

3" submersible pumps



BSR

**FLOATING IMPELLERS
PATENTED SYSTEM**

MADE IN ITALY

 **PEDROLLO**[®]
the spring of life





Designed with fully floating impellers, the 3SR submersible pumps achieve an exceptional performance and efficiency, ensuring a greater resistance to wear caused by sand.

● INSTALLATION AND USE

3" submersible pumps suitable for pumping clean water for many applications such as domestic supply, irrigation and water systems for small communities.

● HIGH PERFORMANCE

The hydraulic components, coupled to a high performance electric motor, make the 3SR pump extremely efficient in 3" category.

● THE ADVANTAGES FOR THE USER

Economic savings on the use of water thanks to the high efficiency and the consequent reduced electricity consumption. With a diameter of only 3 inches, the costs of drilling a new well and the installation are greatly reduced.

In the case of pre-existing drilling the 3SR pump is the ideal replacement solution, especially in the presence of old and encrusted wells. The construction with floating impellers allows the pumping of water with sand content of up to 150 g/m³. Installation is possible in vertical or horizontal position

PERFORMANCE RANGE

- Flow rate up to **90 l/min** (5.4 m³/h)
- Head up to **267 m**

APPLICATION LIMITS

- Maximum temperature of liquid **+35 °C**
- Maximum sand content **150 g/m³**
- Depth of use up to **60 m** below the water level((with a sufficiently long power cable)
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **8 cm/s**
- Continuous service **S1**

ELECTRIC MOTOR

- Oil filled **rewindable** motors (food grade, non-toxic oil) 2 pole 50Hz: – Single phase **230 V** –Three phase **400 V**
- Insulation: class F - Protection: IP 68
- Shaft and jacket: **AISI 304** stainless steel
- Dimensions of the flange connection in compliance with **NEMA** standards
- **1.5 m** long power cable

CONSTRUCTION AND SAFETY STANDARDS

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

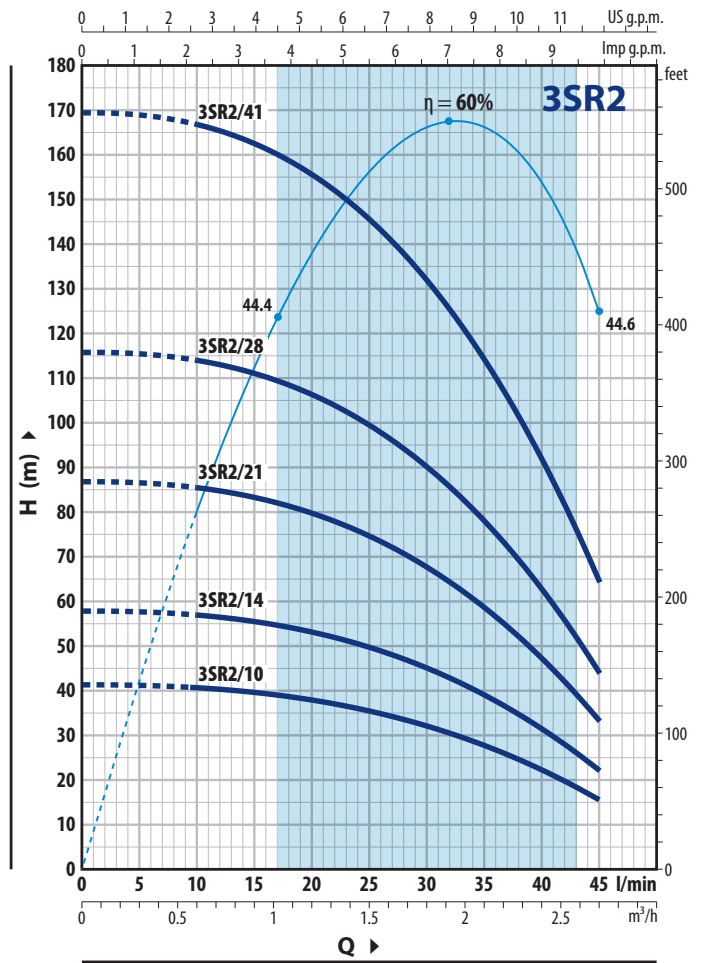
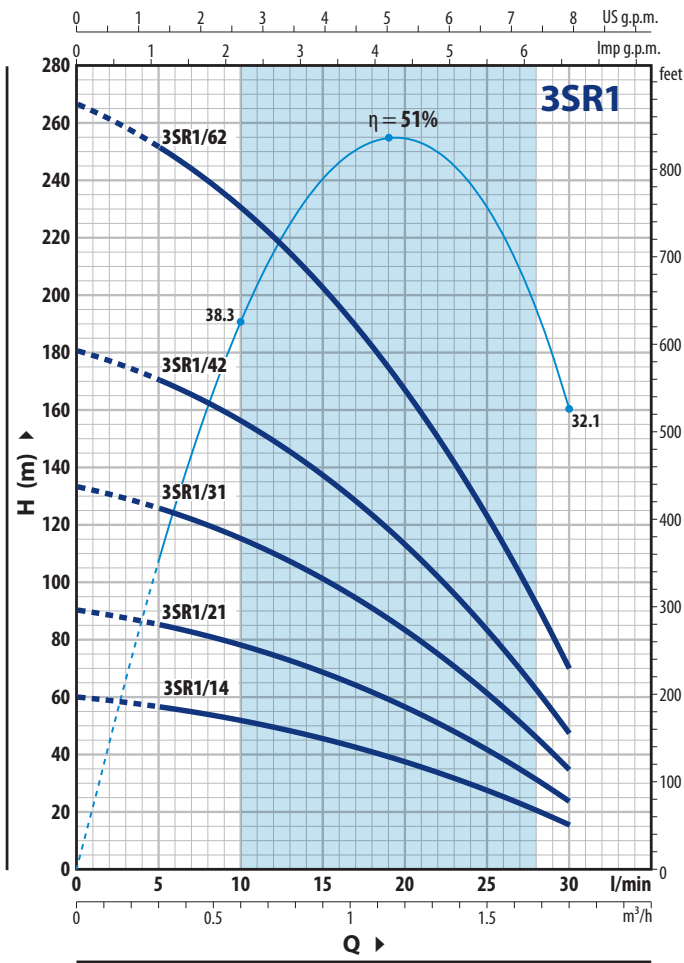
EN 60034-1
IEC 60034-1
CEI 2-3

