150W Single Output DC-DC Converter

SD-150 series

■ 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
- 24V and 48V input voltage design refer to LVD
- Low cost
- High reliability
- 2 years warranty

AS/NZS62368-1 EN62368-1 (for D type only) TPTC004 IEC62368-1 (for D type only)

SPECIFICATION

MODEL		SD-150B-12	SD-150C-12	SD-150D-12	SD-150B-24	SD-150C-24	SD-150D-24
OUTPUT	DC VOLTAGE	12V			24V		
	RATED CURRENT	12.5A			6.3A		
	CURRENT RANGE	0 ~ 12.5A			0 ~ 6.3A		
	RATED POWER	150W			151.2W		
	RIPPLE & NOISE (max.) Note.2	120mVp-p			150mVp-p		
	VOLTAGE ADJ. RANGE	11 ~ 16VDC			23 ~ 30VDC		
	VOLTAGE TOLERANCE Note.3	±1.0%			±1.0%		
	LINE REGULATION	±0.5%			±0.3%		
	LOAD REGULATION	±0.5%			±0.3%		
	SETUP, RISE TIME	2s, 50ms(only D mode) at full load					
	HOLD UP TIME (Typ.)	24ms(only D mode) at full load					
INPUT	VOLTAGE RANGE	B:19 ~ 36VDC	C:36 ~ 72VDC	D:72 ~144VDC or 85 ~ 132VAC			
	EFFICIENCY (Typ.)	75%	77%	79%	77%	80%	82%
	DC CURRENT (Typ.)	8.5A/24V	4.2A/48V	2.1A/96V	8.5A/24V	4.2A/48V	2.1A/96V
	INRUSH CURRENT (Typ.)	D:22.5A/96VDC					
	LEAKAGE CURRENT	<0.75mA / 120VAC (SD-150D)					
PROTECTION	OVERLOAD	105 ~ 135% rated output power					
		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	16.8V ~ 20V/10% LOAD			31.5 ~ 37.5V/10% LOAD		
		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
ENVIRONMENT	WORKING TEMP.	-10 ~ +60℃ (Refer to output load derating curve)					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
SAFETY & EMC (Note 4)	SAFETY STANDARDS	TUV EN62368-1(for D type only), IEC 62368-1 CB approved by TUV (for D type only), AS/NZS 62368.1, EAC TP TC 004 approved					
	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC 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					
	EMI CONDUCTION & RADIATION	Compliance to EN55032 (CISPR32) Class B, EAC TP TC 020					
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,6,8; ENV50204, light industry level, criteria A, EAC TP TC 020					
OTHERS	MTBF	296.2K hrs min.(SD-150B) 289.9K hrs min.(SD-150C) 289K Hrs min.(SD-150D) MIL-HDBK-217F (25℃)					
	DIMENSION	199*110*50mm (L*W*H)					
	PACKING	0.86Kg; 16pcs/14.5Kg/0.95CUFT					

