

4SR-F[®]

FLOATING IMPELLERS (PATENTED)



4" Submersible Pumps



PERFORMANCE RANGE

- Flow Rate up to **63 GPM** (240 l/min) (14.4 m³/h)
- Head up to **1466 feet** (447 m)

APPLICATION LIMITS

- Maximum Liquid Temperature **95°F** (+35°C)
- Maximum Sand Content **0.2 oz/ft³** (200 g/m³)
- **656 feet** (200 m) Immersion Limit
- Installation:
 - **Vertical**
 - **Horizontal**, with the following limits:
 - 4SR10G - 4SR13G - 4SR25G up to **16 stages**
 - 4SR33G - 4SR45G up to **9 stages**
- Starts/Hour: **20** at regular intervals
- Minimum Flow Rate for Motor Cooling **0.26 ft/s** (8 cm/s)
- Continuous Duty Rating **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 pressurization.

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 **0.2 oz/ft³** (200 g/m³).

Installation is possible in the vertical and horizontal position.

PATENTS

- Patent No. EP3123031, EP2419642

CONSTRUCTION AND SAFETY STANDARDS

ELECTRIC MOTOR

- Three-phase 440 V - 60 Hz – Single-phase 230 V - 60 Hz ●

Capacitor included in the packaging

Length of power cable:

6 feet (2 m) powers from 0.37 to 2.2 kW

11 feet (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

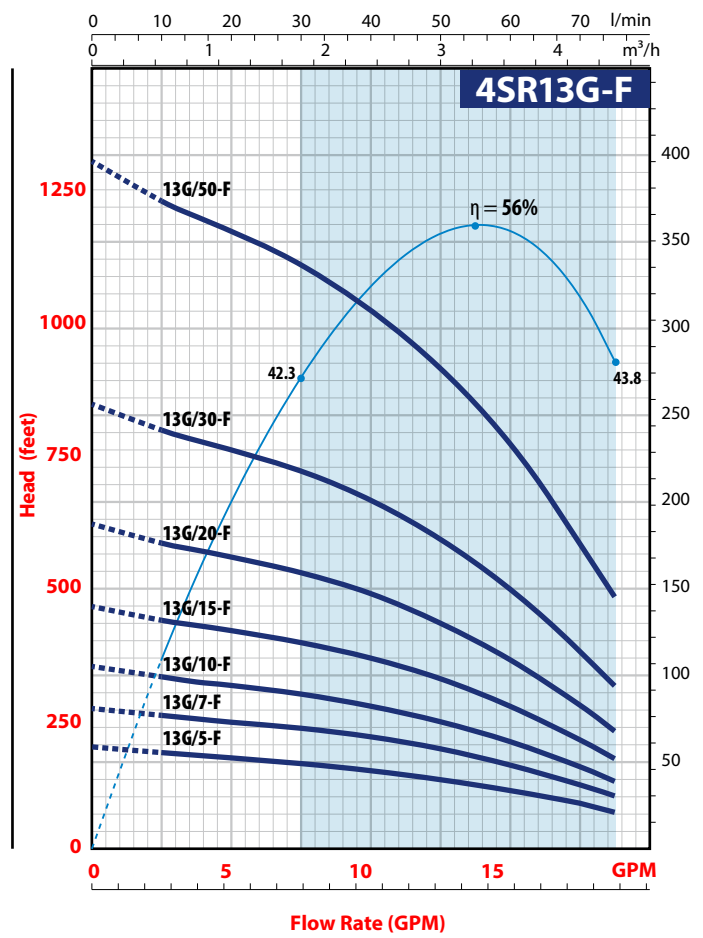
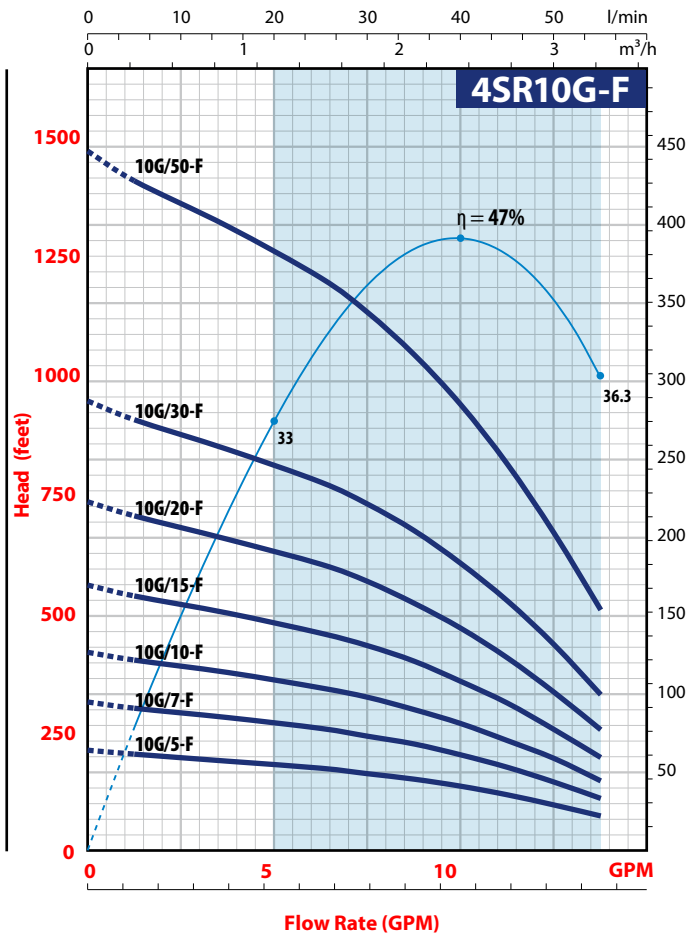


