



96W Single Output Industrial DIN Rail Power Supply

MDR-100 series

**■ Features :**

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- ZCS/ZVS technology to reduce power dissipation
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- DC OK relay contact
- No load power consumption<1W
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty

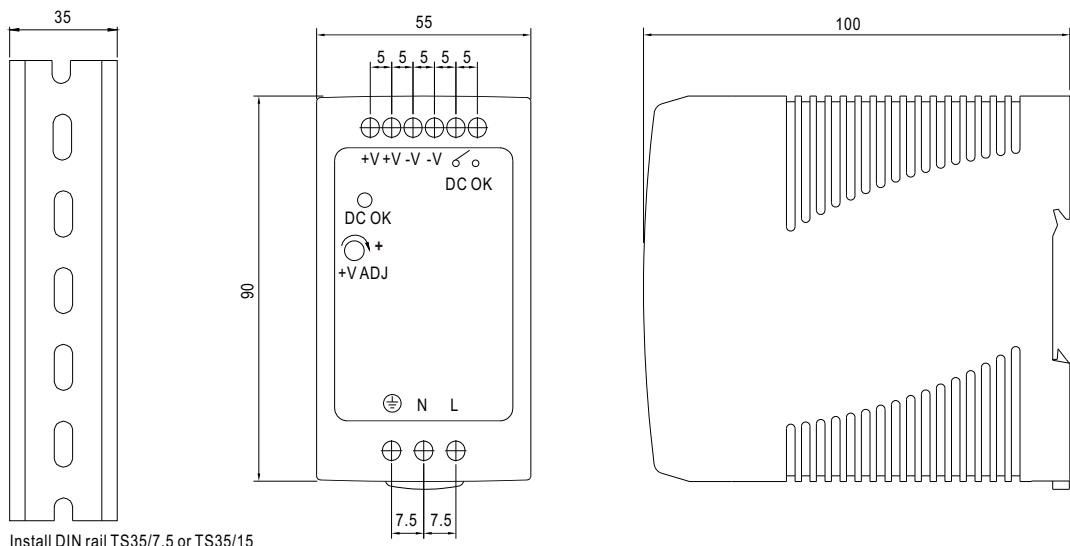
User's Manual

**■ GTIN CODE**MW Search: <https://www.meanwell.com/serviceGTIN.aspx>**SPECIFICATION**

MODEL	MDR-100-12	MDR-100-24	MDR-100-48
OUTPUT	DC VOLTAGE	12V	24V
	RATED CURRENT	7.5A	4A
	CURRENT RANGE	0 ~ 7.5A	0 ~ 4A
	RATED POWER	90W	96W
	RIPLPE & NOISE (max.) Note.2	120mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	12 ~ 15V	24 ~ 30V
	VOLTAGE TOLERANCE Note.3	± 1.0%	± 1.0%
	LINE REGULATION	± 1.0%	± 1.0%
	LOAD REGULATION	± 1.0%	± 1.0%
	SETUP, RISE TIME Note.5	3000ms, 50ms/230VAC	3000ms, 50ms/115VAC at full load
INPUT	HOLD UP TIME (Typ.)	50ms/230VAC	20ms/115VAC at full load
	VOLTAGE RANGE Note.6	85 ~ 264VAC	120 ~ 370VDC
	FREQUENCY RANGE	47 ~ 63Hz	
	POWER FACTOR (Typ.)	PF ≥ 0.95/230VAC	PF ≥ 0.98/115VAC at full load
	EFFICIENCY (Typ.)	83%	86%
	AC CURRENT (Typ.)	1.3A/115VAC	0.8A/230VAC
	INRUSH CURRENT (Typ.)	COLD START 30A/115VAC	60A/230VAC
PROTECTION	LEAKAGE CURRENT	<1mA / 240VAC	
	OVERLOAD	105 ~ 150% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed	
	OVER VOLTAGE	15.6 ~ 18V	31.2 ~ 36V
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover	
FUNCTION	DC OK SIGNAL	Relay contact rating(max.): 30V/1A resistive	
ENVIRONMENT	WORKING TEMP.	-10 ~ +60°C (Refer to "Derating Curve")	
	WORKING HUMIDITY	20 ~ 90% 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, period for 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, AS/NZS 60950.1 approved	
	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 Class B	
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024, BS EN/EN61000-6-2, BS EN/EN61204-3, heavy industry level, EAC TP TC 020	
OTHERS	MTBF	2217.8K hrs min. Telcordia SR-332 (Bellcore) ; 346.5K hrs min. MIL-HDBK-217F (25°C)	
	DIMENSION	55*90*100mm (W*H*D)	
	PACKING	0.42Kg; 30pcs/13.6Kg/0.82CUFT	
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC 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 0.1uf & 47uf 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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) 5. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. 6. Deating maybe needed under low input voltages, please check the derating curve for more detail. 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 https://www.meanwell.com/serviceDisclaimer.aspx		

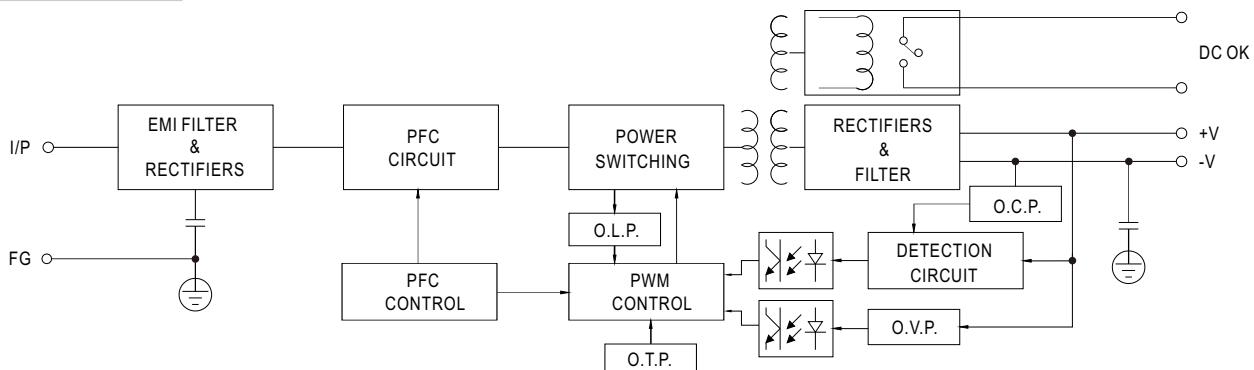
■ Mechanical Specification

Case No.973A Unit:mm



Install DIN rail TS35/7.5 or TS35/15

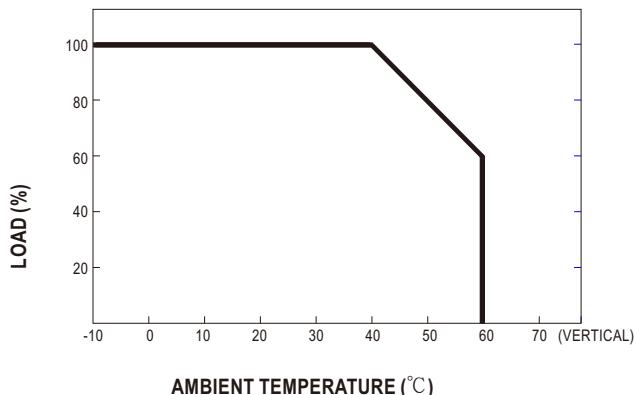
■ Block Diagram



■ 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.

■ Derating Curve



■ Output Derating VS Input Voltage

