BOREHOLE ELECTRIC PUMPS FOR 6” WELLS

CE

GENERAL DATA

Applications
Borehole electric pump for 6” wells or larger, capable of generating a broad range of flow rates and heads.

These units have a very extensive range of applications for lifting, distribution and pressurisation in civil and industrial water systems, filling of pressure vessels and tanks, fire-fighting and washing installations, and irrigation systems.

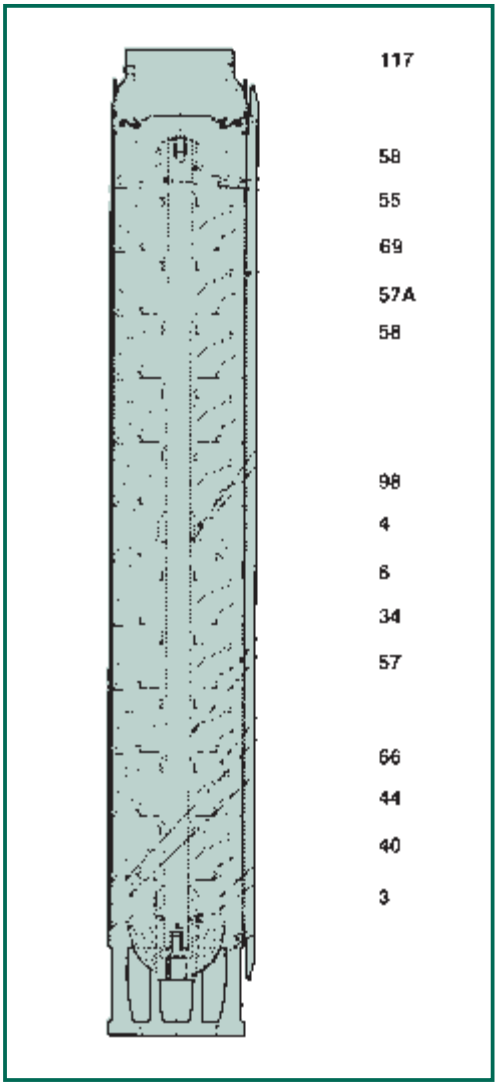
Pump construction features
Motor support and discharge section in stainless spheroidal cast iron (NiResist D2B).
Lower support sized to NEMA 6”.
Check valve incorporated in discharge support
Plain bearings: bronze rubber. Completely protected splined shaft (AISI 420). Wear rings, stage box, cable sheath, suction grid in stainless steel (AISI 304). Impellers and diffusers in Noryl.

Motor construction characteristics
Submerged asynchronous two-pole motor made entirely of AISI 304 stainless steel and cast iron with paint coating.
Squirrel cage rotor mounted on self-centring thrust block designed to withstand significant axial loads.
Canned-type stator housed in an airtight stainless steel casing. Bearings are lubricated by a mixture of water and glycole.
Overload protection to be provided by the user in compliance with EN 60947-4-1 (Trip time <10 sec. at 5 x In).
Coupling flange dimensions to NEMA 6”.
Flanging to NEMA – 6”
Protection rating: IP 68
Insulation class: F
Input voltage: three-phase 400 V / 50Hz (+6% -10% Un)

TECHNICAL DATA

No.	PART (*)	MATERIAL
3	BASE SUPPORT	SPHEROIDAL CAST IRON
4	IMPELLER	TECHNOPOLYMER
6	DIFFUSER	TECHNOPOLYMER
34	DISC	TECHNOPOLYMER
40	COUPLING	STAINLESS STEEL
44	CLEARANCE WASHER	STAINLESS STEEL
55	SPACER BUSH	AISI 304 STAINLESS STEEL
57	SUCTION SIDE SUPPORT	AISI 304 STAINLESS STEEL
57A	INTERMEDIATE SUPPORT	AISI 304 STAINLESS STEEL
58	SHAFT JACKET	BRONZE
66	COUNTER-THRUST RING	AISI 304 STAINLESS STEEL
69	PUMP LINER	AISI 304 STAINLESS STEEL
98	DIFFUSER BODY	AISI 304 STAINLESS STEEL
117	VALVE BODY	SPHEROIDAL CAST IRON