COOLING JACKET



PERFORMANCE CURVES AND DATA

60 Hz RPM = 3450



4SR10G-F

MODEL NUMBER		N. STAGES	MOTOR SIZE		HEAD (feet)										
Single-phase	Three-phase		kW	HP	LPM	0	5	10	15	20	25	30	40	50	55
					GPM	0	1.3	2.6	3.9	5.3	6.6	7.9	10.6	13.2	14.5
4SRm 10G/5 -F	4SR 10G/5 -F	6	0.37	0.50	HEAD (feet)	209.9	201.8	193.6	187.0	180.4	172.2	160.8	134.5	95.1	72.2
4SRm 10G/7 -F	4SR 10G/7 -F	9	0.55	0.75		314.9	301.8	291.9	282.2	269.0	255.9	242.8	200.1	142.7	108.3
4SRm 10G/10-F	4SR 10G/10-F	12	0.75	1.00		419.9	403.5	387.1	374.0	360.9	344.5	321.5	269.0	191.9	144.4
4SRm 10G/15-F	4SR 10G/15-F	16	1.10	1.50		557.7	534.8	518.4	498.7	479.0	459.3	429.8	357.6	255.9	193.6
4SRm 10G/20-F	4SR 10G/20-F	21	1.50	2.00		734.9	702.1	679.1	656.2	629.9	600.4	564.3	469.2	334.6	252.6
4SRm 10G/30-F	4SR 10G/30-F	27	2.20	3.00		944.9	905.5	872.7	843.2	810.4	770.9	725.1	603.7	429.8	324.8
-	4SR 10G/50-F	42	3.70	5.00		1466.5	1407.5	1358.3	1309.1	1259.8	1200.8	1128.6	938.3	669.3	508.5

