

# ELECTRONIC PROTECTION AND CONTROL PANELS WITH INVERTER FOR SOLAR PANEL SYSTEMS

SUNDRIVER



## TECHNICAL DATA

### Nominal power input voltage:

VDC 420 V

VAC 300 V

**Frequency:** 50 Hz

### Maximum power of use:

0.37-3 kWatt

0.5-4 Hp

### Pump operating range:

230 V pump power input

PUMP ON = above 290 V<sub>DC</sub> / 206 V<sub>AC</sub>

PUMP OFF = below 190 V<sub>DC</sub> / 135 V<sub>AC</sub>

115 V pump power input

pump on = above 140 V<sub>DC</sub> / 100 V<sub>AC</sub>

pump off = below 110 V<sub>DC</sub> / 180 V<sub>AC</sub>

**Ambient temperature operation limits:** + 50° C

**Protection class:** IP 54

## SOLAR APPLICATION

Electronic protection and control panels with inverter for “off-grid” photovoltaic systems for use in several types of pumping systems, from collection from the subsoil, to circulation, swimming pool filtering, transfer and accumulation of water.

## FEATURES

SUNDRIVER is designed to be powered mainly by solar energy. However, in case of need, powering from the electricity network or from a generator is also possible - using a manual selector switch -, therefore also ensuring operation when solar energy is not available.

The main control and protection functions are:

- Pump control based on the power available from the photovoltaic generator, with the possibility of enabling and disabling operation using the ON-OFF selector
- Motor overcurrent
- Overvoltage supplied by the photovoltaic generator
- Inverter overtemperature
- Motor short circuit
- Dry-run and/or overflow operation protection by means of:
  - Torque control (-30% of the torque factor) normally active.
  - Level probes (2 pieces included).
  - Float (accessory).
  - ON/OFF flow switch (accessory).

Note: Several dry-run protections may be used at the same time.

Possibility of disabling dry-run protection for specific applications.

## CONTROL PANEL CONSTRUCTION

Supplied on metal box, with protection class IP54

### PANEL FRONT COMPONENTS

- General disconnecter with padlockable door lock for the selection of the power supply: LINE - OFF - SOLAR
- ON - OFF selector.
- Alarm DEFAULT/RESET LED button.
- Voltage and pump operation warning LED.

### PANEL SIDE COMPONENTS

- Ventilation grids
- Power and sensor signal input and output cable glands

### PANEL INTERNAL COMPONENTS

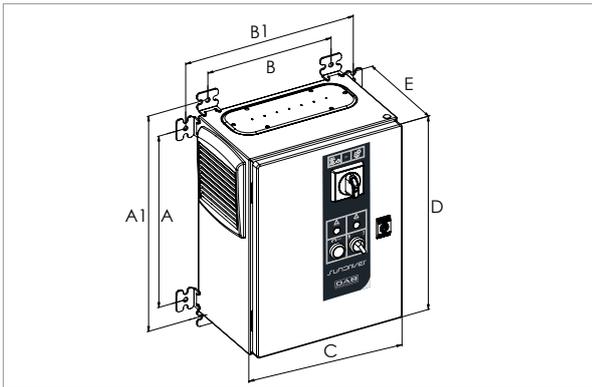
- Command and control inverter, protection fuses, level probe management control unit.
- Power input connection terminals, single phase (L-N for versions 1/50, 2/50, 3/50, 1/60, 2/60) or three phase (L1-L2-L3 for versions 3/60, 4/50, 4/60).
- Solar power input connection terminals (+ -) for all versions
- U-V-W three phase electric pump connection terminals for all versions.
- Connection terminals for pressure switches, floats and level probes and macro selection based on the pump model.

### COMPONENTS SUPPLIED WITH THE PANEL

- 2 electric probes

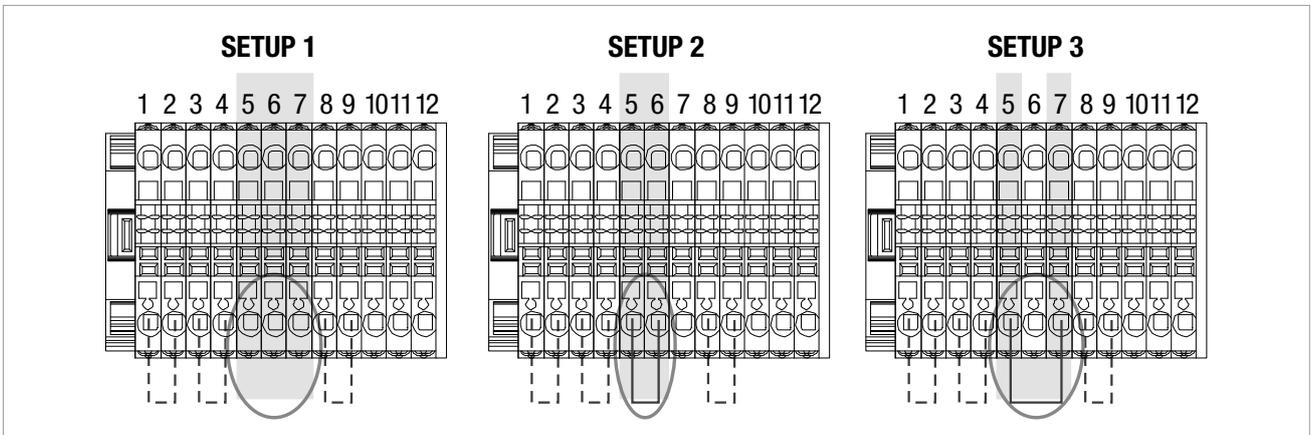
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SUNDRIVER



MODEL	A	A1	B	B1	C	D	E	PACKING DIMENSIONS			WEIGHT kg
								L/A	L/B	H	
SUNDRIVER 1/50	350	440	250	340	300	400	200	505	405	305	11,5
SUNDRIVER 2/50	350	440	250	340	300	400	200	505	405	305	11,5
SUNDRIVER 3/50	350	440	250	340	300	400	200	505	405	305	12
SUNDRIVER 4/50	350	440	250	340	300	400	200	505	405	305	12

The simplicity of installation is mainly due to a pre-setting of the inverter parameters based on the electric data of the pump being powered. The selection of the SETUP to use is based on the selection table (supplied with the product), and the same may be completed with a simple electric contact.



MODEL	ELECTRICAL DATA					
	NETWORK VOLTAGE 50 HZ	PUMP VOLTAGE 50 HZ	SETUP	P2 NOMINAL		In A
				kW	HP	
SUNDRIVER 1/50	115-230 V M	115 T	SETUP 1	0,37	0,5	4,7
			SETUP 2	0,55	0,75	7,5
			SETUP 3	0,75	1	9,1
SUNDRIVER 2/50	230 V M	230 T	SETUP 1	0,37	0,5	2,8
			SETUP 2	0,55	0,75	3,8
			SETUP 3	0,75	1	4,5
SUNDRIVER 3/50	230 V M/T	230 T	SETUP 1	1,1	1,5	6,2
			SETUP 2	1,5	2	7,9
SUNDRIVER 4/50	230 V T	230 T	SETUP 1	2,2	3	10,4
			SETUP 2	3	4	13,6

## ACCESSORIES

	FLOAT	5 metres
		10 metres
		15 metres
		20 metres
	BULB FLOAT	10 metres
		20 metres

