



## 40W Single Output Industrial DIN Rail Power Supply

## MDR-40 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
- Class I, Div 2 Hazardous Locations T4
- LED indicator for power on
- DC OK relay contact
- No load power consumption<0.75W
- 100% full load burn-in test
- 3 years warranty

User's Manual



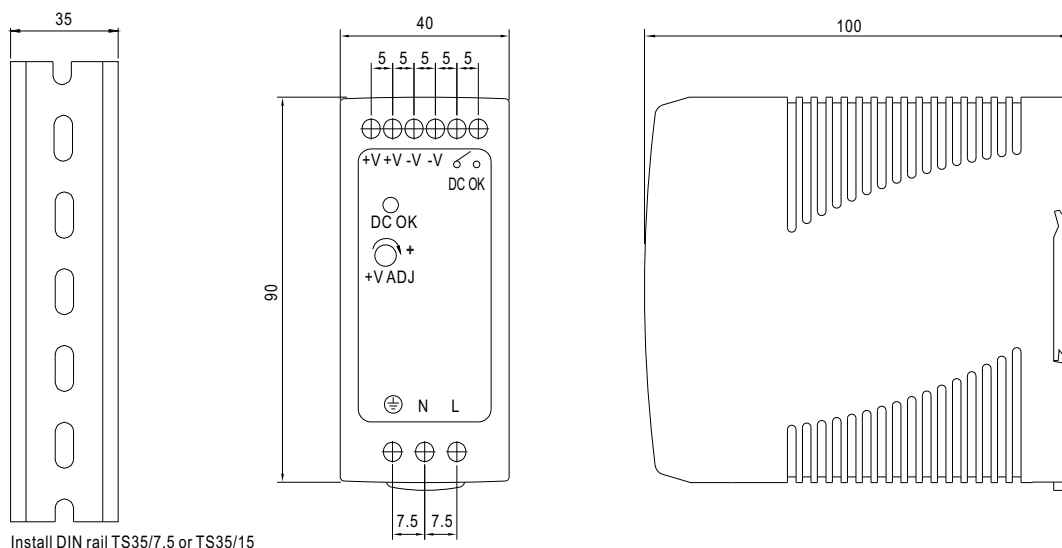
## SPECIFICATION



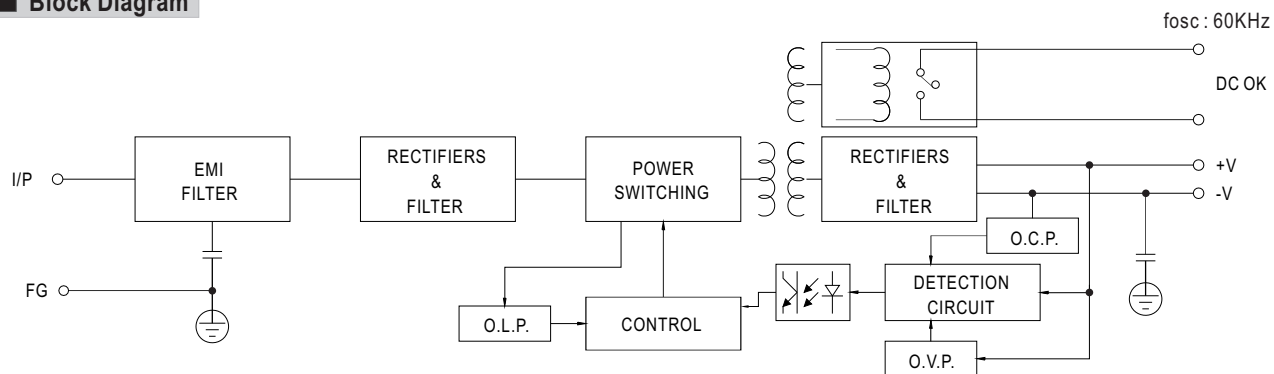
MODEL		MDR-40-5		MDR-40-12		MDR-40-24		MDR-40-48	
OUTPUT	DC VOLTAGE	5V		12V		24V		48V	
	RATED CURRENT	6A		3.33A		1.7A		0.83A	
	CURRENT RANGE	0 ~ 6A		0 ~ 3.33A		0 ~ 1.7A		0 ~ 0.83A	
	RATED POWER	30W		40W		40.8W		39.8W	
	RIPPLE & NOISE (max.) Note.2	80mVp-p		120mVp-p		150mVp-p		200mVp-p	
	VOLTAGE ADJ. RANGE	5 ~ 6V		12 ~ 15V		24 ~ 30V		48 ~ 56V	
	VOLTAGE TOLERANCE Note.3	± 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 Note.5	500ms, 30ms/230VAC		500ms, 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.)	78%		86%		88%		88%	
	AC CURRENT (Typ.)	1.1A/115VAC		0.7A/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	6.25 ~ 7.25V		15.6 ~ 18V		31.2 ~ 36V		57.6 ~ 64.8V	
		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.	-20 ~ +70℃ (Refer to "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, UL62368-1, TUV BS EN/EN62368-1, Class I, Div. 2 Group A, B, C, D Hazardous Locations T4, EAC TP TC 004, BSMI CNS14336-1, AS/NZS 60950.1 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℃ / 70% RH							
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32), BS EN/EN61204-3 Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020, CNS13438 Class B							
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2, 3, 4, 5, 6, 8, 11, BS EN/EN55024, BS EN/EN61000-6-2, BS EN/EN61204-3, heavy industry level, criteria A, EAC TP TC 020							
OTHERS	MTBF	301.7K hrs min. MIL-HDBK-217F (25℃)							
	DIMENSION	40*90*100mm (W*H*D)							
	PACKING	0.3Kg; 42pcs/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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) 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. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>								

## Mechanical Specification

Case No.962A Unit:mm



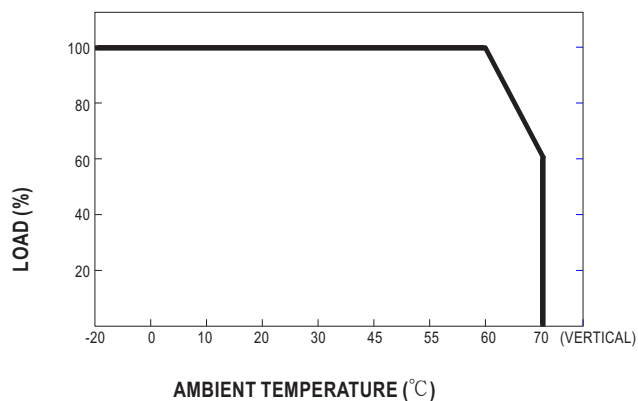
## Block Diagram



## 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