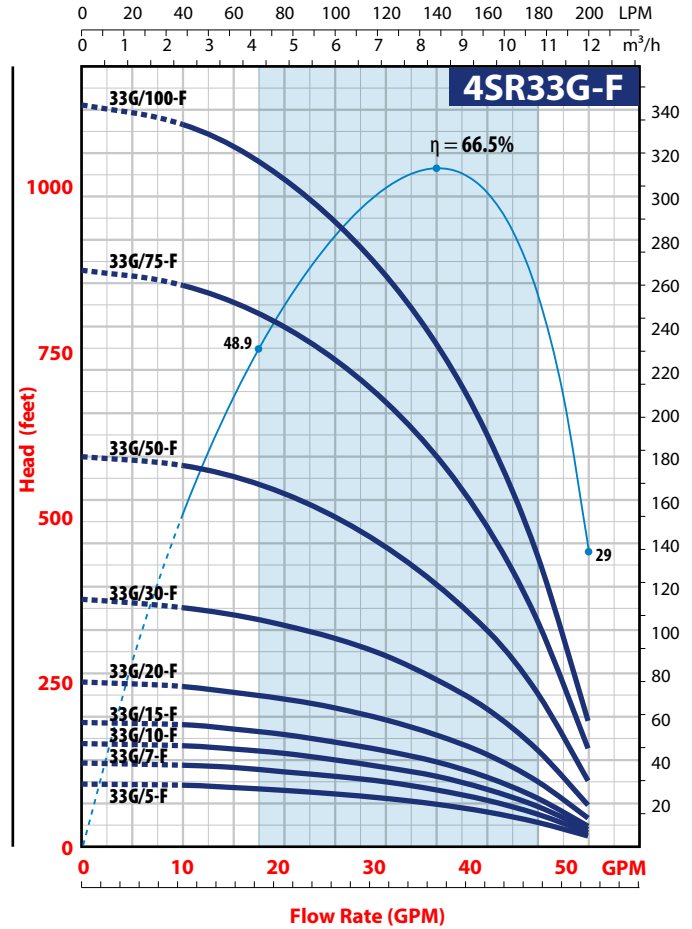
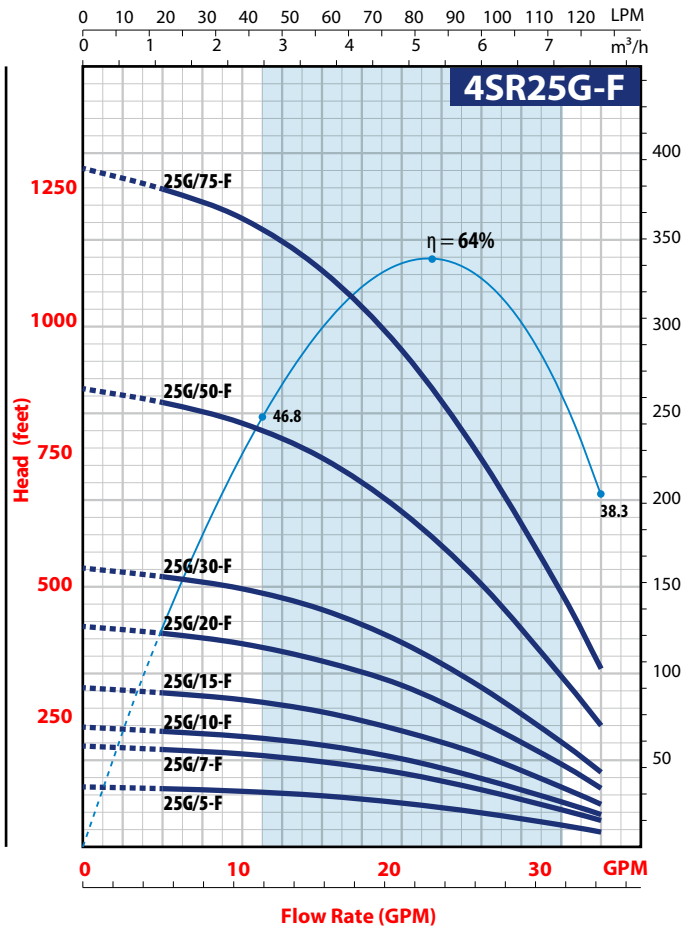
4SR13G-F

MODEL NUMBER		No. STAGES	MOTOR SIZE		HEAD (feet)										
Single-phase	Three-phase		kW	HP	LPM	0	10	15	20	30	40	50	60	70	75
					GPM	0	2.6	3.9	5.3	7.9	10.6	13.2	15.8	18.5	19.8
4SRm 13G/5 -F	4SR 13G/5 -F	5	0.37	0.50	HEAD (feet)	191.9	180.4	177.2	172.2	162.4	150.9	134.5	111.5	85.3	70.5
4SRm 13G/7 -F	4SR 13G/7 -F	7	0.55	0.75		269.0	252.6	246.1	242.8	228.0	211.6	188.6	157.5	119.7	98.4
4SRm 13G/10-F	4SR 13G/10-F	9	0.75	1.00		344.5	324.8	318.2	311.7	291.9	272.3	242.8	201.8	154.2	126.3
4SRm 13G/15-F	4SR 13G/15-F	12	1.10	1.50		459.3	433.1	423.2	413.4	390.4	360.9	321.5	269.0	205.1	168.9
4SRm 13G/20-F	4SR 13G/20-F	16	1.50	2.00		613.5	577.4	564.3	551.2	521.6	482.3	429.8	360.9	272.3	224.7
4SRm 13G/30-F	4SR 13G/30-F	22	2.20	3.00		843.2	793.9	777.6	757.8	718.5	662.7	590.5	495.4	374.0	308.4
-	4SR 13G/50-F	34	3.70	5.00		1305.8	1230.3	1200.8	1171.2	1108.9	1026.9	912.1	764.4	580.7	475.7

