

# 4BLOCK

## 4" monoblock submersible pumps



-  Clean water  
(Maximum sand content 150 g/m<sup>3</sup>)
-  Domestic use
-  Civil use
-  Agricultural use

### PERFORMANCE RANGE

- Flow rate up to **150 l/min** (9 m<sup>3</sup>/h)
- Head up to **128 m**

### APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **150 g/m<sup>3</sup>**
- Maximum immersion depth of **60 m** with a sufficiently long power cable
- Vertical and horizontal installation
- Starts/hour: **20** at regular intervals
- Continuous service **S1**

### CONSTRUCTION AND SAFETY STANDARDS

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

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



EU REGULATION N. 547/2012

### CERTIFICATIONS

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



### INSTALLATION AND USE

Suitable for pumping clean water from boreholes that contain sand (up to 150 g/m<sup>3</sup>).

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

### PATENTS - TRADE MARKS - MODELS

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

### OPTIONS AVAILABLE ON REQUEST

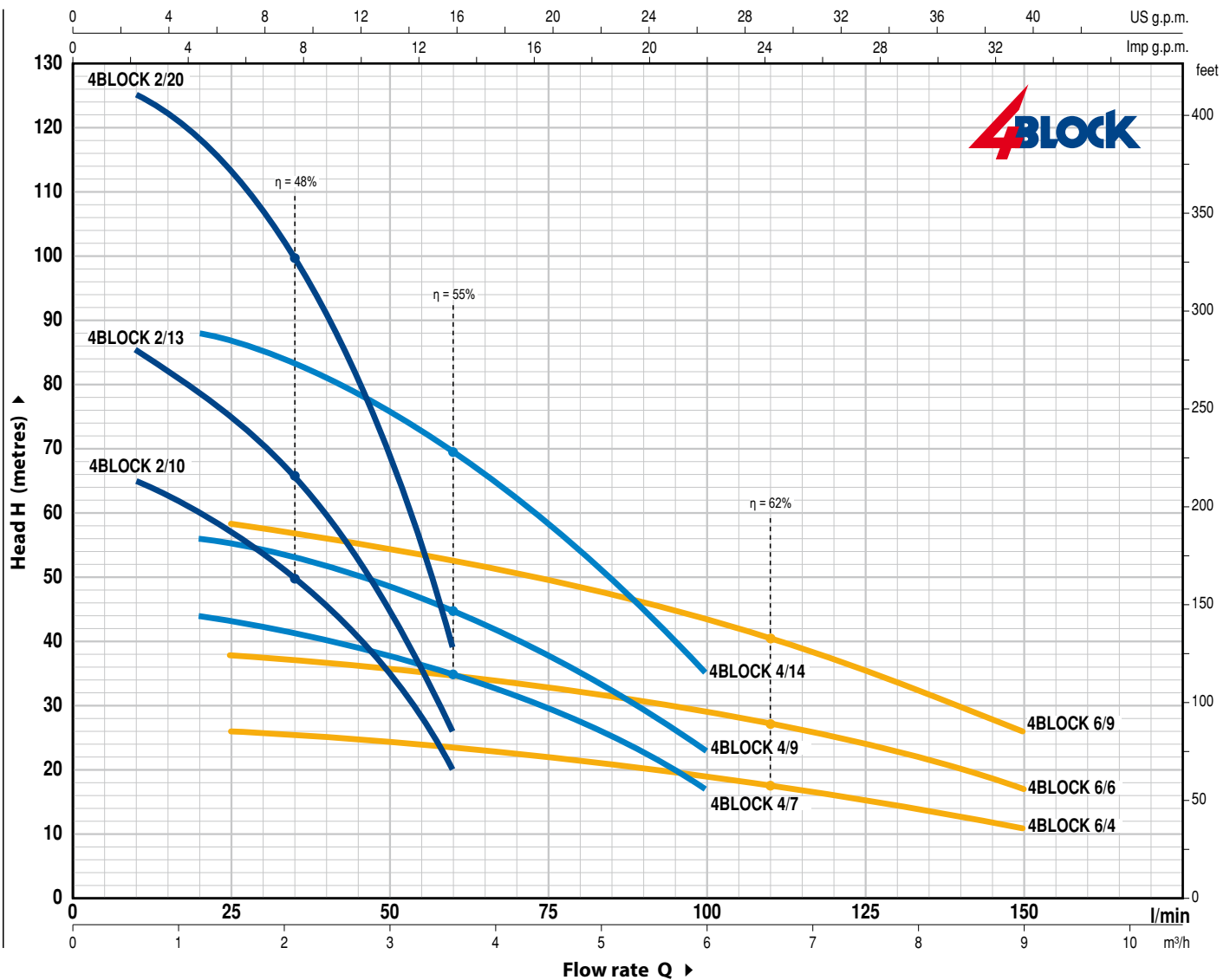
- **30 metres** long power cable
- Other voltages or 60 Hz frequency

