

Mode	Output Current		Comment
	I _{out} Nominal @ 24V	I _{out} Max	
Buffer	10A	12A	End user must provide current limitation
Battery	10A	12A	Constant current limitation

Parameter	Condition	Settings	
Input Voltage	Buffer Mode	Nominal 24V (Range 24-28.5V) Fully stabilized	
Input current	Buffer Mode	12A Max continuous current, 20A Max peak current (4s max)	
Output Voltage	Buffer Mode	V _{in} -(0.5V max)	
Output Voltage	Battery Mode	24V (typ)	
Efficiency	Battery Mode	96% (typ)	
Overvoltage category	OVC II	Max 2500V peak transient	
Pollution Degree	PD 2		
Altitude During Operation	2000m max.		
BATT (Battery) Charging Current	Buffer Mode	Select switch HI/LO 2.4A/1.2A (typ) at 24V VBATT Fig.1.	
Nominal Battery Voltage (EOC)	25°C Ambient	27.2V	
Battery Resistance Test	Buffer Mode at 25°C Amb.	100 mΩ (max)	
Battery Test Current Pulse	Buffer Mode at 25°C Amb.	2A for 100ms (typ)	
BATT Test Frequency [mins]	Buffer Mode	Select switch HI/LO 10mins/1min (typ) Fig.1.	
Batt (Battery) Test button	Buffer Mode	Push to perform a battery test Fig.1.	
Battery Warning Voltage	Battery Mode	22V (typ)	
Battery Disconnection Voltage	Battery Mode	20V (typ)	
External Battery Fuse	Buffer/Battery Mode	15A F (Fast fuse) Blade Type (Littelfuse 0287015 ATOF) Fig.1.	
Automatic Battery 'end of charge' Voltage/Temp Compensation Range	Battery Mode	0°C...+60°C (with external temperature sensor) Fig.2. Factory setting 'EOC' 27.2V with no sensor	
DC-OUT OK Open Collector	Buffer/Battery Mode	60V/0.4A max internal limitation Fig.2.	
Signal Relay(s) Contact Ratings	Buffer/Battery Mode	30VDC 1A / 125VAC 1A Fig.2.	
Operating Ambient Temperature	Buffer/Battery Mode	0°C...+60°C	
Storage Ambient Temperature	-	-25°C...+70°C	
Input and Output Connection Wire Size and Torque	1.5 – 4 [mm ²]/16-10 [AWG] at 0.7 [Nm]	Signal Connection Wire Size and Torque	0.1– 2 [mm ²]/28-14 [AWG] at 0.2 [Nm]
Weight	530g	Max. Dimensions (from DIN rail) Height x Width x Depth	125mm x 49mm x 120mm

DC-OUT OK Relay and Open Collector		DC Status LED (Green)		
Closed	V _{OUT} ≥ 23.0V	Green	constant	DC out OK (V _{OUT} ≥ 23.0V) using DC In (23.6V ≤ V _{IN} ≤ 28.5V)
Open	V _{OUT} ≤ 22.6V	Off	constant	DC out is not OK (V _{OUT} ≤ 22.6V)
DC-IN OK Relay		Green Blink On/Off Speed [ms]	100/100	DC In Over Voltage (V _{IN} ≥ 28.9V)
Closed	23.6V ≤ V _{IN} ≤ 28.5V	Green Blink On/Off Speed [ms]	500/500	DC In Under Voltage on Start-up (V _{IN} ≤ 23.2V)
Open	V _{IN} ≤ 23.2V or V _{IN} ≥ 28.9V	Green Blink On/Off Speed [ms]	1500/500	DC Out OK during Discharge (V _{OUT} ≥ 23.0V)
Battery OK Relay		BATT Status LED (Green/Red)		
Closed	VBATT ≥ 22V (Buffer Mode)	Green	constant	Battery Fully Charged (VBATT = VEOC and ICHARGE is low)
	VBATT ≥ 22.4V (Battery Mode)	Green Blink On/Off Speed [ms]	500/500	Battery Charging (22V ≤ VBATT ≤ VEOC)
Open	No Battery Connected (VBATT ≤ 16V)	Green Blink On/Off Speed [ms]	100/100	Battery not charging due to overload (internal setting)
	Polarity Wrong	Red	constant	No Battery Connected (VBATT ≤ 16V) or Polarity Wrong
	Failed Battery Test	Red Blink On/Off Speed [ms]	500/500	Failed Battery Test but still charging battery (16V < VBATT < 22V)
	VBATT ≤ 22V (Battery mode)	Green	constant	Discharging (VBATT ≥ 22.4V)
Temp. Sensor		Green Blink On/Off Speed [ms]	1500/500	Discharging (VBATT ≤ 22V)
Traco Power P/N: TSP-TS (optional)		Off	constant	Battery Voltage Not OK (VBATT ≤ 19.7V)

For more detailed information visit website WWW.TRACOPOWER.COM



warning: risk of electric shock



warning: be advised

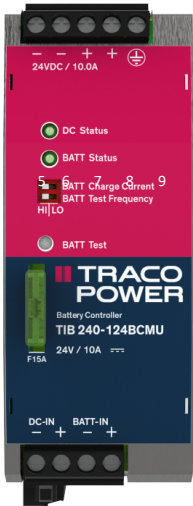

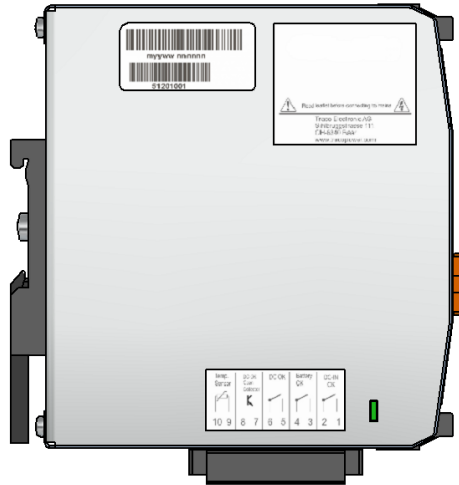


Fig. 1.

Output Connector	
5	0V
6	0V
7	+24V
8	+24V
9	PE 

Input Connector	
1	DC-IN -
2	DC-IN +
3	BATT-IN -
4	BATT-IN +



Barcode Label:
MY Y W W N N N N N N N N
M: Manufacturer
YY: Year
WW: Week
NNNNNN: Unique Product Number

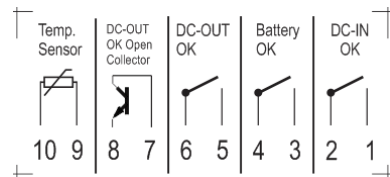


Fig. 2.

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/TIB240-124BCMU.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, copper 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.
 - ❖ For large distributed DC networks an external fuse must be supplied in line with the BATT-IN terminals if the DC network is not connected to PE.
 - ❖ All signalling voltages wired to connector as per Fig.2 must be SELV rated.
 - ❖ Minimum temperature rating of the cable to be connected to the field wiring terminals 85°C
 - ❖ If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
 - ❖ The equipment shall be housed in a suitable electrical and fire enclosure.
- **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.
 - ❖ 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

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. This position is vertical as per Fig.1.
- **Do not cover any ventilation holes.** Leave a free space of minimum 50mm [2in.] 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.
- **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.