

## INSTALLATION INSTRUCTIONS

### TOP 200 Series Industrial Power Supply

Order Code	AC-Input Nominal Voltage	AC-Input Voltage Range	Maximum Output Power	Nominal Output	Recommended Circuit Breaker / Fuse
TOP 200-112	120-240Vac 50/60Hz	85-264Vac 47-63Hz	200W @115-264Vac	12.0Vdc / 16A	6A (Characteristic C or slow blow)
TOP 200-115				15.0Vdc / 13A	
TOP 200-124				24.0Vdc / 8.3A	
TOP 200-148				48.0Vdc / 4.2A	

Input Current:	@ Vin=120VAC	@ Vin=240VAC	Input Power Consumption	@ Vin=120VAC	@ Vin=240VAC
TOP 200-112	2A	1A	TOP 200-112	223W typ	217W typ
TOP 200-115			TOP 200-115	222W typ	216W typ
TOP 200-124			TOP 200-124	216W typ	213W typ
TOP 200-148			TOP 200-148	218W typ	213W typ

Operating temperature range: Natural Air Convection Cooling	-25°C – +70°C max -13°F – +158°F max recommended orientation: vertical (for best cooling conditions)
Output power derating in respect to ambient temperature:	above +40°C → 2.0%/K (4.0W/°C) TOP 200-112/115 models above 104°F → 1.11%/°F (2.22W/°F) TOP 200-112/115 models above +50°C → 2.0%/K (4.0W/°C) TOP 200-124/148 models above 122°F → 1.11%/°F (2.22W/°F) TOP 200-124/148 models
Output current derating in respect to input AC voltage	85Vac → I <sub>out max</sub> = 70% up to 108Vac → I <sub>out max</sub> = 100% up to 264Vac → I <sub>out max</sub> = 100%
Storage temperature range:	-25°C – +85°C max -13°F – +185°F max
Power Back Immunity	TOP 200-112 → 16Vdc continuous and 18Vdc for 1second max. TOP 200-115 → 20Vdc continuous and 23Vdc for 1second max. TOP 200-124 → 35Vdc continuous and 40Vdc for 1second max. TOP 200-148 → 63Vdc continuous and 68Vdc for 1second max.
Over Voltage Protection in single fault condition:	TOP 200-112 → 20Vdc TOP 200-115 → 25Vdc / TOP 100-124 → 35Vdc / TOP 100-148 → 60Vdc
Connections:	AC Input PCB Terminals: Molex 41791 Crimp Terminal Housing: Molex 2139 Crimp Terminal: Molex 2478 09-50-3031 (voided) 09-50-3031 08-52-0072 Wire size: AWG 22-18 (0.3 – 0.8mm <sup>2</sup> ) DC Output PCB Terminals: Molex 2139 Crimp Terminal Housing: Molex 2139 Crimp Terminal: Molex 2478 26-60-4060 09-50-3061 08-52-0072 Wire size: AWG 20-18 (0.5 – 0.8mm <sup>2</sup> ) ON/OFF PCB Terminals: Molex KK Crimp Terminal Housing: Molex KK Crimp Terminal: Molex KK 22-27-2021 22-01-2025 08-50-0032 Wire size: AWG 30-22 (0.06 – 0.3mm <sup>2</sup> ) Class I operation: use 4 pillars connected to a metal plane connected to Earth or use PE terminal PE Terminal: 1/4" Quick Connector Type Class II operation: no Earth connection required
Case material:	Open Frame, has to be equipped into a fire proofed enclosure.

## 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 the Internet at <http://tracopower.com/products/top200.pdf>. You will find additional information in our Instruction Manual, which can also be downloaded from the Internet at: [http://www.tracopower.com/products/top200\\_manual.pdf](http://www.tracopower.com/products/top200_manual.pdf).
- The power supplies are constructed in accordance with the safety requirements of IEC/EN/UL60950-1. They are approved (BG-mark) in accordance with EN60950-1 and fulfil the requirements of the Low Voltage Directive (LVD). They are approved in accordance to UL60950-1 (recognised) by CSA.
- 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 mains supply in compliance with national regulations (VDE0100 and EN50178).
  - ❖ 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 power supply output current and must be connected with the correct polarity.
  - ❖ Sufficient cooling must be ensured.
- **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 until at least 5 minutes after it has been disconnected from the mains on all poles.**
  - ❖ Only trained personnel may open the power supply.
  - ❖ Do not introduce any objects into the power supply. The output voltage adjustment potentiometer may only be actuated using an insulated screwdriver.
  - ❖ Keep away from fire and water

## 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.
- To comply with EMC standards the PE terminal should be connected to the non-fused earth conductor and a ground plane is mounted underneath of the TOP power supply.
- 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 supply. Observe power derating.
- The internal fuse is not accessible, as it may not be replaced by the user. If this internal fuse has blown, the power supply has an internal defect and, for safety reasons, must be shipped to the local distributor. In case this internal fuse has to be replaced in the field, replace only with same type and rating of fuse for continued protection against risk of fire.
- **Note:** While putting on connectors, no mechanical stress should be applied to the printed circuit board and its surface mounted components.
- **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 at the end of its service life.