

4SR

4" submersible pumps

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



PERFORMANCE RANGE

- Flow rate up to **340 l/min** (20.4 m³/h)
- Head up to **405 m**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **150 g/m³**
- **100 m** immersion limit
- Installation:
 - vertical
 - horizontal, with the following limits:
 - 4SR1 - 4SR1.5 - 4SR2 - 4SR4 up to **27 stages**
 - 4SR6 - 4SR8 up to **17 stages**
 - 4SR10 - 4SR12 - 4SR15 up to **12 stages**
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **8 cm/s**
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

ELECTRIC MOTOR

- Single-phase 230 V - 50 Hz
- Three-phase 400 V - 50 Hz

Length of power cable:

- **2 m** powers from 0.37 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



EU REGULATION N. 547/2012

CERTIFICATIONS

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



INSTALLATION AND USE

Suitable for use with clean water with a sand content of no more than **150 g/m³**. Because of their high efficiency and reliability, they are suitable for use in domestic, civil and industrial applications such as for the distribution of water in combination with pressure tanks, for irrigation, for washing plants and for pressure boosting in fire-fighting sets, etc.

PATENTS - TRADE MARKS - MODELS

- Patent n. EP2419642

OPTIONS AVAILABLE ON REQUEST

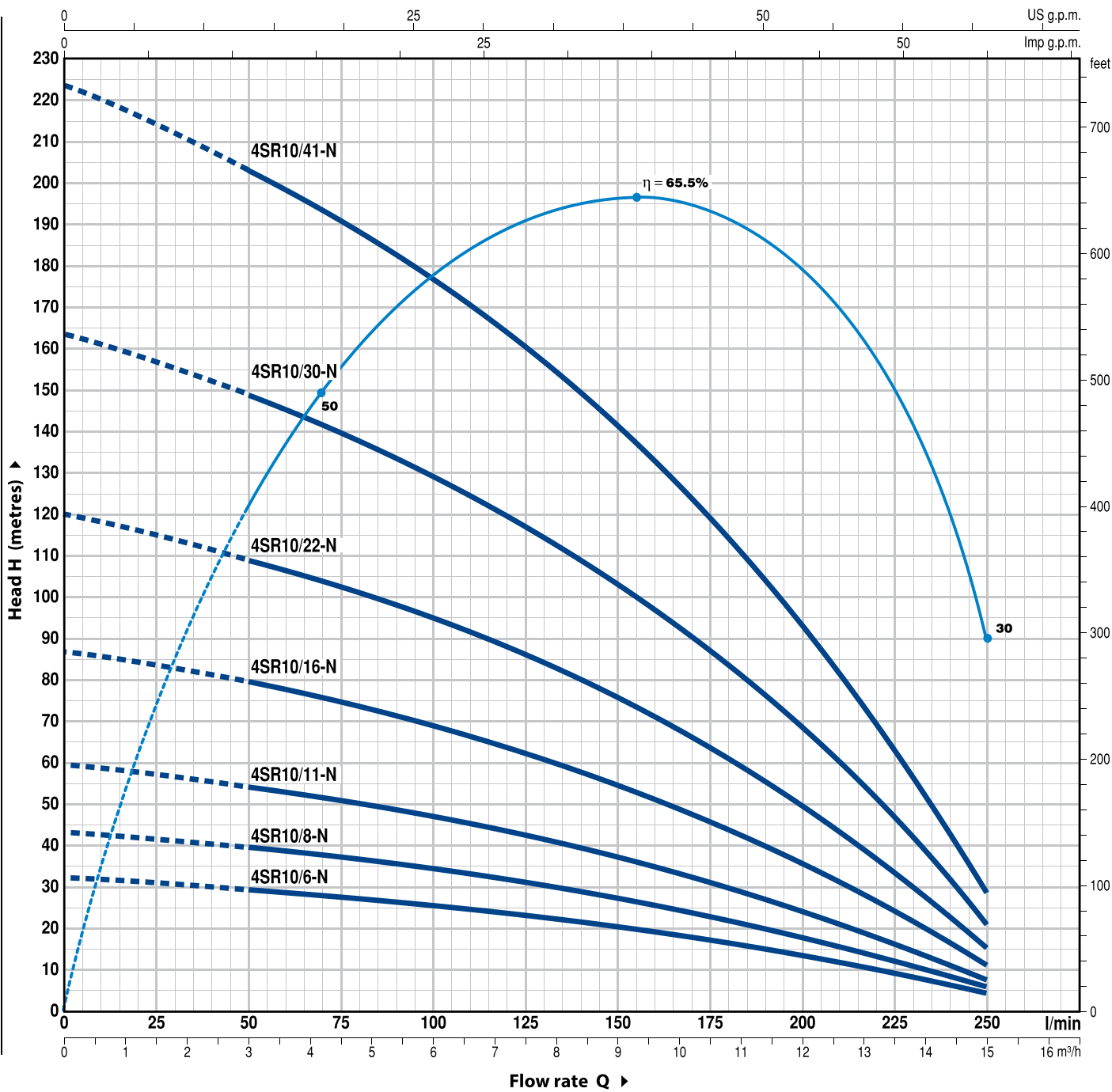
- Other voltages or 60 Hz frequency
- **Kit of cooling jacket complete with filter and supports**



