



MW100-DD series

100W Single Output DC-DC Converter



Features:

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage
- 1500VAC I/O isolation
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Fixed switching frequency at 83KHz
- 24V and 48V input voltage design refer to LVD
- Low cost
- High reliability

Model		MW100-DD5-B	MW100-DD5-C	MW100-DD5-D	MW100-DD12-B	MW100-DD12-C	MW100-DD12-D	MW100-DD24-B	MW100-DD24-C	MW100-DD24-D	
OUTPUT	DC VOLTAGE	5A			12V			24V			
	RATED CURRENT	20A			8.5A			4.2A			
	CURRENT RANGE	0-20A			0-8.5A			0-4.2A			
	RATED POWER	100W			102W			100.8W			
	RIPPLE + NOISE MAX.*	100mVp-p			120mVp-p			150mVp-p			
	VOLTAGE ADJ. RANGE	4.5-5.5VDC			11-16VDC			23-30VDC			
	VOLTAGE TOLERANCE**	±2.0%			±1.0%			±1.0%			
	LINE REGULATION	±0.5%			±0.3%			±0.2%			
	LOAD REGULATION	±0.5%			±0.3%			±0.2%			
	SETUP - RISE TIME	2s, 50ms (only D mode) at full load									
HOLD UP TIME (typ.)	20ms (only D mode) at full load										
INPUT	VOLTAGE RANGE	B: 19-36VDC		C: 36-72VDC		D: 72-144VDC or 85-132VAC					
	EFFICIENCY (typ.)	74%	75%	76%	75%	77%	80%	78%	81%	83%	
	DC CURRENT (typ.)	4.8A/24V	2.4A/48V	1.8A/96V	4.8A/24V	2.4A/48V	1.8A/96V	4.8A/24V	2.4A/48V	1.8A/96V	
	INRUSH CURRENT	D: 18A/96VDC									
	LEAKAGE CURRENT	<0.75mA/120VAC (MW100-DD-D)									
PROTECTION	OVERLOAD	105-135% rated output power Protection type: hiccup mode, recovers automatically after fault condition is removed.									
	OVER VOLTAGE	5.75-6.75V/10% load			16.8-20V/10% load			31.5-37.5V/10% load			
ENVIRONMENT	WORKING TEMP.	-10 - +60°C (refer to "derating curve")									
	WORKING HUMIDITY	20-90% RH non-condensing									
	STORAGE TEMP. HUMIDITY	-20 - +85°C 10-95 RH									
	TEMP. COEFFICIENT	±0.03% / °C (0-50°C)									
	VIBRATION	10-500Hz, 2G 10 min./1 cycle, 60 min. each along X, Y, Z axes									
SAFETY AND EMC***	SAFETY STANDARDS	IEC60950-1 CB approved by TUV (for D type only)									
	WITHSTAND VOLTAGE	I/P-O/P: 1.5KVAC			I/P-FG: 1.5KVAC			O/P-FG: 0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: 100MΩ / 500VDC / 25°C / 70% RH									
	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B									
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,6,8 light industry level, criteria A									
	MTBF	356.7K hrs min. (MW100-DD-B), 355.5K hrs min. (MW100-DD-C), 341.9K hrs min. (MW100-DD-D), MIL-HDBK-217F (25°C)									
	DIMENSION	199x98x38mm (LxWxH)									
	PACKING	0.65KG; 20pcs/13.8KG/0.8CUFT									

All parameters NOT specially mentioned are measured at 24, 48, 96VDC input, rated load and 25°C of ambient temperature.