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

PERFORMANCE CURVES AND DATA

60 Hz RPM = 3450



4SR25G-F

MODEL NUMBER		No. STAGES	MOTOR SIZE		LPM	0	20	40	60	80	100	120	130
Single-phase	Three-phase		kW	HP	GPM	0	5.3	10.6	15.8	21.1	26.4	31.7	34.3
4SRm 25G/5 -F	4SR 25G/5 -F	3	0.37	0.50	HEAD (feet)	113.2	109.9	104.9	96.8	83.3	64.9	42.6	29.5
4SRm 25G/7 -F	4SR 25G/7 -F	5	0.55	0.75		190.3	183.7	175.5	160.8	139.4	108.3	70.8	50.8
4SRm 25G/10-F	4SR 25G/10-F	6	0.75	1.00		228.0	219.8	209.9	193.6	167.3	129.6	85.3	60.7
4SRm 25G/15-F	4SR 25G/15-F	8	1.10	1.50		301.8	295.3	278.9	255.9	221.4	173.9	113.2	78.7
4SRm 25G/20-F	4SR 25G/20-F	11	1.50	2.00		416.7	403.5	387.1	354.3	305.1	239.5	155.8	109.9
4SRm 25G/30-F	4SR 25G/30-F	14	2.20	3.00		531.5	515.1	492.1	449.5	387.1	305.1	198.5	141.1
-	4SR 25G/50-F	23	3.70	5.00		872.7	846.4	807.1	741.5	639.8	498.7	328.1	231.3
-	4SR 25G/75-F	34	5.50	7.50		1289.4	1250.0	1190.9	1092.5	944.9	738.2	482.3	341.2

