Installation Manual

- **Type：DDR DIN rail power supply（Series：DDR-120, DDR-240）**

DDR-120A-12	INPUT: 9~18VDC 13.5A	OUTPUT: 12V 7.1A (9~10.8Vin) 12V 8.3A (10.8~18Vin)
DDR-120A-24	INPUT: 9~18VDC 13.5A	OUTPUT: 24V 3.6A (9~10.8Vin) 24V 4.2A (10.8~18Vin)
DDR-120A-48	INPUT: 9~18VDC 13.5A	OUTPUT: 48V 1.8A (9~10.8Vin) 48V 2.1A (10.8~18Vin)
DDR-120B-12	INPUT: 16.8~33.6VDC 9A	OUTPUT: 12V 9A (16.8~21.6Vin) 12V 10A (21.6~33.6Vin)
DDR-120B-24	INPUT: 16.8~33.6VDC 9A	OUTPUT: 24V 4.5A (16.8~21.6Vin) 24V 5A (21.6~33.6Vin)
DDR-120B-48	INPUT: 16.8~33.6VDC 9A	OUTPUT: 48V 2.3A (16.8~21.6Vin) 48V 2.5A (21.6~33.6Vin)
DDR-120C-12	INPUT: 33.6~67.2VDC 4.5A	OUTPUT: 12V 9A (33.6~43.2Vin) 12V 10A (43.2~67.2Vin)
DDR-120C-24	INPUT: 33.6~67.2VDC 4.5A	OUTPUT: 24V 4.5A (33.6~43.2Vin) 24V 5A (43.2~67.2Vin)
DDR-120C-48	INPUT: 33.6~67.2VDC 4.5A	OUTPUT: 48V 2.3A (33.6~43.2Vin) 48V 2.5A (43.2~67.2Vin)
DDR-120D-12	INPUT: 67.2~154VDC 2.5A	OUTPUT: 12V 9A (67.2~86.4Vin) 12V 10A (86.4~154Vin)
DDR-120D-24	INPUT: 67.2~154VDC 2.5A	OUTPUT: 24V 4.5A (67.2~86.4Vin) 24V 5A (86.4~154Vin)
DDR-120D-48	INPUT: 67.2~154VDC 2.5A	OUTPUT: 48V 2.3A (67.2~86.4Vin) 48V 2.5A (86.4~154Vin)
DDR-240B-24	INPUT: 16.8~33.6VDC 13.5A	OUTPUT: 24V 8A (16.8~21.6Vin) 24V 10A (21.6~33.6Vin)
DDR-240B-48	INPUT: 16.8~33.6VDC 13.5A	OUTPUT: 48V 4A (16.8~21.6Vin) 48V 5A (21.6~33.6Vin)
DDR-240C-24	INPUT: 33.6~67.2VDC 7.5A	OUTPUT: 24V 9A (33.6~43.2Vin) 24V 10A (43.2~67.2Vin)
DDR-240C-48	INPUT: 33.6~67.2VDC 7.5A	OUTPUT: 48V 4.5A (33.6~43.2Vin) 48V 5A (43.2~67.2Vin)
DDR-240D-24	INPUT: 67.2~154VDC 3.7A	OUTPUT: 24V 9A (67.2~86.4Vin) 24V 10A (86.4~154Vin)
DDR-240D-48	INPUT: 67.2~154VDC 3.7A	OUTPUT: 48V 4.5A (67.2~86.4Vin) 48V 5A (86.4~154Vin)

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Introduction

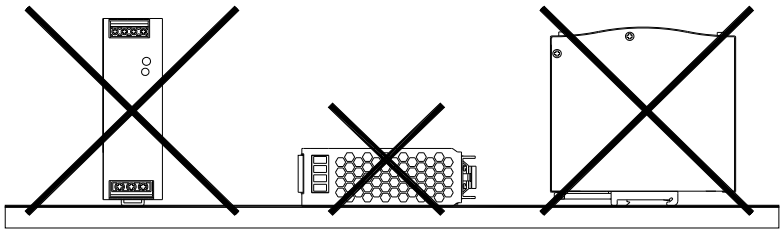
DDR series is a DIN Rail type DC-DC converter with main features including DIN rail-type easy installation, ultra slim width, 2:1 wide input voltage, fanless design, -40~+70℃ wide operating temperature, 4kVdc I/O isolation, 150% peak load, current sharing, DC OK, adjustable output voltage and full protective functions.

This series of models has various input options: 9~18V / 16.8~33.6V / 33.6~67.2V / 67.2~154V and various output options: 12V / 24V / 48V and can be used for industrial & railway control, security control, communication system and other fields. Suitable applications include DC buck/boost regulator, increasing system insulation level and voltage drop compensation along cable...etc.

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. 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. 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
Rated Current of Equipment (Amp)	7A	10A	15A	20A	30A
Cross-section of Lead(mm^2)	0.8	1.3	2.1	3.3	5.3
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 of the SDR-75 is 12AWG/2.5 mm^2.					

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
DDR-120	6.9 kgf-cm (6 Lb-in)	6.9 kgf-cm (6 Lb-in)
DDR-240	8.06 kgf-cm (7 Lb-in)	5.13 kgf-cm (4.45 Lb-in)

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（8）Suggested fuse is shown as below.

Model	Fuse
DDR-120A	T10A/L250V x2
DDR-120B	T8A/L250V x2
DDR-120C	T8A/L250V x1
DDR-120D	T4A/L250V x1
DDR-240B	T10A/L250V x2
DDR-240C	T6.3A/L250V x2
DDR-240D	T6.3A/L250V x1

（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：

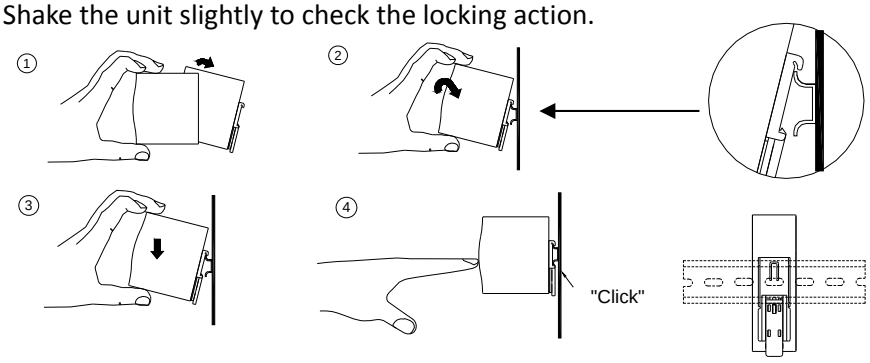
（a）Tilt the unit slightly rearwards.

（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.



（10）For other information about the products, please refer to 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 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 55°C for DDR-120 series, 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 value 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!

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（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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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 (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr^{6+})	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (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.