

# 4SR-N<sup>®</sup>

## SEMI-AXIAL IMPELLERS



## 4" submersible pumps

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

 Domestic use

 Civil use

 Agricultural use

### PERFORMANCE RANGE

- Flow rate up to **350 l/min** (21 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

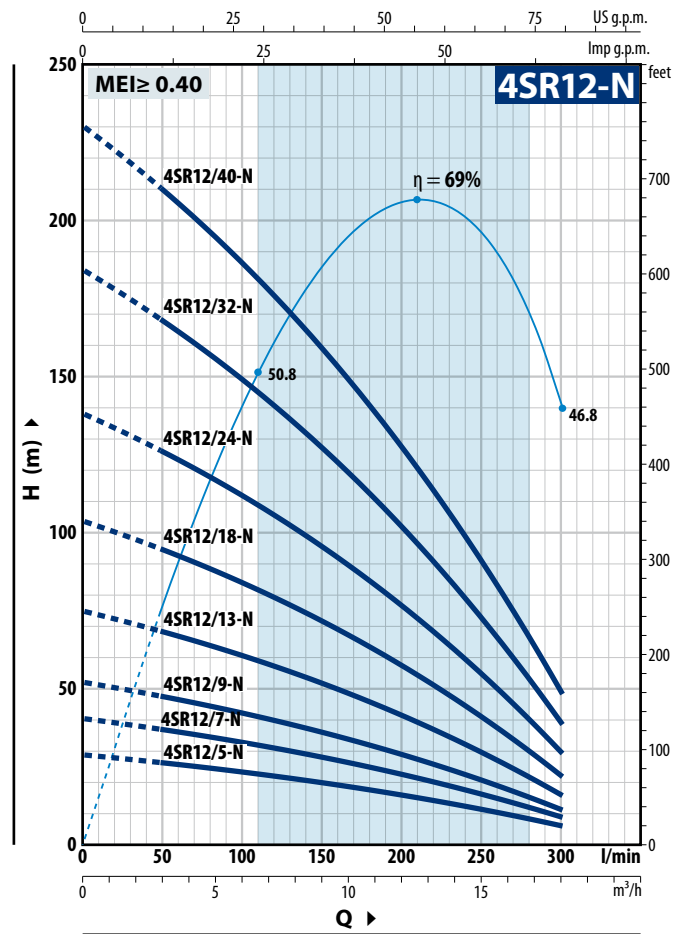
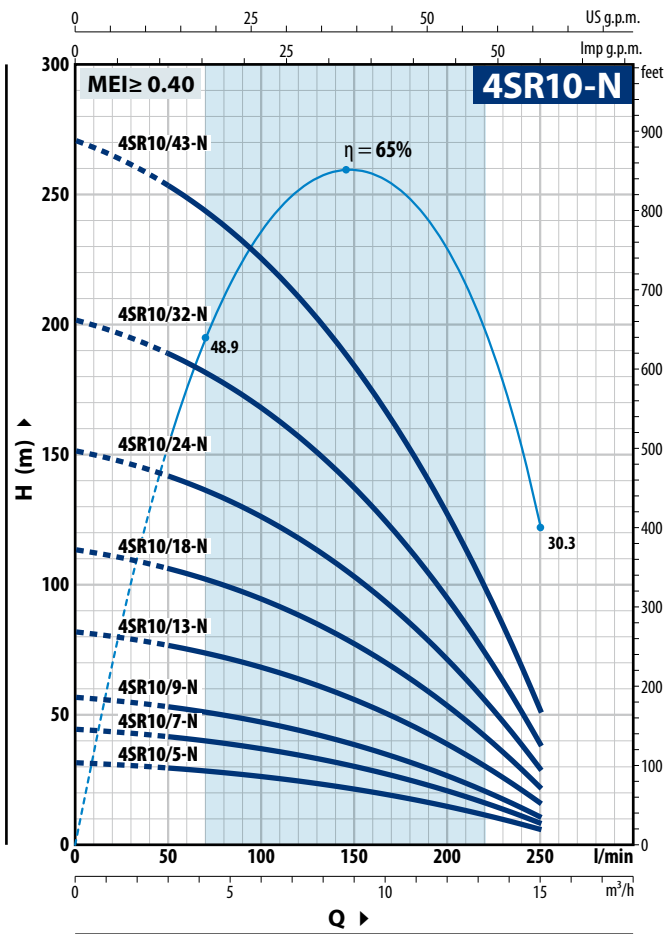
- Other voltages or 60 Hz frequency
- Kit of cooling jacket complete with filter and supports; recommended for powers from 2.2 kW to 7.5 kW



