

# 4SR-F®

## FLOATING IMPELLERS (Patented)



## 4" submersible pumps



Clean water  
(Maximum  
sand content 150 g/m<sup>3</sup>)



Domestic use



Civil use



Industrial use

### PERFORMANCE RANGE

- Flow rate up to **200 l/min** (12.0 m<sup>3</sup>/h)
- Head up to **432 m**

### APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **150 g/m<sup>3</sup>**
- 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/m<sup>3</sup>**. 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

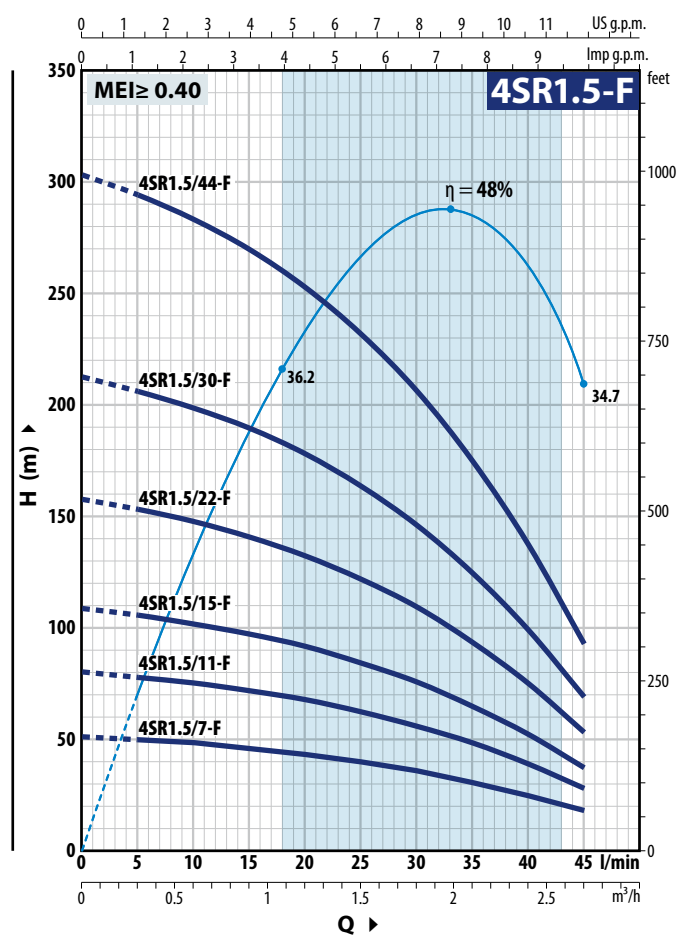
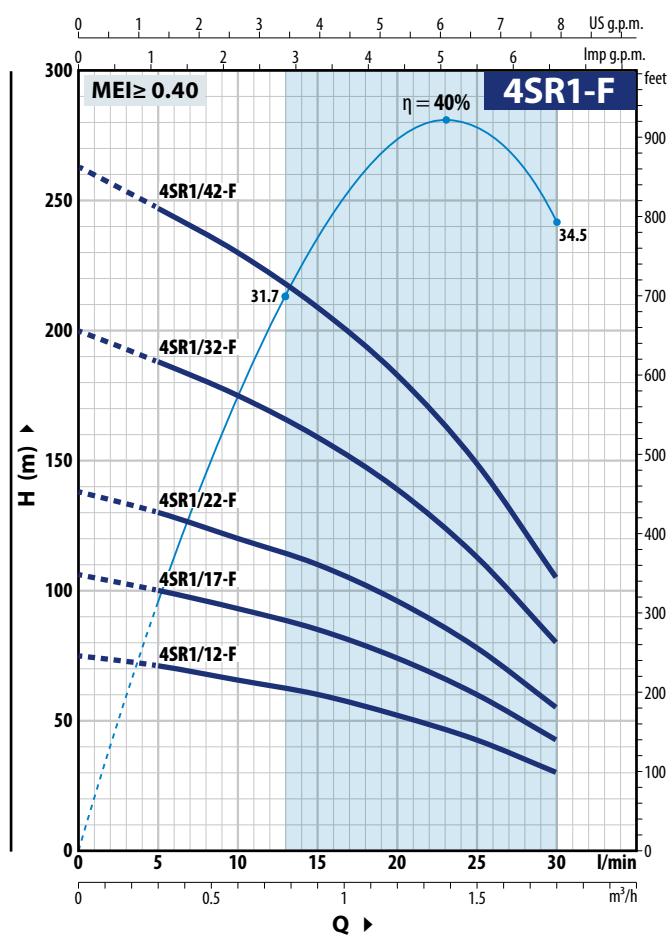
- Other voltages or 60 Hz frequency
- Kit of cooling jacket complete with filter and supports; recommended for powers from 2.2 kW to 7.5 kW



COOLING JACKET

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min<sup>-1</sup>



### 4SR1-F

MODEL		POWER (P <sub>2</sub> )		Q	m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8
Single-phase	Three-phase	kW	HP		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

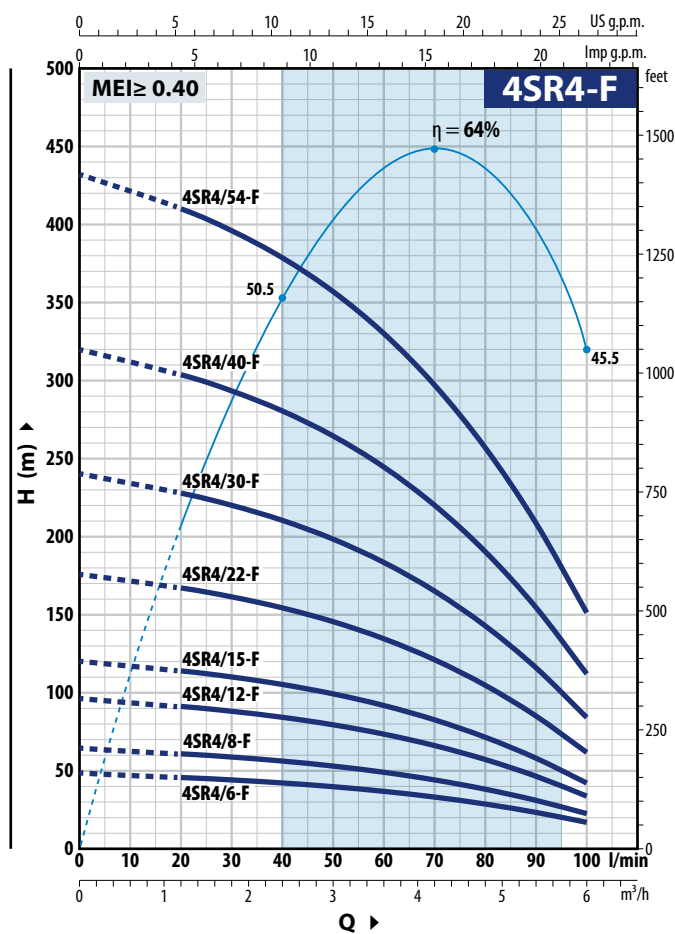
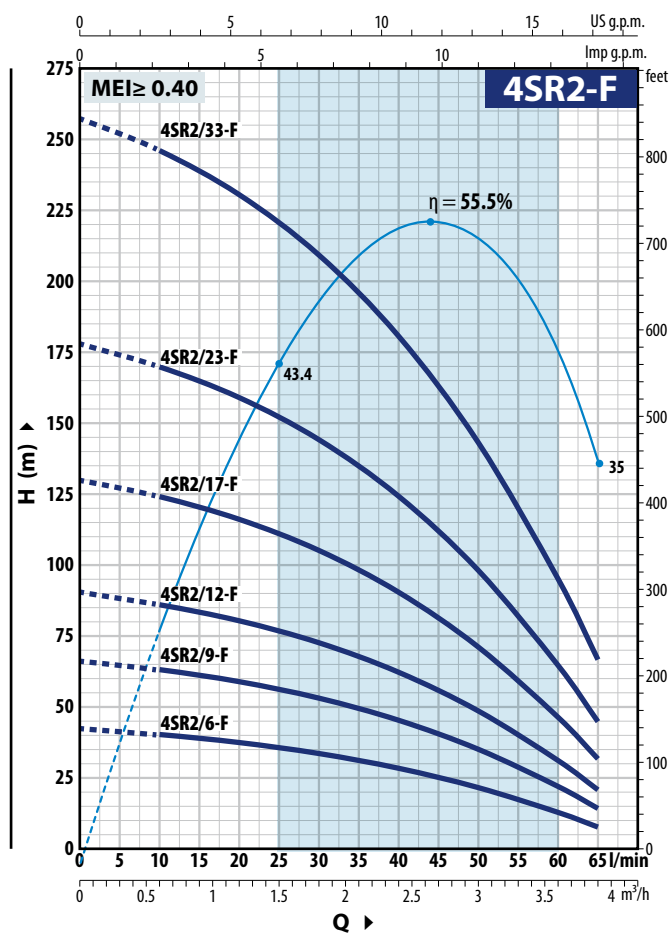
MODEL		POWER (P <sub>2</sub> )		Q	m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7
Single-phase	Three-phase	kW	HP		l/min	0	5	10	15	20	25	30	35	40	45
4SRm 1.5/7 -F	4SR 1.5/7 -F	0.37	0.50	H metres	51.5	50	48.5	46	43.5	40	36	31	25	18	
4SRm 1.5/11 -F	4SR 1.5/11 -F	0.55	0.75		81	78	76	72	68	62.5	56	48.5	39	28	
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<sup>-1</sup>



#### 4SR2-F

MODEL		POWER (P <sub>2</sub> )		Q m³/h l/min	0	0.6	1.2	1.8	2.4	3.0	3.6	3.9
Single-phase	Three-phase	kW	HP		0	10	20	30	40	50	60	65
4SRm 2/6 -F	4SR 2/6 -F	0.37	0.50	H metres	47	45	42	38	33	26.5	17.9	13
4SRm 2/9 -F	4SR 2/9 -F	0.55	0.75		70	67	63	57.5	49.5	39.5	26.8	19.5
4SRm 2/12 -F	4SR 2/12-F	0.75	1		94	90	84	76	66.2	52.9	35.8	25.7
4SRm 2/17 -F	4SR 2/17-F	1.1	1.5		133	127	119	108	94	75	50.7	36.4
4SRm 2/23 -F	4SR 2/23-F	1.5	2		179	172	161	146	127	101	68.5	49
4SRm 2/33 -F	4SR 2/33-F	2.2	3		257	246	231	210	182	145	98	71

