

# CP Power & Automation Ltd

## Oracle Series 170W Power Supply & Battery Charger



- ✓ 230V/120V, AC - DC Switch Mode PSU.
- ✓ Operable in Mains-Free Standby Mode.
  
- ✓ Main Output - 6A(24V), 12A(12V)
- ✓ Battery Charger Output - 2A(24V), 4A(12V)
- ✓ Panel or Din Rail Mounting Options.
- ✓ PCB Conformal Coating Available.
  
- ✓ Overload & Short Circuit Protection.
- ✓ Current Limit & Polarity Protection.
- ✓ Overvoltage Protection.  
(Main equipment and battery).
- ✓ Undervoltage Lockout Protection.
  
- ✓ CE Compliant.
- ✓ EN50081-2 Compliant.
- ✓ EN50082-2 Compliant.

## General Features

### Customer Inspired Design:

Building to satisfy demand, we've added a new 12volt model to partner our existing 24volt units.

With separate load and battery charging outputs, all models in the range are ideal for critical battery backed applications such as *Fire Panels*, *Security Systems*, and *Process Control Equipment*, in fact anywhere that your systems must function when the AC supply fails.

### Simple, Reliable, Effective:

Identical in every way but voltage, the units are built for panel mounting and feature the option for fitting a Din Rail Mounting Kit.

Connections are made using screw-down terminals and 'Molex' Pin Headers.  
User accessible fuse protection is included as are high visibility status and alarm indicators.

Built in electronic protection automatically prevents deep discharge of backup batteries whilst temperature sensing and float charging ensures that cells are always at peak capacity.

As an added feature, an external TTL signal can reroute charging power to supply the main output during periods of intense use when greater load currents may be required.

As with all our products, custom specifications can be engineered upon request.

	12V Unit	24V Unit
<b>DC Output Voltages</b> V01 Main O/P V02 Battery Charge O/P @ 20°C 5mA float current. Temp compensated float voltage.	14.4V +/- 50mV@10A 13.7V +/- 100mV	28.7V +/- 100mV@4A 27.3V +/- 200mV
<b>DC Output Current</b> V01 V02	10A Nom, 12A Pk 4A	4A Nom, 6A Pk 2A
<b>Line Regulation</b> (Full Load) <b>Load regulation</b> V01 V02	<0.5% Max  50mV Max 1.5V Typical	<0.5% Max  50mV Max 1.5V Typical
<b>Output Ripple and Noise</b> Noise/Ripple peak-peak all outputs:	<75mV	<150mV
<b>Standby Operation</b>	12A Max	6A Max
<b>Overload Protection</b> V01 V02	120-150% Max output 4A +/- 200mA dc	120-150% Max output 2A +/- 200mA dc
<b>Overvoltage Protection</b> V01 Voltages exceeding V02 Voltages exceeding	16.7V 16V	32V 30V
<b>Volt free relay contacts/LEDs</b> <b>Power OK Signal</b>  <b>Charger fault</b> <b>Battery Overdischarge</b> <b>Battery Low Alarm</b> <b>Input Voltage Fault</b> <b>Battery Fault</b>	LED and TTL compatible signal-operates when any of the following alarms activated. Loss of charge current/battery voltage. Uses Internal Relay. 10V +/- 250mV	20V +/- 500mV 26.2-31.5V 18V

<b>EMC</b>  <b>Susceptibility</b>	EN50081-1 Emissions EN50082-2 Immunity EN61000-4-2 ESD EN61000-4-3 Radiated Electromagnetic Interference EN61000-4-4 Fast Bursts EN61000-4-5 Voltage Transients - Slow High energy
<b>Environmental</b> <b>Ambient Operating Temp</b> <b>De-rating @ 2.5% per °C</b> <b>Storage Temperature</b>	-20°C to +50°C (No De-rating) +50°C to 70°C ambient -30°C to +85°C
<b>Connectors</b> <b>Input</b> <b>Output</b> <b>Signals</b>	Screw terminals Screw terminals Molex
<b>Input Voltage</b> <b>Input Frequency</b> <b>Input Current</b>	120V/230V AC RMS Nom (Link selectable) 47 - 63Hz 2.9A rms typ @ 110V 1.6A rms typ @ 230V
<b>Input Fusing</b>	PCB Mounted fuse T4A, 250V AC HRC UL/CSA Approved - non-user replaceable.
<b>Inrush Current</b>	Max limited to <30A peak Cold start 20°C ambient - 265V AC
<b>Efficiency</b>	>75% under all loads line and environmental conditions
<b>Battery Input</b> <b>Battery Fusing</b>	Protected by reverse parallel diode & fuse T10A

Model Numbers: 14669-000 12v  
14575-000 24v  
14613-000 Din Rail Kit

## External Connections

- PL1**
- Pin 1 Live
  - Pin 2 Neutral
  - Pin 3 NC
  - Pin 4 Earth
  - Pin 5 Earth
- PL2**
- Pin 1 V02 Battery +ve
  - Pin 2 V02 Battery -ve
  - Pin 3 V01 Main +ve O/P
  - Pin 4 V01 Main +ve O/P
  - Pin 5 0v
  - Pin 6 0v
  - Pin 7 Thermistor
  - Pin 8 Thermistor
  - Pin 9 Power OK TTI Alarm
  - Pin 10 Battery Defeat
  - Pin 11 Battery Defeat
  - Pin 12 Ext Charge Disable

- PL3**
- Pin 1 N/C
  - Pin 2 N/C
  - Pin 3 N/C
  - Pin 4 External OK LED
  - Pin 5 External Fault LED
  - Pin 6 Battery Low
  - Pin 7 Signal 0V
  - Pin 8 N/C

