

4SR-N®

SEMI-AXIAL IMPELLERS



4" submersible pumps



Clean water
(Maximum
sand content 150 g/m³)



Domestic use



Civil use



Industrial use



Agricultural use

PERFORMANCE RANGE

- Flow rate up to **430 l/min** (25.8 m³/h)
- Head up to **263 m**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **150 g/m³**
- **200 m** immersion limit
- Installation:
 - **vertical**
 - **horizontal**, with the following limits: up to **9 stages**
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **8 cm/s**
- Continuous service **S1**

INSTALLATION AND USE

4" submersible pumps suitable for pumping clean water for many applications such as domestic supply, irrigation for greenhouses, farms and water systems for communities and pressurisation.

The hydraulic components, coupled to a high performance electric motor, make the 4SR pump extremely efficient in 4" category.

Economic savings on the use of water thanks to the high efficiency and the consequent reduced electricity consumption. The construction with floating impellers allows the pumping of water with a sand content of up to **150 g/m³**.

Installation is possible in the vertical and horizontal position.

PATENTS

- Patent n. **EP2419642**

CONSTRUCTION AND SAFETY STANDARDS

ELECTRIC MOTOR

- Three-phase 380 V - 60 Hz – Single-phase 220 V - 60 Hz
- **Capacitor included in the packaging**

Length of power cable:

- **2 m** powers from 0.75 to 2.2 kW
- **3.6 m** powers from 3 to 7.5 kW.

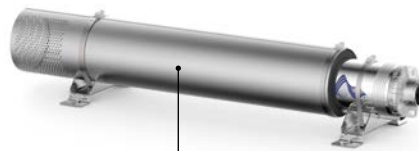
EN 60335-1
IEC 60335-1
CEI 61-150

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



OPTIONS AVAILABLE ON REQUEST

- Pump body with ISO 228/1 threaded ports
- Other voltages
- Kit of cooling jacket complete with filter and supports; recommended for powers from 2.2 kW to 7.5 kW

