

4SR-F[®]

FLOATING IMPELLERS (Patented)



4" submersible pumps

 Clean water
(Maximum sand content 150 g/m³)

 Domestic use

 Civil use

 Industrial use

PERFORMANCE RANGE

- Flow rate up to **200 l/min** (12.0 m³/h)
- Head up to **432 m**

APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **150 g/m³**
- Immersion limit:
 - **200 m** with 4PD motor
 - **100 m** with 4PS motor
- Installation:
 - vertical
 - horizontal, with the following limits:
 - 4SR1 - 4SR1.5 - 4SR2 - 4SR4 up to **23 stages**
 - 4SR6 - 4SR8 up to **17 stages**
- Starts/hour: **20** at regular intervals
- Minimum flow rate for motor cooling **8 cm/s**
- Continuous service **S1**

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 etc.

PATENTS

- Patent n. EP3123031, EP2419642

CONSTRUCTION AND SAFETY STANDARDS

ELECTRIC MOTOR

- Three-phase 400 V - 50 Hz
- Single-phase 230 V - 50 Hz
- **Capacitor included in the packaging**

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

OPTIONS AVAILABLE ON REQUEST

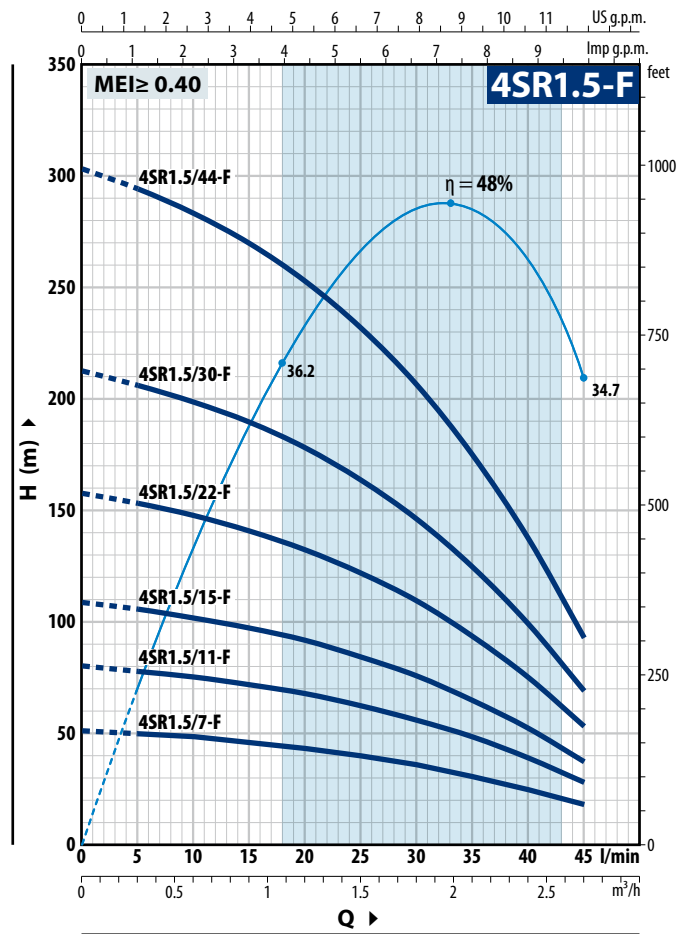
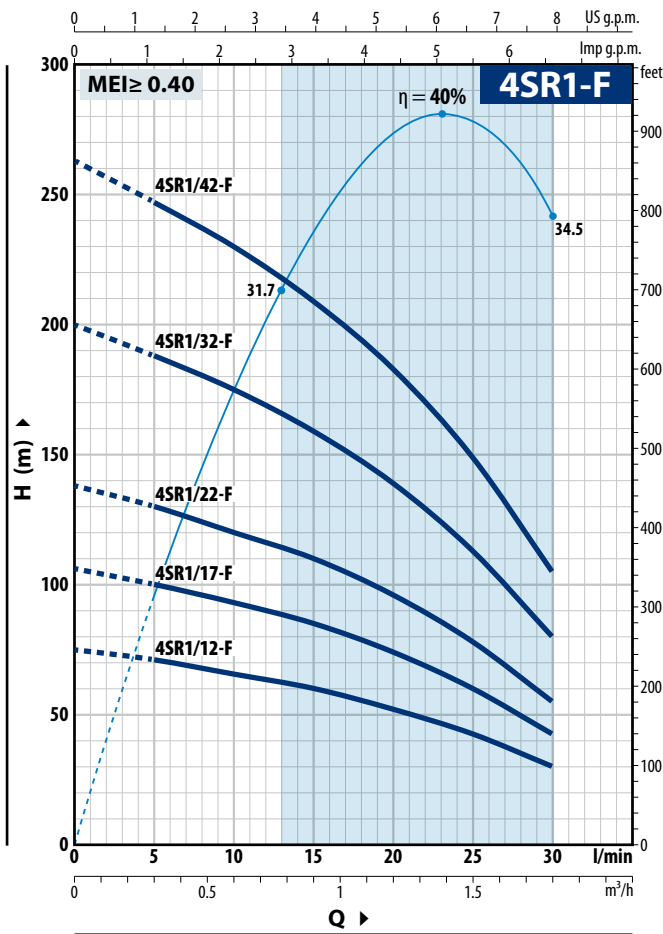
- Other voltages or 60 Hz frequency
- Kit of cooling jacket complete with filter and supports; recommended for powers from 2.2 kW to 7.5 kW



