

Wall-mount 12V DC-output UPS

UPS 12-7AH



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

This unit is a small UPS with 12VDC output. A built in BCH 060 battery charger module provides 4A current for 3A rated output and for float charging the built-in 7Ah battery. During normal operation, the UPS 12-7AH serves as a power conditioner, blocking surges, spikes and transients while maintaining stable voltage and float-charging the built-in 7AH 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. Mounting flanges on the stainless steel case allow for either surface or wall mounting. Cooling is via baseplate to a heat-sinking surface and by natural convection. Full electronic protection, generous design headroom and the exclusive use of components with established reliability also contribute to high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

95-264Vac universal
47-63Hz
Input Current: 1.0Arms 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

13.6Vdc \pm 0.1V/3A
Total 50W max. (incl. 1A for charging). The output is floating; either terminal can be grounded

Line/Load Regulation

\pm 2% combined from zero load to full load

Output Ripple/Noise

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

Output Overload Protection

Rectangular current limiting with hiccup type short-circuit protection on the charger section
Current Limit: +4.5A \pm 0.5A without battery
Internal fuses:
Battery: 15A fuse
Output: 5A fuse

Output Over-voltage Protection

Second regulator loop set at 15.0V \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 range available on request

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

Internal power ON LED for service purposes

Control Input

None

Alarm Outputs

None

Package/Dimensions (WxHxD)

Stainless steel case:
157 x 71 x 254 mm
(6.2" x 2.8" x 10") including mounting flanges

Weight

4.55 kg (10 lb.) including battery

Connections

Compression type Phoenix terminal block (inside the case).
Cable reliefs for incoming and outgoing cables

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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