4SR10

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹



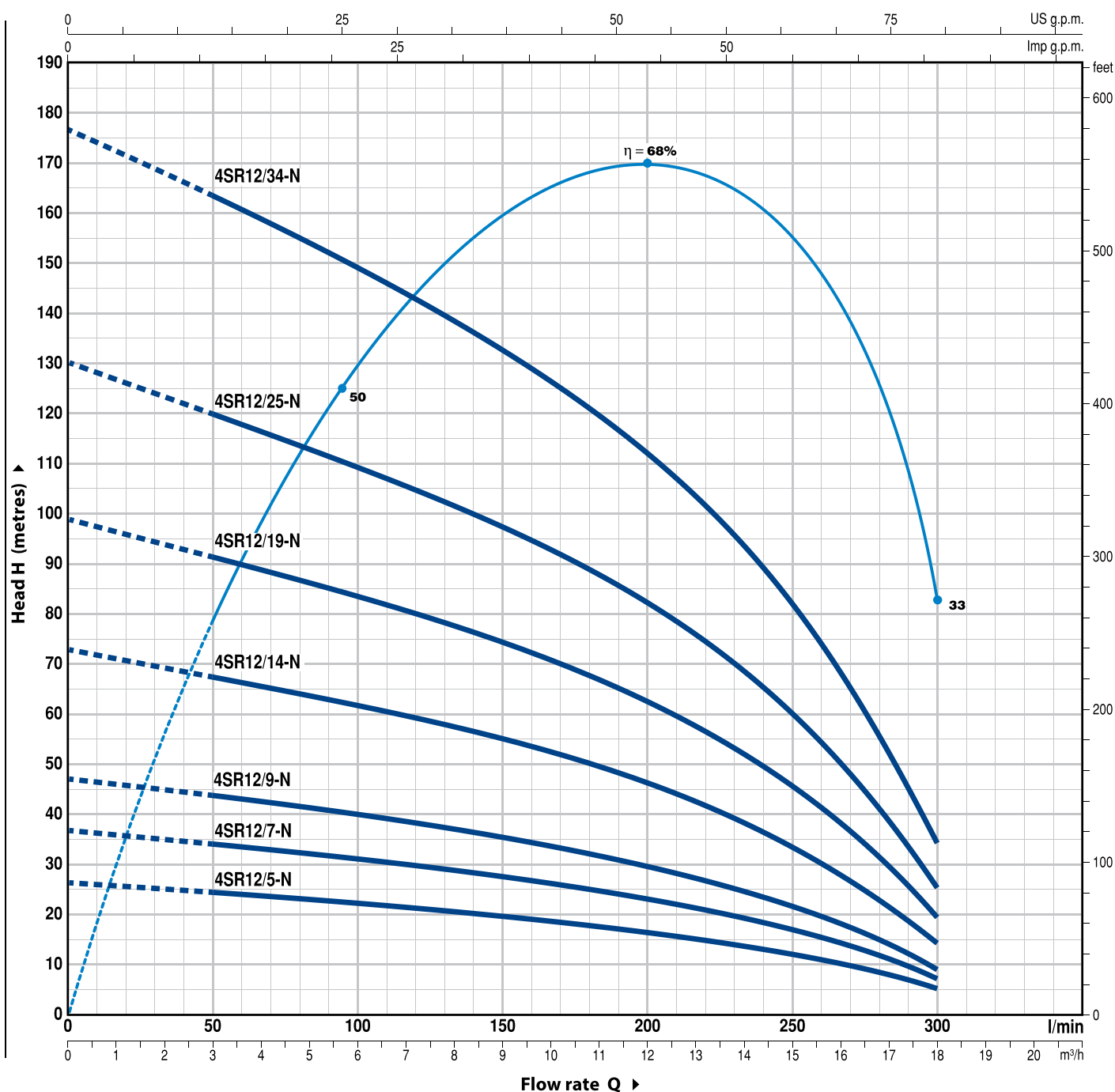
MODEL		POWER (P ₂)		Q										
Single-phase	Three-phase	kW	HP		m ³ /h	0	3.0	6.0	7.5	9.0	10.5	12	13.5	15.0
					l/min	0	50	100	125	150	175	200	225	250
4SR10m/6 -N	4SR10/6 -N	0.75	1	H metres		33	29	25	23	20.5	17	13.5	9	4
4SR10m/8 -N	4SR10/8 -N	1.1	1.5			43	39	35	31	27.5	23	18	12	6
4SR10m/11 -N	4SR10/11 -N	1.5	2			60	54	47	42	37.5	31	25	16.5	8
4SR10m/16 -N	4SR10/16 -N	2.2	3			87	79	69	62	55	45	36.5	24	11
-	4SR10/22 -N	3	4			120	109	95	85	76	63	50	33	15
-	4SR10/30 -N	4	5.5			163	148	129	116	103	86	68	45	21
-	4SR10/41 -N	5.5	7.5			223	203	176	159	141	117	93	61.5	29

