

NDR-120/NDR-240 Series Quick Installation Guide

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Technical Support Contact Information
www.moxa.com/support

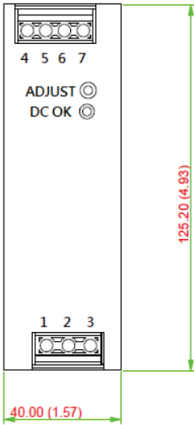


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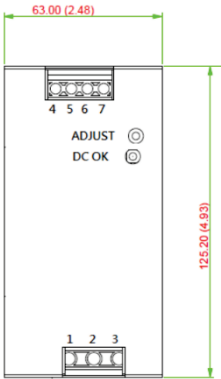
Terminal Pin Assignment

unit: mm (inch)

NDR-120



NDR-240



Terminal Pin No. Assignments

PIN No.	Assignment
1	⊕ FG
2	AC/N or DC-
3	AC/L or DC+
4,5	DC output V-
6,7	DC output V+

LED Indicator	State	Description
DC OK	On	The power supply can output constant direct current.
	Off	The power supply cannot output direct current.

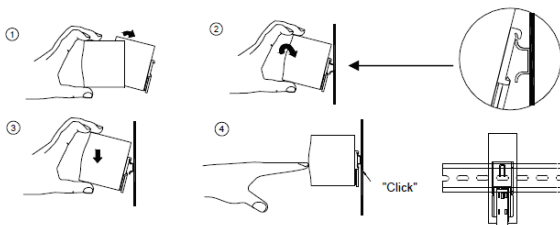
Mounting Instructions

Mounting: Mount only as shown in the figure, with input terminals facing downwards to allow sufficient cooling.

Admissible DIN rails: TS35/7.5 or TS35/15.

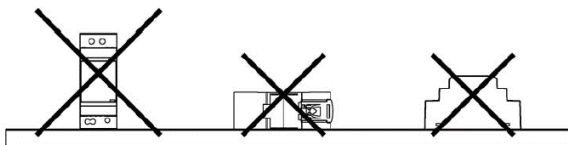
To attach the NDR-120 or NDR-240 to the rail:

1. Rotate the unit backwards, as shown in the figure.
2. Fit the top of the unit over the top hat rail.
3. Slide it downward until it hits the stop.
4. Push the bottom of the unit forward until it snaps into place.
5. Move the unit back and forth to make sure it is locked in place.



Installation

1. To prevent the unit from overheating, always allow sufficient clearance around the unit for proper ventilation: 5 mm left and right, 40 mm above, and 20 mm below. You should also keep a 10 to 15 cm clearance from adjacent devices that act as a heat source.
2. The appropriate mounting orientation is vertical; with input terminals at the bottom and output on the top of the NDR-120 or NDR-240. Other mounting orientations, such as upside down, horizontal, or table-top, are not allowed.



3. Use copper wire only; the recommended wiring is shown below.

AWG	18	16	14	12
Rated Current (Amps)	7	10	15	20
Lead cross-section (mm ²)	0.8	1.3	2.1	3.3

Note: The current each wire carries should be de-rated to 80% of the recommended current when using 4-6 wires connected to the unit.

Make sure that all strands of each wire are properly inserted into the terminal connection, and that the screw terminals are securely fixed to prevent poor contact. If the power supply has multiple

output terminals, make sure each contact is connected to wires to prevent stress on a single contact from too much current.

4. The maximum operating temperature at full load of NDR-120 is 45°C (113°F) and NDR-240 is 50°C (122°F), please refer to the derating curve diagram. Use wire that can withstand temperatures of at least 80°C, such as UL1007.
5. The recommended wire strapping length is 5 mm (0.197 inch).
6. Use a slotted type 3 mm screwdriver.

Important Safety Precautions

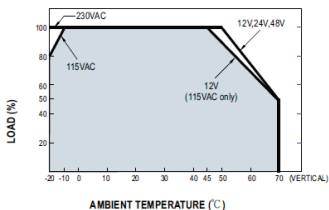
Before working with a power supply, be sure to read and understand these instructions carefully and completely. You should also follow any notes or instructions on the unit itself.

1. **Risk of electrical shock and energy hazard:** If the device fails, it must be examined by a qualified technician. Do not remove the DIN-rail power supply casing yourself.
2. **Risk of electric arcs and electric shock (danger to life):** Do not connect the primary and secondary sides together, since doing so could result in life threatening shocks.
3. **Risk of burn hazard:** Do not touch the unit while it is in operation or shortly after it has been disconnected.
4. **Risk of fire and short circuits:** Openings on the product should be protected from foreign objects and dripping liquids.
5. **Pollution level:** Only install the unit in a pollution level degree 2 environment.
6. **Humidity warning:** Do not install the unit in locations with high humidity, or near water.
7. The FG (⊕) must be connected to PE (Protective Earth).
8. Output current and output wattage must not exceed the rated values in the product's specifications.
9. Before doing any installation, maintenance, or modification work, disconnect the system from the power source. Make sure that inadvertent connection in circuit will be impossible.
10. For continued protection against risk of fire, replace only with fuses of the same type and rating.

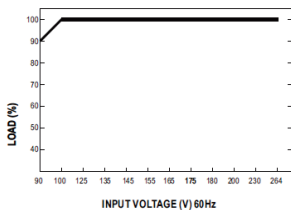
Derating Curve Diagram

NDR-120

■ Derating Curve



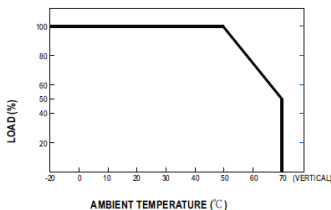
■ Static Characteristics



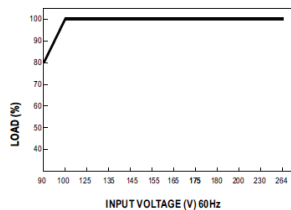
NOTE When the input range is between 90 to 180 VAC, refer to the 115 VAC curve. For 90 to 100 VAC, the input voltage load will gradually increase from 90% to 100%, as shown in the Static Characteristics diagram on the right. When the input range is between 180 to 264 VAC, refer to the 230 VAC curve.

NDR-240

■ Derating Curve



■ Static Characteristics



NOTE For 90 to 100 VAC, the input voltage load will gradually increase from 80% to 100%, as shown in the Static Characteristics diagram on the right.