## **SunTechDrive**

# PicoBlender™ 2500 for 24/7 Power Blending

### **Product Highlights:**

- Run installed or new AC motor/pump/compressor with free solar power
- Intelligently blends energy input from solar PV and power grid
- Maintains full power day and night while minimizing power costs
- Rugged IP65/NEMA3R enclosure for remote applications
- No circuit panel installation required, plugs in as simple outlet load
- Universal compatibility single/three phase, 50/60Hz, 120/240Vac
- Maintains full variable frequency drive (VFD) operation while blending inputs
- Corrects poor quality grid power/voltage
- Patented and made in the USA

The PicoBlender<sup>™</sup> seamlessly blends energy between a solar array and the power grid. It is ideally suited for applications that require 24 hour or some night time operation, particularly in areas with high energy costs. The PicoBlender represents a cost effective way to intelligently supplement solar power with controllable night time operation without the expense of adding batteries.

During full solar irradiance, the PicoBlender will draw maximum power from the PV array. As cloud cover or nightfall reduces the level of solar irradiance, the system automatically makes up the difference by drawing from the grid. Once dark, the system can draw all of its power from the grid. In high energy



cost areas this allows for both power firming during the day and full nighttime operation while consuming as little power from the grid as possible.

Typical applications include swimming pool pumps, well pumps, solar decorative fountains, aerators and waste water treatment systems.



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ELECTRICAL		
AC Source operating voltage:	115-230V	
AC Source single phase & frequency:	50/60Hz	
Solar PV open circuit voltage:	400V	
Max PV panel current in series:	9A	
Max Single phase AC motor current:	10A	
Max Three phase AC motor current:	8A	
Remote sensor inputs:	2	
Analog sensor inputs:	2 (4-20mA)	

#### MECHANICAL

Degree of protection:	TYPE 3R
Enclosure material:	Aluminum
Operating temperature:	-40°F to 122°F
Dimensions:	18"x10"x5"
AC Source Terminals:	AWG #10-16
Solar Terminals:	AWG #10-16
Motor terminal:	AWG #10-16
Float Sensor terminals:	AWG #14-20

Remote control enabled by PicoBlender or Programmable timer relay Over current, overvoltage and over temperature protections Optional: WiFi communication module, GFCI protections

#### New and Improved Features

- 2 digital and 2 analog inputs
- Multiple DIP switches for feature selection in the field, including Min Hz limit
- Integrated load filters
- Optional Wi-Fi connectivity for remote monitoring and control
- Optional GFCI protection
- UL listed



#### Modes of Operation:

**Blended Mode:** In this mode the system utilizes as much power as is available from the solar array at any instant, supplementing as needed from the power grid as clouds come over or day fades to night.

**Solar Only Mode:** By de-activating the AC switch to manually override the use of the power grid, the system will not draw power from the grid. This is typically used to optimize the cost of operation based on different seasonal needs.

**Timed Grid Mode:** Sometimes it is only necessary to run a device for certain times at night, perhaps until a facility closes or periodically during the night to drive devices like aerators or filters. This mode provides complete flexibility in the scheduling of the use of grid power.

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