

# Installation Manual

● **Type : DRDN20/40 DIN rail Type Redundancy Module**

|           |                      |     |                    |
|-----------|----------------------|-----|--------------------|
| DRDN20-12 | INPUT : 1 : 9-14VDC  | 20A | OUTPUT : 20A (max) |
|           | 2 : 9-14 VDC         | 20A |                    |
| DRDN20-24 | INPUT : 1 : 19-29VDC | 20A | OUTPUT : 20A (max) |
|           | 2 : 19-29VDC         | 20A |                    |
| DRDN20-48 | INPUT : 1 : 36-60VDC | 20A | OUTPUT : 20A (max) |
|           | 2 : 36-60VDC         | 20A |                    |
| DRDN40-12 | INPUT : 1 : 9-14VDC  | 40A | OUTPUT : 40A (max) |
|           | 2 : 9-14 VDC         | 40A |                    |
| DRDN40-24 | INPUT : 1 : 19-29VDC | 40A | OUTPUT : 40A (max) |
|           | 2 : 19-29VDC         | 40A |                    |
| DRDN40-48 | INPUT : 1 : 36-60VDC | 40A | OUTPUT : 40A (max) |
|           | 2 : 36-60VDC         | 40A |                    |

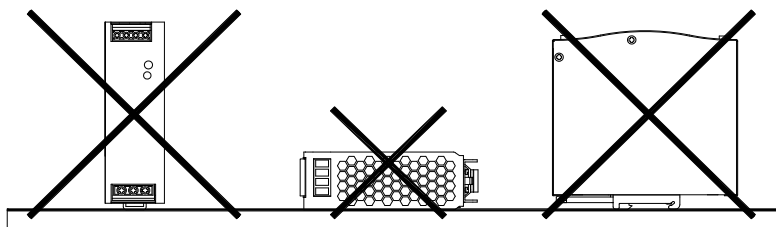
● **Introduction**

DRDN20/40 is a DIN rail type redundancy module.

Like other Mean Well's DIN series, they can be mounted on a TS35 Standard DIN rail.

● **Installation**

- (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.
- (2) The appropriate mounting orientation for the unit is vertical, the input terminals at the bottom. Mounting orientations other than that, such as upside down, horizontal, or table-top mounting, is not allowed.



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

| AWG                                     | 18  | 16  | 14  | 12  | 10  | 8   | 6    |
|---|-----|-----|-----|-----|-----|-----|------|
| Rated Current of Equipment (Amp)        | 7A  | 10A | 15A | 20A | 30A | 40A | 50A  |
| Cross-section of Lead(mm <sup>2</sup> ) | 0.8 | 1.3 | 2.1 | 3.3 | 5.3 | 8.4 | 13.3 |

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 is 6AWG/13.3 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.

# Installation Manual

(7) The recommended torque setting for terminals is shown as below.

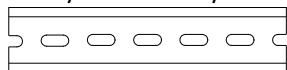
| Model  | I/P & O/P                 | DC OK  |
|--------|---------------------------|--|
| DRDN20 | 5.1kgf-cm (4.43Lb-in)     | TB1: 4.1kgf-cm (3.54Lb-in)                               |
| DRDN40 | 20.21kgf-cm (17.54 Lb-in) | TB1: 4.1kgf-cm (3.54Lb-in)<br>TB2: 5.1kgf-cm (4.43Lb-in) |

(8) Mounting Instruction :

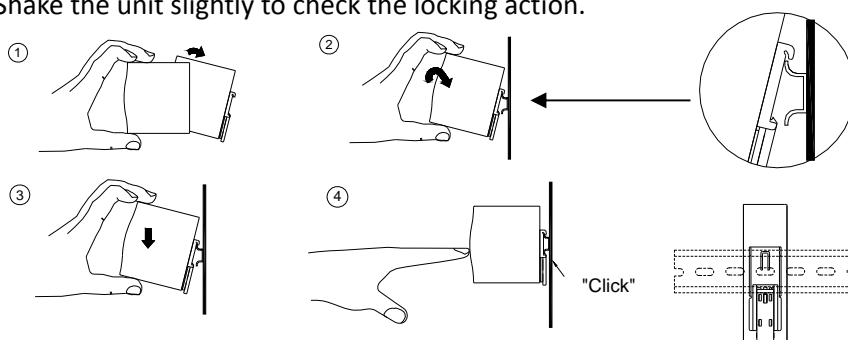
Mount as shown in figure only, with input terminals down, or else sufficient cooling will not be possible.

