

# **MEAN WELL NDR-240 Series Single Output Industrial DIN RAIL Owner's Manual**

Home » MEAN WELL » MEAN WELL NDR-240 Series Single Output Industrial DIN RAIL Owner's Manual



#### **Contents**

- 1 MEAN WELL NDR-240 Series Single Output Industrial DIN
- **2 Product Usage Instructions**
- 3 Features
- **4 SPECIFICATION**
- **5 Mechanical Specification**
- **6 Installation Instruction**
- 7 Documents / Resources
  - 7.1 References
- **8 Related Posts**



MEAN WELL NDR-240 Series Single Output Industrial DIN RAIL



#### **Specifications**

Model	NDR-240-24	NDR-240-48
DC Voltage	24V	48V
Rated Current	10A	5A

# **Product Usage Instructions**

#### Installation

- 1. Ensure the power supply is compatible with your equipment's voltage requirements.
- 2. Mount the power supply on a DIN rail TS-35/7.5 or 15 following the installation guidelines.

# Operation

- 1. Connect the input power source within the specified voltage range.
- 2. Connect the output terminals to your industrial control system or other compatible equipment.

# Frequently Asked Questions (FAQ)

- Q: What is the warranty period for the NDR-240 series power supply?
  - A: The power supply comes with a 3-year warranty.
- Q: Can the NDR-240 series power supply be used in semiconductor fabrication equipment?
  - A: Yes, the power supply is suitable for use in semiconductor fabrication equipment.

#### 240W Single Output Industrial DIN RAIL

NDR-240 series

















### **Features**

- Universal AC input / Full range
- · Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- · Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508 (industrial control equipment) approved
- BS EN/EN61000-6-2(BS EN/EN50082-2) industrial immunity level
- 100% full load burn-in test
- · 3 years warranty

#### **Applications**

- · Industrial control system
- · Semi-conductor fabrication equipment
- · Factory automation
- Electro-mechanical

#### **GTIN CODE**

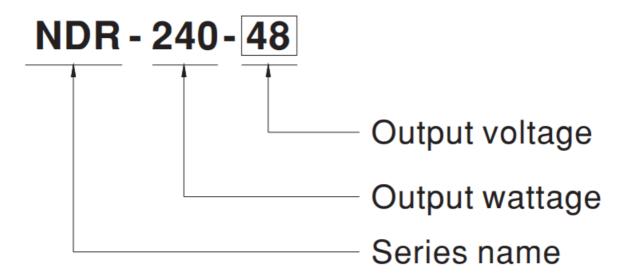
MW Search: <a href="https://www.meanwell.com/serviceGTIN.aspx">https://www.meanwell.com/serviceGTIN.aspx</a>

#### **Description**

NDR-240 is one economical slim 240W Din rail power supply series, adapt to be installed on TS-35/7.5 or TS-35/15 mounting rails. The body is designed 63mm in width, which allows space saving inside the cabinets. The entire series adopts the full range AC input from 90VAC to 264VAC and conforms to BS EN/EN61000-3-2, the norm the European Union regulates for harmonic current. NDR-240 is designed with metal housing that enhances the unit's power dissipation. With working efficiency up to 90%, the entire series can operate at the ambient temperature between -20°C and 70°C under air convection. It is equipped with constant current mode for over-load protection, fitting various inductive or capacitive applications. The complete protection functions and relevant

certificates for industrial control apparatus (UL508, TUV BS EN/EN62368-1, and etc.) make NDR-240 a very competitive power supply solution for industrial applications.