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

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

### CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 rpm



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

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

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

Q = Flow rate H = Total manometric head

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

## POS. COMPONENT CONSTRUCTION CHARACTERISTICS

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

### 11 TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER

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

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

### 14 ELECTRIC MOTOR

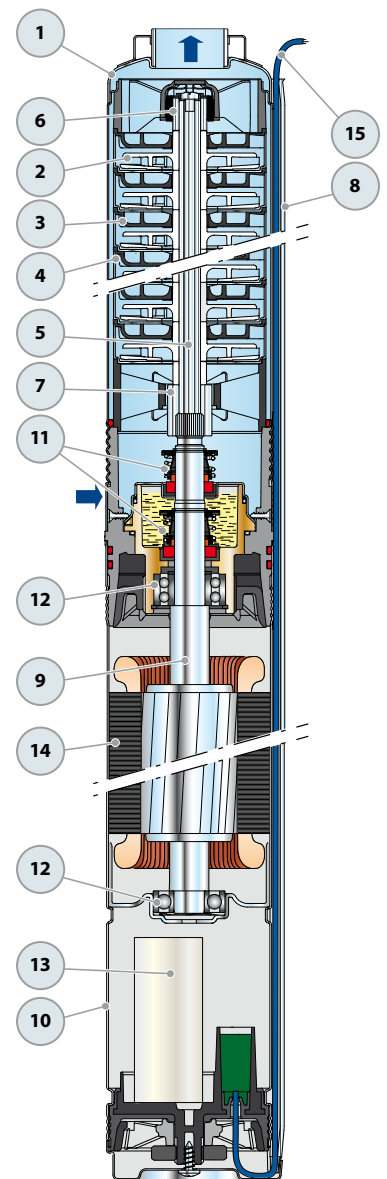
Submersible PEDROLLO motor, suitable for continuous duty (with dry, rewindable stator).

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

- Insulation: class F
- Protection: IP X8

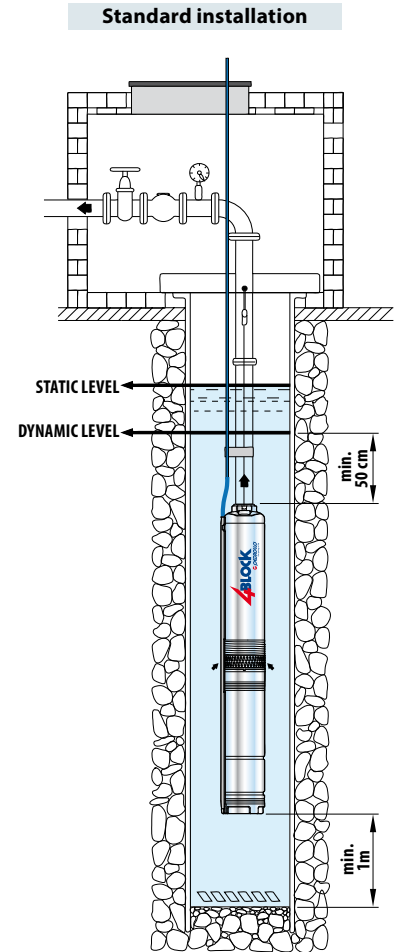
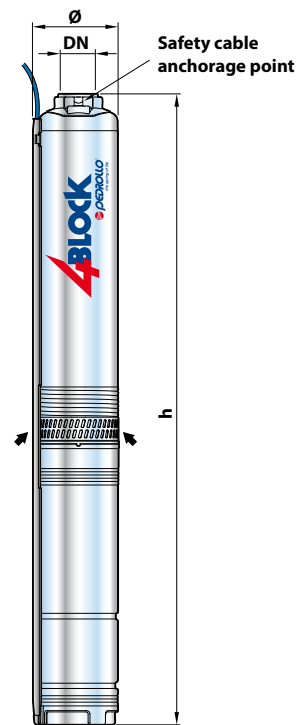
### 15 POWER CABLE

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



## DIMENSIONS AND WEIGHT

MODEL	PORT DN	DIMENSIONS mm			kg
		N. STAGES	Ø	h	
Single-phase					1~
4BLOCKm 2/10	1¼"	10	100	705	12.5
4BLOCKm 2/13		13		786	14.3
4BLOCKm 2/20		20		986	17.8
4BLOCKm 4/7		7		674	12.1
4BLOCKm 4/9		9		743	13.8
4BLOCKm 4/14		14		925	17.0
4BLOCKm 6/4		4		641	10.7
4BLOCKm 6/6		6		725	13.3
4BLOCKm 6/9		9		887	16.5



## ABSORPTION

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

## PALLETIZATION

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