Admissible DIN rail : TS35/7.5 or TS35/15

For rail fastening :



- Tilt the unit slightly rearwards.
- Fit the unit over top hat rail.
- Slide it downward until it hits the stop.
- Press against the bottom for locking.
- Shake the unit slightly to check the locking action.

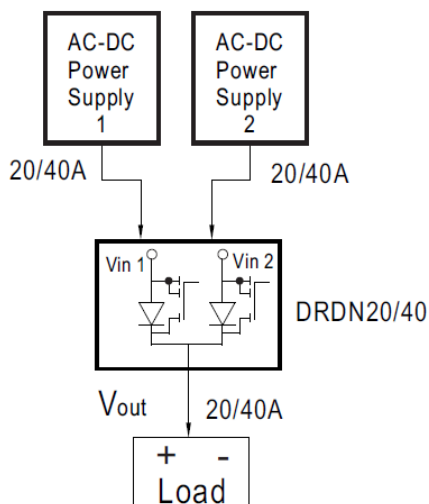


(9) For other information about the products, please refer to [www.meanwell.com](http://www.meanwell.com) for details.

## Typical Application Notes

(1) 1+1 Redundancy:

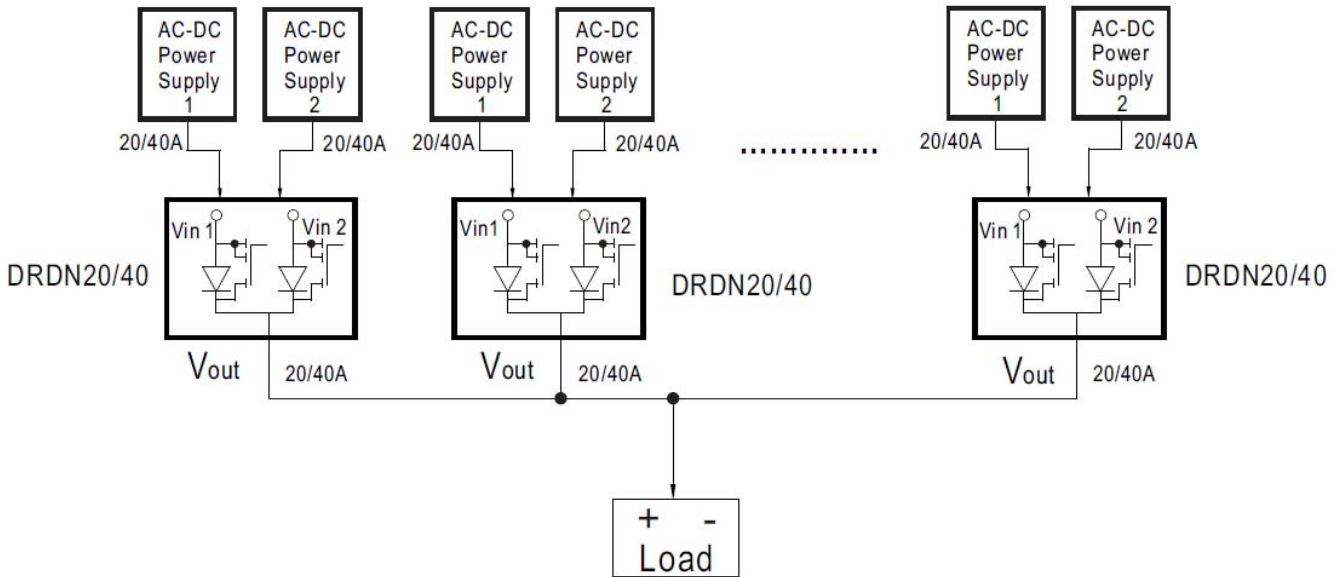
Using 1 more PSU as the redundant unit



# Installation Manual

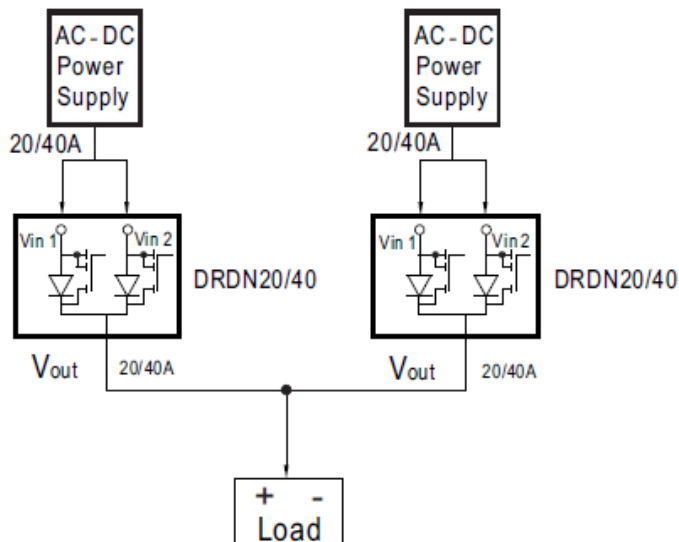
## (2) 1+N Redundancy:

Using more PSUs as the redundant units to increase the reliability



## (3) Single Use:

Connecting only one PSU to one DRDN20/40 to reduce the stress of the MOSFET and hence increase the reliability





# Installation Manual

## ● **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 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 is 60°C, please do not install the unit in places with high ambient temperature or near fire source.
- (8) Output current and output wattage must not exceed the rated value on its specification.
- (9) 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!
- (10) 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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## Declaration of China RoHS Conformity

In order to reduce the impacts on the environment and take the more responsibility for protecting the earth, MEAN WELL is confirming and announcing the conformity to China RoHS, an Administrative Measures for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products.

### Environment Friendly Use Period Label

|  |  |
|--|--|
|  | Observing SJT 11364-2014, Marking for the Restricted Use of Hazardous Substances in Electronic and Electrical Products   |
|  | Observing SJ/Z 11388-2009, General Guidelines of Environment-friendly Use Period of Electronic Information Products Appendix B, adopting table look-up to verify the Environment Friendly Use Period |

### Names and Contents of Hazardous Substances Lists

| Part Name               | Hazardous Substances |                 |                 |   |                                      |   |
|-------------------------|----------------------|-----------------|-----------------|---|--------------------------------------|---|
|                         | Lead<br>(Pb)         | Mercury<br>(Hg) | Cadmium<br>(Cd) | Hexavalent<br>chromium<br>(Cr <sup>6+</sup> ) | Polybrominated<br>biphenyls<br>(PBB) | Polybrominated<br>diphenyl ethers<br>(PBDE) |