# **Model Encoding**



#### **SPECIFICATION**

MODEL		NDR-240-24	NDR-240-48
	DC VOLTAGE	24V	48V
	RATED CURREN T	10A	5A
	CURRENT RANG E	0 ~ 10A	0 ~ 5A
	RATED POWER	240W	240W
OUTP UT	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p
	VOLTAGE ADJ. R ANGE	24 ~ 28V	48 ~ 55V
	VOLTAGE TOLER ANCE Note.3	±1.0%	±1.0%
	LINE REGULATI ON	±0.5%	±0.5%
	LOAD REGULATI ON	±1.0%	±1.0%
	SETUP, RISE TIM	1500ms, 100ms/230VAC 3000ms, 100ms/115VAC at full load	
	HOLD UP TIME ( Typ.)	28ms/230VAC 22ms/115VAC at full	load
		1	

	VOLTAGE RANG E Note.4	90 ~ 264VAC 127 ~ 370VDC		
	FREQUENCY RA	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC at full load		
INPU T	EFFICIENCY (Typ .)	88.5%	90%	
	AC CURRENT (Ty p.)	2.5A/115VAC 1.3A/230VAC		
	INRUSH CURRE NT (Typ.)	20A/115VAC 35A/230VAC		
	LEAKAGE CURR ENT	<1mA / 240VAC		
		105 ~ 130% rated output power		
	OVERLOAD	Protection type: Constant current limiting, recovers automatically after fault condition is removed		
		29 ~ 33V	56 ~ 65V	
PROT ECTI ON	OVER VOLTAGE	Protection type : Shut down o/p voltage, re-power on to recover		
	OVER TEMPERA TURE	Shut down o/p voltage, recovers automatically after temperature goes down		
	WORKING TEMP.	-20 ~ +70°C (Refer to "Derating Curve")		
ENVI RON MENT	WORKING HUMI DITY	20 ~ 95% RH non-condensing		
	STORAGE TEMP. , HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH		
	TEMP. COEFFICI ENT	±0.03%/°C (0 ~ 50°C)		
	VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6		
	SAFETY STANDA RDS	UL508, TUV BS EN/EN62368-1, EAC TP TC 004, BSMI CNS14336-1, IS13252(P art1)/IEC60950-1 ,KC K60950-1 (for 48V only)approved; (meet BS EN/EN60204-1 )		
	WITHSTAND VOL TAGE	AGE		
	ISOLATION RESI STANCE			

SAFE TY & EMC

(Note 4)	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32), BS EN/EN61204-3 Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020, CNS13438, KSC 9832(for 48V only)	
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61000-6-2 (BS EN/EN50082-2),  BS EN/EN61204-3, heavy industry level, EAC TP TC 020,KSC 9835(for 48V only)	
OTHE RS	MTBF	1645.2K hrs min. Telcordia SR-332 (Bellcore) ; 230.2K hrs min. MIL-HDBK-217F (25°C)	
	DIMENSION	63*125.2*113.5mm (W*H*D)	
	PACKING	1Kg; 12pcs/13Kg/1.22CUFT	

- 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of am bient temperature.
- 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a  $0.1\mu F$  &  $47\mu F$  parallel capacitor.
- 3. Tolerance: includes set up tolerance, line regulation and load regulation.
- 4. Derating may be needed under low input voltage. Please check the derating curve for more details.
- 5. Installation clearances: 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15 mm clearance is recommended.

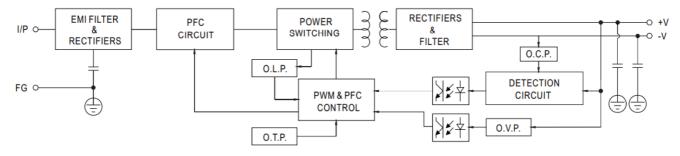
# 6. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform t hese EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="https://www.meanwell.com//Upload/PDF/EMI">https://www.meanwell.com//Upload/PDF/EMI</a> statement en.pdf)

- 7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
- \* Product Liability Disclaimer For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimeraspx">https://www.meanwell.com/serviceDisclaimeraspx</a>

