SEMISOM /80

Electric submersible pumps SEMISOM /80
for sewage water

APPLICATION

To expel rainwater, to convey waste and sewage water from sewage tanks

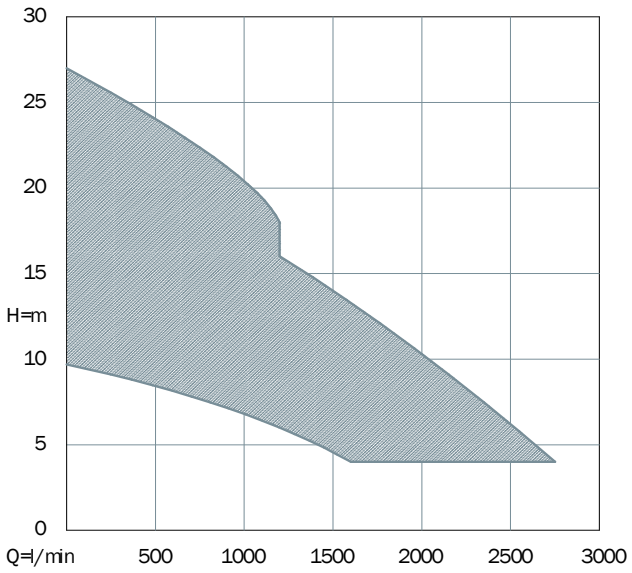
To pump liquids containing solids (Vortex or Double-channel impeller) and filaments (Double-channel impeller)

To pump sewage keeping its biological process unchanged (Semisom 1504/80 4 poles)

CHARACTERISTICS

IP rating	IP68
Duty	Continuous S1
Maximum immersion depth (m)	20
Maximum number of starts per hour	30
Maximum temperature of the liquid pumped (°C)	50
PH of the liquid pumped	6 - 10
Density of the liquid pumped (kg/dm^3)	<1,1
Suitable for inverter drive	Yes

APPLICATION RANGE



CONSTRUCTION

Three-phase, asyncronous. Coolant-filled electric rewindable motor with short circuit rotor. Insulation class F.
Winding with phase insulators to protect the motor from power peaks, as a guarantee of a highly reliable product.

Micro thermostat to protect the motor from overheating to be wired to the protection/control panel

Probe to detect water ingress in the oil chamber between the two mechanical seals to be wired to the protection/control panel

Resin-insulated cable kit to prevent penetration of water inside the motor

Shafts machined on ball bearings and mechanical seals location

Double mechanical seals with oil chamber in-between

MATERIALS

Tie rods, handle, motor casing, bolts and nuts	Stainless Steel AISI304
Shaft	Stainless Steel AISI420B
Cover and volute	Mechanical cast iron EN GJL-250
Impeller	Mechanical cast iron EN GJL-200
Feet	Stainless Steel AISI304
Lower mechanical seal	Silicon carbide and alumina
Upper mechanical seal	Graphite and Alumina
Elastomers	NBR rubber
Cable	PBS8-F AD8

