TRACO POWER

INSTALLATION INSTRUCTIONS

TOP 100 Series — Industrial Power Supply

Order Code**	Input Voltage Range	Output Power max.	Output	Output Voltage Adjustment Range*	Recommended Circuit breaker / fuse
TOP 100-103 (C)	Rated: 115Vac / 230Vac 50 / 60Hz Operational: AC:90-132 / 187-264Vac 47-63Hz	66 Watt	3.3Vdc / 20.0A	3.3 – 3.5Vdc	6A (Characteristic C or slow blow)
TOP 100-105 (C)		100 Watt	5.0Vdc / 20.0A	5.0 – 5.2Vdc	
TOP 100-112 (C)			12.0Vdc / 8.3A	12.0 – 13.0Vdc	
TOP 100-115 (C)			15.0Vdc / 6.7A	15.0 – 16.0Vdc	
TOP 100-124 (C)			24.0Vdc / 4.2A	24.0 – 26.0Vdc	
TOP 100-148 (C)			48.0Vdc / 2.1A	48.0 – 52.0Vdc	

* Adjustable by potentiometer with an insulated screwdriver. **Option C indicates the unit is in an enclosure

Input current	@ Vin=115VAC	@ Vin=230VAC
TOP 100-103 (C)	1.5A	0.9A
all other TOP 100 (C)	2.1A	1.2A

Operating Temperature Range (with natural air convection cooling)		**TOP 100 (Open Frame Units)**		**TOP100 (C Version)**
		-25°C - +70°C Max		-25°C - +70°C Max
Output Power Derating (in respect to ambient temperature)		**Model Type**	Start of Derating	Power Derating
		TOP 100-103 (C)	+40°C	1.2W/K
		TOP 100-105 (C)	+40°C	2.0W/K
		TOP 100-112 (C)	+50°C	2.0W/K
		TOP 100-115 (C)	+50°C	2.0W/K
		TOP 100-124 (C)	+50°C	2.0W/K
		TOP 100-148 (C)	+50°C	2.0W/K
Output Power Derating (in respect to input voltage)		Between 90Vac and 103Vac ➔ 3.9%/V Between 187Vac and 207Vac ➔ 1%/V		
Storage Temperature Range		-25°C – +85°C max		
Power Back Immunity		**TOP 100-103 (C)** ➔ 5Vdc continuous and 6Vdc for 1second max. **TOP 100-105 (C)** ➔ 6.3Vdc continuous and 7Vdc for 1second max. **TOP 100-112 (C)** ➔ 16Vdc continuous and 18Vdc for 1second max. **TOP 100-115 (C)** ➔ 20Vdc continuous and 23Vdc for 1second max. **TOP 100-124 (C)** ➔ 35Vdc continuous and 40Vdc for 1second max. **TOP 100-148 (C)** ➔ 63Vdc continuous and 68Vdc for 1second max.		
Over Voltage Protection (in single fault condition)		**TOP 100-103 (C)** ➔ 5Vdc **TOP 100-105 (C)** ➔ 6Vdc **TOP 100-112 (C)** ➔ 16Vdc T**OP 100-115 (C)** ➔ 20Vdc **TOP 100-124 (C)** ➔ 30Vdc **TOP 100-148 (C)** ➔ 60Vdc		
Connections	Input Connector	PCB Terminals : Molex 41791 – 26-62-4030 (Circuit 2 voided) Crimp Terminal Housing: Molex 2139 – 09-50-3031 Crimp Terminal: Molex 2478 - 08-52-0072		
	Output Connector	PCB Terminals: Molex 2139-26-60-4060 Crimp Terminal Housing: Molex 2139-09-50-3061 Crimp Terminal: Molex 2478 – 08-52-0072		
	PE Connection	**Class I operation:** Use enclosure provided (C version unit including Quick Connect Tab) PE Terminal: 0.187” (4.75mm) Quick Connect Receptacle 1. Type: TE Connectivity 3-520410-2 for wire size: AWG 16-14 (1.25 – 2.00mm^2) 2. Type: TE Connectivity 2-520409-2 for wire size: AWG 22-18 (0.30 – 0.90mm^2) Use 4 pillars connected to a metal plane wired to Earth. (Open Frame Units) **Class II operation:** no Earth connection required		
Installation		1. The following end product enclosures are required: Mechanical, Fire & Electrical in accordance to applicable safety standards		
		2. TOP100C: Material of Base & Cover - Zinc-Plated Steel 1mm		

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's office or from the product datasheet, which can be downloaded from our website: http://www.tracopower.com.
- 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.
- While applying connections, no mechanical stress should be applied to the printed circuit board and its surface mounted components.
- Compliance with the relevant national regulations must be ensured. Before operation is started the following conditions must be ensured:
  - Connection to mains supply in compliance with national regulations.
  - Power supply and mains cables must be sufficiently fused.
  - All output wires must be rated for the power supply output current and must be connected with the correct polarity.
  - Do not disconnect while circuit is alive.
- **Never work on the power supply 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. Improper handling may result in an electric shock or serious burns!
- **Do not open the power supply**
  - Do not introduce any objects into the power supply. An output voltage adjustment potentiometer (if existing) may only be actuated using an insulated screwdriver.
  - Keep away from fire, water and chemicals.

Installation Instructions

- This power supply is designed for professional indoor systems. In operation the power supply must not be accessible. It may be installed and put into service by qualified personnel only.
- All required connections have to be carried out as described in the table on the front side.
- By use of stranded wires, all strands must be fastened in the terminal blocks (potential danger of short circuits).
- Do not cover any ventilation holes. Optimal cooling performance must be ensured. Observe power derating (see datasheet).
- For Class II operation, the ground terminal is not allowed to be connected & the unit must not be mounted through 4 holes to any kind of conductive surface
- The internal fuse(s) may not be replaced by the user. If an internal fuse has blown, the power supply has most properly an internal defect and, for safety reasons, must be shipped to the local distributor.
- To comply with EN 55022 Class B, Field Ground (FG) must be connected, by fixing the unit to the chassis using metal pillars, at all four mounting points.

- ***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.*