

# Installation Manual

● **Type : General Type DIN rail with Single Phase**

( Series : DR-45, DR-75, DR-120, DRP-240, DRP-480, DRP-480S )

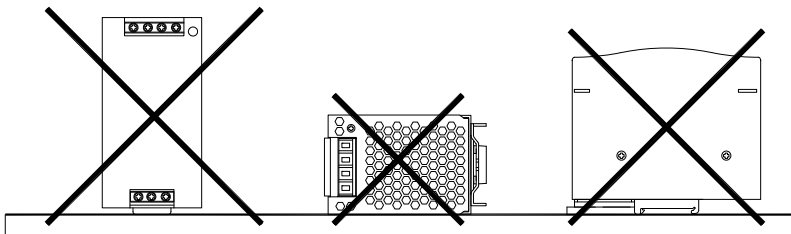
|             |  |                  |
|-------------|--|------------------|
| DR-45-5     | INPUT: 100 -240VAC 1.5A 50/60Hz          | OUTPUT: 5V 5A    |
| DR-45-12    | INPUT: 100 -240VAC 1.5A 50/60Hz          | OUTPUT: 12V 3.5A |
| DR-45-15    | INPUT: 100 -240VAC 1.5A 50/60Hz          | OUTPUT: 15V 2.8A |
| DR-45-24    | INPUT: 100 -240VAC 1.5A 50/60Hz          | OUTPUT: 24V 2A   |
| DR-75-12    | INPUT: 100 -240VAC 2A 50/60Hz            | OUTPUT: 12V 6.3A |
| DR-75-24    | INPUT: 100 -240VAC 2A 50/60Hz            | OUTPUT: 24V 3.2A |
| DR-75-48    | INPUT: 100 -240VAC 2A 50/60Hz            | OUTPUT: 48V 1.6A |
| DR-120-12   | INPUT: 100-120/200-240VAC 3.3/2A 50/60Hz | OUTPUT: 12V 10A  |
| DR-120-24   | INPUT: 100-120/200-240VAC 3.3/2A 50/60Hz | OUTPUT: 24V 5A   |
| DR-120-48   | INPUT: 100-120/200-240VAC 3.3/2A 50/60Hz | OUTPUT: 48V 2.5A |
| DRP-240-24  | INPUT: 100-240VAC 3.5A 50/60Hz           | OUTPUT: 24V 10A  |
| DRP-240-48  | INPUT: 100-240VAC 3.5A 50/60Hz           | OUTPUT: 48V 5A   |
| DRP-480-24  | INPUT: 200 -240VAC 4A 50/60Hz            | OUTPUT: 24V 20A  |
| DRP-480-48  | INPUT: 200 -240VAC 4A 50/60Hz            | OUTPUT: 48V 10A  |
| DRP-480S-24 | INPUT: 100-120/200-240VAC 11/4A 50/60Hz  | OUTPUT: 24V 20A  |
| DRP-480S-48 | INPUT: 100-120/200-240VAC 11/4A 50/60Hz  | OUTPUT: 48V 10A  |

● **Introduction**

The DIN rail power supply is a kind of external switching power supply specifically designed to fulfil the requirements of Deutsches Institut für Normung (DIN), the German Institute for Standardization in English. As a sort of DIN rail power supplies, Mean Well's DIN rail power supply series can be mounted on a TS35 Standard DIN rail.

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- ( 1 ) Always allow good ventilation clearances, 5mm left and right, 40mm above and 20mm below, around the unit in use to prevent it from overheating. Also a 10-15 cm clearance must be kept when the adjacent device is a heat source.
- ( 2 ) The appropriate mounting orientation for the unit is vertical, the input terminals at the bottom and output on the top for DR-75 and DR-120, the input terminals on the right and output on the left for DR-45, DRP-240, DRP-480 and DRP-480S. Mounting orientations other than that, such as upside down, horizontal, or table-top mounting, is not allowed.



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(3) Use copper wire only, and recommended wires are shown as below.

| AWG                                     | 18   | 16    | 14     | 12     | 10     |
|---|------|-------|--------|--------|--------|
| Rated Current of Equipment (Amp)        | 6A   | 6-10A | 13-16A | 16-25A | 25-32A |
| Cross-section of Lead(mm <sup>2</sup> ) | 0.75 | 1.00  | 1.5    | 2.5    | 4      |

Note: 1. Current each wire carries should be de-rated to 80% of the current suggested above when using 5 or more wires connected to the unit.  
 2. The maximum allowable wire cross-sectional area for the terminal of the DR-45 is 12AWG/2.5 mm<sup>2</sup>.

