



### TECHNICAL DATA

**Power input voltage:** Single-phase 230 V  $\pm$  10 % 50 Hz

**Output voltage:** Single-phase 230 V  $\pm$  10 % 50 Hz

**Output frequency:** 50 Hz  $\pm$  0,005 %

**Operating temperature** -20° C + 60° C

**Humidity**  $\leq$  90 % without condensation

**Protection class:** IP 21

### APPLICATIONS

SOCCORRER systems are indicated in civil and industrial installations where the powering of a single-phase 230 V electric pump is required, and the temporary power interruption could cause flooding of areas underneath the water-sewage system, which could result in damage to people and property. The new SOCCORRER systems consist of two main sections: a metal support with wall fixing system, and the body made of self-extinguishing ABS. Their innovative design makes them suitable for installation in any environment.

### FUNCTIONALITY

SOCCORRER systems are completely automatic as they are managed by high performance processor, capable of controlling:

The lack of electricity network input and the need to use the battery power.

The type of battery and the charge level.

Recharging of batteries in the shortest possible time.

Starting and stopping of the electric pumps (also with safety float)

The overcurrent protection system.

Any electric pump overloads.

The automatic reset of the electric pumps.

That the pump is not operating without water.

Manual and automatic self-tests.

A free contact for remote alarm notification.

SOCCORRER systems are available with "single output" (one electric pump) and "dual output" (two electric pumps) output. In the "dual output" version, pumps can operate simultaneously, or in alternation.

### SUPPLY

SOCCORRER systems are supplied with: flood prevention controller, battery connection cables, sealed battery, battery shelf. The float is supplied separate. However, it is necessary for operation with non-automatic DAB pumps.