* In contact with liquid

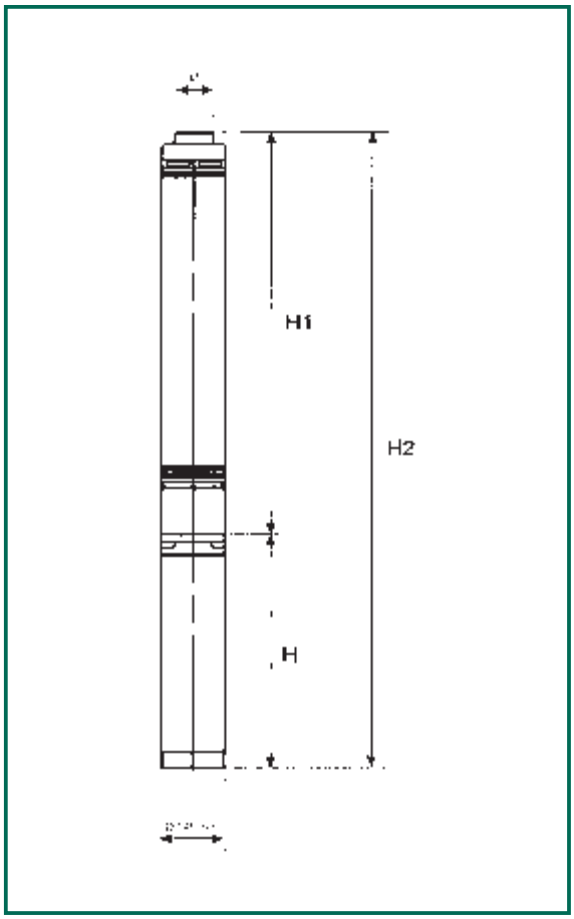


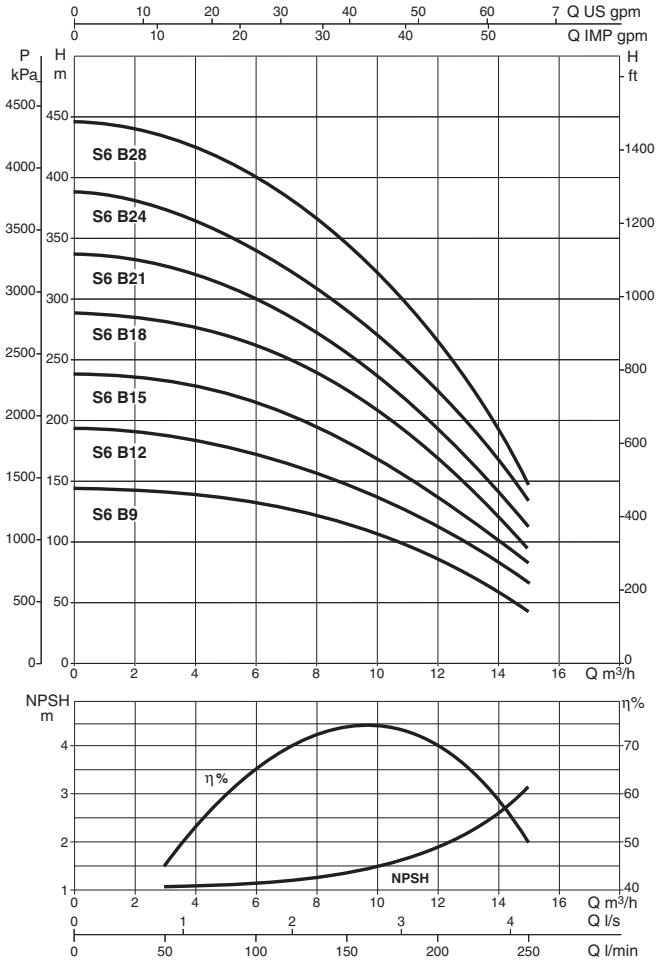
- Operating range: up to 66 m^3/h with head of up to 468 m.
- Liquid quality requirements: clean, free of solid or abrasive contaminants, chemically neutral, close to the properties of water.
- N° starts / hour: max 20
- Cooling flow: 16 cm/sec.
- Maximum permissible sand quantity: 40 gr/m^3
- Ambient temperature: 30°C
- Minimum recommended suction level: mt.1
- Accessories: see page 53
- Installation: horizontal or vertical

