4SDP

Submersible borehole pumps for 4”

The electropumps 4SDP 1,2,3,4,6 series comply with the European Regulation no. 547/2012.

Materials

Pump

Components	Materials
Suction casing	Steel AISI 304
Delivery casing	Steel AISI 304
Shell	Steel AISI 304
Wear rings	Steel AISI 304
Screws	Steel AISI 304
Shaft	Steel AISI 304
Filter and Cable sheat	Steel AISI 304
Coupling	Sintered steel AISI 304
Impellers	NORYL® GFN2V*
Diffusers	Polycarbonate
Diffuser disc	Steel AISI 304
Non-return valve	Steel AISI 304
Bushing	POM - POLYACETAL

* Mark registered by General Electric Company

Motor 4CS-R

Components	Materials
External frame	Cr-Ni steel AISI 304
Motor flange	Cast iron GJL 200 EN 1561 nickel-plated
Shaft	Cr-Ni-Mo steel AISI 316 (shaft end)
Thrust bearing	Oil wetted ball type
Bearing bush	Oil wetted ball type

Construction

Submersible borehole pumps for 4” wells (DN 100 mm), with external jacket in stainless steel AISI 304 and impellers in Noryl.

Radial floating impeller with high reliability operating in sandy water.

Connection: screwed connection G 1 1/4 - G 2 ISO 228.
Delivery casing with built-in non-return valve.

Applications

For water supply.
For civil and industrial applications.
For fire fighting applications.
For irrigation.

Operating conditions

Liquid temperature up to a 35 °C for 4” motors
Max. sand quantity into the water: 150 g/m^3 (300 g/m^3 high percentage of solids and sand).
Continuous duty.

Rewindable motor CS-R series

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
Sized for connection to the pumps according to NEMA Standards.
Standard voltages:
- single-phase 230 V up to 2,2 kW for 4” motors.
- three-phase 230 V; 400 V, for 4” motors.

Voltage tolerance : +6% / -10%.

Operating conditions motor

Motor	Max. Liquid temperature	Cooling: minimum flow velocity	Max. starts per hour	Motor P2
4CS-R	35 °C	0,08 m/s	20	all types

Insulation class F.
Motor suitable operation with frequency converter.
Protection IP 68.

Special features on request

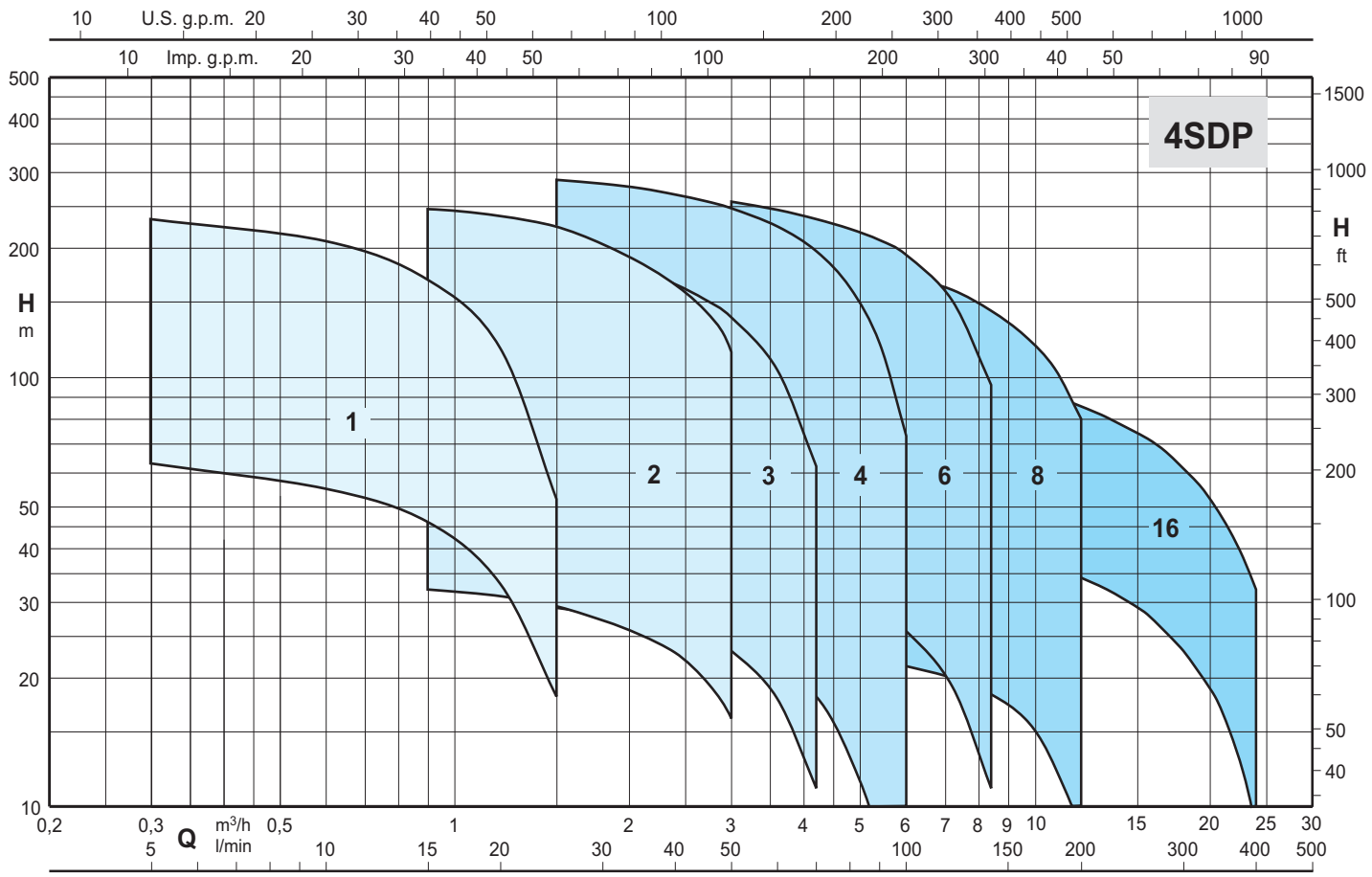
- Other voltages.
- 60 Hz frequency.
- Other temperatures.

