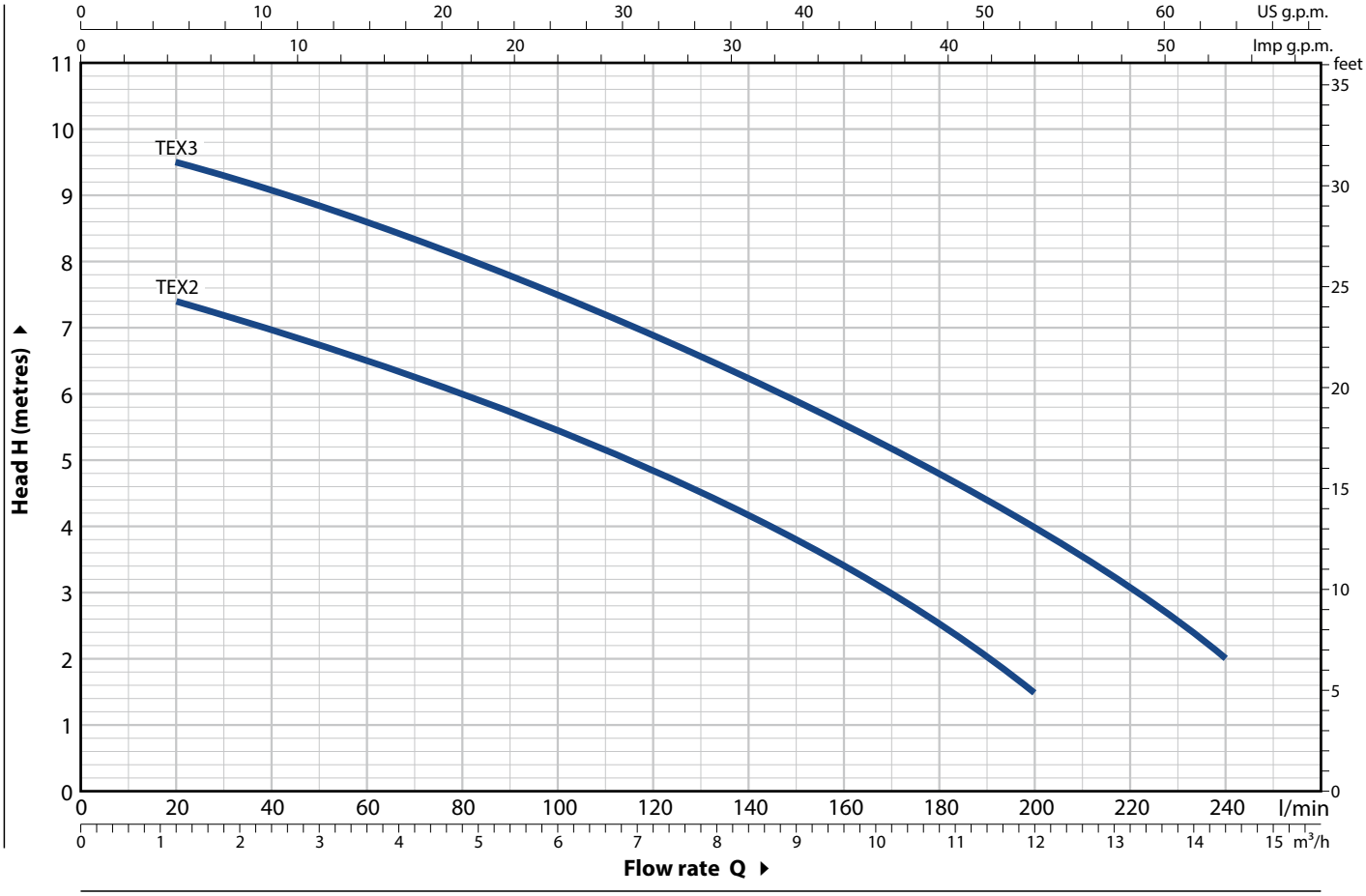
- Registered EU Design n. 005205556
- **TEX®** Registered Trade Mark n. 017884160

OPTIONS AVAILABLE ON REQUEST

- 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 min^{-1}



MODEL	POWER (P2)		Q												
Single-phase	kW	HP		m³/h	0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.0	14.4
				l/min	**0**	**20**	**40**	**60**	**80**	**100**	**120**	**140**	**160**	**180**	**200**	**240**
TEX 2	0.37	0.50	**H**	metres	8	7.5	7	6.5	6	5.5	4.8	4.2	3.4	2.5	1.5	
TEX 3	0.55	0.75			10	9.5	9	8.5	8	7.5	6.8	6.2	5.5	4.8	3.9	2

Q = Flow rate **H** = Total manometric head

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

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

SELECTOR FOR AUTOMATIC OR MANUAL OPERATION

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS
1	**PUMP BODY**	Glass fibre reinforced technopolymer complete with threaded delivery port in compliance with ISO 228/1
2	**SUCTION FILTER**	Technopolymer
3	**SUCTION PLATE**	Technopolymer
4	**IMPELLER**	Glass fibre reinforced technopolymer VORTEX type impeller
5	**MOTOR CASING**	Stainless steel AISI 304
6	**MOTOR CASING PLATE**	Stainless steel AISI 304
7	**MOTOR SHAFT**	Stainless steel AISI 431

8 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

9 LIP SEAL — **Ø 12** x **Ø 19** x **H 5** mm

10 BEARINGS — **6201 ZZ / 6201 ZZ**

11 CAPACITOR

Pump	*Capacitance*
Single-phase	***(230 V or 240 V)***
TEX 2	**10** µF 450 VL
TEX 3	**12.5** µF 450 VL

12 ELECTRIC MOTOR

TEX: 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" type with Schuko plug

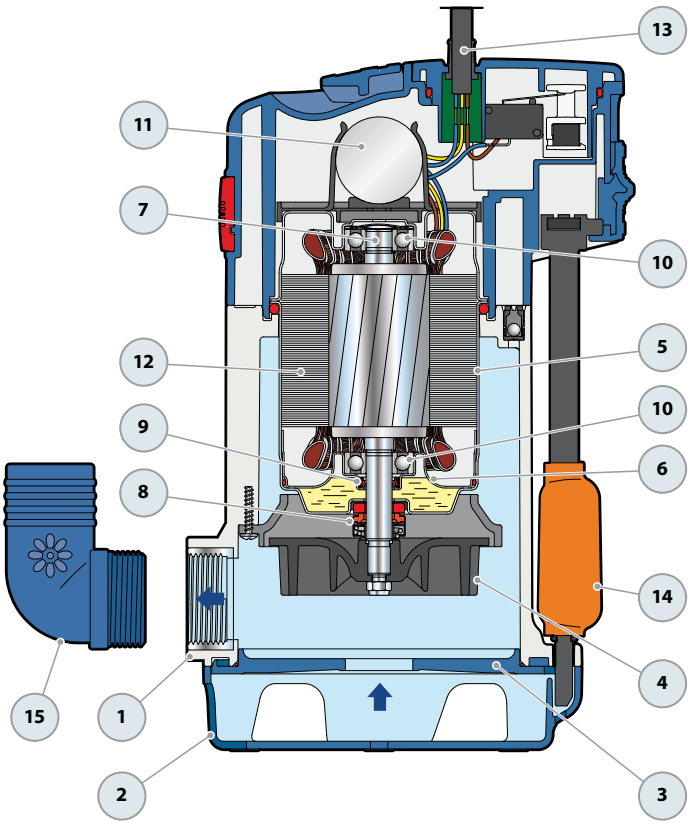
Standard length 5 metres

14 LEVEL FLOAT SWITCH

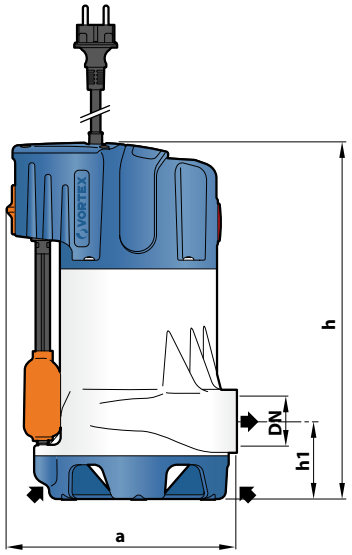
Liquid level vertical sliding magnetic float switch (adjustable)

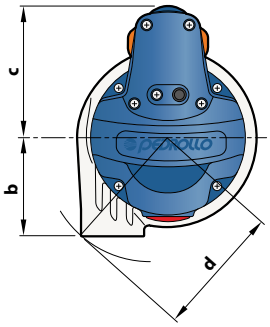
15 HOSE CONNECTION

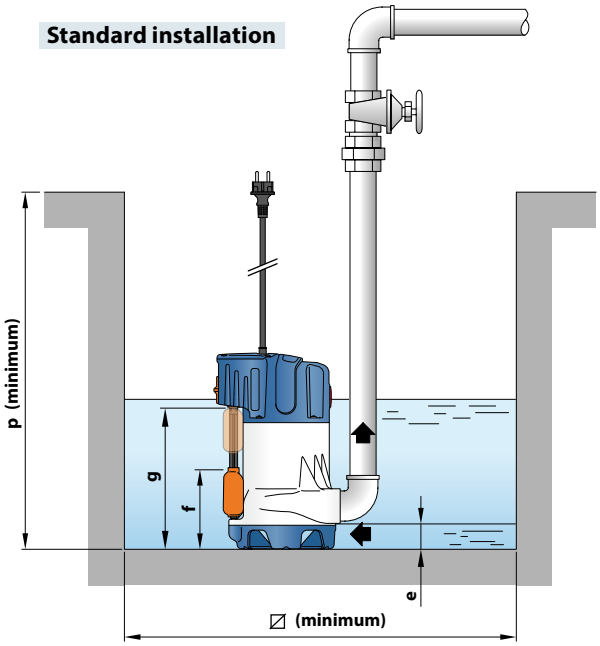
Ø 40 mm



DIMENSIONS AND WEIGHT







MODEL	PORT	Passage of solids	DIMENSIONS mm											kg
Single-phase	DN		a	b	c	d	h1	h	e	f	g	p	⍁	1~
TEX 2	**1¼"**	Ø 30 mm	205	88	117	118	69.5	318	35	110 or 130	220	350	220	**6.1**
TEX 3														**6.8**

ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
TEX 2	**2.3** A	**2.2** A
TEX 3	**3.3** A	**3.2** A

PALLETIZATION

MODEL	GROUPAGE
Single-phase	n. pumps
TEX 2	**60**
TEX 3	**60**

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 25 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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

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 25 mm.

PATENTS - TRADE MARKS - MODELS

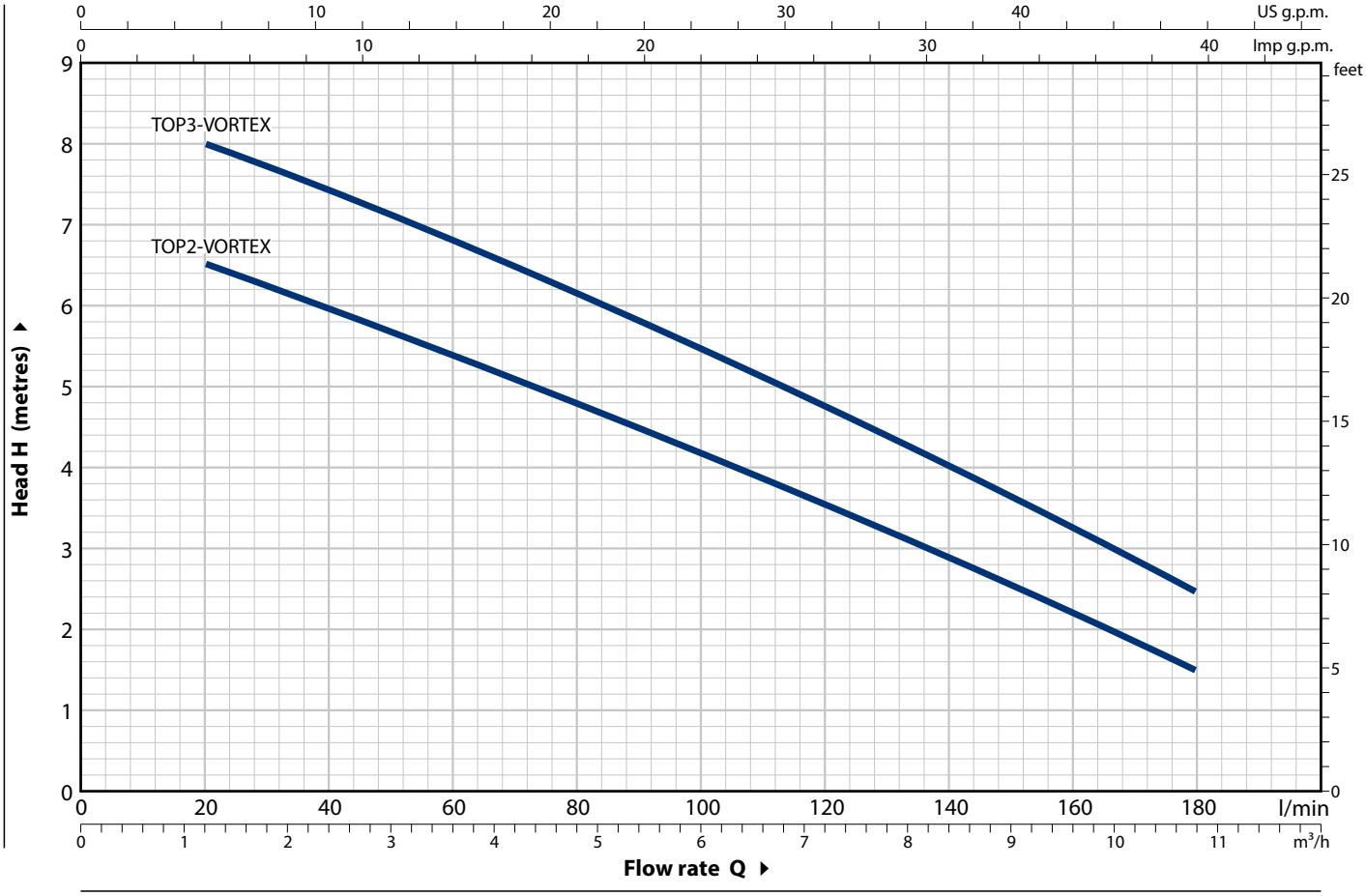
- Patent n. IT0001428923
- Registered EU Design n. 342159-0011

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 min^{-1}



MODEL	POWER (P2)		Q										
Single-phase	kW	HP	m³/h	0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8
			l/min	**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
TOP 3 - VORTEX	0.55	0.75		8.5	8	7.4	6.8	6.1	5.5	4.7	4	3.2	2.5

Q = Flow rate **H** = Total manometric head

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

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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 AISI 431

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 2 - VORTEX	**10** µF 450 VL	**16** µF - 250 VL
TOP 3 - VORTEX	**14** µF 450 VL	**16** µF - 250 VL

13 ELECTRIC MOTOR

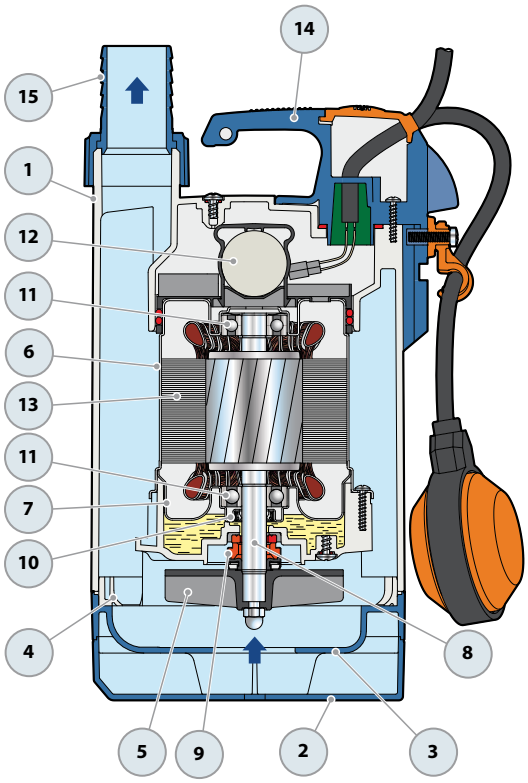
TOP-VORTEX: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding.
– Insulation: class F
– Protection: IP X8

14 HANDLE ASSEMBLY (resin sealed)

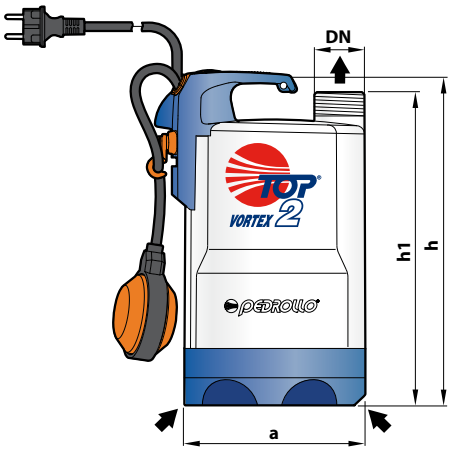
Complete with:
– **5 metres** long "H07 RN-F" power cable with Schuko plug
– Float switch
(Vertical float switch in the GM versions)

15 HOSE CONNECTOR WITH RING NUT

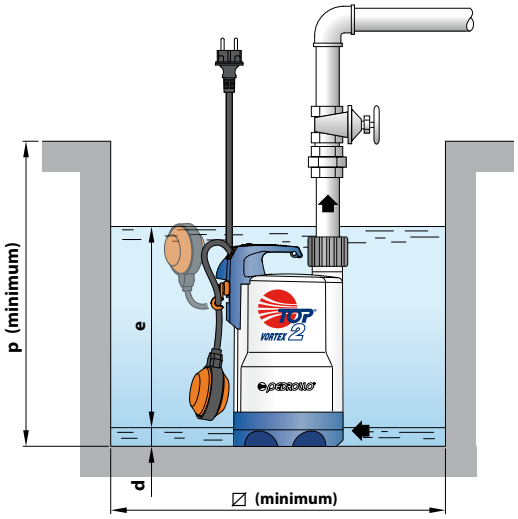
Hose connection **Ø 35** mm



DIMENSIONS AND WEIGHT

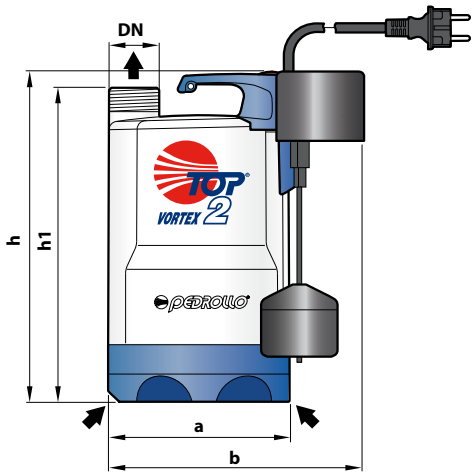


Standard installation

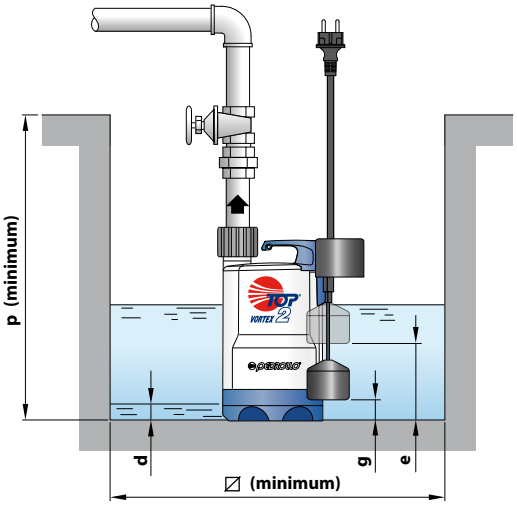


MODEL	PORT	DIMENSIONS mm							kg
Single-phase	DN	a	h	h1	d	e	p	⍁	
TOP 2 - VORTEX	1¼"	152	288	268	25	variable	350	350	5.3
TOP 3 - VORTEX			318	298					6.7

Version with vertical float switch



Standard installation



MODEL	PORT	DIMENSIONS mm									kg
Single-phase	DN	a	b	h	h1	d	e	g	p	⍁	
TOP 2 - VORTEX/GM	1¼"	152	200	288	268	25	170	40	350	220	5.4
TOP 3 - VORTEX/GM				318	298		200	65			6.9

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
TOP 2 - VORTEX	2.0 A	1.9 A	4.0 A
TOP 3 - VORTEX	2.9 A	2.8 A	7.0 A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
Single-phase	n. pumps	n. pumps
TOP 2 - VORTEX	96	120
TOP 3 - VORTEX	96	120

RX

Submersible DRAINAGE pumps

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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

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

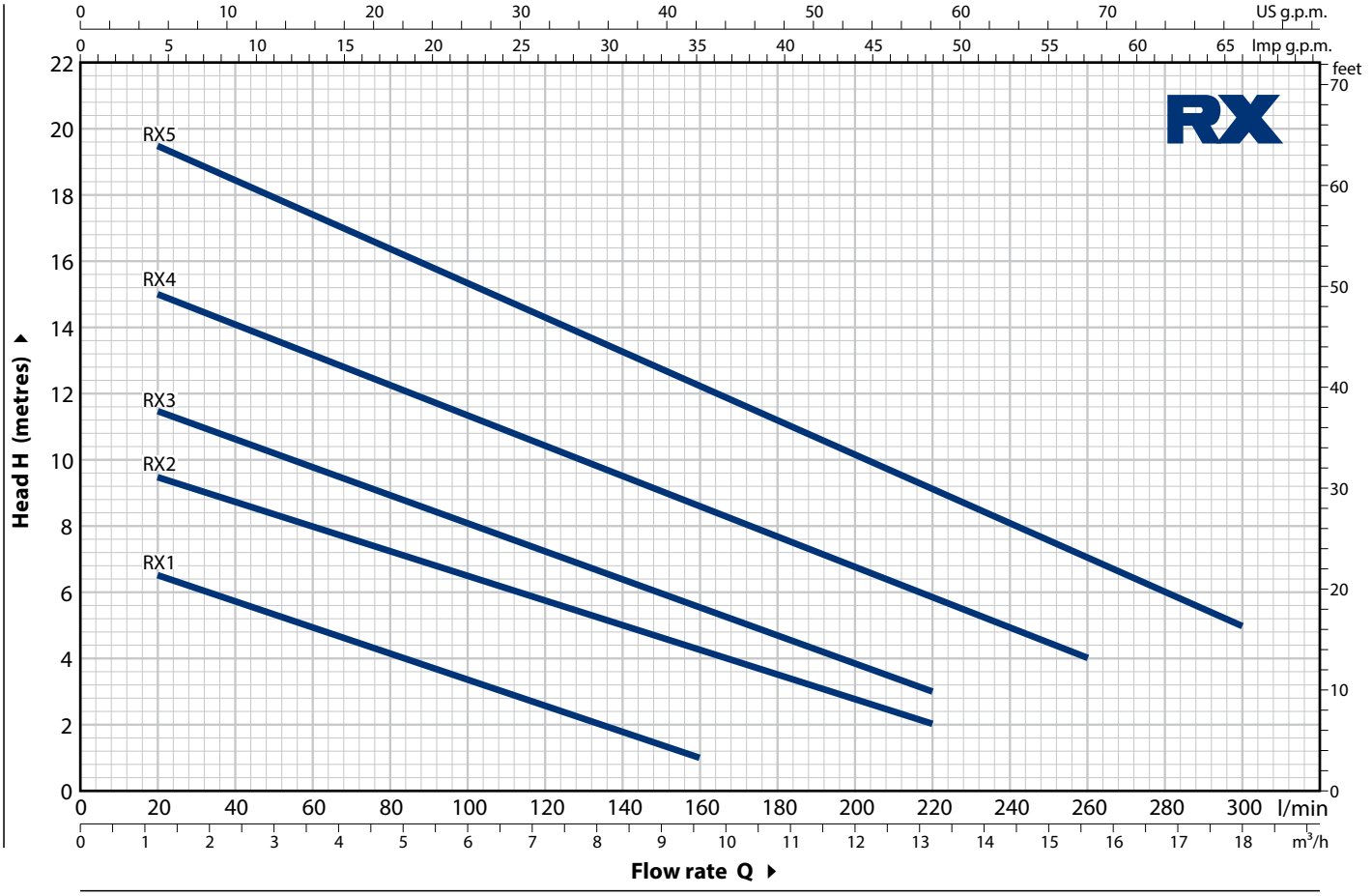
- Patent n. EP2313658
- Patent n. IT0001428923

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 min^{-1}



MODEL		POWER (P2)		Q	m³/h	0	1.2	3.6	6.0	8.4	9.6	12.0	13.2	15.6	18.0
Single-phase	Three-phase	kW	HP		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.