COOLING JACKET

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

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



### 4SR10-N

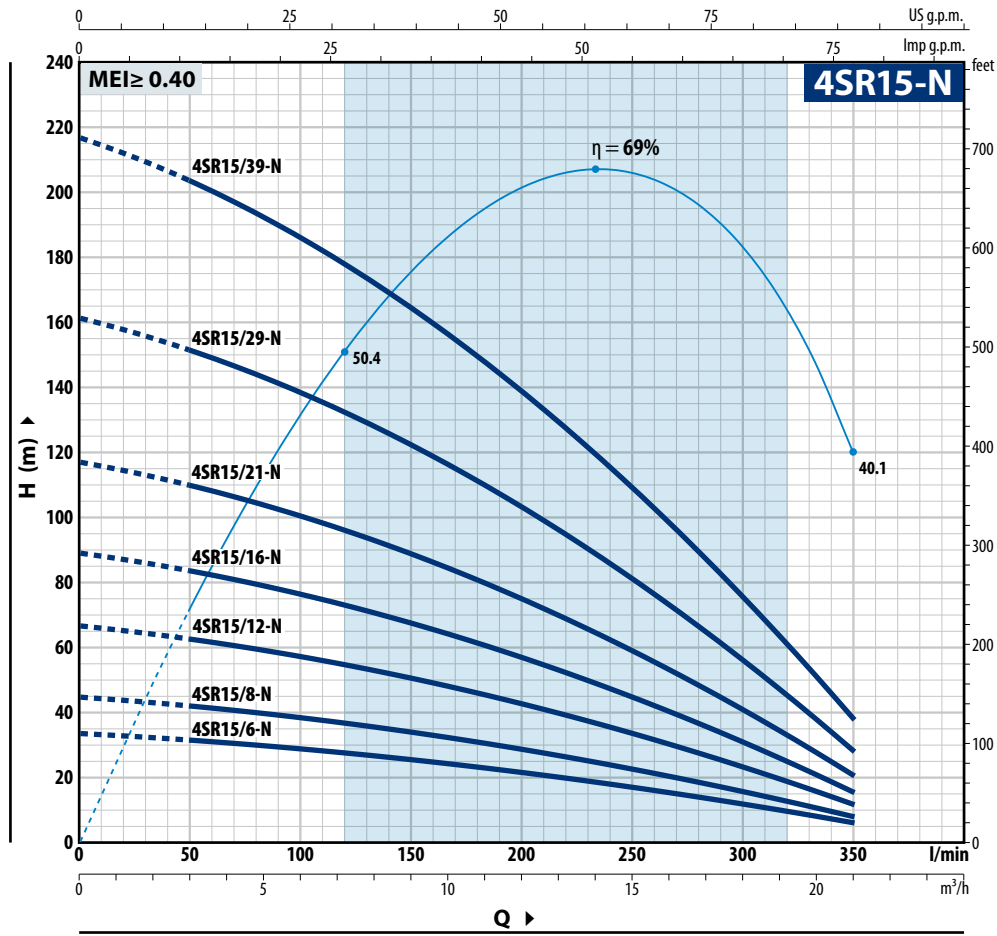
MODEL		POWER (P <sub>2</sub> )		Q	H metres									
Single-phase	Three-phase	kW	HP		m <sup>3</sup> /h	0	3.0	6.0	7.5	9.0	10.5	12.0	13.5	15.0
				l/min	0	50	100	125	150	175	200	225	250	
4SRm 10/5 -N	4SR 10/5 -N	0.75	1	H metres	31.5	29.5	26.2	24	21.4	18.3	14.7	10.6	6	
4SRm 10/7 -N	4SR 10/7 -N	1.1	1.5		44	41.5	36.5	33.5	30	25.6	20.6	14.8	8.5	
4SRm 10/9 -N	4SR 10/9 -N	1.5	2		56.5	53	47	43	38.5	33	26.5	19.1	10.5	
4SRm 10/13 -N	4SR 10/13 -N	2.2	3		82	77	68	62.5	55.5	47.5	38	27.5	15.5	
-	4SR 10/18 -N	3	4		113	106	94	86	77	66	53	38	21	
-	4SR 10/24 -N	4	5.5		151	141	126	115	103	88	71	51	28.5	
-	4SR 10/32 -N	5.5	7.5		202	189	168	154	137	117	94	68	38	
-	4SR 10/43 -N	7.5	10		271	254	226	206	184	157	126	91	51	