COOLING JACKET

CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min⁻¹



4SR1-F

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	
4SRm 1/12-F	4SR 1/12-F	0.37	0.50	H metres	75	71	65.5	60	52	42.5	30	
4SRm 1/17-F	4SR 1/17-F	0.55	0.75		106	100	93	85	74	60	42.5	
4SRm 1/22-F	4SR 1/22-F	0.75	1		138	130	120	110	96	78	55	
4SRm 1/32-F	4SR 1/32-F	1.1	1.5		200	188	175	159	139	113	80	
4SRm 1/42-F	4SR 1/42-F	1.5	2		263	247	230	209	183	149	105	

4SR1.5-F

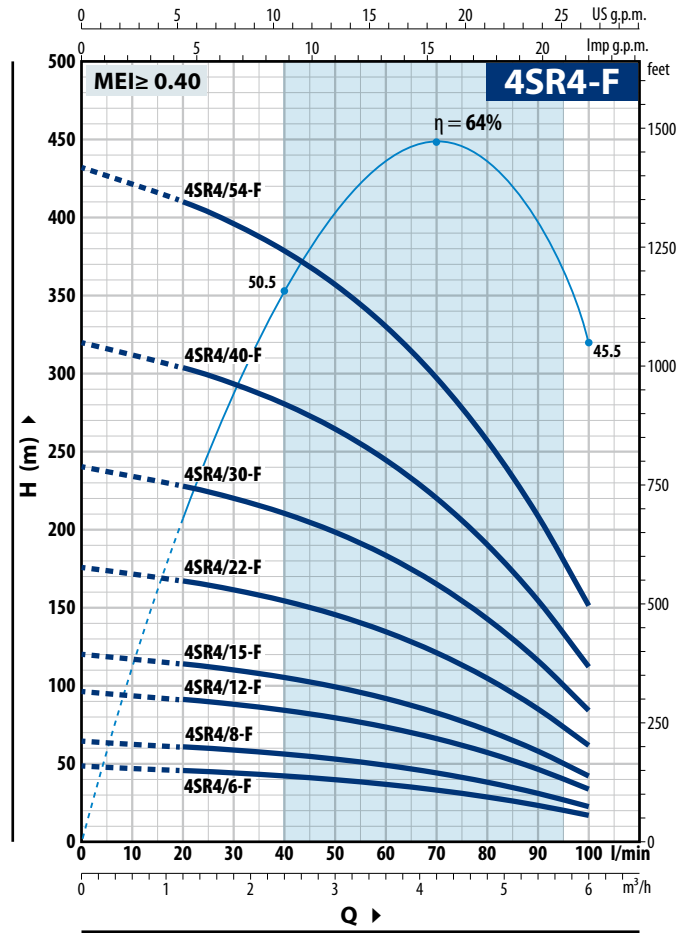
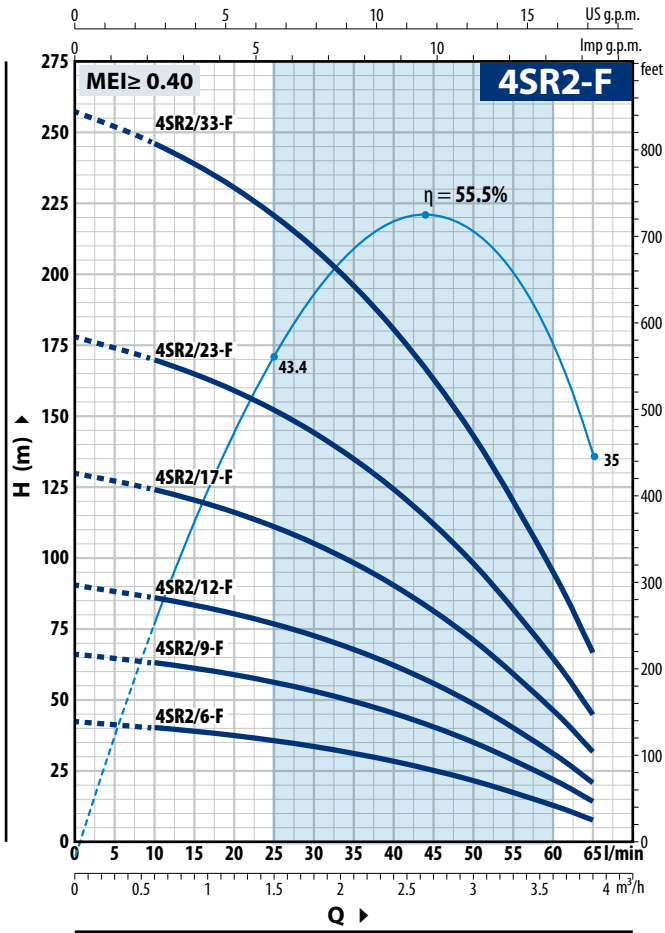
MODEL		POWER (P ₂)		Q	H metres									
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4
				l/min	0	5	10	15	20	25	30	35	40	45
4SRm 1.5/7 -F	4SR 1.5/7 -F	0.37	0.50	H metres	51.5	50	48.5	46	43.5	40	36	31	25	18
4SRm 1.5/11 -F	4SR 1.5/11 -F	0.55	0.75		81	78	76	72	68	62.5	56	48.5	39	28
4SRm 1.5/15 -F	4SR 1.5/15 -F	0.75	1		109	106	102	98	92	85	76	65	53	37.5
4SRm 1.5/22-F	4SR 1.5/22-F	1.1	1.5		158	154	148	141	133	122	110	94	75	53
4SRm 1.5/30-F	4SR 1.5/30-F	1.5	2		213	206	199	190	178	164	146	125	99	69
4SRm 1.5/44-F	4SR 1.5/44-F	2.2	3		304	295	284	270	253	232	207	175	138	93

