



## ■ Features

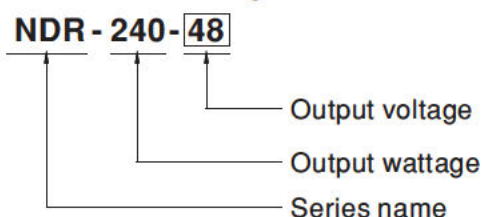
- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508 (industrial control equipment) approved
- BS EN/EN61000-6-2(BS EN/EN50082-2)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

## ■ 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.

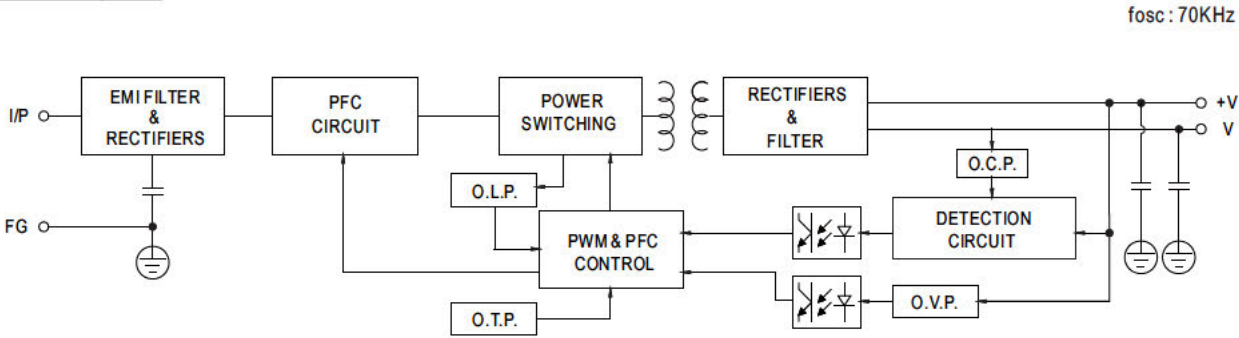
## ■ Model Encoding



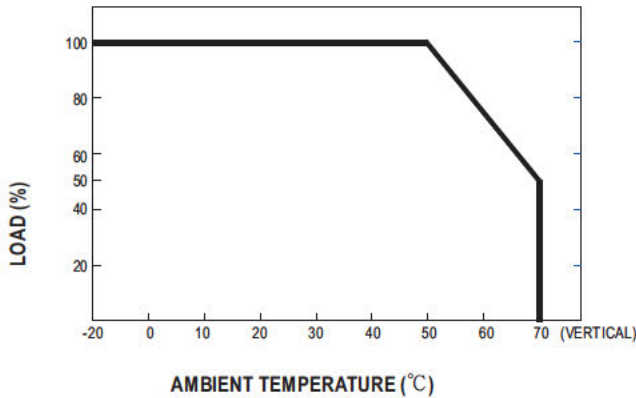
**SPECIFICATION**

MODEL		NDR-240-24	NDR-240-48
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°C (Refer to "Derating Curve")	
	WORKING HUMIDITY	20 ~ 95% RH non condensing	
	STORAGE TEMP., HUMIDITY	40 ~ +85°C, 10 ~ 95% RH	
	TEMP. COEFFICIENT	±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 & 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°C / 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)	
OTHERS	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)	
	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	
NOTE	<ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>Derating may be needed under low input voltage. Please check the derating curve for more details.</li> <li>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.</li> <li>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."</li> <li>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).</li> </ol>		

