



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

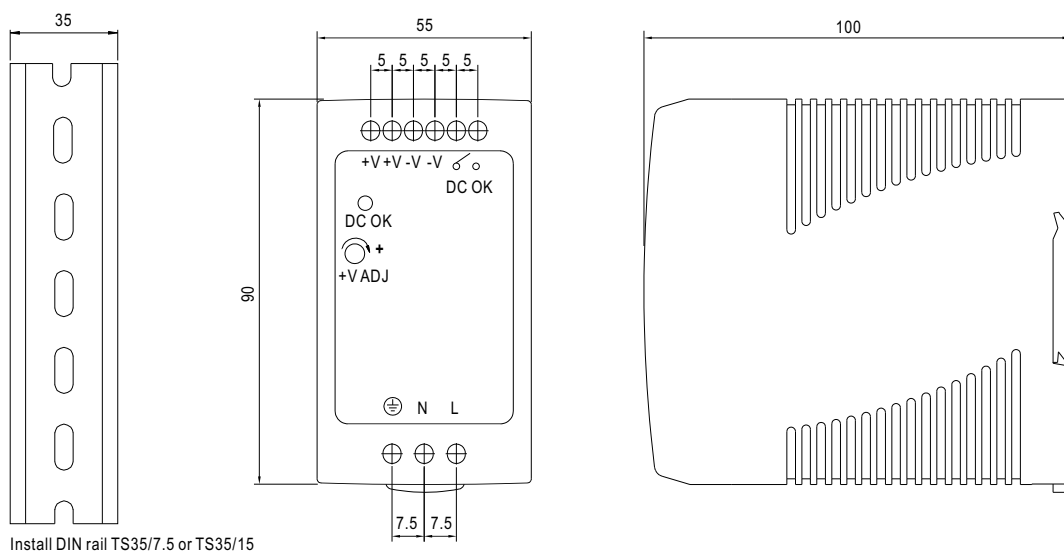


SPECIFICATION

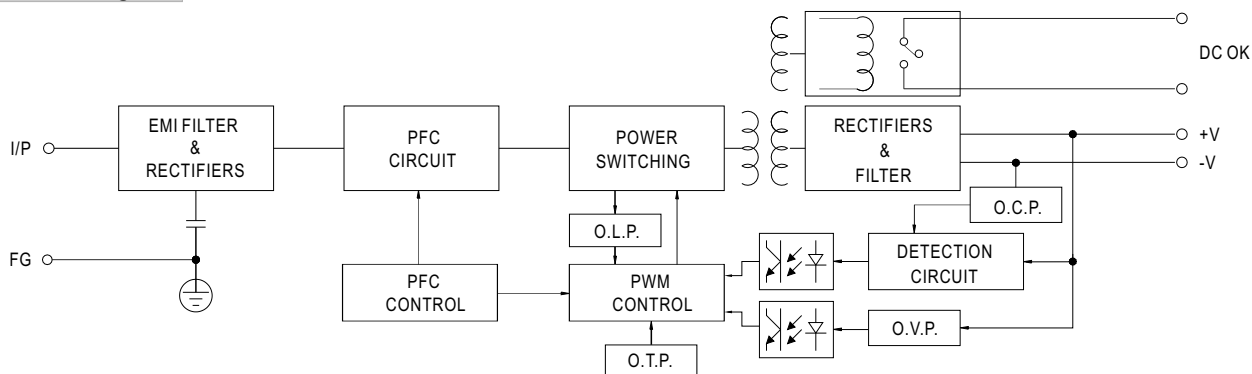
MODEL		MDR-100-12		MDR-100-24		MDR-100-48	
OUTPUT	DC VOLTAGE	12V		24V		48V	
	RATED CURRENT	7.5A		4A		2A	
	CURRENT RANGE	0 ~ 7.5A		0 ~ 4A		0 ~ 2A	
	RATED POWER	90W		96W		96W	
	RIPPLE & NOISE (max.) Note.2	120mVp-p		150mVp-p		200mVp-p	
	VOLTAGE ADJ. RANGE	12 ~ 15V		24 ~ 30V		48 ~ 56V	
	VOLTAGE TOLERANCE Note.3	±1.0%		±1.0%		±1.0%	
	LINE REGULATION	±1.0%		±1.0%		±1.0%	
	LOAD REGULATION	±1.0%		±1.0%		±1.0%	
	SETUP, RISE TIME Note.5	3000ms, 50ms/230VAC 3000ms, 50ms/115VAC at full load					
HOLD UP TIME (Typ.)	50ms/230VAC 20ms/115VAC at full load						
INPUT	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.)	85%		86%		88%	
	AC CURRENT (Typ.)	1.3A/115VAC 0.8A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 30A/115VAC 60A/230VAC					
	LEAKAGE CURRENT	<1mA / 240VAC					
PROTECTION	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		57.6 ~ 64.8V	
	OVER TEMPERATURE	90℃ ±10℃ (RTH2) detect on heatsink of power transistor					
		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℃ (Refer to output load derating curve)					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)					
	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 EN60950-1 approved					
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC					
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25℃ / 70% RH					
	EMI CONDUCTION & RADIATION	Compliance to EN55011, EN55022 (CISPR22), EN61204-3 Class B					
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3					
	EMS IMMUNITY	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, ENV50204, EN55024, EN61000-6-2, EN61204-3, heavy industry level, criteria A					
OTHERS	MTBF	346K hrs min. MIL-HDBK-217F (25℃)					
	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℃ 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. 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.						

Case No.973A Unit:mm

Mechanical Specification



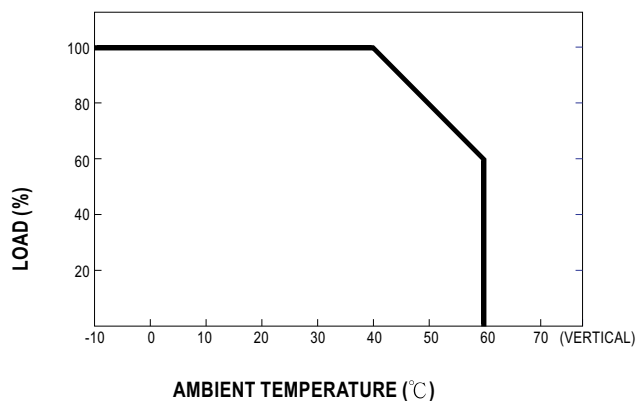
Block Diagram



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