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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 AISI 431

8 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

9 LIP SEAL — **Ø 12** x **Ø 19** x **H 5** mm

10 BEARINGS — **6201 ZZ / 6201 ZZ**

11 CAPACITOR

Pump	***Capacitance***	
Single-phase	***(230 V or 240 V)***	***(110 V)***
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

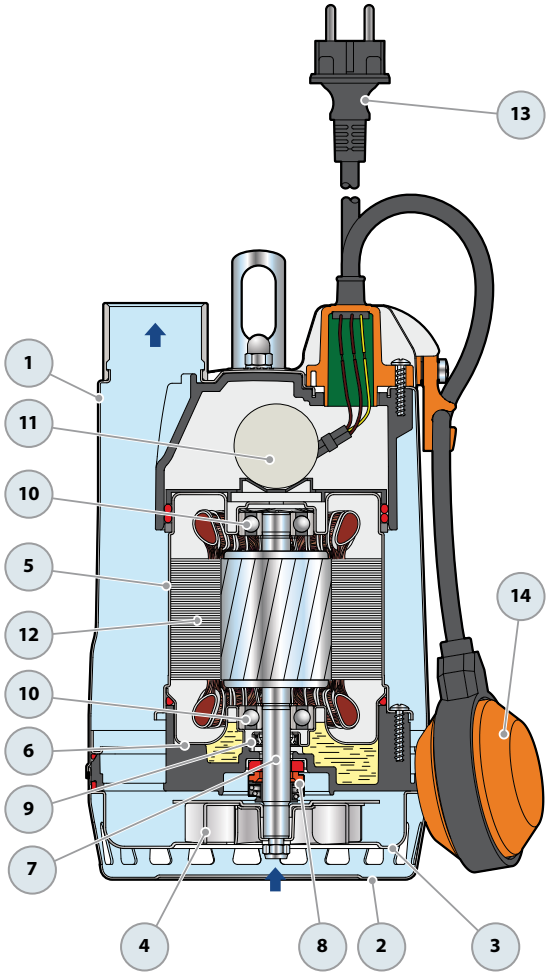
12 ELECTRIC MOTOR

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 POWER CABLE

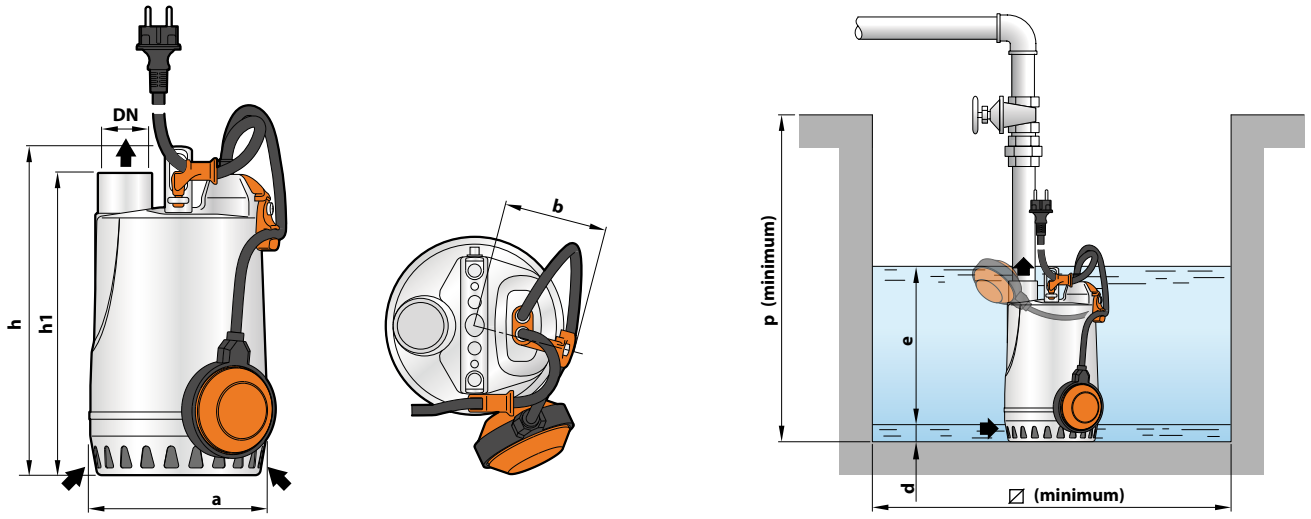
"H07 RN-F" type
(with Schuko plug for single-phase versions only)
Standard length 5 metres

14 FLOAT SWITCH
(Only for single-phase versions)



DIMENSIONS AND WEIGHT

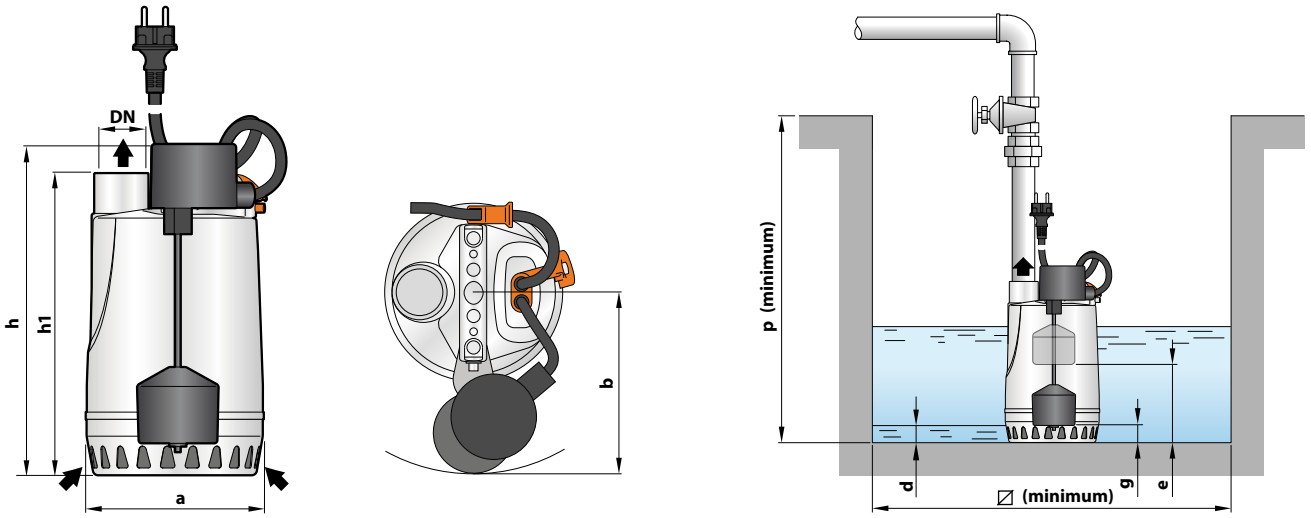
Standard installation



MODEL		PORT	DIMENSIONS mm								kg		PALLETIZATION	
Single-phase	Three-phase	DN	a	b	h	h1	d	e	p	⍁	1~	3~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 1	RX 1	1¼"	147	24	269	246	14	variable	350	350	6.1	5.5	96	144
RXm 2	RX 2										6.1	5.6	96	144
RXm 3	RX 3				298	277					7.6	7.0	96	144

Version with vertical float switch

Standard installation



MODEL	PORT	DIMENSIONS mm									kg	PALLETIZATION	
Single-phase	DN	a	b	h	h1	d	e	g	p	⍁	1~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 1-GM	1¼"	147	150	270	247	14	145	40	350	240	6.2	80	120
RXm 2-GM											6.2	80	120
RXm 3-GM				300	277		175	45			7.5	80	120

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
RXm 1	**1.5** A	**1.4** A	**3.0** A
RXm 2	**2.0** A	**2.0** A	**4.0** A
RXm 3	**3.6** A	**3.4** A	**7.2** A

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
RX 1	**1.6** A	**0.9** A	**1.6** A	**0.9** A
RX 2	**1.7** A	**1.0** A	**1.7** A	**1.0** A
RX 3	**2.8** A	**1.6** A	**2.6** A	**1.5** 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 AISI 431

8 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal	*Shaft*	*Position*		*Materials*	
Model	***Diameter***		*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

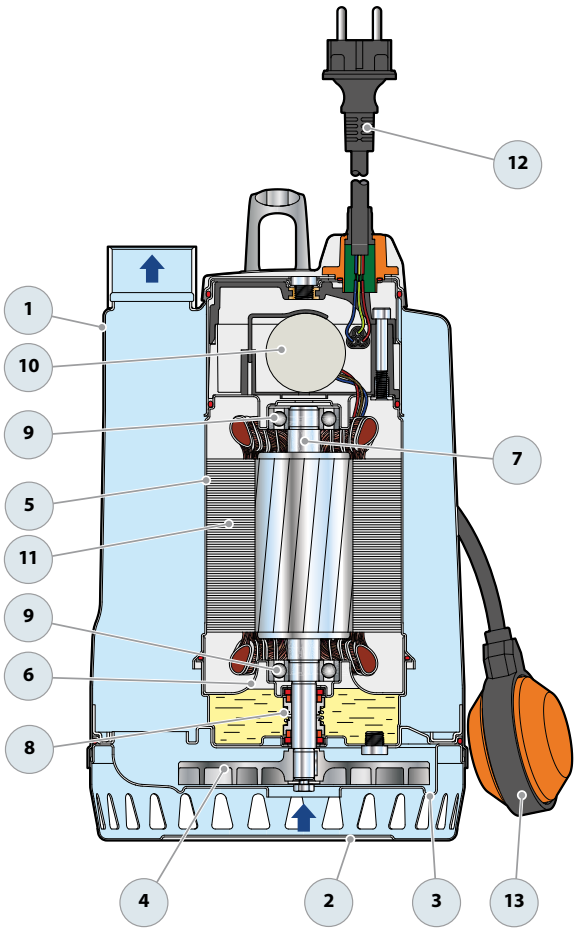
RXm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding
RX: three-phase 400 V - 50 Hz
– Insulation: class F
– Protection: IP X8

12 POWER CABLE

"H07 RN-F" type
(with Schuko plug for single-phase versions only)
Standard length 10 metres

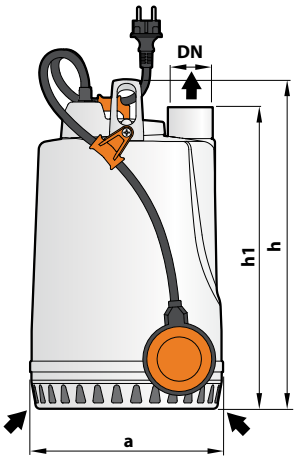
13 FLOAT SWITCH

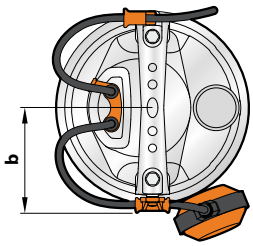
Only for single-phase versions
(Vertical float switch in the GM versions).

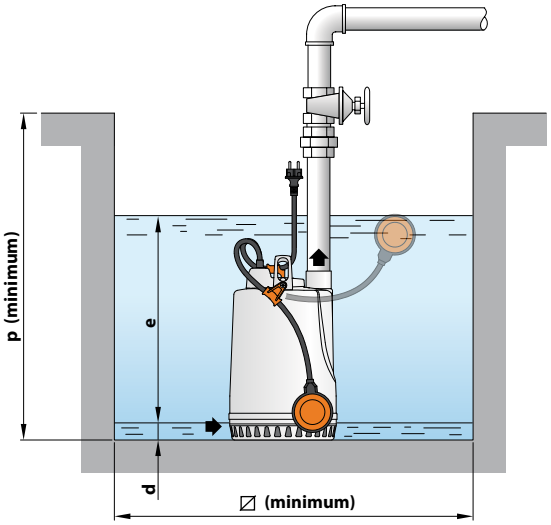


DIMENSIONS AND WEIGHT

Standard installation



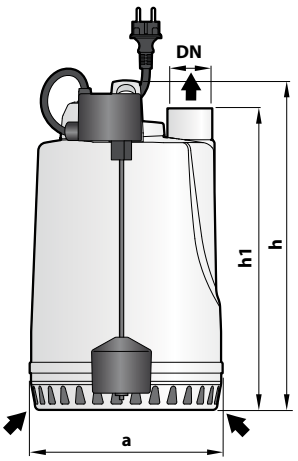


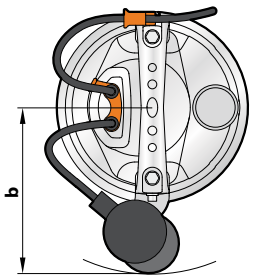


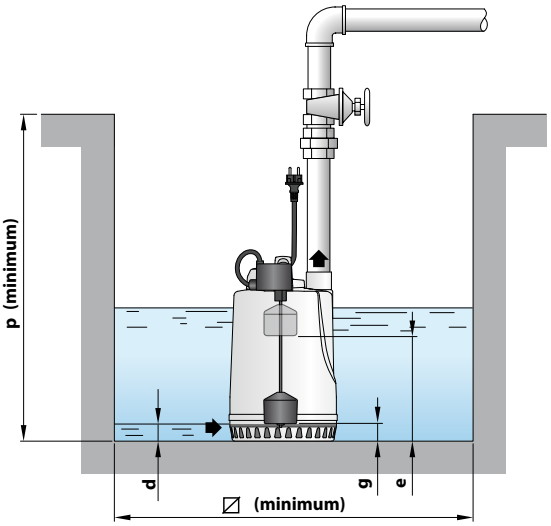
MODEL		PORT	DIMENSIONS mm								kg		PALLETIZATION	
Single-phase	Three-phase	DN	a	b	h	h1	d	e	p	⍁	1~	3~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 4	RX 4	1½"	220	118.5	370	336	25	variable	500	500	14.4	13.3	45	60
RXm 5	RX 5										15.4	14.4	45	60

Version with vertical float switch

Standard installation







MODEL	PORT	DIMENSIONS mm									kg	PALLETIZATION	
Single-phase	DN	a	b	h	h1	d	e	g	p	⍁	1~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 4 - GM	1½"	220	186.5	370	336	25	250	50	500	300	16.7	45	60
RXm 5 - GM											15.8	45	60

ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
RXm 4	**5.9** A	**5.9** A
RXm 5	**7.5** A	**7.5** A

MODEL	VOLTAGE			
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	**6.1** A	**3.5** A	**5.9** A	**3.4** A

RX 2-3-4-5

Submersible pumps

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

CE

CERTIFICATIONS

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

EAC

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

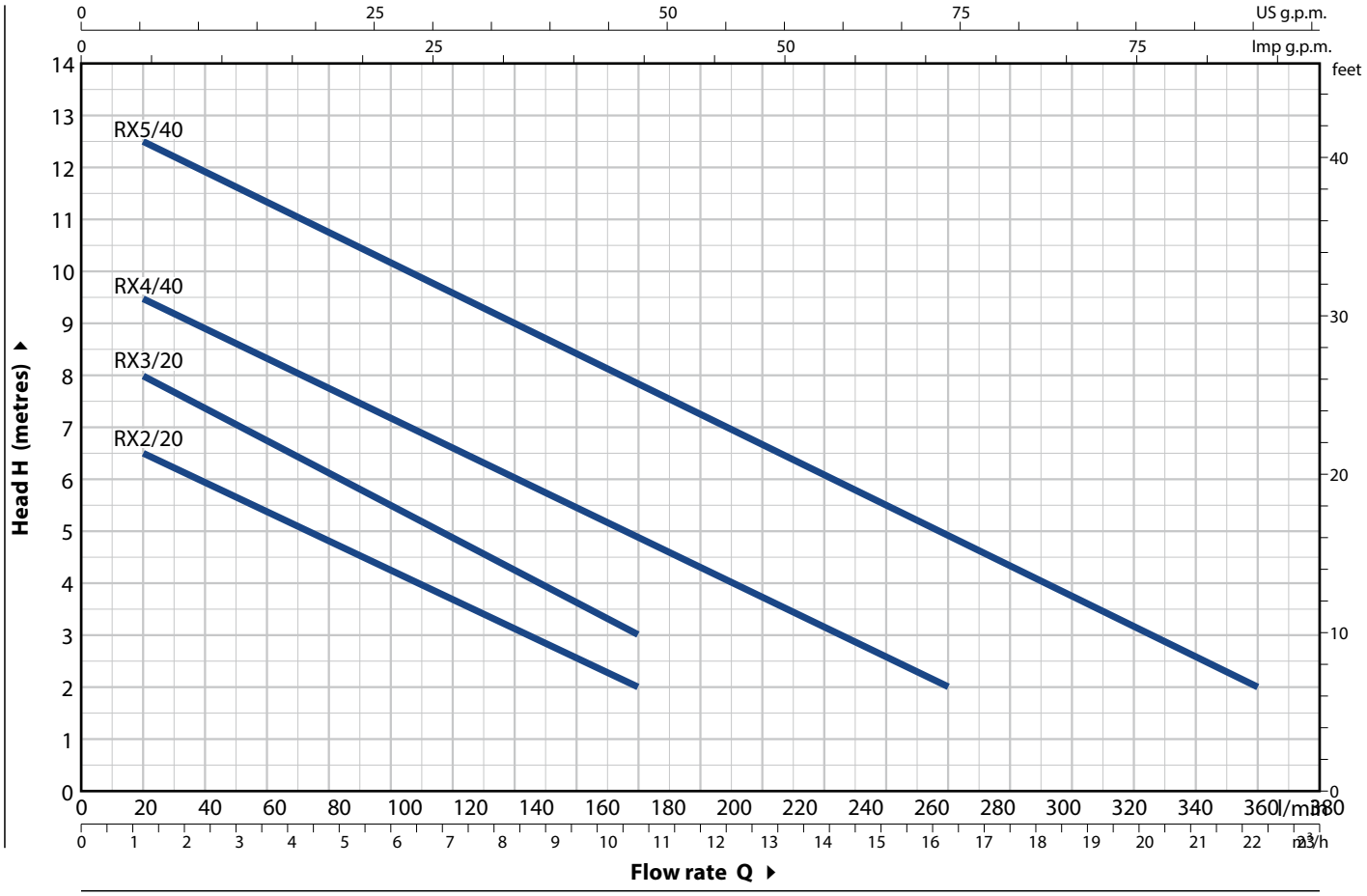
- Patent n. IT0001390742 (RX 4-5/40)
- Registered EU Design n. 342159-0014 (RX 2-3/20)

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 (P2)		Q														
Single-phase	Three-phase	kW	HP	m³/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	**H**	metres	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.