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



4SR2-F

MODEL		POWER (P ₂)		Q	H metres							
Single-phase	Three-phase	kW	HP		m ³ /h	0	0.6	1.2	1.8	2.4	3.0	3.6
4SRm 2/6 -F	4SR 2/6 -F	0.37	0.50	0	0	10	20	30	40	50	60	65
4SRm 2/9 -F	4SR 2/9 -F	0.55	0.75	47	47	45	42	38	33	26.5	17.9	13
4SRm 2/12 -F	4SR 2/12 -F	0.75	1	70	70	67	63	57.5	49.5	39.5	26.8	19.5
4SRm 2/17 -F	4SR 2/17 -F	1.1	1.5	94	94	90	84	76	66.2	52.9	35.8	25.7
4SRm 2/23 -F	4SR 2/23 -F	1.5	2	133	133	127	119	108	94	75	50.7	36.4
4SRm 2/33 -F	4SR 2/33 -F	2.2	3	179	179	172	161	146	127	101	68.5	49
				257	257	246	231	210	182	145	98	71

4SR4-F

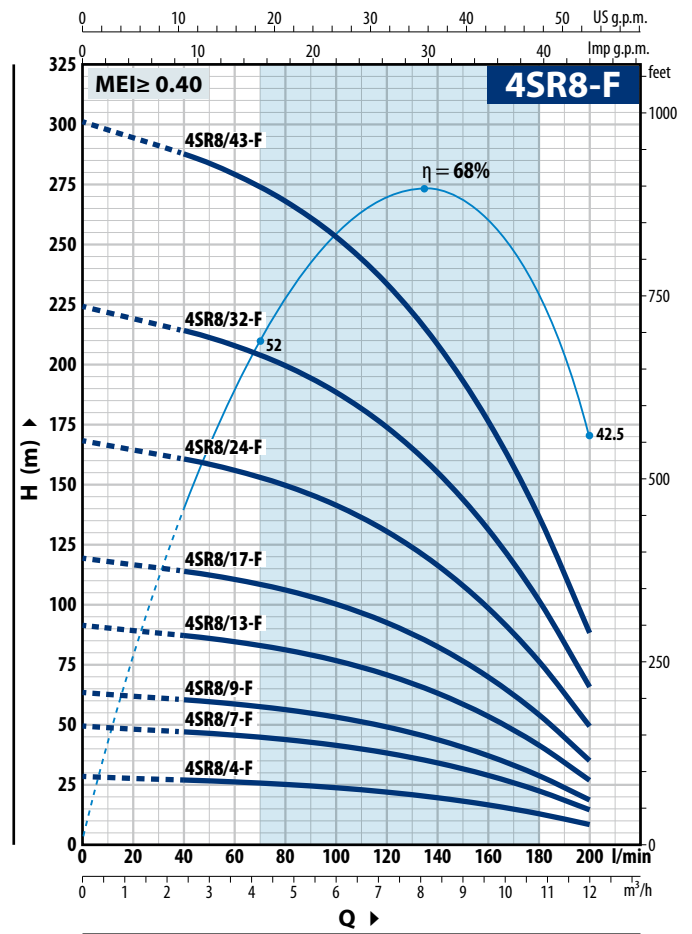
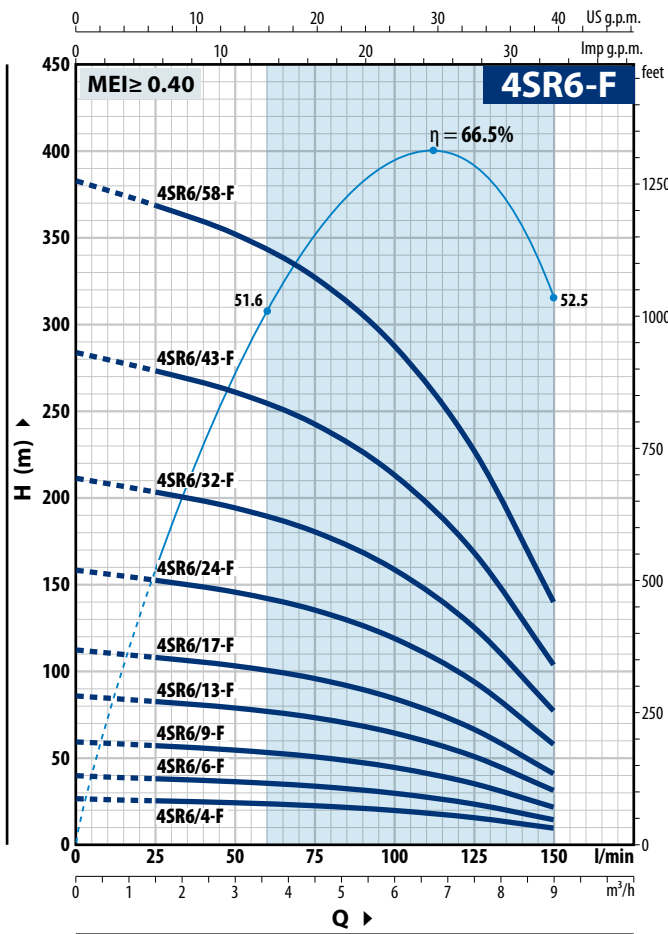
MODEL		POWER (P ₂)		Q	H metres									
Single-phase	Three-phase	kW	HP		m ³ /h	0	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4
4SRm 4/6 -F	4SR 4/6 -F	0.55	0.75	0	0	20	30	40	50	60	70	80	90	100
4SRm 4/8 -F	4SR 4/8 -F	0.75	1	48	48	45.5	44	42	39.5	36.5	33	28.5	23.2	17
4SRm 4/12 -F	4SR 4/12 -F	1.1	1.5	64	64	60.5	58.5	56	53	49	44	38	31	22.5