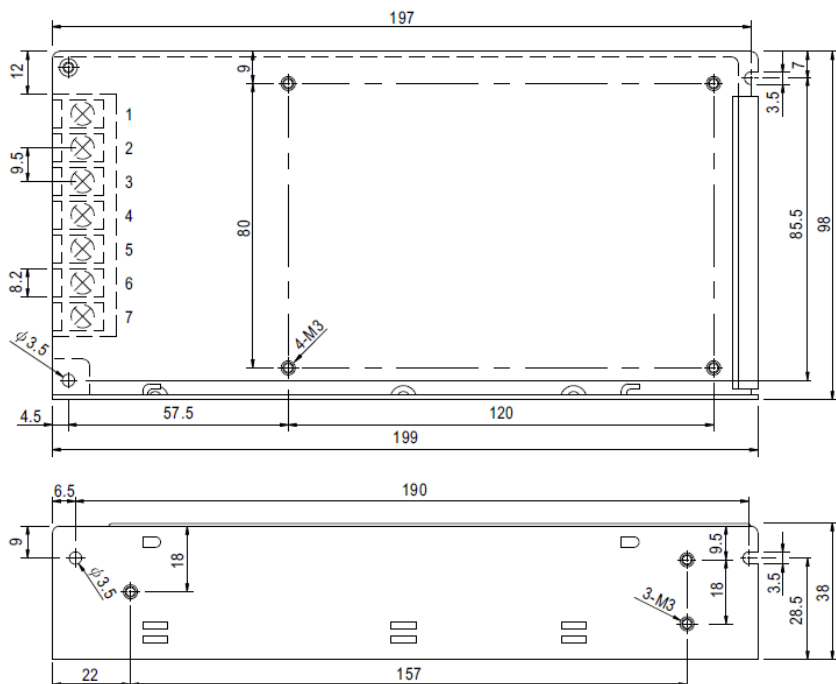
* Ripple and noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF and 47uF parallel capacitor.

** 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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies"

All measurements are in mm.

Mechanical specification

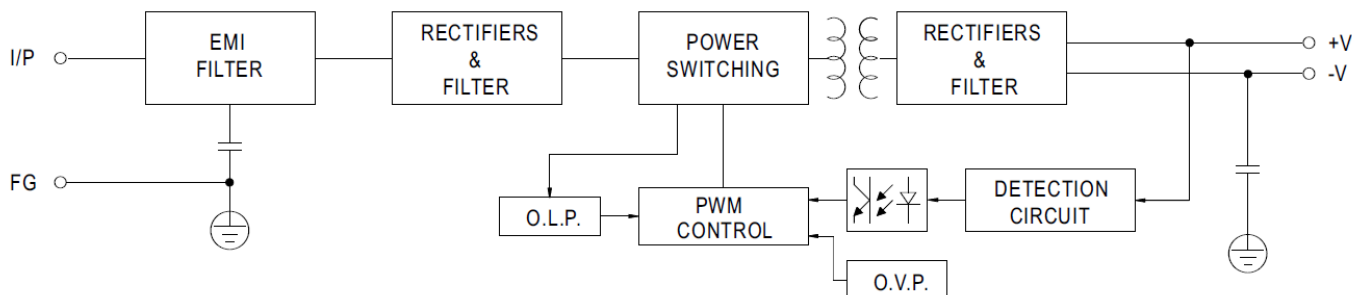


Terminal pin no. assignment	
Pin no.	Assignment
1, 2	INPUT ※
3	FG \perp
4, 5	DC OUTPUT -V
6, 7	DC OUTPUT +V

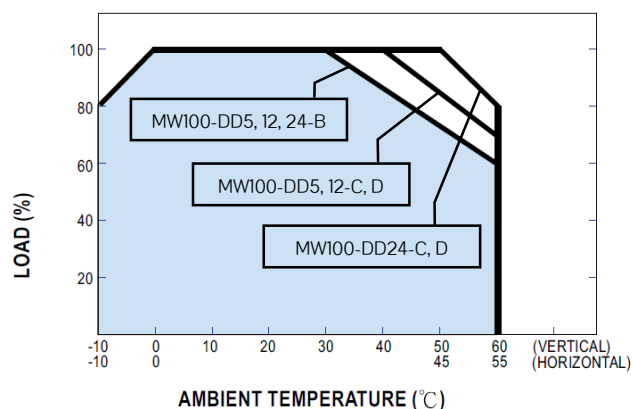
※ MW100-DD-B, C	
Pin no.	Assignment
1	DC INPUT +V
2	DC INPUT -V

※ MW100-DD-D	
Pin no.	Assignment
1, 2	AC/DC INPUT

Block diagram



Derating curve



Static characteristics (MW100-DD24-D)