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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

Seal	*Shaft*		*Materials*	
Model	***Diameter***	*Stationary ring*	*Rotational ring*	*Elastomer*
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

Pump	*Capacitance*	
Single-phase	***(230 V or 240 V)***	***(110 V)***
RXm 2/20	**10** µF 450 VL	**16** µF - 250 VL
RXm 3/20	**14** µF 450 VL	**16** µF - 250 VL

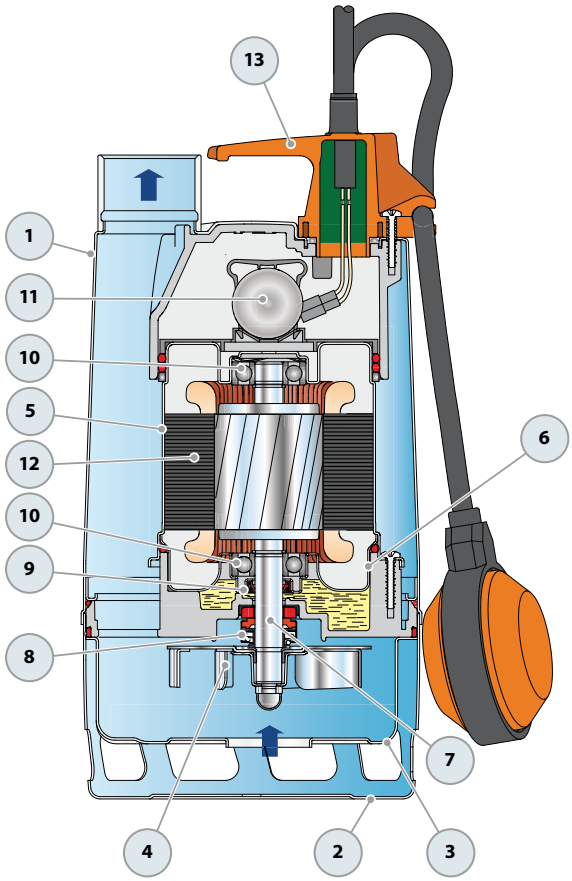
12 ELECTRIC MOTOR

RXm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding
RX: three-phase 400 V - 50 Hz

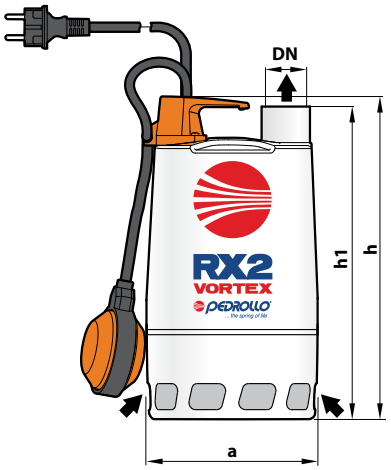
– Insulation: class F
– Protection: IP X8

13 HANDLE ASSEMBLY (resin sealed)

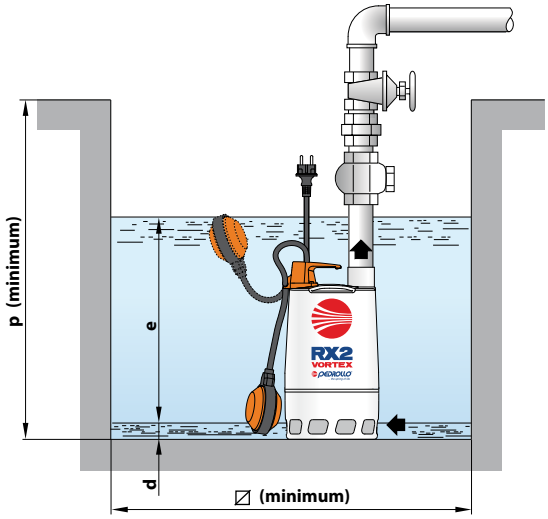
Complete with:
– **5 metres** long "H07 RN-F" power cable with Schuko plug
– Float switch
(Vertical float switch in the GM versions)



DIMENSIONS AND WEIGHT

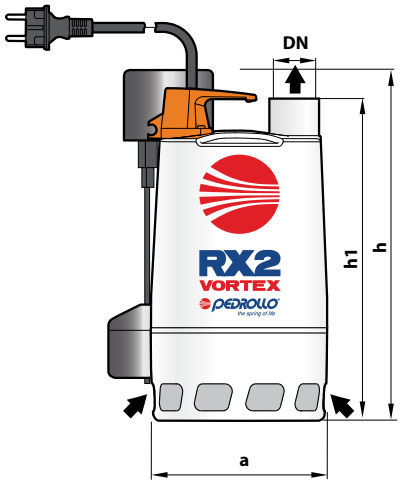


Standard installation

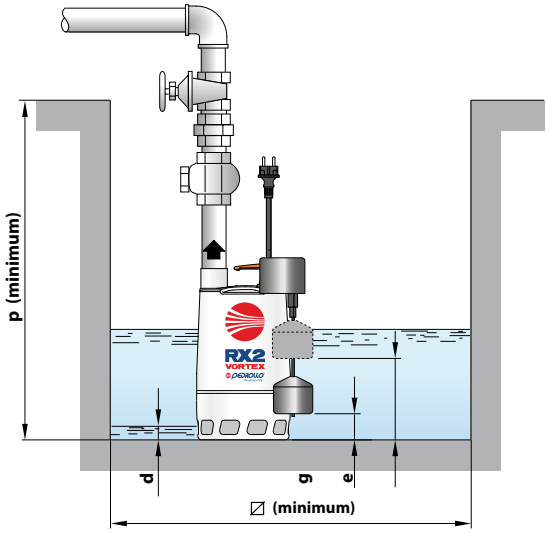


MODEL		PORT	DIMENSIONS mm							kg		PALLETIZATION	
Single-phase	Three-phase	DN	a	h	h1	d	e	p	⍁	1~	3~	GROUPAGE n. pumps	CONTAINER n. pumps
RXm 2/20	RX 2/20	1¼"	147	290	278	25	variable	350	350	6.1	6.1	72	120
RXm 3/20	RX 3/20			320	308					7.9	7.9	72	120

Version with vertical float switch



Standard installation



MODEL	PORT	DIMENSIONS mm								kg	PALLETIZATION	
Single-phase	DN	a	h	h1	d	e	g	p	⍁	1~	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	*Shaft*	*Position*	*Materials*		
Model	*Diameter*		*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 4/40	**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

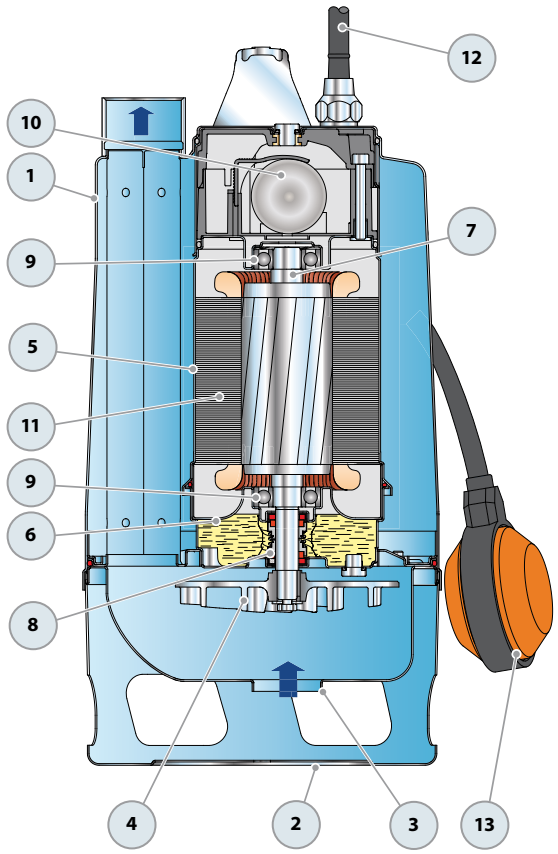
– Insulation: class F
– Protection: IP X8

12 POWER CABLE

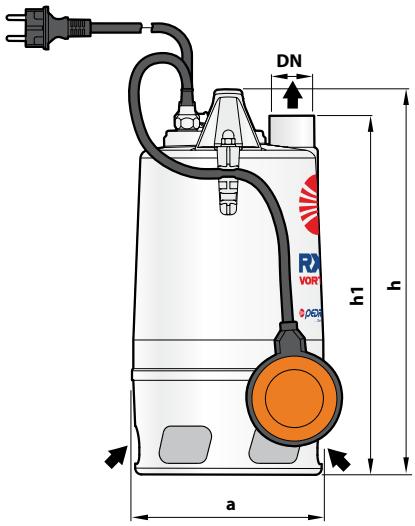
"H07 RN-F" type
(with Schuko plug for single-phase versions only)
Standard length 10 metres

13 FLOAT SWITCH

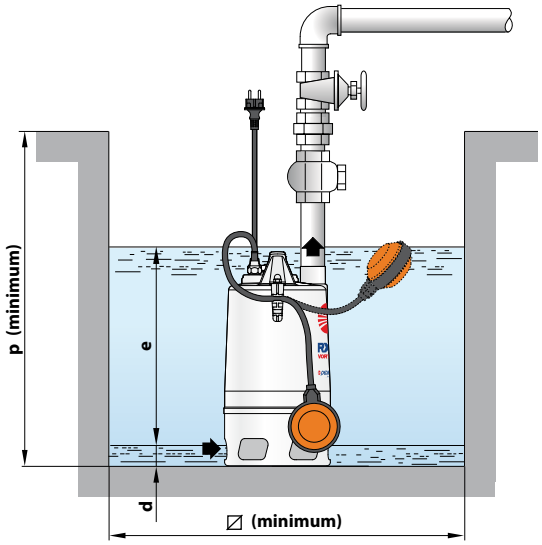
Only for single-phase versions
(Vertical float switch in the GM versions).



DIMENSIONS AND WEIGHT



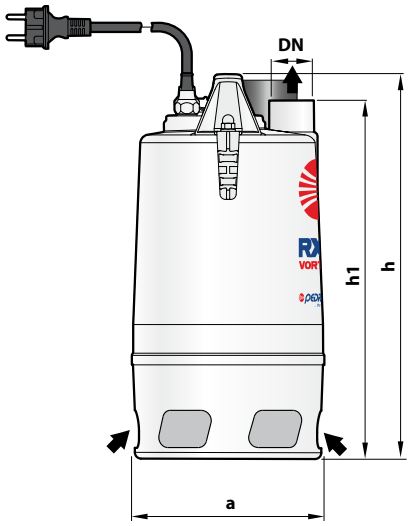
Standard installation



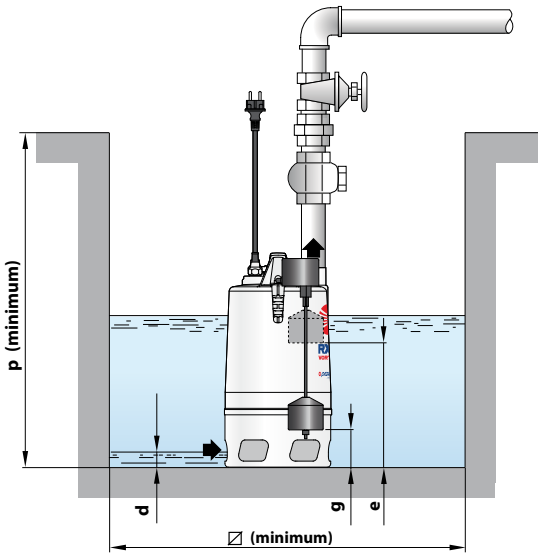
MODEL		PORT	DIMENSIONS mm							kg	
Single-phase	Three-phase	DN	a	h	h1	d	e	p	⍁	1~	3~
RXm 4/40	RX 4/40	1½"	220	430	400	50	variable	500	500	13.0	12.2
RXm 5/40	RX 5/40									14.0	13.0

PALLETIZATION	
GROUPAGE n. pumps	CONTAINER n. pumps
45	60
45	60

Version with vertical float switch



Standard installation



MODEL	PORT	DIMENSIONS mm								kg
Single-phase	DN	a	h	h1	d	e	g	p	⍁	1~
RXm 4/40 - GM	1½"	220	430	400	50	320	80	500	350	14.3
RXm 5/40 - GM										15.3

PALLETIZATION	
GROUPAGE n. pumps	CONTAINER n. pumps
36	48
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

Submersible pumps

Sewage water

Domestic use

Civil use

PERFORMANCE RANGE

- Flow rate up to **400 l/min** (24 m^3/h)
- Head up to **13 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 30 mm** for ZXm 2/30
  – up to **Ø 40 mm** for ZXm 2/40
- Minimum immersion depth for continuous service:
  – **265 mm** for ZXm 2/30
  – **275 mm** for ZXm 2/40

CONSTRUCTION AND SAFETY STANDARDS

The pumps are complete with:
– **5 m** long power cable
– float switch
– kose connection Ø 50 mm

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

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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

INSTALLATION AND USE

ZX2 series pumps are suitable for draining **dirty water** in domestic and civil 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.

PATENTS - TRADE MARKS - MODELS

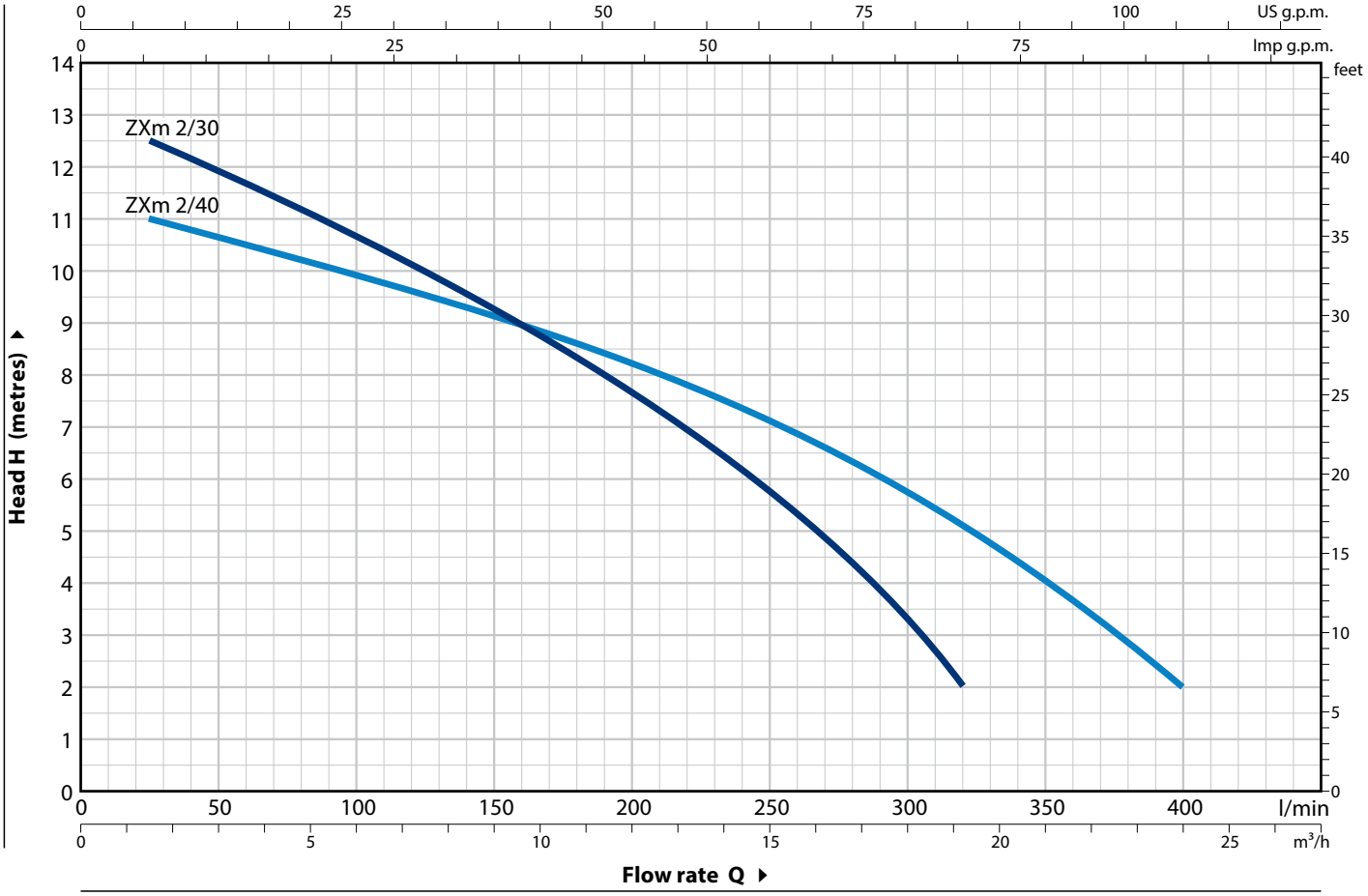
- Patent n° EP2313658
- Patent Pending n° BO2015A000116

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 min^{-1}



MODEL	POWER (P2)		Q	m³/h	0	1.5	3	6	9	12	15	18	19.2	21	24
Single-phase	kW	HP		l/min	**0**	**25**	**50**	**100**	**150**	**200**	**250**	**300**	**320**	**350**	**400**
ZXm 2/30	0.55	0.75	H	metres	13	12.5	11.8	10.6	9.3	7.6	5.8	3.3	2		
ZXm 2/40	0.55	0.75			11.5	11	10.6	9.8	9.2	8.2	7.2	5.7	5.2	4	2

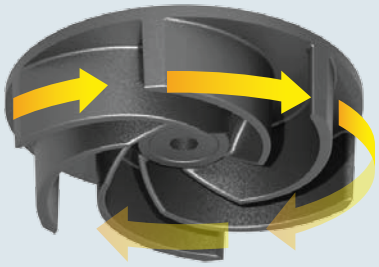
Q = Flow rate **H** = Total manometric head

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

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

VORTEX IMPELLER



POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS
1	**PUMP BODY**	Glass fibre reinforced technopolymer complete with threaded delivery port in compliance with ISO 228/1 (5 years guarantee)
2	**BASE**	Glass fibre reinforced technopolymer
3	**IMPELLER**	Glass fibre reinforced technopolymer VORTEX type
4	**MOTOR CASING**	Stainless steel AISI 304
5	**MOTOR CASING PLATE**	Stainless steel AISI 304
6	**MOTOR SHAFT**	Stainless steel AISI 431
7	**SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER**	

Seal	***Shaft***	*Position*	*Materials*		
Model	***Diameter***		*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

Capacitance
(220-230 V or 240 V)

20 µF 450 VL

10 ELECTRIC MOTOR

ZXm 2: single-phase 220-230 V - 50 Hz
with thermal overload protector incorporated into the winding

– Insulation: class F
– Protection: IP X8

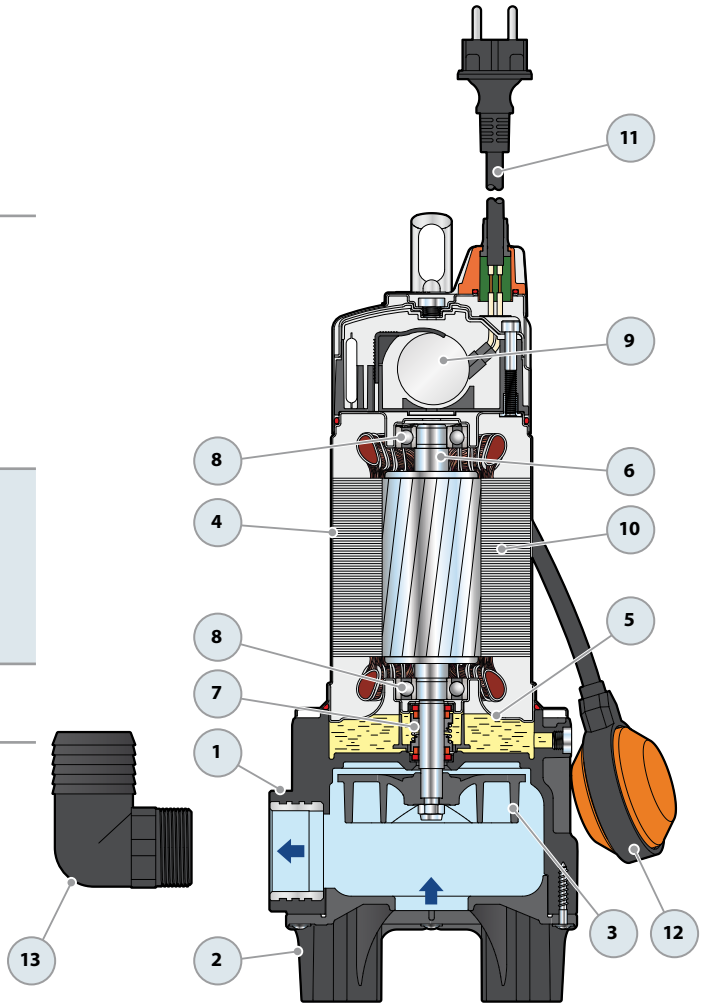
11 POWER CABLE

"H07 RN-F" type
(with Schuko plug for single-phase versions only)
Standard length 5 metres

12 FLOAT SWITCH

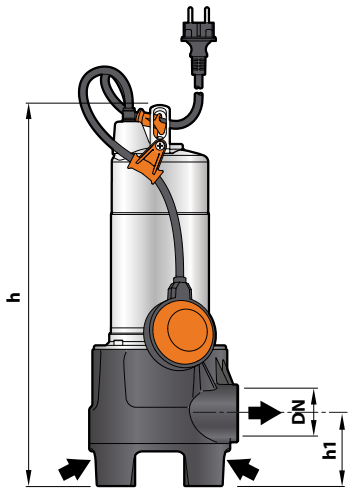
13 HOSE CONNECTION

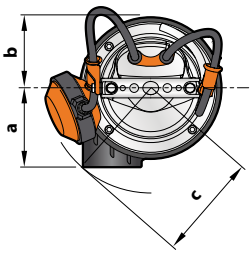
Ø 50 mm

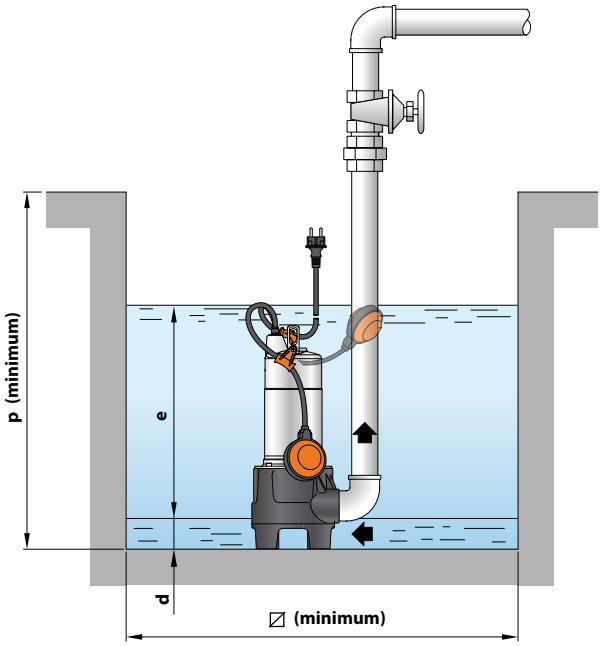


DIMENSIONS AND WEIGHT

Standard installation







MODEL	PORT	Passage of solids	DIMENSIONS mm									kg
Single-phase	DN		a	b	c	h	h1	d	e	p	⍁	1~
ZXm 2/30	**1½"**	Ø 30 mm	90	81	118	412	73	50	variable	500	500	**10.8**
ZXm 2/40		Ø 40 mm				422	83					**10.9**

ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
ZXm 2/30	**4.0** A	**3.9** A
ZXm 2/40	**4.0** A	**3.9** A

PALLETIZATION

MODEL	GROUPAGE	CONTAINER
Single-phase	n. pumps	n. pumps
ZXm 2/30	**54**	**72**
ZXm 2/40	**54**	**72**

BC-ST

DOUBLE-CHANNEL

Submersible pumps in stainless steel

Sewage water

Domestic use

Civil use

Industrial use

PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 m^3/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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

INSTALLATION AND USE

BC-ST submersible pumps in stainless steel are recommended for draining **dirty and sewage 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

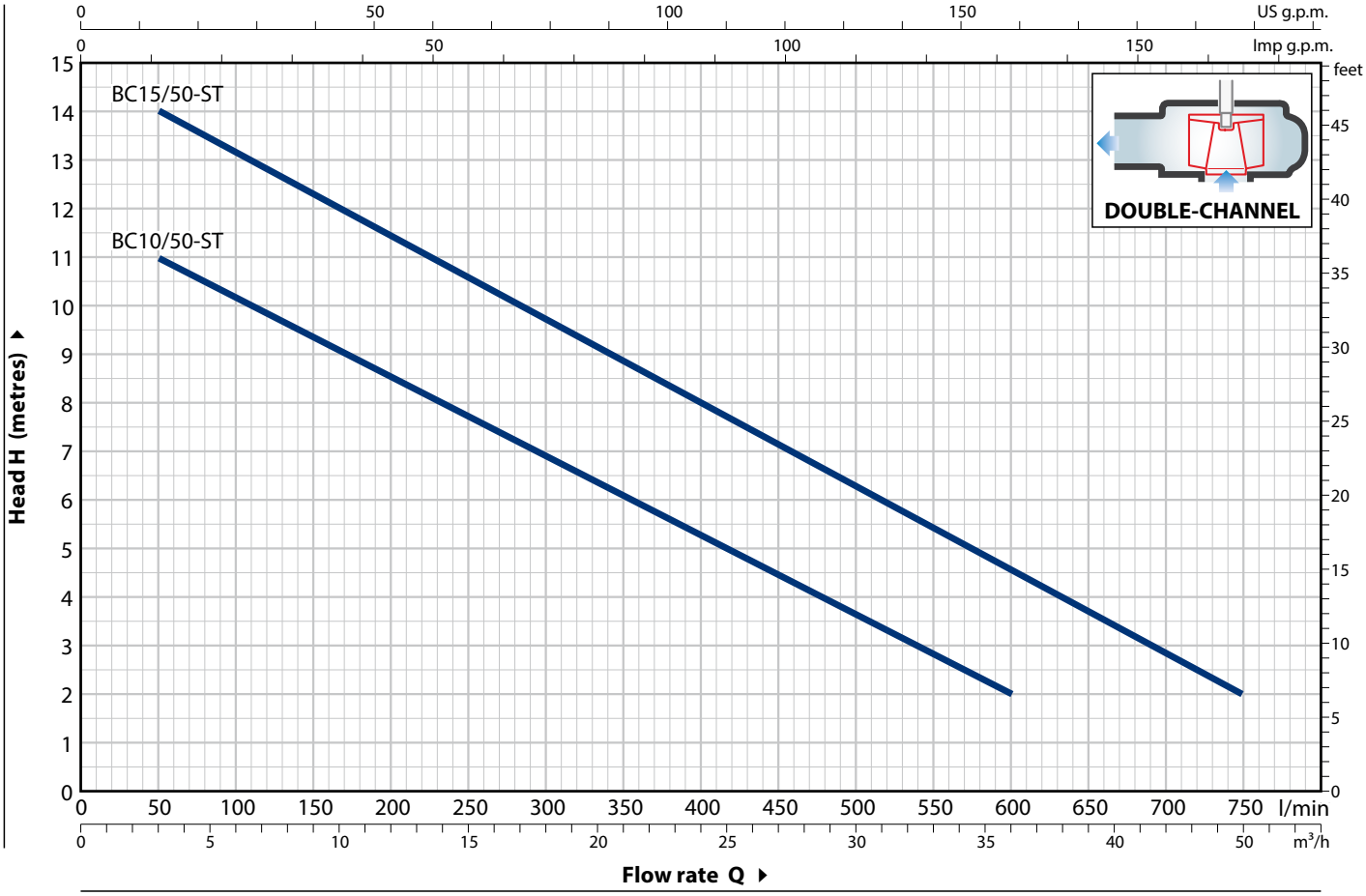
- Patent n. EP2313658
- Patent n. IT0001428923

OPTIONS AVAILABLE ON REQUEST

- Single-phase pumps without float switch
- AISI 316L stainless steel pump shaft
- Other voltages or 60 Hz frequency

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min^{-1}



MODEL		POWER (P2)		Q	m³/h	0	3	6	12	18	24	30	36	42	45
Single-phase	**Three-phase**	**kW**	**HP**		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.

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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 AISI 431

7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal	*Shaft*	*Position*	*Materials*		
Model	*Diameter*		*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-ST	**20** µF 450 VL	**30** µF - 250 VL
BCm 15/50-ST	**25** µF 450 VL	–

10 ELECTRIC MOTOR

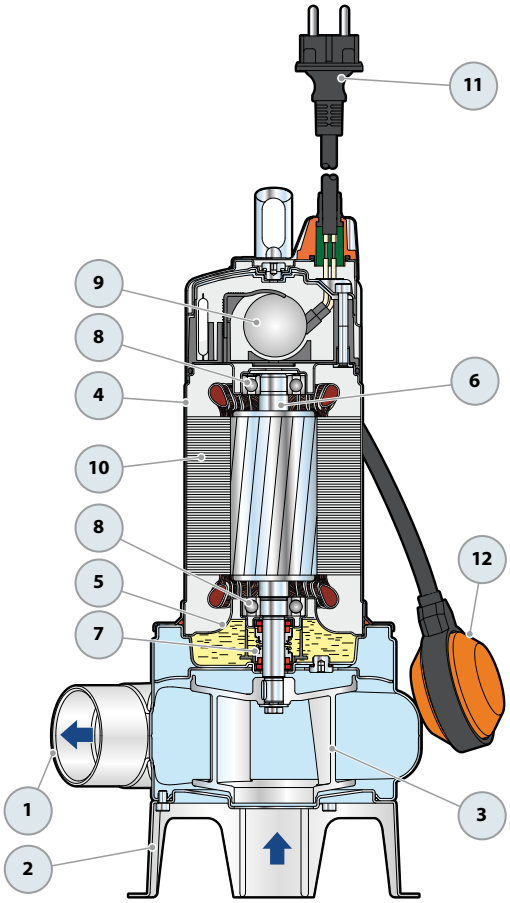
BCm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding
BC: three-phase 400 V - 50 Hz
– Insulation: class F
– Protection: IP X8

11 POWER CABLE

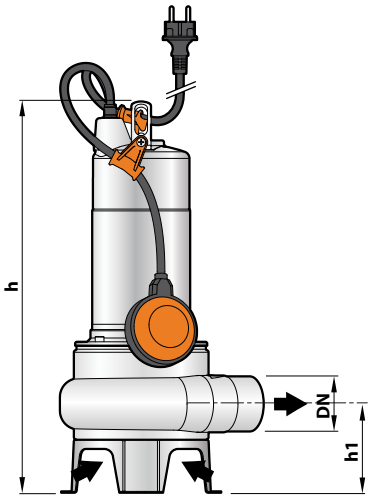
"H07 RN-F" type
(with Schuko plug for single-phase versions only)
Standard length 10 metres

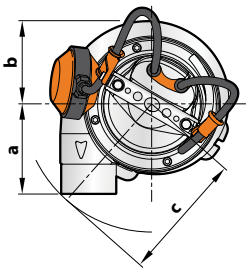
12 FLOAT SWITCH

(only for single-phase versions)

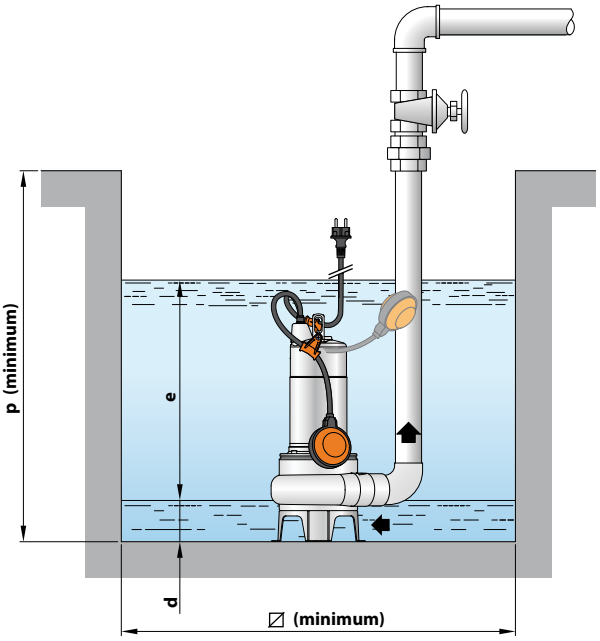


DIMENSIONS AND WEIGHT





Standard installation



MODEL		PORT	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase	DN		a	b	c	h	h1	d	e	p	⧄	1~	3~
BCm 10/50-ST	**BC 10/50-ST**	**2"**	Ø 50 mm	102	95	140	432	102	60	variable	500	500	**12.4**	**11.2**
BCm 15/50-ST	**BC 15/50-ST**						447						**13.3**	**12.2**

ABSORPTION

MODEL	VOLTAGE		
Single-phase	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			
Three-phase	230 V	400 V	240 V	415 V
BC 10/50-ST	**3.6** A	**2.1** A	**3.5** A	**2.0** A
BC 15/50-ST	**5.5** A	**3.2** A	**5.4** A	**3.1** A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
BCm 10/50-ST	**BC 10/50-ST**	**54**	**72**
BCm 15/50-ST	**BC 15/50-ST**	**54**	**72**

SEWAGE LIFTING SYSTEM VX-ST – BC-ST

(A) (B)

A) HORIZONTAL DELIVERY VERSION WITH ¾" GUIDE TUBES

For **VX /35-ST**	Cod. ASSPVX35ST	DN **2"**
For **VX /50-ST , BC /50-ST**	Cod. ASSPVX50ST	DN **2"**

Kit consisting of:
– footing connection
– slide guide with ring nut and seal
– support for the guide tubes

B) VERTICAL DELIVERY VERSION WITH ¾" GUIDE TUBES

For **VX /35-ST**	Cod. ASSPVX35STV	DN **2½"**
For **VX /50-ST, BC /50-ST**	Cod. ASSPVX50STV	DN **2½"**

Kit consisting of:
– footing connection complete with counterflange
– slide guide with ring nut and seal
– support for the guide tubes

SLIDE GUIDE (Also to be ordered separately)

For **VX /35-ST**	Cod. ASSFL005
For **VX /50-ST , BC /50-ST**	Cod. ASSFL005

Complete with ring nut and seal

● **INTERMEDIATE SUPPORT** (To be ordered separately)

Cod. 859SV340INTFA	For guide tubes Ø ¾"

In order to ensure stability, insert the intermediate support every 2 metres

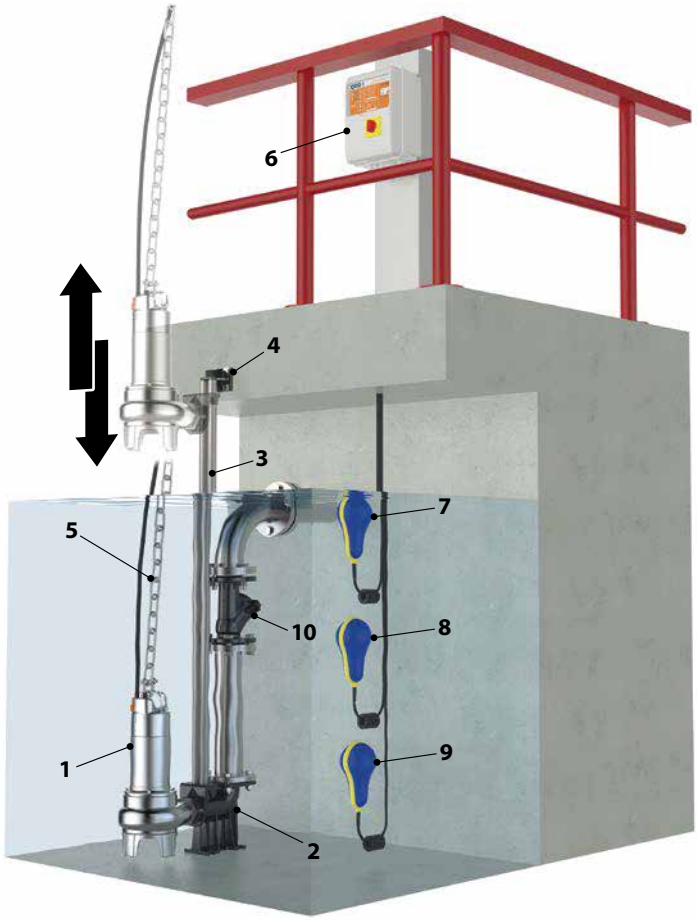
GUIDE TUBES (AISI 304 stainless steel)

Cod. 54SARTG005	Ø ¾"

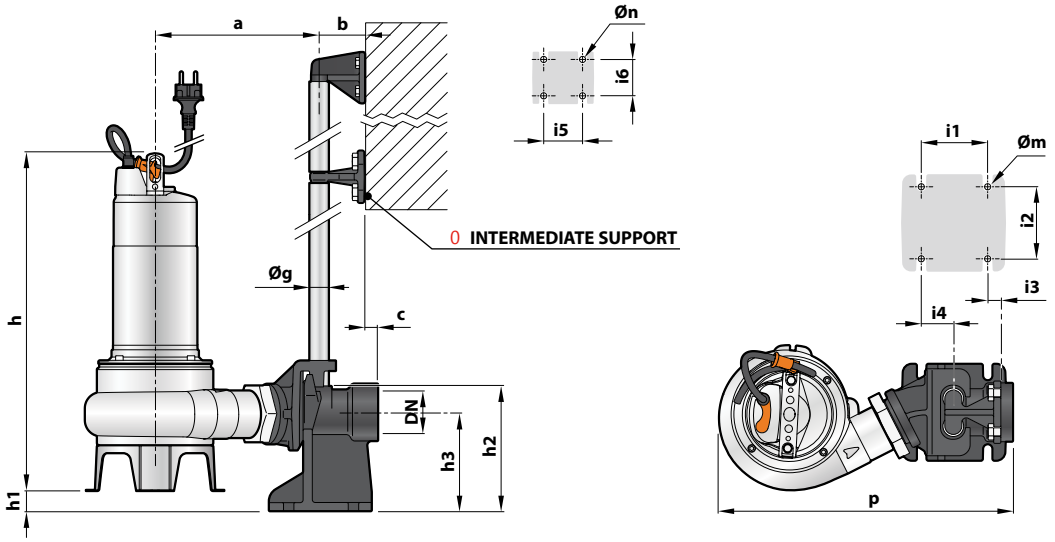
Maximum length of the tube plank: 6 metres

STANDARD INSTALLATION

1. Pump
2. Footing connection
3. Guide tubes
4. Support for the guide tubes
5. Lifting chain
6. Control box
7. Alarm float switch
8. Starting float switch
9. Stop float switch
10. Non-return valve

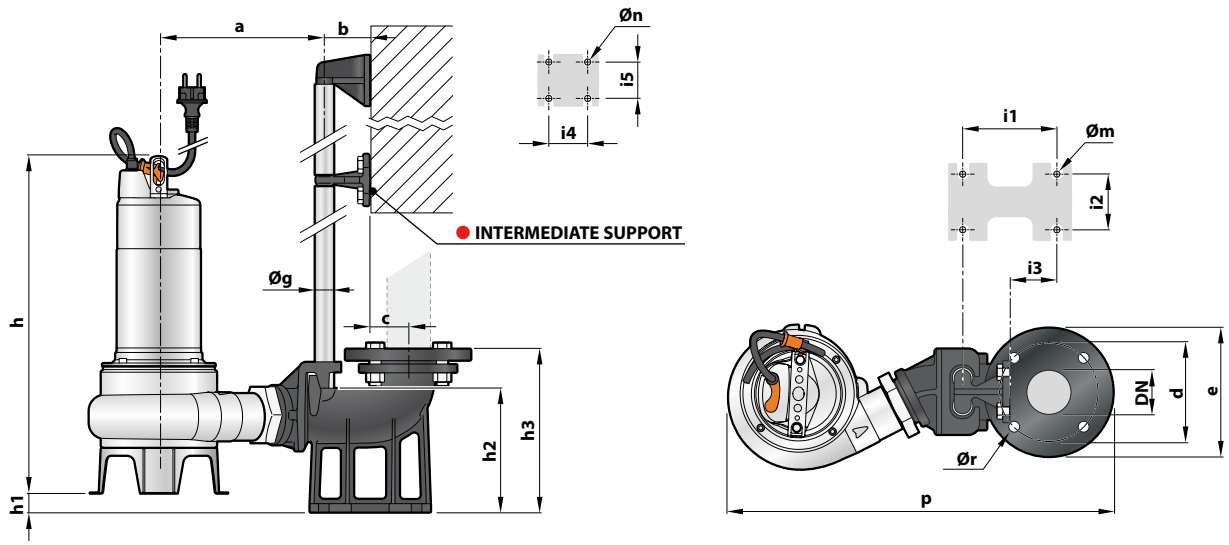


DIMENSIONS (Horizontal delivery version)



MODEL		Passage of solids	PORT	DIMENSIONS mm																
Single-phase	Three-phase	mm	DN	a	b	c	p	h	h1	h2	h3	i1	i2	i3	i4	i5	i6	Øg	Øm	Øn
VXm 8/35 -ST	VX 8/35 -ST	40	2"	207	61	17	379	406	43	130	165	85	94	16	40	50	48	¾"	12	11
VXm 10/35 -ST	VX 10/35 -ST																			
VXm 15/35 -ST	VX 15/35 -ST							421												
VXm 8/50 -ST	VX 8/50 -ST	50	2"	217			388	430	28											
VXm 10/50 -ST	VX 10/50 -ST																			
VXm 15/50 -ST	VX 15/50 -ST							445												
BCm 10/50 -ST	BC 10/50 -ST							430												
BCm 15/50 -ST	BC 15/50 -ST							445												

DIMENSIONS (Vertical delivery version)



MODEL		Passage of solids	PORT	DIMENSIONS mm																		
Single-phase	Three-phase	mm	DN	a	b	c	d	e	p	h	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør
VXm 8/35 -ST	VX 8/35 -ST	40	2½"	207	61	52	125	165	495	406	40	164	215	120	72	62	50	48	¾"	14	11	18
VXm 10/35 -ST	VX 10/35 -ST																					
VXm 15/35 -ST	VX 15/35 -ST									421												
VXm 8/50 -ST	VX 8/50 -ST	50		217					507	430	26											
VXm 10/50 -ST	VX 10/50 -ST																					
VXm 15/50 -ST	VX 15/50 -ST									445												
BCm 10/50 -ST	BC 10/50 -ST									430												
BCm 15/50 -ST	BC 15/50 -ST									445												

BC-MF

Submersible pumps in stainless steel

Sewage water
Domestic use
Civil use
Industrial use

PERFORMANCE RANGE

- Flow rate up to **750 l/min** (45 m^3/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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

INSTALLATION AND USE

BC-MF submersible pumps are recommended for draining **dirty and sewage 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

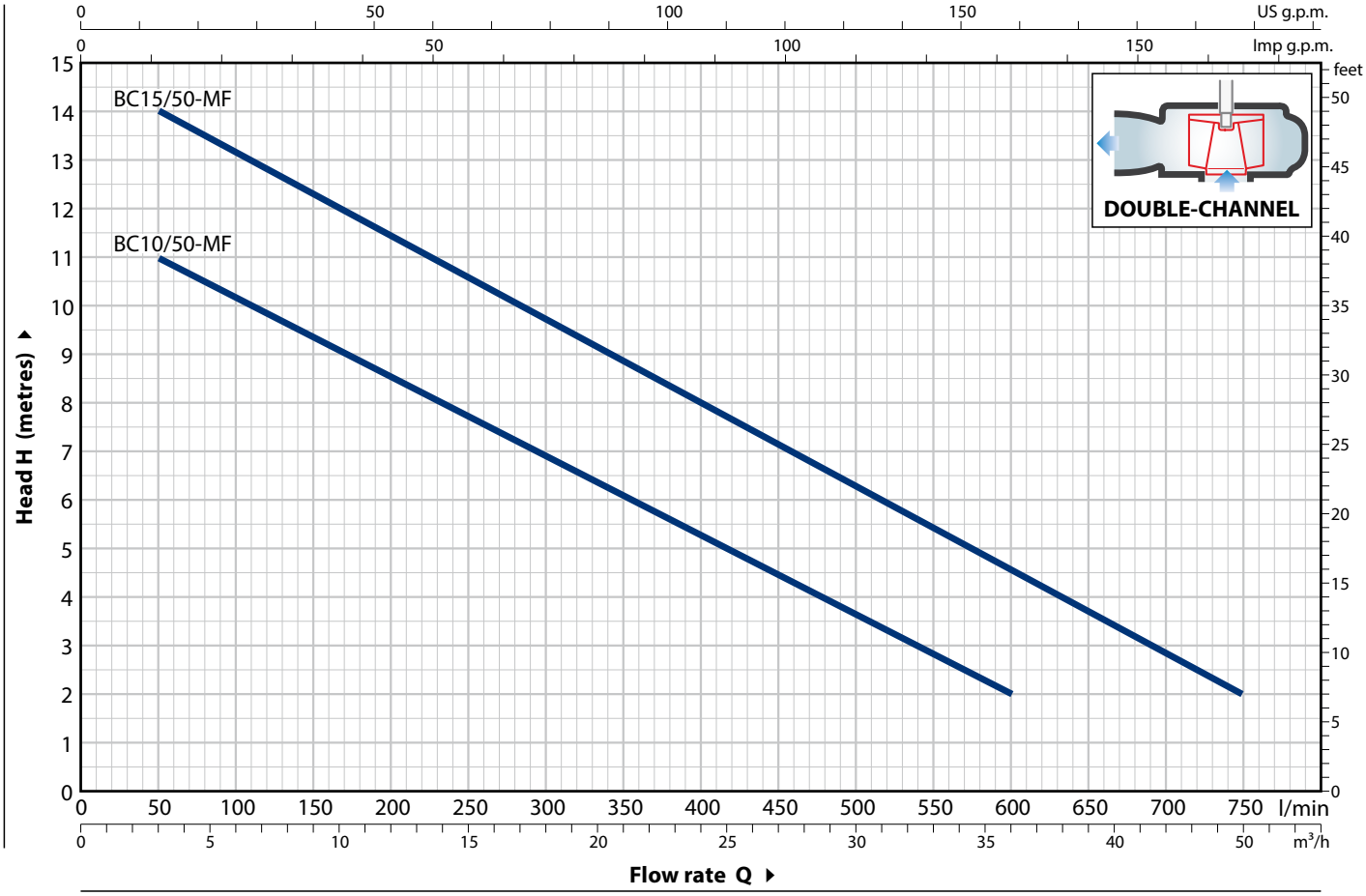
- Patent n. EP2313658
- Patent n. IT0001428923

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 min^{-1}



MODEL		POWER (P2)		Q	m³/h	0	3	6	12	18	24	30	36	42	45
Single-phase	**Three-phase**	**kW**	**HP**		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.