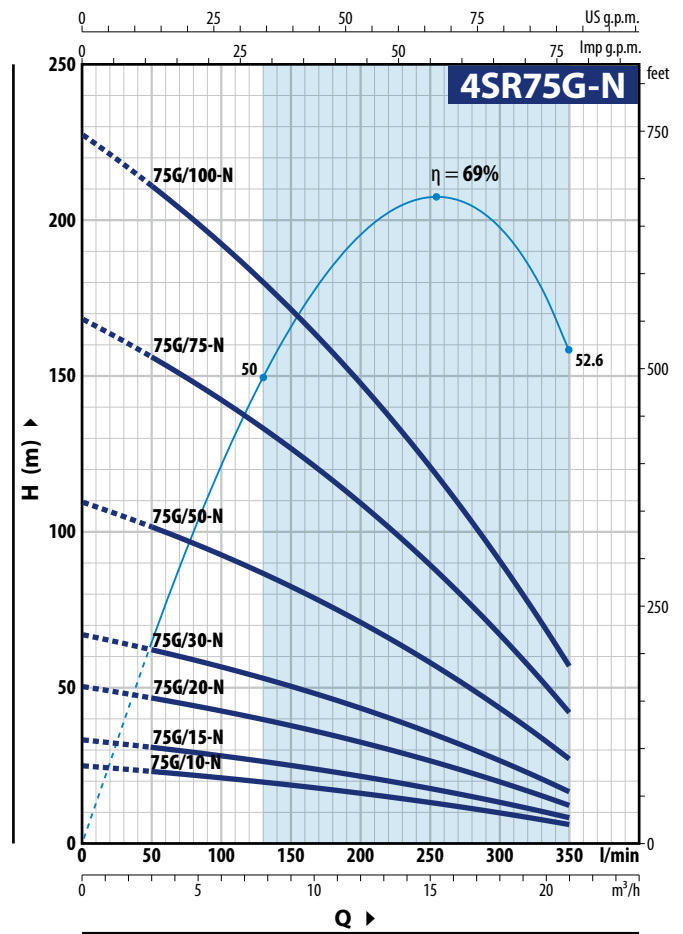
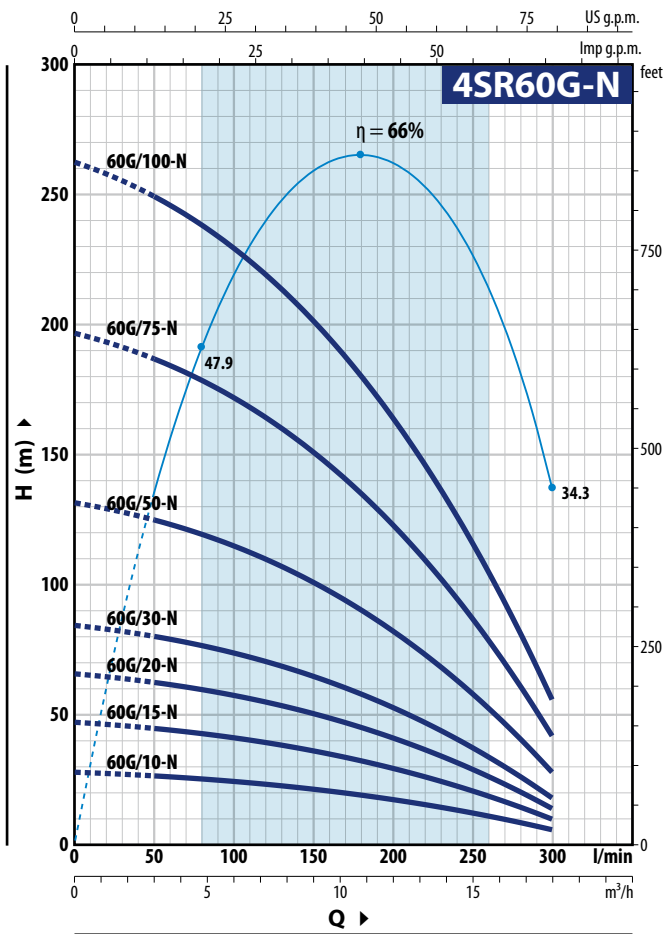


