

## INSTALLATION INSTRUCTIONS

### TIB-REM Redundancy/Parallel Module

This module ensures that a redundancy function is maintained. Even when one of the connected input power supplies becomes faulty, with internal short circuit – the output voltage of the system is maintained by the remaining power supply. Additionally, an active power sharing function ensures that both input power supplies are loaded equally.

Order Code	Input Voltage range	Output DC Current Nominal	Output DC Current Boost	Voltage drop across the diodes/internal losses
TIB-REM480	11-56VDC	40A	60A (4s)	0-0.2V

### Electrical Specification

Operational Input voltage range	11Vdc min. - 56Vdc max. (fully stabilized SELV)		
Internal voltage drop (Vin1=Vin2)	0-0.2V (2x20A) typ.		
Input Voltage Compensation Range	Parallel Operation	±0.20V max	
Input current	Each Power Supply	20A max (continuous)	
Nominal output current	40A max (continuous)		
Output boost current	60A/4s max		
Short circuit protection	Provided by power supplies: TIB 080-112, TIB 080-124, TIB 080-148, TIB 120-112, TIB 120-124, TIB 120-148, TIB 240-124, TIB 240-148, TIB 480-124, TIB 480-148		
Standby Power	1.5W max		
Typical Power Loss	6W max at 40A output current		
Operating Ambient Temperature	-20°C to +70 °C		
Storage ambient Temperature	-25°C to +80 °C		
Output Power Derating	2%/K above 60 °C		
Transient voltage	OVC II; 2500Vpeak		
Protection Class	Class III		
Degree of Protection	IP20		
Humidity	5-95%, no condensation		
Maximum altitude	2000m		
Connections: Input	2 x 2 Screw type terminal Combi – Typ. Recommended tightening torque 0.5 to 0.6Nm		
	4 Screw type terminal Combi – Typ. Recommended tightening torque 0.5 to 0.6Nm		
Wire Size: Input & Output 1.5mm <sup>2</sup> – 4.0mm <sup>2</sup> [AWG 16 – AWG 10]			
Minimum temperature ratings of the cables to be connected to the field wiring terminals: 105°C			
The required cross section of the wires should be established by electrician, depending on the maximum current ratings			
Use copper wire only for field wiring terminals			

## 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 or at the installation instruction manual, which can be downloaded from our website [www.tracopower.com](http://www.tracopower.com)
  - The mains supply voltage connection, must be in accordance to IEC 62477-1 and IEC 60364, VDE 100.
  - 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:
    - ❖ Connection to power supply in compliance with national regulations (e.g. VDE0100 and EN50178).
    - ❖ By use of stranded wires, all strands must be fastened in the terminal blocks. (Potential danger of contact with the case)
    - ❖ All input and output wires must be rated for the maximum currents. Correct polarity should be checked
    - ❖ Sufficient cooling must be ensured.
    - ❖ The equipment shall be housed in a suitable electrical and fire enclosure.
  - **Never work on the TIB-REM480 if power is supplied!** Risk of electric arcs and electrical shock, severe personal injury or substantial property damage.
  - **Warning:** Hazardous voltages and components storing a very substantial amount of energy will be connected to this device during normal operating conditions. However, these are inaccessible. Improper handling may result in an electric shock or serious burns! **Do not open the TIB-REM480.**
    - ❖ Do not introduce any objects into the device
    - ❖ Keep away from fire and water
- is ON - no voltage adjustment is necessary. Otherwise, for best power sharing, adjust the voltage of individual power supply with the isolated screwdriver. After adjustments, the output voltages should be within  $\pm 0.10V$ . This will be indicated by the balance LED
- The permissible ambient temperature range is  $-20^{\circ}C$  to  $+70^{\circ}C$ . Observe load derating above an operating temperature of  $+60^{\circ}C$  of  $2\%/K$ .
  - If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment might be impaired.
  - **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 device will be recycled environment friendly at the end of its service life.

## Installation Instructions:

- This TIB-REM480 is designed for professional indoor systems. For best performance use two Traco TIB type power supplies.
- External power supplies must be fully stabilised (SELV) and should be of the same ratings. They 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 50mm (2in.) above and below the power supplies and isolation module.
- Connect input and output cables as specified on the label. The cables must be sufficiently rated.
- Observe the indication on the LEDs. If the balance OK LED