480W NDR-480-24
Single Output DIN Rail Power Supply

Fixture Type:

Catalog Number:

Project:

Location:

R33100 RoHS | TPTC004 | EN62368-1 | IEC62368-1

DESCRIPTION

NDR-480 is a slim 480W Din rail power supply series, adapt to be installed on TS-35/7.5 or TS-35/15 mounting rails. NDR-480 power supply adopts the full range AC input from 90 VAC to 264VAC and conforms to EN61000-3-2, the norm the European Union regulates for harmonic current. NDR-480 is designed with metal housing that enhances the unit's power dissipation. With working efficiency up to 92.5%, It can operate at the ambient temperature beween -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 EN62368-1, and etc.) make NDR-480 a very suitable power supply solution for electrical cabinet or panel.

FEATURES

- Universal AC input / Full range
- Build-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
- EN61000-6-2(EN50082-2) insdustrial immunity level
- 100% full load burn-in test
- 3 years warranty

SPECIFICATIONS

Construction:	Metal
Output:	24VDC, 480W
Input:	90-264VAC
Frequency:	50/60 Hz
Operating Temp:	-20C - 70C
Standards:	UL508

NDR - 480 - 24

- Output voltage
- Output wattage
- Series name

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AiSPiRE retains the right to modify the design of our products at any time as part of the company's continuous improvement program.

480W NDR-480-24
Single Output Industrial DIN RAIL

Model		*Voltage*
OUTPUT	DC VOLTAGE	*24V*
	RATED CURRENT	*20A*
	CURRENT RANGE	*0 ~ 20A*
	RATED POWER	*480W*
	RIPPLE & NOISE (max.) Note.2	*150mVp-p*
	OUTPUT VOLTAGE ADJ. RANGE	*24 ~ 28V*
	VOLTAGE TOLERANCE Note.3	*±1.0%*
	LINE REGULATION	*±0.5%*
	LOAD REGULATION	*±1.0%*
	SETUP, RISE TIME	*1500ms, 100ms/230VAC 3000ms, 100ms/115VAC at full load*
	HOLD UP TIME (Typ.)	*16ms/230VAC 16ms/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>0.94/230VAC at full load*
	EFFICIENCY (Typ.)	*92.5%*
	AC CURRENT (Typ.)	*4.8A/115VAC 2.4A/230VAC*
	INRUSH CURRENT (Typ.)	*20A/115VAC 35A/230VAC*
	LEAKAGE CURRENT	*<2mA / 240VAC*
PROTECTION	OVERLOAD	*105 ~ 130% rated output power*
		Protection type : Constant current limiting, unit will shut down after 3 sec., re-power on to recover
	OVER VOLTAGE	*29 ~ 33V*
		Protection type : Shut down o/p voltage, re-power on to recover
	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 STANDARDS	*UL508, TUV EN62368-1, EAC TP TC 004 , BSMI CNS14336-1 approved;(meet 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 EN55032 (CISPR32), EN61204-3 Class B, EN61000-3-2,-3, EAC TP TC 020, CNS13438 Class B*
	EMC IMMUNITY	*Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2 (EN50082-2), EN61204-3, heavy industry level, criteria A, EAC TP TC 020*
OTHERS	MTBF	*146.8K hrs min. MIL-HDBK-217F (25)*
	DIMENSION	*85.5*125.2*128.5mm (W*H*D)*
	PACKING	*1.5Kg; 8pcs/13Kg/0.9CUFT*
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance: includes set up tolerance, line regulation and load regulation. 4. 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. 5. Derating may be needed under low input voltage. Please check the derating curve for more details. 6. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." 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).	

