

Installation Manual

● Type : WDR DIN rail power supply (Families : WDR-60, WDR-120, WDR-240, WDR-480)

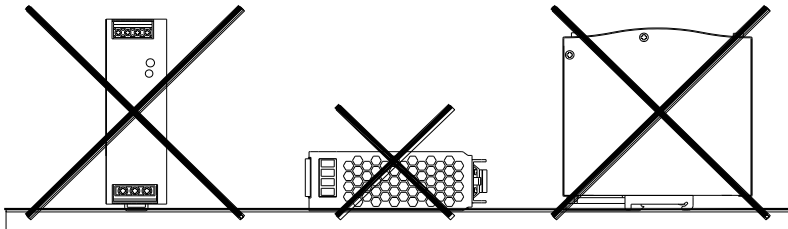
WDR-60-5	INPUT: 200 - 480VAC 0.7A	50/60Hz	OUTPUT: 5V	10A
WDR-60-12	INPUT: 200 - 480VAC 0.7A	50/60Hz	OUTPUT: 12V	5A
WDR-60-24	INPUT: 200 - 480VAC 0.7A	50/60Hz	OUTPUT: 24V	2.5A
WDR-60-48	INPUT: 200 - 480VAC 0.7A	50/60Hz	OUTPUT: 48V	1.25A
WDR-120-12	INPUT: 200 - 500VAC 1.2A	50/60Hz	OUTPUT: 12V	10A
WDR-120-24	INPUT: 200 - 500VAC 1.2A	50/60Hz	OUTPUT: 24V	5A
WDR-120-48	INPUT: 200 - 500VAC 1.2A	50/60Hz	OUTPUT: 48V	2.5A
WDR-240-24	INPUT: 200 - 500VAC 2.0A	50/60Hz	OUTPUT: 24V	10A
WDR-240-48	INPUT: 200 - 500VAC 2.0A	50/60Hz	OUTPUT: 48V	5A
WDR-480-24	INPUT: 200 - 500VAC 4.0A	50/60Hz	OUTPUT: 24V	20A
WDR-480-48	INPUT: 200 - 500VAC 4.0A	50/60Hz	OUTPUT: 48V	10A

● Introduction

WDR series is a sort of DIN rail power supplies with high PFC capability and a wide input range, 180-550Vac. And 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 on the bottom, 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)	6A	6-10A	13-16A	16-25A	25-32A
Cross-section of Lead(mm ²)	0.75	1.00	1.5	2.5	4
Note: 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.					

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 7mm (0.275").
- (6) Recommended screwdriver is 3mm, slotted type.
- (7) The recommended torque setting for terminals is shown as below.

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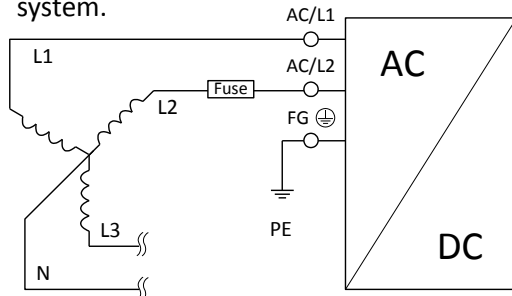
Model	I/P	O/P
WDR-60	7.5 kgf-cm (6.5 Lb-in)	6.9 kgf-cm (6 Lb-in)
WDR-120	5 kgf-cm (4.4 Lb-in)	8 kgf-cm (7 Lb-in)
WDR-240/480	10 kgf-cm (9 Lb-in)	8 kgf-cm (7 Lb-in)

- (8) Suggested fuse and maximum number of the unit that can be connected to a circuit breaker at 400V are shown as below.

Model	C16	D16
WDR-60	19	19
WDR-120	11	11
WDR-240	7	7
WDR-480	4	4

When an external circuit breaker is utilised, a minimum value is required to avoid undesired tripping of the circuit breaker.

- (9) The unit is capable of being connected between any 2 phases on a 3-phase-4-wire Wye (Star) connected system.



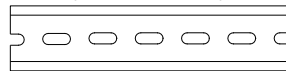
Using a fuse or a circuit break to protect the AC/L2 input is suggested. The AC/L2 input is internally non-protected. Suggested fuse is shown as below.

Model	Fuse
WDR-60	T4A/H500V
WDR-120	T4A/H500V
WDR-240	T4A/H500V
WDR-480	T6.3A/H500V

- (10) Mounting Instruction :

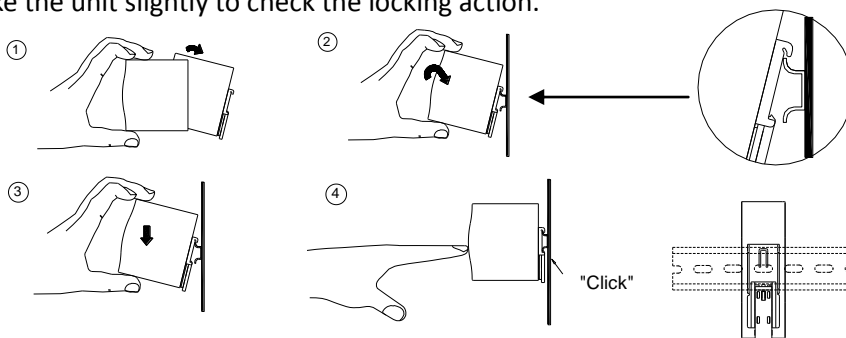
Mount as shown in figure only, with input terminals down, or else sufficient cooling will not be possible.

Admissible DIN rail : TS35/7.5 or TS35/15



For rail fastening :

- ① Tilt the unit slightly rearwards.
- ② Fit the unit over top hat rail.
- ③ Slide it downward until it hits the stop.
- ④ Press against the bottom for locking.
- ⑤ Shake the unit slightly to check the locking action.



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● **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) The maximum operating temperature is 50°C for the WDR series, please do not install the unit in places with high ambient temperature or near fire source.
- (6) For the WDR-480, when the power supply unit installed *Joyin 14S911K*, *14N911K* or *Thinking TVR14911-D* as a Surge Protective Device (ZNR1, ZNR2), it is not suitable for a system protected by SPD type 2. If you concern about this issue, please contact Mean Well for details.
- (7) Please do not put the units in places with high moisture or near the water.
- (8) Please do not put the units in places with high ambient temperature or near fire source. Please refer to the specifications about the maximum ambient temperature limitations.
- (9) The FG (⊕) must be connected to PE (Protective Earth).
- (10) Output current and output wattage must not exceed the rated values on specifications.
- (11) 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!

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

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



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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 11364-2024, 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	Mercury	Cadmium	Hexavalent chromium	Polybrominated biphenyls	Polybrominated diphenyl ethers	Bis(2-ethylhexyl) phthalate	Dibutyl phthalate	Dibutyl phthalate	Diisobutyl phthalate
	(Pb)	(Hg)	(Cd)	(Cr ⁶⁺)	(PBB)	(PBDEs)	(DEHP)	(DBP)	(DBP)	(DIBP)
PCB and its components	X	O	O	O	O	O	O	O	O	O
Metal structure parts	X	O	O	O	O	O	O	O	O	O
Plastic structure parts	O	O	O	O	O	O	O	O	O	O
Accessories	O	O	O	O	O	O	O	O	O	O
Cables	X	O	O	O	O	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

Your Reliable Power Partner



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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) 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)

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