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS
1	**PUMP BODY**	Precision cast stainless steel AISI 316L 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 316L

7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal	*Shaft*	*Position*	*Materials*		
Model	*Diameter*		*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-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

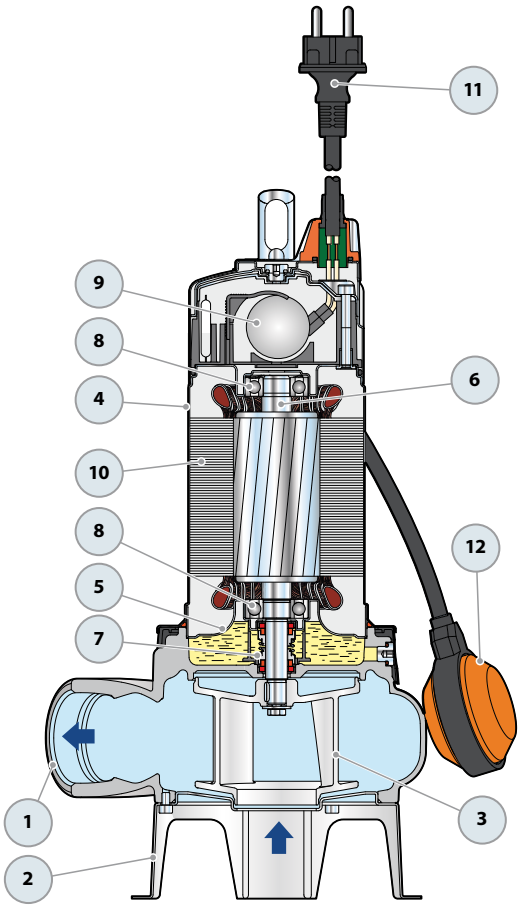
– Insulation: class F
– Protection: IP X8

11 POWER CABLE

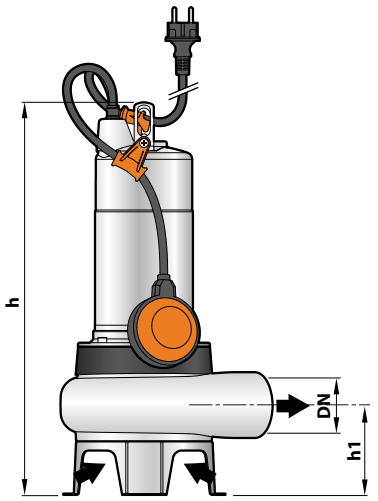
"H07 RN-F" type
(with Schuko plug for single-phase versions only)
Standard length 10 metres

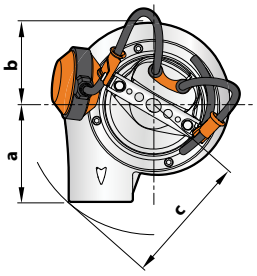
12 FLOAT SWITCH

(only for single-phase versions)

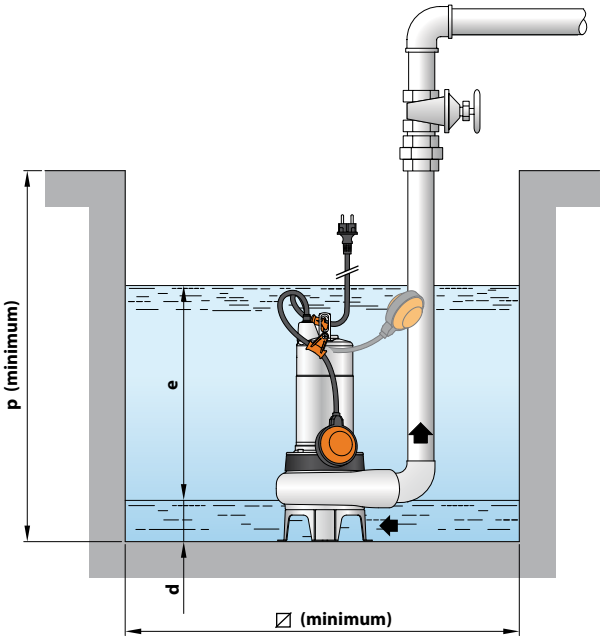


DIMENSIONS AND WEIGHT





Standard installation



MODEL		PORT	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase	DN		a	b	c	h	h1	d	e	p	⍁	1~	3~
BCm 10/50-MF	**BC 10/50-MF**	**2"**	Ø 50 mm	112	97	150	432	102	60	variable	500	500	**14.5**	**13.5**
BCm 15/50-MF	**BC 15/50-MF**						447						**15.5**	**14.3**

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
BCm 10/50-MF	**5.0** A	**5.0** A	**11.8** A
BCm 15/50-MF	**8.2** A	**8.0** A	–

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
BC 10/50-MF	**3.6** A	**2.1** A	**3.5** A	**2.0** A
BC 15/50-MF	**5.5** A	**3.2** A	**5.4** A	**3.1** A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
BCm 10/50-MF	**BC 10/50-MF**	**54**	**72**
BCm 15/50-MF	**BC 15/50-MF**	**54**	**72**

SEWAGE LIFTING SYSTEM VX-MF – BC-MF

(A)

(B)

A) HORIZONTAL DELIVERY VERSION WITH ¾" GUIDE TUBES

For **VX /35-MF**	Cod. ASSPVX35ST	DN **2"**
For **VX /50-MF , BC /50-MF**	Cod. ASSPVX50ST	DN **2"**

Kit consisting of:
– footing connection
– slide guide with ring nut and seal
– support for the guide tubes

B) VERTICAL DELIVERY VERSION WITH ¾" GUIDE TUBES

For **VX /35-MF**	Cod. ASSPVX35STV	DN **2½"**
For **VX /50-MF, BC /50-MF**	Cod. ASSPVX50STV	DN **2½"**

Kit consisting of:
– footing connection complete with counterflange
– slide guide with ring nut and seal
– support for the guide tubes

SLIDE GUIDE (Also to be ordered separately)

For **VX /35-MF**	Cod. ASSFL005
For **VX /50-MF , BC /50-MF**	Cod. ASSFL005

Complete with ring nut and seal

● **INTERMEDIATE SUPPORT** (To be ordered separately)

Cod. 859SV340INTFA	For guide tubes Ø ¾"

In order to ensure stability, insert the intermediate support every 2 metres

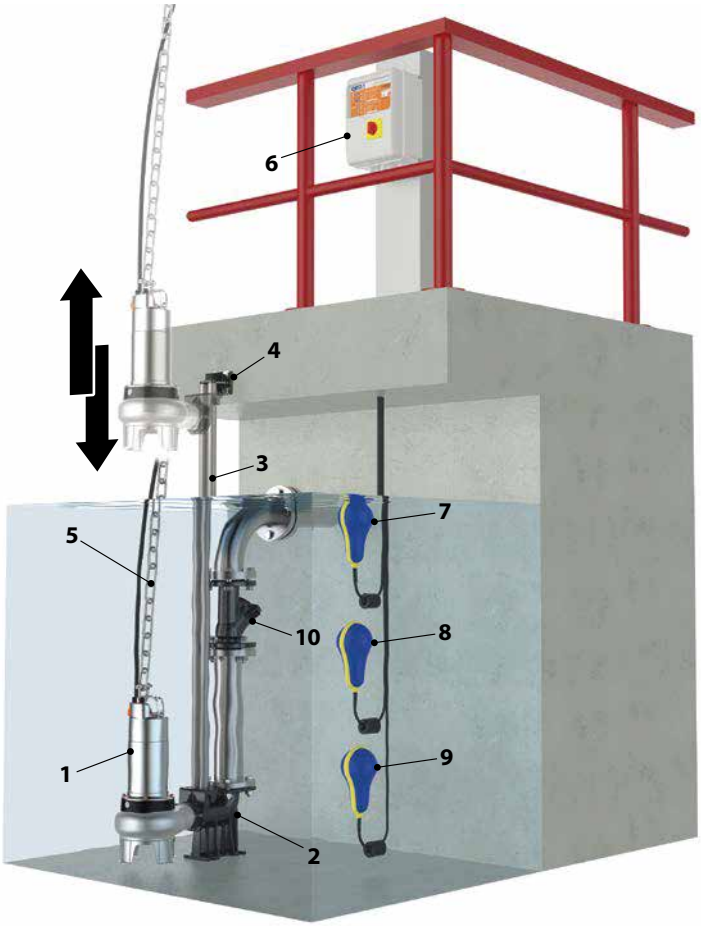
GUIDE TUBES (AISI 304 stainless steel)

Cod. 54SARTG005	Ø ¾"

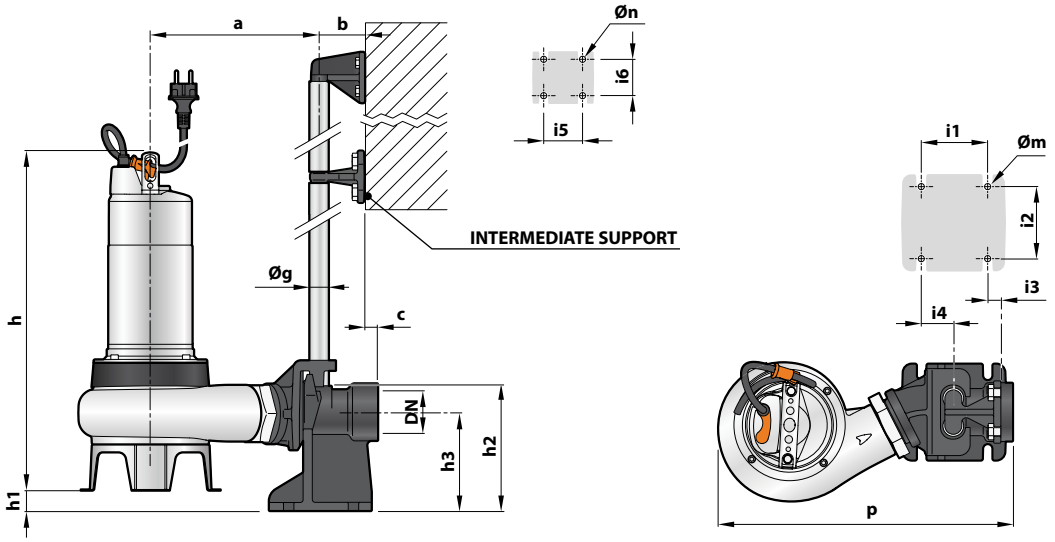
Maximum length of the tube plank: 6 metres

STANDARD INSTALLATION

1. Pump
2. Footing connection
3. Guide tubes
4. Support for the guide tubes
5. Lifting chain
6. Control box
7. Alarm float switch
8. Starting float switch
9. Stop float switch
10. Non-return valve

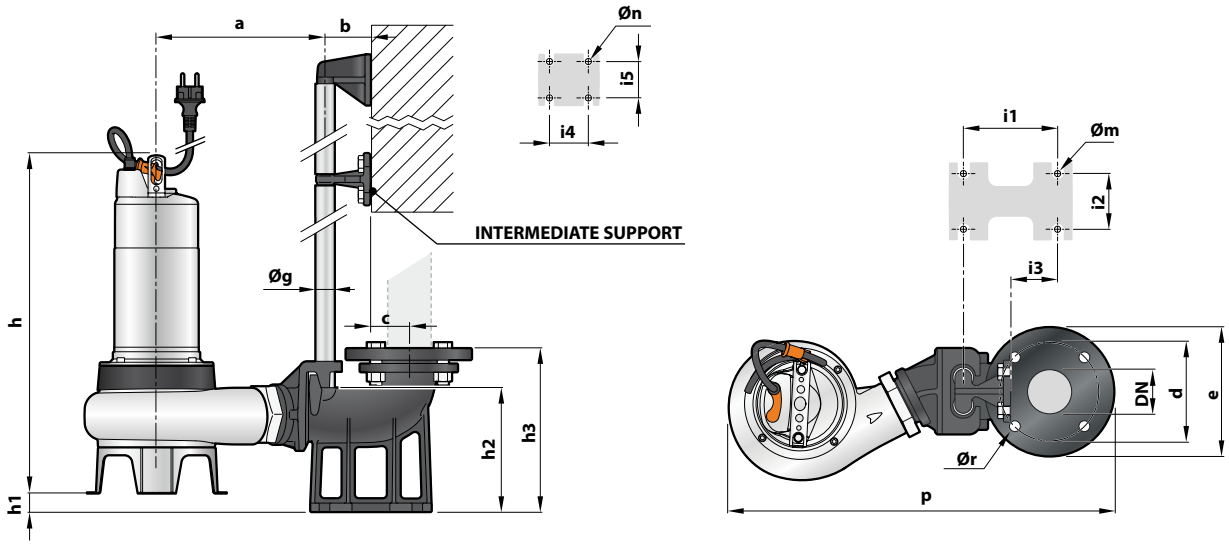


DIMENSIONS (Horizontal delivery version)



MODEL		Passage of solids	PORT	DIMENSIONS mm																
Single-phase	Three-phase	mm	DN	a	b	c	p	h	h1	h2	h3	i1	i2	i3	i4	i5	i6	Øg	Øm	Øn
VXm 8/35 -MF	VX 8/35 -MF	40	2"	217	61	17	387	406	45	165	130	85	94	16	40	50	48	¾"	12	11
VXm 10/35-MF	VX 10/35-MF																			
VXm 15/35-MF	VX 15/35-MF							421												
VXm 8/50 -MF	VX 8/50 -MF	50	2"				390	434	29											
VXm 10/50-MF	VX 10/50-MF																			
VXm 15/50-MF	VX 15/50-MF							445												
BCm 10/50-MF	BC 10/50-MF	50	2"					430												
BCm 15/50-MF	BC 15/50-MF							445												

DIMENSIONS (Vertical delivery version)



MODEL		Passage of solids	PORT	DIMENSIONS mm																		
Single-phase	Three-phase	mm	DN	a	b	c	d	e	p	h	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør
VXm 8/35 -MF	VX 8/35 -MF	40	2½"	217	61	52	125	165	504	406	42	164	215	120	72	62	50	48	¾"	14	11	18
VXm 10/35-MF	VX 10/35-MF																					
VXm 15/35-MF	VX 15/35-MF									421												
VXm 8/50 -MF	VX 8/50 -MF	50	2½"						507	430	26											
VXm 10/50-MF	VX 10/50-MF																					
VXm 15/50-MF	VX 15/50-MF									445												
BCm 10/50-MF	BC 10/50-MF									430												
BCm 15/50-MF	BC 15/50-MF									445												

VX-MF

Submersible pumps in stainless steel

Sewage water
Domestic use
Civil use
Industrial use

PERFORMANCE RANGE

- Flow rate up to **650 l/min** (39 m^3/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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

INSTALLATION AND USE

VX-MF submersible pumps in stainless steel are recommended for draining **sewage 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

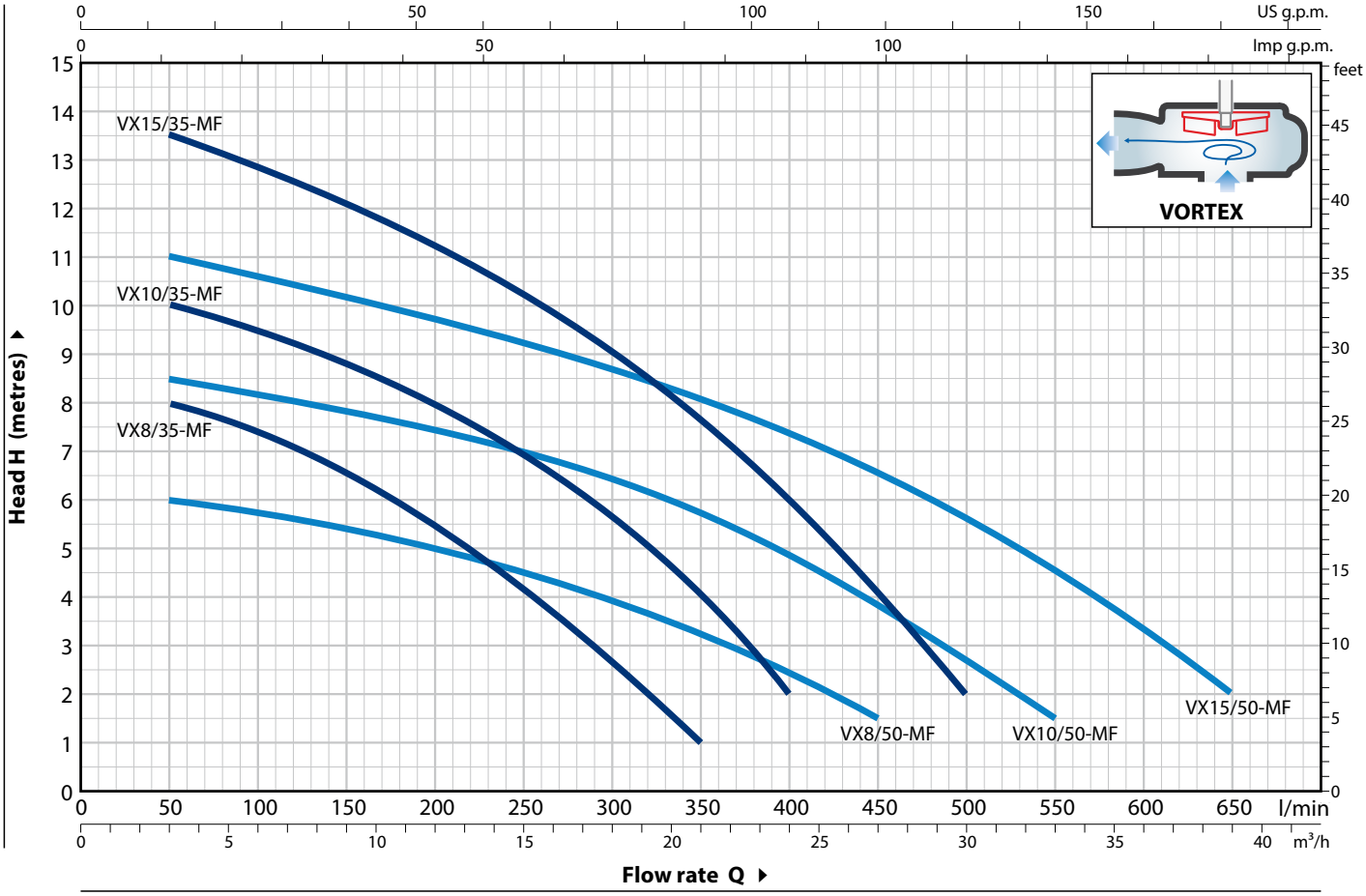
- Patent n. EP2313658
- Patent n. IT0001428923

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 min^{-1}



MODEL		POWER (P2)		Q m³/h	0	3	6	12	18	21	24	27	30	33	36	39
Single-phase	**Three-phase**	**kW**	**HP**	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.