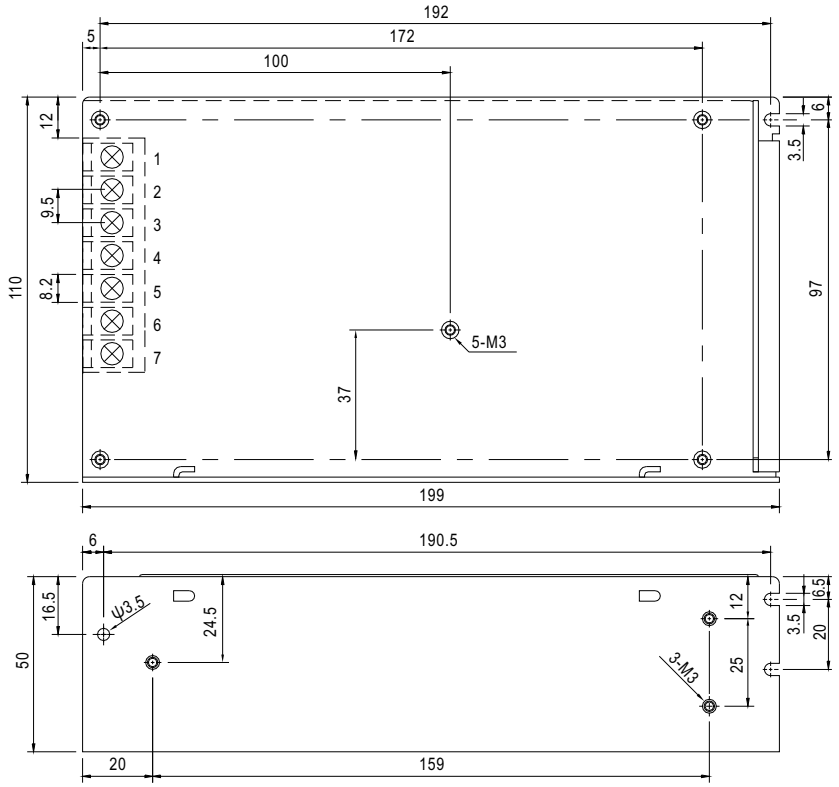
NOTE

1. All parameters NOT specially mentioned are measured at 24,48,96VDC 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. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. 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 http://www.meanwell.com)
5. 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 https://www.meanwell.com/serviceDisclaimer.aspx

■ Mechanical Specification

Case No. 906 Unit:mm



Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1,2	INPUT ※	4,5	DC OUTPUT -V
3	FG ⏚	6,7	DC OUTPUT +V

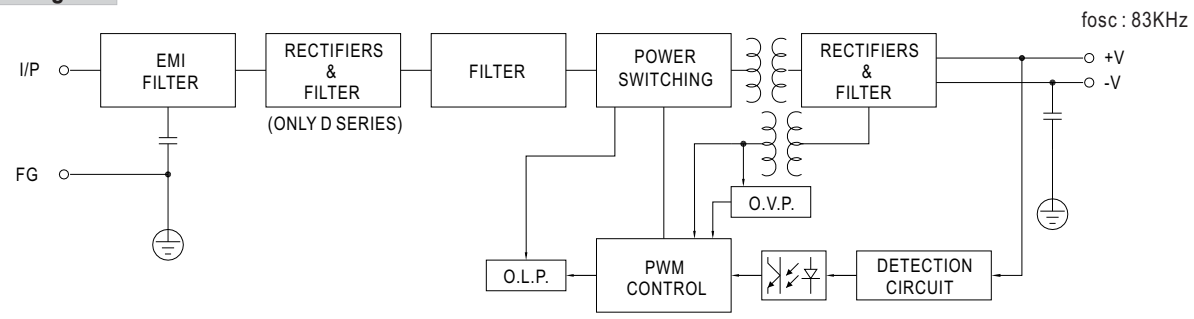
※ SD-150B,C

Pin No.	Assignment
1	DC INPUT V+
2	DC INPUT V-

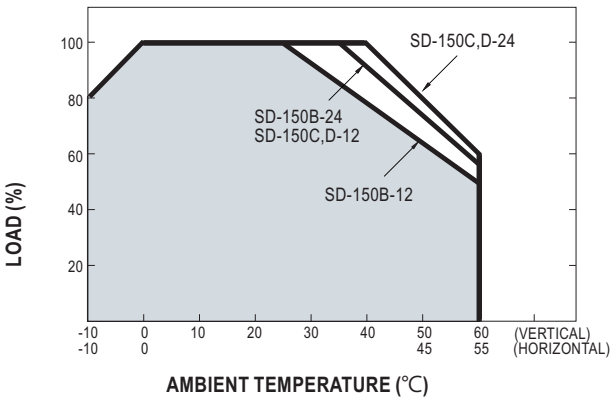
※ SD-150D

Pin No.	Assignment
1,2	AC/DC INPUT

■ Block Diagram



■ Derating Curve



■ Static Characteristics (24V)