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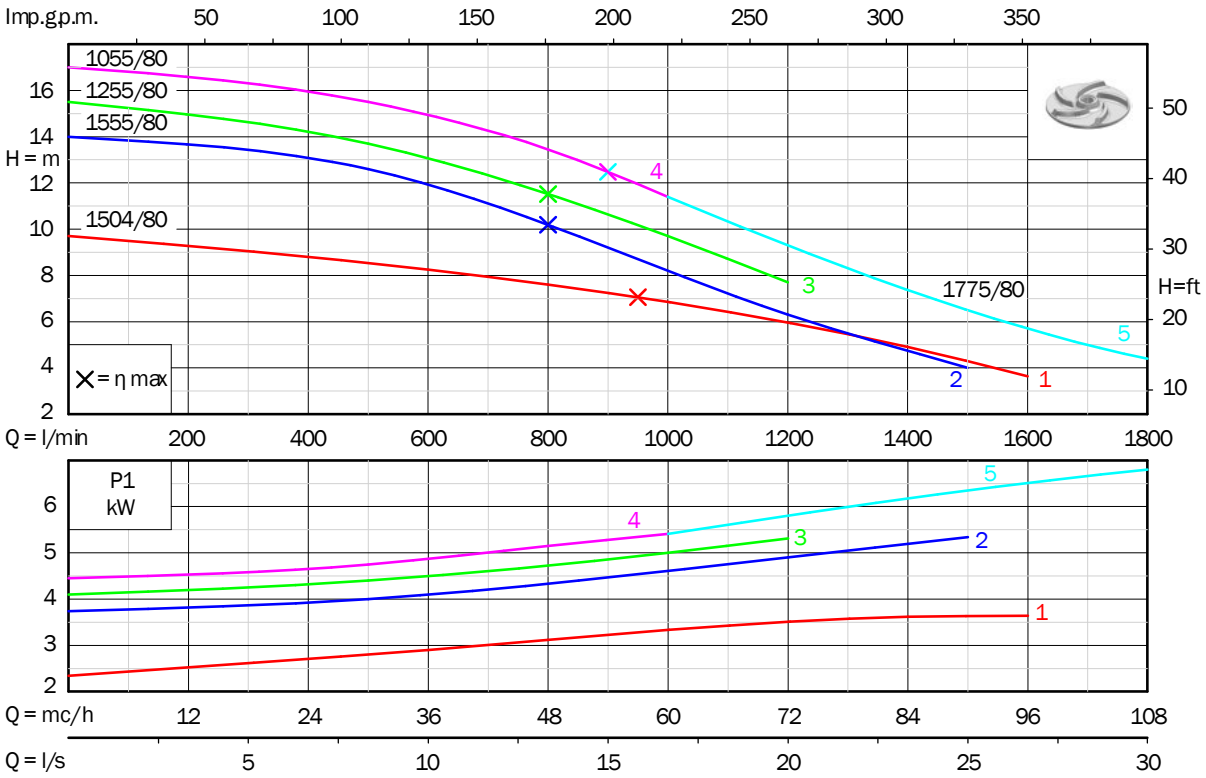
PERFORMANCE DATA