COOLING JACKET



CHARACTERISTIC CURVES AND PERFORMANCE DATA

60 Hz n = 3450 min⁻¹



4SR60G-N

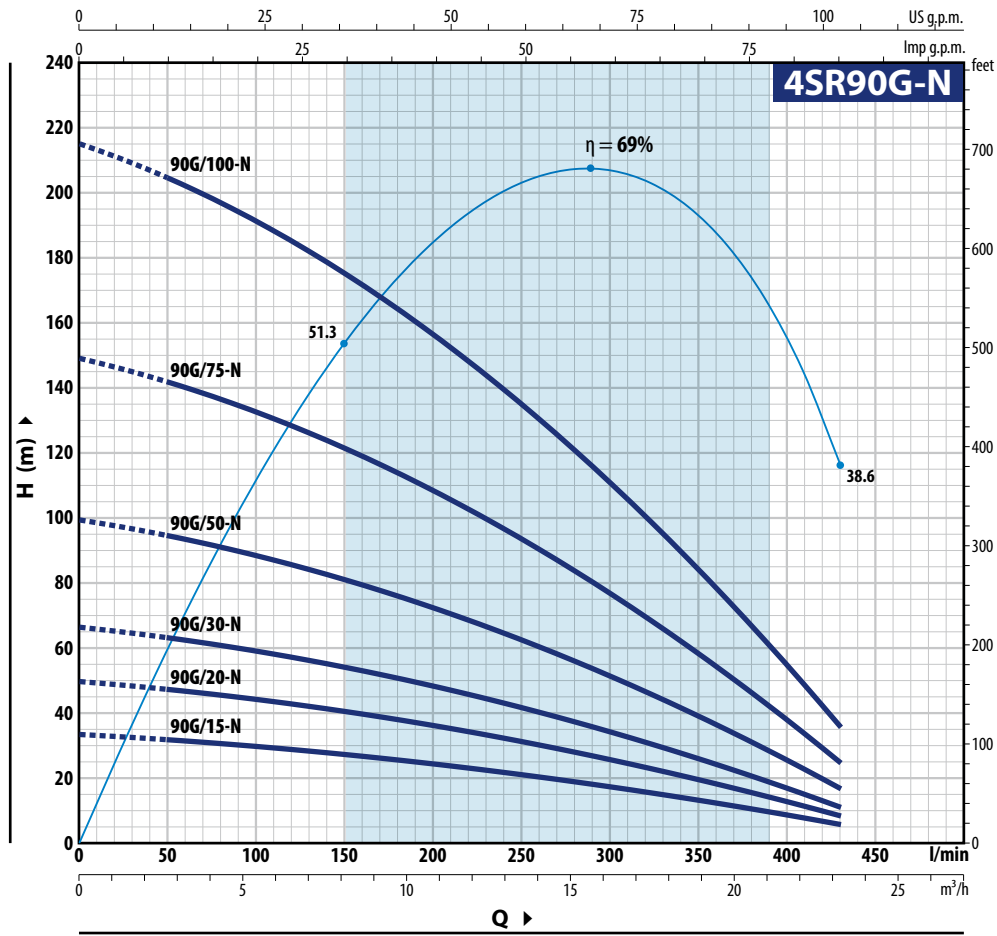
MODEL		N. STAGES	POWER (P ₂)		Q	H metres						
Single-phase	Three-phase		kW	HP		0	3	6	9	12	15	18
4SRm 60G/10-N	4SR 60G/10 -N	3	0.75	1	0	28	26.5	24.6	21.6	17.6	12.4	6
4SRm 60G/15-N	4SR 60G/15 -N	5	1.1	1.5	50	47	44.5	41	36	29.5	20.7	10
4SRm 60G/20-N	4SR 60G/20 -N	7	1.5	2	100	65.5	62.5	57.5	50.5	41	29	14
4SRm 60G/30-N	4SR 60G/30 -N	9	2.2	3	150	84	80	74	65	53	37.5	18
-	4SR 60G/50 -N	14	3.7	5	200	131	125	115	101	82	58	28
-	4SR 60G/75 -N	21	5.5	7.5	250	197	187	172	151	123	87	42
-	4SR 60G/100-N	28	7.5	10	300	263	249	229	201	164	116	56

4SR75G-N

MODEL		N. STAGES	POWER (P ₂)		Q	H metres							
Single-phase	Three-phase		kW	HP		0	3	6	9	12	15	18	21
4SRm 75G/10-N	4SR 75G/10 -N	3	0.75	1	0	25.5	23.5	21.4	19.1	16.4	13.5	10.1	6.5
4SRm 75G/15-N	4SR 75G/15 -N	4	1.1	1.5	50	33.5	31.5	28.5	25.4	21.9	17.9	13.5	8.5
4SRm 75G/20-N	4SR 75G/20 -N	6	1.5	2	100	50.5	47	43	38	33	26.9	20.2	12.5
4SRm 75G/30-N	4SR 75G/30 -N	8	2.2	3	150	67.5	62.5	57	51	44	36	27	17
-	4SR 75G/50 -N	13	3.7	5	200	110	102	93	83	71	58.5	44	27.5
-	4SR 75G/75 -N	20	5.5	7.5	250	169	156	143	127	109	90	67.5	42.5
-	4SR 75G/100-N	27	7.5	10	300	228	211	192	171	148	121	91	57