# SOCCORRER

## EMERGENCY SYSTEMS

SINGLE OUTPUT SOCCORRER			1 SINGLE-PHASE PUMP OPERATION (single well), M-A and M-NA drives	2 SINGLE-PHASE PUMP OPERATION (single well), M-A drive only
				2 SINGLE-PHASE PUMP OPERATION (2 separate wells), M-A drive only
MODEL	no. of BATTERIES	Max Electric pump current Amperes	PUMP MODEL (Autonomy in minutes)	PUMP MODEL (Autonomy in minutes)
<b>SOCCORRER 500</b>	4 x 12Ah	1.9	1 x Nova 180 (106 min.) 1 x Nova 200 (63 min.) 1 x Nova 300 (60 min.)	-
<b>SOCCORRER 600</b>	2 x 45 Ah	2.3	1 x Nova 180 (166 min.) 1 x Nova 200 (100 min.) 1 x Nova 300 (93 min.)	2 x Nova 180 (83 min.)
<b>SOCCORRER 600</b>	2 x 60 Ah	2.3	1 x Nova 180 (230 min.) 1 x Nova 200 (138 min.) 1 x Nova 300 (129 min.)	2 x Nova 180 (115 min.)
<b>SOCCORRER 1000 PLUS</b>	2 x 45 Ah	4.2	1 x Nova 600 (47 min.)	2 x Nova 200 (54 min.) 2 x Nova 300 (60 min.)
<b>SOCCORRER 1000 PLUS</b>	2 x 60 Ah	4.2	1 x Nova 600 (65 min.) 1 x Feka VS-VX 550 (49 min.)	2 x Nova 200 (73 min.) 2 x Nova 300 (66 min.)
<b>SOCCORRER 1000 PLUS</b>	2 x 100 Ah	4.2	1 x Nova 600 (123 min.) 1 x Feka VS-VX 550 (88 min.)	2 x Nova 200 (140 min.) 2 x Nova 300 (130 min.)
<b>SOCCORRER 1500</b>	4 x 60 Ah	5.7	1 x Nova 600 (121 min.) 1 x Feka 600 M (95 min.) 1 x Feka VS-VX 550 (98 min.) 1 x Feka VS-VX 750 (80 min.)	-
<b>SOCCORRER 1500</b>	4 x 100 Ah	5.7	1 x Nova 600 M (218 min.) 1 x Feka 600 M (172 min.) 1 x Feka VS-VX 550 (176 min.) 1 x Feka VS-VX 750 (144 min.)	-
<b>SOCCORRER 2000</b>	4 x 60 Ah	7.6	1 x Feka VS-VX 1000 (min. 62) 1 x Drenag 1000 (min. 68) 1 x Drenag 1200 (min. 55)	2 x Nova 600 (60 min.)
<b>SOCCORRER 2000</b>	4 x 100 Ah	7.6	1 x Feka VS-VX 1000 (min. 109) 1 x Drenag 1000 (min. 120) 1 x Drenag 1200 (min. 96)	2 x Nova 600 (106 min.)
<b>SOCCORRER 2500</b>	4 x 60 Ah	9.6	1 x Feka VS-VX 1200 (min. 47) 1 x Drenag 1400 (min. 44) 1 x Feka 1400 (min. 47)	2 x Feka 600 (min. 47) 2 x Feka VS-VX 550 (min. 48)
<b>SOCCORRER 2500</b>	4 x 100 Ah	9.6	1 x Feka VS-VX 1200 (min. 83) 1 x Drenag 1400 (min. 78) 1 x Feka 1400 (min. 85)	2 x Feka 600 (min. 84) 2 x Feka VS-VX 550 (min. 86)
<b>SOCCORRER 3000</b>	4 x 60 Ah	11.5		2 x Feka VS-VX 750 (min. 40)
<b>SOCCORRER 3000</b>	4 x 100 Ah	11.5		2 x Feka VS-VX 750 (min. 66)
<b>SOCCORRER 4000</b>	4 x 100 Ah	15.2		2 x Feka VS-VX 1000 (min. 60)
<b>SOCCORRER 4000</b>	4 x 180 Ah	15.2	1 x Feka VS-VX 1000 (min. 220) 1 x Feka VS-VX 1200 (min. 169) 1 x Drenag 1000 (min. 243) 1 x Drenag 1200 (min. 195) 1 x Drenag 1400 (min. 159) 1 x Feka 1400 (min. 172)	2 x Feka VS-VX 1000 (min. 108)
<b>SOCCORRER 5000</b>	4 x 100 Ah	20		2 x Feka VS-VX 1200 (min. 41) 2 x Drenag 1400 (min. 37) 2 x Feka 1400 (min. 42)
<b>SOCCORRER 5000</b>	4 x 180 Ah	20		2 x Feka VS-VX 1200 (min. 73) 2 x Drenag 1400 (min. 66) 2 x Feka 1400 (min. 75)