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

S6B

Maximum ambient temperature: 30°C





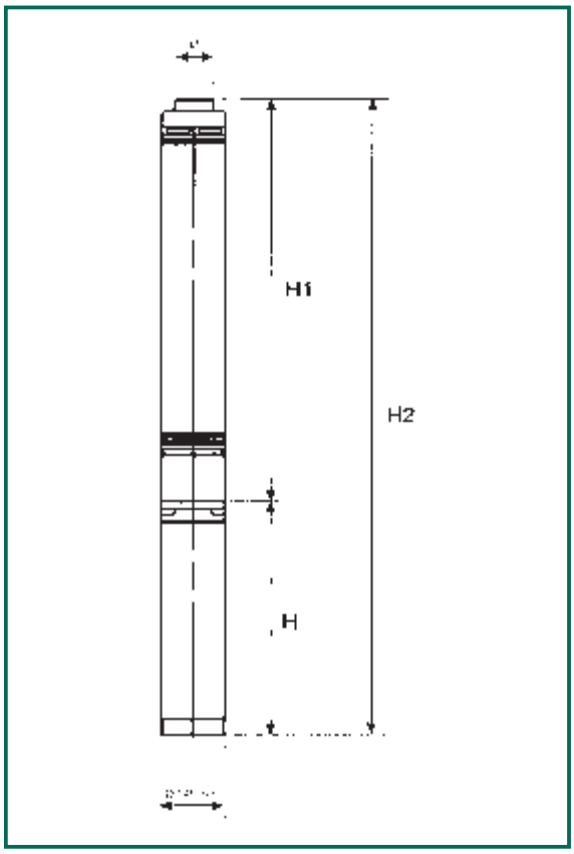
MODEL	REQUIRED MOTOR POWER		HYDRAULIC DATA (n ≃ 2850 1/min)							H1 (mm)	H2 (mm)	Weight of pump	Total weight	Ø
	kW	HP	Q m³/h	0	6	8,4	10,8	12	15					
			l/min	0	100	140	180	200	250					
S6B-9	4	5,5	H (m)	147	125	114	96	85	46	625	1225	11	50,5	3"
S6B-12	5,5	7,5		196	172	152	128	113	64	738	1369	13,5	56,7	3"
S6B-15	7,5	10		224	216	190	160	141	80	852	1512	15	60,5	3"
S6B-18	9,2	12,5		293	250	228	193	169	96	966	1651	17	66	3"
S6B-21	9,2	12,5		342	291	266	225	197	112	1079	1764	19,5	68,5	3"
S6B-24	11	15		391	340	304	257	226	128	1193	1923	21	74	3"
S6B-28	13	17,5		446	400	354	300	263	149	1397	2182	23,5	82,5	3"

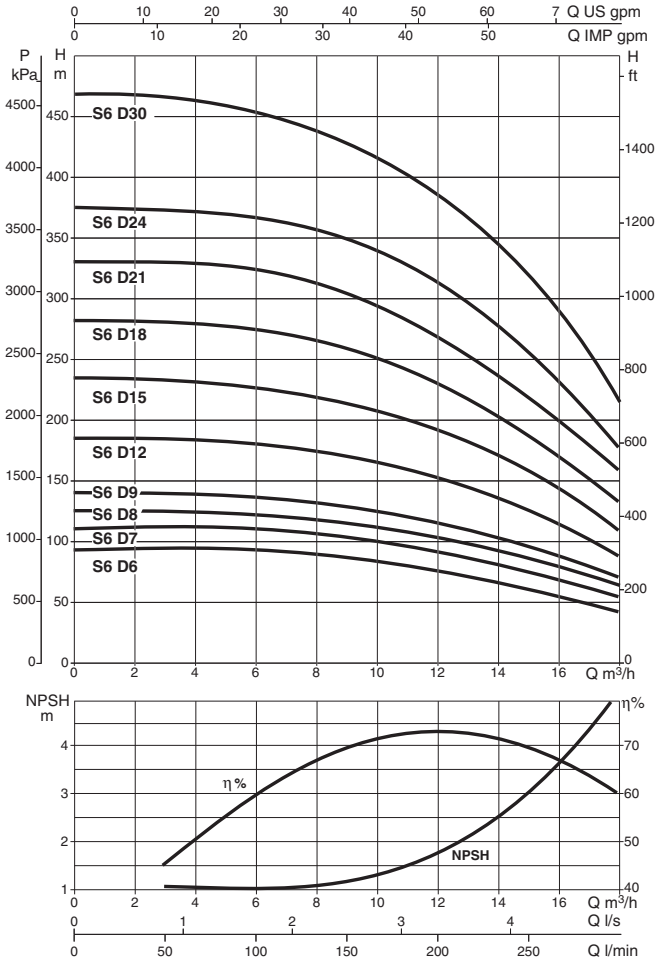
MODEL	MOTORS										
	H (mm)	WEIGHT Kg.	Axial load N	1/m	Power input 50 Hz	Installed Power kW	HP	I_N	I_A	η (%)	cos φ
S6B-9	600	39,5	16000	2845	3X400 V ~	4	5,5	10,6	43	76	0,75
S6B-12	631	43,2	16000	2840	3X400 V ~	5,5	7,5	14	65	76	0,75
S6B-15	660	45,5	16000	2840	3X400 V ~	7,5	10	18	74	78	0,78
S6B-18	685	49	16000	2840	3X400 V ~	9,2	12,5	22	85	80	0,8
S6B-21	685	49	16000	2840	3X400 V ~	9,2	12,5	22	85	80	0,8
S6B-24	730	53	16000	2840	3X400 V ~	11	15	25,5	113	79	0,82
S6B-28	785	59	16000	2840	3X400 V ~	15	20	33,4	160	83	0,8

