

MDR-100 series Molded case guide type switching power supply

1.MDR-100W is designed with plastic housing, can effectively prevent the user's electrical hazards, working efficiency of up to 88%, under the condition of air circulation, the whole series can work in the ambient temperature of -10°C to 60°C, it has a complete protection function and conforms to the home automation, industrial control equipment IEC/EN62368-1, Certification to IEC/EN55032 (CISPR32), IEC/EN61000-3-2) and other standards makes the MDR-100W a highly competitive power solution for home and industrial applications.

- 2.Features :
- International universal full range of AC input
 - Protection type: short circuit/over load/over voltage/over temperature
 - ZCS/ZVS technology to reduce power loss
 - Natural air cooling
 - Mounting rail: TS-35/7.5 or TS-35/15
 - DC OK relay is activated
 - LED power indicator
 - No-load power loss: <1W
 - 100% full load burn-in test
 - 3-year quality guarantee



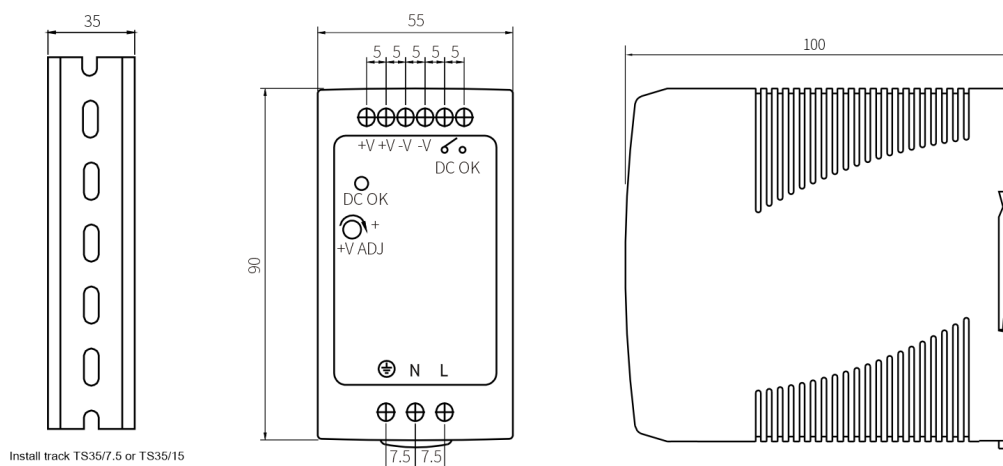
- 3.Application:
- Home control system
 - Building Automation
 - Industrial control systems
 - Factory Automation
 - Mechanical and electrical equipment

4.Specifications

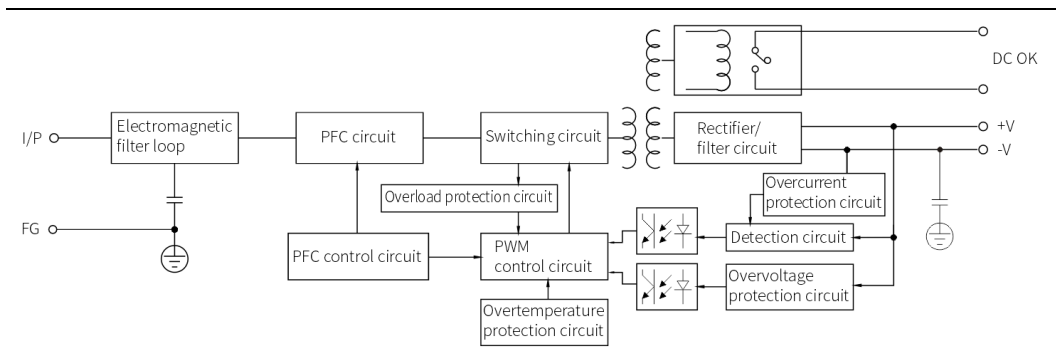
Model		MDR-100-12	MDR-100-24	MDR-100-48
Output	DC output voltage	12V	24V	48V
	Rated output current	7.5A	4A	2A
	Output current range	0~7.5A	0~4A	0~2A
	Rated power	90W	96W	96W
	Ripple noise	120mvp-p	150mvp-p	200mvp-p
	Voltage adjustment range	12~15V	24~30V	48~56V
	Voltage accuracy	±1.0%	±1.0%	±1.0%
	Linear adjustment rate	±1.0%	±1.0%	±1.0%
	Load adjustment rate	±1.0%	±1.0%	±1.0%
	Start, rise, hold time	3000ms,50ms,50ms/230VAC 3000ms,50ms,20ms/115VAC(At full load)		
Input	Input voltage range	100~240VAC, 47~63Hz, 141~339VDC		
	Power factor	PF ≥ 0.95/230VAC PF ≥ 0.98/115VAC(full load)		
	Efficiency	83%	86%	87%
	Alternating current	1.3A/115VAC, 0.8A/230VAC		
	Inrush current	Cold start current 30A/115VAC, 60A/230VAC		
	Leakage current	<1mA/240VAC		
Protection	Overload protection	105%~150% of rated output power		
		Protection mode: constant current limit, automatic recovery after load abnormal conditions are removed		