4SRm 4/15 -F	4SR 4/15 -F	1.5	2	96	96	91	88	84	79	73	66	57	46.5	33.5
4SRm 4/22 -F	4SR 4/22 -F	2.2	3	120	120	114	110	105	99	92	83	71	58	42
-	4SR 4/30 -F	3	4	176	176	167	161	154	145	134	121	105	85	61.5
-	4SR 4/40 -F	4	5.5	240	240	228	220	210	198	183	165	143	116	84
-	4SR 4/54 -F	5.5	7.5	320	320	304	293	280	264	244	220	190	154	112
				432	432	410	396	379	357	330	297	257	209	151

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



4SR6-F

MODEL		POWER (P ₂)		Q	m ³ /h						
Single-phase	Three-phase	kW	HP		l/min	0	1.5	3.0	4.5	6.0	7.5
4SRm 6/4 -F	4SR 6/4 -F	0.55	0.75	H metres	0	25	50	75	100	125	150
4SRm 6/6 -F	4SR 6/6 -F	0.75	1		26.5	25.5	24.3	22.5	19.8	15.7	9.5
4SRm 6/9 -F	4SR 6/9 -F	1.1	1.5		39.5	38	36.5	34	29.5	23.5	14.5
4SRm 6/13-F	4SR 6/13-F	1.5	2		59.5	57	54.5	50.5	44.5	35.5	21.5
4SRm 6/17-F	4SR 6/17-F	2.2	3		86	83	79	73	64.5	51	31.5
-	4SR 6/24-F	3	4		112	108	103	96	84	66.5	41
-	4SR 6/32-F	4	5.5		158	152	146	135	119	94	58
-	4SR 6/43-F	5.5	7.5		211	203	194	180	159	125	77
-	4SR 6/58-F	7.5	10		284	273	261	242	213	168	104
-					383	368	352	327	287	227	140

