

MDR-20-12

20W Single Output Industrial DIN RAIL Power Supply



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
- 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



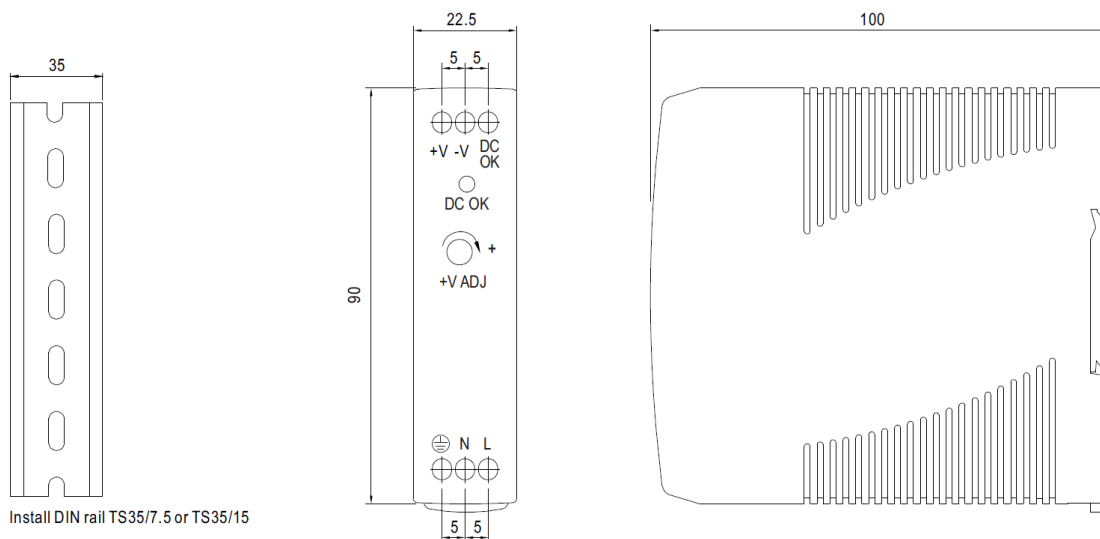
Specification

MODEL		MDR-20-12
OUTPUT	DC VOLTAGE	12V
	RATED CURRENT	1.67A
	CURRENT RANGE	0 ~ 1.67A
	RATED POWER	20W
	RIPPLE & NOISE (max.)	Note.2 120mVp-p
	VOLTAGE ADJ. RANGE	10.8 ~ 13.2V
	VOLTAGE TOLERANCE	Note.3 ±1.0%
	LINE REGULATION	±1.0%
	LOAD REGULATION	±1.0%
	SETUP, RISE TIME	Note.5 500ms, 30ms/230VAC 1000ms, 30ms/115VAC at full load
HOLD UP TIME (Typ.)	50ms/230VAC 20ms/115VAC at full load	
INPUT	VOLTAGE RANGE	85 ~ 264VAC 120 ~ 370VDC
	FREQUENCY RANGE	47 ~ 63Hz
	EFFICIENCY (Typ.)	80%
	AC CURRENT (Typ.)	0.55A/115VAC 0.35A/230VAC
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC 40A/230VAC
	LEAKAGE CURRENT	<1mA / 240VAC
PROTECTION	OVERLOAD	105 ~ 160% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed
	OVER VOLTAGE	13.8 ~ 16.2V Protection type : Shut down o/p voltage, re-power on to recover
FUNCTION	DC OK ACTIVE SIGNAL (max.)	9 ~ 13.5V / 40mA
ENVIRONMENT	WORKING TEMP.	-20 ~ +70°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)
SAFETY & EMC (Note 4)	VIBRATION	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6
	SAFETY STANDARDS	UL508, TUV EN60950-1 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 EN55011, EN55032 (CISPR32), EN61204-3 Class B, EN61000-3-2,-3
EMC IMMUNITY	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61000-6-1, EN61204-3, light industry level, criteria A	

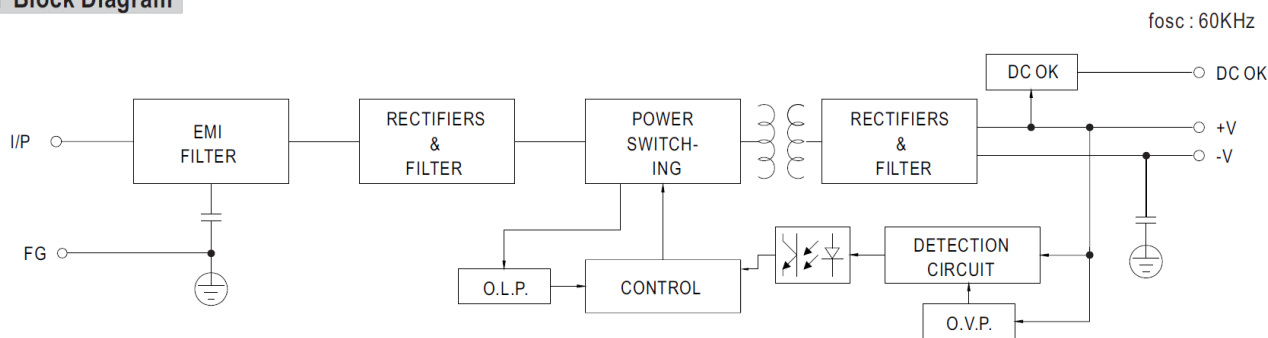
MODEL	MDR-20-12	
OTHERS	MTBF	236.9K hrs min. MIL-HDBK-217F (25°C)
	DIMENSION	22.5*90*100mm (W*H*D)
	PACKING	0.19Kg; 72pcs/14.7Kg/0.91CUFT
NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. 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. 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. 	

Mechanical Specification

Case No. 956 Unit:mm

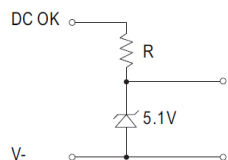


Block Diagram



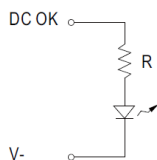
Application of DC OK Active Signal

(a) 5V signal



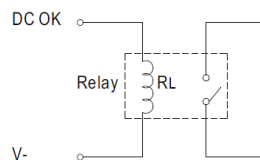
Model	R
5V	≥200 Ω
12V	≥1.5K Ω
15V	≥2K Ω
24V	≥3.9K Ω

(b) LED



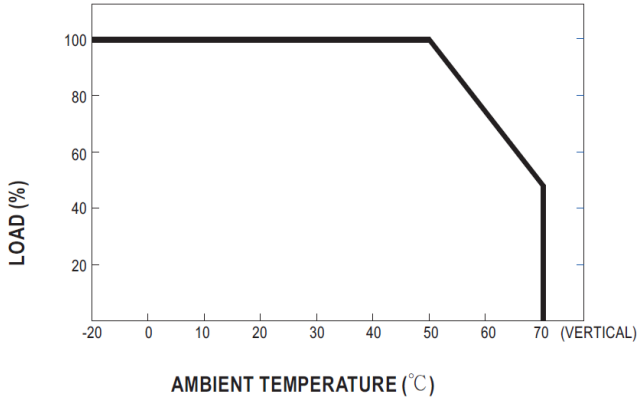
Model	R
5V	≥1K Ω
12V	≥2.4K Ω
15V	≥3K Ω
24V	≥4.7K Ω

(c) Relay



Model	RL
5V	≥120 Ω
12V	≥700 Ω
15V	≥700 Ω
24V	≥1.2K Ω

■ Derating Curve



■ Output Derating VS Input Voltage