Q = Flow rate H = Total manometric head

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

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹



MODEL		POWER (P ₂)		Q	m ³ /h	0	3.0	6.0	8.4	10.2	12	13.8	15.6	16.8	18.0
Single-phase	Three-phase	kW	HP		l/min	0	50	100	140	170	200	230	260	280	300
4SR12m/5 -N	4SR12/5 -N	0.75	1	H metres	26	24	22	20	18.5	16.5	14	10.7	8	5	
4SR12m/7 -N	4SR12/7 -N	1.1	1.5		36.5	33.5	30.7	28	25.8	23.2	19.7	15	11.3	7	
4SR12m/9 -N	4SR12/9 -N	1.5	2		47	43	39.5	36	33	29.8	25.5	19.3	14.5	9	
4SR12m/14 -N	4SR12/14 -N	2.2	3		73	67	61.3	56	51.5	46.3	39.5	30	22.5	14	
–	4SR12/19 -N	3	4		99	91	83.2	76	70	63	53.5	40.7	30.5	19	
–	4SR12/25 -N	4	5.5		130	120	109.5	100	92	82.8	70.5	53.5	40.3	25	
–	4SR12/34 -N	5.5	7.5		177	163	149	136	125	112.5	95	72.8	54.7	34	

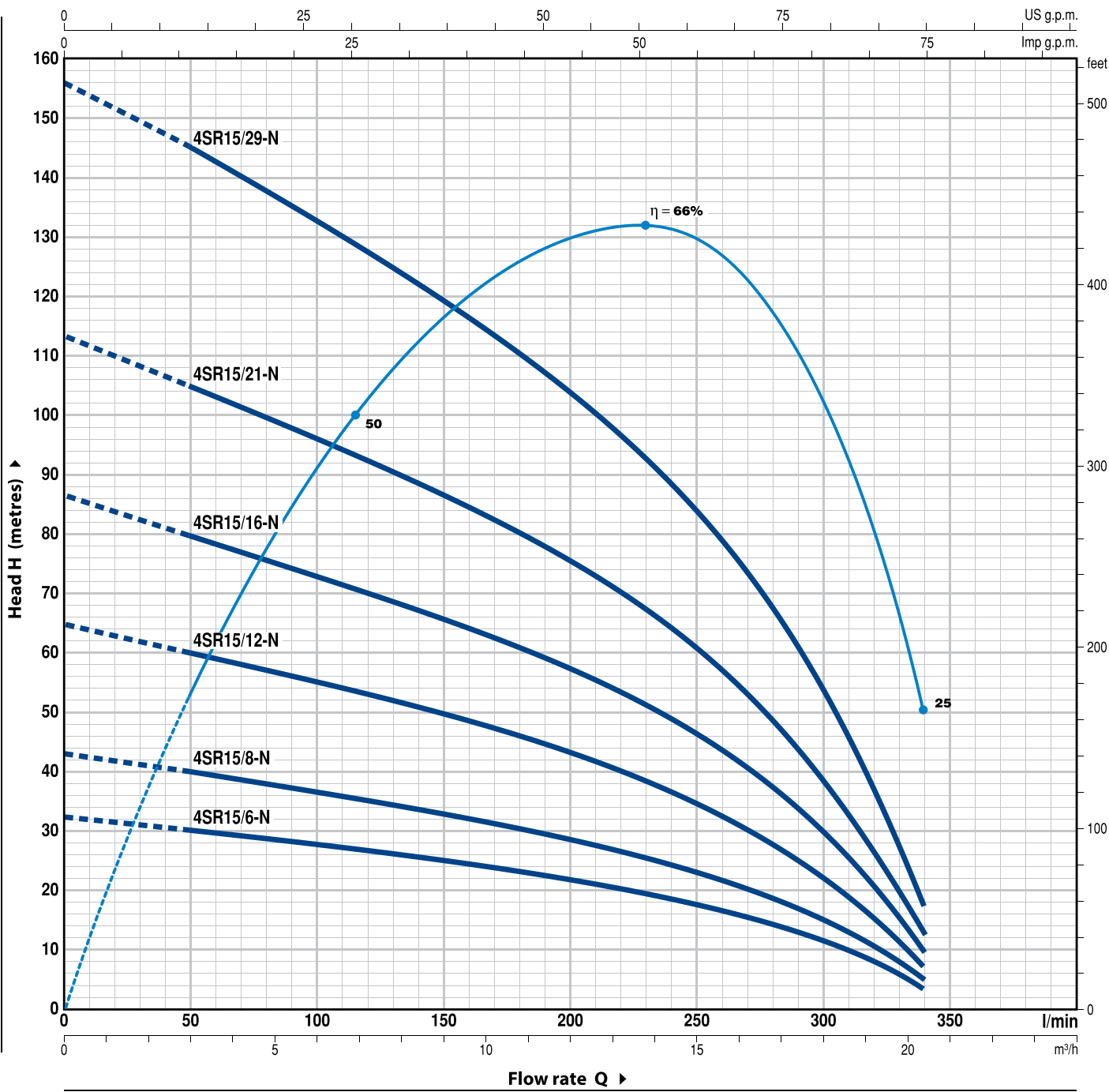
Q = Flow rate H = Total manometric head

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

4SR15

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min⁻¹



MODEL		POWER (P ₂)		Q	m ³ /h	0	3.0	6.0	9.0	12	15	18	19.2	20.4
Single-phase	Three-phase	kW	HP		l/min	0	50	100	150	200	250	300	320	340
4SR15m/6 -N	4SR15/6 -N	1.1	1.5	H metres	32	30	27.5	24.5	21.5	17.5	11	7.5	3	
4SR15m/8 -N	4SR15/8 -N	1.5	2		43	40	36.5	32.5	28.5	23.5	14.5	10	5	
4SR15m/12 -N	4SR15/12 -N	2.2	3		64	60	54.5	49	43	35	22	15	7	
—	4SR15/16 -N	3	4		86	80	73	65.5	57.5	46.5	29.5	20.5	9	
—	4SR15/21 -N	4	5.5		113	105	95.5	86	75.5	61	38.5	26.5	12	
—	4SR15/29 -N	5.5	7.5		156	145	132	119	104.5	84.5	53	37	17	