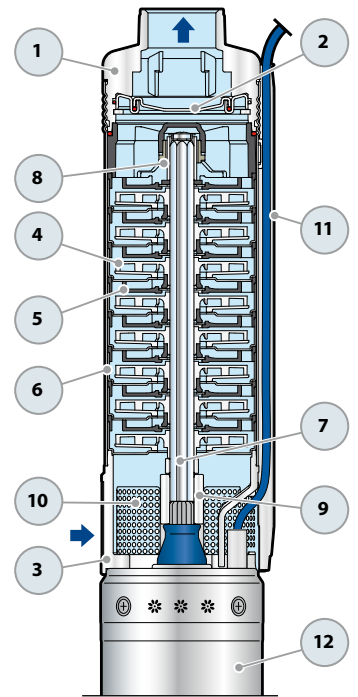
4SR8-F

MODEL		POWER (P ₂)		Q	m ³ /h											
Single-phase	Three-phase	kW	HP		l/min	0	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.0	
4SRm 8/4 -F	4SR 8/4 -F	0.75	1	H metres	0	40	60	80	100	120	140	160	180	200		
4SRm 8/7 -F	4SR 8/7 -F	1.1	1.5		28	27	26	25	23.6	21.8	19.4	16.4	12.7	8		
4SRm 8/9 -F	4SR 8/9 -F	1.5	2		49	47	45.5	43.5	41.5	38	34	28.5	22.3	14.5		
4SRm 8/13-F	4SR 8/13-F	2.2	3		63	60.5	58.5	56	53	49	43.5	37	28.5	18.5		
-	4SR 8/17-F	3	4		91	87	85	81	77	71	63	53.5	41.5	26.5		
-	4SR 8/24-F	4	5.5		119	114	111	106	100	92	82	70	54	35		
-	4SR 8/32-F	5.5	7.5		168	161	156	150	141	131	116	99	76	49		
-	4SR 8/43-F	7.5	10		224	214	208	200	189	174	155	131	102	65.5		
-					301	288	280	268	253	234	209	177	137	88		

Q = Flow rate H = Total manometric head

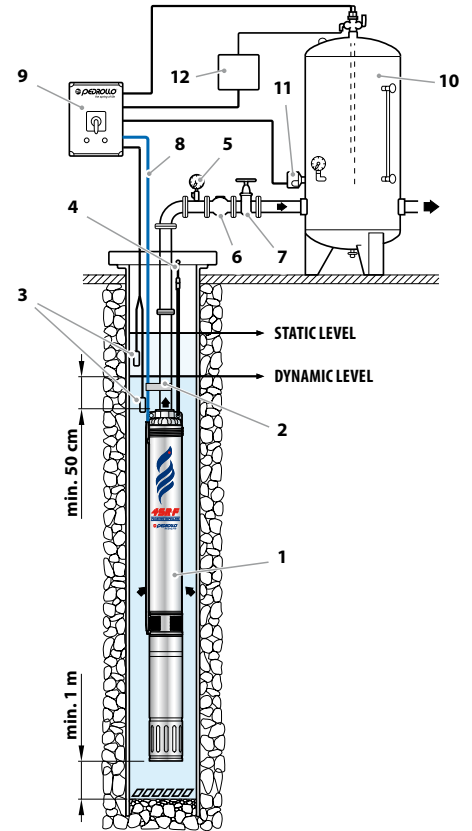
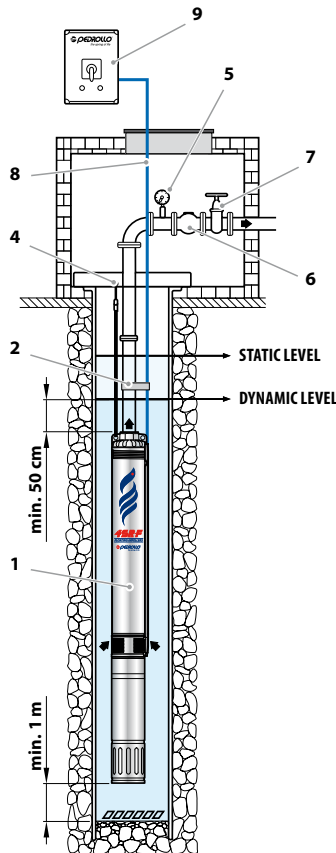
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

