

# SEMISOM



# Electric submersible pumps SEMISOM

for grey water



## APPLICATION

To expel rainwater and liquids coming from electric household appliances

To drain tanks, cellars and garages

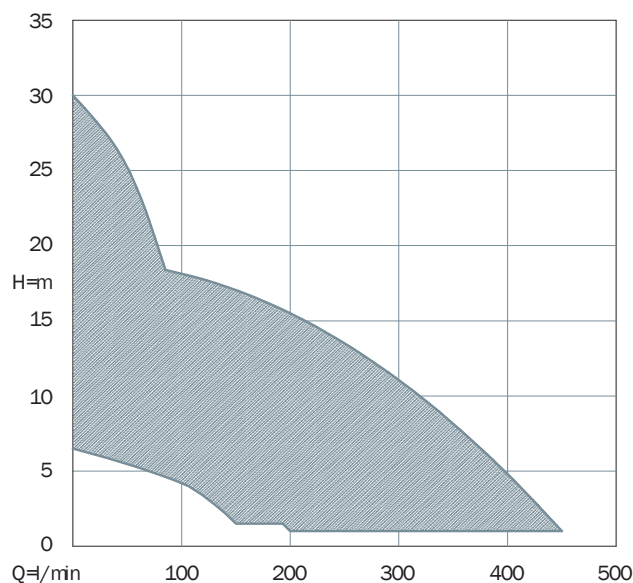
To transfer water from pools and fountains

Irrigation

## CHARACTERISTICS

	Semisom
IP rating	IP68
Duty (versions 1~230V - 3~400V)	Continuous S1
Duty (versions 24V DC)	Limited use S2 (60 minutes)
Maximum immersion depth (m)	20
Maximum number of starts per hour	40
Maximum temperature of the liquid pumped versions 1~230V - 3~400V (°C)	50
Maximum temperature of the liquid pumped versions 24V DC (°C)	35
PH of the liquid pumped	6 - 10
Density of the liquid pumped (kg/dm <sup>3</sup> )	<1,1
Suitable for inverter drive	Three-phase versions only

## APPLICATION RANGE



## CONSTRUCTION

1~230V - 3~400V versions: coolant filled, asynchronous, rewindable electric AC motor with short circuit rotor. Insulation Class F. Seminox with dry motor. Windings with phase insulators to protect the motor from power peaks, as a guarantee of a highly-trustworthy product.

24V DC with permanent magnets dry electric DC motor. Insulation Class F

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

Shafts machined on ball bearings and mechanical seals location

Double mechanical seal with oil-chamber in-between


## MATERIALS


Handle, tie-rods and motor casing	Stainless steel AISI304
Shaft	Stainless steel AISI420B
Cover and Volute	Mechanical cast iron EN GJL-250
Tie-rods	Stainless steel AISI304
Impeller	Mechanical cast iron EN GJL-200 (Semisom 190-130 in tecopolymer reinforced with fibre glass)
Mechanical seal	Silicon carbide and alumina
Seal ring	Gomma NBR
Elastomers	NBR rubber
Cable	Neoprene H07RN8-F; 24V DC: Twin Batt

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## PERFORMANCE DATA

Open impeller 	P2		1~230 V		3~400 V	24 V DC	Poles	DNM	Solid passage ø	Q	Flow								
	hp	kW	Max A	µF	Max A	Max A					m <sup>3</sup> /h	0	1,8	6	9	12	15	18	21
SEMISOM 190	0,5	0,37	2,45	8		24	2	1"¼	5	H (m)	10,5	9,5	7	4	1				
SEMISOM 320	0,75	0,55	4	12,5	1,7	28	2	1"¼	13		14	13	11,5	10	7,5	5	3		
SEMISOM 465	1,5	1,1	6	20	2,7		2	2"	5		19	18	16	15	13,5	12	10	7,5	5,5

Open impeller 	P2		1~230 V		3~400 V	24 V DC	Poles	DNM	Solid passage ø	Q	Flow									
	hp	kW	Max A	µF	Max A	Max A					m <sup>3</sup> /h	0	1,2	2,4	3,6	4,8	6			
SEMISOM 130	1,5	1,1	7,6	20	2,9		2	1"½	5	H (m)	30	29	26,5	23,5	19,5	15				