| PCB and its components  | X                    | O               | X               | O   | O                                    | O   |
| Metal structure parts   | X                    | O               | O               | O   | O                                    | O   |
| Plastic structure parts | O                    | O               | O               | O   | O                                    | O   |
| Accessories             | O                    | O               | O               | O   | O                                    | O   |
| Cables                  | X                    | O               | O               | O   | O                                    | O   |

O: The concentration of the hazardous substances within the homogeneous material of that product is less than the concentration limits set by GB/T 26572-2011.  
X: The concentration of the hazardous substances within the homogeneous material of that product is over the concentration limits set by GB/T 26572-2011; however, it follows the standard advised by 2011/65/EU.



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## Declaration of China VOC Conformity

In order to reduce the impacts on the environment and take the more responsibility for protecting the earth, MEAN WELL is confirming and announcing the conformity to China's Standardization Administration Releases VOC Standards

| Standard No.  | Name of the Standard   |
|---------------|--|
| GB 30981-2020 | Limit of harmful substances of industrial protective coatings    |
| GB 33372-2020 | Limits for volatile organic compounds content in adhesive        |
| GB 38507-2020 | Limits for volatile organic compounds (VOCs) In printing ink     |
| GB 38508-2020 | Limits for volatile organic compounds content in cleaning agents |

ISO-9001 CERTIFIED

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## Declaration of Five PBT TSCA Conformity

In order to reduce the impacts on the environment and take the more responsibility for protecting the earth, MEAN WELL hereby confirms that MEAN WELL product series comply with Use and Risk Management for Five PBT Chemicals under TSCA section 6(h)

| CAS No.    | Substance Name                                      |
|------------|---|
| 1163-19-5  | Decabromodiphenyl ether (DecaBDE)                   |
| 68937-41-7 | Phenol, isopropylated, phosphate (3:1)<br>PIP (3:1) |
| 732-26-3   | 2,4,6-Tris (tert-butyl) phenol (2,4,6-TTBP)         |
| 133-49-3   | Pentachlorothiophenol (PCTP)                        |
| 87-68-3    | Hexachlorobutadiene (HCBD)                          |