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

S6D

Maximum ambient temperature: 30°C





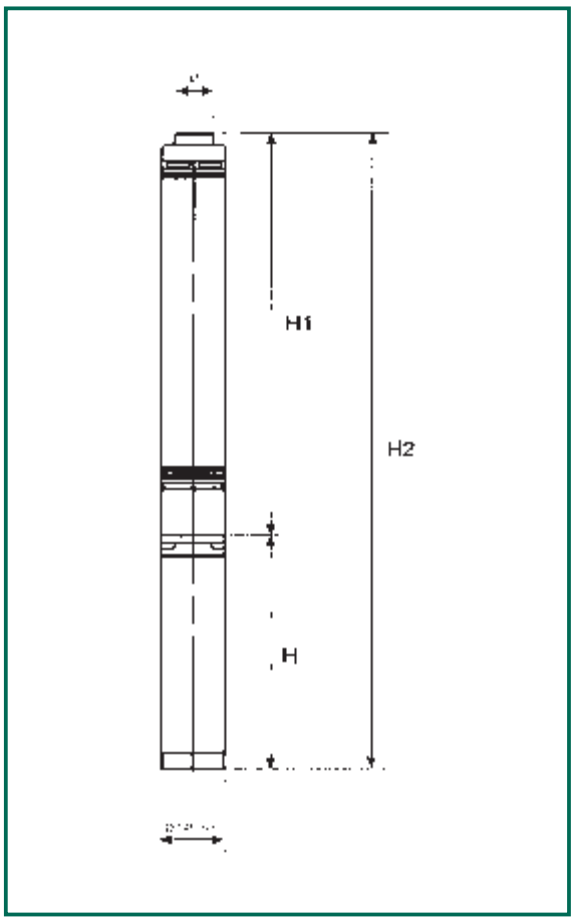
MODEL	P2 NOMINAL kW	P2 NOMINAL HP	HYDRAULIC DATA (n ≃ 2850 1/min) Q m³/h	0	8,4	10,8	12	15	18	H1 (mm)	H2 (mm)	Weight of pump	Total weight	Ø
			l/min	0	140	180	200	250	300					
S6D-6	3,7	5		94	87	80	76	63	44	511	1111	9	48,5	3"
S6D-7	5,5	7,5		109	101	93	89	74	51	549	1180	9,5	52,7	3"
S6D-8	5,5	7,5		125	115	106	102	84	58	587	1218	11	54,2	3"
S6D-9	5,5	7,5		140	130	120	114	95	66	625	1256	11	55,2	3"
S6D-12	7,5	10	H	187	173	160	153	127	88	738	1398	13,5	59	3"
S6D-15	9,2	12,5	(m)	234	216	201	191	158	110	852	1537	15	64	3"
S6D-18	11	15		281	260	241	229	190	132	966	1696	17	70	3"
S6D-21	13	17,5		328	304	281	267	222	154	1079	1864	19	78	3"
S6D-24	15	20		374	347	321	305	254	176	1193	1978	21	80	3"
S6D-30	18,5	25		468	464	401	381	317	220	1474	2334	25	91,5	3"