Q = Flow rate H = Total manometric head

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



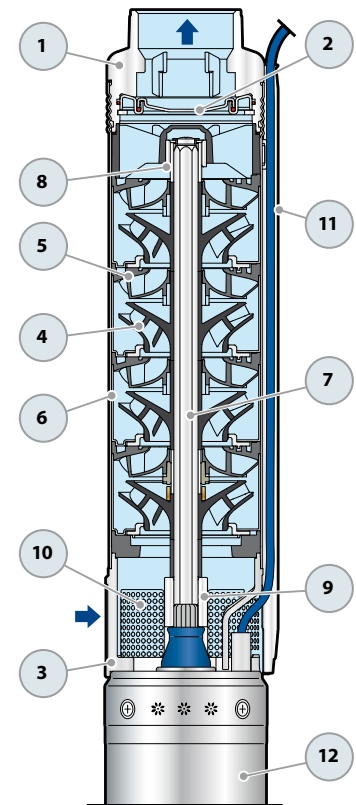
4SR90G-N

MODEL		N. STAGES	POWER (P ₂)		Q	H metres									
Single-phase	Three-phase		kW	HP		0	3	6	9	12	15	18	21	24	25.8
						0	50	100	150	200	250	300	350	400	430
4SRm 90G/15-N	4SR 90G/15 -N	4	1.1	1.5	H metres	33	31.5	29.5	26.9	24	20.7	17	12.9	8.5	5.5
4SRm 90G/20-N	4SR 90G/20 -N	6	1.5	2		49.5	47	44	40.5	36	31	25.5	19.3	12.5	8
4SRm 90G/30-N	4SR 90G/30 -N	8	2.2	3		66	63	59	54	48	41.5	34	25.7	16.5	11
-	4SR 90G/50 -N	12	3.7	5		99	94	88	81	72	62	51	38.5	25	16.5
-	4SR 90G/75 -N	18	5.5	7.5		149	142	132	121	108	93	76	58	37.5	24.5
-	4SR 90G/100-N	26	7.5	10		215	204	191	175	156	135	110	84	54	35.5

Q = Flow rate H = Total manometric head

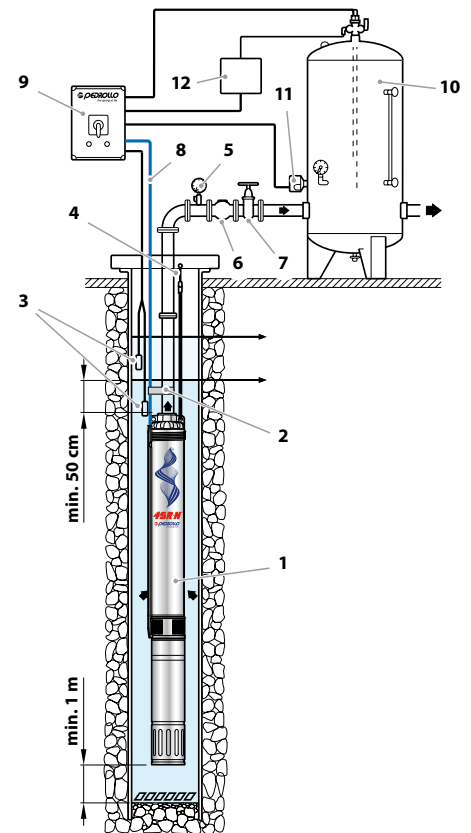
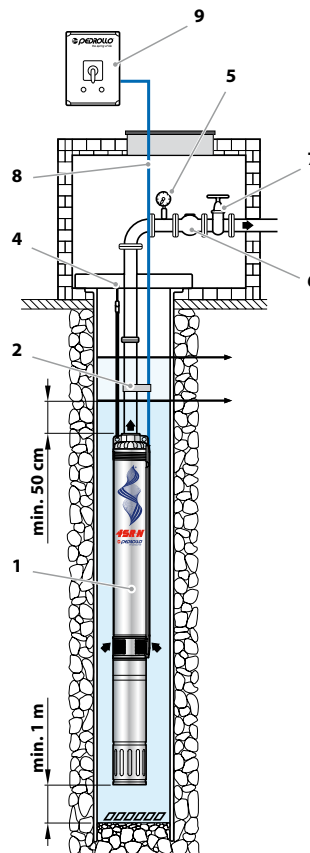
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