# SOCCORRER

## EMERGENCY SYSTEMS

SOCCORRER WITH DUAL ALTERNATE OUTPUT			2 SINGLE-PHASE PUMP ALTERNATE OPERATION (single well), M-A and M-NA drives	2 SINGLE-PHASE PUMP ALTERNATE + SIMULTANEOUS OPERATION
			(single well), M-A and M-NA drives	
MODEL	no. of BATTERIES	Max Electric pump current Amperes	PUMP MODEL (Autonomy in minutes)	PUMP MODEL (Autonomy in minutes)
<b>SOCCORRER 600</b>	2 x 45 Ah	2.3	1 x Nova 180 (166 min.) 1 x Nova 200 (100 min.) 1 x Nova 300 (93 min.)	2 x Nova 180 (166/83 min.)
<b>SOCCORRER 600</b>	2 x 60 Ah	2.3	1 x Nova 180 (230 min.) 1 x Nova 200 (138 min.) 1 x Nova 300 (129 min.)	2 x Nova 180 (230/115 min.)
<b>SOCCORRER 1000 PLUS</b>	2 x 45 Ah	4.2	1 x Nova 600 (47 min.)	2 x Nova 200 (108/54 min.) 2 x Nova 300 (100/50 min.)
<b>SOCCORRER 1000 PLUS</b>	2 x 60 Ah	4.2	1 x Nova 600 (65 min.) 1 x Feka VS-VX 550 (49 min.)	2 x Nova 200 (146/73 min.) - 2 x Nova 300 (132/66 min.)
<b>SOCCORRER 1000 PLUS</b>	2 x 100 Ah	4.2	1 x Nova 600 (123 min.) 1 x Feka VS-VX 550 (88 min.)	2 x Nova 200 (280/140 min.) 2 x Nova 300 (260/130 min.)
<b>SOCCORRER 1500</b>	4 x 60 Ah	5.7	1 x Nova 600 (121 min.) 1 x Feka 600 M (95 min.) 1 x Feka VS-VX 550 (98 min.) 1 x Feka VS-VX 750 (80 min.)	-
<b>SOCCORRER 1500</b>	4 x 100 Ah	5.7	1 x Nova 600 M (218 min.) 1 x Feka 600 M (172 min.) 1 x Feka VS-VX 550 (176 min.) 1 x Feka VS-VX 750 (144 min.)	-
<b>SOCCORRER 2000</b>	4 x 60 Ah	7.6	1 x Feka VS-VX 1000 (min. 62) 1 x Drenag 1000 (min. 68) 1 x Drenag 1200 (min. 55)	2 x Nova 600 (120/60 min.)
<b>SOCCORRER 2000</b>	4 x 100 Ah	7.6	1 x Feka VS-VX 1000 (min. 109) 1 x Drenag 1000 (min. 120) 1 x Drenag 1200 (min. 96)	2 x Nova 600 (212/106 min.)
<b>SOCCORRER 2500</b>	4 x 60 Ah	9.6	1 x Feka VS-VX 1200 (min. 47) 1 x Drenag 1400 (min. 44) 1 x Feka 1400 (min. 47)	2 x Feka 600 (min. 94/47) 2 x Feka VS-VX 550 (min. 96/48)
<b>SOCCORRER 2500</b>	4 x 100 Ah	9.6	1 x Feka VS-VX 1200 (min. 83) 1 x Drenag 1400 (min. 78) 1 x Feka 1400 (min. 85)	2 x Feka 600 (min. 168/84) 2 x Feka VS-VX 550 (min. 172/86)
<b>SOCCORRER 3000</b>	4 x 60 Ah	11.5		2 x Feka VS-VX 750 (min. 80/40)
<b>SOCCORRER 3000</b>	4 x 100 Ah	11.5		2 x Feka VS-VX 750 (min. 132/66)

### MAIN DISPLAY ITEMS

- Socorrer systems are equipped with a display and an easy to use software that shows:
- the power input voltage, in V (Volts);
  - the power absorbed by the electric pump when connected to the electricity power network, in VA (Volt Amperes);
  - the battery recharge current when connected to the electricity power network, in A (Amperes);
  - the battery voltage, in V (Volts);
  - the maximum overload current, in A (Amperes);
  - the number of electric pump starts when connected to the electricity power network;
  - the number of electric pump starts using the energy from the batteries;
  - the time of operation of the electric pump in hours and minutes, while absorbing power from the batteries;
  - the total time of operation of the electric pump in hours and minutes (batteries + electricity power network);
  - the number of hours of operation, which can be set by the user, in order to perform the self-test (only for electric pumps with float directly connected to the system);
  - the serial number;
  - the microprocessor version.