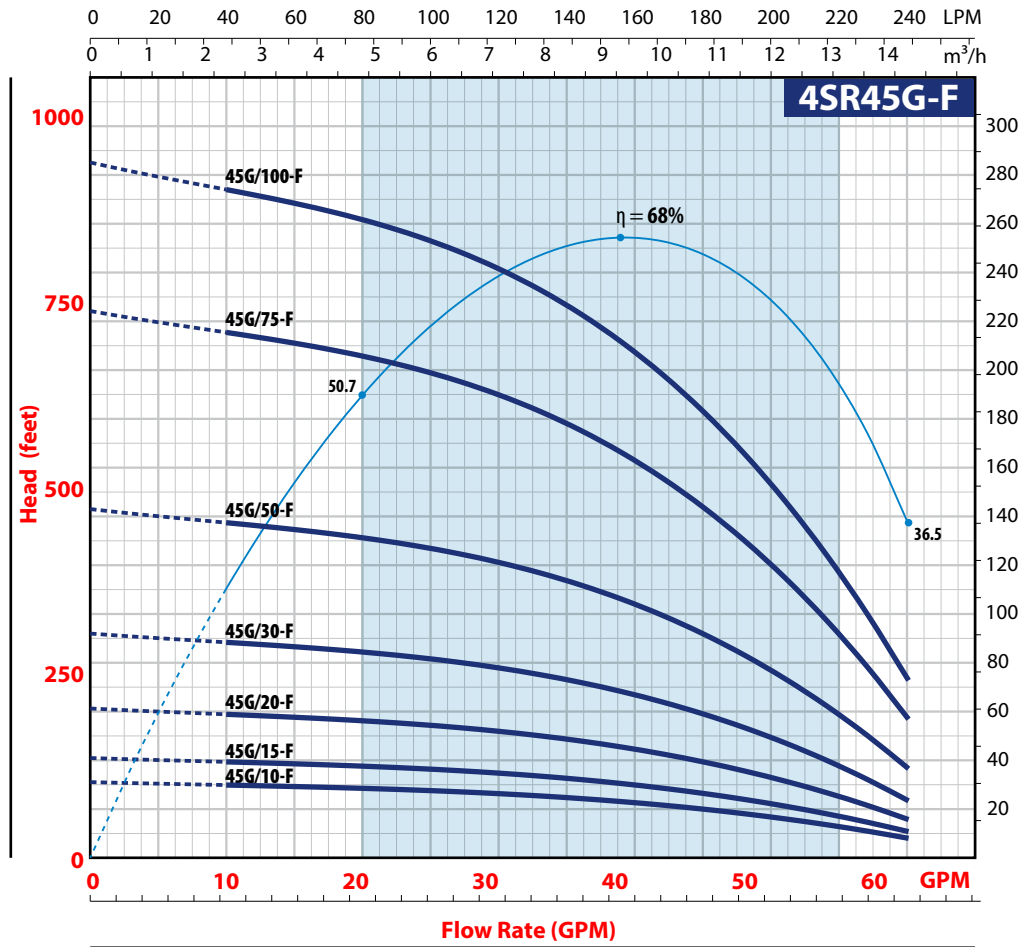
4SR33G-F

MODEL NUMBER		No. STAGES	MOTOR SIZE		LPM	0	40	60	80	100	120	140	160	180	200
Single-phase	Three-phase		kW	HP	GPM	0	10.6	15.8	21.1	26.4	31.7	36.9	42.3	47.5	52.8
4SRm 33G/5 -F	4SR 33G/5 -F	3	0.37	0.50	HEAD (feet)	93.5	91.8	87.9	84.3	79.1	72.5	63.6	52.2	36.4	16.4
4SRm 33G/7 -F	4SR 33G/7 -F	4	0.55	0.75		124.7	121.4	118.1	111.5	104.9	96.8	84.9	69.5	48.9	21.3
4SRm 33G/10-F	4SR 33G/10-F	5	0.75	1.00		155.8	152.5	144.3	141.1	131.2	121.4	106.6	86.9	61.0	26.2
4SRm 33G/15-F	4SR 33G/15-F	6	1.10	1.50		187.0	182.1	175.5	168.9	157.5	144.3	127.9	104.9	72.2	31.2
4SRm 33G/20-F	4SR 33G/20-F	8	1.50	2.00		249.3	242.8	236.2	224.7	211.6	193.6	170.6	139.4	96.8	42.6
4SRm 33G/30-F	4SR 33G/30-F	12	2.20	3.00		374.0	364.2	351.1	337.9	314.9	288.7	255.9	208.3	145.9	62.3
-	4SR 33G/50-F	19	3.70	5.00		593.8	577.4	557.7	531.5	501.9	459.3	403.5	331.4	231.3	100.1
-	4SR 33G/75-F	28	5.50	7.50		875.9	849.7	823.5	784.1	738.2	675.8	597.1	485.6	341.2	147.6
-	4SR 33G/100-F	36	7.50	10.0		1125.3	1092.5	1056.4	1010.5	948.2	869.4	764.4	626.6	439.6	188.6

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

PERFORMANCE CURVES AND DATA

60 Hz RPM = 3450

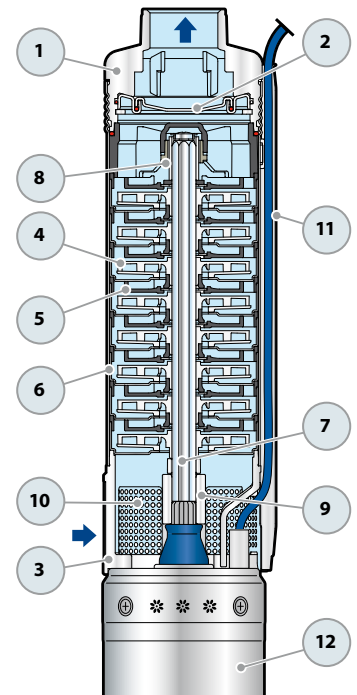


4SR45G-F

MODEL NUMBER		No. STAGES	MOTOR SIZE		LPM	0	40	80	120	160	200	240
Single-phase	Three-phase		kW	HP		GPM	0	10.6	21.1	31.7	24.3	52.8
4SRm 45G/10-F	4SR 45G/10 -F	3	0.75	1.00	HEAD (feet)	100.1	96.8	91.8	84.9	72.8	53.8	24.6
4SRm 45G/15-F	4SR 45G/15 -F	4	1.10	1.50		134.5	127.9	123.0	113.2	96.8	71.5	32.8
4SRm 45G/20-F	4SR 45G/20 -F	6	1.50	2.00		200.1	193.6	183.7	170.6	145.9	106.6	50.8
4SRm 45G/30-F	4SR 45G/30 -F	9	2.20	3.00		301.8	288.7	275.6	255.9	218.2	160.7	75.4
-	4SR 45G/50 -F	14	3.70	5.00		469.2	449.5	429.8	396.9	341.2	249.3	118.1
-	4SR 45G/75 -F	22	5.50	7.50		734.9	708.6	675.8	623.4	534.8	393.7	187.0
-	4SR 45G/100-F	28	7.50	10.0		938.3	898.9	859.6	793.9	679.1	501.9	237.8