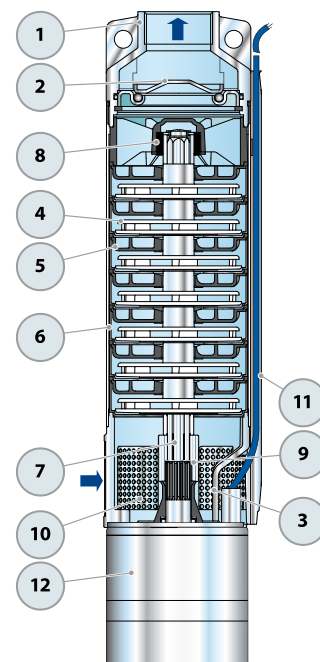
Q = Flow rate H = Total manometric head

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

POS. COMPONENT

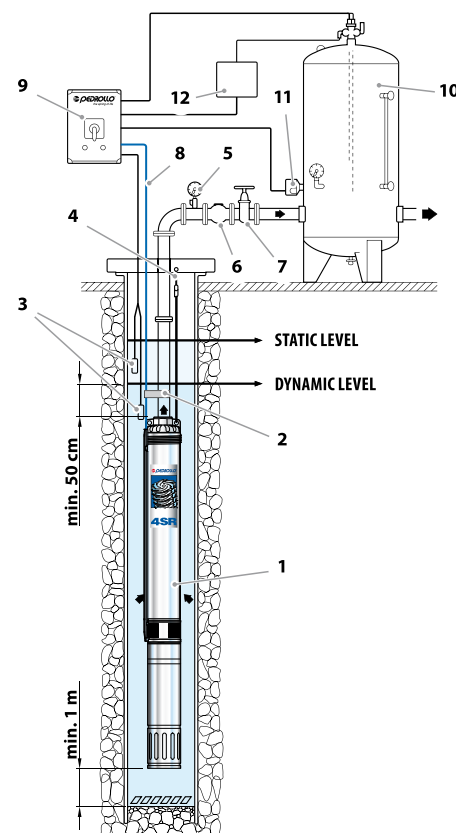
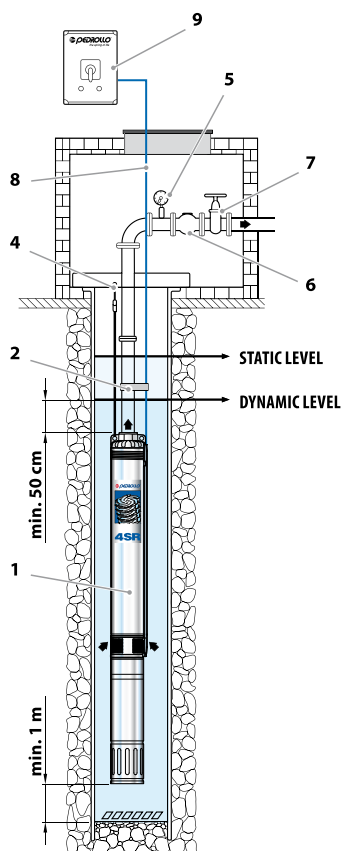
CONSTRUCTION CHARACTERISTICS