#### 4SR4-F

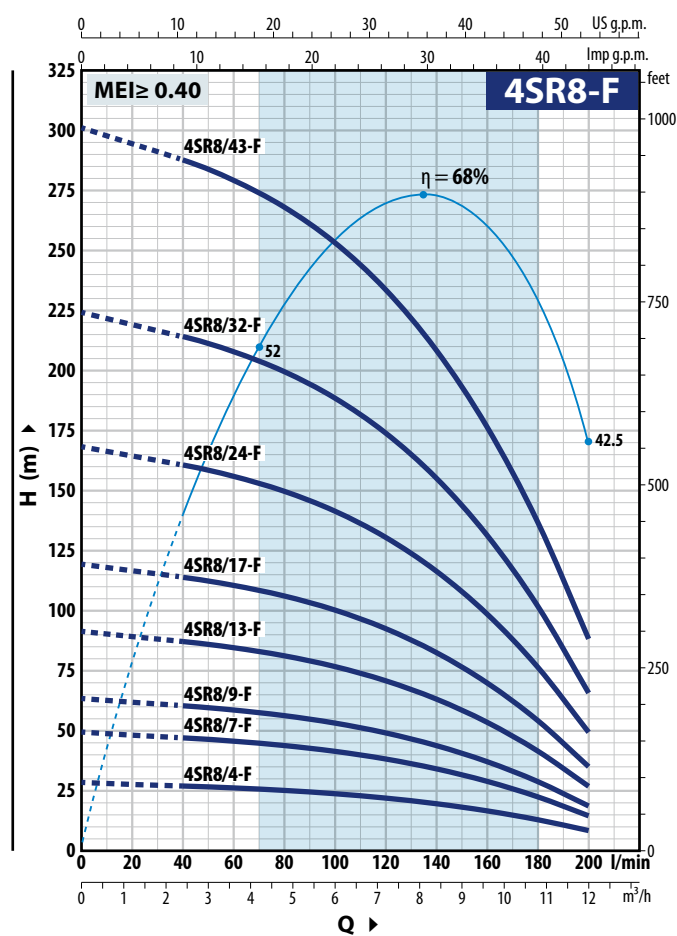
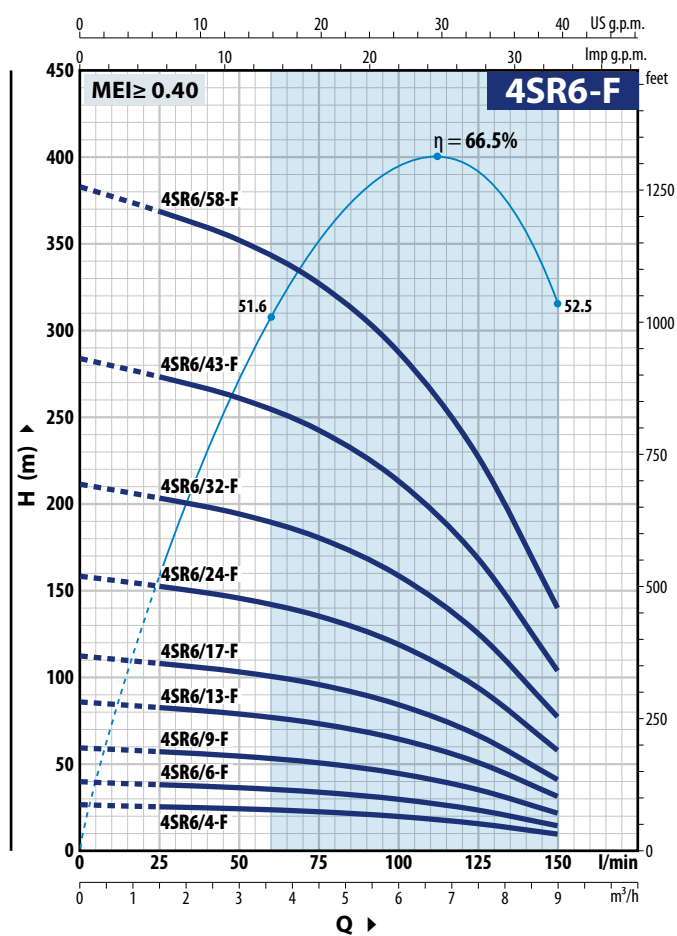
MODEL		POWER (P <sub>2</sub> )		Q	m³/h	0	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0
Single-phase	Three-phase	kW	HP		l/min	0	20	30	40	50	60	70	80	90	100
4SRm 4/6 -F	4SR 4/6 -F	0.55	0.75	H metres	48	45.5	44	42	39.5	36.5	33	28.5	23.2	17	
4SRm 4/8 -F	4SR 4/8 -F	0.75	1		64	60.5	58.5	56	53	49	44	38	31	22.5	
4SRm 4/12 -F	4SR 4/12 -F	1.1	1.5		96	91	88	84	79	73	66	57	46.5	33.5	
4SRm 4/15 -F	4SR 4/15 -F	1.5	2		120	114	110	105	99	92	83	71	58	42	
4SRm 4/22 -F	4SR 4/22 -F	2.2	3		176	167	161	154	145	134	121	105	85	61.5	
–	4SR 4/30 -F	3	4		240	228	220	210	198	183	165	143	116	84	
–	4SR 4/40 -F	4	5.5		320	304	293	280	264	244	220	190	154	112	
–	4SR 4/54 -F	5.5	7.5		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  $n = 2900 \text{ min}^{-1}$



### 4SR6-F

MODEL		POWER (P <sub>2</sub> )		Q	m³/h	0	1.5	3.0	4.5	6.0	7.5	9.0
Single-phase	Three-phase	kW	HP									
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 <sub>2</sub> )		Q	m³/h	0	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.0
Single-phase	Three-phase	kW	HP												
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	

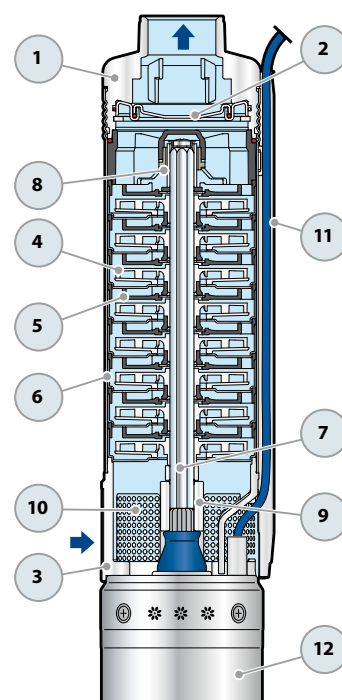
Q = Flow rate H = Total manometric head

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

## POS. COMPONENT

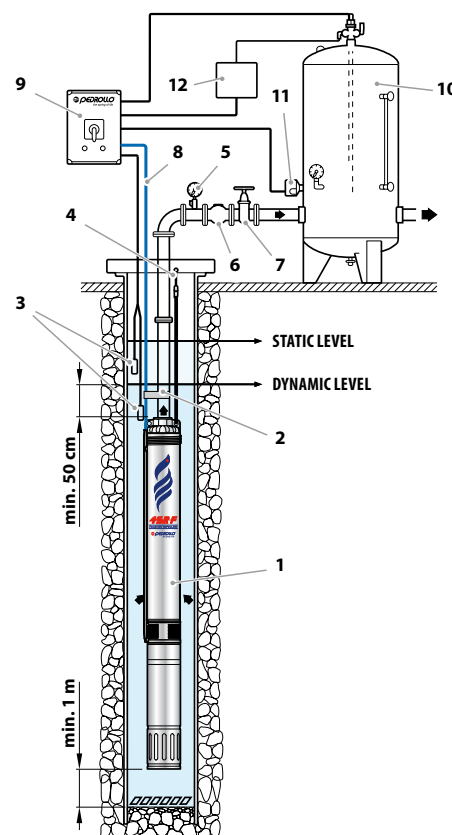
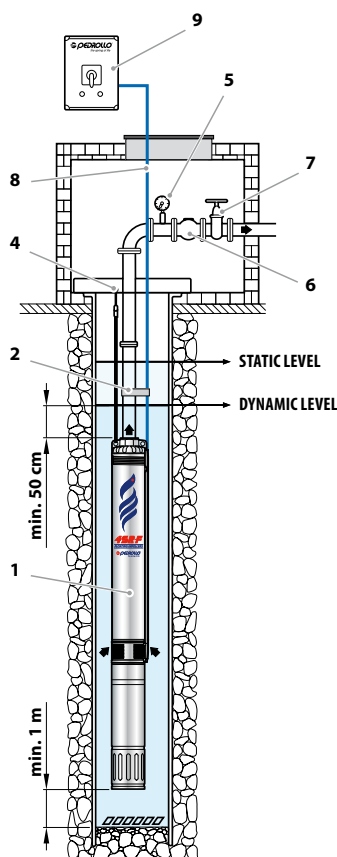
## CONSTRUCTION CHARACTERISTICS

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



## STANDARD INSTALLATION

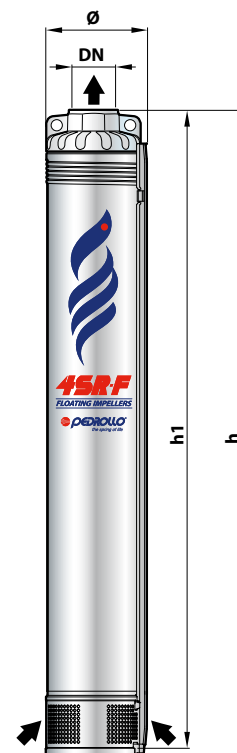
- 1) Submersible pump
- 2) Power cable clamps
- 3) Level probes; prevent dry running
- 4) Bracket and anchorage cable
- 5) Pressure gauge
- 6) Non-return valve
- 7) Gate valve; for flow rate regulation
- 8) Power cable
- 9) Control box
- 10) Pressure vessel
- 11) Pressure switch
- 12) Electro valve/electro-compressor



- ➔ 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)

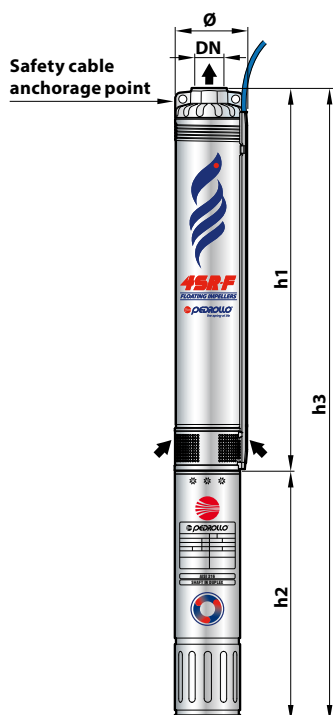
MODEL	DN	DIMENSIONS mm			kg
Pump		Ø	h1	h	
4SR 1/12 - F - HYD	1¼"	98	402	405	4.5
4SR 1/17 - F - HYD			528	531	6.2
4SR 1/22 - F - HYD			628	631	7.7
4SR 1/32 - F - HYD			853	856	10.2
4SR 1/42 - F - HYD			1052	1055	12.5
4SR 1.5/7 - F - HYD			303	306	3.6
4SR 1.5/11 - F - HYD			382	385	4.3
4SR 1.5/15 - F - 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
Single-phase		Ø	h1	h2	h3	1~
4SRm 1/12 - F - PD	1 1/4"	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
Three-phase		Ø	h1	h2	h3	3~
4SR 1/12 - F - PD	1 1/4"	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	2"	98	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			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



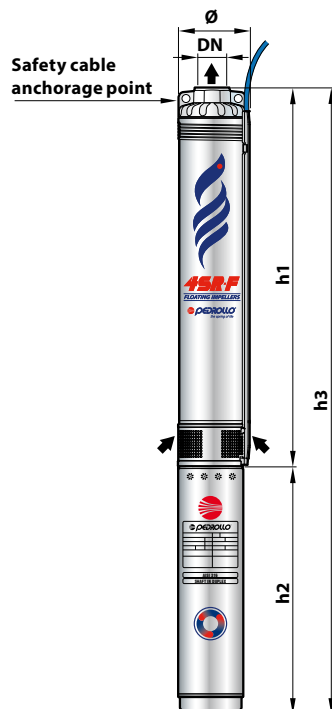
4PD = rewindable oil filled submersible motor



### DIMENSIONS AND WEIGHT

MODEL	DN	DIMENSIONS mm				kg
Single-phase		Ø	h1	h2	h3	1~
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
Three-phase		Ø	h1	h2	h3	3~
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	2"	98	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			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





## 4" submersible pumps



Clean water  
(Maximum  
sand content 150 g/m<sup>3</sup>)



Domestic use



Civil use



Industrial use

### PERFORMANCE RANGE

- Flow rate up to **340 l/min** (20.4 m<sup>3</sup>/h)
- Head up to **271 m**

### APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **150 g/m<sup>3</sup>**
- Immersion limit:
  - **200 m** with 4PD motor
  - **100 m** with 4PS motor
- Installation:
  - vertical
  - horizontal, with the following limits:
    - 4SR10 - 4SR12 - 4SR15 up to **13 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/m<sup>3</sup>**. 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. 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 0.75 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



