

12V DC-Output UPS UPS 12-14AH Series



- Rugged, industrial quality
- Conduction/convection cooled - no fan
- Full electronic protection
- Field-proven design topology

This unit is a compact UPS with 12Vdc at 10A output (float voltage 13.8Vdc). A built-in BCH 151 battery management module provides current for 10A rated output and for float charging a built-in 14Ah battery. During normal operation, the UPS 12-14AH serves as a power conditioner, blocking surges, spikes and transients while maintaining stable voltage and float-charging the built-in 14AH gel-cell battery. If the AC power fails, the battery powers the load. The unit also has a low battery disconnect circuit to prevent damage to the battery by low discharge during prolonged AC failure. It is convection cooled. The use of components with many years of established reliability and generous headroom results in a high demonstrated MTBF. This UPS system is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

95-264Vac universal
47-63Hz
Input Current: 3.2Arms max.

Input Protection

Inrush current limiting by surgeistor
Varistor S14K275
Battery fuse (internal)
Internal safety fuse
Lower voltage than the specified minimum input will not damage the unit

Isolation

2250Vdc input to chassis
4300Vdc input to output
8mm spacing
500Vdc output to chassis

Standards

Designed to meet EN 60950-1 and related standards

EMI

EN55022 Class B

Switching Frequency

47kHz \pm 2kHz

Output Voltages/Currents

13.8Vdc \pm 0.1V/10A
Total 150W max. (incl. charging)
The output is floating, either terminal can be grounded
Consult factory for other voltages

Line/Load Regulation

\pm 2% combined from zero load to full load when charger is on.

Output Ripple/Noise

Better than 30mVrms or 120mVpp (@20MHz BW) without battery)

Output Overload Protection

Rectangular current limiting with hiccup type short-circuit protection
Current Limit: 11A \pm 0.5A (without battery)
Battery Line: 25A fuse
Output: 15A fuse

Output Overvoltage Protection

Second regulator loop set at 16.0V \pm 1V

Low Voltage Disconnect

10.5V \pm 0.5V

Efficiency

Min. 80% at full load

Operating Temperature Range

0°C to +50°C for full specification with proper installation
Wider temperature ranges are available as an option

Battery Temp. Compensation

None

Temperature Drift

0.03% per deg. C over operating

Cooling

Conduction to customer heatsink or chassis and natural convection

Environmental Protection

Basic ruggedizing.
Heavy ruggedizing for mobile applications available as option

Shock/Vibration

IEC 61373 Cat 1 A&B

MTBF

150,000h at 45°C
Demonstrated MTBF is significantly higher

Indicators

Charger ON LED

Control Input

None

Alarm Outputs

Low battery alarm
Charger/AC fail alarm

Package/Dimensions (W x H x D)

Aluminum case:
140 x 178 x 254 mm
5.5" x 7" x 10" including mounting flanges

Weight

Approx 9 kg (20 lbs.) including battery

Connections

9-pole terminal block for input, output and battery
6-pole WECO for alarms

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice

The specifications on this data sheet are generic and are subject to change. Enhancements to these specifications can be provided upon request.

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