#### MACHINE DETAILS

```
U1 228V P: 486VA
Ub50.9V Ib: 4.7A
```

```
MATRICOLA
1000-07-0830
```

#### TEST

```
TEST 1↑/2↓ ENTER
230 26.2 P 427VA
```

```
TEMPO FRA I TEST
↓↑ 44 ORE ENTER
```

```
DURATA DEI TEST
↑↓ 12 sec. ENTER
```

#### LOG

```
INTERVENTI EPS
IN RETE : 41900
```

```
INTERVENTI EPS
SU BATT.: 06801
```

```
USCITA RETE ON
00024 h 15 min.
```

```
USCITA INV. ON
00012 h 05 min.
```

MODEL	ELECTRICAL DATA			HYDRAULIC DATA																		
	In A	P2 NOMINAL kW	HP	Q m <sup>3</sup> /h l/min	0	1	2	3	4.5	5	6	7	7.5	9	10	12	15	18	24	30		
NOVA 180 M-A	0.9	0.22	0.3	H (m)	4.95	4.45	3.9	3.15	1.7	1.15												
NOVA 180 M-NA	0.9	0.22	0.3		4.95	4.45	3.9	3.15	1.7	1.15												
NOVA 200 M-NA	1.5	0.22	0.3		7.1	6.6	6.1	5.6	4.9	4.7	4.2	3.7	3.5	2.8	2.35	1.5						
NOVA 300 M-A	1.6	0.22	0.3		7.18	6.7	6.23	5.8	5.2	5	4.6	4.2	4	3.42	3	2.2						
NOVA 600 M-A	3.4	0.55	0.75		10.2	9.7	9.3	8.9	8.3	8.1	7.8	7.4	7.2	6.6	6.1	5	3.1					
NOVA 600 M-NA	3.4	0.55	0.75		10.2	9.7	9.3	8.9	8.3	8.1	7.8	7.4	7.2	6.6	6.1	5	3.1					
FEKA 600 M-A	4.3	0.55	0.75		7.45	7.1	6.75	6.45	6.1	5.95	5.7	5.45	5.35	4.95	4.7	4.1	2.8					
FEKA 600 M-NA	4.3	0.55	0.75		7.45	7.1	6.75	6.45	6.1	5.95	5.7	5.45	5.35	4.95	4.7	4.1	2.8					
FEKA VS-VX 550 M-A	4.2	0.55	0.75		7.4	7.3	7.2	6.9	6.7	6.6	6.2	6.0	5.9	5.6	5.2	4.1	3.2	1.8				
FEKA VS-VX 550 M-NA	4.2	0.55	0.75		7.4	7.3	7.2	6.9	6.7	6.6	6.2	6.0	5.9	5.6	5.2	4.1	3.2	1.8				
FEKA VS-VX 750 M-A	5.13	0.75	1		9.6	9.5	9.4	9.2	9.0	8.9	8.5	8.3	8.2	7.6	7.2	6.7	5.6	4.3	1.9			
FEKA VS-VX 750 M-NA	5.13	0.75	1		9.6	9.5	9.4	9.2	9.0	8.9	8.5	8.3	8.2	7.6	7.2	6.7	5.6	4.3	1.9			
FEKA VS-VX 1000 M-A	6.63	1.00	1.36		11.8	11.7	11.6	11.3	11.1	11.0	10.5	10.3	10.2	9.8	9.4	9.0	8.0	6.8	4.1			
FEKA VS-VX 1000 M-NA	6.63	1.00	1.36		11.8	11.7	11.6	11.3	11.1	11.0	10.5	10.3	10.2	9.8	9.4	9.0	8.0	6.8	4.1			
FEKA VS-VX 1200 M-A	8.63	1.20	1.60		14	13.9	13.8	13.4	13.2	13.0	12.8	12.6	12.5	12.0	11.6	11.2	10.1	9.0	6.7			
FEKA VS-VX 1200 M-NA	8.63	1.20	1.60		14	13.9	13.8	13.4	13.2	13.0	12.8	12.6	12.5	12.0	11.6	11.2	10.1	9.0	6.7			
DRENAG 1000 M-A / M-NA	6	1	1.36		15.3			13.7	13.2	13	12.1	11.5	11.2	10.5	10	8.7	6.8	4.7				
DRENAG 1200 M-A / M-NA	7.5	1.2	1.6		17			15.4	14.7	14.5	13.8	13.4	13	12.4	11.8	10.7	9	7.3	3.3			
DRENAG 1400 M	9.2	1.1	1.5		19.2						17	16.5	16.3	15.9	15.6	14.6	13.5	12.1	9	5.5		
FEKA 1400 M	8.5	1.1	1.5		13.9						12	11.6	11.4	11	10.8	9.9	8.9	7.8	5.7	3.4		

