

IPS-UPS-100W

Industrial UPS & Battery Charger 4Amp



GENERAL DESCRIPTION

The IPS-UPS-100W is a uniquely designed combined Un-interruptible Power Supply (UPS) / battery charger; purpose built to supply instrument installations with 24V from a single sealed 12V lead-acid backup battery.

To comply with the requirements of EN61000 for electronic equipment consuming more than 75W, the input stage is Power Factor Corrected.

When the IPS-UPS-100W is operated as a battery charger the unique control circuitry prevents the battery being overcharged (boiled). This unique feature can either sink or source current, rising or falling automatically depending upon the state of charge of the battery.

In the event of loss of ACV, the 24V output will be continue to be supplied via a boost converter operating from the 12V battery.

Upon loss of ACV or an internal fault an alarm contact will close

Technical Specification

Power Supply (Input) 85 – 265VAC /120 - 390VDC
Frequency 40 - 60Hz
Power < 125VA
Power Factor correcting, controlled Start-Up Input Stage (Designed to requirements of EN61000).
Two Stage EMI line filter and transient protection is standard.

Inputs

1. The test input switches load to the battery, by monitoring the battery voltage the health of the battery can be determined.

Outputs (A.C. Powered)

Output 1 (< 3 amps) 24.7V nominal
 Output 2 (< 3 amps) 13.8V (max)
 Combined Ave Output ≤ 100W at 70C (99% DF)
 Combined Peak Output ≤ 115W (3secs. & 1% DF)
 Battery Limited to 13.8V nominal
 Charge Temp. Coeff. -4mV/C per cell.
 Charge Current: 800mA nominal (suitable for from 7AH to 10AH batteries).
 Deep discharge Automatic load disconnect.

Outputs (When Operated as UPS - no A.C. power.)

Output 1 (2.5A) 24.4V nominal
 Output 2 (minimal) Battery Voltage (12V nom.)
 Combined Ave Output 65W at 70C (99% DF)

Alarm Outputs 1Amp (dry contact N.O. with no power on)

AL1 = Battery or Internal Fault

AL2 = Supply Failure

The unique charger design prevents boiling of batteries under nearly all conditions.

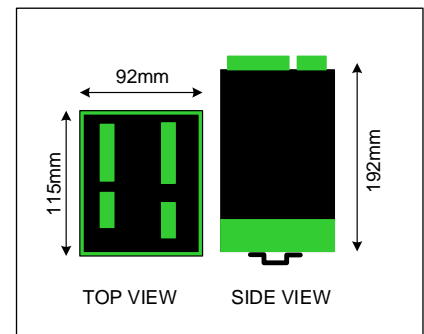
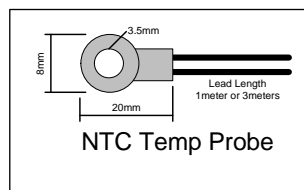
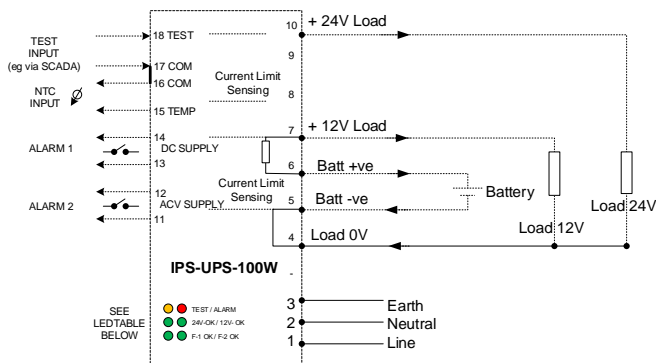
GENERAL SPECIFICATION