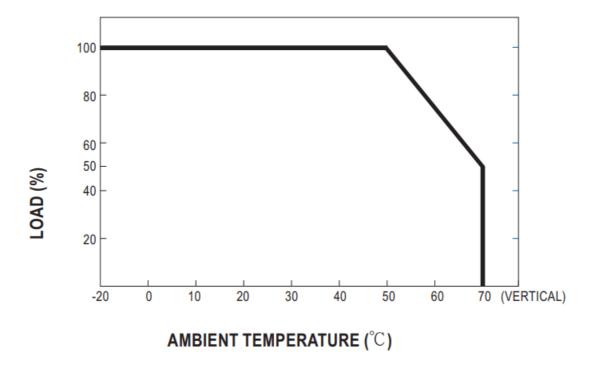
#### **Block Diagram**

**NOTE** 

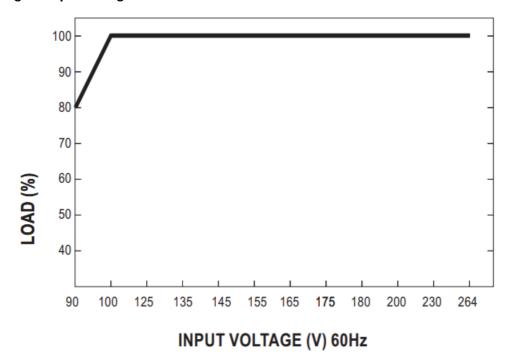
fosc: 70KHz



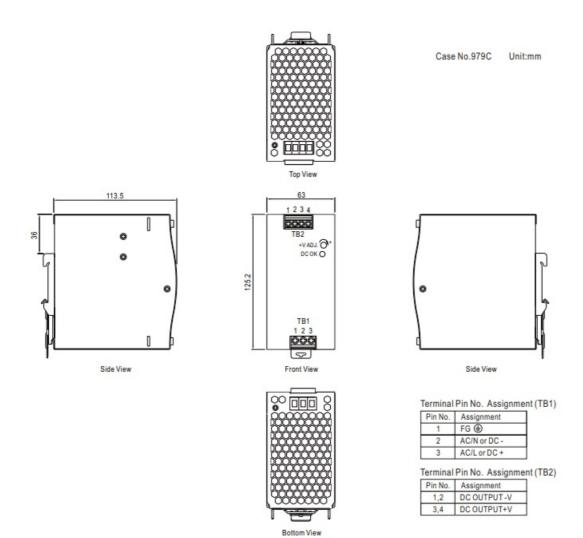
#### **Derating Curve**



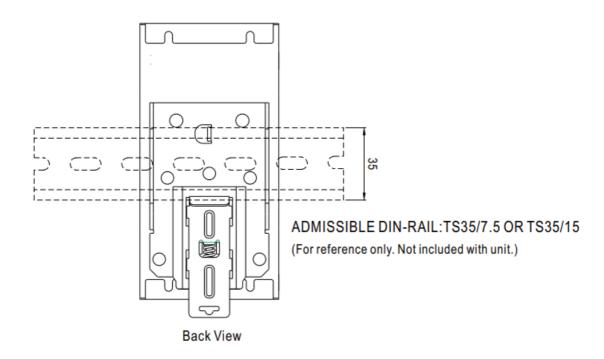
# Output derating VS input voltage



# **Mechanical Specification**



# **Installation Instruction**



This series fits DIN rail TS35/7.5 or TS35/15. For installation details, please refer to the Instruction manual.

#### **Installation Manual**

Please refer to : http://www.meanwell.com/manual.html

#### **Documents / Resources**



MEAN WELL NDR-240 Series Single Output Industrial DIN RAIL [pdf] Owner's Manual NDR-240 Series, NDR-240 Series Single Output Industrial DIN RAIL, Single Output Industrial DIN RAIL, Output Industrial DIN RAIL, Industrial DIN RAIL, RAIL

# References

- △ TÜV Rheinland Home | US | TÜV Rheinland
- User Manual

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