# SOCCORRER

## EMERGENCY SYSTEMS

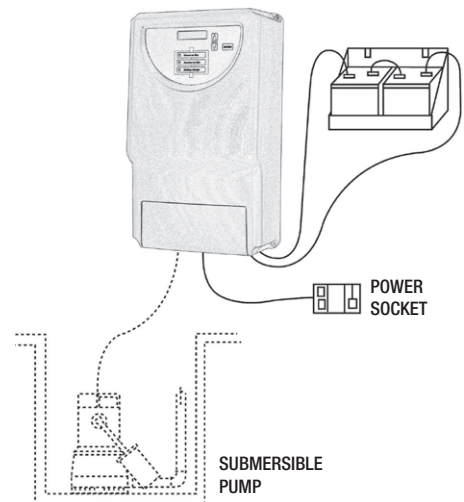
### SINGLE OUTPUT (1 PUMP)

The SOCCORRER KIT includes:

- Flood prevention controller preset for the connection of 1 electric pump.
- Sealed batteries\*.
- Battery shelves (excluding 180 Ah batteries).
- Kit of battery connection cables.
- Instruction manual.

**The pumps, the floats, and the other accessories must be ordered separately.**

**\* Built-in for the Soccorrer 500 model**

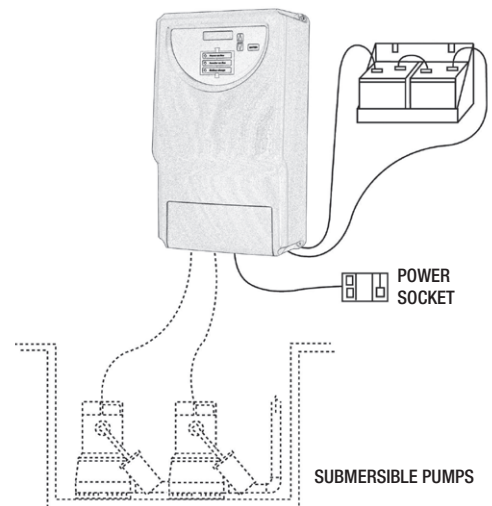


### DUAL OUTPUT (2 PUMPS)

The SOCCORRER KIT includes:

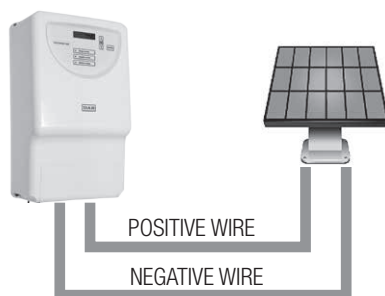
- Flood prevention controller preset for the connection of 2 electric pumps.
- Sealed batteries.
- Battery shelves (excluding 180 Ah batteries).
- Kit of battery connection cables.
- Instruction manual.

**The pumps, the floats, and the other accessories must be ordered separately.**



### CONNECTION TO PHOTOVOLTAIC PANELS (OPTIONAL)

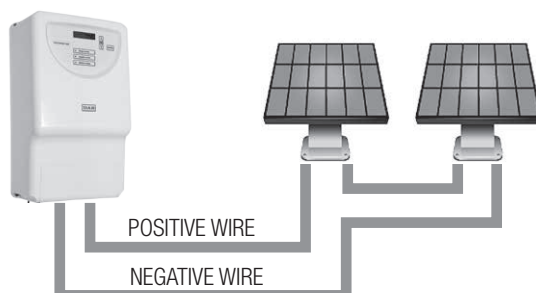
The photovoltaic panels for charging the batteries, for isolated use, must be connected to the input connector underneath the equipment.