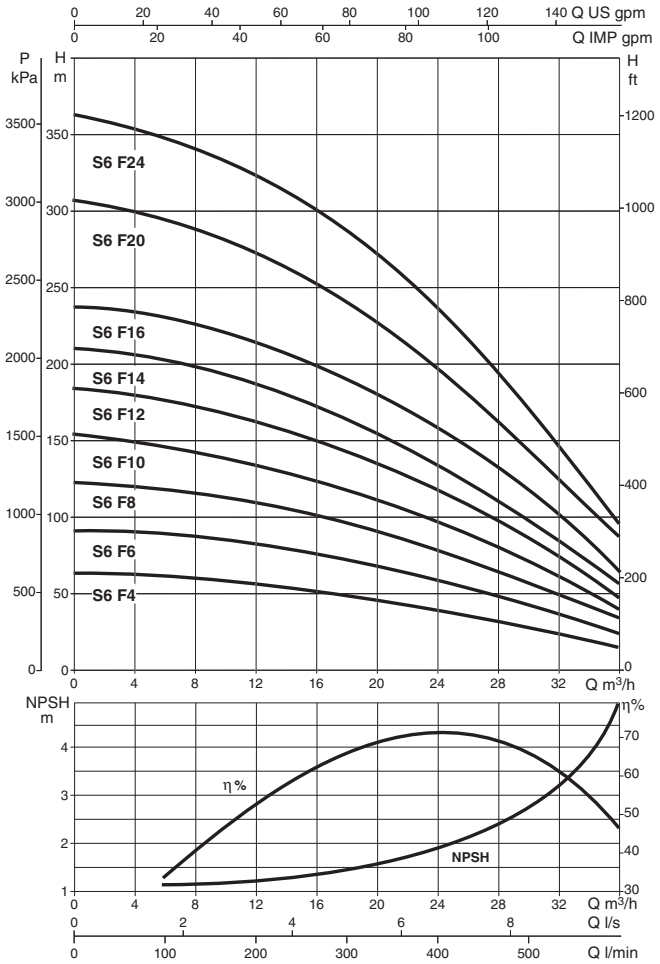
MODEL	MOTORS H (mm)	WEIGHT Kg.	Axial load N	1/m	Power input 50 Hz	Installed Power kW	Installed Power HP	I_N	I_A	η (%)	cos φ
S6D-6	600	39,5	16000	2845	3X400 V ~	4	5,5	10,6	43	76	0,75
S6D-7	631	43,2	16000	2840	3X400 V ~	5,5	7,5	14	65	76	0,75
S6D-8	631	43,2	16000	2840	3X400 V ~	5,5	7,5	14	65	76	0,75
S6D-9	631	43,2	16000	2840	3X400 V ~	5,5	7,5	14	65	76	0,75
S6D-12	660	45,5	16000	2840	3X400 V ~	7,5	10	18	74	78	0,78
S6D-15	685	49	16000	2840	3X400 V ~	9,2	12,5	22	85	80	0,8
S6D-18	730	53	16000	2840	3X400 V ~	11	15	25,5	113	79	0,82
S6D-21	785	59	16000	2840	3X400 V ~	15	20	33,4	160	83	0,8
S6D-24	785	59	16000	2840	3X400 V ~	15	20	33,4	160	83	0,8
S6D-30	860	66,5	16000	2845	3X400 V ~	18,5	25	41	215	83	0,8

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

S6F

Maximum ambient temperature: 30°C





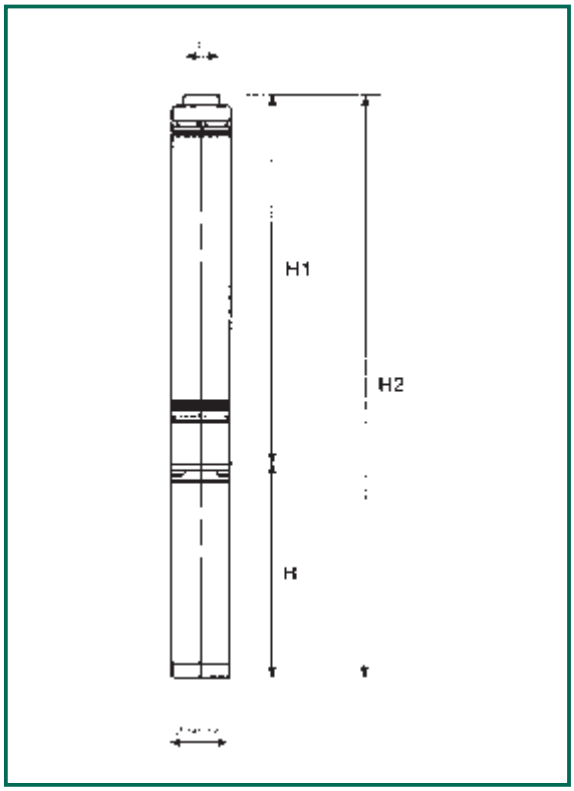
MODEL	P2 NOMINAL kW	P2 NOMINAL HP	HYDRAULIC DATA (n ≃ 2850 1/min) Q m³/h	0	12	15	18	24	36	H1 (mm)	H2 (mm)	Weight of pump	Total weight	Ø
			l/min	0	200	250	300	400	600					
S6F-4	4	5		61	53	51	48	40	15	511	1111	10	49,5	3"
S6F-6	5,5	7,5		91	80	76	71	59	22	625	1256	11	54,2	3"
S6F-8	7,5	10		122	106	101	95	79	30	738	1398	13	58,5	3"
S6F-10	9,2	12,5		152	133	126	119	99	37	852	1537	14,5	63,5	3"
S6F-12	11	15	H (m)	182	159	154	143	119	47	966	1696	16	69	3"
S6F-14	13	17,5		213	186	178	167	139	56	1079	1864	17,5	76,5	3"
S6F-16	15	20		243	212	204	190	158	64	1193	1978	20	79	3"
S6F-20	18,5	25		304	265	255	238	198	80	1474	2334	24	90,5	3"
S6F-24	22	30		365	318	305	286	238	96	1700	2620	27,5	100	3"