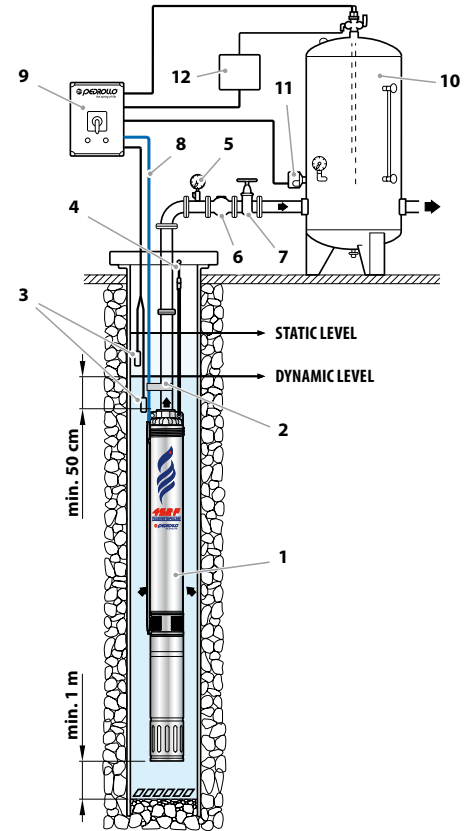
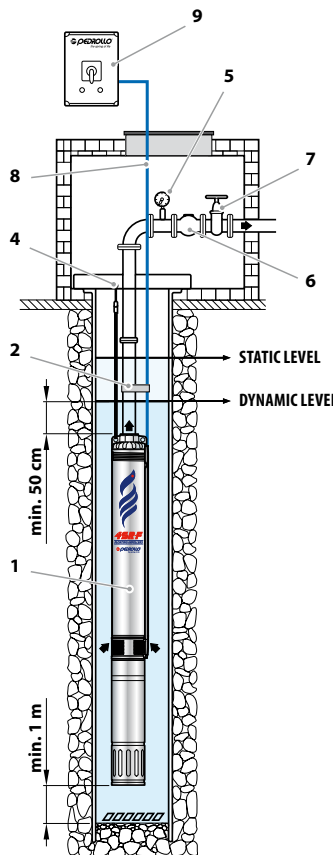
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

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	Delrin
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