Designation

4 SDP M 3 / 32

- Ø of the well in inches
- Series
- Single-phase motor (up to max. 2,2 kW)
- Stage identification
- Number of stages

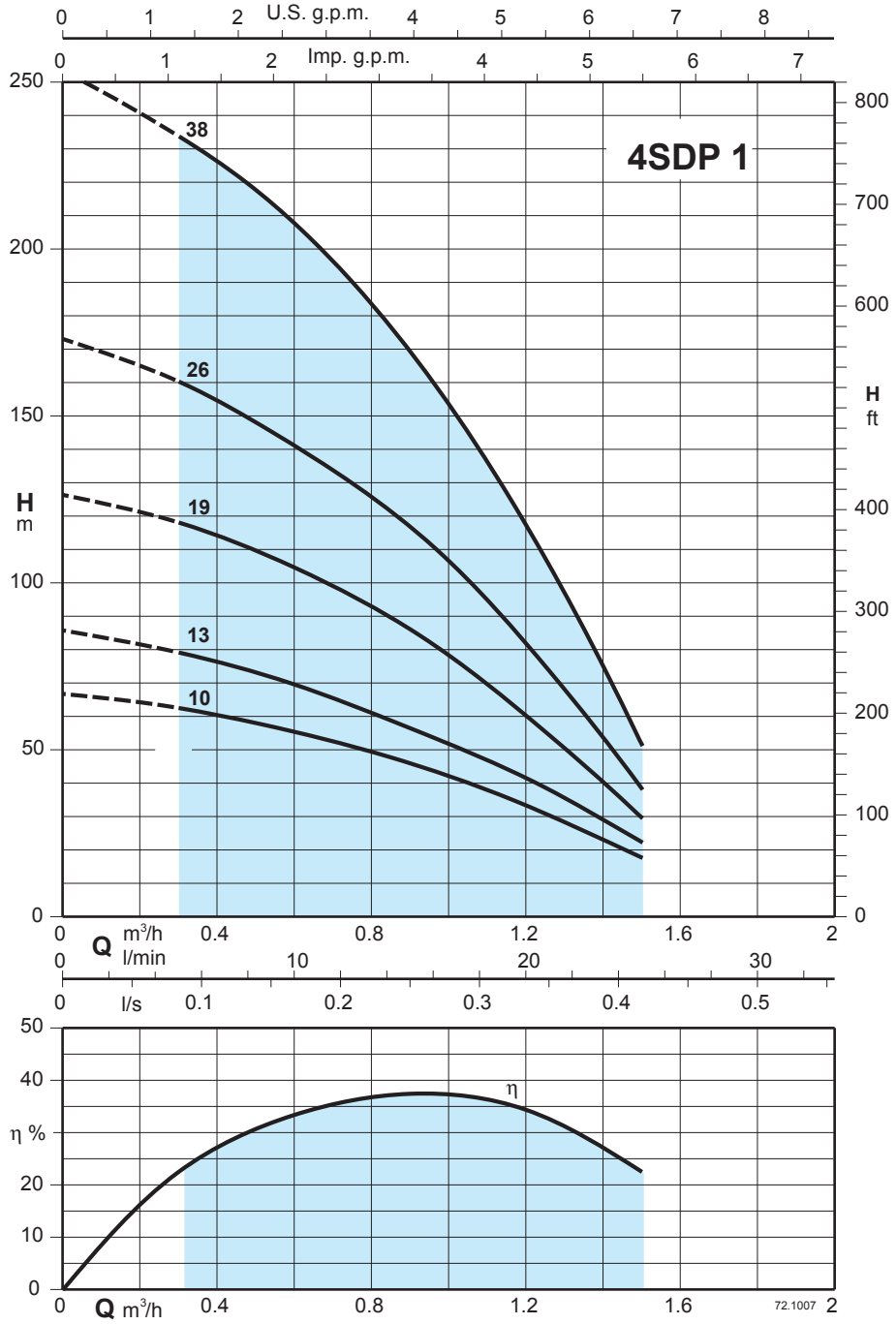
Coverage chart n ≈ 2900 rpm

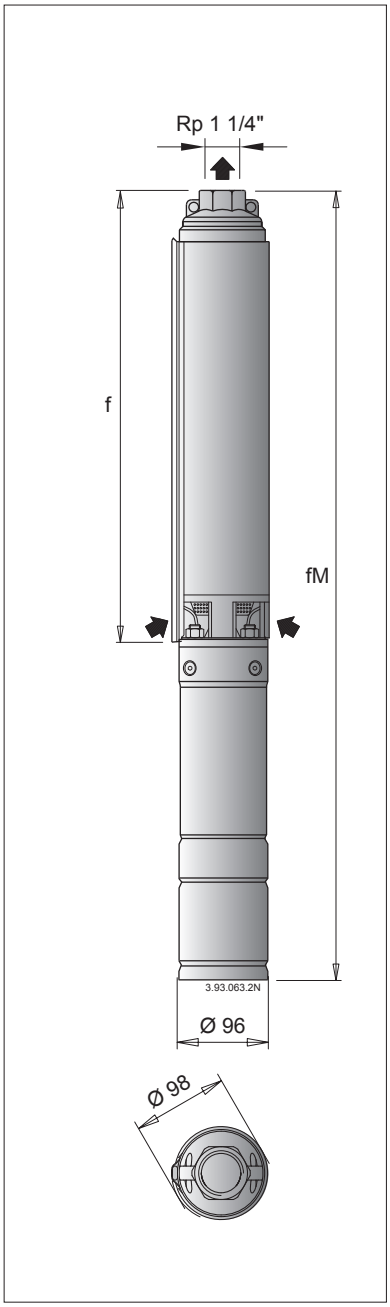


4SDP 1

Submersible borehole pumps for 4”

Characteristic curves, performance n ≈ 2900 rpm, dimensions and weights





3~	400 V (380-415) 50 Hz	1~	230V	*Capacitor 450 Vc	P1	P2		Q	n ≈ 2900 1/min											
								m³/h	0	0,3	0,6	0,9	1,2	1,5						
	A		A	µF	kW	kW	HP	l/min	0	5	10	15	20	25						
4SDP 1/10	1,2	4SDPM 1/10	3,2	16	0,71	0,37	0,5		67	63	55	46	33	18						
4SDP 1/13	1.2	4SDPM 1/13	3,2	16	0,71	0,37	0,5		86	78	70	56	42	23						
4SDP 1/19	1.5	4SDPM 1/19	4	25	0,91	0,55	0,75		126	118	105	86	60	30						
4SDP 1/26	2.2	4SDPM 1/26	5,6	30	1,24	0,75	1	H m	173	160	141	117	81	39						
4SDP 1/38	2.8	4SDPM 1/38	8	40	1,71	1,1	1,5		253	234	208	169	117	52						