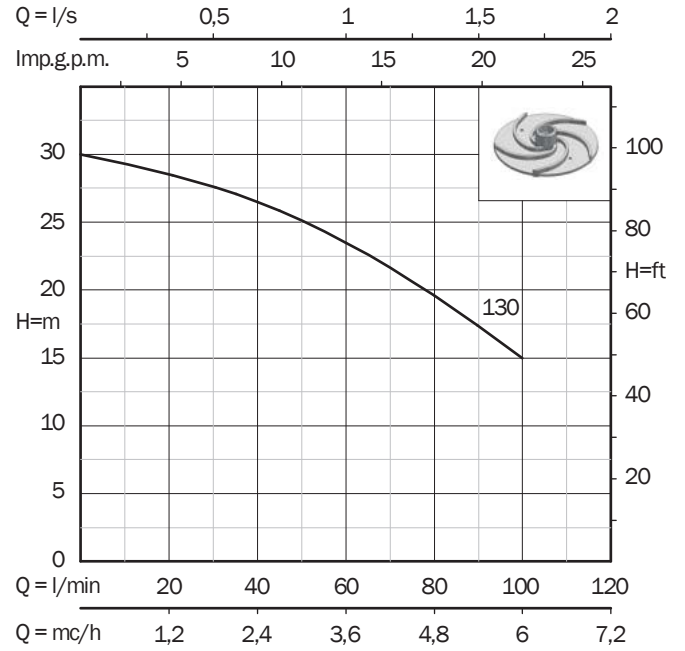
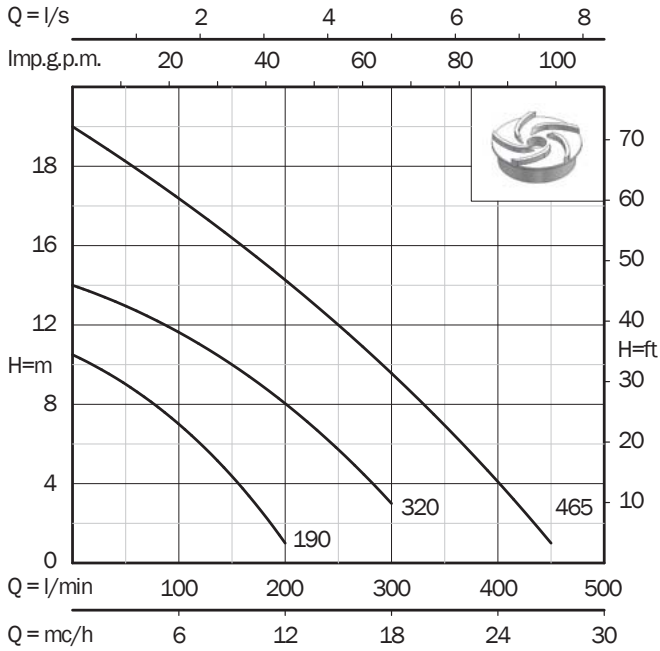
## AVAILABLE VERSIONS

Open impeller 	Vertical discharge 	Horizontal discharge 	Single-phase	Single-phase + Float switch	Single-phase + float and Internal capacitor	Three-phase	Three-phase + float	24 V
SEMISOM 190	•		VS	VS	VA	VS		VS
SEMISOM 320	•		VS	VS	VA	VS	VA	VS
SEMISOM 465	•		VS	VS	VA	VS	VA	

Open impeller 	Vertical discharge 	Horizontal discharge 	Single-phase	Single-phase + Float switch	Single-phase + float and Internal capacitor	Three-phase	Three-phase + float	24 V
SEMISOM 130		•	HS	HS		HS		

V = Vertical discharge; H = Horizontal discharge  
S = Standard version; A = Automatic version


## PERFORMANCE CURVES



# Electric submersible pumps SEMISOM series VA

for grey water, vertical discharge

## PERFORMANCE DATA 2 poles 60 Hz

Open impeller 	Code	Version		P2		Max	Flow		Ø solids	DNM	Dimensions (mm)				Weight kg
				hp	kW	A	l/min	m			A	B	C	D	
SEMISOM 190 VA	SMZ190+G/3	230 V	1-phase+float	0,5	0,37	2,45	30 - 150 - 200	9,5 - 4 - 1	5	1"¼	393	50	225	164	12,8
SEMISOM 320 VA	SMZ320+G/3	230 V	1-phase+float	0,75	0,55	4	30 - 200 - 300	13 - 7,5 - 3	13	1"¼	418	50	225	164	14,9
	STZ320+G/2	400 V	3-phase+float			1,7									16,7
SEMISOM 465 VA	SMZ465+G/3	230 V	1-phase+float	1,5	1,1	6	100 - 300 - 450	16 - 10 - 1	5	2"	484	60	250	172	21,8
	STZ465+G/2	400 V	3-phase+float			2,7									23,6