	Overvoltage protection	15.6~18V	31.2~36V	57.6~64.8V
		Protected mode: The output voltage is turned off and recovered after restart		
	Overtemperature protection	Turn off the output voltage and recover automatically or after restart		
Feature	DC OK signal	Relay contacts (Max.) : 30V/1A resistive load		
Environment	Working temp,humidity	-20℃~+70℃ , 20%~90%RH		
	Storage temp,humidity	-40℃~+85℃ , 10%~95%RH non-condensing		
	Temperature coefficient	±0.03%/°C(0-50°C)		
	Withstand vibration	10~500Hz,2G 10min./1 cycle, X, Y, Z 60 minutes each; Installation: According to IEC60068-2-6		
Safety	Withstand voltage	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC		
	Isolated resistance	I/P-O/P,I/P-FG,O/P-FG:>100M Ohms/500VDC/25°C/70%RH		
Fit standard	Safety standards	IEC/EN62368-1, EN61558-1		
	EMC emission	Complies with IEC/EN55032 (CISPR32) class A, IEC/EN61000-3-2, class A		
	EMC immunity	Comply with IEC/EN55035, IEC/EN61000-6-2, IEC/EN61000-4-2, 3, 4, 5, 6, 8		
Others	Dimension	55* 90 * 100 mm (W* H* D)		
	Weight/packing	0.42kg /30PCS /13.6 kg / 0.82 CUFT		
Note	1. Unless otherwise specified, all parameters, unless otherwise specified, are measured at 230VAC voltage input, rated load and 25° C. 2. Ripple and noise voltages are measured on a 20MHz bandwidth oscilloscope with a 12-inch twisted pair end and a capacitor of 0.1 μ and 47 μ . 3. Accuracy: including setting error, linear adjustment rate and load adjustment rate. 4. The power supply is considered to be a separate component, but the final power supply still needs to be combined with the terminal equipment for electromagnetic compatibility related confirmation. 5. Start time is measured in cold start, frequent switching may lead to longer start time. 6. In the case of low voltage input, the output needs to be derated. For details, see the output derated curve.			

5. Dimensional drawing



6. Block diagram

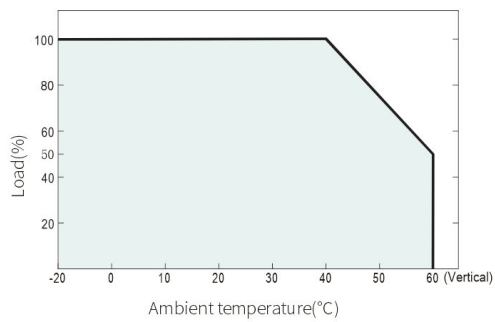


7. DC OK relay triggered

Contact closure	The power supply /DC is normal
Contact open	The power supply is off or the DC is faulty
Contact (Max.)	30V/1A resistive load

8.

Load reduction curve



Static characteristic curve