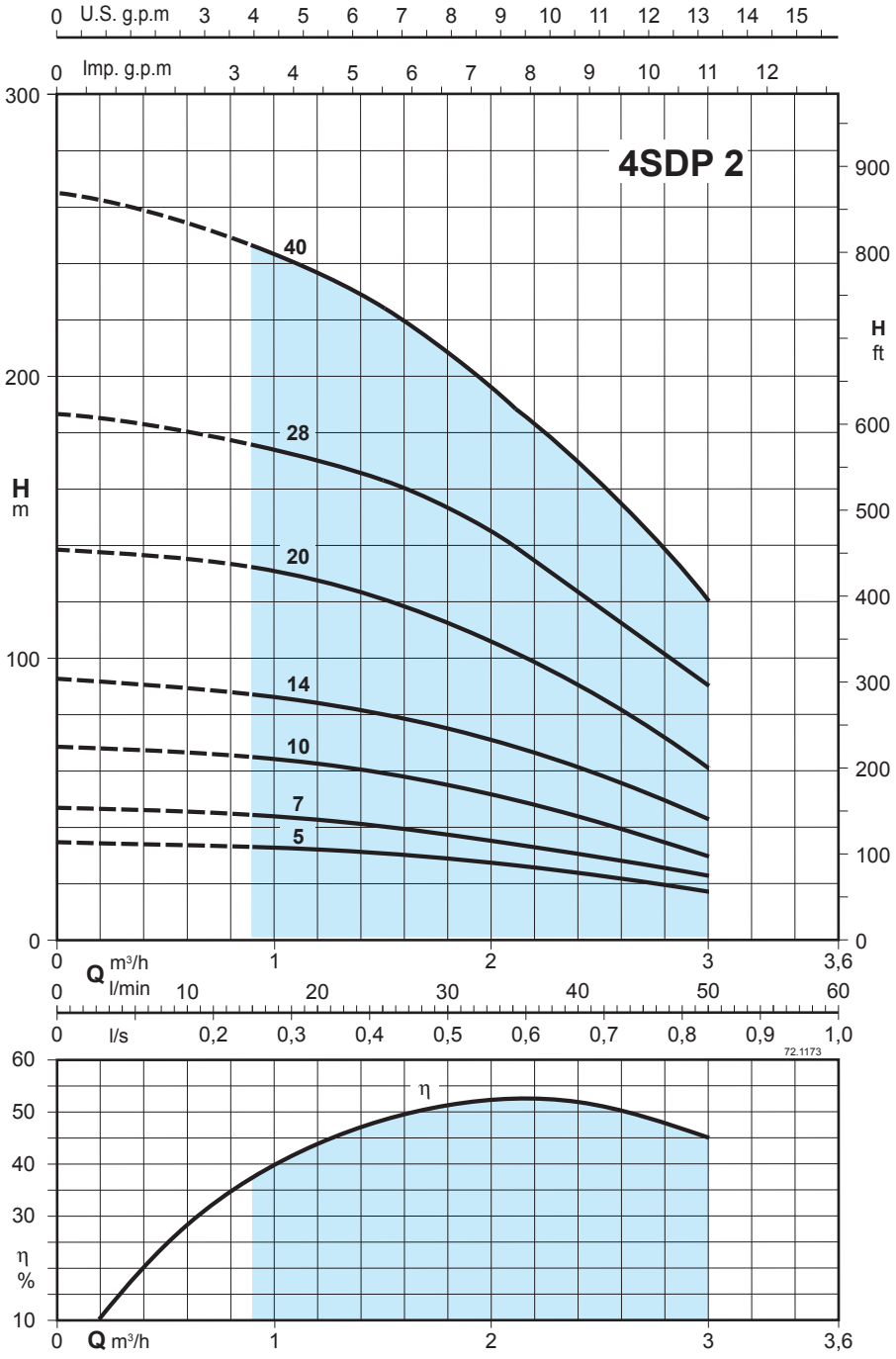
f	4SDP		4SDPM	
	fM		fM	
mm	mm	kg	mm	kg
324	651	11	651	10,9
377	704	11,4	704	11,3
481	808	12,4	843	14,1
642	989	14,5	1004	15,2
864	1226	18,7	1266	19,9

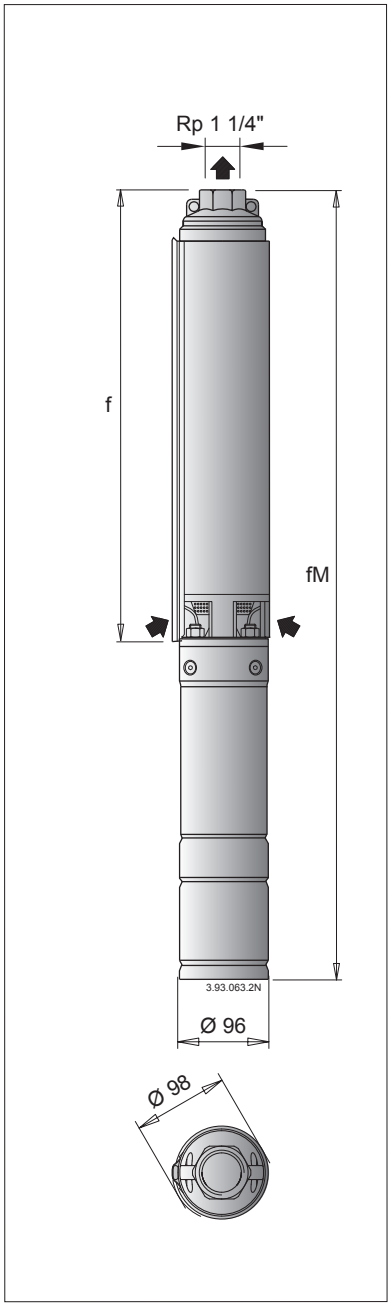
P1 Max. power input P2 Rated motor power output * Only for single-phase motor 230 V - 50 Hz (on request) Tolerances according to UNI EN ISO 9906:2012

4SDP 2

Submersible borehole pumps for 4”

Characteristic curves, performance n ≈ 2900 rpm, dimensions and weights





3~	400 V (380-415) 50 Hz	1~	230V * Capacitor 450 Vc		P1	P2		Q	n ≈ 2900 1/min									
	A		A	µF	kW	kW	HP	m³/h	0	0,9	1,2	1,5	1,8	2,1	2,4	2,7	3	
								l/min	0	15	20	25	30	35	40	45	50	
4SDP 2/5	1,2	4SDPM 2/5	3,2	16	0,71	0,37	0,5	H m	34	32	31	29	27	25	23	19	16	
4SDP 2/7	1,2	4SDPM 2/7	3,2	16	0,71	0,37	0,5		46	43	42	39	36	33	29	26	22	
4SDP 2/10	1,5	4SDPM 2/10	4	25	0,91	0,55	0,75		67	64	61	58	54	49	43	36	28	
4SDP 2/14	2,2	4SDPM 2/14	5,6	30	1,24	0,75	1		92	86	83	79	74	67	60	52	42	
4SDP 2/20	2,8	4SDPM 2/20	8	40	1,71	1,1	1,5		139	131	127	120	111	101	90	75	60	
4SDP 2/28	3,5	4SDPM 2/28	10,8	60	2,33	1,5	2		189	178	172	164	153	140	126	108	90	
4SDP 2/40	5,5	4SDPM 2/40	14,7	70	3,25	2,2	3		265	247	237	224	208	189	170	147	120	