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	Delrin
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 = rewindable oil filled submersible motor 4PS = incapsulated water cooled 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** 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 (PUMP ONLY)

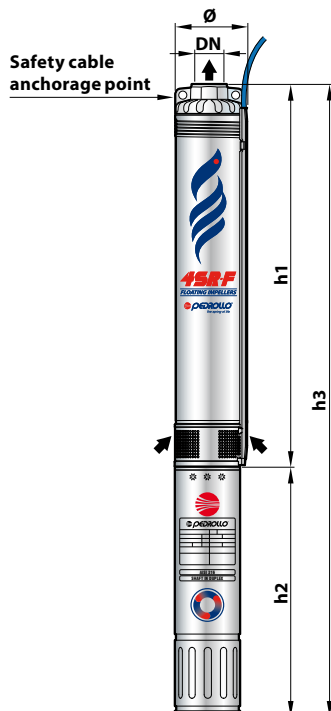
MODEL Pump	DN	DIMENSIONS mm			kg
		Ø	h1	h	
4SR 1/12 - F - HYD	1¼"	98	402	405	4.5
4SR 1/17 - F - HYD			528	531	6.2
4SR 1/22 - F - HYD			628	631	7.7
4SR 1/32 - F - HYD			853	856	10.2
4SR 1/42 - F - HYD			1052	1055	12.5
4SR 1.5/7 - F - HYD			303	306	3.6
4SR 1.5/11 - F - HYD			382	385	4.3
4SR 1.5/15 - F - HYD			488	491	5.8
4SR 1.5/22 - F - HYD			627	630	7.6
4SR 1.5/30 - F - HYD			787	790	9.2
4SR 1.5/44 - F - HYD			1163	1166	14.6
4SR 2/6 - F - HYD			283	286	3.4
4SR 2/9 - F - HYD			343	346	3.9
4SR 2/12 - F - HYD			402	405	4.6
4SR 2/17 - F - HYD			528	531	6.2
4SR 2/23 - F - HYD			647	650	7.8
4SR 2/33 - F - HYD			873	876	10.6
4SR 4/6 - F - HYD			313	316	3.6
4SR 4/8 - F - HYD			363	366	4.1
4SR 4/12 - F - HYD			462	465	5.3
4SR 4/15 - F - HYD	563	566	6.1		
4SR 4/22 - F - HYD	737	740	8.5		
4SR 4/30 - F - HYD	963	966	10.7		
4SR 4/40 - F - HYD	1284	1287	15.9		
4SR 4/54 - F - HYD	1684	1687	19.2		
4SR 6/4 - F - HYD	2"	98	289	292	3.2
4SR 6/6 - F - HYD			352	355	3.8
4SR 6/9 - F - HYD			446	449	4.9
4SR 6/13 - F - HYD			598	601	6.1
4SR 6/17 - F - HYD			723	726	7.8
4SR 6/24 - F - HYD			969	972	10.3
4SR 6/32 - F - HYD			1247	1250	13.1
4SR 6/43 - F - HYD			1618	1621	17.1
4SR 6/58 - F - HYD			2161	2164	23.4
4SR 8/4 - F - HYD			240	243	3.2
4SR 8/7 - F - HYD			382	385	4.2
4SR 8/9 - F - HYD			446	449	4.9
4SR 8/13 - F - HYD			598	601	6.0
4SR 8/17 - F - HYD			723	726	7.8
4SR 8/24 - F - HYD			969	972	10.3
4SR 8/32 - F - HYD			1247	1250	13.1
4SR 8/43 - F - HYD	1618	1621	16.8		



DIMENSIONS AND WEIGHT

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	
Single-phase						
4SRm 1/12 - F - PD	1¼"	98	402	311	713	11.0
4SRm 1/17 - F - PD			528	331	859	13.4
4SRm 1/22 - F - PD			628	356	984	16.2
4SRm 1/32 - F - PD			853	396	1249	20.4
4SRm 1/42 - F - PD			1052	437	1489	24.2
4SRm 1.5/7 - F - PD			303	311	614	10.1
4SRm 1.5/11 - F - PD			382	331	713	11.5
4SRm 1.5/15 - F - PD			488	356	844	14.3
4SRm 1.5/22 - F - PD			627	396	1023	17.8
4SRm 1.5/30 - F - PD			787	437	1224	20.9
4SRm 1.5/44 - F - PD			1163	492	1655	29.5
4SRm 2/6 - F - PD			283	311	594	9.9
4SRm 2/9 - F - PD			343	331	674	11.1
4SRm 2/12 - F - PD			402	356	758	13.1
4SRm 2/17 - F - PD			528	396	924	16.4
4SRm 2/23 - F - PD			647	437	1084	19.5
4SRm 2/33 - F - PD			873	492	1365	25.5
4SRm 4/6 - F - PD			313	331	644	10.8
4SRm 4/8 - F - PD			363	356	719	12.6
4SRm 4/12 - F - PD			462	396	858	15.5
4SRm 4/15 - F - PD	563	437	1000	17.8		
4SRm 4/22 - F - PD	737	492	1229	23.4		
4SRm 6/4 - F - PD	2"	98	289	331	620	10.4
4SRm 6/6 - F - PD			352	356	708	12.3
4SRm 6/9 - F - PD			446	396	842	15.1
4SRm 6/13 - F - PD			598	437	1035	17.8
4SRm 6/17 - F - PD			723	492	1215	22.7
4SRm 8/4 - F - PD			240	356	596	11.7
4SRm 8/7 - F - PD			382	396	778	14.4
4SRm 8/9 - F - PD			446	437	883	16.6
4SRm 8/13 - F - PD			598	492	1090	20.9