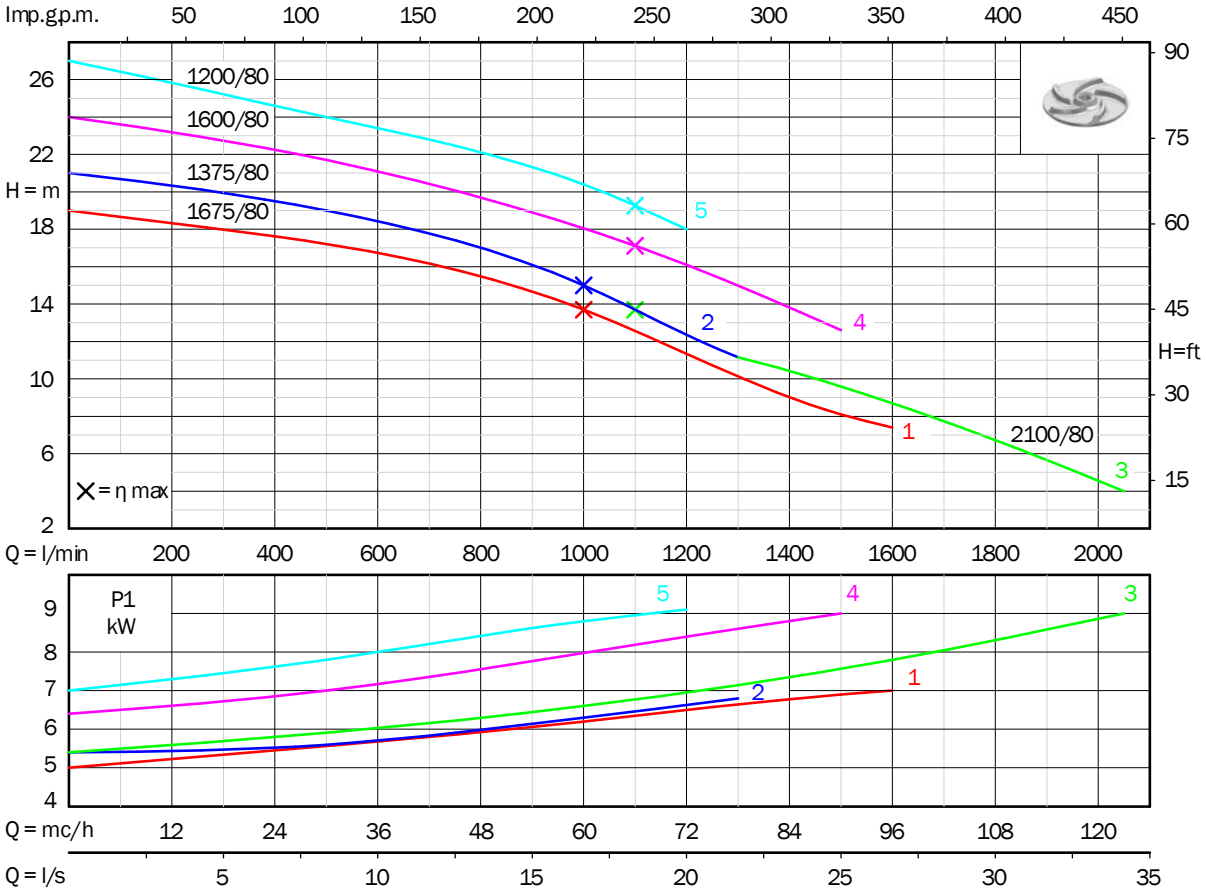
Vortex Impeller	P2		3~400 V	Poles	DNM	Solid Passage ø	Q	Flow													
	hp	kW	Max A				m³/h	0	15	30	45	60	72	78	90	96	108	123	135	150	165
							l/min	0	250	500	750	1000	1200	1300	1500	1600	1800	2050	2250	2500	2750
SEMISOM 1504/80	3,5	2,6	8,2	4	80	74	H (m)	9,7	9	8,6	7,8	6,8	5,8	5,4	4,4	3,9					
SEMISOM 1555/80	5,5	4	9,2	2	80	74		14	13,5	12,6	11,1	8,2	6,3	5,5	4						
SEMISOM 1255/80	5,5	4	9,1	2	80	74		15,5	14,6	13,7	12,4	9,7	7,7								
SEMISOM 1055/80	5,5	4	9,2	2	80	74		17	16,4	15,5	14,1	11,4									
SEMISOM 1775/80	7,5	5,5	11,9	2	80	74		17	16,4	15,5	14,1	11,4	9,1	8,1	6,5	5,7	4,4				
SEMISOM 1675/80	7,5	5,5	12	2	80	74		19	18,2	17,2	16	13,7	11,1	9,9	8,1	7,4					
SEMISOM 1375/80	7,5	5,5	11,9	2	80	74		21	20	18,5	17,2	15	12,7	11,6							
SEMISOM 2100/80	10	7,5	16,2	2	80	74		21	20	18,5	17,2	15	12,7	11,6	9,6	8,7	6,7	4			
SEMISOM 1600/80	10	7,5	16,2	2	80	74		24	23	21,7	20,3	18,3	16,1	14,9	12,6						
SEMISOM 1200/80	10	7,5	16,4	2	80	74		27	25,4	23,8	22,4	20,4	18								