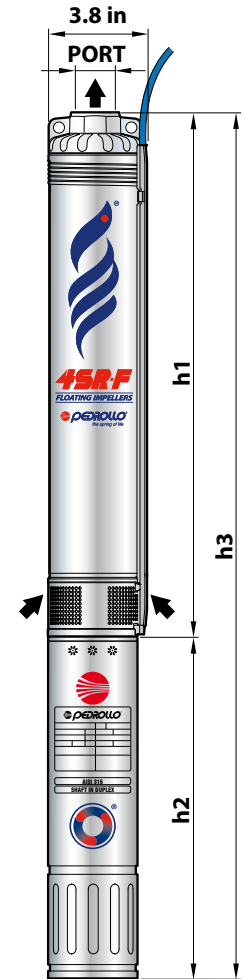


➡ The 4SR-F series pumps should be installed in boreholes of at least 4" (100 mm) in diameter. The pump should be lowered into the borehole, by means of the delivery pipe, to such a depth (min. 50 cm and at least one metre from the bottom) that it is completely immersed during operation when the level 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 NUMBER	PORT	No. STAGES	DIMENSIONS (inches)			Lbs
			h1	h2	h3	
Single-phase						
4SRm 10G/5 -F - PD	1 1/4" NPT	6	11.1	13.0	24.2	23.8
4SRm 10G/7 -F - PD		9	13.5	13.0	26.5	24.7
4SRm 10G/10 -F - PD		12	15.8	14.0	29.8	28.6
4SRm 10G/15 -F - PD		16	20.0	15.6	35.6	35.3
4SRm 10G/20 -F - PD		21	23.9	17.2	41.1	42.7
4SRm 10G/30 -F - PD		27	29.0	19.4	47.9	52.2
4SRm 13G/5 -F - PD		5	10.3	13.0	23.4	23.4
4SRm 13G/7 -F - PD		7	11.9	13.0	24.9	24.0
4SRm 13G/10 -F - PD		9	13.5	14.0	27.5	27.5
4SRm 13G/15 -F - PD		12	15.8	15.6	31.4	33.1
4SRm 13G/20 -F - PD		16	20.0	17.2	37.2	39.5
4SRm 13G/30 -F - PD		22	24.7	19.4	40.1	48.9
4SRm 25G/5 -F - PD		3	9.4	13.0	22.4	22.5
4SRm 25G/7 -F - PD		5	11.3	13.0	24.4	23.1
4SRm 25G/10 -F - PD		6	12.3	14.0	26.3	26.4
4SRm 25G/15 -F - PD		8	14.3	15.6	29.9	31.5
4SRm 25G/20 -F - PD	11	17.2	17.2	34.4	37.3	
4SRm 25G/30 -F - PD	14	21.2	19.4	40.5	45.8	
4SRm 33G/5 -F - PD	2" NPT	3	10.2	13.0	23.2	22.5
4SRm 33G/7 -F - PD		4	11.4	13.0	24.4	22.9
4SRm 33G/10 -F - PD		5	12.6	14.0	26.6	26.7
4SRm 33G/15 -F - PD		6	13.8	15.6	29.4	30.8
4SRm 33G/20 -F - PD		8	16.3	17.2	33.5	35.9
4SRm 33G/30 -F - PD		12	22.3	19.4	41.6	45.2
4SRm 45G/10 -F - PD		3	10.2	14.0	24.2	25.3
4SRm 45G/15 -F - PD		4	11.4	15.6	26.9	29.7
4SRm 45G/20 -F - PD		6	13.8	17.2	31.1	34.2
4SRm 45G/30 -F - PD		9	17.5	19.4	36.9	43.6

MODEL NUMBER	PORT	No. STAGES	DIMENSIONS (inches)			Lbs
			h1	h2	h3	
Three-phase						
4SR 10G/5 -F - PD	1 1/4" NPT	6	11.1	13.0	24.2	23.8
4SR 10G/7 -F - PD		9	13.5	13.0	26.5	24.7
4SR 10G/10 -F - PD		12	15.8	14.0	29.8	28.6
4SR 10G/15 -F - PD		16	20.0	14.6	34.6	33.5
4SR 10G/20 -F - PD		21	23.9	15.6	39.5	39.5
4SR 10G/30 -F - PD		27	28.6	17.2	45.8	45.2
4SR 10G/50 -F - PD		42	44.2	19.9	64.1	56.4
4SR 13G/5 -F - PD		5	10.3	13.0	23.4	23.4
4SR 13G/7 -F - PD		7	11.9	13.0	24.9	24.0
4SR 13G/10 -F - PD		9	13.5	14.0	27.5	27.5
4SR 13G/15 -F - PD		12	15.8	14.6	30.4	31.3
4SR 13G/20 -F - PD		16	20.0	15.6	35.6	36.2
4SR 13G/30 -F - PD		22	24.7	17.2	41.9	41.9
4SR 13G/50 -F - PD		34	37.9	19.8	57.8	64.4
4SR 25G/5 -F - PD		3	9.4	13.0	22.4	22.5
4SR 25G/7 -F - PD		5	11.3	13.0	24.4	23.1
4SR 25G/10 -F - PD	6	12.3	14.0	26.3	26.7	
4SR 25G/15 -F - PD	8	14.3	14.6	28.9	29.7	
4SR 25G/20 -F - PD	11	17.2	15.6	32.8	33.9	
4SR 25G/30 -F - PD	14	21.2	17.2	38.4	38.8	
4SR 25G/50 -F - PD	23	30.0	19.9	49.9	54.2	
4SR 25G/75 -F - PD	34	44.6	23.2	67.8	76.1	
4SR 33G/5 -F - PD	2" NPT	3	10.2	13.0	23.2	22.5
4SR 33G/7 -F - PD		4	11.4	13.0	24.4	10.4
4SR 33G/10 -F - PD		5	12.6	14.0	26.6	26.7
4SR 33G/15 -F - PD		6	13.8	14.6	28.5	29.1
4SR 33G/20 -F - PD		8	16.3	15.6	31.9	32.6
4SR 33G/30 -F - PD		12	22.3	17.2	39.5	38.1
4SR 33G/50 -F - PD		19	30.9	19.9	50.8	54.2
4SR 33G/75 -F - PD		28	43.1	23.2	66.3	71.6
4SR 33G/100 -F - PD		36	55.8	31.5	87.3	103.6
4SR 45G/10 -F - PD		3	10.2	14.0	24.2	25.3
4SR 45G/15 -F - PD		4	11.4	14.6	25.9	27.8
4SR 45G/20 -F - PD		6	13.8	15.6	29.4	30.8
4SR 45G/30 -F - PD		9	17.5	17.2	34.7	36.6
4SR 45G/50 -F - PD		14	24.7	19.9	44.6	49.4
4SR 45G/75 -F - PD		22	35.7	23.2	58.9	65.9
4SR 45G/100 -F - PD		28	43.1	31.5	74.6	90.6