WARRANTY

2 years according to our general conditions of sale

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹



3SR1

MODEL		POWER (P ₂)		Q	H metres							
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	0.9	1.2	1.5	1.8
				l/min	0	5	10	15	20	25	30	
3SRm 1/14	3SR 1/14	0.25	0.33	H metres	60	57	52	45.5	37.5	28	16	
3SRm 1/21	3SR 1/21	0.37	0.50		90	85	78	68.5	56.5	41.5	24	
3SRm 1/31	3SR 1/31	0.55	0.75		133	126	115	101	83	61.5	35	
3SRm 1/42	3SR 1/42	0.75	1		181	170	156	137	113	83	47.5	
3SRm 1/62	3SR 1/62	1.1	1.5		267	252	230	203	167	123	70	

3SR2

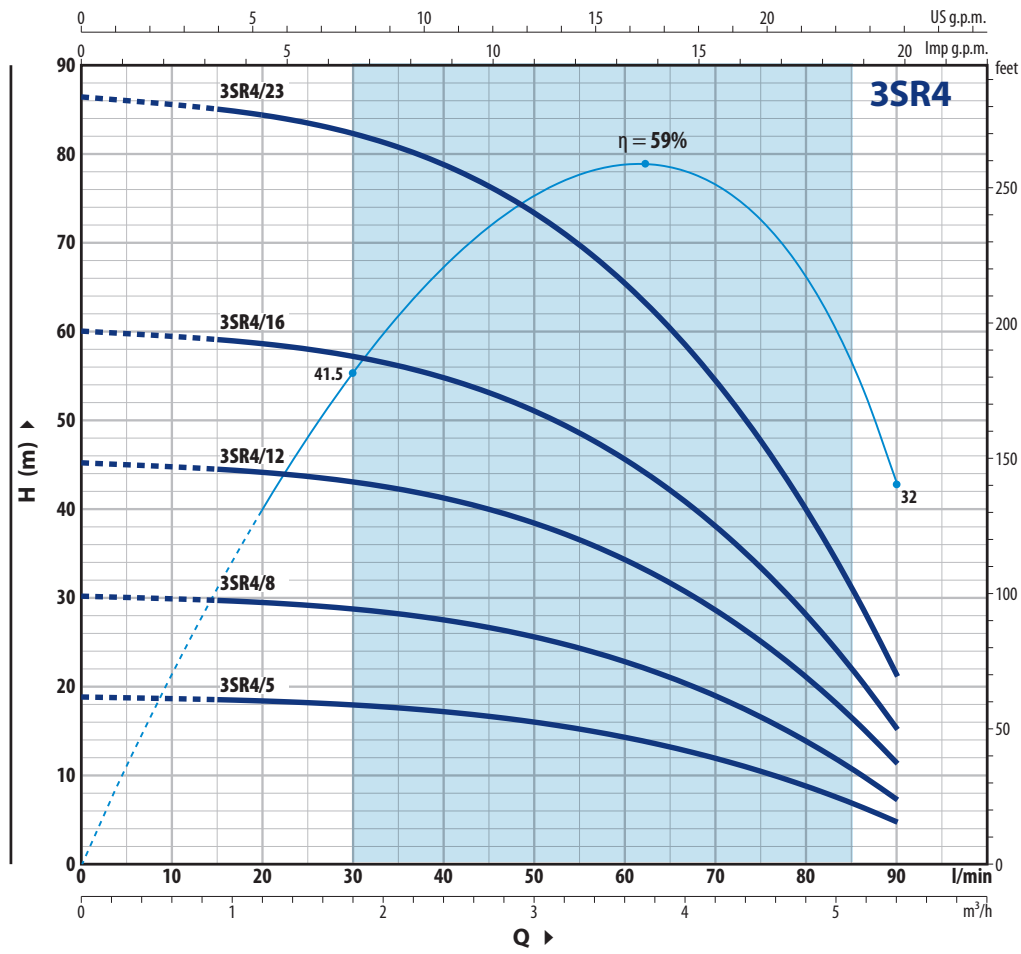
MODEL		POWER (P ₂)		Q	H metres								
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.6	0.9	1.2	1.5	1.8	2.1	2.4
				l/min	0	10	15	20	25	30	35	40	45
3SRm 2/10	3SR 2/10	0.25	0.33	H metres	41.5	40.5	39.5	38	35.5	32	28	22.3	15.5
3SRm 2/14	3SR 2/14	0.37	0.50		58	57	55.5	53	49.5	45	39	31	22
3SRm 2/21	3SR 2/21	0.55	0.75		87	85	83	80	74	67.5	58.5	47	33
3SRm 2/28	3SR 2/28	0.75	1		116	114	111	106	99	90	78	62.5	44
3SRm 2/41	3SR 2/41	1.1	1.5		169	166	162	155	145	132	114	92	64