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

POS.	COMPONENT	CONSTRUCTION CHARACTERISTICS
1	**PUMP BODY**	Precision cast stainless steel AISI 316L 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 316L

7 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal	*Shaft*	*Position*		*Materials*	
Model	***Diameter***		*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 -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

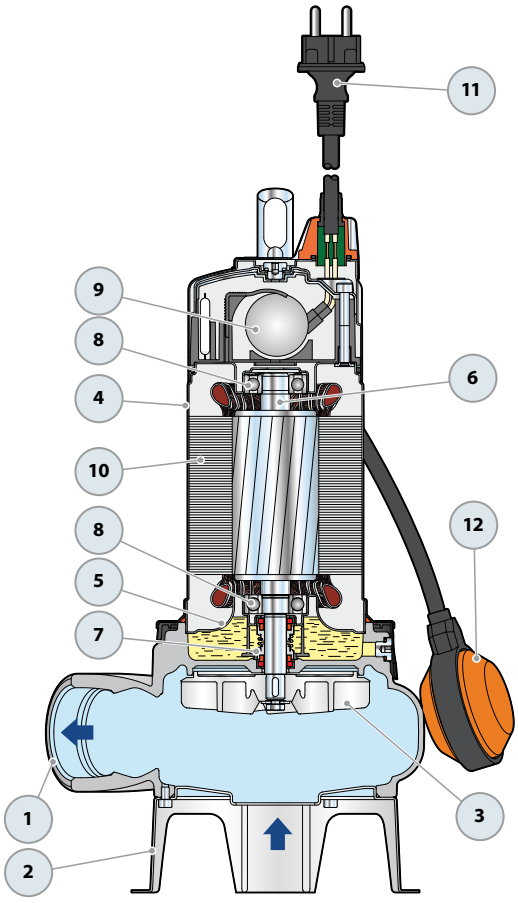
– Insulation: class F
– Protection: IP X8

11 POWER CABLE

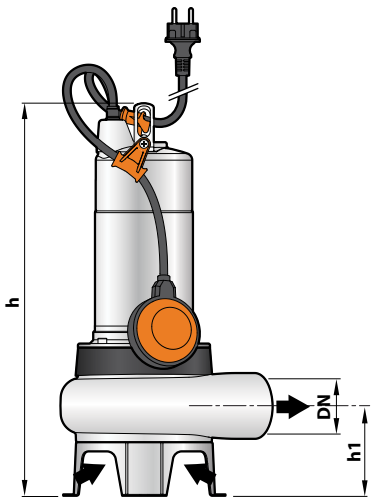
"H07 RN-F" type
(with Schuko plug for single-phase versions only)
Standard length 10 metres

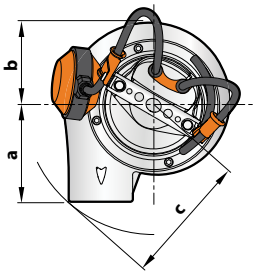
12 FLOAT SWITCH

(only for single-phase versions)

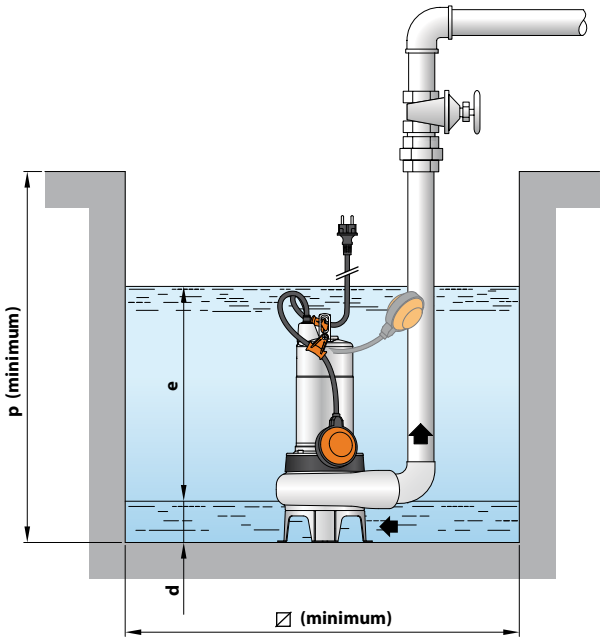


DIMENSIONS AND WEIGHT





Standard installation



MODEL		PORT	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase	DN		a	b	c	h	h1	d	e	p	⍁	1~	3~
VXm 8/35 -MF	VX 8/35 -MF	1½"	Ø 40 mm	107	97	143	410	86	50	regolabile	500	500	12.7	12.5
VXm 10/35-MF	VX 10/35-MF												13.6	12.5
VXm 15/35-MF	VX 15/35-MF						421						15.0	13.9
VXm 8/50 -MF	VX 8/50 -MF	2"	Ø 50 mm	112			432	102	60				12.9	12.9
VXm 10/50-MF	VX 10/50-MF												13.9	13.0
VXm 15/50-MF	VX 15/50-MF						447						15.4	14.2

ABSORPTION

MODEL	VOLTAGE		
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			
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	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
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

SEWAGE LIFTING SYSTEM VX-MF – BC-MF

(A) (B)

A) HORIZONTAL DELIVERY VERSION WITH ¾" GUIDE TUBES

For **VX /35-MF**	Cod. ASSPVX35ST	DN **2"**
For **VX /50-MF , BC /50-MF**	Cod. ASSPVX50ST	DN **2"**

Kit consisting of:
– footing connection
– slide guide with ring nut and seal
– support for the guide tubes

B) VERTICAL DELIVERY VERSION WITH ¾" GUIDE TUBES

For **VX /35-MF**	Cod. ASSPVX35STV	DN **2½"**
For **VX /50-MF, BC /50-MF**	Cod. ASSPVX50STV	DN **2½"**

Kit consisting of:
– footing connection complete with counterflange
– slide guide with ring nut and seal
– support for the guide tubes

SLIDE GUIDE (Also to be ordered separately)

For **VX /35-MF**	Cod. ASSFL005
For **VX /50-MF , BC /50-MF**	Cod. ASSFL005

Complete with ring nut and seal

● **INTERMEDIATE SUPPORT** (To be ordered separately)

Cod. 859SV340INTFA	For guide tubes Ø ¾"

In order to ensure stability, insert the intermediate support every 2 metres

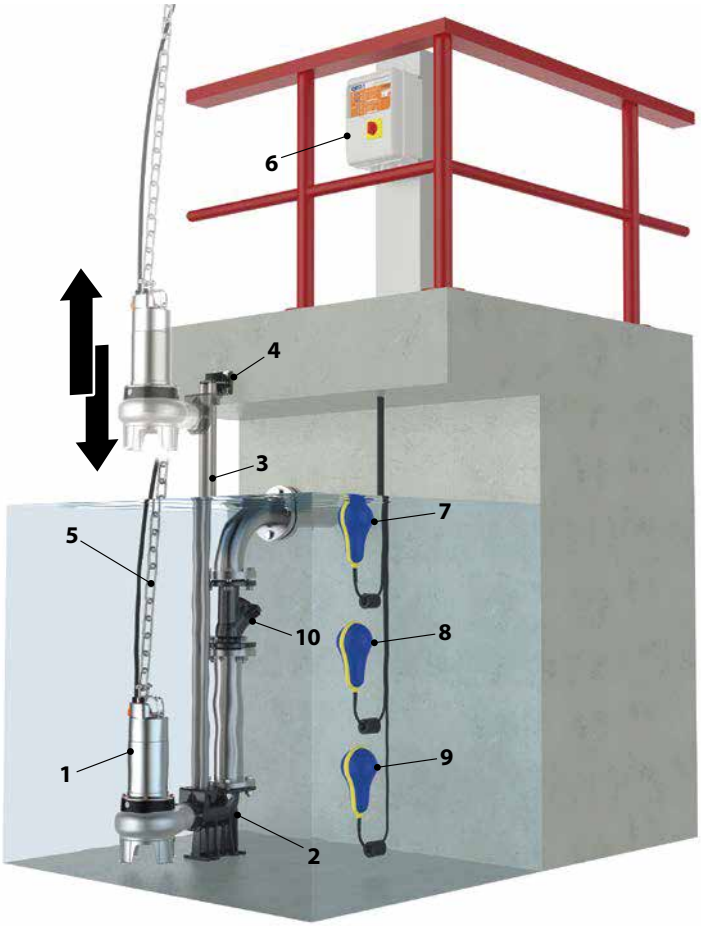
GUIDE TUBES (AISI 304 stainless steel)

Cod. 54SARTG005	Ø ¾"

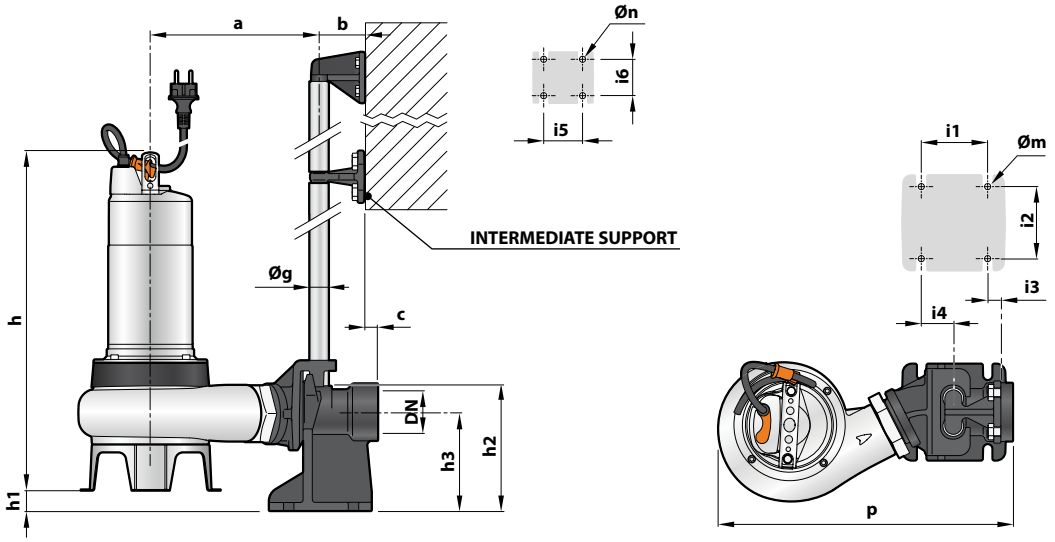
Maximum length of the tube plank: 6 metres

STANDARD INSTALLATION

1. Pump
2. Footing connection
3. Guide tubes
4. Support for the guide tubes
5. Lifting chain
6. Control box
7. Alarm float switch
8. Starting float switch
9. Stop float switch
10. Non-return valve

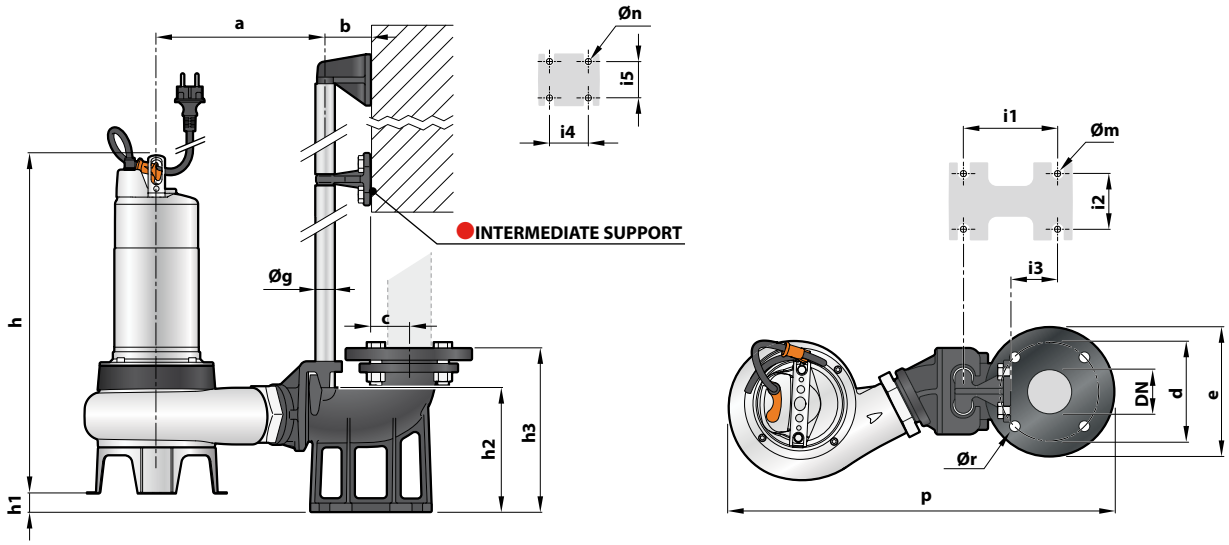


DIMENSIONS (Horizontal delivery version)



MODEL		Passage of solids	PORT	DIMENSIONS mm																
Single-phase	Three-phase	mm	DN	a	b	c	p	h	h1	h2	h3	i1	i2	i3	i4	i5	i6	Øg	Øm	Øn
VXm 8/35 -MF	VX 8/35 -MF	40	2"	217	61	17	387	406	45	165	130	85	94	16	40	50	48	¾"	12	11
VXm 10/35-MF	VX 10/35-MF																			
VXm 15/35-MF	VX 15/35-MF							421												
VXm 8/50 -MF	VX 8/50 -MF	50	2"				390	434	29											
VXm 10/50-MF	VX 10/50-MF																			
VXm 15/50-MF	VX 15/50-MF							445												
BCm 10/50-MF	BC 10/50-MF	50	2"					430												
BCm 15/50-MF	BC 15/50-MF							445												

DIMENSIONS (Vertical delivery version)



MODEL		Passage of solids	PORT	DIMENSIONS mm																		
Single-phase	Three-phase	mm	DN	a	b	c	d	e	p	h	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør
VXm 8/35 -MF	VX 8/35 -MF	40	2½"	217	61	52	125	165	504	406	42	164	215	120	72	62	50	48	¾"	14	11	18
VXm 10/35-MF	VX 10/35-MF																					
VXm 15/35-MF	VX 15/35-MF									421												
VXm 8/50 -MF	VX 8/50 -MF	50	2½"						507	430	26											
VXm 10/50-MF	VX 10/50-MF																					
VXm 15/50-MF	VX 15/50-MF									445												
BCm 10/50-MF	BC 10/50-MF									430												
BCm 15/50-MF	BC 15/50-MF									445												

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, D10, D20
  - **10 m** for D30
- Float switch for single-phase versions

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

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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

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 sewage.
These pumps distinguish themselves for their reliability, which can be best appreciated under automatic operating conditions in fixed installations.

PATENTS - TRADE MARKS - MODELS

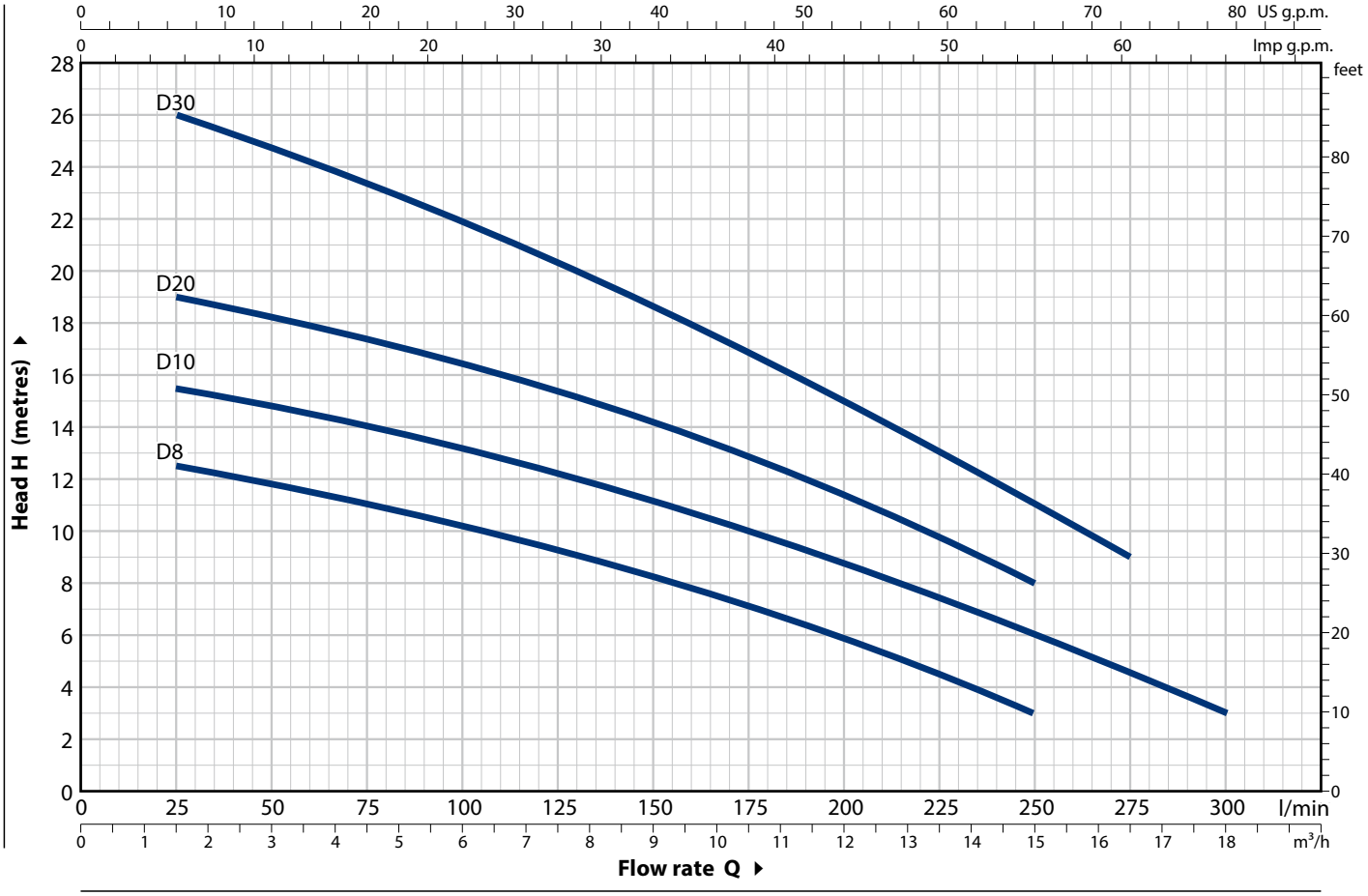
- Patent n. EP2313658
- Patent n. IT0001428923

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 min^{-1}



MODEL		POWER (P2)		Q	m³/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
Single-phase	**Three-phase**	**kW**	**HP**		l/min	**0**	**25**	**50**	**75**	**100**	**125**	**150**	**175**	**200**	**220**	**250**	**275**	**300**
Dm 8	**D 8**	0.55	0.75	**H** metres		13	12.5	12	11	10	9	8	7	6	4.7	3		
Dm 10	**D 10**	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	**D 20**	0.75	1			20	19	18.5	17.5	16.5	15.5	14.3	13	11.5	10	8		
Dm 30	**D 30**	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.

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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 AISI 431

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 **D10** **D20**	**MG1-14D SIC**	**Ø 14** mm	Motor side	Silicon carbide	Graphite	NBR
			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	**ST1-14 SIC**	**Ø 14** mm		Ceramic	Silicon carbide	NBR

9 BEARINGS **6203 ZZ / 6203 ZZ**

10 CAPACITOR

Pump ***Single-phase***	***Capacitance*** ***(230 V or 240 V)***	***(110 V)***
Dm8 **Dm10** **Dm20**	**20** µF 450 VL	**30** µF - 250 VL
Dm30	**25** µF 450 VL	–

11 ELECTRIC MOTOR

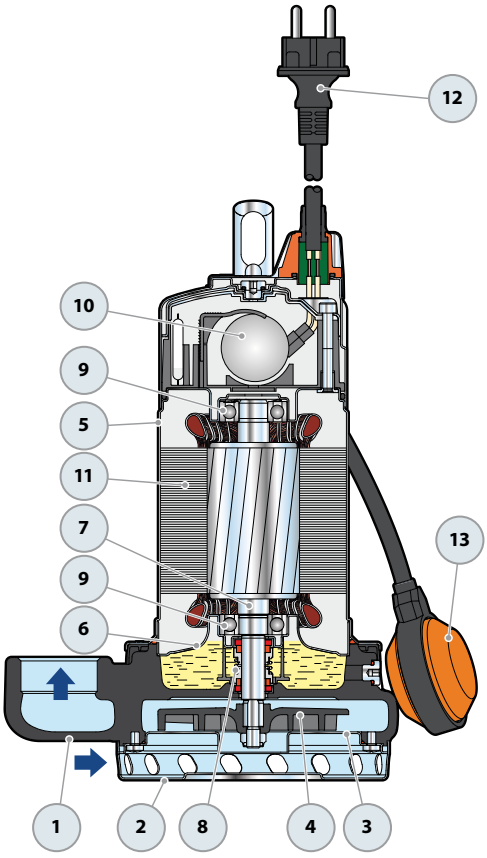
Dm: single-phase 230 V - 50 Hz
with thermal overload protector incorporated into the winding
D: three-phase 400 V - 50 Hz

– Insulation: class F
– Protection: IP X8

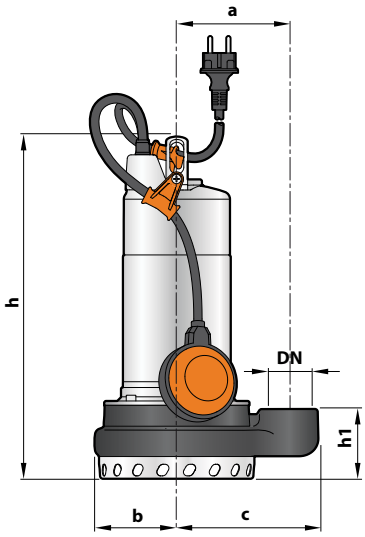
12 POWER CABLE

"H07 RN-F" type
(with Schuko plug for single-phase versions only)
Standard length 5 metres (**10 metres** for D30)

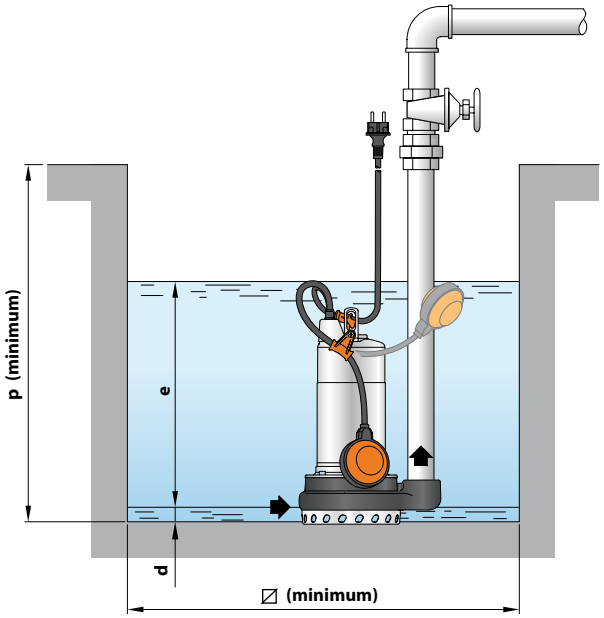
13 FLOAT SWITCH
(only for single-phase versions)