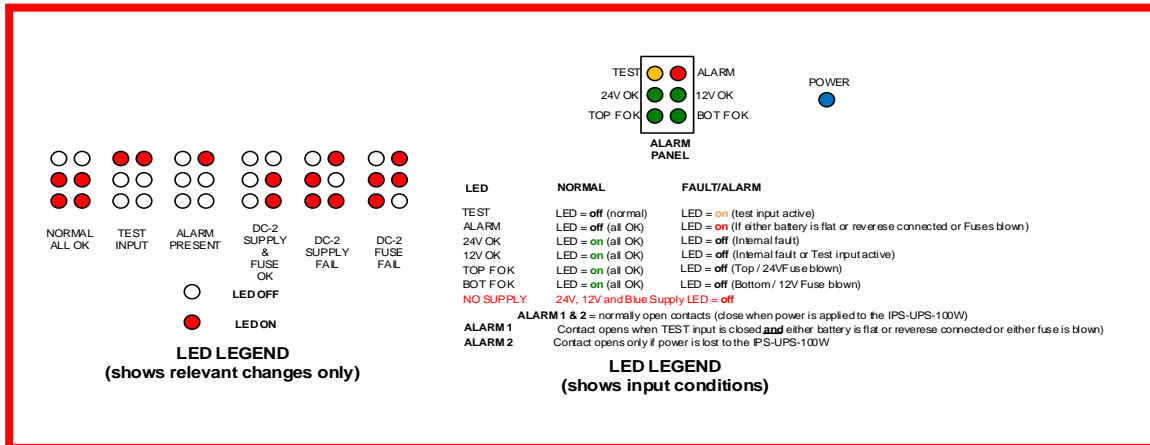
Efficiency 80% -95%
 PFC (required) to EN61000.
 Emissions to EN61000
 Immunity ESD to EN61000
 Immunity RF fields to EN61000
 Isolation (Input/Output) 4kV rms (VDE 0550 and BS4 15 Class 2)
 Operating Temp 0 to 70 Deg C
 Storage Temp -25 to 85 Deg C
 Reliability (estimated) 50,000 hours at 25C as per MIL-HDBK-217 or equiv.
 Mounting Style DIN mount
 Terminals Self-opening 5mm/12AWG (plug on/off)
 Housing Material Mild Steel & Polycarbonate
 Ventilation Natural
 Dimensions (w x h x d) 92mmX115mmX192mm (W x D x H)
 Weight 1.0 kg



FEATURES

- ◆ Power Factor Correcting (automatic)
- ◆ Auto disconnect on reverse battery volts
- ◆ Voltage measurement nominally 0.3%
- ◆ Current Limited Outputs
- ◆ Plug Off Terminals with engraved numbers
- ◆ Output Healthy LED's (ACV, DCV, F1, F2, ALARM,TEST)
- ◆ Complies with EN61000
- ◆ Remote Test Input with Contact output (Forces a low VDC to test battery condition)
- ◆ Supply Loss Alarm Output
- ◆ C-tick / CE marking





CALIBRATION & SET-UP INSTRUCTIONS:-

1. The 12VDC Sealed Lead Acid battery is charged and monitored, regardless of its condition or status.
2. Any disconnections/reconnections must be with POWER OFF).
3. Temperature compensation for the battery is external and included with all IPS-UPS-100W unit (standard 1meter leads). Longer leads can be provided.

INSTALLATION NOTES:

1. Avoid turning the UPS/battery charger off then on immediately, please wait for a few seconds.
2. Avoid making connections with the power ON, always power the battery charger down before changes to wiring.
3. Please ensure that Battery is connected to Battery Terminals and Load to Load terminals.

POWER UP (INITIAL or RESET) NOTES:

4. Complete the wiring and connection of the load and batteries.
5. Connect or close the DC Load and Battery MCB's
6. Allow a few seconds for the IPS-UPS-100W to "auto-connect"
7. Apply the AC Power (avoid turning the IPS-UPS-100W off then on, always wait a few seconds)

REMOVAL/REPLACEMENT OF THE IPS-UPS-100W NOTES:

8. Turn OFF AC Power (avoid turning the IPS-UPS-100W off then on, always wait a few seconds).
9. Disconnect the DC Load and Battery externally.
10. Unplug the terminals on the IPS-UPS-100W
11. Replace the IPS-UPS-100W
12. Plug the terminals back on the IPS-UPS-100W
13. Reconnect or close the DC Load and Battery
14. Allow a few seconds for the IPS-UPS-100W to "auto-connect"
15. Apply the AC Power

Please ensure that **Battery** is connected to **Battery Terminals** and **Load** is connected to **Load terminals**.