1 DELIVERY BODY	Precision cast stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1
2 NON-RETURN VALVE	Stainless steel AISI 304
3 MOTOR BRACKET	Stainless steel AISI 304 in compliance with NEMA standards
4 IMPELLER	Lexan 141-R for 4SR1-1.5-2-4-6-8 Noryl FE1520PW for 4SR10-12-15
5 DIFFUSER	Noryl FE1520PW
6 STAGE CASING	Stainless steel AISI 304
7 PUMP SHAFT	Stainless steel AISI 304
8 PUMP BEARINGS	Special technopolymer housing with stainless steel AISI 316, chrome oxide coated, sand resistant shaft bushing
9 DRIVE COUPLING	Stainless steel AISI 316L up to 2.2 kW; stainless steel AISI 304 for higher powers
10 FILTER	Stainless steel AISI 304
11 CABLE COVER	Stainless steel AISI 304
12 MOTOR 4"	4PD = "PEDROLLO" oil filled motor 4PS = "PEDROLLO" water filled motor



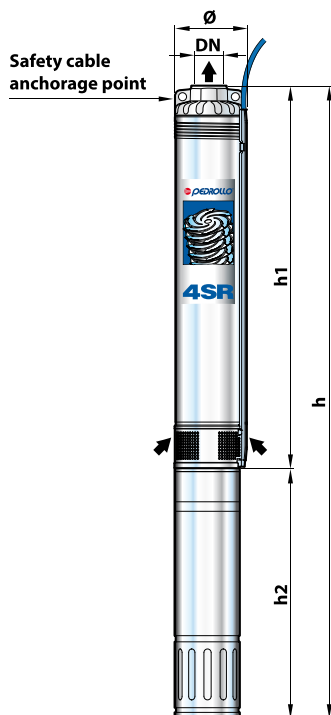
STANDARD INSTALLATION

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



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

DIMENSIONS AND WEIGHT



MODEL	PORT	DIMENSIONS mm				kg
Single-phase	DN	Ø	h1	h2	h	1~
4SR1m/13 - PD	1½"	98	400	311	711	11.2
4SR1m/18 - PD			517	331	848	13.2
4SR1m/25 - PD			646	356	1002	15.9
4SR1m/35 - PD			856	396	1252	19.6
4SR1m/45 - PD			1065	437	1502	23.1
4SR1.5m/8 - PD			308	311	619	10.3
4SR1.5m/13 - PD			400	331	731	11.7
4SR1.5m/17 - PD			499	356	855	14.2
4SR1.5m/25 - PD			646	396	1042	17.5
4SR1.5m/32 - PD			800	437	1237	20.9
4SR1.5m/46 - PD			1134	492	1626	28.1
4SR2m/7 - PD			290	311	601	10.1
4SR2m/10 - PD			345	331	676	11.4
4SR2m/13 - PD			400	356	756	13.3
4SR2m/20 - PD			554	396	950	16.6
4SR2m/27 - PD			683	437	1120	19.5
4SR2m/39 - PD			929	492	1421	25.4
4SR4m/7 - PD			314	331	645	11.0
4SR4m/9 - PD			358	356	714	12.8
4SR4m/14 - PD			468	396	864	15.6
4SR4m/18 - PD			580	437	1017	18.3
4SR4m/26 - PD	2"	98	756	492	1248	23.2
4SR6m/4 - PD			281	331	612	10.9
4SR6m/6 - PD			341	356	697	12.5
4SR6m/9 - PD			431	396	827	15.0
4SR6m/13 - PD			576	437	1013	17.8
4SR6m/17 - PD			695	492	1187	22.2
4SR8m/4 - PD			281	356	637	12.0
4SR8m/7 - PD			371	396	767	14.4
4SR8m/9 - PD			431	437	868	16.4
4SR8m/13 - PD			576	492	1068	21.0
4SR10m/6 -N - PD			616	356	972	14.0
4SR10m/8 -N - PD			762	396	1158	16.9
4SR10m/11 -N - PD			981	437	1418	20.2
4SR10m/16 -N - PD			1346	492	1838	26.4
4SR12m/5 -N - PD			543	356	899	13.4
4SR12m/7 -N - PD			689	396	1085	16.3
4SR12m/9 -N - PD			835	437	1272	19.0
4SR12m/14 -N - PD			1200	492	1692	25.2
4SR15m/6 -N - PD			616	396	1012	15.7
4SR15m/8 -N - PD			762	437	1199	18.4
4SR15m/12 -N - PD			1054	492	1546	24.0

