



240W Single Output Industrial DIN RAIL

**NDR-240** series

User's Manual

**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: <https://www.meanwell.com/serviceGTIN.aspx>**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****NDR - 240 - 48**

Output voltage

Output wattage

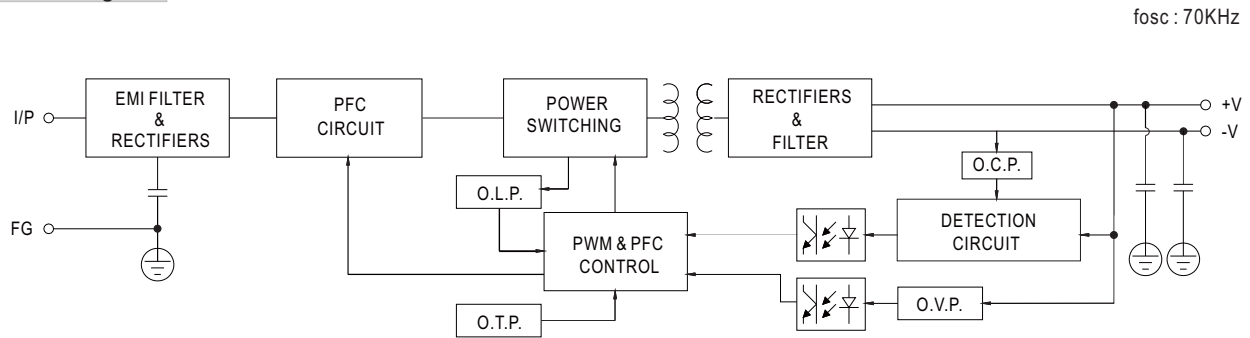
Series name



## SPECIFICATION

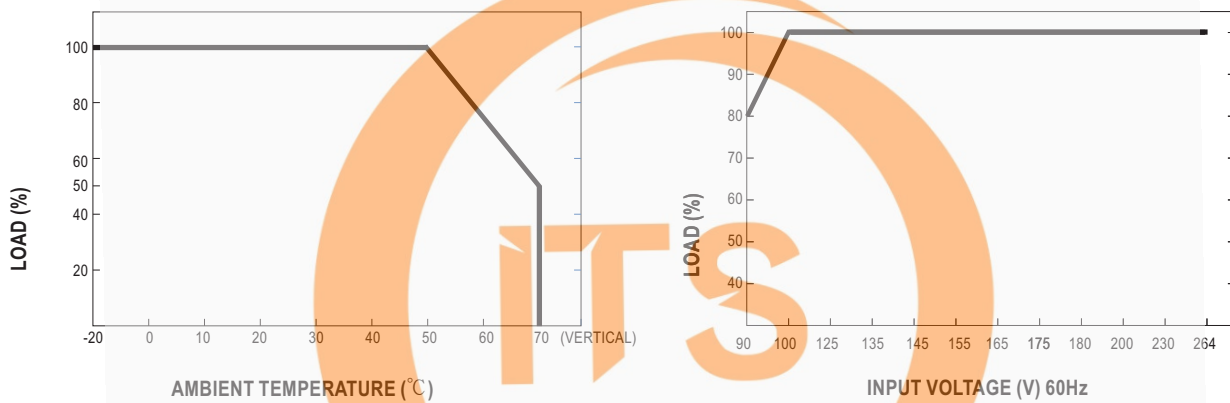
MODEL		NDR-240-24		NDR-240-48	
OUTPUT	DC VOLTAGE	24V		48V	
	RATED CURRENT	10A		5A	
	CURRENT RANGE	0 ~ 10A		0 ~ 5A	
	RATED POWER	240W		240W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p		150mVp-p	
	VOLTAGE ADJ. RANGE	24 ~ 28V		48 ~ 55V	
	VOLTAGE TOLERANCE Note.3	± 1.0%		± 1.0%	
	LINE REGULATION	± 0.5%		± 0.5%	
	LOAD REGULATION	± 1.0%		± 1.0%	
	SETUP, RISE TIME	1500ms, 100ms/230VAC      3000ms, 100ms/115VAC at full load			
	HOLD UP TIME (Typ.)	28ms/230VAC      22ms/115VAC at full load			
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC      127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC at full load			
	EFFICIENCY (Typ.)	88.5%		90%	
	AC CURRENT (Typ.)	2.5A/115VAC      1.3A/230VAC			
	INRUSH CURRENT (Typ.)	20A/115VAC      35A/230VAC			
	LEAKAGE CURRENT	<1mA / 240VAC			
PROTECTION	OVERLOAD	105 ~ 130% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed			
	OVER VOLTAGE	29 ~ 33V		56 ~ 65V	
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down			
ENVIRONMENT	WORKING TEMP.	-20 ~ +70℃ (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 95% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)			
	VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6			
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL508, TUV BS EN/EN62368-1, EAC TP TC 004, BSMI CNS14336-1, IS13252(Part1)/IEC60950-1, KC K60950-1(for 48V only)approved; (meet BS EN/EN60204-1)			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC    I/P-FG:2KVAC    O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25℃/ 70% RH			
	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)			
OTHERS	MTBF	1645.2K hrs min.    Telcordia SR-332 (Bellcore) ; 230.2K hrs min.    MIL-HDBK-217F (25℃)			
	DIMENSION	63*125.2*113.5mm (W*H*D)			
	PACKING	1Kg; 12pcs/13Kg/1.22CUFT			
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μ F &amp; 47 μ F parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Derating may be needed under low input voltage. Please check the derating curve for more details.</p> <p>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, 15mm clearance is recommended.</p> <p>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 these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a> )</p> <p>7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>				