POS. COMPONENT	CONSTRUCTION CHARACTERISTICS
1 DELIVERY BODY	Precision cast stainless steel AISI 304 complete with threaded delivery port in compliance with NPT ANSI B 1.20.1
2 NON-RETURN VALVE	Stainless steel AISI 304
3 MOTOR BRACKET	Stainless steel AISI 304, in compliance with NEMA standards
4 IMPELLER	Noryl
5 DIFFUSER	Noryl
6 STAGE CASING	Stainless steel AISI 304
7 PUMP SHAFT	Stainless steel AISI 304
8 PUMP BEARINGS	Special technopolymer housing with stainless steel AISI 316, chrome oxide coated, sand resistant shaft bushing
9 DRIVE COUPLING	Stainless steel AISI 316L up to 2.2 kW; stainless steel AISI 304 for higher powers
10 FILTER	Stainless steel AISI 304
11 CABLE COVER	Stainless steel AISI 304
12 MOTOR 4"	4PD = rewindable oil filled submersible motor



STANDARD INSTALLATION

- 1) Submersible pump
- 2) Power cable clamps
- 3) Level probes; prevent dry running
- 4) Bracket and anchorage cable
- 5) Pressure gauge
- 6) Non-return valve
- 7) Gate valve; for flow rate regulation
- 8) Power cable
- 9) Control box
- 10) Pressure vessel
- 11) Pressure switch
- 12) Electro valve/electro-compressor

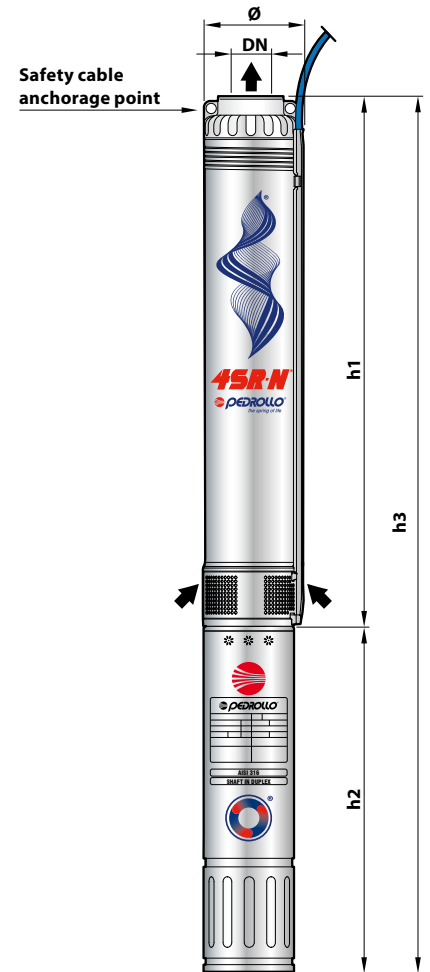


► The **4SR-N** series pumps should be installed in boreholes of at least 4" (100 mm) in diameter. The pump should be lowered into the borehole, by means of the delivery pipe, to such a depth (min. 50 cm and at least one metre from the bottom) that it is completely immersed during operation when the level of water in the borehole may reduce. It is good practice to secure the pump by attaching a stainless steel cable to the anchorage points present on the delivery body.