Q = Flow rate H = Total manometric head

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

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹



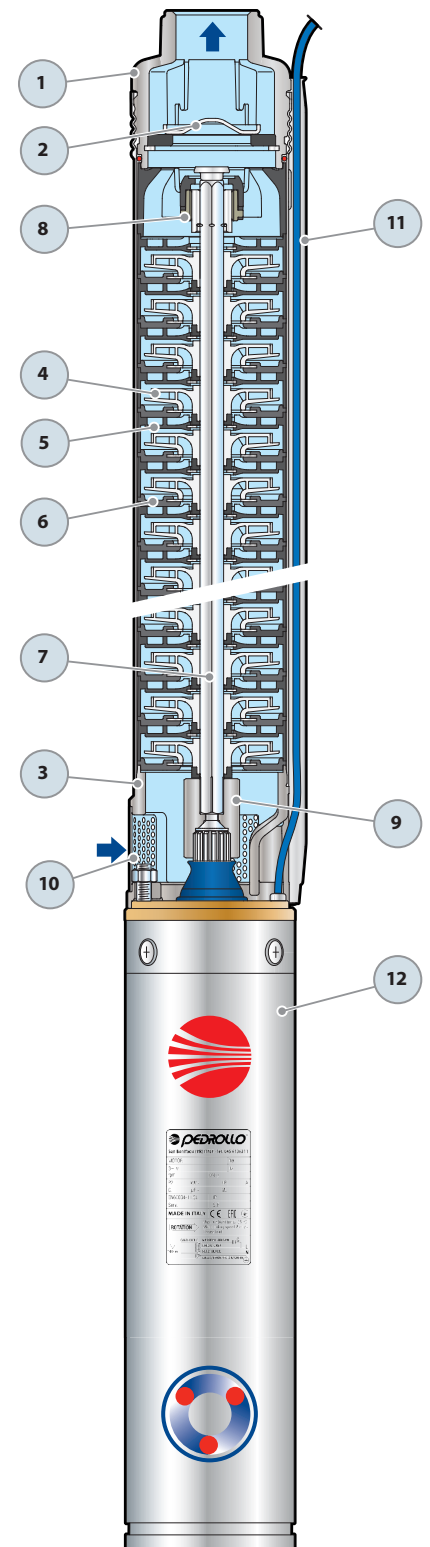
3SR4

MODEL		POWER (P ₂)		Q										
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.9	1.2	1.8	2.4	3	3.6	4.2	4.8
				l/min	0	15	20	30	40	50	60	70	80	90
3SRm 4/5	3SR 4/5	0.25	0.33	H metres	19	18.5	18.3	17.9	17.1	16	14.2	11.9	8.7	4.5
3SRm 4/8	3SR 4/8	0.37	0.50		30	29.5	29.5	28.5	27.5	25.5	22.8	19	14	7.5
3SRm 4/12	3SR 4/12	0.55	0.75		45	44.5	44	43	41	38.5	34	28.5	21	11.5
3SRm 4/16	3SR 4/16	0.75	1		60	59	58.5	57.5	55	51	45.5	38	28	15
3SRm 4/23	3SR 4/23	1.1	1.5		86	85	84	82	79	73	65.5	54.5	40	21.5

Q = Flow rate H = Total manometric head

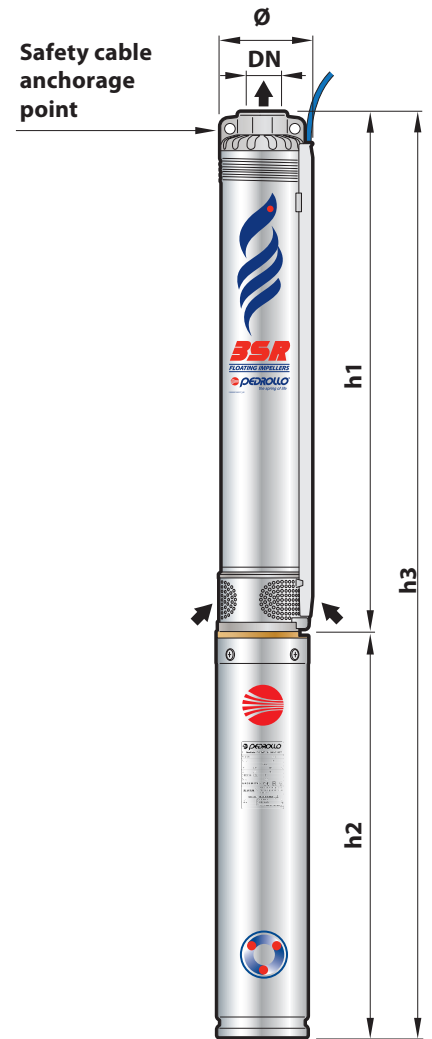
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT	CONSTRUCTION CHARACTERISTICS
1 DELIVERY BODY	Precision cast stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1
2 NON-RETURN VALVE	Stainless steel AISI 304
3 MOTOR BRACKET	Stainless steel AISI 304, compliance with NEMA standards
4 IMPELLERS	Delrin
5 DIFFUSER	Noryl - Stainless steel AISI 304
6 DIFFUSER PLATE	Noryl - Stainless steel AISI 304
7 PUMP SHAFT	Stainless steel AISI 304
8 PUMP BEARING	Special technopolymer housing with stainless steel AISI 316, chrome oxide coated, sand resistant shaft bushing.
9 DRIVE COUPLING	Stainless steel AISI 316L
10 FILTER	Stainless steel AISI 304
11 CABLE COVER	Stainless steel AISI 304
12 MOTOR 3"	<ul style="list-style-type: none"> - Oil filled rewindable motors (food grade, non-toxic oil) - 2 pole, 50 Hz (n ~ 2900 min-1) - Voltage: <ul style="list-style-type: none"> Single-phase 230 V Three-phase 400 V - Insulation: class F - Protection: IP 68 - Shaft and jacket: AISI 304 stainless steel - Dimensions of the flange connection in compliance with NEMA standards - 1.5 m long power cable