### 4SR12-N

MODEL		POWER (P <sub>2</sub> )		Q	H metres							
Single-phase	Three-phase	kW	HP		m <sup>3</sup> /h	0	3	6	9	12	15	18
				l/min	0	50	100	150	200	250	300	
4SRm 12/5 -N	4SR 12/5 -N	0.75	1	H metres	29	26	23.2	19.8	15.9	11.3	6	
4SRm 12/7 -N	4SR 12/7 -N	1.1	1.5		40.5	36.5	32.5	27.5	22.2	15.8	8.5	
4SRm 12/9 -N	4SR 12/9 -N	1.5	2		52	47	42	35.5	28.5	20.3	11	
4SRm 12/13 -N	4SR 12/13 -N	2.2	3		75	68	60.5	51.5	41	29.5	15.5	
-	4SR 12/18 -N	3	4		104	94	84	71	57	40.5	21.5	
-	4SR 12/24 -N	4	5.5		138	126	112	95	76	54	29	
-	4SR 12/32 -N	5.5	7.5		184	168	149	127	101	72	38.5	
-	4SR 12/40 -N	7.5	10		230	210	186	159	127	90	48	

Q = Flow rate H = Total manometric head

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



### 4SR15-N

MODEL		POWER (P <sub>2</sub> )		Q	Flow Rate (Q)								
Single-phase	Three-phase	kW	HP		m <sup>3</sup> /h	0	3.0	6.0	9.0	12	15	18	21.0
				l/min	0	50	100	150	200	250	300	350	
4SRm 15/6 -N	4SR 15/6 -N	1.1	1.5	H metres	33.5	31.5	28.5	25.3	21.3	16.7	11.6	6	
4SRm 15/8 -N	4SR 15/8 -N	1.5	2		44.5	41.5	38	33.5	28.5	22.3	15.4	7.5	
4SRm 15/12 -N	4SR 15/12 -N	2.2	3		66.5	62.5	57	50.5	42.5	33.5	23.1	11.5	
-	4SR 15/16 -N	3	4		89	83	76	67.5	57	44.5	31	15.5	
-	4SR 15/21 -N	4	5.5		117	110	100	88	75	58.5	40.5	20	
-	4SR 15/29 -N	5.5	7.5		161	151	138	122	103	81	56	28	
-	4SR 15/39 -N	7.5	10		217	203	186	164	139	109	75	37.5	

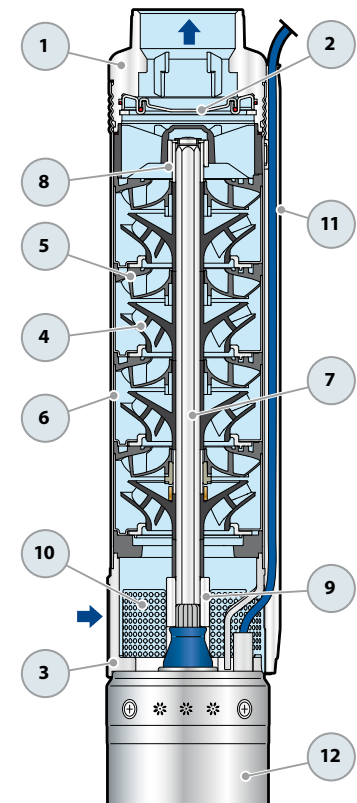
Q = Flow rate H = Total manometric head

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

## POS. COMPONENT

## CONSTRUCTION CHARACTERISTICS

1	<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, compliance with NEMA standards
4	<b>IMPELLER</b>	Noryl FE1520PW
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> = encapsulated water cooled submersible motor



