



10W Single Output Industrial DIN Rail Power Supply

MDR-10 series



■ Features :

- Universal AC input/Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- NEC class 2 / LPS compliant
- Built in DC OK active signal
- LED indicator for power on
- No load power consumption<0.75W
- 100% full load burn-in test
- 3 years warranty



SPECIFICATION

MODEL	MDR-10-5		MDR-10-12		MDR-10-15		MDR-10-24		
OUTPUT	DC VOLTAGE	5V		12V		15V		24V	
	RATED CURRENT	2A		0.84A		0.67A		0.42A	
	CURRENT RANGE	0 ~ 2A		0 ~ 0.84A		0 ~ 0.67A		0 ~ 0.42A	
	RATED POWER	10W		10W		10W		10W	
	RIPPLE & NOISE (max.) Note.2	80mVp-p		120mVp-p		120mVp-p		150mVp-p	
	VOLTAGE TOLERANCE Note.3	±5.0%		±3.0%		±3.0%		±2.0%	
	LINE REGULATION	±1.0%		±1.0%		±1.0%		±1.0%	
	LOAD REGULATION	±5.0%		±3.0%		±3.0%		±2.0%	
	SETUP, RISE TIME Note.5	500ms, 30ms/230VAC		1000ms, 30ms/115VAC at full load					
HOLD UP TIME (Typ.)	120ms/230VAC		25ms/115VAC at full load						
INPUT	VOLTAGE RANGE	85 ~ 264VAC		120 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz							
	EFFICIENCY (Typ.)	77%		81%		81%		84%	
	AC CURRENT (Typ.)	0.33A/115VAC		0.21A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 35A/115VAC		70A/230VAC					
	LEAKAGE CURRENT	<1mA / 240VAC							
PROTECTION	OVERLOAD	Above 105% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	5.75 ~ 6.75V		13.8 ~ 16.2V		17.25 ~ 20.25V		27.6 ~ 32.4V	
		Protection type : Shut down o/p voltage, re-power on to recover							
FUNCTION	DC OK ACTIVE SIGNAL (max.)	3.75 ~ 6V / 50mA		9 ~ 13.5V / 40mA		11.5 ~ 16.5V / 40mA		18 ~ 27V / 20mA	
ENVIRONMENT	WORKING TEMP.	-20 ~ +70℃ (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, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6							
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL508, TUV EN60950-1 approved, NEC class 2 / LPS compliant							
	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							
	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,EN61000-6-1,EN61204-3, light industry level, criteria A							
OTHERS	MTBF	584K hrs min. MIL-HDBK-217F (25℃)							
	DIMENSION	22.5*90*100mm (W*H*D)							
	PACKING	0.17Kg; 72pcs/13.2Kg/0.91CUFT							
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 cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.								

