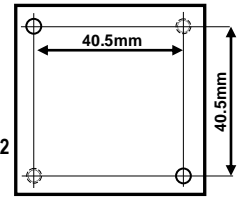
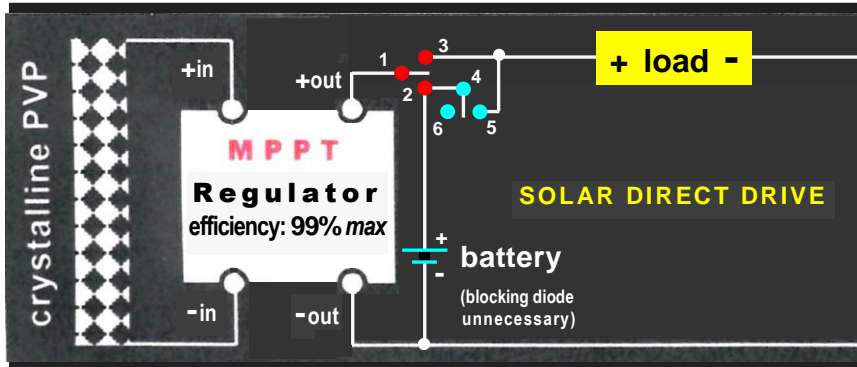


Case: molded aluminum
 > 51 x 51 x thickness 26
 > weight: 140g (without heatsink)
 Terminal blocks: screw + clamp
 with maximum wire cross-section 30mm²
 Fixing: two-sided (two M4)



SKU: case, type, Vout (or Vout range), İout, option					Unit price (€)
case	type	Vout (V)	Vout range (V)	İout (A)	
A1	BB	12		15	
		24		12.5	
		42		7.1	
			5 / 50	15 / 6	
Some options and references			heatsink : D4 on / off : ON wired outputs: F		
Examples of references			A1-BB-24-12,5-D4 A1-BB-5/50-15/6-F		



In the absence of a battery, the torque and speed of a motor (e.g. helical pump) adapt perfectly to variations in light levels, morning, noon and evening. What's more, with a response time of < 0.1 seconds, our MPPT regulator takes the strain off mechanical transmissions: suddenly connected to a loaded motor, it supplies it with a voltage that is immediately lowered, then restored linearly in a matter of seconds.

link	link	receiver supply	battery supply
1 & 3	4 & 6	yes	no
1 & 2	4 & 6	no	yes
1 & 3	4 & 5	yes	yes

This 300W *max* regulator is the buck-boost version of our MPPT SDD range, buck or buck-boost, with power increasing, in steps from 150W up to $\geq 2.4\text{kW} / 100\text{V}$. Controlled by our innovative analog MPPT (sheet "5116" ①), it benefits from extreme reliability and miniaturization (68cm³, excluding cooling), as well as $\leq 98\%$ efficiency and IP67 sealing. These qualities, and the choice of a suitable photovoltaic panel, facilitate a wide range of Solar Direct Drive applications: refrigerator, fan, helicoidal pump, tricycle ... and even, possibly, direct installation under the aluminum edge of the photovoltaic panel.

Vin input voltage: any voltage, from 10V to 52V Pin input voltage: $\approx 10\text{W} \times \text{Vin}$ (Pin $\leq 320\text{W}$)
Vin is supplied by mono- or poly-crystalline cells (0.55V and 5W each), the number of which determines the voltage Vp and the power of the photovoltaic panel. The panel generally comprises 18, 30 or 60 cells. Example: a 18-cell panel supplies 90W at 10V. Power supplied by the panel ≥ 1.1 (Vout regulator x İout)
Vout output voltage: any, from 5V to 50V Pout output power: Pin x efficiency (İout $\leq 15\text{A}$)

PANEL		Some possibilities with the regulator (300W max)		
cells	Vp (V)	Vout (V)	İout max(A)	efficiency
18	10	5 to 44	12 / 2	0.90 / 0.93
30	16.5	24	6.5	0.96
		36	4.4	0.98
		42	3.7	0.98
60	33	24	12.5	0.98
		36	8.3	0.98
		42	7.1	0.98

Thermal characteristics:

- > case thermal resistance (Rth): 7°C / W
- > extreme case temperatures: -30°C to +90°C
- > cooling: direct on wall or, optionally, in heatsink D4, Rth = 2°C / W

Options: custom output voltages; molded-wire outputs; heatsinks with lower Rth.

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.

For initial information, see data sheets "5116" ①, "5088" ②, "6154" ③ and "6013" ④

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