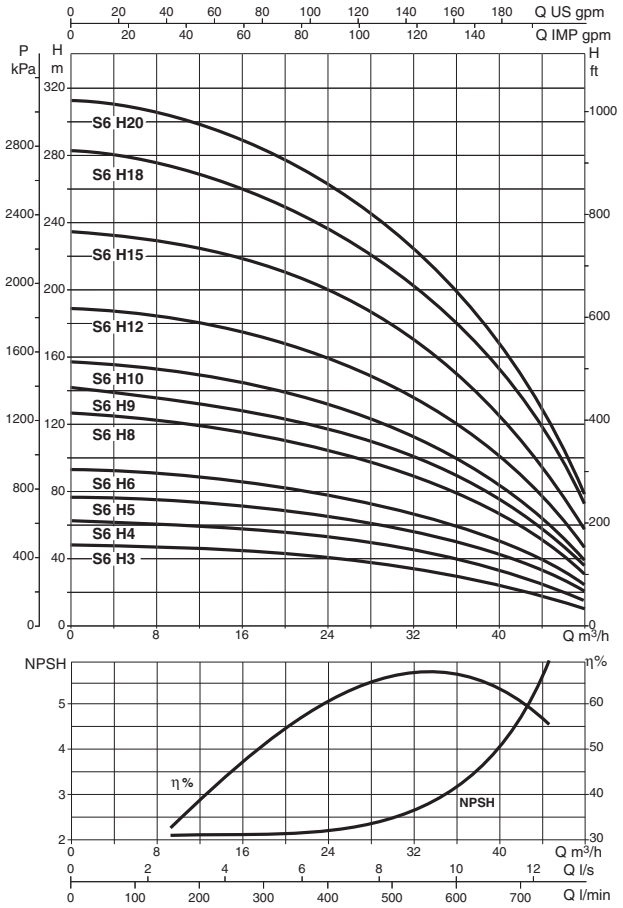
MODEL	MOTORS H (mm)	WEIGHT Kg.	Axial load N	1/m	Power input 50 Hz	Installed Power kW	Installed Power HP	I_N	I_A	η (%)	cos φ
S6F-4	600	39,5	16000	2845	3X400 V ~	4	5,5	10,6	43	76	0,75
S6F-6	631	43,2	16000	2840	3X400 V ~	5,5	7,5	14	65	76	0,75
S6F-8	660	45,5	16000	2840	3X400 V ~	7,5	10	18	74	78	0,78
S6F-10	685	49	16000	2840	3X400 V ~	9,2	12,5	22	85	80	0,8
S6F-12	730	53	16000	2840	3X400 V ~	11	15	25,5	113	79	0,82
S6F-14	785	59	16000	2840	3X400 V ~	15	20	33,4	160	83	0,8
S6F-16	785	59	16000	2840	3X400 V ~	15	20	33,4	160	83	0,8
S6F-20	860	66,5	16000	2845	3X400 V ~	18,5	25	41	215	83	0,8
S6F-24	920	72,5	16000	2825	3X400 V ~	22	30	47	240	83	0,84