Make sure that all strands of each stranded wire enter the terminal connection and the screw terminals are securely fixed to prevent poor contact. If the power supply possesses multi-output terminals, please make sure each contact is connected to wires to prevent too much current stress on a single contact.

- (4) Use wires that can withstand temperatures of at least 80°C such as UL1007.
- (5) Recommended wire strapping length is 5mm (0.197").
- (6) Recommended screwdriver is 4mm, slotted type.
- (7) The recommended torque setting for terminals is shown as below.

| Model                     | I/P                  | O/P                  |
|---------------------------|----------------------|----------------------|
| DR-45                     | 5 kgf-cm (4.4 Lb-in) | 5 kgf-cm (4.4 Lb-in) |
| DR-75/120<br>DRP-480/480S | 10 kgf-cm (9 Lb-in)  | 10 kgf-cm (9 Lb-in)  |

(8) Suggested fuse and maximum number of the PSUs that can be connected to a circuit breaker at 230V are shown as below.

| Model    | Fuse        | Circuit breaker |     |
|----------|-------------|-----------------|-----|
|          |             | C16             | D16 |
| DR-45    | T2.5A/L250V | 6               | 13  |
| DR-75    | T2.5A/L250V | 6               | 11  |
| DR-120   | F4A/H250V   | 5               | 7   |
| DRP-240  | F5A/L250V   | 4               | 8   |
| DRP-480S | T15A/H250V  | 3               | 3   |

(9) Mounting Instruction :

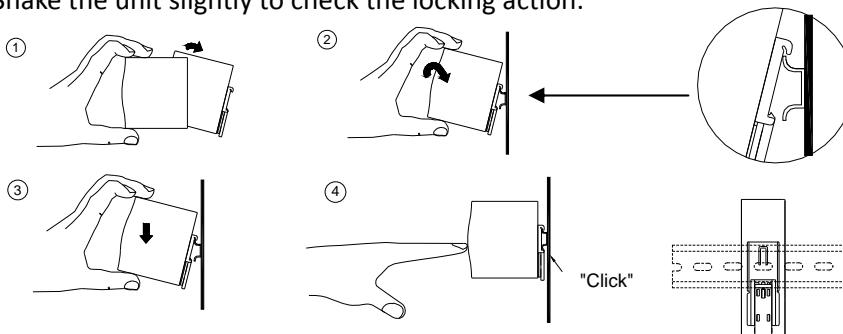
Mount as shown in figure only, with input terminals down, or else sufficient cooling will not be possible.

Admissible DIN rail : TS35/7.5 or TS35/15

For rail fastening :



- (a) Tilt the unit slightly rearwards.
- (b) Fit the unit over top hat rail.
- (c) Slide it downward until it hits the stop.
- (d) Press against the bottom for locking.
- (e) Shake the unit slightly to check the locking action.





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(10) For other information about the products, please refer to [www.meanwell.com](http://www.meanwell.com) for details.

## ● **Warning / Caution !!**

- (1) Risk of electrical shock and energy hazard. All failure should be examined by a qualified technician. Please do not remove the case of the DIN rail power supply by yourself!
- (2) Risk of electric arcs and electric shock (danger to life). Connecting both the primary and the secondary sides together is not allowed.
- (3) Risk of burn hazard. Do not touch the unit in operation and shortly after disconnection!
- (4) Risk of fire and short circuit. The openings should be protected from foreign objects or dripping liquids.
- (5) Only install the unit in a pollution degree 2 environment (Note.1).
- (6) Please do not install the unit in places with high moisture or near the water.
- (7) The maximum operating temperature for the DR PSUs is shown as below.

| Model   | Temperature |
|---|-------------|
| DR-120-12   | 35°C        |
| DR-75-12  | 38°C        |
| DR-75-24/DR-75-48<br>DRP-480-24/DRP-480-48<br>DRP-480S-24/DRP-480S-48 | 40°C        |
| DR-45<br>DR-120-24<br>DR-120-48                                       | 45°C        |
| DRP-240   | 50°C        |

Please do not install the unit in places with high ambient temperature or near fire source.

- (8) The FG (⊕) must be connected to PE (Protective Earth).
- (9) Output current and output wattage must not exceed the rated values on its specification.
- (10) Disconnect system from supply voltage:

Before commencing any installation, maintenance or modification work: Disconnect your system from supply voltage. Make sure that inadvertent connection in circuit will be impossible!

- (11) For continued protection against risk of fire, replace only with same type and rating of fuse.

Pour ne pas compromettre la protection contre les risqué d'incendie, remplacer par un fusible de même type et de memes caractéristiques nominales.

Note.1: Pollution Degree 2 applies where there is only non-conductive pollution that might temporarily become conductive due to occasional condensation. Generally refer to dry, well-ventilated locations, such as control cabinets.

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