## DIMENSIONS AND WEIGHT (PUMP ONLY)

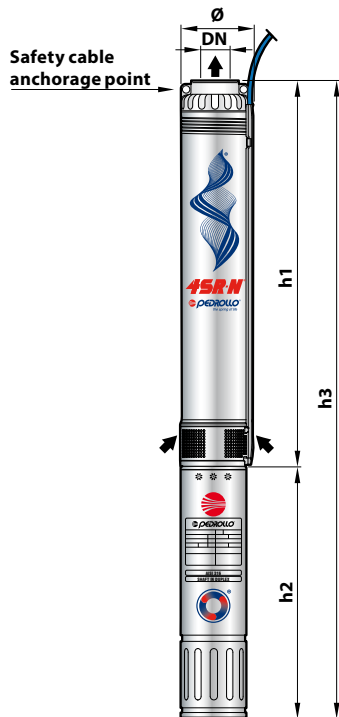
MODEL	DN	DIMENSIONS mm			kg
		Ø	h1	h	
4SR 10/5 - N - HYD	2"	98	430	433	4.2
4SR 10/7 - N - HYD			532	535	5.1
4SR 10/9 - N - HYD			633	636	5.9
4SR 10/13 - N - HYD			837	840	7.7
4SR 10/18 - N - HYD			1092	1095	9.9
4SR 10/24 - N - HYD			1398	1401	12.6
4SR 10/32 - N - HYD			1805	1808	16.1
4SR 10/43 - N - HYD			2366	2369	21.0
4SR 12/5 - N - HYD			488	491	4.5
4SR 12/7 - N - HYD			613	616	5.0
4SR 12/9 - N - HYD			738	741	6.5
4SR 12/13 - N - HYD			989	992	9.0
4SR 12/18 - N - HYD			1302	1305	11.5
4SR 12/24 - N - HYD			1677	1680	14.5
4SR 12/32 - N - HYD			2178	2181	18.5
4SR 12/40 - N - HYD			2679	2682	23.0
4SR 15/6 - N - HYD			550	553	4.5
4SR 15/8 - N - HYD			676	679	6.0
4SR 15/12 - N - HYD			926	929	8.5
4SR 15/16 - N - HYD			1176	1179	10.5
4SR 15/21 - N - HYD	1489	1492	13.0		
4SR 15/29 - N - HYD	1990	1993	17.0		
4SR 15/39 - N - HYD	2616	2619	22.5		



### DIMENSIONS AND WEIGHT

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	1~
4SRm 10/5 - N - PD	2"	98	430	357	787	12.5
4SRm 10/7 - N - PD			532	397	929	15.5
4SRm 10/9 - N - PD			633	437	1070	17.5
4SRm 10/13 - N - PD			837	492	1329	22.5
4SRm 12/5 - N - PD			488	357	845	13.0
4SRm 12/7 - N - PD			613	397	1010	15.5
4SRm 12/9 - N - PD			738	437	1175	18.5
4SRm 12/13 - N - PD			989	492	1481	23.5
4SRm 15/6 - N - PD			550	397	947	15.0
4SRm 15/8 - N - PD			676	437	1113	18.0
4SRm 15/12 - N - PD			926	492	1418	23.0