DIMENSIONS AND WEIGHT



Standard installation



MODEL		PORT	DIMENSIONS mm									kg	
Single-phase	Three-phase	DN	a	b	c	h	h1	d	e	p	⍁	1~	3~
Dm 8	D 8	1½"	115	85	147	344	73	17	variable	500	500	12.0	11.7
Dm 10	D 10											12.9	11.7
Dm 20	D 20											12.9	11.9
Dm 30	D 30			93		355	84					15.1	14.0

ABSORPTION

MODEL	VOLTAGE		
Single-phase	230 V	240 V	110 V
Dm 8	3.2 A	3.1 A	6.4 A
Dm 10	4.7 A	4.7 A	11.5 A
Dm 20	5.7 A	5.7 A	11.4 A
Dm 30	7.2 A	7.0 A	–

MODEL	VOLTAGE			
Three-phase	230 V	400 V	240 V	415 V
D 8	2.8 A	1.6 A	2.6 A	1.5 A
D 10	3.5 A	2.0 A	3.3 A	1.9 A
D 20	4.2 A	2.4 A	4.0 A	2.3 A
D 30	5.2 A	3.0 A	5.0 A	2.9 A

PALLETIZATION

MODEL		GROUPAGE	CONTAINER
Single-phase	Three-phase	n. pumps	n. pumps
Dm 8	D 8	60	80
Dm 10	D 10	60	80
Dm 20	D 20	60	80
Dm 30	D 30	60	80

Submersible pumps

Sewage water
Domestic use
Civil use
Industrial use

PERFORMANCE RANGE

- Flow rate up to **1600 l/min** (96 m^3/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

CE

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

EAC

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

- Patent n. IT0001428923
- 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

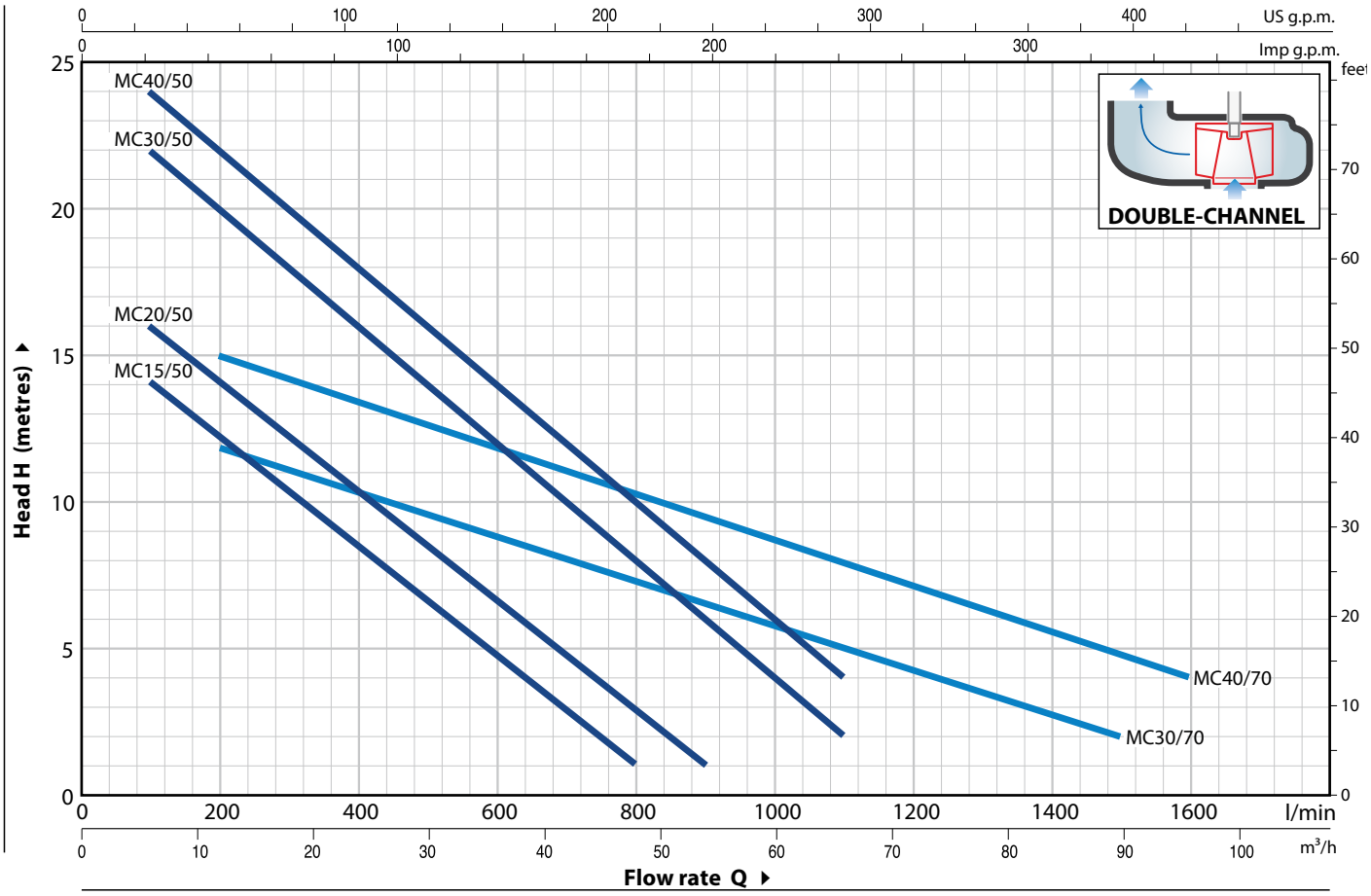
For the following versions the incorporated thermal overload protector must be connected to the control box for the guarantee to be considered valid:

single-phase
– MCm 30/50
– MCm 30/70

three-phase
– MC 15-20-30-40/50
– MC 30-40/70

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min^{-1}



MODEL		POWER (P2)		Q	m³/h	0	6	12	18	24	30	36	42	48	54	60	66	72	90	96
Single-phase	**Three-phase**	**kW**	**HP**		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.

= **Stocked in Australia**

Other models available upon request with 6 to 8 weeks lead time.

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	*Shaft*	*Position*	*Materials*		
Model	*Diameter*		*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 **MCm 30/70**	**60** µF 450 VL

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

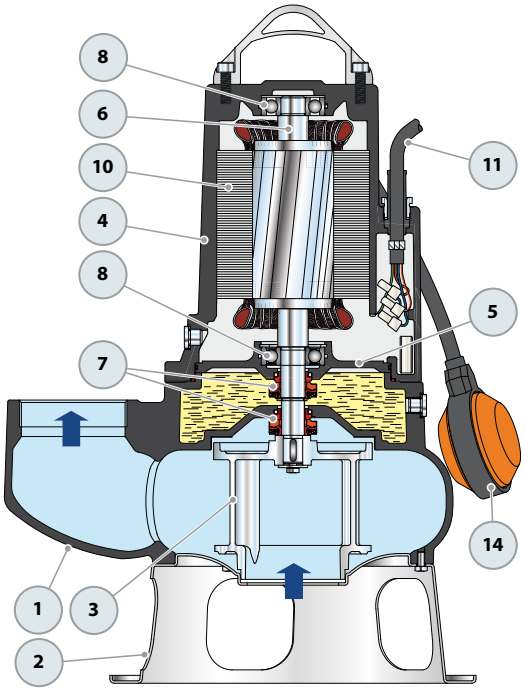
12 CONTROL BOX for MCm 15-20
(only for single-phase versions)

Complete with capacitor and manual reset motor protector

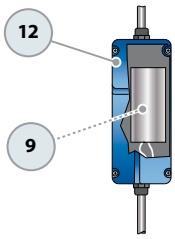
13 CONTROL BOX for MCm 30
(only for single-phase versions)

QES 300 MONO series

14 FLOAT SWITCH
(only for single-phase versions)

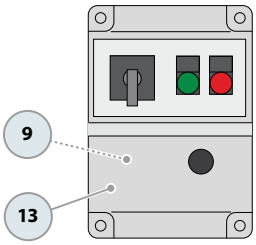


Standard features



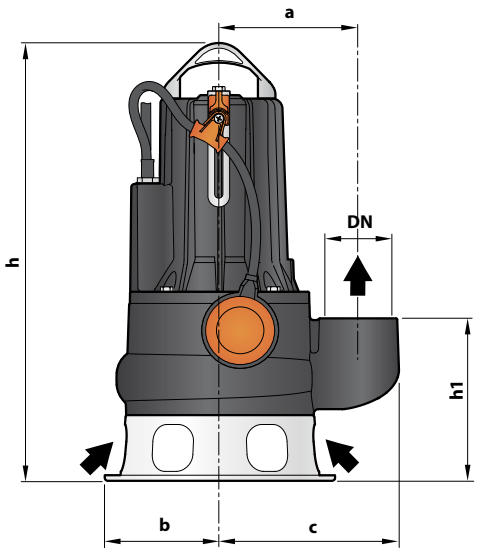
Control box for MCm 15-20
(only for single-phase versions)

Standard features

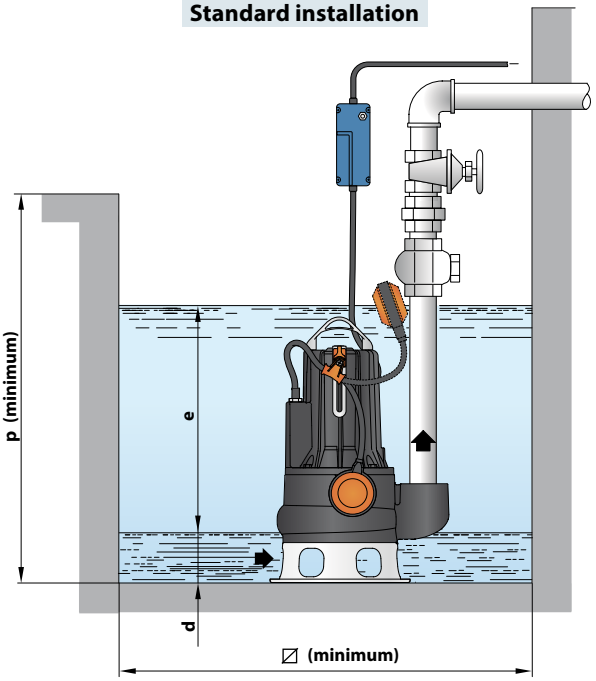


Control box for MCm 30
(only for single-phase versions)

DIMENSIONS AND WEIGHT



Standard installation



MODEL		PORT	Passage of solids	DIMENSIONS mm									kg	
Single-phase	Three-phase	DN		a	b	c	h	h1	d	e	p	⍁	1~	3~
MCm 15/50	MC 15/50	2½"	Ø 50 mm	162	135	210	520	191	75	variable	800	800	37.8	36.2
MCm 20/50	MC 20/50												38.6	37.2
MCm 30/50	MC 30/50						517						43.0	39.0
–	MC 40/50						530						–	43.4
MCm 30/70	MC 30/70	3"	Ø 70 mm	180	150	237	577/563	233	85				45.4	42.2
–	MC 40/70						577						–	46.3

ABSORPTION

MODEL	VOLTAGE	
Single-phase	230 V	240 V
MCm 15/50	**9.0** A	**9.0** A
MCm 20/50	**10.5** A	**10.0** A
MCm 30/50	**15.2** A	**15.2** A
MCm 30/70	**15.2** A	**15.2** A

MODEL	VOLTAGE		
Three-phase	230–240 V	400–415 V	690–720 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
Single-phase	Three-phase	n. pumps
MCm 15/50	MC 15/50	**16**
MCm 20/50	MC 20/50	**16**
MCm 30/50	MC 30/50	**16**
–	MC 40/50	**16**
MCm 30/70	MC 30/70	**12**
–	MC 40/70	**12**

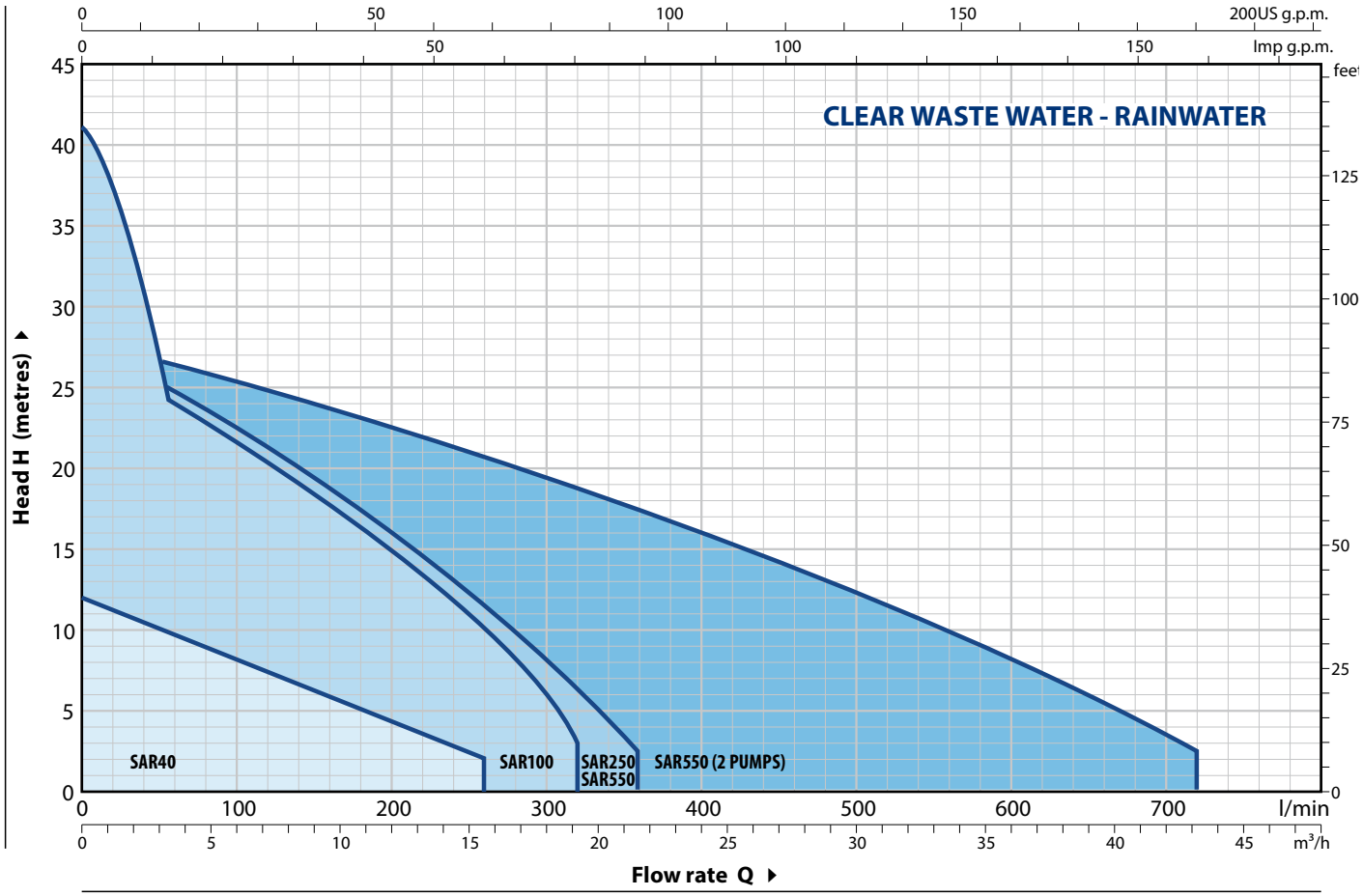
Domestic use

Agricultural use

Civil use

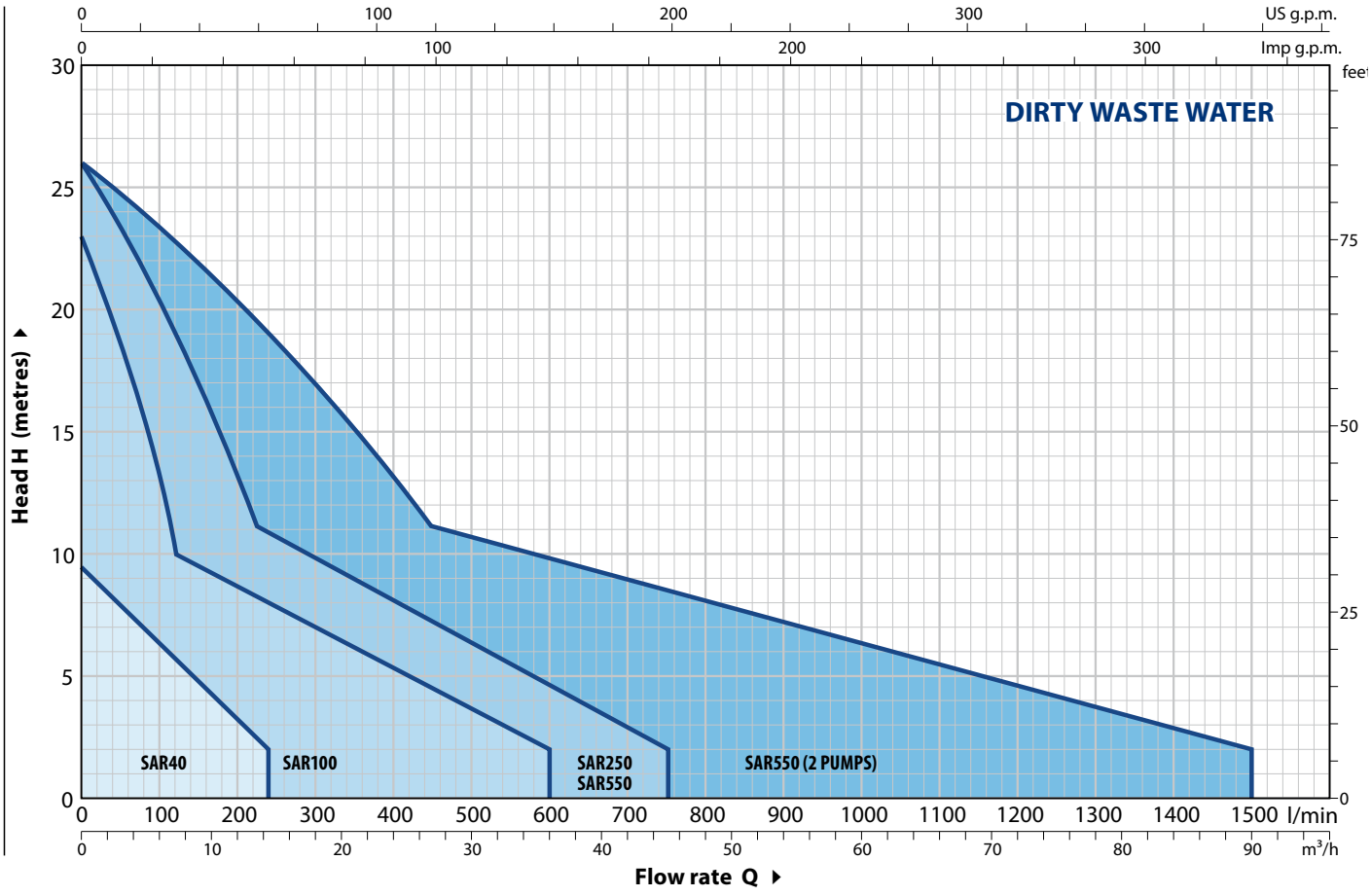
PERFORMANCE RANGE

50 Hz n= 2900 min^{-1}



PERFORMANCE RANGE

50 Hz n= 2900 min^{-1}



SAR 40

CLEAR WASTE WATER - RAINWATER

MODEL	POWER (P_2)		TANK CAPACITY	MAXIMUM FLOW RATE	MAXIMUM HEAD
	kW	HP	litres	litres/min	metres
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	MAXIMUM FLOW RATE	MAXIMUM HEAD
	kW	HP	litres	litres/min	metres
SAR 40 - TOP 2-VORTEX	0.37	0.50	**40**	180	6.5
SAR 40 - TEX 2	0.37	0.50	**40**	200	7.5
SAR 40 - TEX 3	0.55	0.75	**40**	240	9.5
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 (P2)		TANK CAPACITY	MAXIMUM FLOW RATE	MAXIMUM HEAD
	kW	HP	litres	litres/min	metres
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	0.75	1	100	320	12.5
SAR 100 - TOP MULTI 1	0.37	0.50	100	70	25
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	0.75	1	100	300	15.5
SAR 100 - Dm 20	0.75	1	100	250	19
SAR 100 - Dm 30	1.1	1.5	100	275	26

DIRTY WASTE WATER

MODEL	POWER (P2)		TANK CAPACITY	MAXIMUM FLOW RATE	MAXIMUM HEAD
	kW	HP	litres	litres/min	metres
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 2/30	0.55	0.75	100	320	12.5
SAR 100 - ZXm 2/40	0.55	0.75	100	400	11
SAR 100 - VXm 8/35	0.55	0.75	100	350	8
SAR 100 - VXm 10/35	0.75	1	100	400	10
SAR 100 - VXm 8/50	0.55	0.75	100	450	6
SAR 100 - VXm 10/50	0.75	1	100	550	8.5
SAR 100 - BCm 10/50	0.75	1	100	600	11
SAR 100 WITH GRINDER PUMPS (TRITUS)					
SAR 100 - TRm 0.75	0.75	1	100	120	15.5
SAR 100 - TRm 1.1	1.1	1.5	100	120	22

COMPONENTS

- **100 litres** polyethylene tank with cover plate
- Pump complete with float switch
- Power cable: supplied with standard 10 metres cable with Schuko plug
- Control box (only for SAR 100-TR)
- Accumulation stations with inlet tube Ø 110 mm, outlet 1¼" or 1½" or 2" gas and vent Ø 50 mm