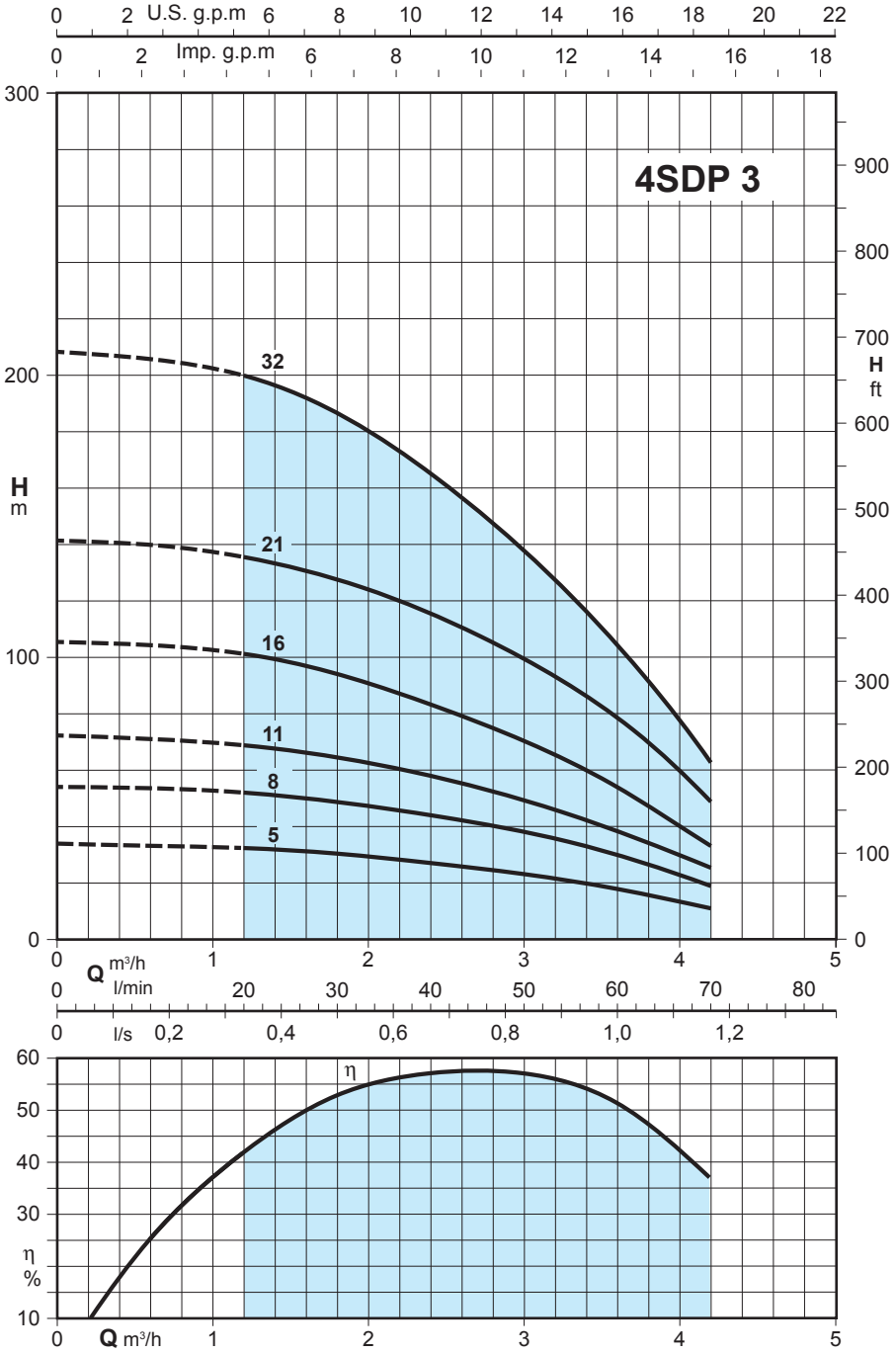
f	4SDP		4SDPM	
	fM	kg	fM	kg
mm	mm		mm	
236	563	10,2	563	10,1
271	598	10,5	598	10,4
324	651	11	686	12,7
394	741	12,6	756	13,3
499	861	14,4	901	15,6
680	1082	17,7	1127	19,3
885	1287	21	1402	25

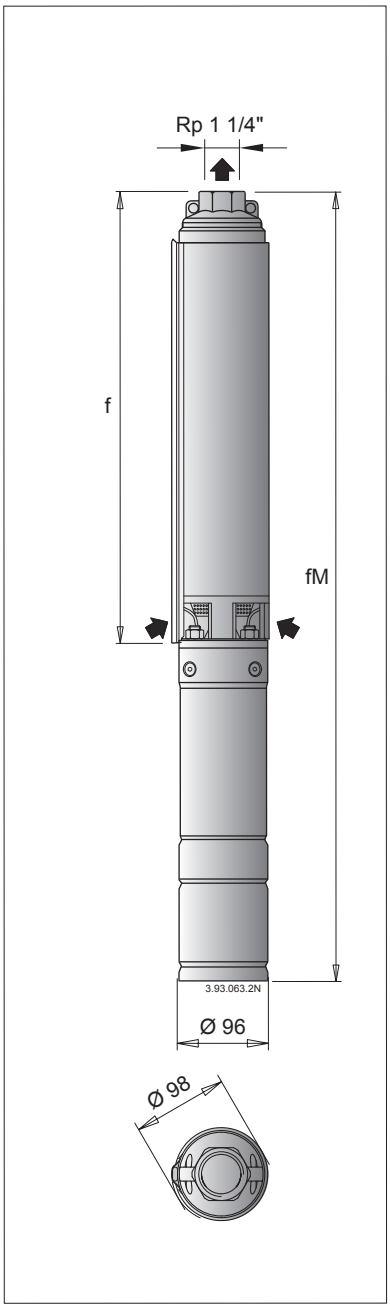
P_1 Max. power input P_2 Rated motor power output * Only for single-phase motor 230 V - 50 Hz (on request) Tolerances according to UNI EN ISO 9906:2012

4SDP 3

Submersible borehole pumps for 4”

Characteristic curves, performance n ≈ 2900 rpm, dimensions and weights





3~	400 V (380-415) 50 Hz	1~	230V * Capacitor 450 Vc		P1	P2		Q	n ≈ 2900 1/min									
								m³/h	0	1,2	1,5	1,8	2,1	2,4	2,7	3	3,6	4,2
	A		A	µF	kW	kW	HP	l/min	0	20	25	30	35	40	45	50	60	70
4SDP 3/5	1,2	4SDPM 3/5	3,2	16	0,71	0,37	0,5		34	32	31	30	29	27	25	23	18	11
4SDP 3/8	1,5	4SDPM 3/8	4	25	0,91	0,55	0,75		54	51	50	49	46	43	41	38	30	19
4SDP 3/11	2,2	4SDPM 3/11	5,6	30	1,24	0,75	1		72	68	66	64	61	58	54	49	38	26
4SDP 3/16	2,8	4SDPM 3/16	8	40	1,71	1,1	1,5	H m	106	101	98	95	89	83	77	70	54	33
4SDP 3/21	3,7	4SDPM 3/21	10,8	60	2,33	1,5	2		142	135	132	127	122	115	108	100	79	49
4SDP 3/32	5,5	4SDPM 3/32	14,7	70	3,25	2,2	3		208	200	194	187	177	165	152	138	104	62

