



**HAVELLS**

**enviro**

HARNESSING LIGHT. HARVESTING ENERGY.

# ECO+ SOLAR PWM OFF GRID PCU

## FEATURES



- High Efficiency PWM Solar Charge Controller
- Suitable for 36, 60 & 72 Cells Solar PV Module



- Pure Sine Wave Technology – DSP Based
- Recommended for better & longer life of Home & Commercial equipment's



- Auto selectable Priority mode (Solar / Grid Priority mode)
- Solar Priority mode for saving on electricity \*
- Grid Priority mode for longer battery backup



- Low battery , overload , short circuit & over temperature Protection
- Overload Alarm, low battery alarm



- LCD Display to Shows Solar and Inverter parameters
- LED Indication for fault and system status



- Intelligent Battery Charging- 4 Stage CCCV Charging
- Bulk, Boost, absorption & float- Auto charging profile to increase battery life
- Selectable for Tubular LMLA / SMF or Gel Battery



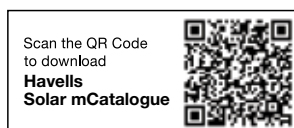
- UPS /INVERTER mode can be selected as per user need
- UPS Mode for load like computers etc.
- INVERTER Mode for area with low grid voltage.



**ECO+ 2000 VA 24 V**

## TECHNICAL SPECIFICATIONS

Model No.	2000 VA 24 V
Actual Output Power (Watt)	1400 W
Solar Panel Capacity	1620 Wp
<b>INVERTER</b>	
Technology	DSP BASED FULL BRIDGE SINE WAVE
Out voltage on inverter mode@ Nominal Battery Voltage	220 V
Output voltage on inverter mode@ Full Load @ Nominal Battery Voltage	220 ±5%
Output frequency on inverter mode	50 Hz ±0.2 Hz
Change Over Time UPS Mode	< 10 ms
Switching from mains to UPS and from UPS to Mains	Automatic
Output waveform on inverter mode.	PURE SINE WAVE
THD	< 3%
Battery charging current	15 Amp. ± 2 Amps.
Charger	4 Stage CCCV Charger
Inverter overload	>110 % (1 Min.)
Surge Load capability	300% ( 1 Sec)
Input voltage (UPS)	180 V - 260 V
Input voltage (INV)	100 V - 290 V
Output voltage on mains mode	Same as input
Output Frequency on mains mode.	Same as input
<b>PWM SOLAR CHARGE CONTROLLER</b>	
Recommended PV Panel Vmp	30 V - 40 V
Maximum VOC	50 V
Maximum Current Capability	50 Amps.
<b>PROTECTION AND INDICATIONS</b>	
At respective status / fault conditions	16 x 2 ALPHA NUMERIC LCD
Visual parameters	Output Power ( Watt ) ,Mains voltage, Output Voltage, Temperature (Deg C), Battery Voltage, Grid Charging Current, Solar Charger
Protections and Buzzer indications	Low Battery , Overload, Short Circuit, Over Temperature, Cycle by Cycle Over Load Protection,
Auto reset features	Yes
Switches	<ul style="list-style-type: none"> <li>• System ON/OFF</li> <li>• Tubular / SMF Battery Selection</li> <li>• UPS / Inverter Mode Selection</li> <li>• Solar / Grid Selection</li> </ul>
<b>ENVIRONMENT &amp; OTHERS</b>	
Operating Temperature	0 – 45Deg C
Max relative humidity @ 25 °C (Non condensing)	95%
IP Protection	IP21
Isolation	Galvanic Isolation between DC circuit and Output Circuit
Cooling	Force Fan Cooling
Weight (in kg)	17 kg
Dimensions (in kg)	455 mm x 395 mm x 240 mm



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