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	
Three-phase						
4SR 1/12 - F - PD	1¼"	98	402	311	713	11.0
4SR 1/17 - F - PD			528	331	859	13.4
4SR 1/22 - F - PD			628	356	984	16.2
4SR 1/32 - F - PD			853	371	1224	19.6
4SR 1/42 - F - PD			1052	396	1448	22.7
4SR 1.5/7 - F - PD			303	311	614	10.1
4SR 1.5/11 - F - PD			382	331	713	11.5
4SR 1.5/15 - F - PD			488	356	844	14.3
4SR 1.5/22 - F - PD			627	371	998	17.0
4SR 1.5/30 - F - PD			787	396	1183	19.4
4SR 1.5/44 - F - PD			1163	437	1600	26.3
4SR 2/6 - F - PD			283	311	594	9.9
4SR 2/9 - F - PD			343	331	674	11.1
4SR 2/12 - F - PD			402	356	758	13.1
4SR 2/17 - F - PD			528	371	899	15.6
4SR 2/23 - F - PD			647	396	1043	18.0
4SR 2/33 - F - PD			873	437	1310	22.3
4SR 4/6 - F - PD			313	331	644	10.8
4SR 4/8 - F - PD			363	356	719	12.6
4SR 4/12 - F - PD			462	371	833	14.7
4SR 4/15 - F - PD	563	396	959	16.3		
4SR 4/22 - F - PD	737	437	1174	20.2		
4SR 4/30 - F - PD	963	450	1413	23.9		
4SR 4/40 - F - PD	1284	505	1789	32.0		
4SR 4/54 - F - PD	1684	590	2274	39.0		
4SR 6/4 - F - PD	2"	98	289	331	620	10.4
4SR 6/6 - F - PD			352	356	708	12.3
4SR 6/9 - F - PD			446	371	817	14.3
4SR 6/13 - F - PD			598	396	994	16.3
4SR 6/17 - F - PD			723	437	1160	19.5
4SR 6/24 - F - PD			969	450	1419	23.5
4SR 6/32 - F - PD			1247	505	1752	29.2
4SR 6/43 - F - PD			1618	590	2208	36.9
4SR 6/58 - F - PD			2161	800	2961	52.4
4SR 8/4 - F - PD			240	356	596	11.7
4SR 8/7 - F - PD			382	371	753	13.6
4SR 8/9 - F - PD			446	396	842	15.1
4SR 8/13 - F - PD			598	437	1035	17.7
4SR 8/17 - F - PD	723	450	1173	21.0		
4SR 8/24 - F - PD	969	505	1474	26.4		
4SR 8/32 - F - PD	1247	590	1837	32.9		
4SR 8/43 - F - PD	1618	800	2418	45.8		