EU REGULATION N. 547/2012

### OPTIONS AVAILABLE ON REQUEST

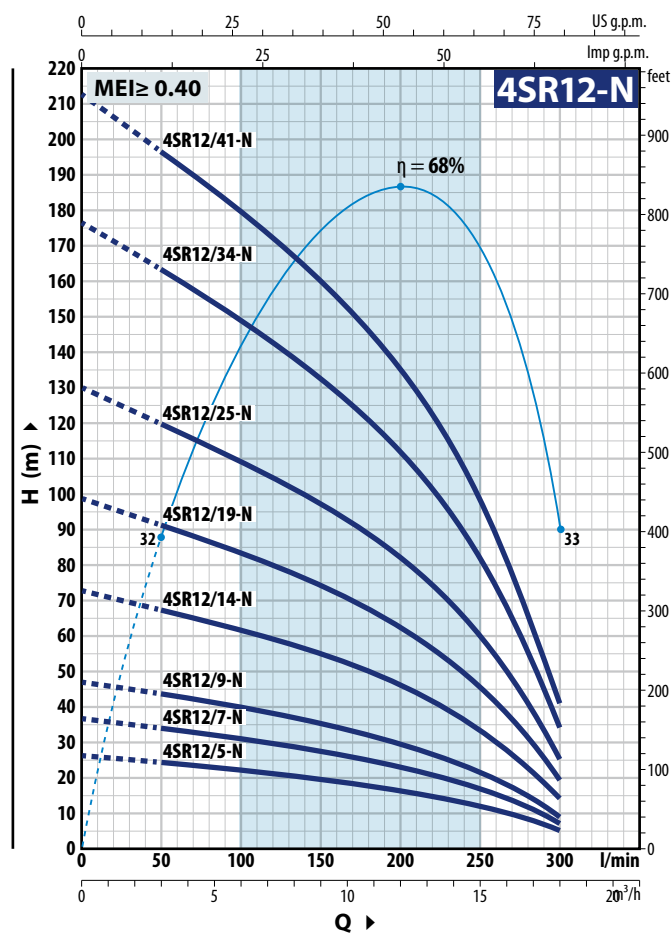
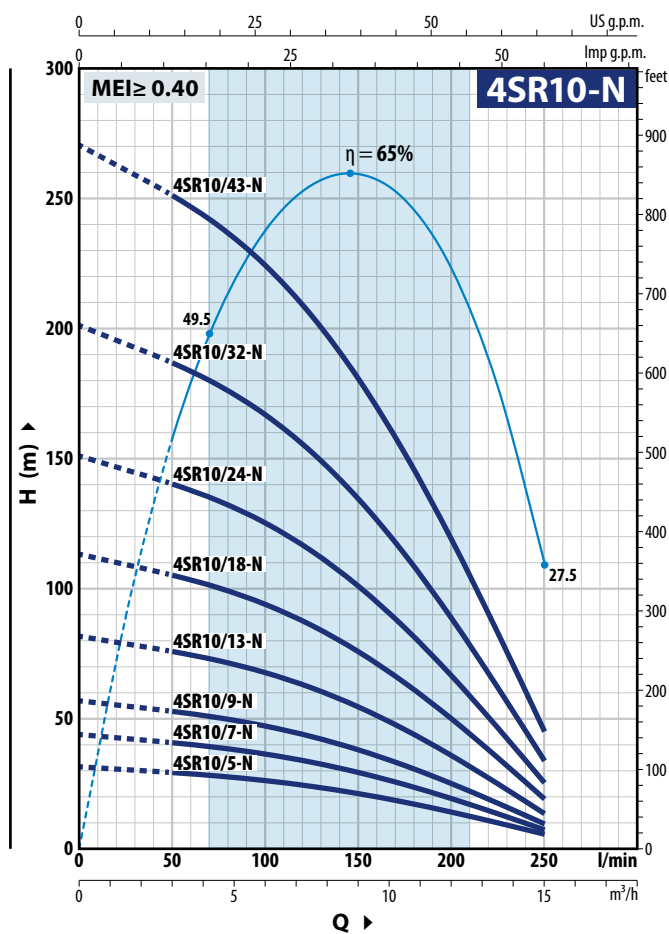
- Other voltages or 60 Hz frequency
- Kit of cooling jacket complete with filter and supports; recommended for powers from 2.2 kW to 7.5 kW



COOLING JACKET

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 2900 min<sup>-1</sup>



### 4SR10-N

MODEL		POWER (P <sub>2</sub> )		Q m³/h l/min	0	3.0	6.0	7.5	9.0	10.5	12	13.5	15.0
Single-phase	Three-phase	kW	HP		0	50	100	125	150	175	200	225	250
4SRm 10/5 -N	4SR 10/5 -N	0.75	1	H metres	31.5	29	26.1	23.9	21	17.7	13.9	9.6	5
4SRm 10/7 -N	4SR 10/7 -N	1.1	1.5		44	41	36.5	33.5	29.5	24.8	19.4	13.5	7.5
4SRm 10/9 -N	4SR 10/9 -N	1.5	2		56.5	52.5	47	43	38	32	24.9	17.4	9.5
4SRm 10/13 -N	4SR 10/13 -N	2.2	3		82	76	68	62	54.5	46	36	25.1	13.5
–	4SR 10/18 -N	3	4		113	105	94	86	76	63.5	50	34.5	19
–	4SR 10/24 -N	4	5.5		151	140	125	115	101	85	66.5	46.5	25
–	4SR 10/32 -N	5.5	7.5		202	187	167	153	135	113	89	61.5	33.5
–	4SR 10/43 -N	7.5	10		271	252	225	205	181	152	119	83	45

### 4SR12-N

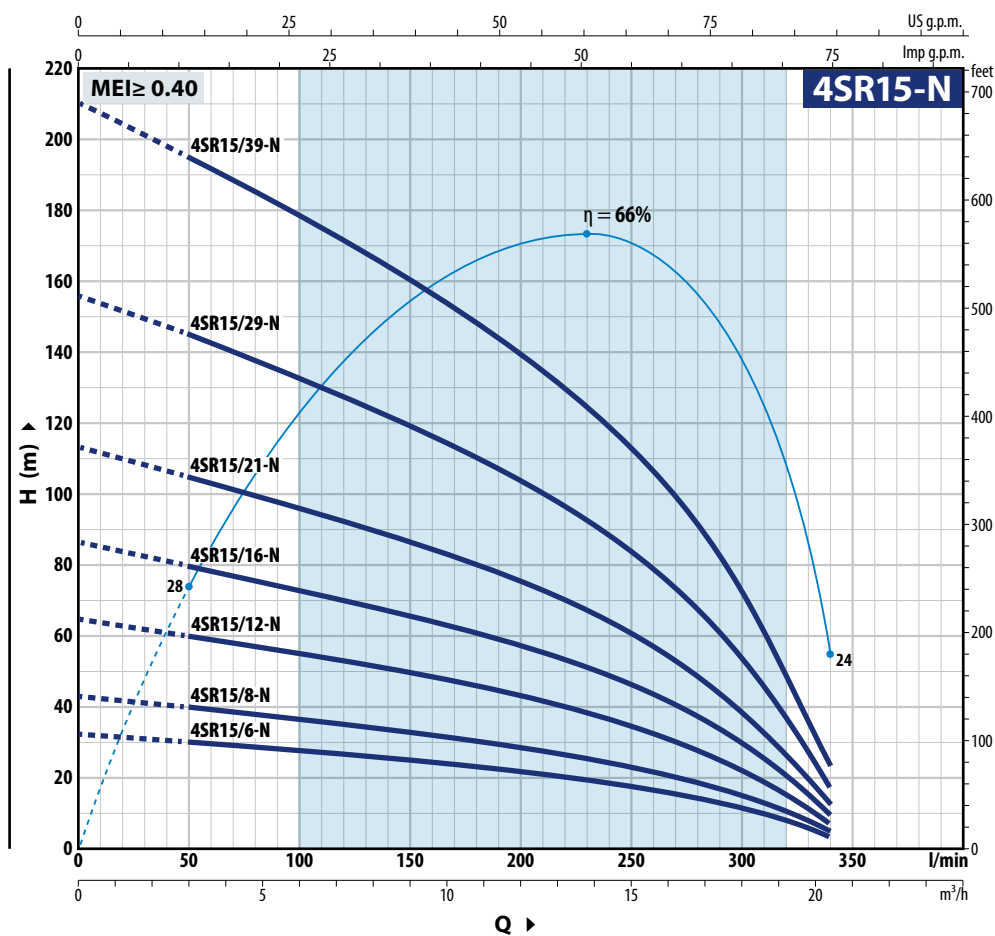
MODEL		POWER (P <sub>2</sub> )		Q m³/h l/min	0	3.0	6.0	8.4	10.2	12	13.8	15.6	16.8	18.0
Single-phase	Three-phase	kW	HP		0	50	100	140	170	200	230	260	280	300
4SRm 12/5 -N	4SR 12/5 -N	0.75	1	H metres	26	24	22	20	18.5	16.5	14	10.5	8	5
4SRm 12/7 -N	4SR 12/7 -N	1.1	1.5		36.5	33.5	30.5	28	26	23	19.5	15	11	7
4SRm 12/9 -N	4SR 12/9 -N	1.5	2		47	43	39.5	36	33	30	25.5	19	14.5	9
4SRm 12/14 -N	4SR 12/14 -N	2.2	3		73	67	61	56	51.5	46	39.5	30	22.5	14
–	4SR 12/19 -N	3	4		99	91	83	76	70	63	53.5	40.5	30.5	19
–	4SR 12/25 -N	4	5.5		130	120	109.5	100	92	83	70.5	53.5	40	25
–	4SR 12/34 -N	5.5	7.5		177	163	149	136	125	112.5	96	73	54.5	34
–	4SR 12/41 -N	7.5	10		213	197	179.5	164	151	135.5	115.5	87.5	66	41

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<sup>-1</sup>



### 4SR15-N

MODEL		POWER (P <sub>2</sub> )		Q										
Single-phase	Three-phase	kW	HP		m <sup>3</sup> /h	0	3.0	6.0	9.0	12	15	18	19.2	20.4
					l/min	0	50	100	150	200	250	300	320	340
4SRm 15/6 -N	4SR 15/6 -N	1.1	1.5	H metres		32.5	30	27.5	24.5	21.5	17.5	11	7.5	3.5
4SRm 15/8 -N	4SR 15/8 -N	1.5	2			43	40	36.5	33	29	23	14.5	10	5
4SRm 15/12 -N	4SR 15/12 -N	2.2	3			65	60	54.5	49	43	35	22	15.5	7
-	4SR 15/16 -N	3	4			86.5	80	73	65.5	57.5	46.5	29.5	20.5	9.5
-	4SR 15/21 -N	4	5.5			113.5	105	96	86	75.5	61	38.5	27	12.5
-	4SR 15/29 -N	5.5	7.5			156.5	145	132	119	104.5	84.5	53.5	37	17.5
-	4SR 15/39 -N	7.5	10			210.5	195	178	160	140.5	113.5	72	50	23.5