DIMENSIONS AND WEIGHT (Pump Only)

MODEL NUMBER	PORT	No. STAGES	DIMENSIONS (in)		Lbs
			h1	h	
4SR 10G/5 -F - HYD	1 1/4" NPT	6	11.1	11.2	7.7
4SR 10G/7 -F - HYD		9	13.5	13.6	8.6
4SR 10G/10 -F - HYD		12	15.8	15.9	9.7
4SR 10G/15 -F - HYD		16	20.0	20.1	12.1
4SR 10G/20 -F - HYD		21	23.9	24.0	16.3
4SR 10G/30 -F - HYD		27	28.6	28.7	17.6
4SR 10G/50 -F - HYD		42	44.2	44.3	19.4
4SR 13G/5 -F - HYD		5	10.3	10.5	7.3
4SR 13G/7 -F - HYD		7	11.9	12.0	7.9
4SR 13G/10 -F - HYD		9	13.5	13.6	8.6
4SR 13G/15 -F - HYD		12	15.8	15.9	10.4
4SR 13G/20 -F - HYD		16	20.0	20.1	12.8
4SR 13G/30 -F - HYD		22	24.7	24.8	15.4
4SR 13G/50 -F - HYD		34	37.9	38.1	28.4
4SR 25G/5 -F - HYD		3	9.4	9.5	6.6
4SR 25G/7 -F - HYD		5	11.3	11.4	7.3
4SR 25G/10 -F - HYD	6	12.3	12.4	7.7	
4SR 25G/15 -F - HYD	8	14.3	14.4	8.8	
4SR 25G/20 -F - HYD	11	17.2	17.3	10.6	
4SR 25G/30 -F - HYD	14	21.2	21.3	12.3	
4SR 25G/50 -F - HYD	23	30.0	30.1	18.1	
4SR 25G/75 -F - HYD	34	44.6	44.7	30.4	

MODEL NUMBER	PORT	No. STAGES	DIMENSIONS (in)		Lbs
			h2	h	
4SR 33G/5 -F - HYD	2" NPT	3	10.1	10.3	6.4
4SR 33G/7 -F - HYD		4	11.4	11.5	7.1
4SR 33G/10 -F - HYD		5	12.6	12.7	7.7
4SR 33G/15 -F - HYD		6	13.8	13.9	8.2
4SR 33G/20 -F - HYD		8	16.3	16.4	9.2
4SR 33G/30 -F - HYD		12	22.3	22.4	11.7
4SR 33G/50 -F - HYD		19	30.9	31.1	17.6
4SR 33G/75 -F - HYD		28	43.1	43.2	25.1
4SR 33G/100 -F - HYD		36	55.8	55.9	38.1
4SR 45G/10 -F - HYD		3	10.1	10.3	6.4
4SR 45G/15 -F - HYD		4	11.4	11.5	7.1
4SR 45G/20 -F - HYD		6	13.8	13.9	8.2
4SR 45G/30 -F - HYD		9	17.5	17.6	9.9
4SR 45G/50 -F - HYD		14	24.7	24.9	13.2
4SR 45G/75 -F - HYD		22	35.7	35.8	21.2
4SR 45G/100 -F - HYD		28	43.1	43.2	25.1

