



This 600W / 90V max regulator is the multi-battery-charger version of our MPPT SDD range, buck or buck-boost, with power increasing, in steps, from 150W up to ≥ 2.4 kW / 100V. Controlled by two innovative analog MPPT (sheet "5116" ①), it benefits from extreme reliability and miniaturization (130cm³, excluding cooling), as well as 98% max efficiency and IP67 sealing. These qualities, combined with two 300W photovoltaic panels, provide optimized solar charging for 6 types of lithium batteries (from 12V to 72V), with maximum charging currents from 15A to 6.8A.

Permissible input voltage V_{in} of the regulator MPPT: 33 to 52V (16.5 to 52V at half-power)

V_{in} is supplied by mono- or poly-crystalline cells (0.55V and 5W each), the number of which determines the voltage V_p and the power of the photovoltaic panel. The panel generally comprises 60 or 72 cells. Example: 1) a 60-cell panel supplies 300W at 33V. 2/ lit at 83%, a 72-cell panel would supply 300W.

Power supplied by the panel ≥ 1.1 (V_{out} charger x I_{out})

V_{out}: either fixed (your choice), or adjustable 14V to 90V / 15A to 6.8A

2 panels		Charging current according to battery type			
cells	V _p (V)	Type	Nominal voltage (V)	Load voltage (V)	I _{load} (A)
60	33	12	12.8	14,4	15 max
		24	25.6	28.8	15 max
		36	38.4	43.2	14
		48	51.2	57.6	10.4
		60	64	72	8.2
		72	76.8	86.4	6.8

Two 30-cell panels deliver the same output voltages, but with load currents halved.

Note: these two panels must be mounted separately (please see product label above).

The battery can be replaced by a classic receiver, for example a 72V / 600W motor.

Thermal characteristics:

- > case thermal resistance (R_{th}): 5°C / W
- > extreme case temperatures: -30°C to +90°C (info: when charged, these batteries can withstand temperatures from 0 to 50°C)
- > cooling: direct on wall or, optionally, in heatsink D4 or D6, R_{th} = 2°C and 1°C / W

Options: custom output voltages; V_{out} adjustment via external resistor; outputs on molded wires.

Standards and special features: EN / UL / CSA / 60950-1 / RoHS; MTBF: > 10⁶ hours, base at 50°C (with thermal grease)

Specialized since 1974 in electrical energy conversion, analog calculation and signal processing, over the past 5 years we have also been studying and testing our innovative MPPT (breakthrough technique and technology, new patent). We have also expanded our knowledge of green, autonomous or complementary energies. So please do not hesitate to ask us for advice if our technical data sheets are not sufficiently didactic. **Note:** we are also involved in the development of ultra-light photovoltaic panels, with the option of an inbuilt MPPT controller, 150 or 300W.