#### CONNECTION

E.P.S. 600  
E.P.S. 1000Gold

Maximum no-load input voltage 100 V  
Maximum power of panels 800 W



#### CONNECTION

E.P.S. 1500 E.P.S. 2000 E.P.S. 2500 E.P.S. 3000  
E.P.S. 4000 E.P.S. 5000

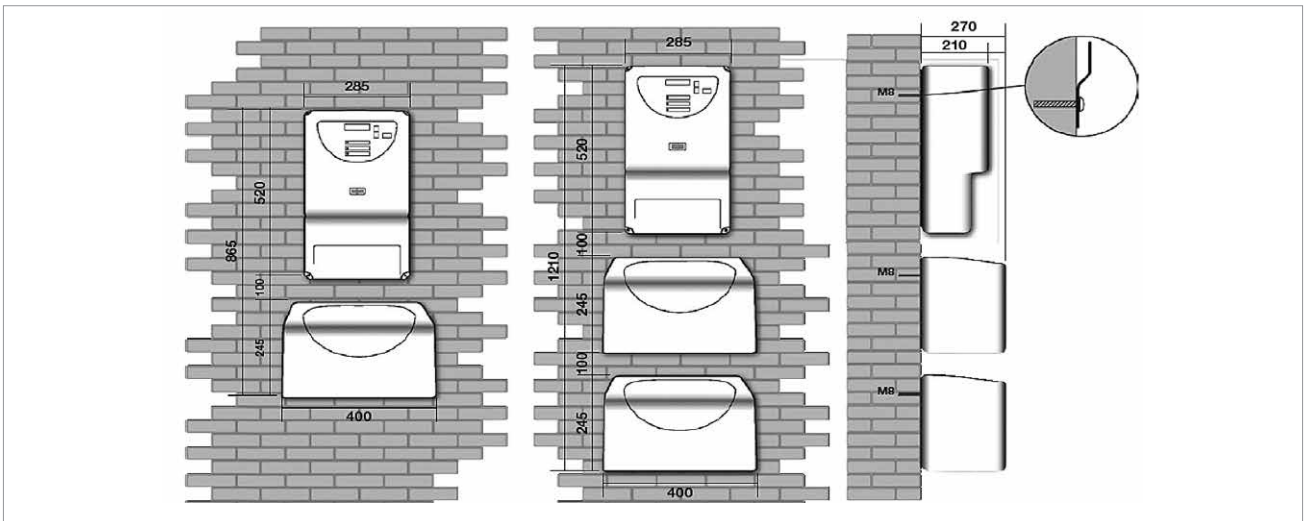
Maximum no-load input voltage 100 V  
Maximum power of panels 800 W

