

INSTALLATION SHEET



Before operation, ensure you have read and understood all the information and instructions in this leaflet.

- Disconnect the system from the supply network before undertaking any installation, maintenance, modification or removal.
- The unit must be installed only by qualified personnel.

As a minimum, the following conditions must be met:

- Connection to the mains supply must be compliant with VDE0100 and EN50178.
- All wires must be properly secured in terminal blocks.
- Unit and power supply wires must be properly fused.
- All output wires must be correctly rated and connected with the correct polarity.
- Sufficient air cooling must be ensured. Do not cover ventilation holes - leave sufficient space for cooling around the unit.
- No modifications should be made while the unit is in operation.
- Only disconnect when the power is off.
- This unit contains unprotected conductors carrying a lethally high voltage. Improper usage or handling may result in electric shock or serious burns.
- Do not introduce any object into the unit.
- Keep away from fire and water.
- Refer to product datasheet for more technical parameters.

Installation

The PSU is a primary switched-mode power supply designed for use in panel-board installations or building-in applications where access to the supply is restricted. It must only be installed and put into service by qualified personnel.

Mounting

See Step 1 & 2. Ventilation holes must be kept clear - recommended minimum clearance is 25mm on all sides. To mount, tilt the top of the unit backwards and clip to the top edge of the rail, tilt the bottom of the unit backwards and click into place.

Removal

Before removal switch off mains power and disconnect rack from the supply network. Push down the slider at the rear (see Step 1), tilt front of unit forwards and up.

Connection

Ensure that wires used are suitable for the load - see technical data below. Ensure that wires are correctly stripped and fitted - see Step 3 overleaf. Ensure correct polarity at output terminals.

Internal Fuse

The internal fuse protects the unit and is not user-replaceable. In the event of an internal failure, the unit should be returned to AMG.

Voltage Adjustment

The output voltage can be adjusted by partially turning the potentiometer as indicated on the front of the power supply. The voltage range is indicated in the specification table below.

Input

Input Voltage	• 85~264VAC (120~370VDC)
Input Frequency	• 47-63 Hz
Input Current	• I48L-P120: 2.7/1.6A • I48-P120: 1.5/0.75A • I48-P240: 3/1.5A • I48-P480: 5/2.5A
Inrush Current	• I48L-P120: 30/55A • I48-P[120,240]: 15/30A • I48-P480: 35/35A
Leakage Current	• I48(L)-P120: <1mA • I48-P240: <0.5mA • I48-P480: <0.8mA
Power Factor	• I48-P[120,240]: 0.98/0.94 • I48-P480: 0.99/0.99

Output

Output Voltage	• See table
Output Voltage Range	• See table
Minimum Capacitive Load	• See table
Hold Up Time	• I48L-P120: 8/16ms • I48-P[120,240]: 20ms • I48-P480: 16ms min., 22ms max.
Line Regulation	• ±0.5% typ.
Load Regulation	• ± 1% typ.
Ripple & Noise	• See table
Overvoltage Protection	• Hiccup, self-recovery
DC OK Signal	• 30VDC/1A Max.
Short Circuit Protection	• Hiccup, self-recovery
Over-temperature Protection	• I48-P[120,480]: 90/60°C • I48-P240: 80°C

General

Efficiency	• See table
Isolation	• 3000 VAC Input to Output
Signal	• DC ON indicator LED Green
DIN Rail	• Compatible with TS35/7.5 or TS35/15

Environmental

Operating Temperature	• -40°C to +70°C;
Cooling	• Free air convection
Operating Humidity	• 95% RH max, non-condensing
Storage Temperature	• -40°C to +85°C
Shock & Vibration	• Tested to GB/T2423.10-2008 and GB-T2423.22-2002



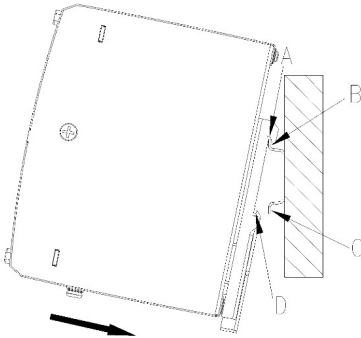
EMC & Safety

Emissions	• EN55032, Class B conducted & radiated
ESD Immunity	• EN61000-4-2, Criteria A
Radiated Immunity	• EN61000-4-3, Criteria A
EFT/Burst	• EN61000-4-4, Criteria A
Surge	• EN61000-4-5, Criteria A
Conducted Immunity	• EN61000-4-6, Criteria A
Dips & Interruptions	• EN61000-4-11
Safety Approvals	• UL/EN62368-1