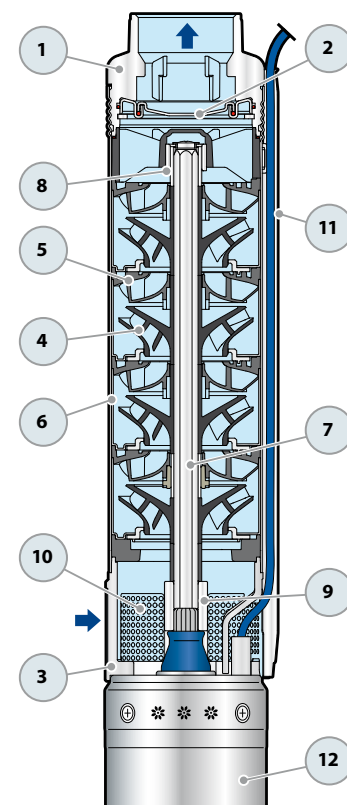
Q = Flow rate H = Total manometric head

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

## POS. COMPONENT

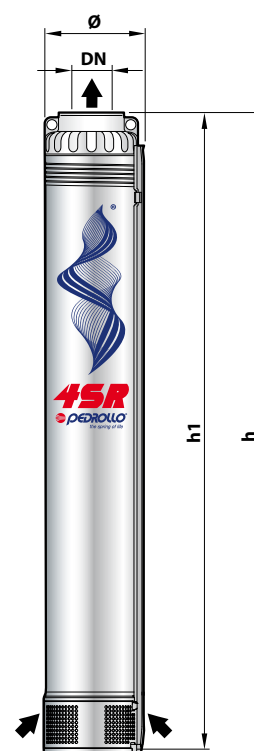
## CONSTRUCTION CHARACTERISTICS

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



## DIMENSIONS AND WEIGHT (PUMP ONLY)

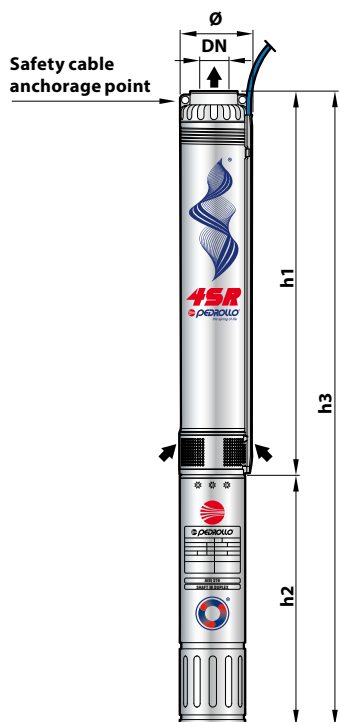
MODEL	DN	DIMENSIONS mm			kg
Three-phase		Ø	h1	h	
<b>4SR 10/5 - N - HYD</b>	<b>2"</b>	<b>98</b>	429	432	<b>3.9</b>
<b>4SR 10/7 - N - HYD</b>			531	534	<b>4.8</b>
<b>4SR 10/9 - N - HYD</b>			633	636	<b>5.7</b>
<b>4SR 10/13 - N - HYD</b>			836	839	<b>7.5</b>
<b>4SR 10/18 - N - HYD</b>			1091	1094	<b>9.8</b>
<b>4SR 10/24 - N - HYD</b>			1396	1399	<b>12.4</b>
<b>4SR 10/32 - N - HYD</b>			1803	1806	<b>16.0</b>
<b>4SR 10/43 - N - HYD</b>			2363	2366	<b>21.0</b>
<b>4SR 12/5 - N - HYD</b>			543	546	<b>5.5</b>
<b>4SR 12/7 - N - HYD</b>			689	692	<b>3.3</b>
<b>4SR 12/9 - N - HYD</b>			835	838	<b>9.1</b>
<b>4SR 12/14 - N - HYD</b>			1200	1203	<b>12.6</b>
<b>4SR 12/19 - N - HYD</b>			1565	1568	<b>15.1</b>
<b>4SR 12/25 - N - HYD</b>			2003	2006	<b>19.7</b>
<b>4SR 12/34 - N - HYD</b>			2660	2663	<b>26.6</b>
<b>4SR 12/41 - N - HYD</b>			3165	3168	<b>31.6</b>
<b>4SR 15/6 - N - HYD</b>			616	619	<b>6.0</b>
<b>4SR 15/8 - N - HYD</b>			762	765	<b>8.3</b>
<b>4SR 15/12 - N - HYD</b>			1054	1057	<b>11.3</b>
<b>4SR 15/16 - N - HYD</b>			1346	1349	<b>13.4</b>
<b>4SR 15/21 - N - HYD</b>			1711	1714	<b>16.8</b>
<b>4SR 15/29 - N - HYD</b>			2295	2298	<b>22.9</b>
<b>4SR 15/39 - N - HYD</b>			3020	3023	<b>29.7</b>



### DIMENSIONS AND WEIGHT

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	
Single-phase						1~
4SRm 10/5 - N - PD	2"	98	429	356	785	12.4
4SRm 10/7 - N - PD			531	396	927	16.7
4SRm 10/9 - N - PD			633	437	1070	18.9
4SRm 10/13 - N - PD			836	492	1328	25.6
4SRm 12/5 - N - PD			543	356	899	14.1
4SRm 12/7 - N - PD			689	396	1085	17.8
4SRm 12/9 - N - PD			835	437	1272	21.0
4SRm 12/14 - N - PD			1200	492	1692	26.8
4SRm 15/6 - N - PD			616	396	1012	16.6
4SRm 15/8 - N - PD			762	437	1199	20.4
4SRm 15/12 - N - PD			1054	492	1546	25.4

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	
Three-phase						3~
4SR 10/5 - N - PD	2"	98	429	356	785	12.4
4SR 10/7 - N - PD			531	371	902	14.2
4SR 10/9 - N - PD			633	396	1029	15.9
4SR 10/13 - N - PD			836	437	1273	19.2
4SR 10/18 - N - PD			1091	450	1541	23.0
4SR 10/24 - N - PD			1396	505	1901	28.5
4SR 10/32 - N - PD			1803	590	2393	35.8
4SR 10/43 - N - PD			2363	800	3163	50.0
4SR 12/5 - N - PD			543	356	899	14.0
4SR 12/7 - N - PD			689	371	1060	12.7
4SR 12/9 - N - PD			835	396	1231	19.3
4SR 12/14 - N - PD			1200	437	1637	24.3
4SR 12/19 - N - PD			1565	450	2015	28.3
4SR 12/25 - N - PD			2003	505	2508	35.8
4SR 12/34 - N - PD			2660	590	3360	46.4
4SR 12/41 - N - PD			3165	800	3965	60.6
4SR 15/6 - N - PD			616	371	987	15.4
4SR 15/8 - N - PD			762	396	1158	18.5
4SR 15/12 - N - PD			1054	437	1491	23.0
4SR 15/16 - N - PD			1346	450	1796	26.6
4SR 15/21 - N - PD			1711	505	2216	32.9
4SR 15/29 - N - PD			2295	590	2995	42.7
4SR 15/39 - N - PD			3020	800	3820	58.7

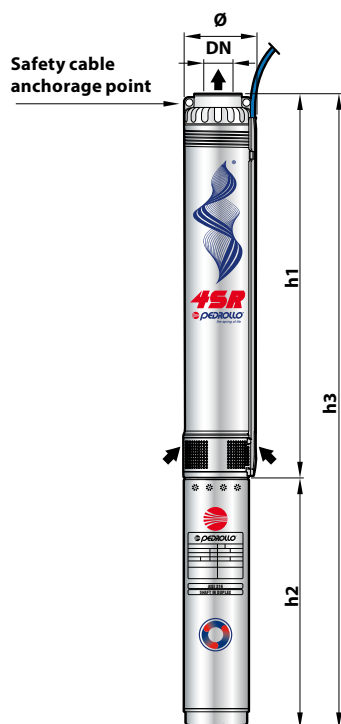


4PD = rewindable oil filled submersible motor

### DIMENSIONS AND WEIGHT

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	
Single-phase						1~
4SRm 10/5 - N - PS	2"	98	429	272	701	13.0
4SRm 10/7 - N - PS			531	312	843	17.7
4SRm 10/9 - N - PS			633	352	985	20.6
4SRm 10/13 - N - PS			836	402	1238	24.9
4SRm 12/5 - N - PS			543	272	815	14.7
4SRm 12/7 - N - PS			689	312	1001	18.8
4SRm 12/9 - N - PS			835	352	1187	22.7
4SRm 12/14 - N - PS			1200	402	1602	26.1
4SRm 15/6 - N - PS			616	312	928	17.6
4SRm 15/8 - N - PS			762	352	1114	22.1
4SRm 15/12 - N - PS			1054	402	1456	24.7

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	
Three-phase						3~
4SR 10/5 - N - PS	2"	98	429	257	686	11.8
4SR 10/7 - N - PS			531	272	803	13.9
4SR 10/9 - N - PS			633	297	930	16.9
4SR 10/13 - N - PS			836	352	1188	20.9
4SR 10/18 - N - PS			1091	484	1575	26.8
4SR 10/24 - N - PS			1396	574	1970	35.8
4SR 10/32 - N - PS			1803	664	2467	43.8
4SR 10/43 - N - PS			2363	764	3127	52.4
4SR 12/5 - N - PS			543	257	800	13.4
4SR 12/7 - N - PS			689	272	961	12.4
4SR 12/9 - N - PS			835	297	1132	20.3
4SR 12/14 - N - PS			1200	352	1552	26.0
4SR 12/19 - N - PS			1565	484	2049	32.1
4SR 12/25 - N - PS			2003	574	2577	43.1
4SR 12/34 - N - PS			2660	664	3324	54.4
4SR 12/41 - N - PS			3165	764	3929	63.0
4SR 15/6 - N - PS			616	272	888	15.1
4SR 15/8 - N - PS			762	297	1059	19.5
4SR 15/12 - N - PS			1054	352	1406	24.7
4SR 15/16 - N - PS			1346	484	1830	30.4
4SR 15/21 - N - PS			1711	574	2285	40.2
4SR 15/29 - N - PS			2295	664	2959	50.7
4SR 15/39 - N - PS			3020	764	3784	61.1



4PS = encapsulated water cooled submersible motor

## 4" submersible pumps



Clean water  
(Maximum  
sand content 150 g/m<sup>3</sup>)



Domestic use



Civil use



Industrial use



### PERFORMANCE RANGE

- Flow rate up to **375 l/min** (22.5 m<sup>3</sup>/h)
- Head up to **390 m**

### APPLICATION LIMITS

- Maximum liquid temperature **+35 °C**
- Maximum sand content **150 g/m<sup>3</sup>**
- 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 **27 stages**
    - 4SR6 - 4SR8 - 4SR10 - 4SR12 - 4SR15 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/m<sup>3</sup>**. 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. **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