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

S6H

Maximum ambient temperature: 30°C





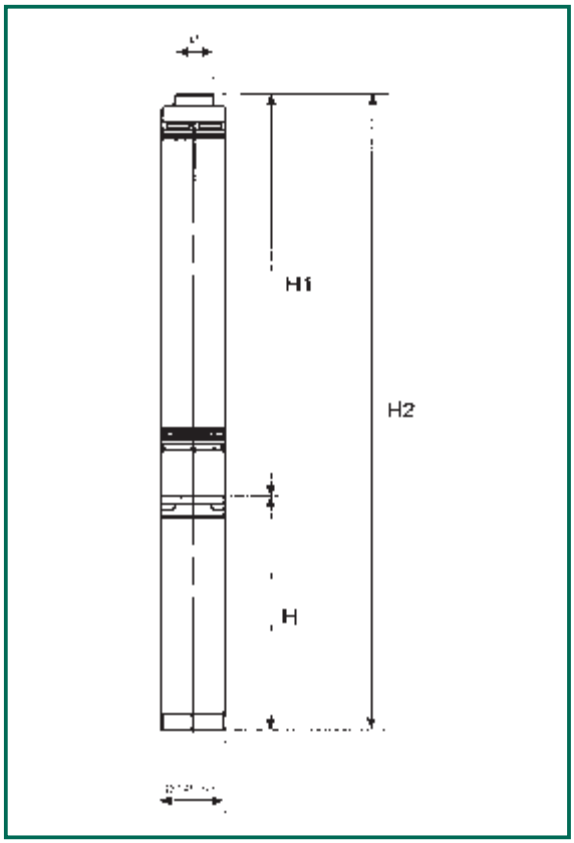
MODEL	P2 NOMINAL kW	P2 NOMINAL HP	HYDRAULIC DATA (n ≃ 2850 1/min) Q m³/h / l/min	0 / 0	18 / 300	24 / 400	36 / 600	48 / 800	H1 (mm)	H2 (mm)	Weight of pump	Total weight	Ø
S6H-3	4	5,5	H (m)	48	42	39	30	12	463	1063	7,5	47	3"
S6H-4	5,5	7,5		63	57	53	40	16	522	1153	8,5	51,7	3"
S6H-5	7,5	10		78	71	66	50	20	582	1242	9,5	55	3"
S6H-6	9,2	12,5		94	85	80	60	23	642	1327	10,5	59,5	3"
S6H-8	11	15		126	114	106	80	31	762	1492	12	65	3"
S6H-9	13	17,5		141	128	120	90	35	822	1607	14	73	3"
S6H-10	15	20		157	142	133	100	39	882	1667	14	74	3"
S6H-12	18,5	25		188	170	160	1200	47	1002	1862	16	82,5	3"
S6H-15	22	30		235	213	199	150	59	1182	2102	19	91,5	3"
S6H-18	26	35		283	256	239	180	71	1414	2464	22	107	3"
S6H-20	30	40		314	284	266	200	78	1534	2584	25	110	3"