MODEL	PORT	DIMENSIONS mm				kg
Three-phase	DN	Ø	h1	h2	h	3~
4SR1/13 - PD	1½"	98	400	311	711	11.2
4SR1/18 - PD			517	331	848	13.2
4SR1/25 - PD			646	356	1002	15.9
4SR1/35 - PD			856	396	1227	18.8
4SR1/45 - PD			1065	396	1461	21.6
4SR1.5/8 - PD			308	311	619	10.3
4SR1.5/13 - PD			400	331	731	11.7
4SR1.5/17 - PD			499	356	855	14.2
4SR1.5/25 - PD			646	371	1017	16.7
4SR1.5/32 - PD			800	396	1196	19.4
4SR1.5/46 - PD			1134	437	1571	24.9
4SR2/7 - PD			290	311	601	10.1
4SR2/10 - PD			345	331	676	11.4
4SR2/13 - PD			400	356	756	13.3
4SR2/20 - PD			554	371	925	15.8
4SR2/27 - PD			683	396	1079	18.0
4SR2/39 - PD			929	437	1366	22.2
4SR4/7 - PD			314	331	645	11.0
4SR4/9 - PD			358	356	714	12.8
4SR4/14 - PD			468	371	839	14.8
4SR4/18 - PD			580	396	976	16.8
4SR4/26 - PD	2"	98	756	437	1193	20.0
4SR4/35 - PD			978	450	1428	23.9
4SR4/46 - PD			1295	505	1800	31.1
4SR4/60 - PD			1652	700	2352	44.1
4SR6/4 - PD			281	331	612	10.9
4SR6/6 - PD			341	356	697	12.5
4SR6/9 - PD			431	371	802	14.2
4SR6/13 - PD			576	396	972	16.3
4SR6/17 - PD			695	437	1132	19.0
4SR6/23 - PD			900	450	1350	22.5
4SR6/31 - PD			1164	505	1669	27.7
4SR6/42 - PD			1519	700	2219	40.4
4SR6/56 - PD			2063	800	2863	51.0
4SR8/4 - PD			281	356	637	12.0
4SR8/7 - PD			371	371	742	13.6
4SR8/9 - PD			431	396	827	14.9
4SR8/13 - PD			576	437	1013	17.8
4SR8/17 - PD			695	450	1145	20.4
4SR8/23 - PD			900	505	1405	25.4
4SR8/31 - PD			1164	700	1864	36.5
4SR8/42 - PD			1519	800	2319	43.9
4SR10/6 -N - PD			616	356	972	14.0
4SR10/8 -N - PD			762	371	1133	16.1
4SR10/11 -N - PD			981	396	1377	18.7
4SR10/16 -N - PD			1346	437	1783	23.2
4SR10/22 -N - PD			1784	450	2234	28.2
4SR10/30 -N - PD			2368	505	2873	36.1
4SR10/41 -N - PD			3171	700	3871	51.2
4SR12/5 -N - PD			543	356	899	13.4
4SR12/7 -N - PD			689	371	1060	15.5
4SR12/9 -N - PD			835	396	1231	17.5
4SR12/14 -N - PD			1200	437	1637	22.0
4SR12/19 -N - PD			1565	450	2015	26.5
4SR12/25 -N - PD			2003	505	2508	32.9
4SR12/34 -N - PD			2660	700	3360	46.9
4SR15/6 -N - PD			616	371	987	14.9
4SR15/8 -N - PD			762	396	1158	16.9
4SR15/12 -N - PD			1054	437	1491	20.8
4SR15/16 -N - PD			1346	450	1796	24.7
4SR15/21 -N - PD			1711	505	2216	30.5
4SR15/29 -N - PD			2295	700	2995	43.9