DATA SHEET

Subject to change without notice

MODEL :- IPS-UPS-100W

Industrial Power Supply / Battery Charger

TECHNICAL DATA

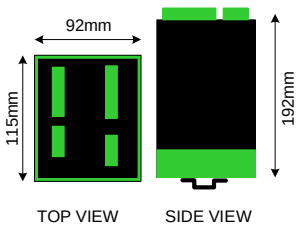
Power Supply (Input) 85 – 265VAC /120 - 390VDC
Frequency 40 - 60Hz
Power < 125VA
Power Factor correcting, controlled Start-Up Input Stage (Designed to requirements of EN61000).
Two Stage EMI line filter and transient protection is standard.
Inputs
1. The test input switches load to the battery, by monitoring the battery voltage the health of the battery can be determined.

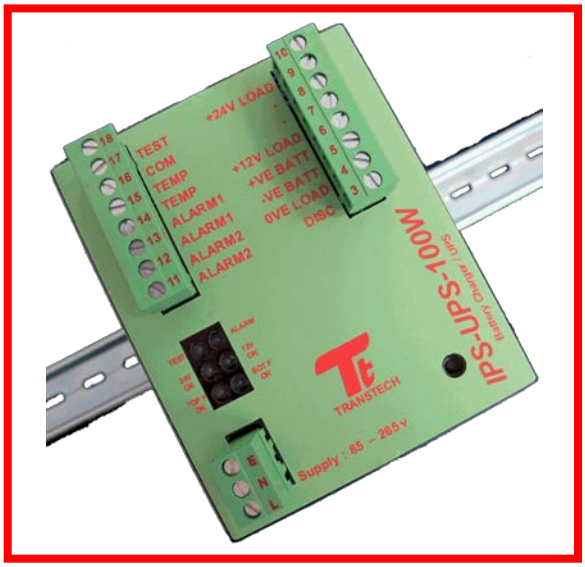
Outputs (A.C. Powered)
Output 1 (< 3 amps) 24.7V nominal
Output 2 (< 3 amps) 13.8V (max)
Combined Ave Output ≤ 100W at 70C (99% DF)
Combined Peak Output ≤ 115W (3secs. & 1% DF)
Battery Limited to 13.8V nominal
Charge Temp. Coeff. -4mV/C per cell.
Charge Current: 800mA nominal
(suitable for from 7AH to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





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.

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**

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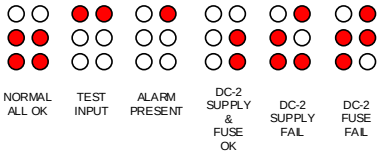
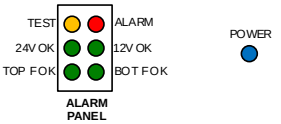
OPERATING CONTROLS & CONNECTIONS



LED LEGEND
(shows relevant changes only)

INTERNAL SETTINGS & CALIBRATION



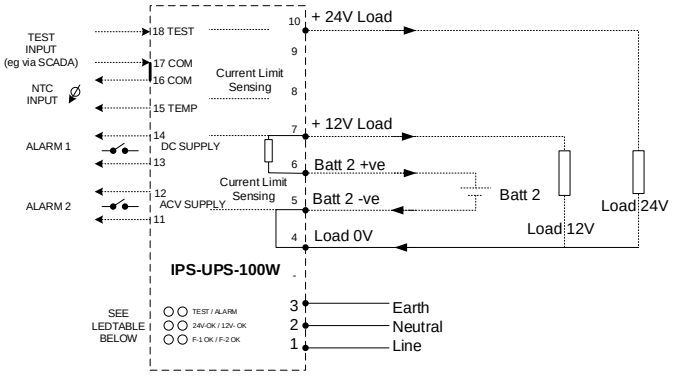
LED	NORMAL	FAULT/ALARM
TEST	LED = **off** (normal)	LED = on (test input active)
ALARM	LED = **off** (all OK)	LED = **on** (If either battery is flat or reverese connected or Fuses blown)
24V OK	LED = **on** (all OK)	LED = **off** (Internal fault)
12V OK	LED = **on** (all OK)	LED = **off** (Internal fault or Test input active)
TOP FOK	LED = **on** (all OK)	LED = **off** (Top / 24VFuse blown)
BOT FOK	LED = **on** (all OK)	LED = **off** (Bottom / 12V Fuse blown)
NO SUPPLY	24V, 12V and Blue Supply LED = **off**	

ALARM 1 & 2 = normally open contacts (close when power is applied to the IPS-UPS-100W)

ALARM 1 Contact opens when TEST input is closed **and** either battery is flat or reverese connected or either fuse is blown)

ALARM 2 Contact opens only if power is lost to the IPS-UPS-100W

LED LEGEND
(shows input conditions)



CALIBRATION & SET-UP INSTRUCTIONS:-

1. The 12VDC Sealed Lead Acid battery is charged and monitored, regardless of it's 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 1 meter leads).Longer leads can be provided.

EXTRA FEATURE:

INSTALLATION NOTES:

1. Avoid turning the 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.