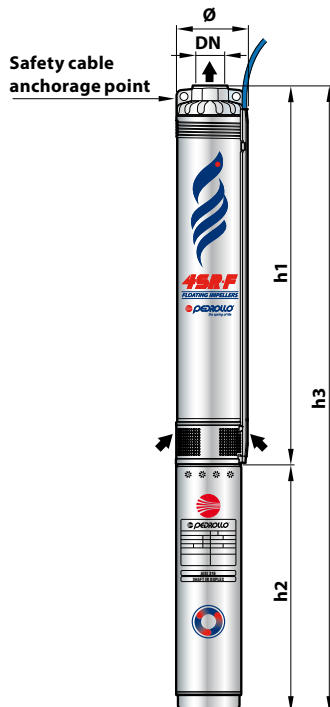


4PD = rewindable oil filled submersible motor

DIMENSIONS AND WEIGHT

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	
Single-phase						
4SRm 1/12 - F - PS	1 1/4"	98	402	237	639	11.3
4SRm 1/17 - F - PS			528	257	785	14.1
4SRm 1/22 - F - PS			628	272	900	16.8
4SRm 1/32 - F - PS			853	312	1165	21.4
4SRm 1/42 - F - PS			1052	352	1404	25.9
4SRm 1.5/7 - F - PS			303	237	540	10.4
4SRm 1.5/11 - F - PS			382	257	639	12.2
4SRm 1.5/15 - F - PS			488	272	760	14.9
4SRm 1.5/22 - F - PS			627	312	939	18.8
4SRm 1.5/30 - F - PS			787	352	1139	22.6
4SRm 1.5/44 - F - PS			1163	402	1565	28.8
4SRm 2/6 - F - PS			283	237	520	10.2
4SRm 2/9 - F - PS			343	257	600	11.8
4SRm 2/12 - F - PS			402	272	674	13.7
4SRm 2/17 - F - PS			528	312	840	17.4
4SRm 2/23 - F - PS			647	352	999	21.2
4SRm 2/33 - F - PS			873	402	1275	24.8
4SRm 4/6 - F - PS			313	257	570	11.5
4SRm 4/8 - F - PS			363	272	635	13.2
4SRm 4/12 - F - PS			462	312	774	16.5
4SRm 4/15 - F - PS	563	352	915	19.5		
4SRm 4/22 - F - PS	737	402	1139	22.7		
4SRm 6/4 - F - PS	2"	98	289	257	546	11.1
4SRm 6/6 - F - PS			352	272	624	12.9
4SRm 6/9 - F - PS			446	312	758	16.1
4SRm 6/13 - F - PS			598	352	950	19.5
4SRm 6/17 - F - PS			723	402	1125	22.0
4SRm 8/4 - F - PS			240	272	512	12.3
4SRm 8/7 - F - PS			382	312	694	15.4
4SRm 8/9 - F - PS			446	352	798	18.3
4SRm 8/13 - F - PS			598	402	1000	20.2

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	
Three-phase						
4SR 1/12 - F - PS	1 1/4"	98	402	237	639	11.3
4SR 1/17 - F - PS			528	237	765	13.0
4SR 1/22 - F - PS			628	257	885	15.6
4SR 1/32 - F - PS			853	272	1125	19.3
4SR 1/42 - F - PS			1052	297	1349	23.7
4SR 1.5/7 - F - PS			303	237	540	10.4
4SR 1.5/11 - F - PS			382	237	619	11.1
4SR 1.5/15 - F - PS			488	257	745	13.7
4SR 1.5/22 - F - PS			627	272	899	16.7
4SR 1.5/30 - F - PS			787	297	1084	20.4
4SR 1.5/44 - F - PS			1163	352	1515	28.0
4SR 2/6 - F - PS			283	237	520	10.2
4SR 2/9 - F - PS			343	237	580	10.7
4SR 2/12 - F - PS			402	257	659	12.5
4SR 2/17 - F - PS			528	272	800	15.3
4SR 2/23 - F - PS			647	297	944	19.0
4SR 2/33 - F - PS			873	352	1225	24.0
4SR 4/6 - F - PS			313	237	550	10.4
4SR 4/8 - F - PS			363	257	620	12.0
4SR 4/12 - F - PS			462	272	734	14.4
4SR 4/15 - F - PS	563	297	860	17.3		
4SR 4/22 - F - PS	737	352	1089	21.9		
4SR 4/30 - F - PS	963	484	1447	27.7		
4SR 4/40 - F - PS	1284	574	1858	39.3		
4SR 4/54 - F - PS	1684	664	2348	47.0		
4SR 6/4 - F - PS	2"	98	289	237	526	10.0
4SR 6/6 - F - PS			352	257	609	11.7
4SR 6/9 - F - PS			446	272	718	14.0
4SR 6/13 - F - PS			598	297	895	17.3
4SR 6/17 - F - PS			723	352	1075	21.2
4SR 6/24 - F - PS			969	484	1453	27.3
4SR 6/32 - F - PS			1247	574	1821	36.5
4SR 6/43 - F - PS			1618	664	2282	44.9
4SR 6/58 - F - PS			2161	764	2925	54.8
4SR 8/4 - F - PS			240	257	497	11.1
4SR 8/7 - F - PS			382	272	654	13.3
4SR 8/9 - F - PS			446	297	743	16.1
4SR 8/13 - F - PS			598	352	950	19.4
4SR 8/17 - F - PS	723	484	1207	24.8		
4SR 8/24 - F - PS	969	574	1543	33.7		
4SR 8/32 - F - PS	1247	664	1911	40.9		
4SR 8/43 - F - PS	1618	764	2382	48.2		



4PS = encapsulated water cooled submersible motor