DIMENSIONS AND WEIGHT (pumps paired with 4PD submersible motor)

MODEL	DN	N. STAGES	DIMENSIONS mm			kg	
			Ø	h1	h2		h3
Single-phase							
4SRm 60G/10 - N - PD	2" NPT	3	98	328	356	684	11.8
4SRm 60G/15 - N - PD		5		430	396	826	14.4
4SRm 60G/20 - N - PD		7		532	437	969	16.8
4SRm 60G/30 - N - PD		9		634	492	1126	20.8
4SRm 75G/10 - N - PD		3		363	356	719	11.9
4SRm 75G/15 - N - PD		4		425	396	821	14.0
4SRm 75G/20 - N - PD		6		551	437	988	16.4
4SRm 75G/30 - N - PD		8		676	492	1168	21.1
4SRm 90G/15 - N - PD		4		425	396	821	14.0
4SRm 90G/20 - N - PD		6		551	437	988	16.4
4SRm 90G/30 - N - PD		8		676	492	1168	21.1

MODEL	DN	N. STAGES	DIMENSIONS mm			kg	
			Ø	h1	h2		h3
Three-phase							
4SR 60G/10 - N - PD	2" NPT	3	98	328	356	684	11.8
4SR 60G/15 - N - PD		5		430	371	801	13.6
4SR 60G/20 - N - PD		7		532	396	928	15.3
4SR 60G/30 - N - PD		9		634	437	1071	17.6
4SR 60G/50 - N - PD		14		888	505	1393	24.3
4SR 60G/75 - N - PD		21		1245	589	1834	31.4
4SR 60G/100 - N - PD		28		1602	800	2402	43.4
4SR 75G/10 - N - PD		3		363	356	719	11.9
4SR 75G/15 - N - PD		4		425	371	796	13.2
4SR 75G/20 - N - PD		6		551	396	947	14.9
4SR 75G/30 - N - PD		8		676	437	1113	17.9
4SR 75G/50 - N - PD		13		989	505	1494	24.9
4SR 75G/75 - N - PD		20		1427	589	2016	32.5
4SR 75G/100 - N - PD		27		1865	800	2665	45.1
4SR 90G/15 - N - PD		4		425	371	796	13.2
4SR 90G/20 - N - PD		6		551	396	947	14.9
4SR 90G/30 - N - PD		8		676	437	1113	17.9
4SR 90G/50 - N - PD		12		926	505	1431	24.4
4SR 90G/75 - N - PD		18		1302	589	1891	31.5
4SR 90G/100 - N - PD		26		1803	800	2603	44.5



DIMENSIONS AND WEIGHT (pump only)

MODEL	DN	N. STAGES	DIMENSIONS mm			kg
			Ø	h1	h	
4SR 60G/10 - N - HYD	2" NPT	3	98	328	331	3.3
4SR 60G/15 - N - HYD		5		430	433	4.2
4SR 60G/20 - N - HYD		7		532	535	5.1
4SR 60G/30 - N - HYD		9		634	637	5.9
4SR 60G/50 - N - HYD		14		888	891	8.2
4SR 60G/75 - N - HYD		21		1245	1248	11.3
4SR 60G/100 - N - HYD		28		1602	1605	14.4
4SR 75G/10 - N - HYD		3		363	366	3.4
4SR 75G/15 - N - HYD		4		425	428	3.8
4SR 75G/20 - N - HYD		6		551	554	4.7
4SR 75G/30 - N - HYD		8		676	679	6.2
4SR 75G/50 - N - HYD		13		989	992	8.8
4SR 75G/75 - N - HYD		20		1427	1430	12.4
4SR 75G/100 - N - HYD		27		1865	1868	16.1
4SR 90G/15 - N - HYD		4		425	428	3.8
4SR 90G/20 - N - HYD		6		551	554	4.7
4SR 90G/30 - N - HYD		8		676	679	6.2
4SR 90G/50 - N - HYD		12		926	929	8.3
4SR 90G/75 - N - HYD		18		1302	1305	11.4
4SR 90G/100 - N - HYD		26		1803	1806	15.5