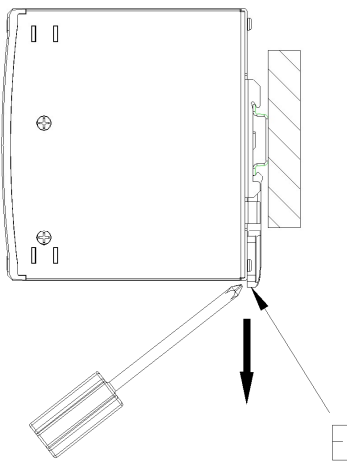
Output Voltage	Output Power	Output Voltage Range	Output Current	Ripple & Noise pk-pk	Typical Efficiency	Maximum Capacitive Load	Model Number
48V	120W	48-55V	2.5A	150mV	89.0%	800µF	AMGPSU-I48L-P120
48V	120W	47-53V	2.5A	200mV	94.0%	30000µF	AMGPSU-I48-P120
48V	240W	48-53V	5.0A	75-150mV	94.0%	10000µF	AMGPSU-I48-P240
48V	480W	48-55V	10.0A	70mV	94.5%	10000µF	AMGPSU-I48-P480

1. Installation and Removal

Installation: Snap top (A) hangs on the rail top (B), adjust the product into vertical state, snap bottom (D) locates into the lower end of rail (C).

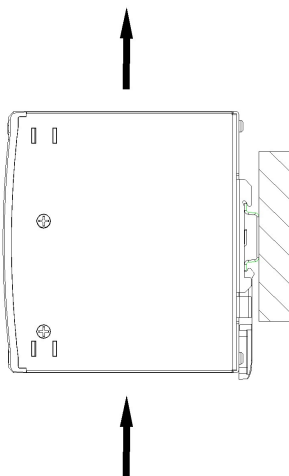


Removal: Insert the screwdriver into E, pull down the snap and make it tilt outward in the meantime, then it can be removed from the rail.



2. Vertical Installation

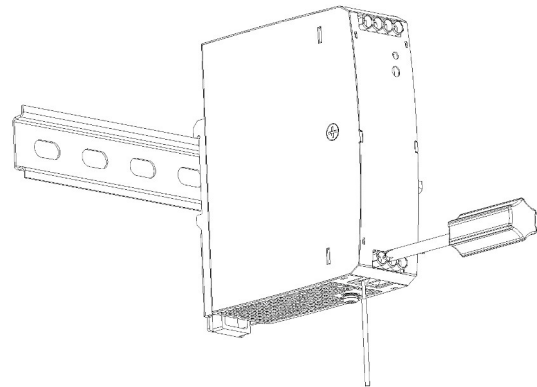
A minimum clearance of 25 mm is required for the air inlet and outlet.



3. Wiring

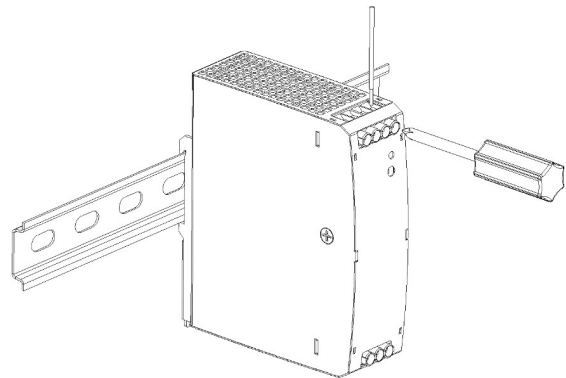
Make sure the rated current of the wire is compatible with the model used.

Insert the copper wires into the top and bottom access points and fix them with a screwdriver. The maximum torque of the screw is 0.4 N•m.



4. Adjust Voltage

Adjust the output voltage with a suitable tool according to adjustment range in the selection guide.



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