



480W Single Output Industrial DIN RAIL Power Supply

WDR-480 series



Features :

- Single and two phase wide input range 180~550VAC
- Built-in active PFC circuit compliance to BS EN/EN61000-3-2
- High efficiency 93% and low power dissipation
- 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
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 years warranty

User's Manual



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GTIN CODE

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SPECIFICATION



MODEL		WDR-480-24	WDR-480-48
OUTPUT	DC VOLTAGE	24V	48V
	RATED CURRENT	20A	10A
	CURRENT RANGE	0 ~ 20A	0 ~ 10A
	RATED POWER	480W	480W
	RIPPLE & NOISE (max.) Note.2	100mVp-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	800ms, 150ms/400VAC 2000ms, 150ms/230VAC at full load	
HOLD UP TIME (Typ.)	18ms / 400VAC 16ms / 230VAC at full load		
INPUT	VOLTAGE RANGE Note.6	180 ~ 550VAC 254 ~ 780VDC	
	FREQUENCY RANGE	47 ~ 63Hz	
	POWER FACTOR (Typ.)	PF≥0.84/400VAC PF≥0.84/230VAC	
	EFFICIENCY (Typ.)	92%	93%
	AC CURRENT (Typ.)	1.6A/400VAC 4A/230VAC	
	INRUSH CURRENT (Typ.)	COLD START 50A	
LEAKAGE CURRENT	<3.5mA / 530VAC		
PROTECTION	OVERLOAD	105 ~ 130% rated output power Protection type : Constant current limiting, unit will shut down after 3 sec., auto-recovery after 1 minute if the fault condition is removed	
	OVER VOLTAGE	29 ~ 33V	56 ~ 65V
	OVER TEMPERATURE	95°C ± 5°C (TSW) detect on heatsink of power switch Protection type : Shut down o/p voltage, recovers automatically after temperature goes down	
FUNCTION	DC OK REALY CONTACT RATINGS (max.)	60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load	
ENVIRONMENT	WORKING TEMP. Note.5	-30 ~ +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, EAC TP TC 004, BIS IS13252 (Part1):2010/IEC 609501:2005(except for 48) approved, IEC62368-1 CB approved by SIQ, design refer to BS EN/EN62368-1, AS/NZS 62368.1, GL; (meet BS EN/EN60204-1)	
	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC I/P-FG: 2KVAC O/P-FG: 0.5KVAC O/P-DC OK: 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	
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 approved		
OTHERS	MTBF	825.4K hrs min. Telcordia SR-332 (Bellcore) ; 112.8K hrs min. MIL-HDBK-217F (25°C)	
	DIMENSION	85.5*125.2*128.5mm (W*H*D)	
	PACKING	1.7Kg; 8pcs/14.6Kg/0.9CUFT	
NOTE	<ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. 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. (as available on https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf) 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. 6. Derating may be needed under low input voltage. Please check the derating curve for more details. 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). <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>		