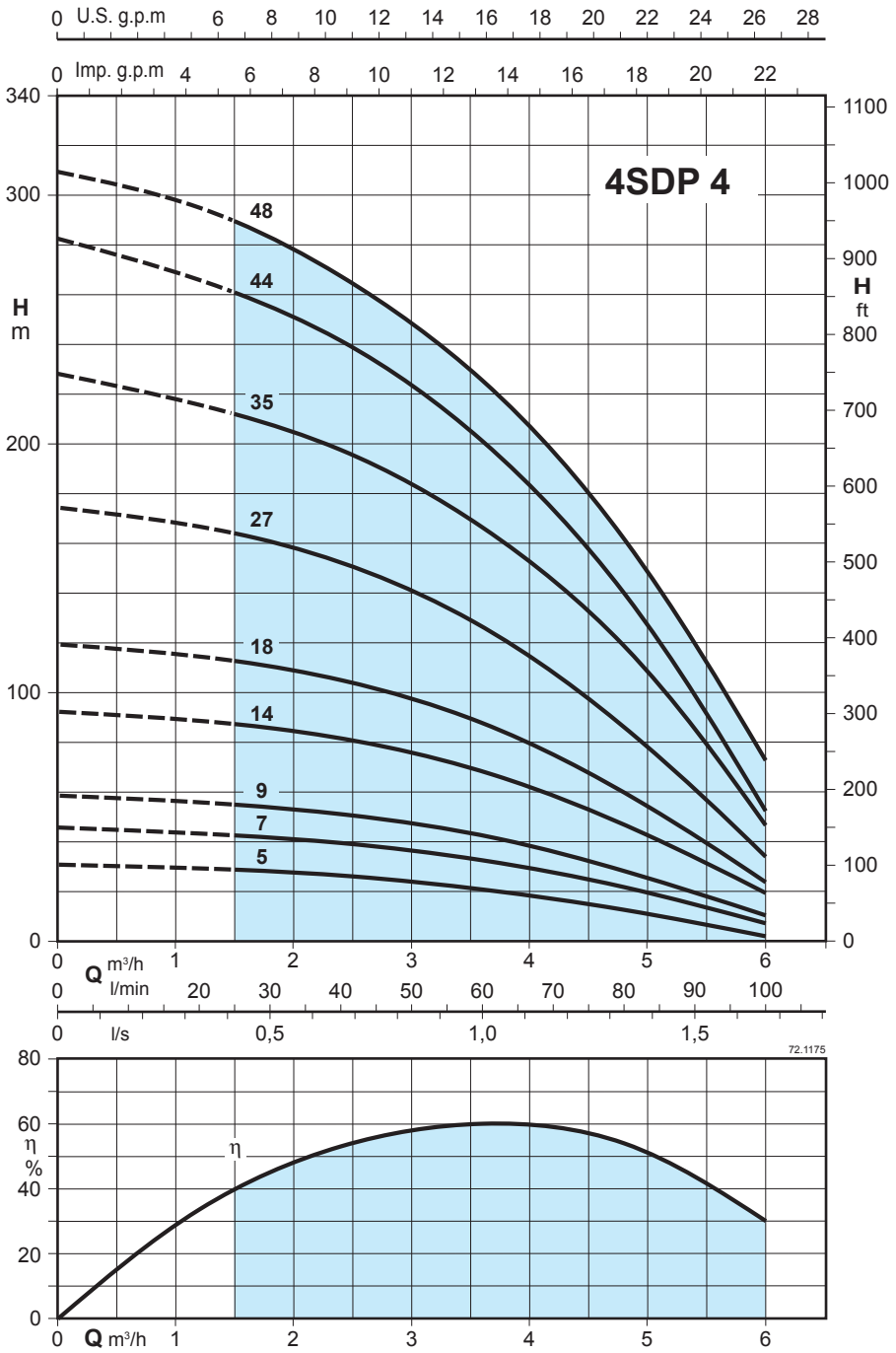
f	4SDP		4SDPM	
	fM	kg	fM	kg
mm	mm		mm	
236	563	10,2	563	10,1
289	616	10,6	651	12,3
342	689	12,1	704	12,8
430	792	13,7	832	14,9
519	921	15,8	966	17,4
787	1189	19,8	1304	23,8

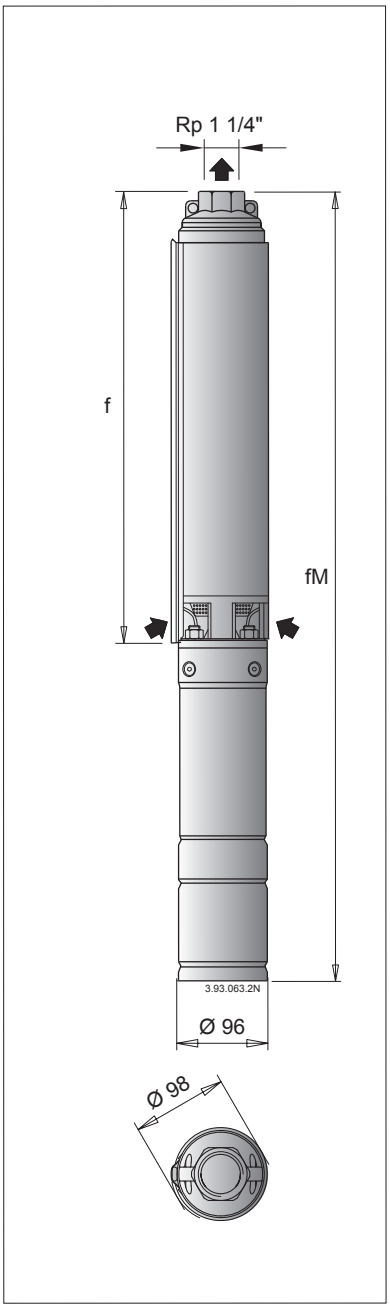
P1 Max. power input P2 Rated motor power output * Only for single-phase motor 230 V - 50 Hz (on request) Tolerances according to UNI EN ISO 9906:2012

4SDP 4

Submersible borehole pumps for 4”

Characteristic curves, performance n ≈ 2900 rpm, dimensions and weights





3~	400 V (380-415) 50 Hz	1~	230V	*Capacitor 450 Vc	P1	P2		Q	n ≈ 2900 1/min									
								m³/h	0	1,5	1,8	2,1	2,4	3	3,6	4,2	4,8	6
	A		A	µF	kW	kW	HP	l/min	0	25	30	35	40	50	60	70	80	100
4SDP 4/5	1,2	4SDPM 4/5	3,2	16	0,71	0,37	0,5		33	29	28	27	26	24	21	18	13	3
4SDP 4/7	1,5	4SDPM 4/7	4	25	0,91	0,55	0,75		46	43	42	41	39	36	33	28	22	7
4SDP 4/9	2,2	4SDPM 4/9	5,6	30	1,24	0,75	1		59	55	54	52	51	47	43	37	28	10
4SDP 4/14	2,8	4SDPM 4/14	8	40	1,71	1,1	1,5		93	87	86	83	81	76	68	58	47	20
4SDP 4/18	3,7	4SDPM 4/18	10,8	60	2,33	1,5	2	H m	120	113	111	108	105	98	88	75	60	25
4SDP 4/27	5,5	4SDPM 4/27	14,7	70	3,25	2,2	3		175	164	161	157	152	141	127	109	87	35
4SDP 4/35	7,4					3	4		228	212	208	203	197	184	166	145	119	46
4SDP 4/44	9,4					4	5,5		282	261	255	249	241	223	201	173	140	52
4SDP 4/48	9,4					4	5,5		309	289	283	276	267	248	225	197	162	73