### SUPPLIED WITH

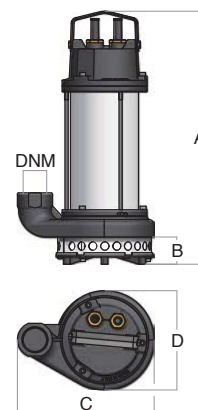
Power cable:  
 • 5 meters for single-phase versions  
 • 10 meters for three-phase versions



Capacitor and thermal protector put in a separate, easy-accessible, water tight chamber (single-phase versions)



Mini-contactor put in a separate, easy-accessible chamber (three-phase versions)




# Electric submersible pumps SEMISOM series VS


for grey water, vertical discharge



## PERFORMANCE DATA 2 poles 60 Hz

Open impeller 	Code	Version		P2		Max A	Flow		Ø solids	DNM	Dimensions (mm)				Weight kg
				hp	kW		l/min	m			A	B	C	D	
SEMISOM 190 VS	SMZ190	230 V	1-phase	0,5	0,37	2,45	30 - 150 - 200	9,5 - 4 - 1	5	1"¼	335	50	225	164	10,8
	SMZ190+G	230 V	1-phase+float												11
SEMISOM 320 VS	SMZ320	230 V	1-phase	0,75	0,55	4	30 - 200 - 300	13 - 7,5 - 3	13	1"¼	360	50	225	164	13
	SMZ320+G	230 V	1-phase+float												13,2
	STZ320	400 V	3-phase			1,7									13
SEMISOM 465 VS	SMZ465	230 V	1-phase	1,5	1,1	6	100 - 300 - 450	16 - 10 - 1	5	2"	440	60	250	172	19,5
	SMZ465+G	230 V	1-phase+float												19,7
	STZ465	400 V	3-phase			2,7									19,5

## PERFORMANCE DATA - 24 V DC

Open impeller 	Code	Version		P2		P1 kW	Max A	Flow		Ø solids	DNM	Dimensions (mm)				Weight kg
				hp	kW			l/min	m			A	B	C	D	
SEMISOM 190 VS	SF190	24 V	DC	0,5	0,37	0,58	24	30 - 150 - 200	9,5 - 4 - 1	5	1"¼	385	50	225	164	10,2
SEMISOM 320 VS	SF320	24 V	DC	0,75	0,55	0,67	28	30 - 200 - 300	11 - 5,5 - 0,5	13	1"¼	400	50	225	164	11,6

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

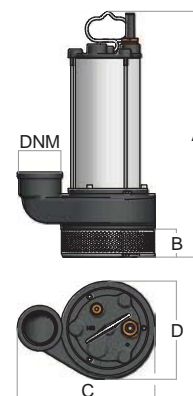


### SUPPLIED WITH

5 meters power cable



Control box containing capacitor and amperometric protection (single-phase versions)



## ACCESSORIES

Code	Description
02076100	QDC electromechanical direct starter (24 V DC versions)






# Electric submersible pumps SEMISOM series HS

for grey water, horizontal discharge

## PERFORMANCE DATA 2 poles 60 Hz

Open impeller 	Code	Version		P2		Max A	Flow		Ø solids	DNM	Dimensions (mm)				Weight kg
				hp	kW		l/min	m			A	B	C	D	
SEMISOM 130 HS	SMZ130	230 V	1-phase	1,5	1,1	7,6	20 - 60 - 100	29 - 23,5 - 15	5	1"½	426	69	240	190	22,2
	SMZ130+G	230 V	1-phase+float			2,9									22,4
	STZ130	400 V	3-phase	2,9	22,2										

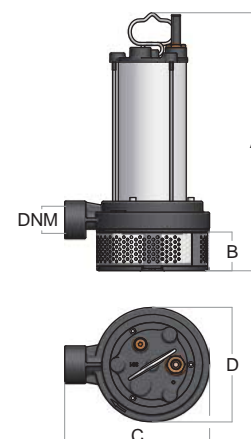
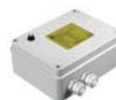


### SUPPLIED WITH

10 meters power cable

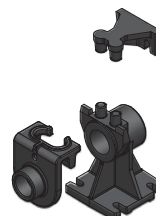


Control box containing capacitor and amperometric protection (single-phase versions)



## ACCESSORIES

Code	Description
04105042	Guide rail kit DNM 1"½ (¾" guide poles are not included)



**ILLUSTRATION OF AN INSTALLATION WITH GUIDE RAIL KIT**