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	3~
4SR 10/5 - N - PD	2"	98	430	357	787	12.5
4SR 10/7 - N - PD			532	372	904	14.5
4SR 10/9 - N - PD			633	397	1030	16.0
4SR 10/13 - N - PD			837	437	1274	19.5
4SR 10/18 - N - PD			1092	450	1542	23.0
4SR 10/24 - N - PD			1398	505	1903	28.5
4SR 10/32 - N - PD			1805	589	2394	36.0
4SR 10/43 - N - PD			2366	800	3166	50.0
4SR 12/5 - N - PD			488	357	845	13.0
4SR 12/7 - N - PD			613	372	985	14.5
4SR 12/9 - N - PD			738	397	1135	17.0
4SR 12/13 - N - PD			989	437	1426	20.5
4SR 12/18 - N - PD			1302	450	1752	24.5
4SR 12/24 - N - PD			1677	505	2182	30.5
4SR 12/32 - N - PD			2178	589	2767	38.5
4SR 12/40 - N - PD			2679	800	3479	52.0
4SR 15/6 - N - PD			550	372	922	14.0
4SR 15/8 - N - PD			676	397	1073	16.5
4SR 15/12 - N - PD			926	437	1363	20.0
4SR 15/16 - N - PD			1176	450	1626	23.5
4SR 15/21 - N - PD			1489	505	1994	29.0
4SR 15/29 - N - PD			1990	589	2579	37.0
4SR 15/39 - N - PD			2616	800	3416	51.5

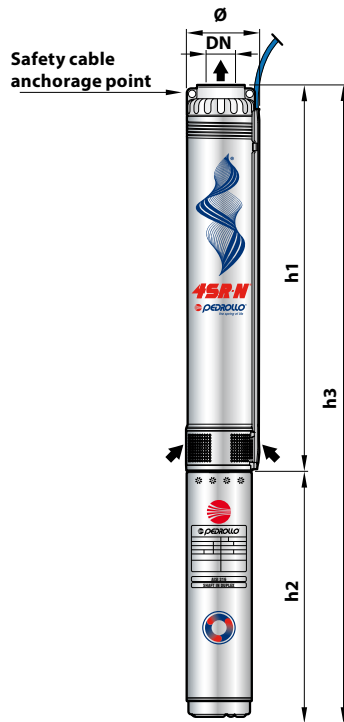


4PD = rewindable oil filled submersible motor

### DIMENSIONS AND WEIGHT

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	
Single-phase						1~
4SRm 10/5 - N - PS	2"	98	430	272	702	13.5
4SRm 10/7 - N - PS			532	312	844	16.5
4SRm 10/9 - N - PS			633	352	985	19.5
4SRm 10/13 - N - PS			837	402	1239	22
4SRm 12/5 - N - PS			488	272	760	13.5
4SRm 12/7 - N - PS			613	312	925	16.5
4SRm 12/9 - N - PS			738	352	1090	20.0
4SRm 12/13 - N - PS			989	402	1391	23.0
4SRm 15/6 - N - PS			550	312	862	16.0
4SRm 15/8 - N - PS			676	352	1028	19.5
4SRm 15/12 - N - PS			926	402	1328	22.5

MODEL	DN	DIMENSIONS mm				kg
		Ø	h1	h2	h3	
Three-phase						3~
4SR 10/5 - N - PS	2"	98	430	257	687	12.0
4SR 10/7 - N - PS			532	272	804	14.0
4SR 10/9 - N - PS			633	297	930	17.0
4SR 10/13 - N - PS			837	352	1189	21.0
4SR 10/18 - N - PS			1092	484	1576	27.0
4SR 10/24 - N - PS			1398	574	1972	36.0
4SR 10/32 - N - PS			1805	664	2469	44.0
4SR 10/43 - N - PS			2366	764	3130	52.5
4SR 12/5 - N - PS			488	257	745	12.0
4SR 12/7 - N - PS			613	272	885	14.5
4SR 12/9 - N - PS			738	297	1035	18.0
4SR 12/13 - N - PS			989	352	1341	22.0
4SR 12/18 - N - PS			1302	484	1786	28.5
4SR 12/24 - N - PS			1677	574	2251	38.0
4SR 12/32 - N - PS			2178	664	2842	46.5
4SR 12/40 - N - PS			2679	764	3443	54.0
4SR 15/6 - N - PS			550	272	822	14.0
4SR 15/8 - N - PS			676	297	973	17.5
4SR 15/12 - N - PS			926	352	1278	21.5
4SR 15/16 - N - PS			1176	484	1660	27.5
4SR 15/21 - N - PS			1489	574	2063	36.5
4SR 15/29 - N - PS			1990	664	2654	45.0
4SR 15/39 - N - PS			2616	764	3380	53.5



4PS = encapsulated water cooled submersible motor