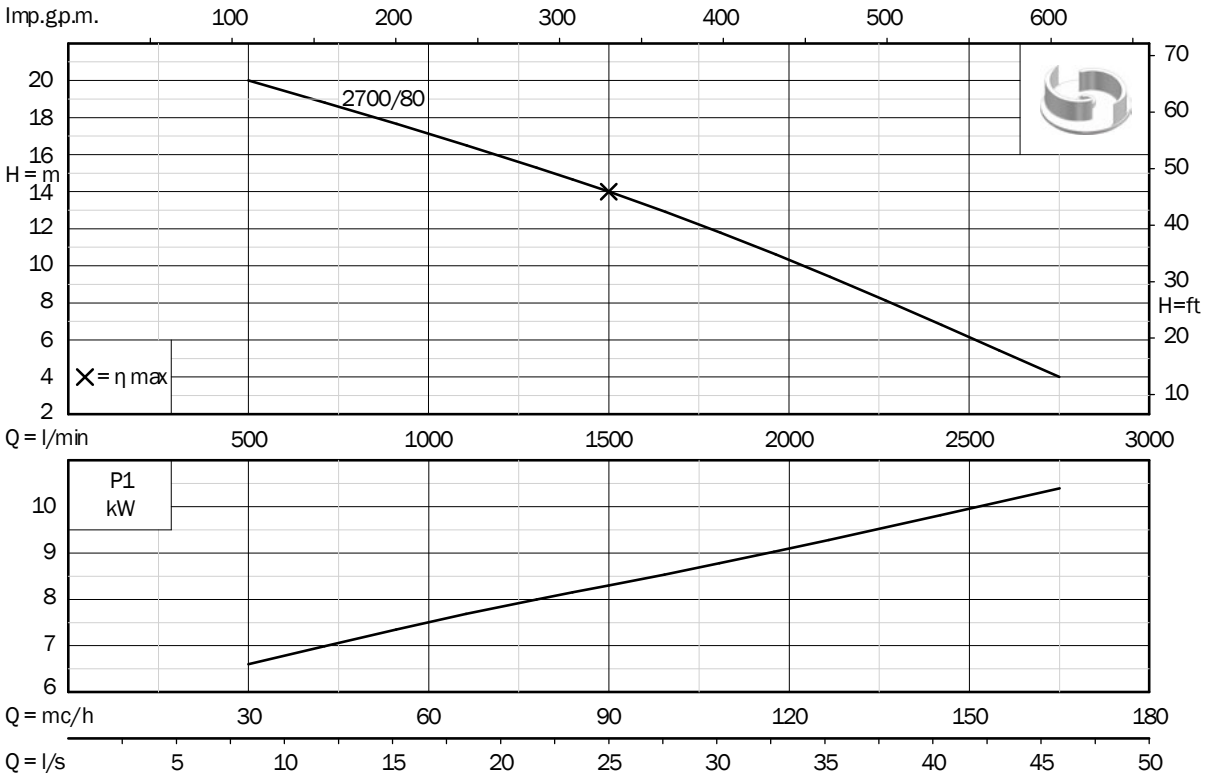
Channel impeller	P2		3~400 V	Poles	DNM	Solid Passage ø	Q	Flow													
	hp	kW	Max A				m³/h	0	15	30	45	60	72	78	90	96	108	123	135	150	165
							l/min	0	250	500	750	1000	1200	1300	1500	1600	1800	2050	2250	2500	2750
SEMISOM 2700/80	11	8	18	2	80	45x62	H (m)			20	18,5	17	15,8	15,3	14	13,4	12,1	10,4	8,7	6,5	4

PERFORMANCE CURVES



PERFORMANCE CURVES





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PERFORMANCE DATA - 2 poles 50 Hz

