VxI

Oracle Series
45w Battery Backed Power Supply

- Universal Input, AC - DC Switch Mode PSU.
- 12 or 24v Models.
- Din Rail or Panel Mounting.
- Signal Output.
- Overload & Short Circuit Protection.
- Current Limit & Polarity Protection.
- Overvoltage Protection.
- Undervoltage Lockout Protection.

General Features.

The Oracle II-45 is one of the smallest units in the Oracle range and satisfies the minimum requirements of the EN54-4 standard for local power supplies used in fire-detection and alarm ystems.
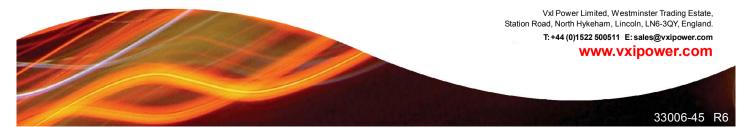
Operating from a universal 90 to 260V AC input, the power supply comes in 12V and 24V versions, providing one main output and one battery-charge output. As standard the battery charge current is set to 0.5A for both output voltage options, but can be factory configured for different applications.

The Oracle II-45 features temperature-compensated charging to ensure maximum battery capacity at low temperatures and maximum battery life at high temperatures. Also, independent current-limited charging protects the system against faulty batteries and ensures that the main output can function immediately on reconnection of the mains supply after a failure, regardless of the state of charge of the battery.

Other standard protection circuitry safeguards both the user equipment and the batteries from fault conditions such as reverse polarity, incorrect battery voltage and short circuits, while undervoltage lockout prevents damage to the battery when it is fully discharged. The PSU is equipped with one TTL output and 2 LED indications.
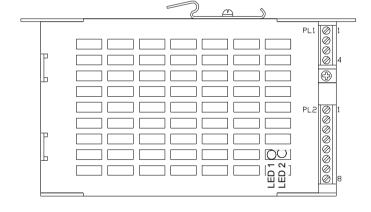
As well as being EN54-4 compliant, the power supply also meets the requirements of the EN60950 safety standard and all relevant European EMC standards.
Overall dimensions of the unit are 170 x 90 x 40 mm, and, if required, it can be specified with Klippon quick-release input and output connections instead of the standard screw terminals.

As with all VxI Power's products, custom specifications can be engineered upon request.

	12V UNIT	24V UNIT
DC Output Voltages V01 Main O/P V02 Battery Charge O/P @ 20°C 5mA float current. Temp compensated float voltage.	14.3V +/- 50mV 13.7V -/+ 100mV	28.6V+/- 100mV 27.4V +/- 200mV
DC Output Current Shared across V01 & V02 V02 Battery Charge Current Limit	3A Total 0.5A	1.5A Total 0.5A
Line Regulation (full load) **Load regulation** V01 (over range 0 - 3A) V02 (over range 0 - 1.5A)	<0.5% 50mV Max 1.5V Typical	<0.5% 50mV Max 1.5V Typical
Output Ripple and Noise PSU loaded to 60W @ 240Vrms over a bandwidth of 0 - 30MHz Noise/Ripple (peak-peak all outputs)	<100mV	<100mV
Standby Operation	3A Nom.	1.5A Nom.
Overload Protection V01 (Primary power limit) V02 (Constant current limit) **Over voltage Protection** V01 Voltages exceeding V02 Voltages exceeding	120-150% Max Up to 0.5A (Factory Set) 16V 16V	120%-150% Max Up to 0.5A (Factory Set) 32V 32V

Volt free relay contacts/LEDs

I/O	Pin 1 - Cold Start (Connect to 0V to start) Pin 2 - Fault *
LEDs	Led 1- Fault * Led 2 - AC OK *

* For larger quantities these can be configured at the factory for specifc customer needs.

EMC **Susceptibility**	EN50081-1 Emissions EN50082-2 Immunity EN61000-4-2 ESD EN61000-4-3 Radiated Electro Interference EN61000-4-4 Fast Bursts
Environmental **Ambient Operating Temp** **De-rating @ 2.5% per °C** **Storage Temperature**	 -20°C to +50°C (No De-rating) +50°C to +70°C ambient -30°C to +85°C
Connectors **Input** **Output**	 4 way, 5.08mm Screw Terminal 8 way, 5.08mm Screw Terminal
Input Voltage **Input Frequency** **Input Current**	90V - 260V AC rms 47 - 63Hz 1.2A rms typ @ 110V 0.6A rms typ @ 230V
Input Fusing PCB Mounted fuse	T2A, 250V AC HRC UL/CSA Approved - non-user replaceable.
Inrush Current	Max ltd to <30A peak Cold start 20°C ambient - 265V AC
Efficiency	12V UNIT >75% under all loads line and environmental conditions 24V UNIT >82%
Battery Input **Battery Fusing**	Protected by reverse parallel diode & fuse 12V UNIT T3.15A 24V UNIT T1.6A

Model Numbers: 14841-000   12v

                                   14842-000   24v

Connector (Pin Functions)	
PL1 (Input)	**PL2 (Output)**
Pin1: Live	Pin1: Cold Start
Pin2: Neutral	Pin2: Fault
Pin3: N/C	Pin3: 0V
Pin4: Earth	Pin4: 0V
	Pin5: +Vout
	Pin6: +Vout
	Pin7: Batt-
	Pin8: Batt+