MDR-20 Series

20W Single Output Industrial DIN Rail Power Supply

Case No: 8012CJ
22.5 x 90 x 100mm

Features

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

Specification

INPUT	Voltage	85~264VAC 120~370VDC			
	Frequency	47 ~ 63 Hz			
	Efficiency	76%	80%	81%	84%
	AC Current (Typ.)	0.55A/115VAC 0.35A/230VAC			
	Inrush Current (Typ.)	Cold start 20A/115VAC 40A/230VAC			
	Leakage Current	<1mA/240VAC			
OUTPUT	MODEL No.	MDR-20-5	MDR-20-12	MDR-20-15	MDR-20-24
	Voltage	5V	12V	15V	24V
	Rated Current	3A	1.67A	1.34A	1A
	Current Range	0~3A	0~1.67A	0~1.34A	0~1A
	Rated Power	15W	20W	20W	24W
	Ripple Noise MAX.	80Vp-p	120Vp-p	120mVp-p	150mVp-p
	Voltage Adjustment Range	4.75~5.5V	10.8~13.2V	13.5~16.5V	21.6~26.4V
	Voltage Tolerance	± 2.0%	± 1.0%	± 1.0%	± 1.0%
	Line Regulation	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	Load Regulation	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	Setup Rise Time	500ms, 30ms/230VAC 1000ms, 30ms/115VAC at full load			
	Holdup Time (Typ.)	50ms/230VAC 20ms/115VAC at full load			
PROTECTION	Over Load	105~160% rated output power Protection Type: Constant current limiting, 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	3.75 ~ 6V/50mA	9 ~ 13.5V/40mA	11.5 ~ 16.5V/40mA	18 ~ 27V/20mA
ENVIRONMENT	Working Temperature	-20~+70°C (Refer to "Derating Curve")			
	Working Humidity	20~90% RH non-condensing			
	Storage Temp., Humidity	-40~ +85°C, 10~95%RH			
	Temp. Co-efficient	±0.03% / °C (0~50°C)			
	Vibration	10~500Hz, 2G 10min./1cycle, 60 min. each along X, Y, Z axes; Mounting: compliance to IEC60068-2-6			
SAFETY & EMC	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-OP, I/P-FG, O/P-FG:>100M Ohms/500Vdc/25°C/70% RH			
	EMC Emission	Compliance to EN55011, EN55022 (CISPR22), 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			
OTHERS	M.T.B.F.	236.9K hrs min. MIL-HDBK-217F (25°C)			
	Packaging	0.19Kg; 72pcs/14.7Kg/0.91CUFT			

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple and 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 as a component which will be installed with final equipment. The final equipment must 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."
5. Length of setup time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the setup time.