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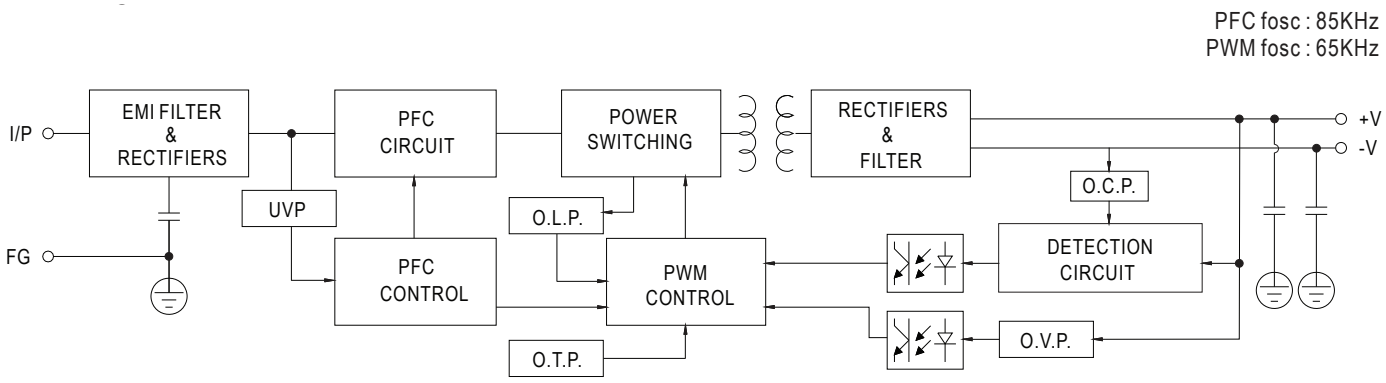
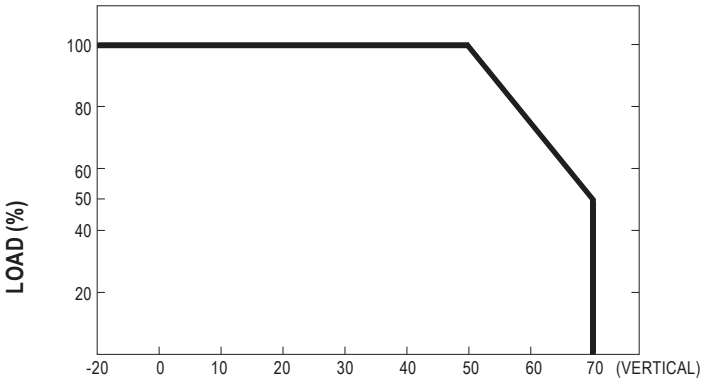
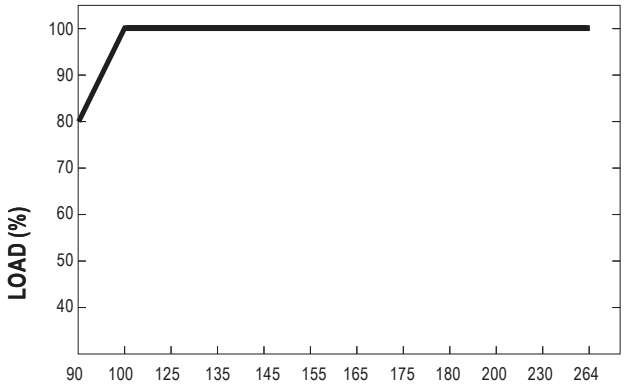
BLOCK DIAGRAM



DERATING CURVE

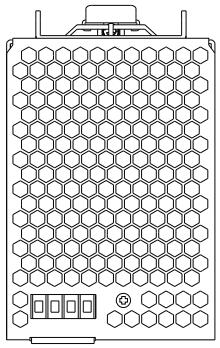


OUTPUT DERATING VS INPUT VOLTAGE

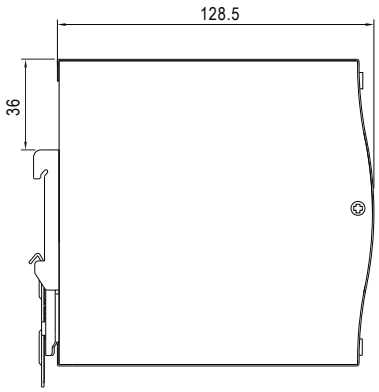


MECHANICAL SPECIFICATION

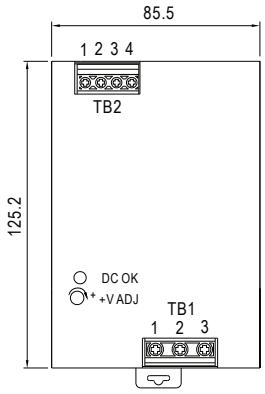
Unit:mm



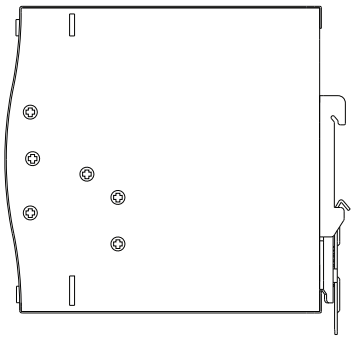
Top View



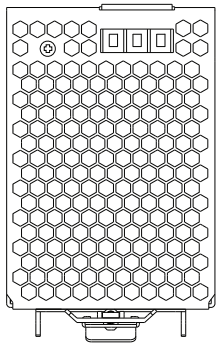
Side View



Front View



Side View



Bottom View

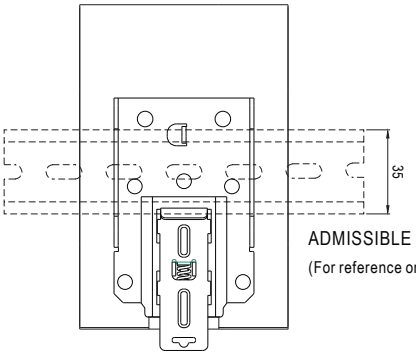
Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1	FG ⏚
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



Back View

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.