

# MDR-60 Series

## 60W Single Output Industrial Din Rail Power Supply



Case No: 8017HT  
40 x 90 x 100 mm

### 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 (12/24/48V only)
- LED indicator for power on
- DC OK relay contact
- No load power consumption <0.75W
- 100% full load burn-in test



### Specification

INPUT	<b>Voltage</b>	85V ~ 264VAC universal full range or 120V ~ 370VDC.			
	<b>Frequency</b>	47 ----- 63 Hz			
	<b>Current</b>	<1.8A@115VAC; 1A@230VAC input, full load			
	<b>Inrush Current</b>	<30A@115V , <60A@230V AC input, Cold start at 25°C ambient			
	<b>Leakage Current</b>	<1.0mA@240V AC input			
OUTPUT	<b>MODEL No.</b>	<b>MDR-60-5</b>	<b>MDR-60-12</b>	<b>MDR-60-24</b>	<b>MDR-60-48</b>
	<b>Voltage</b>	5V	12V	24V	48V
	<b>Rated Current</b>	10A	5A	2.5A	1.25A
	<b>Current Range</b>	0~10A	0~5A	0~2.5A	0~1.25A
	<b>Voltage Adj. Range</b>	5~6V	12~15V	24~30V	48~56V
	<b>Output Tolerance</b>	± 2%	± 1%	± 1%	± 1%
	<b>Line Regulation</b>	± 1%	± 1%	± 1%	± 1%
	<b>Load Regulation</b>	± 1.5%	± 1%	± 1%	± 1%
	<b>Ripple Noise MAX.</b>	80mV	120mV	150mV	200mV
	<b>Efficiency (TYP.)</b>	78%	86%	88%	87%
PROTECTION	<b>Power</b>	50W	60W	60W	60W
	<b>Over Voltage</b>	6.25~7.25V	15.6~18V	31.2~36V	57.6~64.8V
	<b>Over Load</b>	Shutdown o/p voltage, re-power on to recover 105~150% rated output power Constant current limiting, recovers automatically after fault condition is removed			
ELEC. CHAR.	<b>Rise Time</b>	<30mS@ 115~230VAC at full load			
	<b>Hold up Time</b>	>50mS@ 230VAC; 20mS@115VAC at full load			
	<b>Setup Time</b>	<0.5Sec @ 115~230VAC			
ENVIRONMENT	<b>Temperature</b>	Operating: -20 ~ +70°C ; Storage: -40~ +85°C			
	<b>Humidity</b>	Operating: 20% ~ 90% RH; Storage: 10% ~ 95% RH (non condensing)			
SAFETY	<b>Withstand Voltage</b>	I/P-O/P:3KVAC, I/P-FG:1.5KVAC, O/P-FG:0.5KVAC			
	<b>Isolation Resistance</b>	I/P-O/P, I/P-FG, O/P-FG 100MΩ/500VDC			
	<b>Safety Standard</b>	UL508; UL60950-1, TUV EN60950-1 Approved, NEC Class 2/LPS Compliant (12/24/48V only)			
EMC	<b>EMC Emission</b>	EN55011; EN55022 (CISPR22); EN61204-3, Class B; EN61000-3-2,3			
	<b>EMC Immunity</b>	EN61000-4-2,3,4,5,6,8,11; EN55024; EN61000-6-2; EN61204-3, heavy industry level, criteria A			
OTHERS	<b>Cooling</b>	Natural cooling			
	<b>M.T.B.F.</b>	299.2K hrs min. MIL-HDBK-217F (25°C)			
	<b>Packing</b>	0.33Kg; 42pcs/14.8Kg/0.82 CUFT			

1 All measurements which not mentioned are based on 230VAC input, output Max at ambient 25°C / 70%RH

2 Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminates 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 of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives.