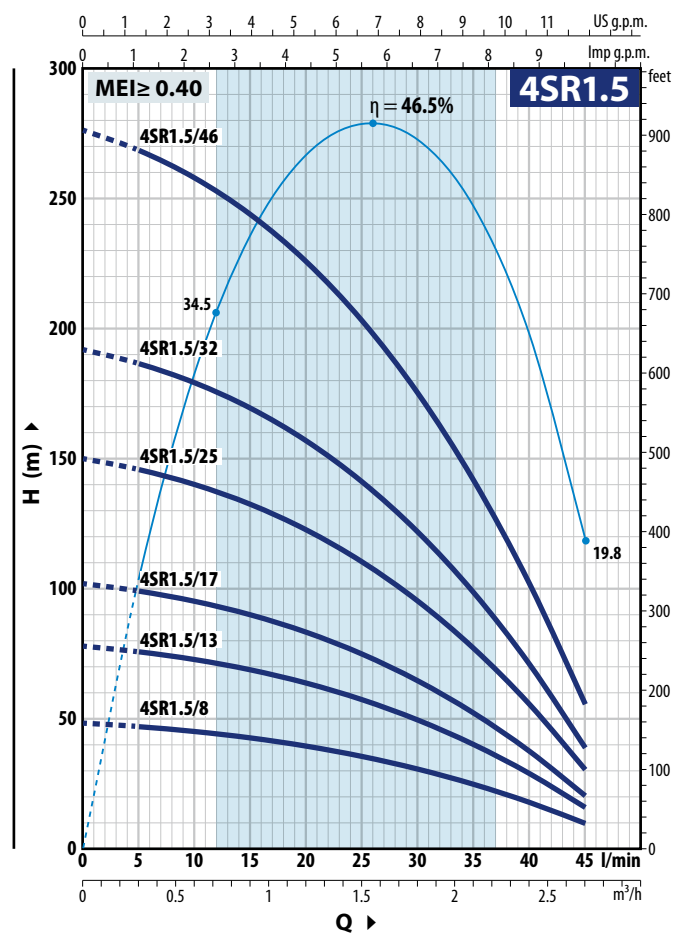
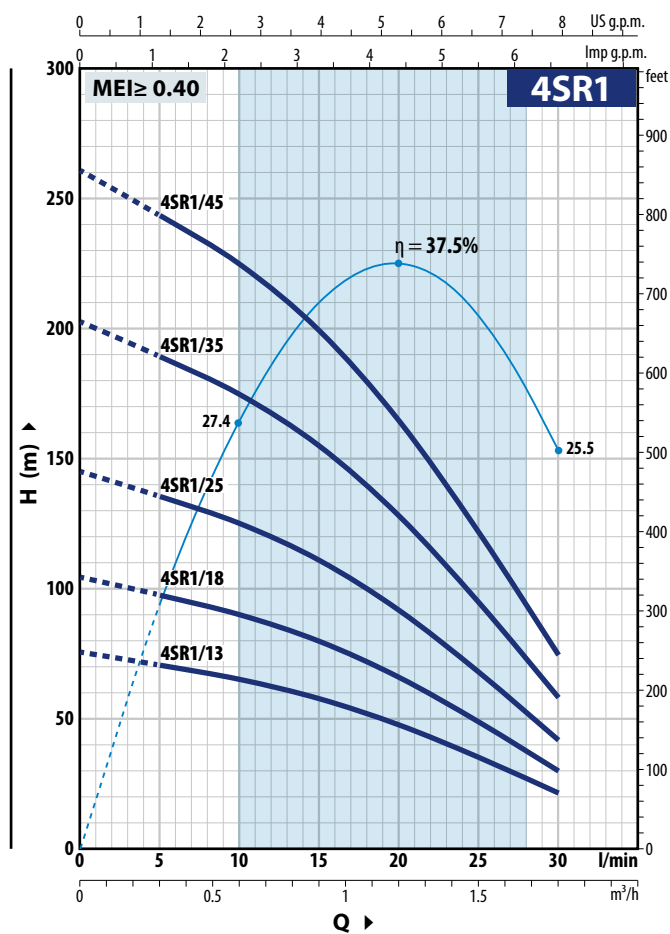


COOLING JACKET



## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min<sup>-1</sup>



### 4SR1

MODEL		POWER (P <sub>2</sub> )		Q	m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8
Single-phase	Three-phase	kW	HP		l/min	0	5	10	15	20	25	30
4SRm 1/13	4SR 1/13	0.37	0.50	H metres	75	70	65	57.5	47.5	35	21.5	
4SRm 1/18	4SR 1/18	0.55	0.75		104	97	90	80	66	48.5	30	
4SRm 1/25	4SR 1/25	0.75	1		145	135	125	111	92	67.5	41.5	
4SRm 1/35	4SR 1/35	1.1	1.5		203	190	175	155	128	95	58	
4SRm 1/45	4SR 1/45	1.5	2		261	244	225	199	165	122	75	

### 4SR1.5

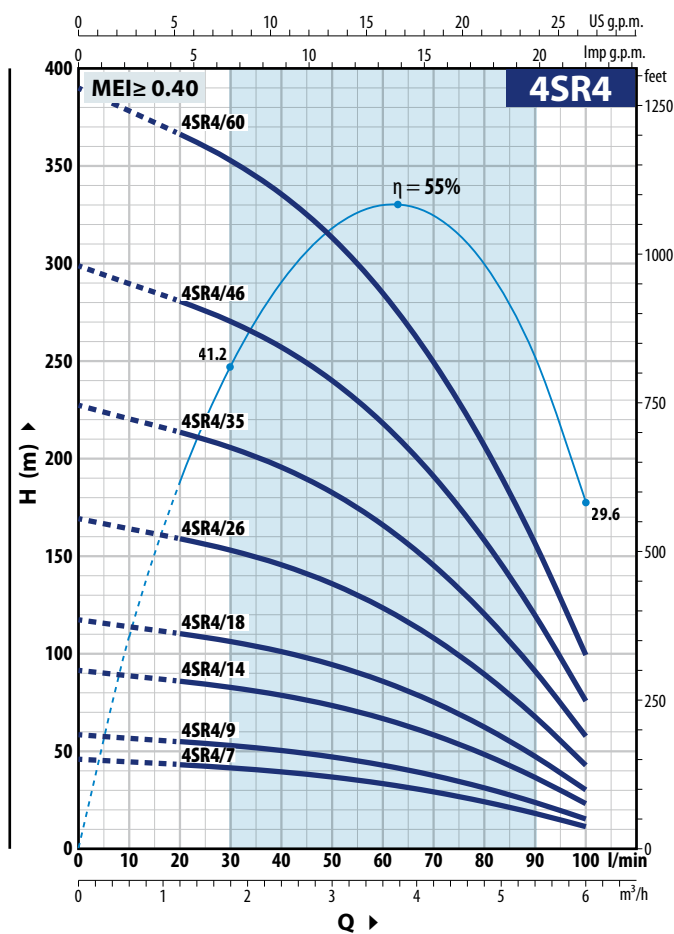
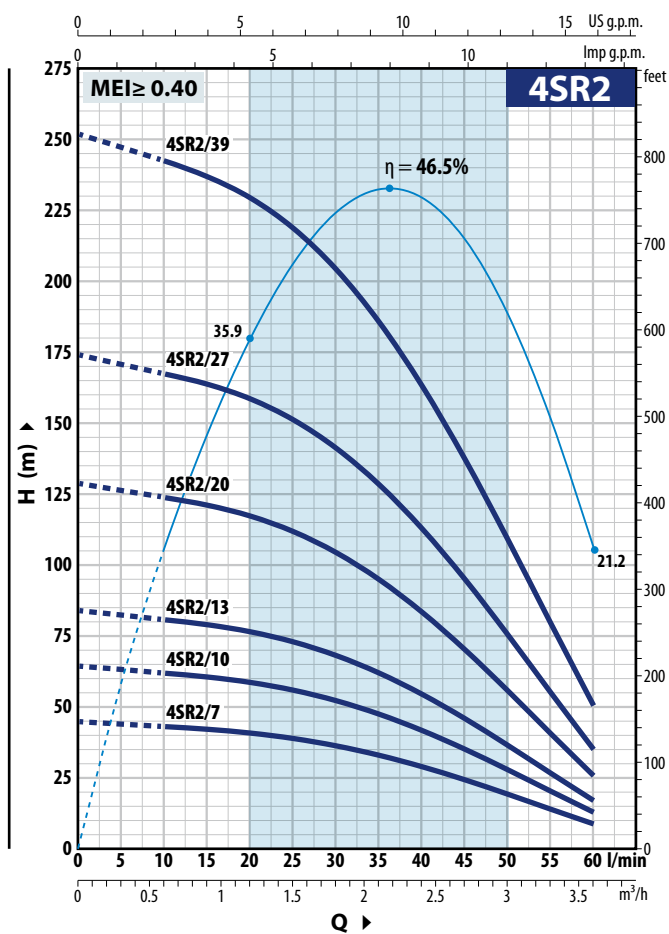
MODEL		POWER (P <sub>2</sub> )		Q	m³/h	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7
Single-phase	Three-phase	kW	HP		l/min	0	5	10	15	20	25	30	35	40	45
4SRm 1.5/8	4SR 1.5/8	0.37	0.50	H metres	48	46.5	45	42.5	39	35	30.5	24.6	17.7	9.5	
4SRm 1.5/13	4SR 1.5/13	0.55	0.75		78	76	73	69	63.5	57.5	49.5	40	28.5	15.5	
4SRm 1.5/17	4SR 1.5/17	0.75	1		102	99	95	90	83	75	64.5	52	37.5	20.5	
4SRm 1.5/25	4SR 1.5/25	1.1	1.5		150	146	140	132	123	110	95	77	55	30	
4SRm 1.5/32	4SR 1.5/32	1.5	2		192	187	179	169	157	141	122	98	71	38.5	
4SRm 1.5/46	4SR 1.5/46	2.2	3		276	268	258	244	225	203	175	141	102	55	

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<sup>-1</sup>



#### 4SR2

MODEL		POWER (P <sub>2</sub> )		Q m³/h l/min	0	0.6	1.2	1.8	2.4	3.0	3.6
Single-phase	Three-phase	kW	HP		0	10	20	30	40	50	60
4SRm 2/7	4SR 2/7	0.37	0.50	H metres	45	43.5	41	36.5	29.5	19.6	9
4SRm 2/10	4SR 2/10	0.55	0.75		64.5	62	58.5	52.5	42	28	13
4SRm 2/13	4SR 2/13	0.75	1		84	81	76	68	54.5	36.5	17
4SRm 2/20	4SR 2/20	1.1	1.5		129	124	117	105	84	56	26
4SRm 2/27	4SR 2/27	1.5	2		174	167	159	141	113	75	35
4SRm 2/39	4SR 2/39	2.2	3		252	242	229	204	163	109	50.5

#### 4SR4

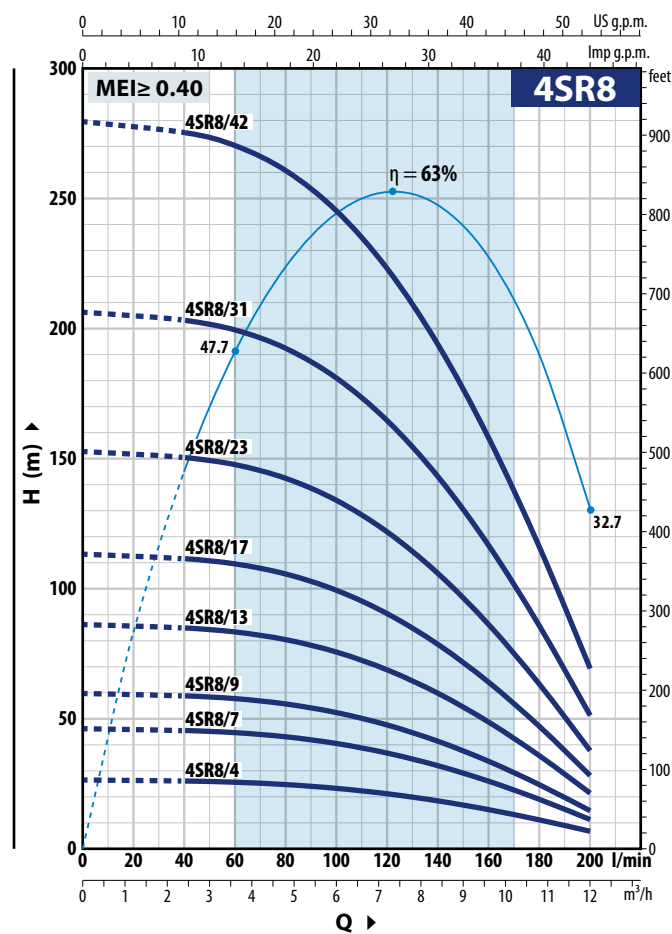
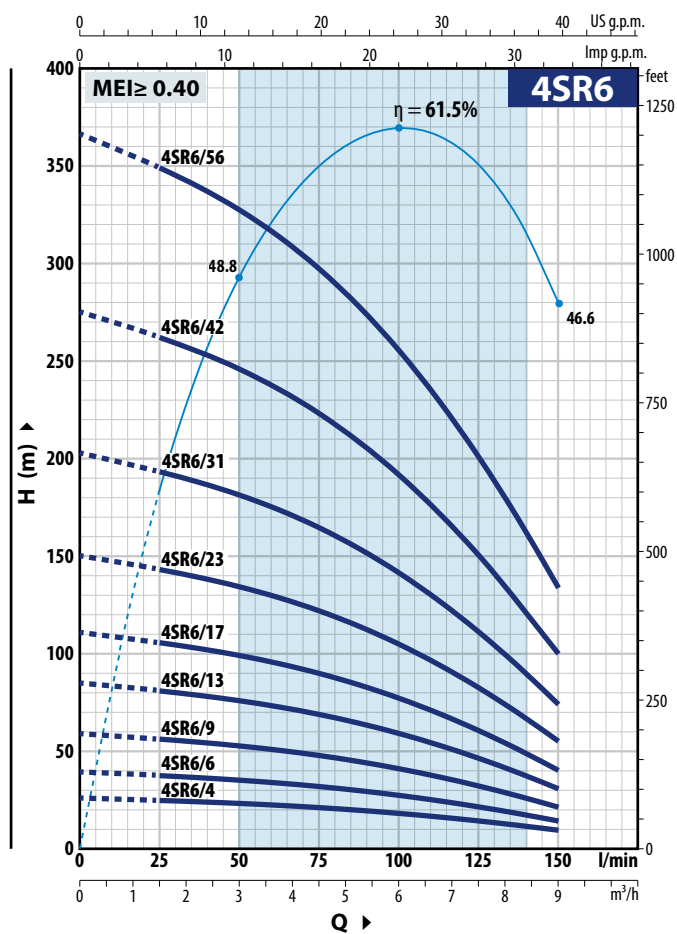
MODEL		POWER (P <sub>2</sub> )		Q m³/h l/min	0	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0
Single-phase	Three-phase	kW	HP		0	20	30	40	50	60	70	80	90	100
4SRm 4/7	4SR 4/7	0.55	0.75	H metres	45.5	42.5	41	39	36.5	33	29	24.1	18.2	11.5
4SRm 4/9	4SR 4/9	0.75	1		58.5	55	53	50.5	47	42.5	37.5	31	23.4	15
4SRm 4/14	4SR 4/14	1.1	1.5		91	85	82	78	73	66.5	58	48	36.5	23
4SRm 4/18	4SR 4/18	1.5	2		117	110	106	101	94	85	75	62	47	29.5
4SRm 4/26	4SR 4/26	2.2	3		169	159	153	145	136	123	108	89	67.5	43
–	4SR 4/35	3	4		228	214	206	196	183	166	145	120	91	57.5
–	4SR 4/46	4	5.5		299	281	270	257	240	218	191	158	120	76
–	4SR 4/60	5.5	7.5		390	366	353	336	313	285	249	206	156	99