DIMENSIONS AND WEIGHT

MODEL	PORT DN	Ø	DIMENSIONS mm			kg
			h1	h2	h3	
Single-phase						
3SRm 1/14	1"	76	415	378	793	9.1
3SRm 1/21			547	378	925	9.6
3SRm 1/31			736	398	1134	11.0
3SRm 1/42			973	438	1411	13.1
3SRm 1/62			1380	478	1858	16.0
3SRm 2/10	1"	76	376	378	754	8.9
3SRm 2/14			466	378	844	9.3
3SRm 2/21			624	398	1022	10.6
3SRm 2/28			781	438	1219	12.3
3SRm 2/41			1104	478	1582	14.8
3SRm 4/5	1"	76	311	378	689	8.6
3SRm 4/8			407	378	785	8.9
3SRm 4/12			534	398	932	10.0
3SRm 4/16			662	438	1100	11.6
3SRm 4/23			915	478	1393	13.7
Three-phase						
3SR 1/14	1"	76	415	358	773	8.6
3SR 1/21			547	358	905	9.2
3SR 1/31			736	378	1114	10.5
3SR 1/42			973	398	1371	12.1
3SR 1/62			1380	438	1818	14.9
3SR 2/10	1"	76	376	358	734	8.4
3SR 2/14			466	358	824	8.9
3SR 2/21			624	378	1002	10
3SR 2/28			781	398	1179	11.3
3SR 2/41			1104	438	1542	13.7
3SR 4/5	1"	76	311	358	669	8.1
3SR 4/8			407	358	765	8.5
3SR 4/12			534	378	912	9.4
3SR 4/16			662	398	1060	10.6
3SR 4/23			915	438	1353	12.6



ABSORPTION

Single-phase					
MODEL	Rated power P ₂		Axial load N	Capacitor (VL=450V) µF	ABSORPTION
	kW	HP			
230 V / 50 Hz					
3SRm 1/14	0.25	0.33	800	12.5	3.2 A
3SRm 1/21	0.37	0.50		12.5	3.4 A
3SRm 1/31	0.55	0.75		16	4.5 A
3SRm 1/42	0.75	1		20	6.0 A
3SRm 1/62	1.1	1.5		30	8.0 A
3SRm 2/10	0.25	0.33	800	12.5	3.2 A
3SRm 2/14	0.37	0.50		12.5	3.4 A
3SRm 2/21	0.55	0.75		16	4.5 A
3SRm 2/28	0.75	1		20	6.0 A
3SRm 2/41	1.1	1.5		30	8.0 A
3SRm 4/5	0.25	0.33	800	12.5	3.2 A
3SRm 4/8	0.37	0.50		12.5	3.4 A
3SRm 4/12	0.55	0.75		16	4.5 A
3SRm 4/16	0.75	1		20	6.0 A
3SRm 4/23	1.1	1.5		30	8.0 A

Three-phase					
MODEL	Rated power P ₂		Axial load N	ABSORPTION	
	kW	HP			
400 V / 50 Hz					
3SR 1/14	0.25	0.33	800	1.4 A	
3SR 1/21	0.37	0.50		1.5 A	
3SR 1/31	0.55	0.75		1.9 A	
3SR 1/42	0.75	1		2.6 A	
3SR 1/62	1.1	1.5		3.5 A	
3SR 2/10	0.25	0.33	800	1.4 A	
3SR 2/14	0.37	0.50		1.5 A	
3SR 2/21	0.55	0.75		1.9 A	
3SR 2/28	0.75	1		2.6 A	
3SR 2/41	1.1	1.5		3.5 A	
3SR 4/5	0.25	0.33	800	1.4 A	
3SR 4/8	0.37	0.50		1.5 A	
3SR 4/12	0.55	0.75		1.9 A	
3SR 4/16	0.75	1		2.6 A	
3SR 4/23	1.1	1.5		3.5 A	

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MADE IN ITALY

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