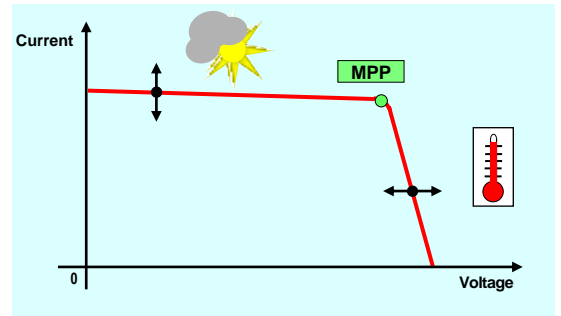


With a view to reducing fossil fuel consumption, which is partly responsible for global warming, we are contributing to the decarbonization of energy by providing mini-module regulators that use instantaneous electronic control to optimize the variable solar energy delivered by photovoltaic panels (PVP).

This optimization requires permanent **tracking** of the operating point (MPP) in order to maintain it on the precise zone of the “current/voltage” response curve at the **Maximum Power Point Tracking (MPPT)** so that the product “current delivered x PVP output voltage” determines maximum available power.



Our tracking acts, at high speed, by modulating the consumption of the load (motor, battery, resistor, electrolyser...), thus maintaining maximum electrical production, despite variations in light intensity, temperature and load impedance.

Our **MPPT** modules, standard or on-demand (currently from 150W to 2.4kW), are self-powered and therefore do not require the presence of a battery to operate, even at low light levels. What's more, they are miniaturized, precise and more reliable thanks to the absence of chemical capacitors. The simplicity of their analog servo-controls means they can be restarted automatically in the event of a cyber-attack.

As an example, our best-selling MPPT buck-boost regulator (see data sheet 6183, no. 16) has the following features:

- accepts any input voltage, from $\leq 10V$ to 60V,
- maximum output voltage, manually adjustable:
 - ◆ from a few volts, up to 60V / 450W max, in “MPPT” mode
 - ◆ from zero volt, up to 60V / 600W max, in “simple regulator” mode allowing, among other things, with a simple potentiometer, “manual” control of a motor, from start-up to full power ... and vice versa
- is “IP67” waterproof and operates from $-30^{\circ}C$ to $100^{\circ}C$
- weighs just 90g (can be reduced to 45g in drone version)