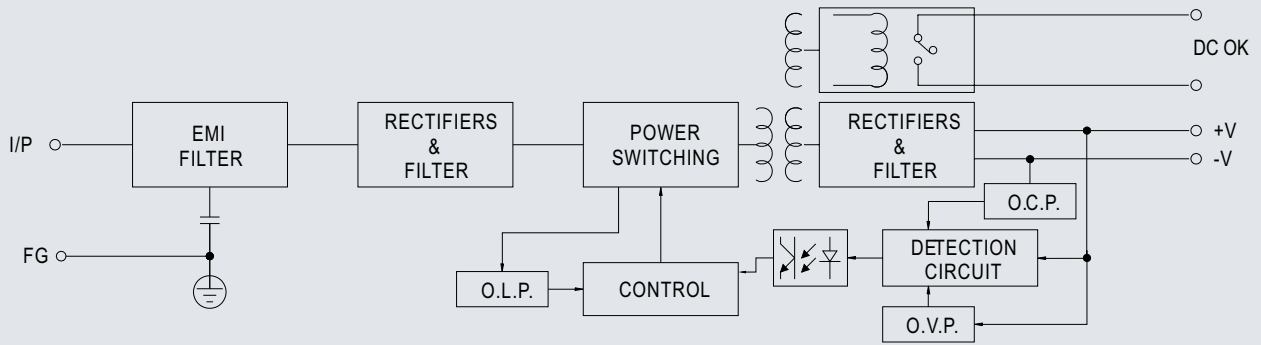
5 Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time

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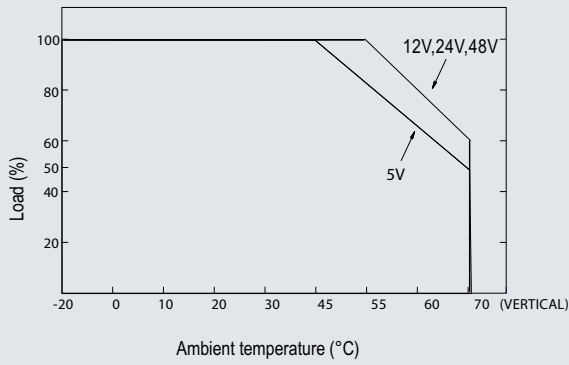
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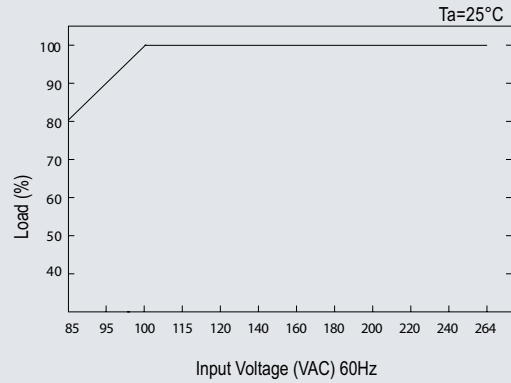
## Block Diagram



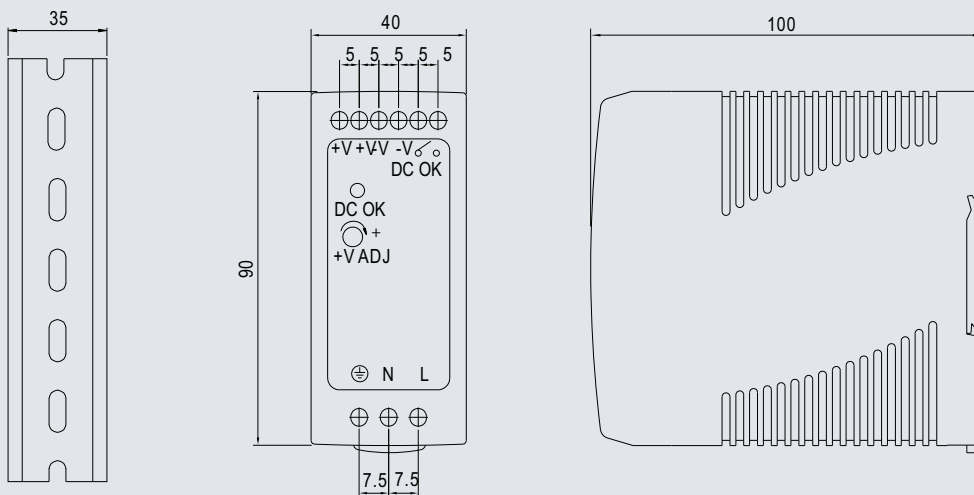
## De-Rating Curve



## Output De-Rating Vs. Input Voltage



## Dimensions



### DC Relay Contact

Contact Close	PSU turns on/DC OK
Contact Open	PSU turns off/DC Fail
Contact Ratings (max.)	30V/1A resistive load