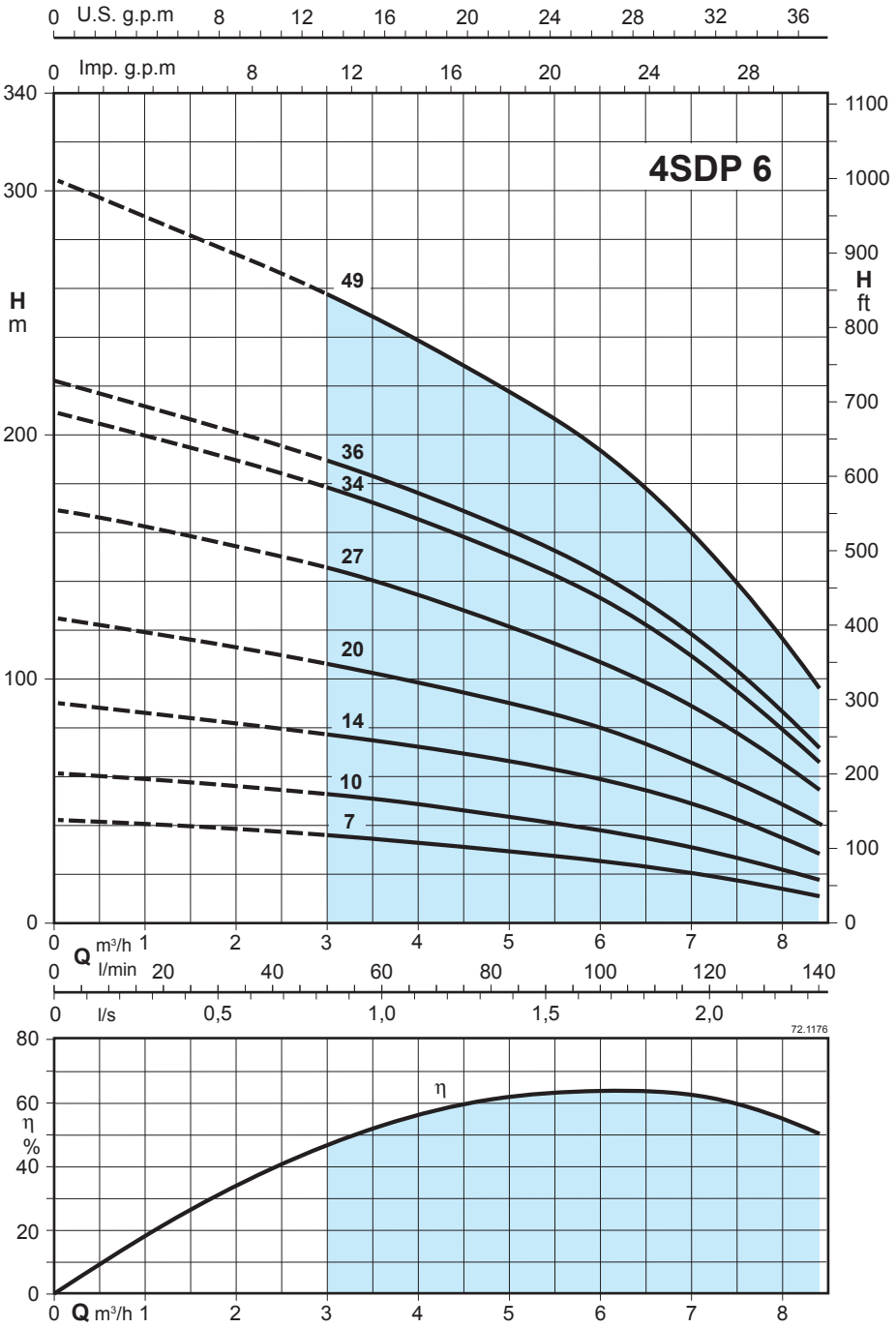
f	4SDP		4SDPM	
	fM		fM	
mm	mm	kg	mm	kg
257	584	10,4	584	10,3
301	628	10,7	663	12,4
344	691	12	706	12,7
452	814	13,6	854	14,8
538	940	15,5	985	17,1
805	1207	18,9	1322	22,9
972	1453	23,8		
1166	1712	28,5		
1291	1837	29,1		

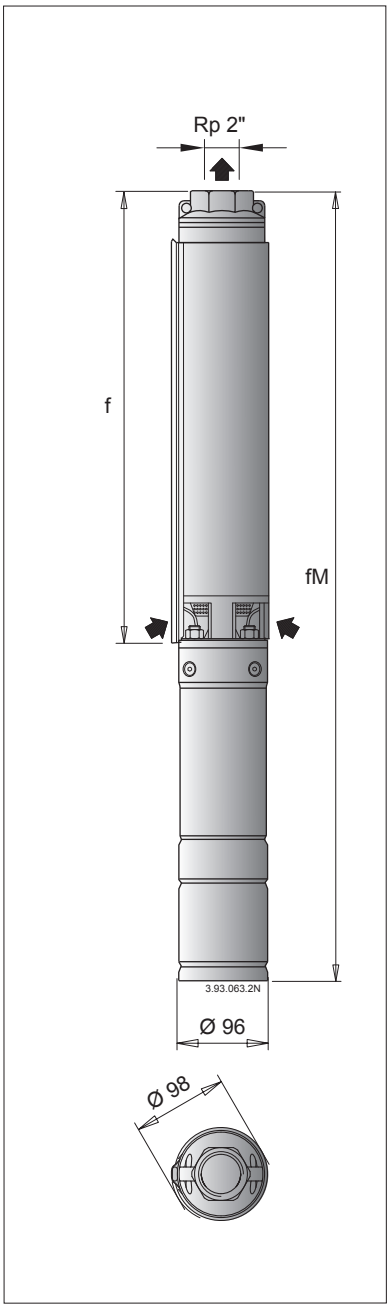
P1 Max. power input P2 Rated motor power output * Only for single-phase motor 230 V - 50 Hz (on request) Tolerances according to UNI EN ISO 9906:2012

4SDP 6

Submersible borehole pumps for 4”

Characteristic curves, performance n ≈ 2900 rpm, dimensions and weights





3~	400 V (380-415) 50 Hz	1~	230V * Capacitor 450 Vc		P1	P2		Q	n ≈ 2900 1/min									
								m³/h	0	3	3,6	4,2	4,8	5,4	6	7,2	8,4
	A		A	µF	kW	kW	HP	l/min	0	50	60	70	80	90	100	120	140
4SDP 6/7	2,2	4SDPM 6/7	5,6	30	1,24	0,75	1		42	36	34	32	30	28	25	19	11
4SDP 6/10	2,8	4SDPM 6/10	8	40	1,71	1,1	1,5		62	53	51	48	45	41	38	29	18
4SDP 6/14	3,7	4SDPM 6/14	10,8	60	2,33	1,5	2		90	77	74	71	68	63	59	46	28
4SDP 6/20	5,5	4SDPM 6/20	14,7	70	3,25	2,2	3	H m	125	107	102	97	92	86	80	62	40
4SDP 6/27	7,4					3	4		169	145	139	131	123	115	107	84	55
4SDP 6/34	9,4					4	5,5		208	178	170	162	153	143	132	103	66
4SDP 6/36	9,4					4	5,5		221	190	181	173	164	154	143	112	72
4SDP 6/49	13					5,5	7,5		302	257	246	234	222	209	193	151	96