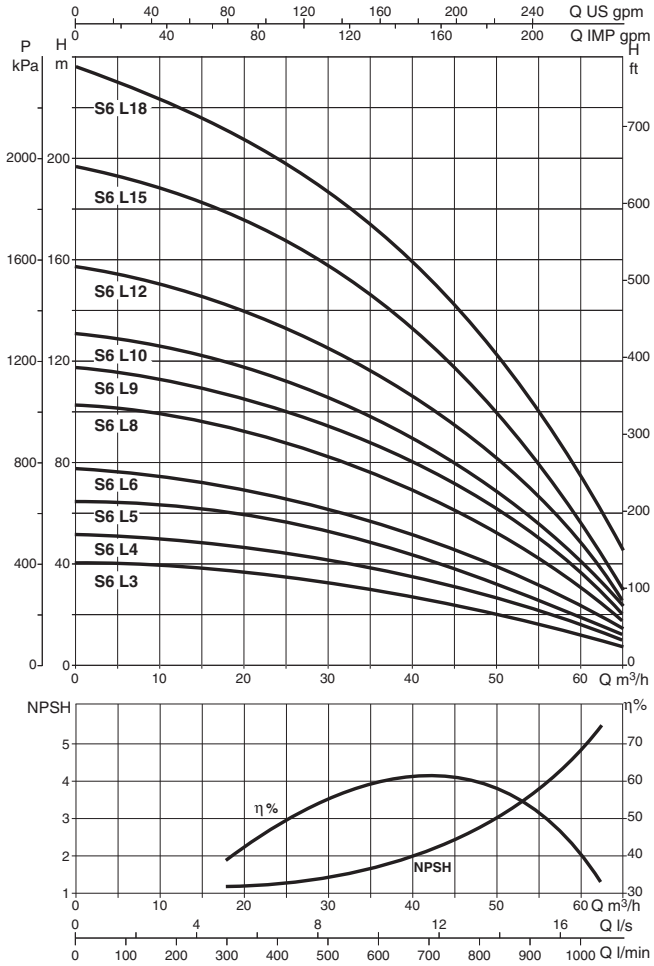
MODEL	MOTORS H (mm)	WEIGHT Kg.	Axial load N	1/m	Power input 50 Hz	Installed Power kW	Installed Power HP	I_N	I_A	η (%)	cos φ
S6H-3	600	39,5	16000	2845	3X400 V ~	4	5,5	10,6	43	76	0,75
S6H-4	631	43,2	16000	2840	3X400 V ~	5,5	7,5	14	65	76	0,75
S6H-5	660	45,5	16000	2840	3X400 V ~	7,5	10	18	74	78	0,78
S6H-6	685	49	16000	2840	3X400 V ~	9,2	12,5	22	85	80	0,8
S6H-8	730	53	16000	2840	3X400 V ~	11	15	25,5	113	79	0,82
S6H-9	785	59	16000	2840	3X400 V ~	15	20	33,4	160	83	0,8
S6H-10	785	59	16000	2840	3X400 V ~	15	20	33,4	160	83	0,8
S6H-12	860	66,5	16000	2845	3X400 V ~	18,5	25	41	215	83	0,8
S6H-15	920	72,5	16000	2825	3X400 V ~	22	30	47	240	83	0,84
S6H-18	1050	85	27000	2830	3X400 V ~	30	40	61,5	280	85	0,8
S6H-20	1050	85	27000	2830	3X400 V ~	30	40	61,5	280	85	0,8

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

S6L

Maximum ambient temperature: 30°C





MODEL	P2 NOMINAL kW	P2 NOMINAL HP	HYDRAULIC DATA (n ≃ 2850 1/min) Q m³/h	0	36	48	54	66	H1 (mm)	H2 (mm)	Weight of pump	Total weight	Ø
			l/min	0	600	800	900	1100					
S6L-3	5,5	7,5		40	28	22	18	7	463	1094	7,5	50,7	3"
S6L-4	7,5	10		52	38	29	23	9	522	1182	8,5	54	3"
S6L-5	9,2	12,5		65	48	36	29	11	582	1267	9,5	58,5	3"
S6L-6	11	15		78	57	44	36	13	642	1372	10,5	63,5	3"
S6L-8	13	17,5	H	104	77	58	47	18	762	1547	12	71	3"
S6L-9	15	20	(m)	118	86	66	53	20	822	1607	13	72	3"
S6L-10	18,5	25		131	96	73	59	23	882	1742	14	80,5	3"
S6L-12	22	30		158	114	88	71	27	1002	1922	16	88,5	3"
S6L-15	26	35		197	144	110	89	34	1182	2232	19	104	3"
S6L-18	30	40		236	173	130	106	41	1414	2464	22	107	3"

MODEL	MOTORS H (mm)	WEIGHT Kg.	Axial load N	1/m	Power input 50 Hz	Installed Power kW	Installed Power HP	I_N	I_A	η (%)	cos φ
S6L-3	631	43,2	16000	2840	3X400 V ~	5,5	7,5	14	65	76	0,75
S6L-4	660	45,5	16000	2840	3X400 V ~	7,5	10	18	74	78	0,78
S6L-5	685	49	16000	2840	3X400 V ~	9,2	12,5	22	85	80	0,8
S6L-6	730	53	16000	2840	3X400 V ~	11	15	25,5	113	79	0,82
S6L-8	785	59	16000	2840	3X400 V ~	15	20	33,4	160	83	0,8
S6L-9	785	59	16000	2840	3X400 V ~	15	20	33,4	160	83	0,8
S6L-10	860	66,5	16000	2845	3X400 V ~	18,5	25	41	215	83	0,8
S6L-12	920	72,5	16000	2825	3X400 V ~	22	30	47	240	83	0,84
S6L-15	1050	85	27000	2830	3X400 V ~	30	40	61,5	280	85	0,8
S6L-18	1050	85	27000	2830	3X400 V ~	30	40	61,5	280	85	0,8