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<sup>-1</sup>



### 4SR6

MODEL		POWER (P <sub>2</sub> )		Q m³/h l/min	0	1.5	3.0	4.5	6.0	7.5	9.0
Single-phase	Three-phase	kW	HP		0	25	50	75	100	125	150
4SRm 6/4	4SR 6/4	0.55	0.75	H metres	26	25	23.4	21.2	18.3	14.3	9.5
4SRm 6/6	4SR 6/6	0.75	1		39.5	37.5	35	32	27.5	21.5	14.5
4SRm 6/9	4SR 6/9	1.1	1.5		59	56	52.5	48	41	32.5	21.5
4SRm 6/13	4SR 6/13	1.5	2		85	81	76	69	59.5	46.5	31
4SRm 6/17	4SR 6/17	2.2	3		111	106	99	90	78	61	40.5
–	4SR 6/23	3	4		151	143	135	122	105	82	55
–	4SR 6/31	4	5.5		203	193	181	165	141	111	74
–	4SR 6/42	5.5	7.5		275	262	246	223	192	151	100
–	4SR 6/56	7.5	10		367	349	328	297	256	201	134

### 4SR8

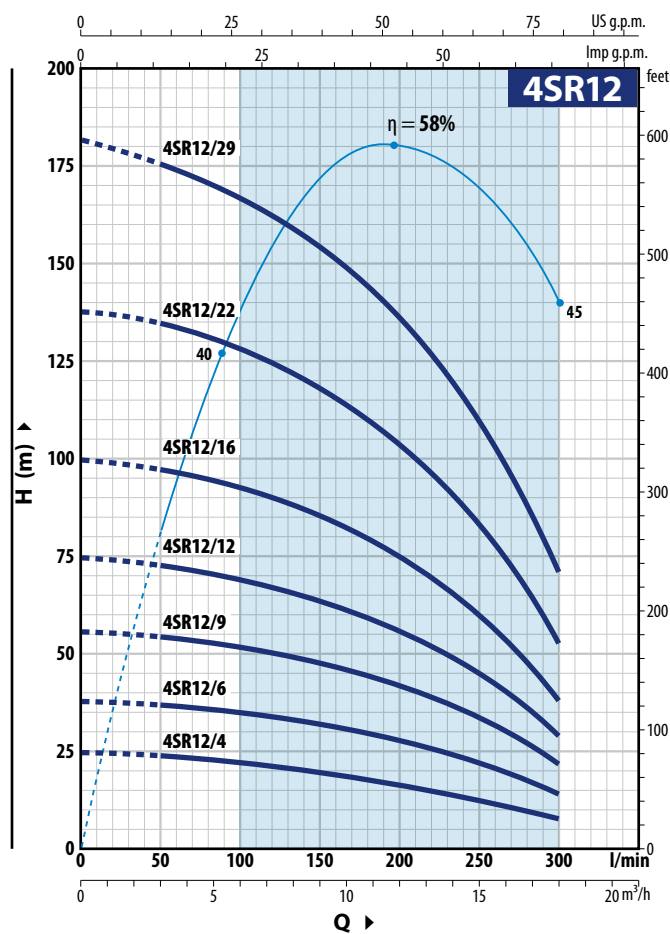
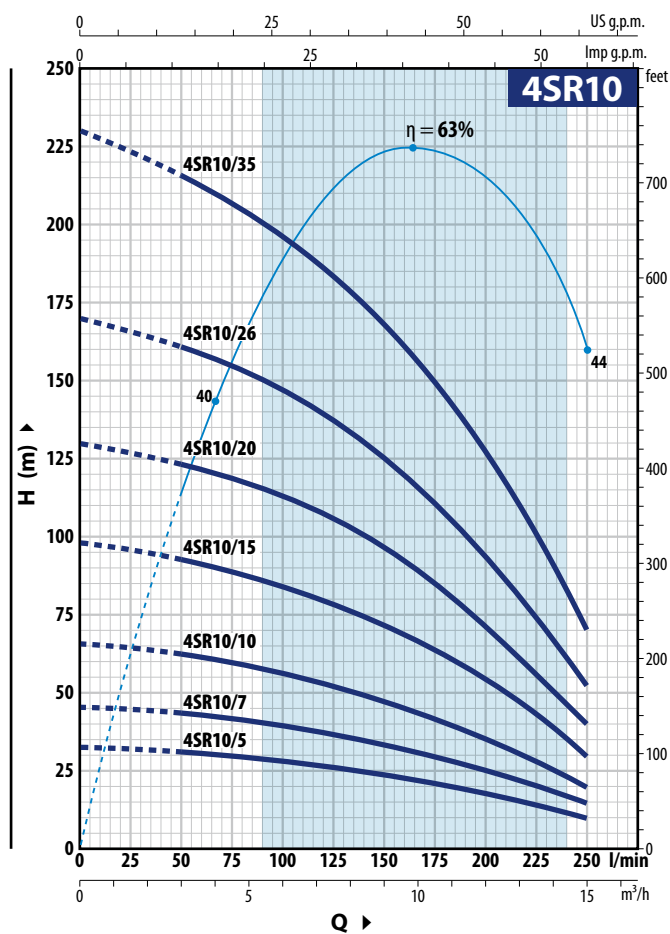
MODEL		POWER (P <sub>2</sub> )		Q m <sup>3</sup> /h l/min	0	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.0
Single-phase	Three-phase	kW	HP		0	40	60	80	100	120	140	160	180	200
4SRm 8/4	4SR 8/4	0.75	1	H metres	26.5	26	25.7	24.8	23.3	21.2	18.4	15	11	6.5
4SRm 8/7	4SR 8/7	1.1	1.5		46.5	46	45	43.5	41	37	32.5	26.3	19.3	11.5
4SRm 8/9	4SR 8/9	1.5	2		60	59	58	56	52.5	47.5	41.5	34	24.8	15
4SRm 8/13	4SR 8/13	2.2	3		86	85	84	81	76	69	60	49	36	21.5
–	4SR 8/17	3	4		113	111	109	105	99	90	78	64	47	28
–	4SR 8/23	4	5.5		153	151	148	143	134	122	106	86	63.5	38
–	4SR 8/31	5.5	7.5		206	203	199	192	181	164	143	116	85	51
–	4SR 8/42	7.5	10		279	275	270	260	245	223	194	158	116	69.5

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<sup>-1</sup>



#### 4SR10

● MODELS TO BE SOLD ONLY OUTSIDE EU

MODEL		POWER (P <sub>2</sub> )		Q											
Single-phase	Three-phase	kW	HP		m³/h	0	3.0	4.5	6.0	7.5	9.0	10.5	12	13.5	15.0
					l/min	0	50	75	100	125	150	175	200	225	250
4SRm 10/5	4SR 10/5	1.1	1.5	H metres		33	31	30	28	26	24	21	18	14	10
4SRm 10/7	4SR 10/7	1.5	2			46	43	41	39	37	34	30	25	20	15
4SRm 10/10	4SR 10/10	2.2	3			66	62	59	56	53	48	42	36	28	20
–	4SR 10/15	3	4			98	92	88	84	79	72	64	53	42	30
–	4SR 10/20	4	5.5			130	123	118	112	106	96	85	71	56	40
–	4SR 10/26	5.5	7.5			170	160	154	147	138	126	110	94	72	52
–	4SR 10/35	7.5	10			230	216	208	197	184	168	148	126	100	70