Vortex Impeller	Code	Version		P2		P1	Max	Flow		Ø solids	DNM	Dimensions (mm)				Weight
				hp	kW	kW	A	l/min	m			A	B	C	D	kg
SEMISOM 1555/80	ST/80/1555	400 V	3-phase	5,5	4	5,34	9,2	250 - 800 - 1500	13,5 - 10,6 - 4	74	80	703	78	383	295	65,5
SEMISOM 1255/80	ST/80/1255	400 V	3-phase	5,5	4	5,31	9,1	250 - 600 - 1200	14,6 - 13,2 - 7,7	74	80	703	78	383	295	65,5
SEMISOM 1055/80	ST/80/1055	400 V	3-phase	5,5	4	5,41	9,2	250 - 500 - 1000	16,4 - 15,5 - 11,4	74	80	703	78	383	295	65,5
SEMISOM 1775/80	ST/80/1775	400 V	3-phase	7,5	5,5	6,8	11,9	250 - 1200 - 1800	16,4 - 9,1 - 4,4	74	80	733	78	383	295	69
SEMISOM 1675/80	ST/80/1675	400 V	3-phase	7,5	5,5	7	12	250 - 1000 - 1600	18,2 - 13,7 - 7,4	74	80	733	78	383	295	69
SEMISOM 1375/80	ST/80/1375	400 V	3-phase	7,5	5,5	6,8	11,9	250 - 800 - 1300	20 - 16,8 - 11,6	74	80	733	78	383	295	69
SEMISOM 2100/80	ST/80/2100	400 V	3-phase	10	7,5	9	16,2	250 - 1300 - 2050	20 - 11,6 - 4	74	80	758	78	383	295	71
SEMISOM 1600/80	ST/80/1600	400 V	3-phase	10	7,5	9	16,2	250 - 1000 - 1500	23 - 18,3 - 12,6	74	80	758	78	383	295	71
SEMISOM 1200/80	ST/80/1200	400 V	3-phase	10	7,5	9,1	16,4	250 - 800 - 1200	25,4 - 22 - 18	74	80	758	78	383	295	71

P1: Max. absorbed power - P2: Nominal power of the motor

PERFORMANCE DATA - 4 poles 50 Hz

Vortex Impeller	Code	Version		P2		P1	Max	Flow		Ø solids	DNM	Dimensions (mm)				Weight
				hp	kW	kW	A	l/min	m			A	B	C	D	kg
SEMISOM 1504/80	ST/80/1504	400 V	3-phase	3,5	2,6	3,64	8,2	200 - 1000 - 1600	9,3 - 6,8 - 3,9	74	80	758	78	383	295	71

P1: Max. absorbed power - P2: Nominal power of the motor

PERFORMANCE DATA - 2 poles 50 Hz

Channel impeller	Code	Version		P2		P1	Max	Flow		Ø solids	DNM	Dimensions (mm)				Weight
				hp	kW	kW	A	l/min	m			A	B	C	D	kg
SEMISOM 2700/80	ST/80/2700	400 V	3-phase	11	8	10,4	18	500 - 1500 - 2750	20 - 14 - 4	45x62	80	758	78	383	295	71

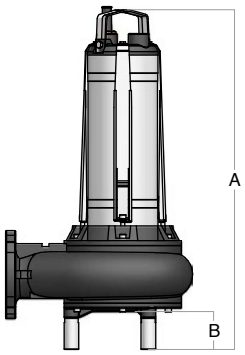
P1: Max. absorbed power - P2: Nominal power of the motor

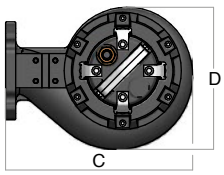
SUPPLIED WITH

10 meters power cable

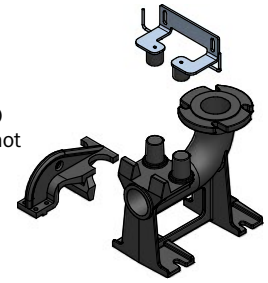
Micro thermostat to protect the motor from overheating to be wired to the protection/ control panel (type QT-MT - AM-AT)

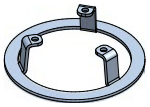
Humidity probe to be wired to the protection/control panel (type ATS - AT2S)





ACCESSORIES

Code	Description
04105053	Guide rail kit /80 (2" guide poles not included) 

Code	Description
04105054	Pump stand 

Code	Description
04105049	Threaded flange UNI EN 1092-1 

ILLUSTRATION OF AN INSTALLATION WITH GUIDE RAIL KIT