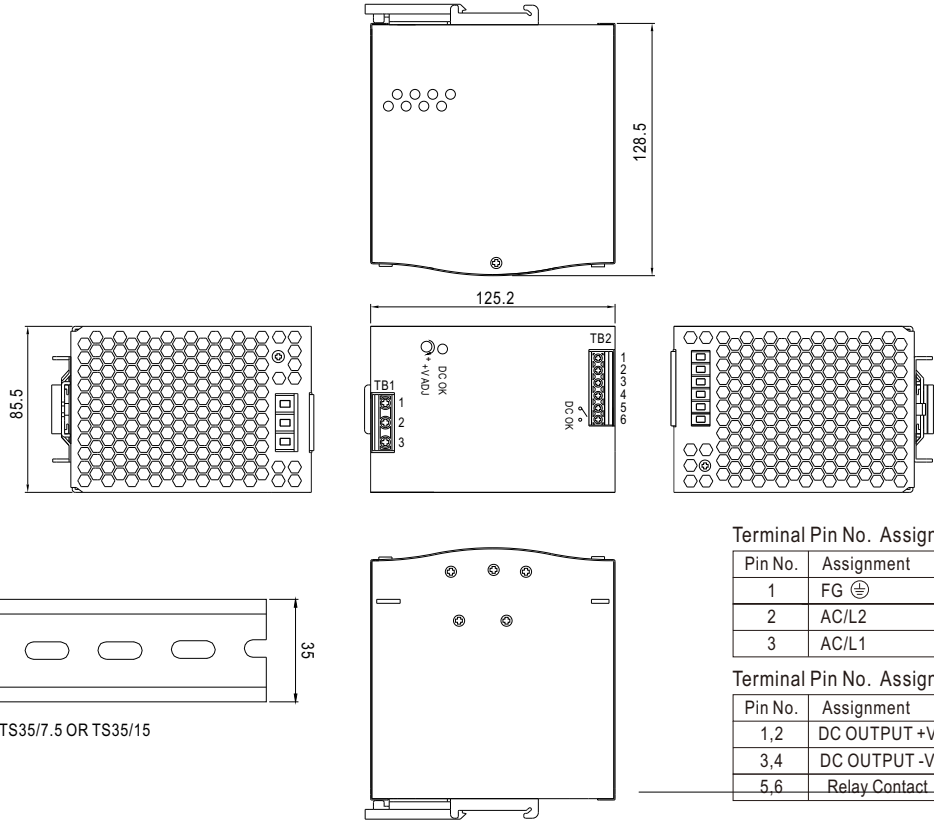
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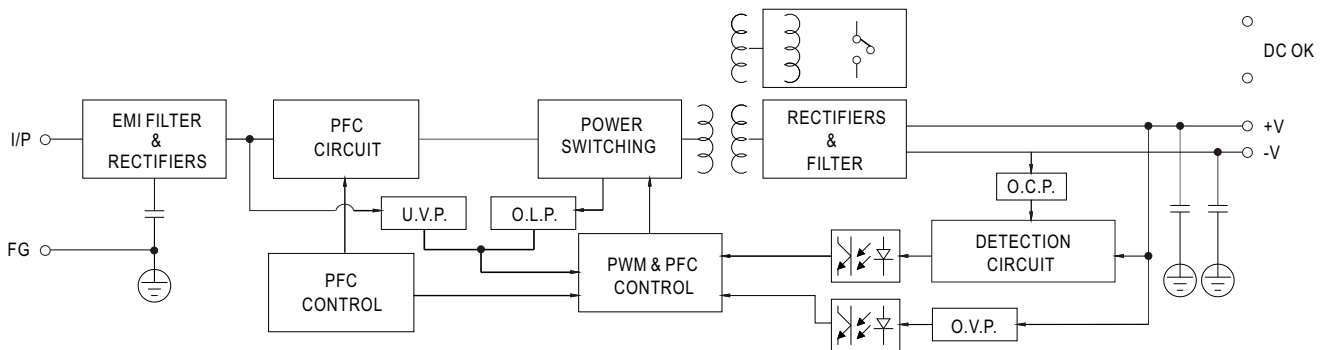
Mechanical Specification

(Unit: mm, tolerance ± 1 mm)

Case No.984B



Block Diagram



DC OK Relay Contact

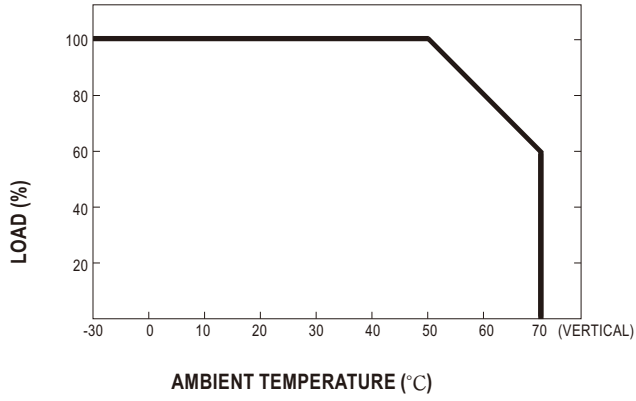
Contact Close	PSU turns on / DC OK.
Contact Open	PSU turns off / DC Fail.
Contact Ratings (max.)	30V/1A resistive load.



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■ Derating Curve



■ Output derating VS input voltage