SAR 250

CLEAR WASTE WATER - RAINWATER

MODEL	POWER (P_2)		TANK CAPACITY	MAXIMUM FLOW RATE	MAXIMUM HEAD
	kW	HP	litres	litres/min	metres
SAR 250 - TOP 3	0.55	0.75	**250**	260	10
SAR 250 - TOP 4	0.75	1	**250**	320	12.5
SAR 250 - TOP 5	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	0.75	1	**250**	300	15.5
SAR 250 - Dm 20	0.75	1	**250**	250	19
SAR 250 - Dm 30	1.1	1.5	**250**	275	26

DIRTY WASTE WATER

MODEL	POWER (P_2)		TANK CAPACITY	MAXIMUM FLOW RATE	MAXIMUM HEAD
	kW	HP	litres	litres/min	metres
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 - BCm 10/50-ST	0.75	1	**250**	600	11
SAR 250 - VXm 10/35	0.75	1	**250**	400	10
SAR 250 - VXm 15/35	1.1	1.5	**250**	500	13.5
SAR 250 - VXm 10/50	0.75	1	**250**	550	8.5
SAR 250 - VXm 15/50	1.1	1.5	**250**	650	11
SAR 250 - BCm 10/50	0.75	1	**250**	600	11
SAR 250 - BCm 15/50	1.1	1.5	**250**	750	14
SAR 250 WITH GRINDER PUMPS (TRITUS)					
SAR 250 - TRm 0.75	0.75	1	**250**	120	15.5
SAR 250 - TRm 1.1	1.1	1.5	**250**	120	22
SAR 250 - TRm 1.5	1.5	2	**250**	260	25

COMPONENTS

- **250 litres** polyethylene tank with cover plate
- Pump complete with float switch
- Power cable: supplied with standard 10 metres cable with Schuko plug
- Control box (only for SAR 250-TR)
- Accumulation stations with inlet tube Ø 110 mm, outlet 1¼" or 1½" or 2" gas and vent DN 50 or DN 75
- Coupling support and guide tubes for lowering of pump (only for VX-ST and BC-ST)

OPTIONS AVAILABLE ON REQUEST

- **Alarm KIT** (Cod. KSKIT-ALLARME)
  IIKit includes: control box, self-powered siren, float
- **300 mm extension kit** (Cod. KSKIT-308MA)
  Kit includes: extension kit for the installation of the polyethylene "SAR" tank at greater depths
- **"SAR" stations with ball check valves and ball valve in the discharge pipe**

CLEAR WASTE WATER - RAINWATER

MODEL	POWER (P_2) kW	POWER (P_2) HP	TANK CAPACITY litres	MAXIMUM FLOW RATE (1 pump) litres/min	MAXIMUM HEAD metres
SAR 550 - TOP 4	0.75	1	**550**	320	12.5
SAR 550 - TOP 5	0.92	1.25	**550**	360	15
SAR 550 - RXm 4	0.75	1	**550**	260	15
SAR 550 - RXm 5	1.1	1.5	**550**	300	19.5
SAR 550 - Dm 10	0.75	1	**550**	300	15.5
SAR 550 - Dm 20	0.75	1	**550**	250	19
SAR 550 - Dm 30	1.1	1.5	**550**	275	26

DIRTY WASTE WATER

MODEL	POWER (P_2) kW	POWER (P_2) HP	TANK CAPACITY litres	MAXIMUM FLOW RATE (1 pump) litres/min	MAXIMUM HEAD metres
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 - VXm 10/35-ST	0.75	1	550	400	10.5
SAR 550 - VXm 10/50-ST	0.75	1	550	550	9.5
SAR 550 - BCm10/50-ST	0.75	1	550	600	11
SAR 550 - VXm 10/35	0.75	1	550	400	10
SAR 550 - VXm 15/35	1.1	1.5	550	500	13.5
SAR 550 - VXm 10/50	0.75	1	550	550	8.5
SAR 550 - VXm 15/50	1.1	1.5	550	650	11
SAR 550 - VX 15/50 (*)	1.1	1.5	550	650	11
SAR 550 - BCm 10/50	0.75	1	550	600	11
SAR 550 - BCm 15/50	1.1	1.5	550	750	14
SAR 550 - BC 15/50 (*)	1.1	1.5	550	750	14
SAR 550 WITH GRINDER PUMPS (TRITUS)					
SAR 550 - TRm 0.75	0.75	1	550	120	15.5
SAR 550 - TRm 1.1	1.1	1.5	550	120	22
SAR 550 - TR 1.1 (*)	1.1	1.5	550	120	22
SAR 550 - TRm 1.5	1.5	2	550	260	25

COMPONENTS

- **550 litre** polyethylene tank with two lids
- Two single-phase pumps (* two three-phase pumps)
- Power cable: supplied with standard 10 metres cable
- 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 1¼" or 1½" or 2" gas and vent DN 50 or DN 75
- Coupling support and guide tubes for lowering of pump (only for VX-ST and BC-ST)

OPTIONS AVAILABLE ON REQUEST

- **Alarm KIT** (Cod. KSKIT-ALLARME)
  IIKit includes: control box, self-powered siren, float

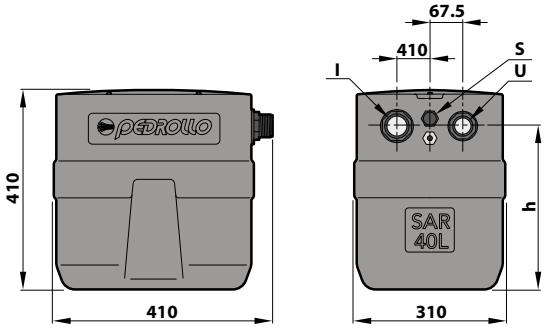
- **300 mm extension kit** (Cod. KSKIT-308MA)
  Kit includes: extension kit for the installation of the polyethylene "SAR" tank at greater depths
  ATTENTION: the tank is fitted with two lids

- **"SAR" stations with ball check valves and ball valve in the discharge pipe**

DIMENSIONS AND WEIGHT

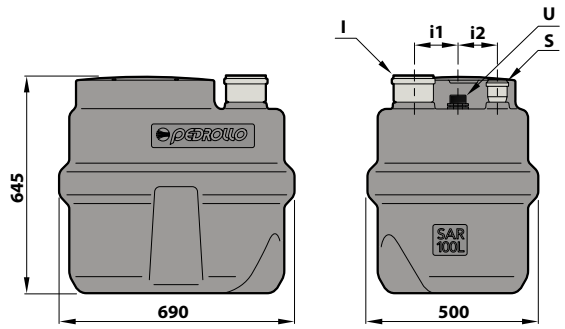
MODEL	PORTS			h	kg
	I	U(1)	S		
SAR 40 - TOP 1	1½"	1¼"	½"	305	14.0
SAR 40 - TOP 2					14.7
SAR 40 - TOP 3				335	16.1
SAR 40 - RXm 1				305	14.2
SAR 40 - RXm 2					15.3
SAR 40 - RXm 3				335	16.9
SAR 40 - TOP 2-VORTEX					14.6
SAR 40 - TEX 2					15.8
SAR 40 - TEX 3					16.5
SAR 40 - RXm 2/20					15.6

(1) Male threaded fitting



MODEL	PORTS			i1	i2	kg
	I	U(1)	S			
SAR 100 - TOP 2	DN 110	1¼"	DN 50	145	100	28.7
SAR 100 - TOP 3						30.1
SAR 100 - TOP 4		1½"				33.7
SAR 100 - TOP MULTI 1		1¼"				30.3
SAR 100 - TOP MULTI 2						32.9
SAR 100 - TOP MULTI 3						32.9
SAR 100 - RXm 2						29.3
SAR 100 - RXm 3						29.6
SAR 100 - Dm 10		1½"				36.6
SAR 100 - Dm 20						36.6
SAR 100 - Dm 30						38.6
SAR 100 - TOP 2-VORTEX		1¼"				28.7
SAR 100 - TOP 3-VORTEX						30.1
SAR 100 - RXm 2/20						29.6
SAR 100 - RXm 3/20						29.8
SAR 100 - ZXm 2/30		1½"				29.6
SAR 100 - ZXm 2/40						30.4
SAR 100 - VXm 8/35						36.4
SAR 100 - VXm 10/35						37.2
SAR 100 - VXm 8/50		2"				36.9
SAR 100 - VXm 10/50						37.7
SAR 100 - BCm 10/50						38.4
SAR 100 - TRm 0.75		1¼"				46.0
SAR 100 - TRm 1.1						47.6

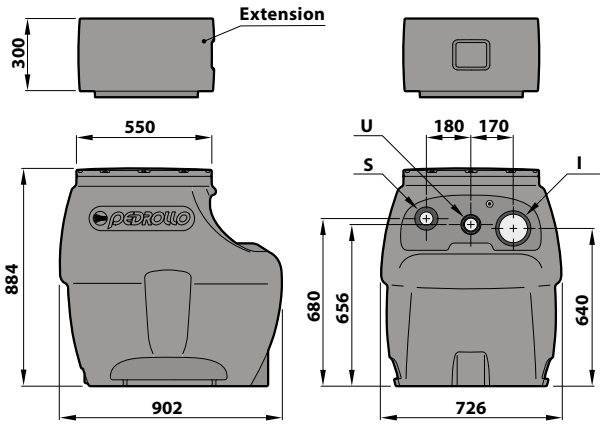
(1) Male threaded fitting



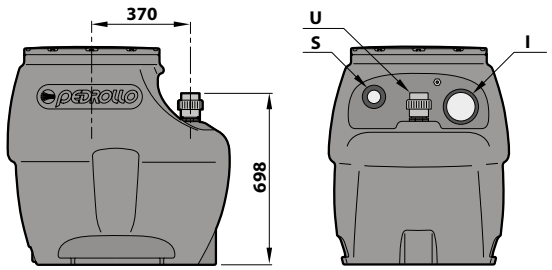
DIMENSIONS AND WEIGHT

MODEL	PORTS			kg
	I	U(1)	S	
SAR 250 - TOP 3	DN 110	1¼"	DN 50	42.6
SAR 250 - TOP 4		1½"		46.2
SAR 250 - TOP 5				46.2
SAR 250 - RXm 3		1¼"		47.0
SAR 250 - RXm 4		1½"		50.0
SAR 250 - RXm 5				51.0
SAR 250 - Dm 10				51.2
SAR 250 - Dm 20				53.5
SAR 250 - Dm 30				51.2
SAR 250 - TOP 2-VORTEX		1¼"		44.0
SAR 250 - TOP 3-VORTEX				46.0
SAR 250 - RXm 3/20				45.0
SAR 250 - RXm 4/40		1½"		53.0
SAR 250 - RXm 5/40				53.0
SAR 250 - VXm10/35-ST		2"		60.0
SAR 250 - VXm10/50-ST				60.0
SAR 250 - BCm10/50-ST				60.5
SAR 250 - VXm 10/35		1½"		53.0
SAR 250 - VXm 15/35				54.0
SAR 250 - VXm 10/50		2"		53.0
SAR 250 - VXm 15/50				53.0
SAR 250 - BCm 10/50				53.5
SAR 250 - BCm 15/50			DN 75	55.0
SAR 250 - TRm 0.75		1¼"	DN 50	62.0
SAR 250 - TRm 1.1				64.0
SAR 250 - TRm 1.5		1½"		79.0

(1) Male threaded fitting (female for VX-ST and BC-ST)

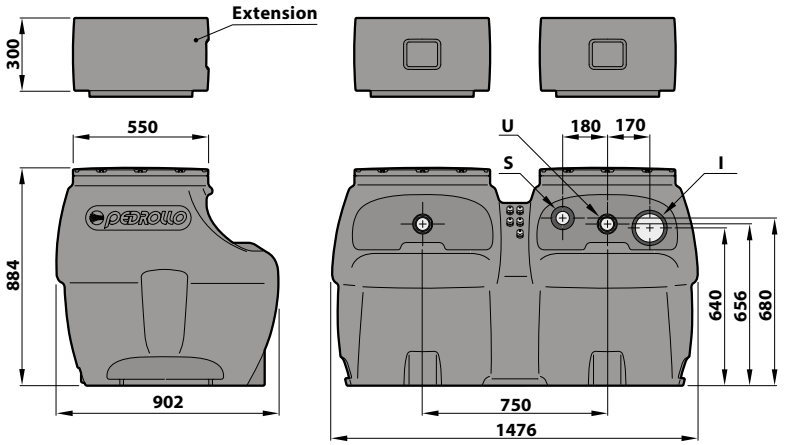


Only for VX-ST, BC-ST versions

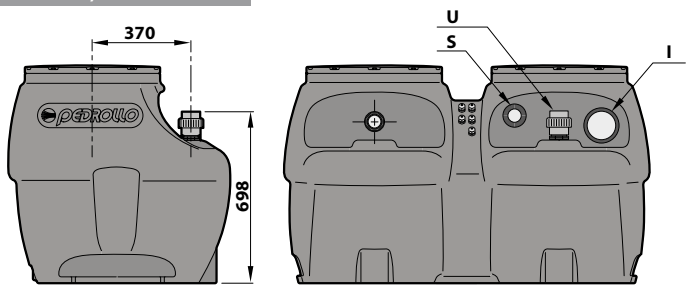


MODEL	PORTS			kg
	I	U(1)	S	
SAR 550 - TOP 4	DN 110	1½"	DN 50	96.0
SAR 550 - TOP 5				95.2
SAR 550 - RXm 4				103.0
SAR 550 - RXm 5				105.0
SAR 550 - Dm 10				101.2
SAR 550 - Dm 20				101.2
SAR 550 - Dm 30				105.7
SAR 550 - RXm 4/40				105.0
SAR 550 - RXm 5/40				106.0
SAR 550 - VXm 10/35-ST		2"	DN 75	120.0
SAR 550 - VXm 10/50-ST				121.0
SAR 550 - BCm10/50-ST				122.0
SAR 550 - VXm 10/35		1½"		105.0
SAR 550 - VXm 15/35				106.0
SAR 550 - VXm 10/50		2"		105.1
SAR 550 - VXm 15/50				108.0
SAR 550 - VX 15/50				107.0
SAR 550 - BCm 10/50				109.0
SAR 550 - BCm 15/50				108.0
SAR 550 - BC 15/50				106.0
SAR 550 - TRm 0.75		1¼"	DN 50	135.0
SAR 550 - TRm 1.1				137.5
SAR 550 - TR 1.1				137.0
SAR 550 - TRm 1.5		1½"		182.0

(1) Male threaded fitting (female for VX-ST and BC-ST)



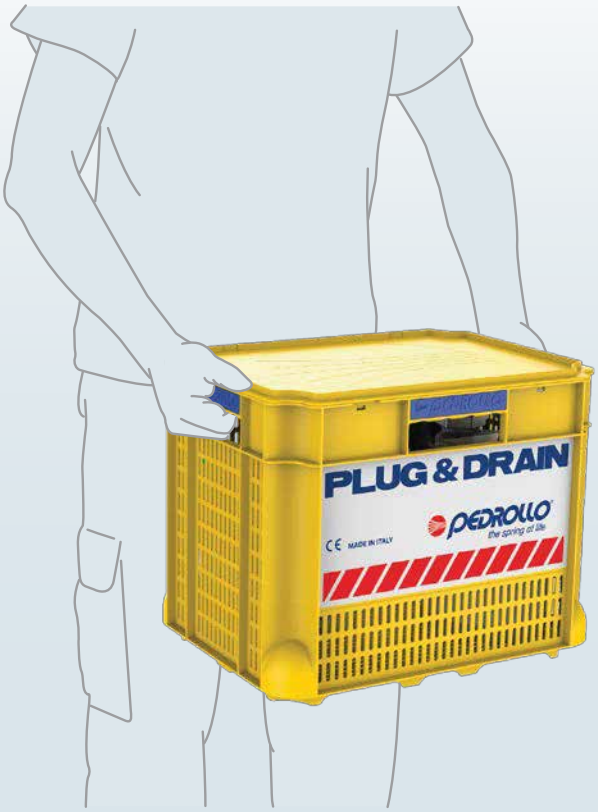
Only for VX-ST, BC-ST versions



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.

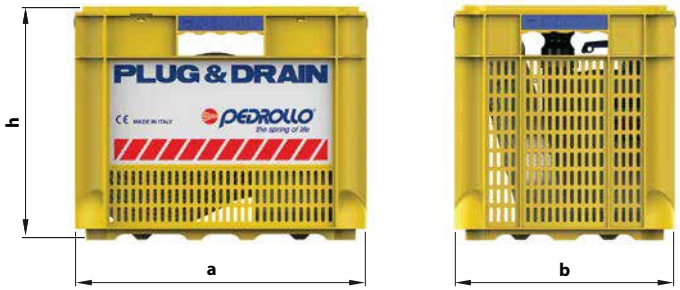
In order to drain the residual water disconnect the pump from the crate and place it on the floor. The pump will be able to drain down to a level of only 2 mm from the bottom.

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	**10.7**

(* 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

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 **+55 °C**
- Ambient temperature up to **+40 °C**
- Burst pressure **> 40 bar**
- Protection: **IP 65**
- Voltage: **230 V** - Frequency: **50/60 Hz**
- Max current: **16 A**

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.
- EASYPRESS complete with pressure gauge.

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

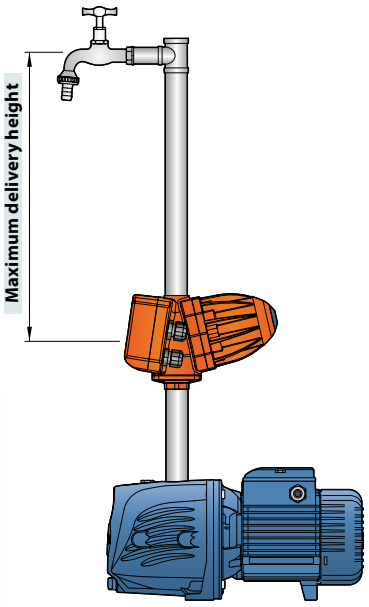
- EASYPRESS-1 version with restarting pressure **0.8 bar** 🟡
- EASYPRESS-2 version with restarting pressure **2.2 bar** 🔴
- Version with 1" NPT
- Version with cable and Schuko plug and socket

STARTING PRESSURE

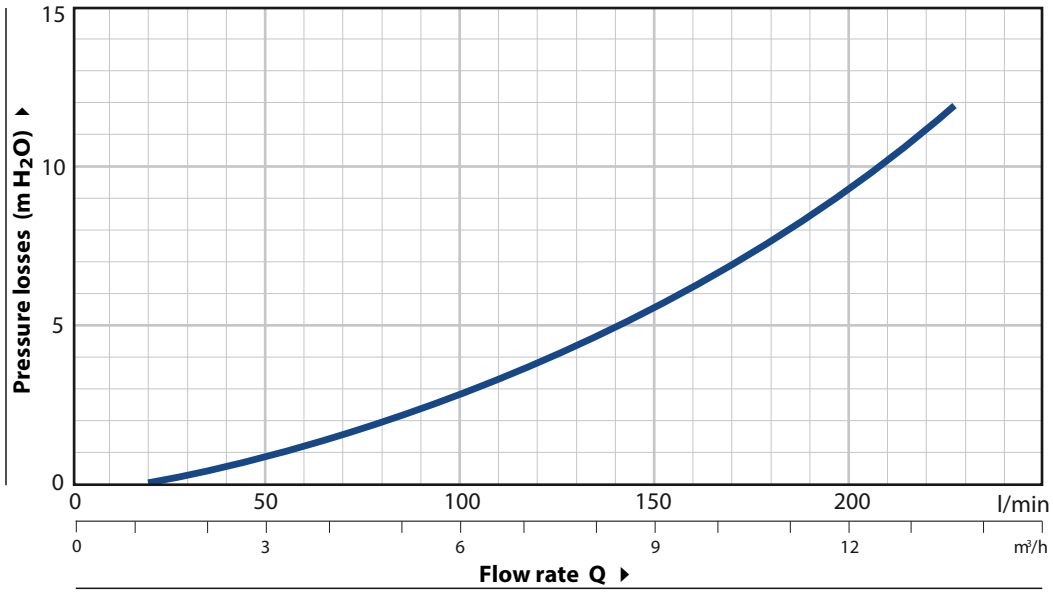
There are three different models available, each with a different starting pressure and easily identified by the coloured cap positioned at the rear of the EASYPRESS, for installations requiring delivery at various heights.

Maximum delivery height

2.2 bar version	🔴	**= 18 m**
1.5 bar version	🔵	**= 11 m**
0.8 bar version	🟡	**= 5 m**



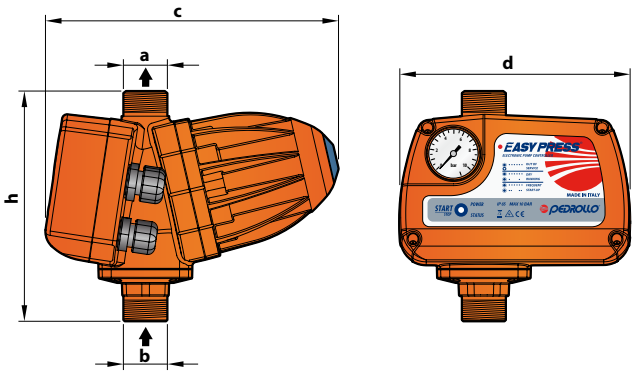
PRESSURE LOSSES



MODEL	POWER (P2)		Volt	Hz	Current	Fittings	Flow rate	Restarting pressure
	kW	HP						
EASYPRESS	1.5	2	230	50/60	**16 A**	1" x 1"	12 m³/h	1.5 bar

= **Stocked in Australia**
Other models available upon request with 6 to 8 weeks lead time.

DIMENSIONS AND WEIGHT



MODEL	PORTS		DIMENSIONS mm			kg
Single-phase	a	b	c	d	h	
EASYPRESS	**1"**	**1"**	221	175	174	**1.63**

= **Stocked in Australia**
Other models available upon request with 6 to 8 weeks lead time.

ACCESSORIES

- **GSR** Special three-piece joint with an o-ring seal (1" M)

GSR

PALLETIZATION

MODEL	
Single-phase	n. EASYPRESS
EASYPRESS	**147**

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