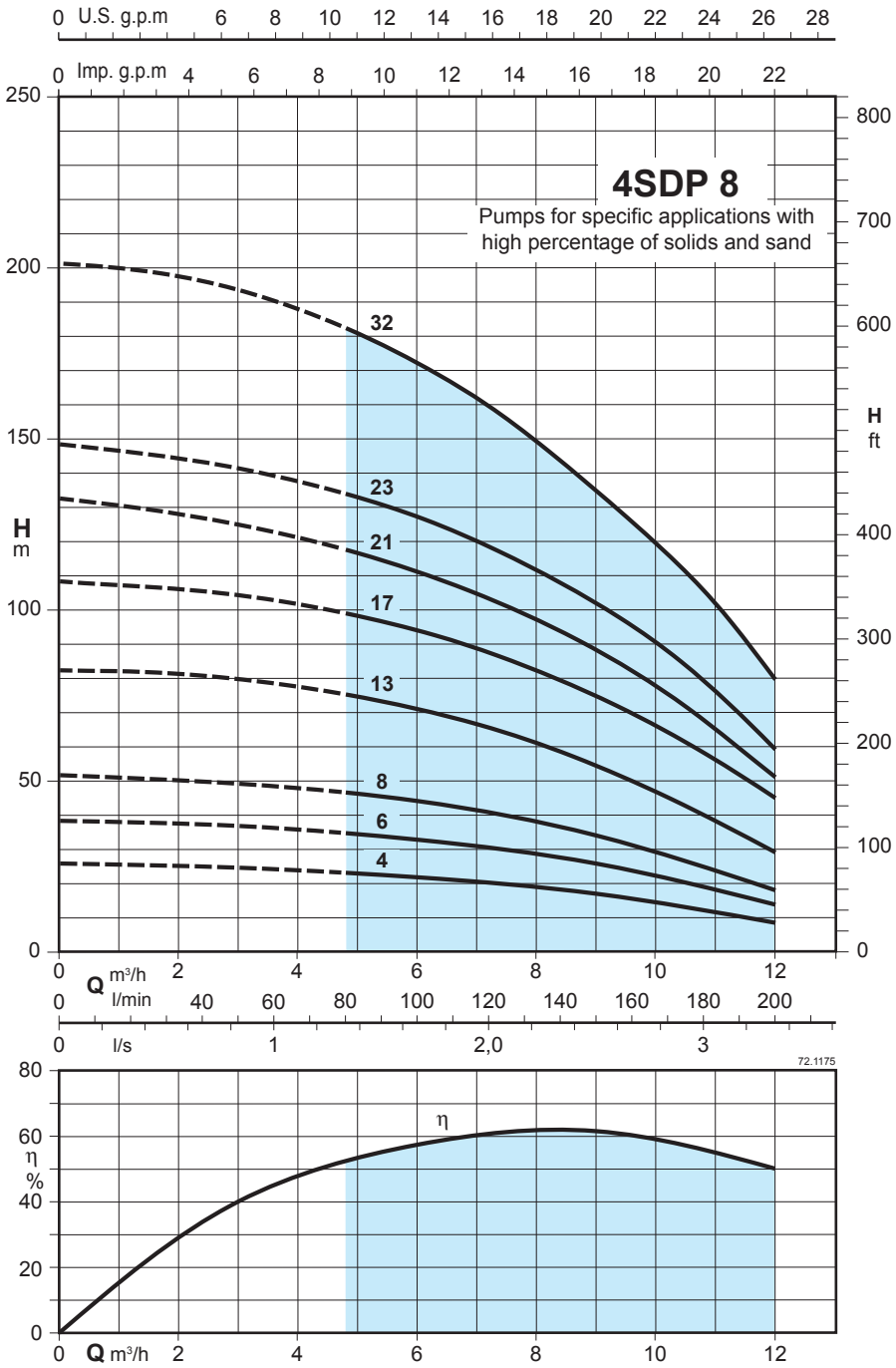
f	4SDP		4SDPM	
	fM	kg	fM	kg
mm	mm		mm	
390	737	12,4	752	13,1
483	845	14,1	885	15,3
607	1009	16,5	1054	18,1
831	1233	19,2	1348	23,2
1086	1567	25,5		
1295	1841	30,8		
1356	1902	31,4		
1840	2486	39,9		

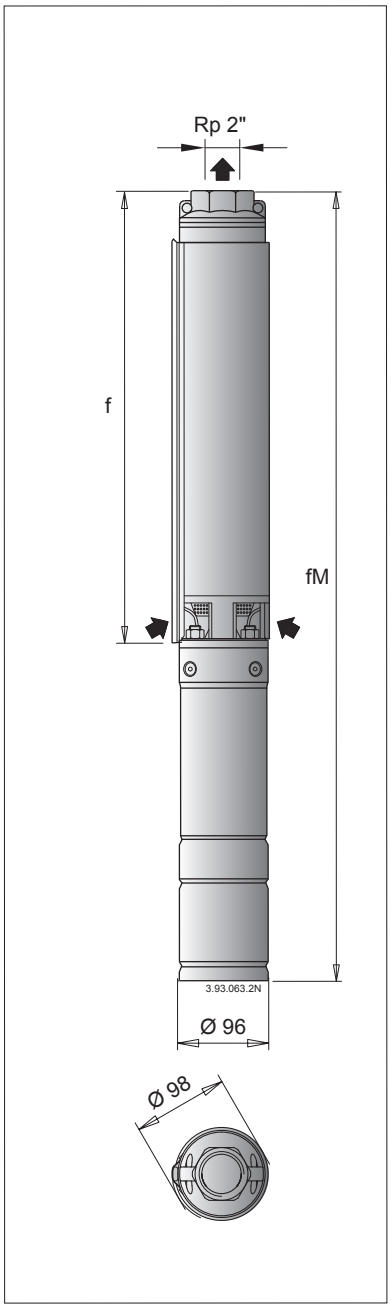
P1 Max. power input P2 Rated motor power output * Only for single-phase motor 230 V - 50 Hz (on request) Tolerances according to UNI EN ISO 9906:2012

4SDP 8

Submersible borehole pumps for 4”