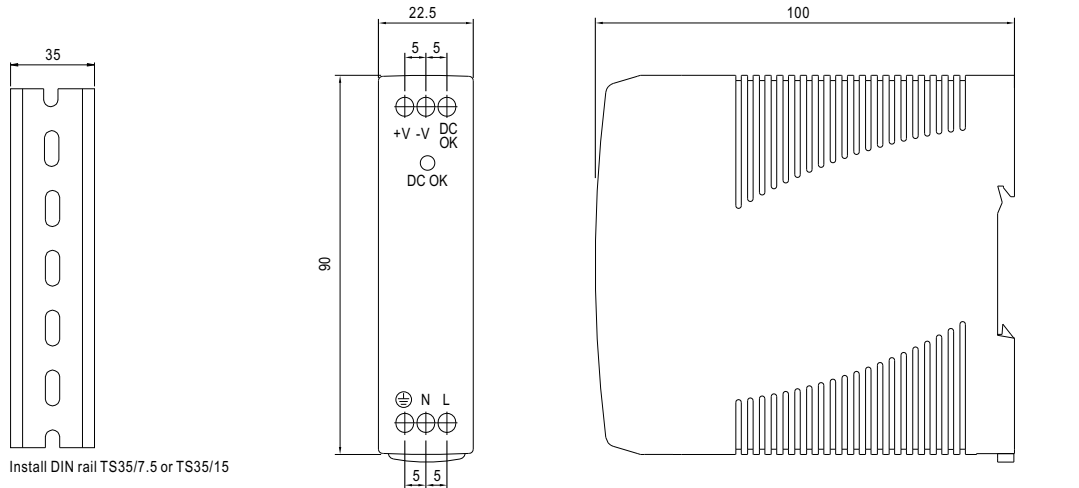
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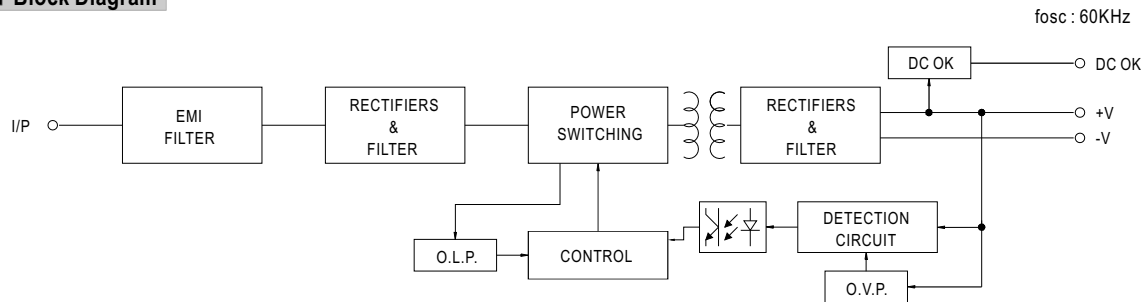
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Mechanical Specification

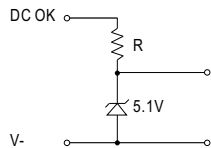


Block Diagram



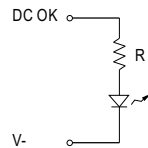
Application of DC OK Active Signal

(a) 5V signal



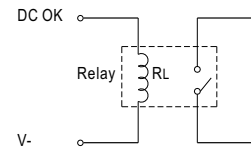
Model	R
5V	$\geq 200\Omega$
12V	$\geq 1.5K\Omega$
15V	$\geq 2K\Omega$
24V	$\geq 3.9K\Omega$

(b) LED



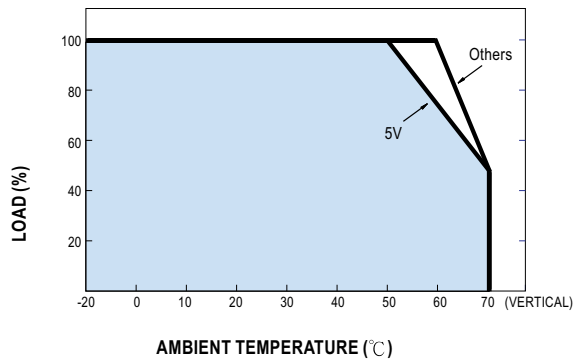
Model	R
5V	$\geq 1K\Omega$
12V	$\geq 2.4K\Omega$
15V	$\geq 3K\Omega$
24V	$\geq 4.7K\Omega$

(c) Relay

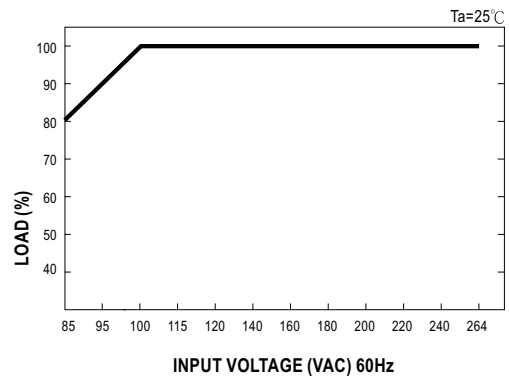


Model	RL
5V	$\geq 120\Omega$
12V	$\geq 700\Omega$
15V	$\geq 700\Omega$
24V	$\geq 1.2K\Omega$

Derating Curve



Output Derating VS Input Voltage



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