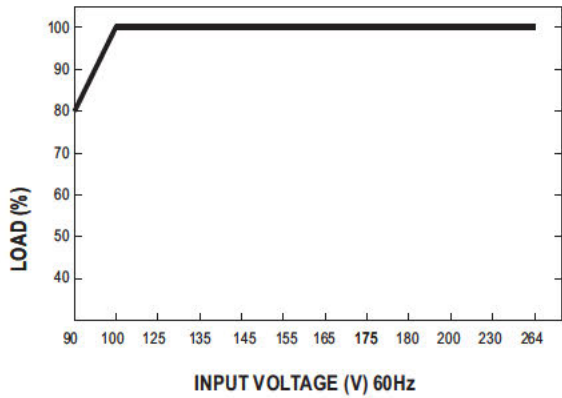
**Block Diagram**



**Derating Curve**

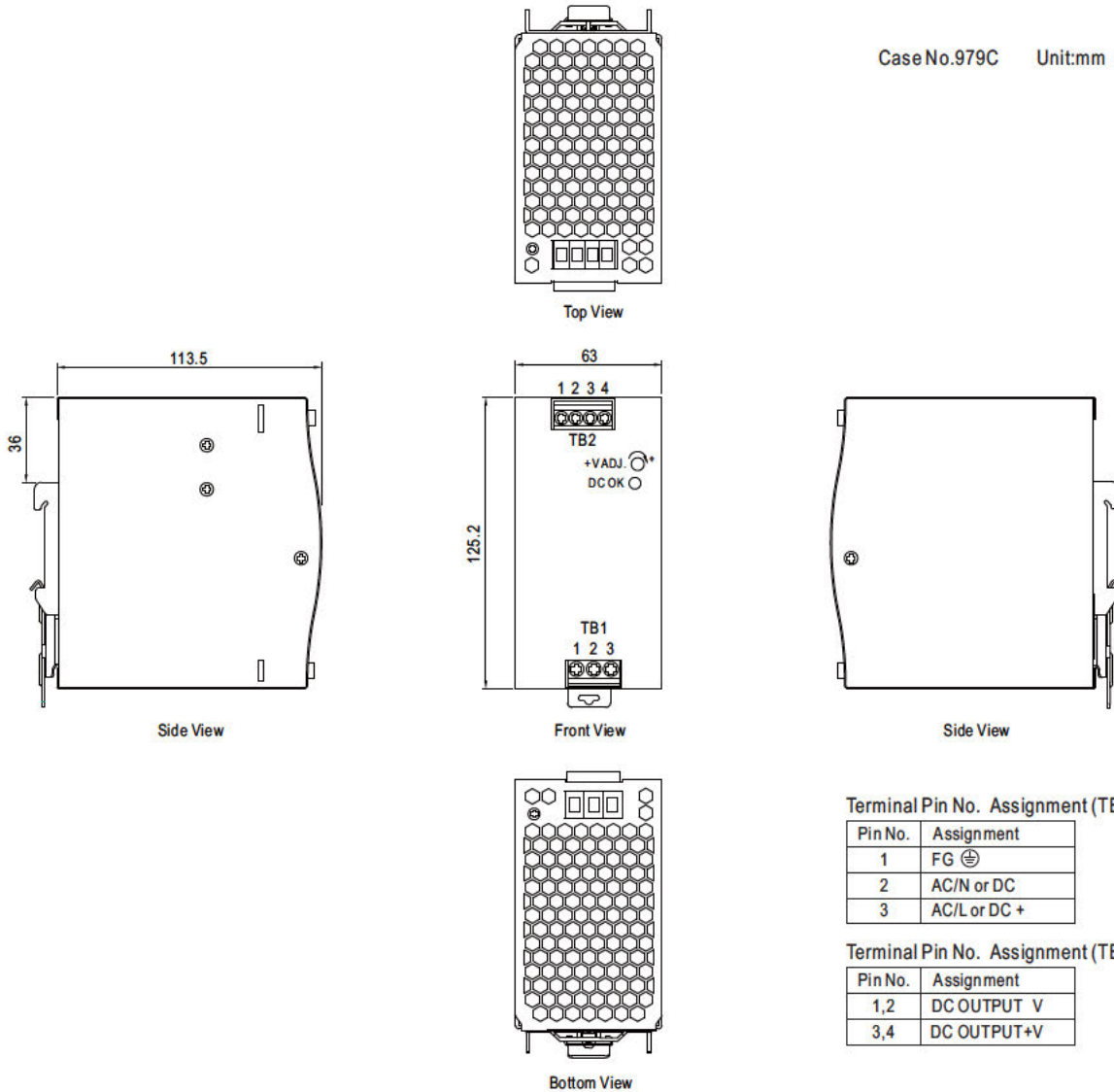


**Output derating VS input voltage**



■ Mechanical Specification

Case No.979C Unit:mm



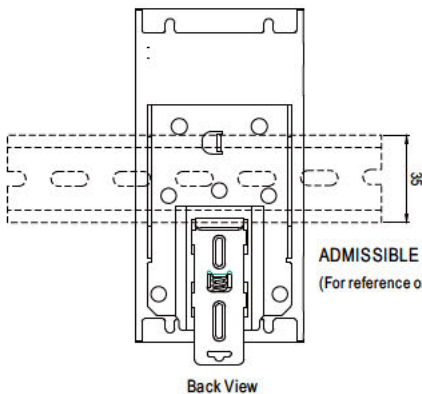
Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1	FG $\oplus$
2	AC/N or DC
3	AC/L or DC +

Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1,2	DC OUTPUT V
3,4	DC OUTPUT+V

■ Installation Instruction



ADMISSIBLE DIN RAIL: TS35/7.5 OR TS35/15  
(For reference only. Not included with unit.)

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

Ihr Systempartner

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