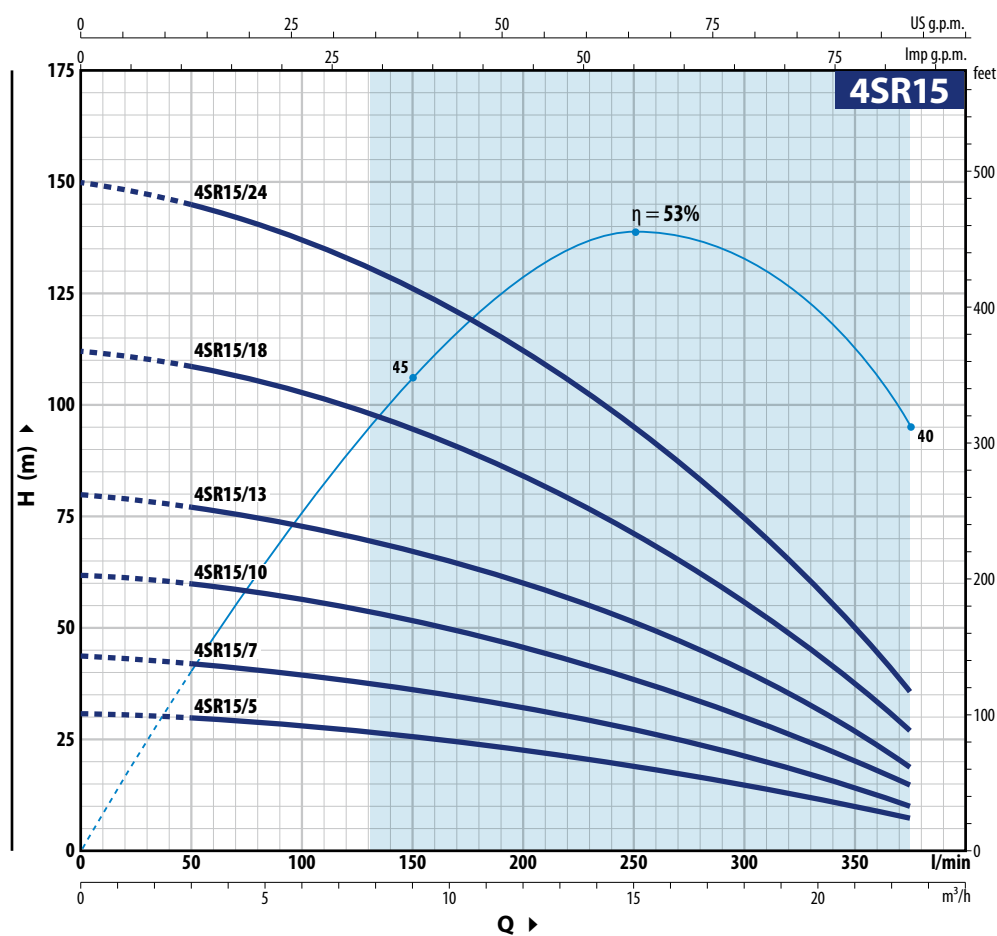
#### 4SR12

● MODELS TO BE SOLD ONLY OUTSIDE EU

MODEL		POWER (P <sub>2</sub> )		Q											
Single-phase	Three-phase	kW	HP		m³/h	0	3.0	6.0	9.0	12.0	13.2	14.4	15.6	16.8	18.0
					l/min	0	50	100	150	200	220	240	260	280	300
4SRm 12/4	4SR 12/4	1.1	1.5	H metres		25	24	22	19	16	15	14	12	11	8
4SRm 12/6	4SR 12/6	1.5	2			38	37	35	32	28	26	24	21	18	14
4SRm 12/9	4SR 12/9	2.2	3			56	55	52	48	42	39	36	32	27	22
–	4SR 12/12	3	4			75	73	69	64	56	52	48	43	36	29
–	4SR 12/16	4	5.5			100	97	93	86	75	70	64	57	48	38
–	4SR 12/22	5.5	7.5			138	135	127	118	103	96	88	78	66	53
–	4SR 12/29	7.5	10			182	176	167	155	135	126	116	103	88	71

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min<sup>-1</sup>



### 4SR15

● MODELS TO BE SOLD ONLY OUTSIDE EU

MODEL		POWER (P <sub>2</sub> )		Q										
Single-phase	Three-phase	kW	HP		m³/h	0	3.0	6.0	9.0	12.0	15.0	18.0	21.0	22.5
					l/min	0	50	100	150	200	250	300	350	375
4SRm 15/5	4SR15/5	1.5	2	H metres		31	30	28	26	23	20	15	10	7.5
4SRm 15/7	4SR15/7	2.2	3			44	42	40	37	32	27	20	13	10
–	4SR15/10	3	4			62	60	57	52	46	38	30	20	15
–	4SR15/13	4	5.5			80	77	72	68	60	50	40	25	19
–	4SR15/18	5.5	7.5			112	108	102	95	85	71	55	37	27
–	4SR15/24	7.5	10			150	145	138	126	112	95	75	50	36

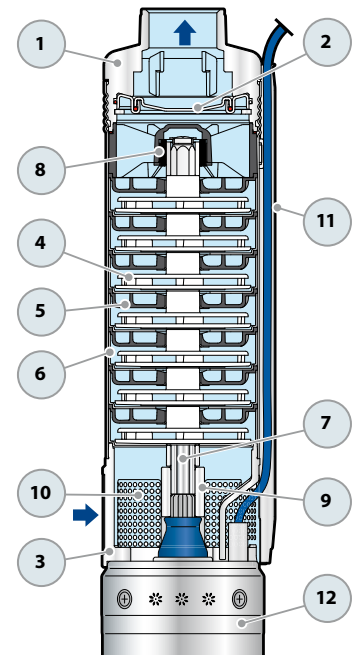
Q = Flow rate H = Total manometric head

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

### POS. COMPONENT

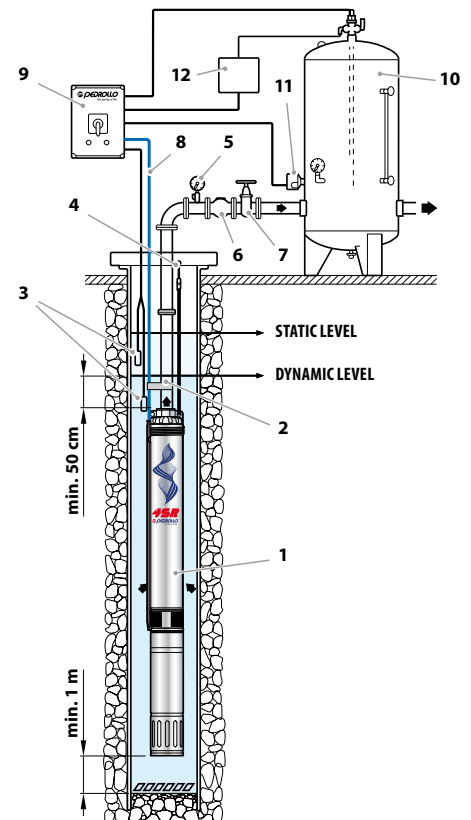
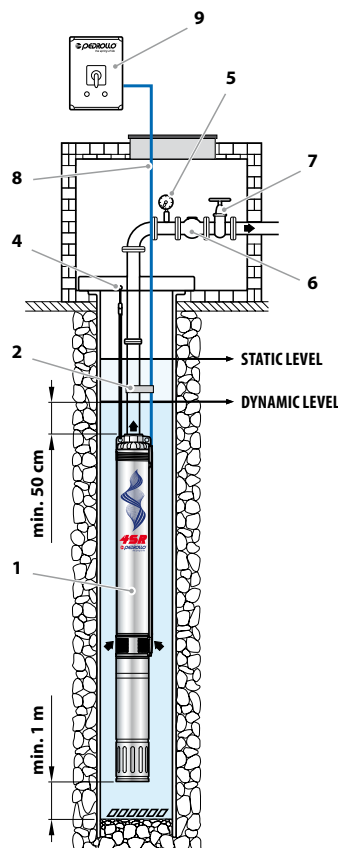
### CONSTRUCTION CHARACTERISTICS

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

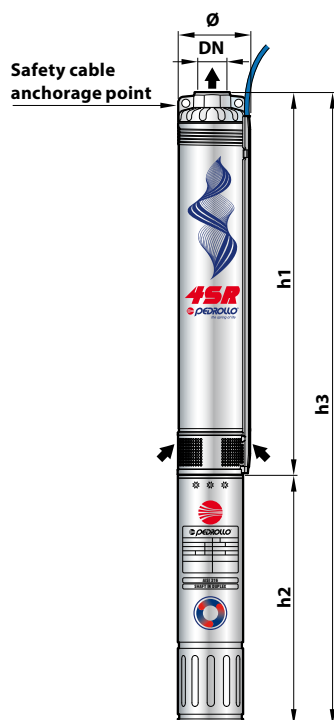
MODEL	DN	DIMENSIONS mm			kg
Pump		Ø	h1	h	
4SR 1/13 - HYD	1 1/4"	98	400	403	4.7
4SR 1/18 - HYD			517	520	6.0
4SR 1/25 - HYD			646	649	7.4
4SR 1/35 - HYD			856	859	9.4
4SR 1/45 - HYD			1065	1068	11.4
4SR 1.5/8 - HYD			308	311	3.8
4SR 1.5/13 - HYD			400	403	4.5
4SR 1.5/17 - HYD			499	502	5.7
4SR 1.5/25 - HYD			646	649	7.3
4SR 1.5/32 - HYD			800	803	9.2
4SR 1.5/46 - HYD			1134	1137	13.2
4SR 2/7 - HYD			290	293	3.6
4SR 2/10 - HYD			345	348	4.2
4SR 2/13 - HYD			400	403	4.8
4SR 2/20 - HYD			554	557	6.4
4SR 2/27 - HYD			683	686	7.8
4SR 2/39 - HYD			929	932	10.5
4SR 4/7 - HYD			314	317	3.8
4SR 4/9 - HYD			358	361	4.3
4SR 4/14 - HYD			468	471	5.4
4SR 4/18 - HYD			580	583	6.6
4SR 4/26 - HYD			756	759	8.3
4SR 4/35 - HYD			978	981	10.7
4SR 4/46 - HYD			1295	1298	15.0
4SR 4/60 - HYD			1652	1655	24.3
4SR 6/4 - HYD	2"	98	281	284	3.7
4SR 6/6 - HYD			341	344	4.0
4SR 6/9 - HYD			431	434	4.8
4SR 6/13 - HYD			576	579	6.1
4SR 6/17 - HYD			695	698	7.3
4SR 6/23 - HYD			900	903	9.3
4SR 6/31 - HYD			1164	1167	11.6
4SR 6/42 - HYD			1519	1522	20.6
4SR 6/56 - HYD			2063	2066	22.0
4SR 8/4 - HYD			281	284	3.5
4SR 8/7 - HYD			371	374	4.2
4SR 8/9 - HYD			431	434	4.7
4SR 8/13 - HYD			576	579	6.1
4SR 8/17 - HYD			695	698	7.2
4SR 8/23 - HYD			900	903	9.3
4SR 8/31 - HYD			1164	1167	16.7
4SR 8/42 - HYD			1519	1522	14.9
4SR 10/5 - HYD			416	419	4.4
4SR 10/7 - HYD			518	521	5.3
4SR 10/10 - HYD			709	712	6.9
4SR 10/15 - HYD			1001	1004	9.5
4SR 10/20 - HYD			1256	1259	12.0
4SR 10/26 - HYD			1599	1602	15.7
4SR 10/35 - HYD			2095	2098	19.7
4SR 12/4 - HYD			365	368	4.0
4SR 12/6 - HYD			467	470	4.8
4SR 12/9 - HYD			658	661	6.6
4SR 12/12 - HYD			810	813	8.1
4SR 12/16 - HYD			1052	1055	9.6
4SR 12/22 - HYD			1358	1361	12.8
4SR 12/29 - HYD			1752	1755	15.9
4SR 15/5 - HYD			421	424	4.5
4SR 15/7 - HYD			525	528	5.3
4SR 15/10 - HYD			719	722	7.0
4SR 15/13 - HYD			874	877	8.4
4SR 15/18 - HYD			1172	1175	11.1
4SR 15/24 - HYD			1521	1524	14.0





### DIMENSIONS AND WEIGHT

MODEL	DN	DIMENSIONS mm				kg
Single-phase		Ø	h1	h2	h3	1~
4SRm 1/13 - PD	1 1/4"	98	400	311	711	11.2
4SRm 1/18 - PD			517	331	848	13.2
4SRm 1/25 - PD			646	356	1002	15.9
4SRm 1/35 - PD			856	396	1252	19.6
4SRm 1/45 - PD			1065	437	1502	23.1
4SRm 1.5/8 - PD			308	311	619	10.3
4SRm 1.5/13 - PD			400	331	731	11.7
4SRm 1.5/17 - PD			499	356	855	14.2
4SRm 1.5/25 - PD			646	396	1042	17.5
4SRm 1.5/32 - PD			800	437	1237	20.9
4SRm 1.5/46 - PD			1134	492	1626	28.1
4SRm 2/7 - PD			290	311	601	10.1
4SRm 2/10 - PD			345	331	676	11.4
4SRm 2/13 - PD			400	356	756	13.3
4SRm 2/20 - PD			554	396	950	16.6
4SRm 2/27 - PD			683	437	1120	19.5
4SRm 2/39 - PD			929	492	1421	25.4
4SRm 4/7 - PD			314	331	645	11.0
4SRm 4/9 - PD			358	356	714	12.8
4SRm 4/14 - PD			468	396	864	15.6
4SRm 4/18 - PD			580	437	1017	18.3
4SRm 4/26 - PD			756	492	1248	23.2
4SRm 6/4 - PD	2"	98	281	331	612	10.9
4SRm 6/6 - PD			341	356	697	12.5
4SRm 6/9 - PD			431	396	827	15.0
4SRm 6/13 - PD			576	437	1013	17.8
4SRm 6/17 - PD			695	492	1187	22.2
4SRm 8/4 - PD			281	356	637	12.0
4SRm 8/7 - PD			371	396	767	14.4
4SRm 8/9 - PD			431	437	868	16.4
4SRm 8/13 - PD			576	492	1068	21.0
4SRm 10/5 - PD			416	396	812	15.2
4SRm 10/7 - PD			518	437	955	16.9
4SRm 10/10 - PD			709	492	1201	21.7
4SRm 12/4 - PD			365	396	761	14.7
4SRm 12/6 - PD			467	437	904	15.8
4SRm 12/9 - PD			658	492	1150	21.7
4SRm 15/5 - PD			421	437	858	16.7
4SRm 15/7 - PD			525	492	1017	20.7