Characteristic curves, performance n ≈ 2900 rpm, dimensions and weights





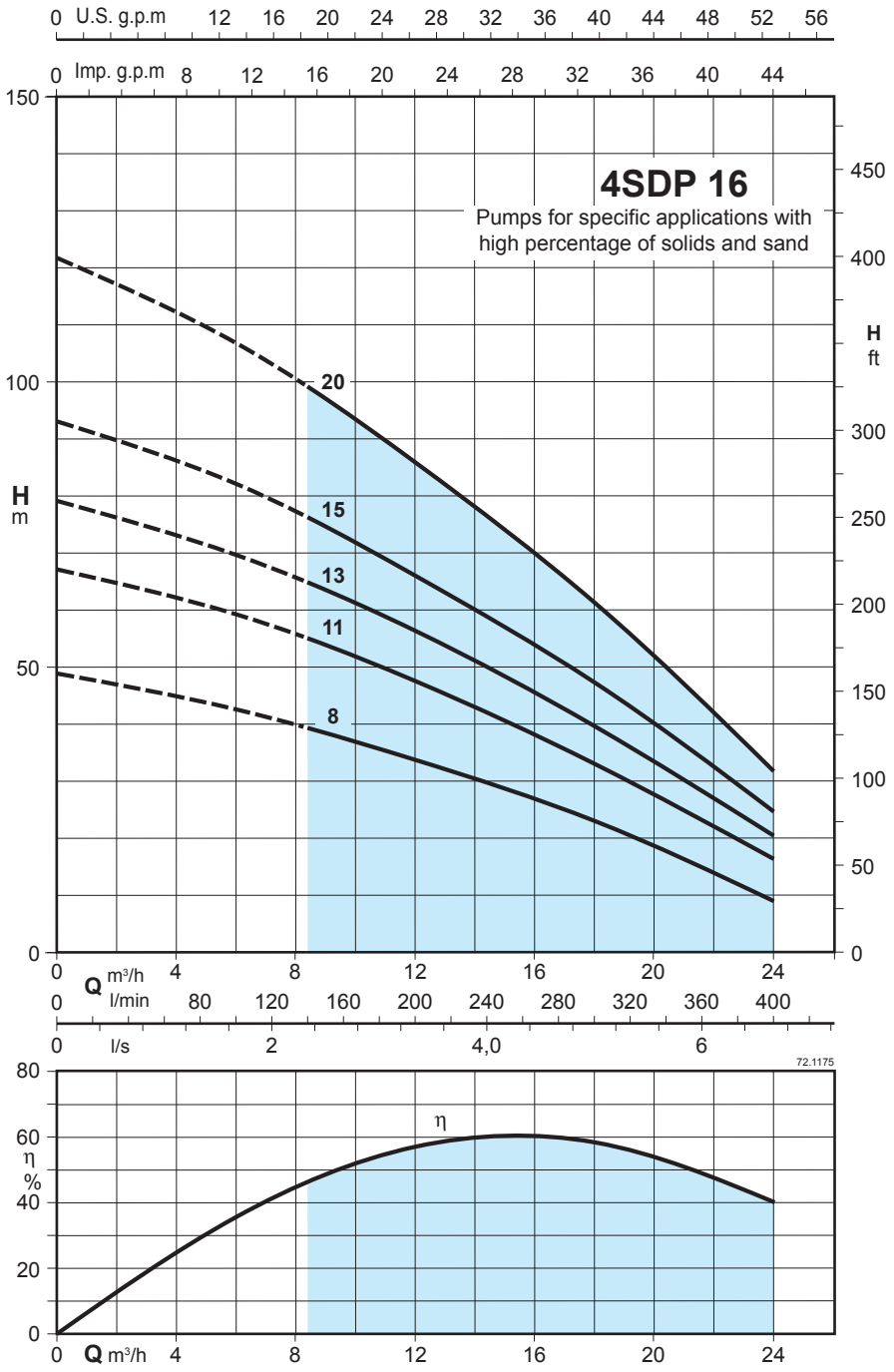
3~	400 V (380-415) 50 Hz	1~	230V	*Capacitor 450 Vc	P1	P2		Q	n ≈ 2900 1/min									
								m³/h	0	4,8	5,4	6	7,2	8,4	9,6	10,8	12	
	A		A	µF	kW	kW	HP	l/min	0	80	90	100	120	140	160	180	200	
4SDP 8/4	2,2	4SDPM 8/4	5,6	30	1,24	0,75	1		26	23	22	21	20	18	16	12	9	
4SDP 8/6	2,8	4SDPM 8/6	8	40	1,71	1,1	1,5		38	35	34	33	31	28	24	19	14	
4SDP 8/8	3,7	4SDPM 8/8	10,8	60	2,33	1,5	2		52	47	45	44	41	37	31	25	18	
4SDP 8/13	5,5	4SDPM 8/13	14,7	70	3,25	2,2	3	H m	82	75	73	71	66	59	50	40	30	
4SDP 8/17	7,4					3	4		108	98	96	94	87	79	70	58	46	
4SDP 8/21	9,4					4	5,5		132	117	114	111	103	93	82	68	52	
4SDP 8/23	9,4					4	5,5		148	134	131	127	118	108	95	79	60	
4SDP 8/32	13					5,5	7,5		202	182	178	172	160	143	125	105	80	

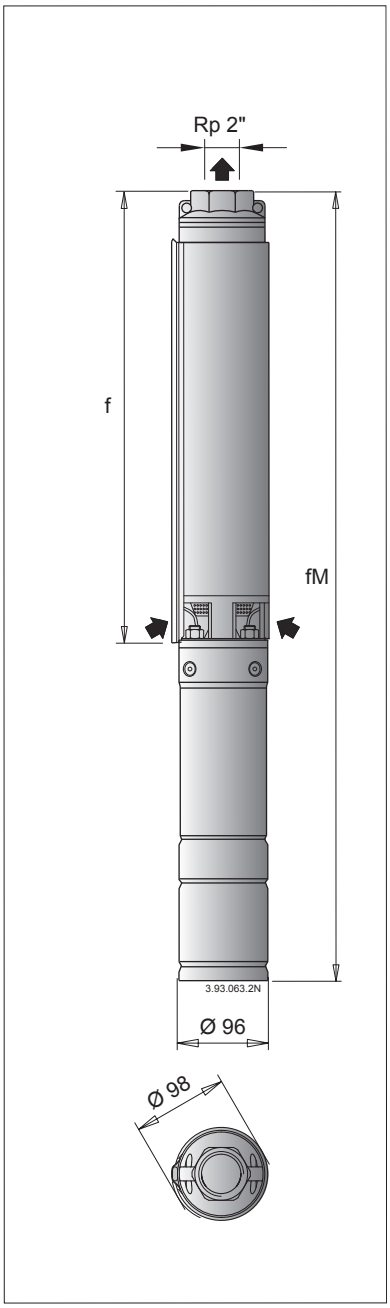
f	4SDP		4SDPM	
	fM	kg	fM	kg
mm	mm		mm	
294	641	11,5	656	12,2
356	718	12,9	758	14,1
418	820	14,8	865	16,4
573	975	17,2	1090	21,2
697	1178	21,5		
859	1405	26		
959	1505	27,6		
1276	1922	35		

P1 Max. power input P2 Rated motor power output * Only for single-phase motor 230 V - 50 Hz (on request) Tolerances according to UNI EN ISO 9906:2012

4SDP 16 Submersible borehole pumps for 4”

Characteristic curves, performance n ≈ 2900 rpm, dimensions and weights





3~	400 V (380-415) 50 Hz	1~	230V	* Capacitor P1 450 Vc		P2		Q	n ≈ 2900 1/min										
	A		A	µF	kW	kW	HP	m³/h	0	8,4	9,6	10,8	12	13,2	15,6	18	21,6	24
								l/min	0	140	160	180	200	220	260	300	360	400
4SDP 16/8	5,5	4SDPM 16/8	14,7	70	3,25	2,2	3		49	39	38	36	34	32	28	23	15	9
4SDP 16/11	7,4					3	4		67	55	53	50	48	45	39	33	23	16
4SDP 16/13	9,4					4	5,5		79	65	62	59	56	53	47	40	28	20
4SDP 16/15	9,4					4	5,5	H m	93	76	73	70	66	62	55	47	34	25
4SDP 16/20	13					5,5	7,5		122	99	95	90	86	81	72	61	44	32

f	4SDP		4SDPM	
	fM		fM	
mm	mm	kg	mm	kg
676	1078	18	1193	22
880	1361	23		
1013	1559	27,5		
1149	1695	28,7		
1489	2135	36,5		

P1 Max. power input P2 Rated motor power output * Only for single-phase motor 230 V - 50 Hz (on request) Tolerances according to UNI EN ISO 9906:2012

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