

Installation Manual

For Open Frame Power Supplies

Models:

This installation manual is a reference guideline to install Applied Power Electronics open frame power supplies. Including series:

MIS30, MIS65, MIS100

Warning / Caution!

- Installation shall be done by qualified personnel.
- Risk of electrical shock and energy hazard.
- AC input shall be disconnected from the grid during whole installation process
- The capacitors may still store hazardous energy after AC input is removed. Installation personnel shall confirm the residual voltage on capacitors is safe.
- Do not use open frame power supply in an environment where is high moisture or with high risk of water spray or spill.
- Do not use power supplies in an environment where may leads to higher ambient temperature exceeding power supply maximum allow temperature or close to fire.
- For Class I models, ground wire (PE) shall be connected to the ground location.
- Do not exceed rated input and output specification.
- Thermal testing shall be done system to confirm components are within maximum allow temperature rating.
- EMC testing shall be done with system to confirm EMC performance is compliance with related standards

Installation

1. Disconnect the AC input from the utility
2. Safety creepage and clearance distance shall be considered for installation. For industrial application, suggest to use 8mm; for medical application, suggest to use 12mm as insulation distance from other parts to the power supply, or a mylar sheet for insulation.
3. Refer to product datasheet for cooling condition. For convection cooled product, leave enough space around power supply for natural convection; for product require air flow, system shall provide correct air flow direction and enough CFM or LFM as product datasheet specified.
4. Power supplies generate heat during operation. Avoid to install power supply close to another heat source, or close to a part sensitive to heat.
5. Installation orientation also impact thermal performance. Thermal performance shall be evaluated with system installation
6. Standoffs for supply power material shall follow product datasheet requirement for correct ground connection and insulation.
7. Use connectors and crimp specified in product datasheet for reliable connection

8. Refer to below table for recommended wire gauge

RMS Current or DC Current	≤ 6A	6A-10A	10A-16A	16-25A	25-32A
AWG	18	16	14	12	10

9. For further information, contact Applied Power Electronics or visit www.appliedpsu.com for detail.