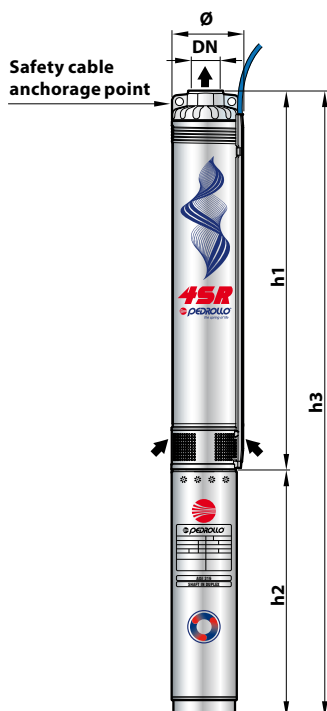
MODEL	DN	DIMENSIONS mm				kg
Three-phase		Ø	h1	h2	h3	3~
4SR 1/13 - PD	1 1/4"	98	400	311	711	11.2
4SR 1/18 - PD			517	331	848	13.2
4SR 1/25 - PD			646	356	1002	15.9
4SR 1/35 - PD			856	371	1227	18.8
4SR 1/45 - PD			1065	396	1461	21.6
4SR 1.5/8 - PD			308	311	619	10.3
4SR 1.5/13 - PD			400	331	731	11.7
4SR 1.5/17 - PD			499	356	855	14.2
4SR 1.5/25 - PD			646	371	1017	16.7
4SR 1.5/32 - PD			800	396	1196	19.4
4SR 1.5/46 - PD			1134	437	1571	24.9
4SR 2/7 - PD			290	311	601	10.1
4SR 2/10 - PD			345	331	676	11.4
4SR 2/13 - PD			400	356	756	13.3
4SR 2/20 - PD			554	371	925	15.8
4SR 2/27 - PD			683	396	1079	18.0
4SR 2/39 - PD			929	437	1366	22.2
4SR 4/7 - PD			314	331	645	11.0
4SR 4/9 - PD			358	356	714	12.8
4SR 4/14 - PD			468	371	839	14.8
4SR 4/18 - PD			580	396	976	16.8
4SR 4/26 - PD			756	437	1193	20.0
4SR 4/35 - PD	2"	98	978	450	1428	23.9
4SR 4/46 - PD			1295	505	1800	31.1
4SR 4/60 - PD			1652	590	2242	44.1
4SR 6/4 - PD			281	331	612	10.9
4SR 6/6 - PD			341	356	697	12.5
4SR 6/9 - PD			431	371	802	14.2
4SR 6/13 - PD			576	396	972	16.3
4SR 6/17 - PD			695	437	1132	19.0
4SR 6/23 - PD			900	450	1350	22.5
4SR 6/31 - PD			1164	505	1669	27.7
4SR 6/42 - PD			1519	590	2109	40.4
4SR 6/56 - PD			2063	800	2863	51.0
4SR 8/4 - PD			281	356	637	12.0
4SR 8/7 - PD			371	371	742	13.6
4SR 8/9 - PD			431	396	827	14.9
4SR 8/13 - PD			576	437	1013	17.8
4SR 8/17 - PD			695	450	1145	20.4
4SR 8/23 - PD			900	505	1405	25.4
4SR 8/31 - PD			1164	590	1754	36.5
4SR 8/42 - PD			1519	800	2319	43.9
4SR 10/5 - PD			416	371	787	14.3
4SR 10/7 - PD			518	396	914	16.0
4SR 10/10 - PD			709	437	1146	19.1
4SR 10/15 - PD			1001	450	1451	23.2
4SR 10/20 - PD			1256	505	1761	30.7
4SR 10/26 - PD			1599	590	2189	35.8
4SR 10/35 - PD			2095	800	2895	49.2
4SR 12/4 - PD			365	371	736	12.5
4SR 12/6 - PD			467	396	863	16.8
4SR 12/9 - PD			658	437	1095	18.8
4SR 12/12 - PD			810	450	1260	22.0
4SR 12/16 - PD			1052	505	1557	26.2
4SR 12/22 - PD			1358	590	1948	31.9
4SR 12/29 - PD			1752	800	2552	46.3
4SR 15/5 - PD			421	396	817	15.2
4SR 15/7 - PD			525	437	962	16.5
4SR 15/10 - PD			719	450	1169	22.1
4SR 15/13 - PD			874	505	1379	24.6
4SR 15/18 - PD			1172	590	1762	30.7
4SR 15/24 - PD			1521	800	2321	43.5

4PD = rewindable oil filled submersible motor

● MODELS TO BE SOLD ONLY OUTSIDE EU

### DIMENSIONS AND WEIGHT

MODEL	DN	DIMENSIONS mm				kg
Single-phase		Ø	h1	h2	h3	1~
4SRm 1/13 - PS	1¼"	98	400	237	637	11.5
4SRm 1/18 - PS			517	257	774	13.9
4SRm 1/25 - PS			646	272	918	16.5
4SRm 1/35 - PS			856	312	1168	20.6
4SRm 1/45 - PS			1065	352	1417	24.8
4SRm 1.5/8 - PS			308	237	545	10.6
4SRm 1.5/13 - PS			400	257	657	12.4
4SRm 1.5/17 - PS			499	272	771	14.8
4SRm 1.5/25 - PS			646	312	958	18.5
4SRm 1.5/32 - PS			800	352	1152	22.6
4SRm 1.5/46 - PS			1134	402	1536	27.4
4SRm 2/7 - PS			290	237	527	10.4
4SRm 2/10 - PS			345	257	602	12.1
4SRm 2/13 - PS			400	272	672	13.9
4SRm 2/20 - PS			554	312	866	17.6
4SRm 2/27 - PS			683	352	1035	21.2
4SRm 2/39 - PS			929	402	1331	24.7
4SRm 4/7 - PS			314	257	571	11.7
4SRm 4/9 - PS			358	272	630	13.4
4SRm 4/14 - PS			468	312	780	16.6
4SRm 4/18 - PS			580	352	932	20.0
4SRm 4/26 - PS			756	402	1158	22.5
4SRm 6/4 - PS	2"	98	281	257	538	11.6
4SRm 6/6 - PS			341	272	613	13.1
4SRm 6/9 - PS			431	312	743	16.0
4SRm 6/13 - PS			576	352	928	19.5
4SRm 6/17 - PS			695	402	1097	21.5
4SRm 8/4 - PS			281	272	553	12.6
4SRm 8/7 - PS			371	312	683	15.4
4SRm 8/9 - PS			431	352	783	18.1
4SRm 8/13 - PS			576	402	978	20.3
4SRm 10/5 - PS			416	312	728	16.2
4SRm 10/7 - PS			518	352	870	18.6
4SRm 10/10 - PS			709	402	1111	21.0
4SRm 12/4 - PS			365	312	677	15.7
4SRm 12/6 - PS			467	352	819	17.5
4SRm 12/9 - PS			658	402	1060	21.0
4SRm 15/5 - PS			421	352	773	18.4
4SRm 15/7 - PS			525	402	927	20.0



MODEL	DN	DIMENSIONS mm				kg	
Three-phase		Ø	h1	h2	h3	3~	
4SR 1/13 - PS	1¼"	98	400	237	637	11.5	
4SR 1/18 - PS			517	237	754	12.8	
4SR 1/25 - PS			646	257	903	15.3	
4SR 1/35 - PS			856	272	1128	18.5	
4SR 1/45 - PS			1065	297	1362	22.6	
4SR 1.5/8 - PS			308	237	545	10.6	
4SR 1.5/13 - PS			400	237	637	11.3	
4SR 1.5/17 - PS			499	257	756	13.6	
4SR 1.5/25 - PS			646	272	918	16.4	
4SR 1.5/32 - PS			800	297	1097	20.4	
4SR 1.5/46 - PS			1134	352	1486	26.6	
4SR 2/7 - PS			290	237	527	10.4	
4SR 2/10 - PS			345	237	582	11.0	
4SR 2/13 - PS			400	257	657	12.7	
4SR 2/20 - PS			554	272	826	15.5	
4SR 2/27 - PS			683	297	980	19.0	
4SR 2/39 - PS			929	352	1281	23.9	
4SR 4/7 - PS			314	237	551	10.6	
4SR 4/9 - PS			358	257	615	12.2	
4SR 4/14 - PS			468	272	740	14.5	
4SR 4/18 - PS			580	297	877	17.8	
4SR 4/26 - PS			756	352	1108	21.7	
4SR 4/35 - PS	978	484	1462	27.7			
4SR 4/46 - PS	1295	574	1869	38.4			
4SR 4/60 - PS	1652	664	2316	52.1			
4SR 6/4 - PS	2"	98	281	237	518	10.5	
4SR 6/6 - PS			341	257	598	11.9	
4SR 6/9 - PS			431	272	703	13.9	
4SR 6/13 - PS			576	297	873	17.3	
4SR 6/17 - PS			695	352	1047	20.7	
4SR 6/23 - PS			900	484	1384	26.3	
4SR 6/31 - PS			1164	574	1738	35.0	
4SR 6/42 - PS			1519	664	2183	48.4	
4SR 6/56 - PS			2063	764	2827	53.4	
4SR 8/4 - PS			281	257	538	11.4	
4SR 8/7 - PS			371	272	643	13.3	
4SR 8/9 - PS			431	297	728	15.9	
4SR 8/13 - PS			576	352	928	19.5	
4SR 8/17 - PS			695	484	1179	24.2	
4SR 8/23 - PS			900	574	1474	32.7	
4SR 8/31 - PS			1164	664	1828	44.5	
4SR 8/42 - PS			1519	764	2283	46.3	
4SR 10/5 - PS			●	416	272	688	14.0
4SR 10/7 - PS				518	297	815	17.0
4SR 10/10 - PS				709	352	1061	20.8
4SR 10/15 - PS				1001	484	1485	27.0
4SR 10/20 - PS				1256	574	1830	38.0
4SR 10/26 - PS	●	1599	664	2263	43.8		
4SR 10/35 - PS		2095	764	2859	51.6		
4SR 12/4 - PS		365	272	637	12.2		
4SR 12/6 - PS		467	297	764	17.8		
4SR 12/9 - PS		658	352	1010	20.5		
4SR 12/12 - PS	●	810	484	1294	25.8		
4SR 12/16 - PS		1052	574	1626	33.5		
4SR 12/22 - PS		1358	664	2022	39.9		
4SR 12/29 - PS		1752	764	2516	48.7		
4SR 15/5 - PS		●	421	297	718	16.2	
4SR 15/7 - PS	525		352	877	18.2		
4SR 15/10 - PS	719		484	1203	25.9		
4SR 15/13 - PS	874		574	1448	31.9		
4SR 15/18 - PS	1172		664	1836	38.7		
4SR 15/24 - PS			1521	764	2285	45.9	

4PS = encapsulated water cooled submersible motor

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