TRACO POWER

INSTALLATION INSTRUCTIONS

TSPC240-124UPS Uninterruptible Power Supply

	Output Current	
Mode	I_{out} Nominal @ 24.0 - 26.0V	I_{out} Boost @ 23.4 - 23.8V
Normal	10A*	12A**
Buffer	10A*	12A**

* Ambient temperature up to +60°C. Observe output current de-rating with Input Voltage. Refer to Datasheet.

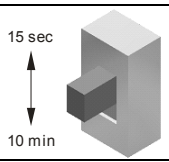
** Ambient temperature up to +40°C. Observe output current de-rating with Input Voltage. Refer to Datasheet.

Parameter	Condition	Settings
Nominal AC Input Range [VAC]	High line	220-240
Input AC Voltage Range [VAC]	High line	187-264
Nominal AC Input Range [VAC]	Low line	100-120
Input AC Voltage Range [VAC]	Low line	85-132
Input Frequency Range [Hz]		47 - 63
Output Voltage [V]	Normal Mode	24.0-26.0V (adjusted by POT)
Output Voltage [V]	Buffer Mode	23.4-23.8V (factory adjusted by POT R1)
Electrical Connections & Wire Size	AC Supply Input	1 - 4 mm^2 [AWG17-AWG11] Tightening Torque 0.6Nm
	DC Output	2 - 10 mm^2 [AWG14-AWG7] Tightening Torque 1.76Nm
	Battery Input	2.5 - 10 mm^2 [AWG13-AWG7] Nominal Power 4 - 10 mm^2 [AWG11-AWG7] Boost Power max. resistance 10mΩ Tightening Torque 1.76Nm
Battery Charging Current [A]	Normal Mode	0.8…1.2
Nominal Battery Voltage [V]	25°C Ambient	13.6 (Factory Set)
Battery Adjustment Range [V]	Normal Mode	13.0…14.4
Battery Test Current [A]	Normal Mode	2.5A for 60ms (typ)
Battery Test Interval [s]	Normal Mode	15s or 8..10mins (Set by switch: Fig.1)
Battery Warning Voltage [V]	Buffer Mode	10.4...11.4
Battery Disconnection Voltage [V]	Buffer Mode	9.1…10.2
Thermal Protection	Buffer Mode	100°C (at back of chassis)
Automatic Battery Temperature Compensation Range	Normal Mode	-15°C…50°C (external sensor temp. Fig.2)
Battery Remote ON/OFF	Buffer Mode	Switch 5V/5mA (min) to GND (Fig.2) Level: 0…0.5V
Signal Relay Contact Rating (Resistive Load)	Signal Monitoring	60VDC 0.5A (Fig.2)

User Settings:

Battery Test Interval:
15 seconds or 10 minutes user selectable with switch

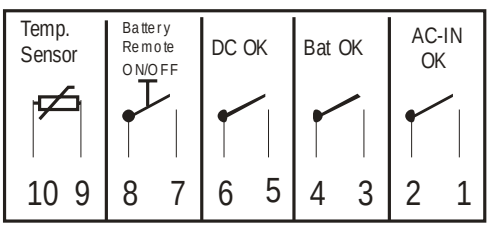
Figure 1:



Signal Connector: **Remark:** Tightening torque 0.19Nm for all contacts.

Temp.Sensor: Connect external sensor for automatic end of charge battery compensation.
Battery Remote ON/OFF: Enables remote disconnection of the battery.
DC OK: Closed contact indicate that the output voltage is higher than 82-90% of the nominal output voltage (24V).
BAT OK: Closed contact indicates that the battery is charged and has low resistance (100mΩ max). During battery operation, open contacts indicate that the battery is approaching (within approx.. 1V) the disconnection voltage level.
AC-IN-OK: Closed contact when the AC supply voltage is present. Open contacts indicate loss of AC Supply Voltage or overload at low AC supply voltage levels.

Figure 2:



Safety Instructions:

- Before installation read these instructions carefully and completely. This installation instruction cannot account for every possible condition of installation, operation or maintenance. Further information can be obtained from your local distributor office or from the product datasheet, which can be downloaded from our website: www.tracopower.com/products/tspc240ups.pdf
- Before any installation, maintenance or modification work ensure that the main switch is switched off and prevented from being switched on again. Non-observance, touching of any live components or improper handling of this power supply can result in death, severe personal injury or substantial property damage. Proper and safe operation is dependent on proper storage, handling, installation and operation.
- Compliance with the relevant national regulations (in the USA, Europe and other countries) must be ensured. Before operation is started the following conditions must be ensured:
  - By use of stranded wires, all strands must be fastened in the terminal blocks. (Potential danger of contact with the case)
  - Power supply and mains cables must be sufficiently fused.
  - All output wires must be rated for the equipment output current and must be connected with the correct polarity.
  - Sufficient cooling must be ensured.
- ***Never work on the equipment if power is supplied!*** Risk of electric arcs and electrical shock, which can cause death, severe personal injury or substantial property damage.
- **Warning:** Hazardous voltages and components storing a very substantial amount of energy are present in this power supply during normal operating conditions. However, these are inaccessible. Improper handling may result in an electric shock or serious burns! ***Do not open the equipment until at least 5 minutes after it has been disconnected from the power supply on all poles.***
  - Only trained personnel may open the equipment.
  - Do not introduce any objects into the equipment.
  - Adjustment potentiometer(s) may only be actuated using an insulated screwdriver.
  - Keep away from fire and water
  - Pollution degree 2 environment

CAUTION: "FOR USE IN A CONTROLLED ENVIRONMENT"

Installation Instructions:

- This equipment is designed for professional indoor systems. In operation the equipment must not be accessible. It may be installed and put into service by qualified personnel only.
- The correct mounting position for optimal cooling performance must be observed. ***Do not cover any ventilation holes.*** Leave a free space of minimum 80mm (3.15in.) above and below the power supply and on each side of the power supply a minimum space of 25mm [0.98in] which allows air convection. Observe power derating.
- **ATEX:** To comply with the ATEX directive following installation instructions have to be observed:
  - These power supplies are constructed in accordance with the safety requirements of EN60079-0:2012 & EN60079-15:2010, Ex nA nC IIC T4 Gc.
  - These power supplies units can be installed in switch cabinets or protective housings that meet the requirements of EN 60079-15 or if applicable EN 60079-0 (housing protection type min. IP54)
  - The permissible ambient temperature range is -20°C to +70°C. Observe load derating.
  - For installation in switch cabinets or in protective housings, it must be ensured that the stipulated maximum temperatures are not exceeded on these power supplies.
  - Do not operate voltage adjustment, unless area is known to be non-hazardous.
  - The power supply units are Unit Group II Category 3G components (ex components) as defined by RL 94/9/EG (ATEX 95) Appendix I. A separate conformity on the end-equipment which contains these components evaluation process must be performed.
  - For use / Installation also the requirements defined in EN60079-14 must be observed.
- ***Recycling:*** The unit contains elements that are suitable for recycling, and components that need special disposal. You are therefore requested to make sure that the power supply will be recycled environment friendly at the end of its service life.