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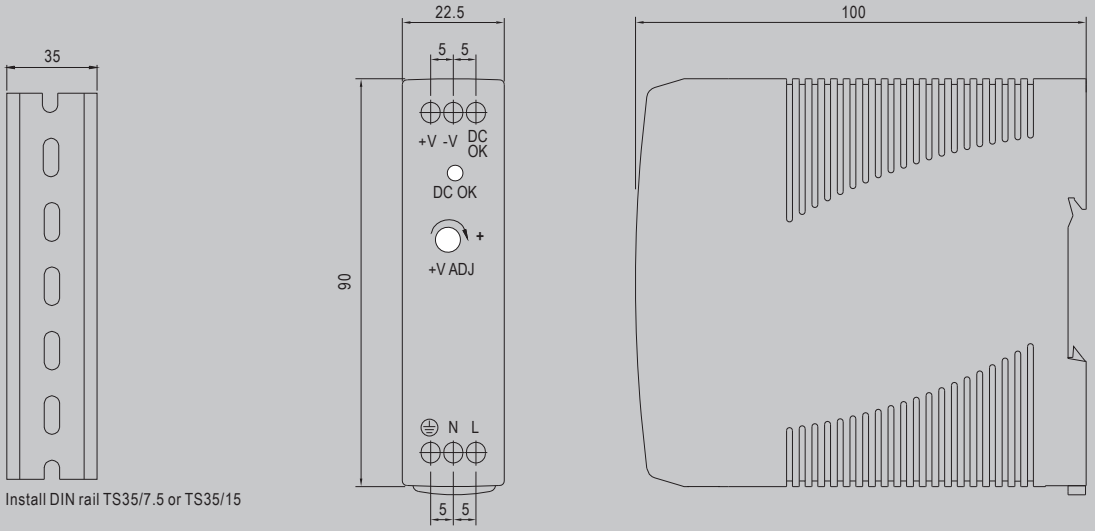
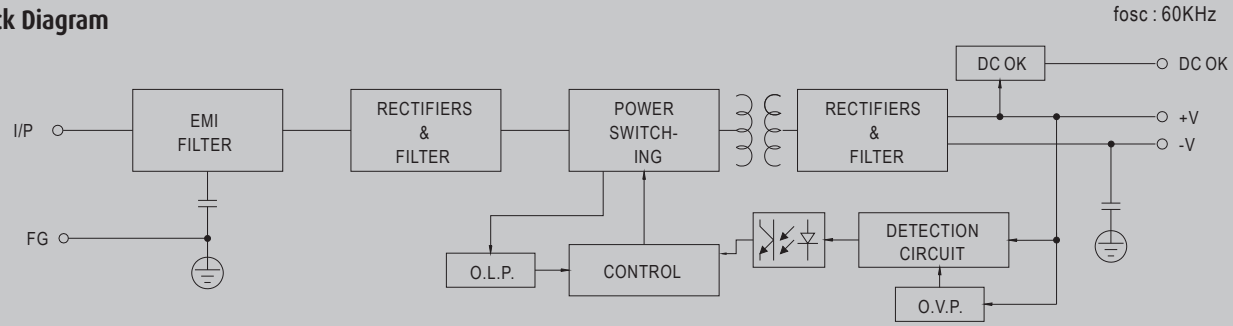
Mechanical Specification

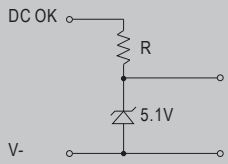


Block Diagram



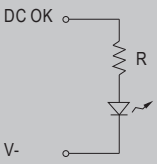
Application of DC OK Active Signal

(a) 5V signal



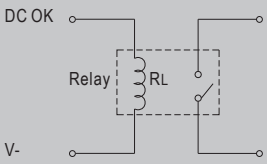
Model	R
5V	≧ 200 Ω
12V	≧1.5KΩ
15V	≧ 2K Ω
24V	≧3.9KΩ

(b) LED



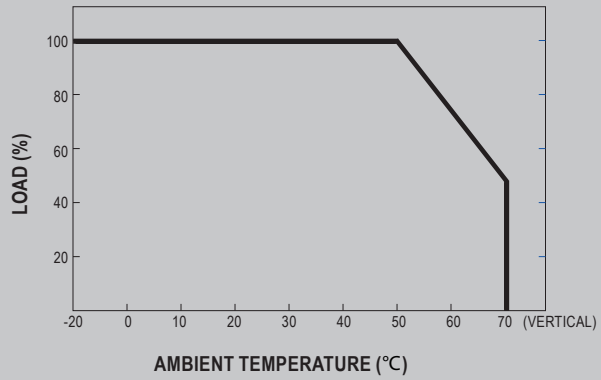
Model	R
5V	≧ 1K Ω
12V	≧2.4KΩ
15V	≧ 3K Ω
24V	≧4.7KΩ

(c) Relay



Model	RL
5V	≧ 120 Ω
12V	≧ 700 Ω
15V	≧ 700 Ω
24V	≧1.2KΩ

Derating Curve



Output Derating VS Input Voltage