## Block Diagram

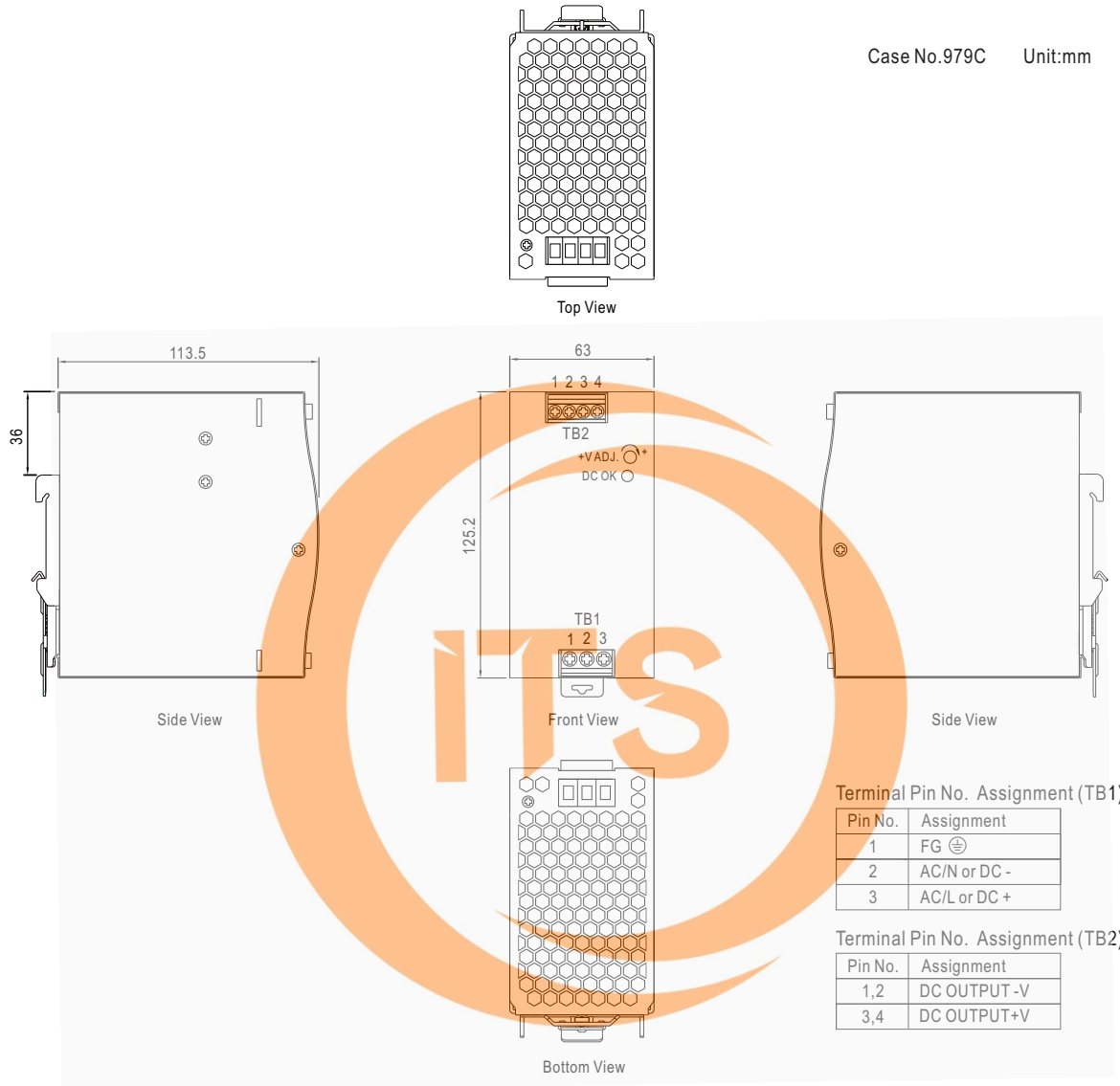


## Derating Curve

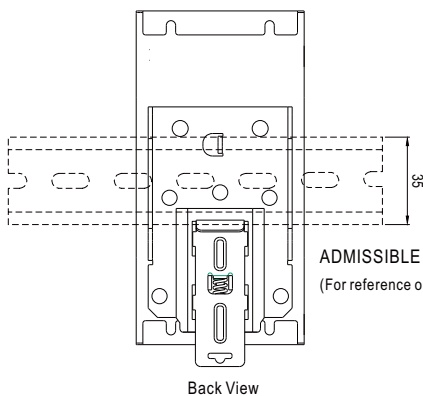
### Output derating VS input voltage



## 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>