### TECHNICAL DATA AND CONFIGURATION

TECHNICAL DATA	SOCCORRER 500	SOCCORRER 600	SOCCORRER 1000	SOCCORRER 1500	SOCCORRER 2000	SOCCORRER 2500	SOCCORRER 3000	SOCCORRER 4000	SOCCORRER 5000
Power input voltage	SINGLE-PHASE 230 V ± 10 % 50 HZ								
Output voltage	SINGLE-PHASE 230 V ± 10 % 50 HZ								
Output frequency	50 Hz ± 0,005 %								
Battery voltage	48 Vdc	24 Vdc					48 Vdc		
Limits of operation of the battery	40 Vdc	20 Vdc					40 Vdc		
Yield	97%	93%					97%		
Connection time	1 second								
Battery network switch	Automatic								
Maximum battery charger power from network	400 W								
Maximum battery charger power from photovoltaic	800 W								
Photovoltaic panel input voltage	100 Volts								
Operation	With MPPT adjustment								
Recharging time									
Consumption from network with battery charged	8/10 hours	Form power network 8/10 hours - Power network + photovoltaic (500 W) 4/5 hours - Photovoltaic only ( 500 W) 7/9 hours							
Maximum power delivered	500 VA	600 VA	1200 VA	1500 VA	2000 VA	2500 VA	3000 VA	4000 VA	5000 VA
Maximum current delivered	2.2 A	2.6 A	5.3 A	6.5 A	8.7 A	11 A	13 A	17.4 A	22 A
Max motor electric pump current	1.9 A	2.3 A	4.2 A	5.7 A	7.6 A	9.6 A	11.5 A	15.2 A	20 A
Maximum starting current	10 A	10 A	20 A	20 A	25 A	30 A	30 A	50 A	50 A
Operating temperature	-20 °C - 60 °C								
Humidity	≤ 90 % without condensation								
Protection class	IP 21								
Electronic protections	Overload / Short circuit / Minimum battery voltage								
Electric protections	Input fuse / battery output								
Standards	CEI EN 62040 - 1 - CEI EN 62040 - 2 - CEI EN 60204 - 1 - CEI EN 50171								

# SOCCORRER

## EMERGENCY SYSTEMS



MODEL	PACKING DIMENSIONS			WEIGHT kg
	L/A	L/B	H	
SOCCORRER 500	285	210	520	32
SOCCORRER 600	285	210	520	18
SOCCORRER 1000	285	210	520	26
SOCCORRER 1500	285	210	520	30
SOCCORRER 2000	285	210	520	36
SOCCORRER 2500	285	210	520	40
SOCCORRER 3000	285	210	520	44
SOCCORRER 4000	285	210	520	46
SOCCORRER 5000	285	285	285	55

### ACCESSORIES ON REQUEST TO BE ORDERED SEPARATELY

ACCESSORY TABLE		1 <sup>ST</sup> FLOAT		2 <sup>ND</sup> FLOAT		MDM CONTROL PANEL	SEALED BATTERY	ACOUSTIC VISUAL ALARM
SOCCORRER	PUMP TYPE	M-NA	M-A	M-NA	M-A	FEKA 1400M DRENAG 1400 M		
	Single output	●	⊗	○	⊗	●	○	○
	Dual output (alternated)	●	⊗	○	⊗	●	○	○
Dual output (simultaneous)	●	●	●	⊗	●	○	○	

● Required    ○ Safety / Optional    ⊗ Not required

### ACCESSORIES

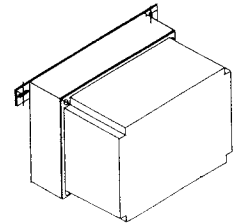
#### FLOAT

- 5 metres.
- 10 metres.
- 15 metres.
- 20 metres.



#### CONTROL MDN

Controller for the protection and the automatic and manual operation of DRENAG 1400 M and FEKA 1400 M single-phase electric pumps. Supplied in plastic self-extinguishing box with pre-assembled bracket for wall installation. With manual reset micro circuit breaker for overload protection, automatic reset thermal protection, start-up capacitor.



MODEL	DIMENSIONS (mm)			WEIGHT kg
	L	H	P	
CONTROL MDN	198	168	148	2.1

#### SEALED BATTERIES

- Sealed batteries
- Zero maintenance
- Longer duration
- Power check for visual control of the charge status
- Lead/Calcium/Tin technology
- Double thermally welded cover with "flame Arrest" pellet
- Anti-corrosion poles
- Case bottom with "Frex Ribs" for vibration absorption
- Nominal voltage 12 VDC
- Average battery life 4/5 years.



MODEL	DIMENSIONS (mm)			WEIGHT kg
	L	H	P	
SEALED 60AH BATTERY	242	190	175	14.4
SEALED 90AH BATTERY	352	190	175	23.3

#### ACOUSTIC AND VISUAL ALARM

Flashing siren, powered by the batteries of the flooding prevention system, complete with activation float.

