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150W Enclosed Type DC to DC Power Supply < SD-150



- 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



(for D type only)



(for D type only)



SPECIFICATION

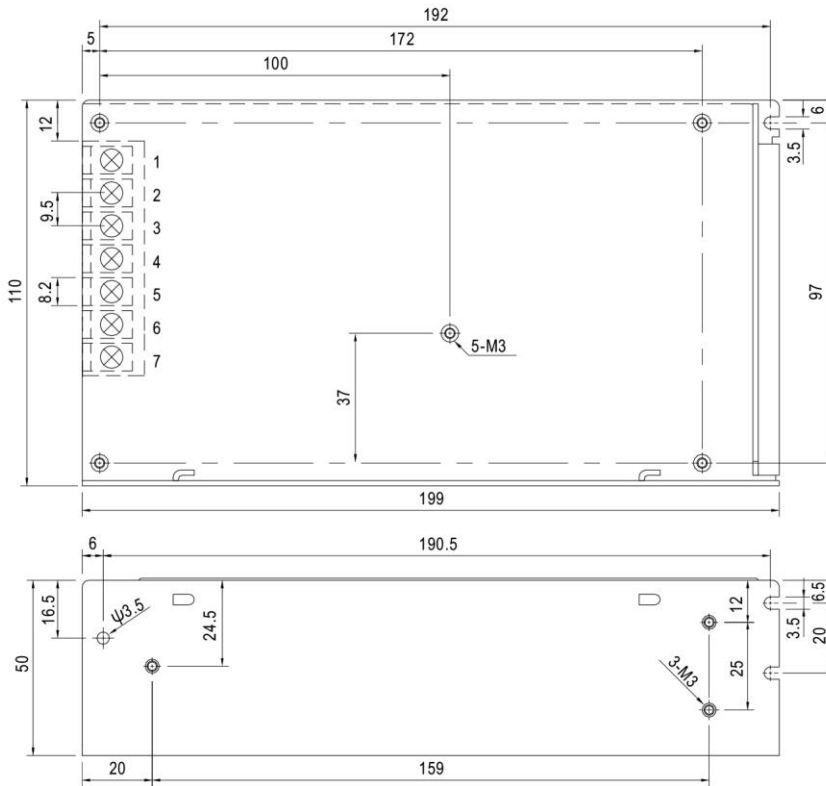
MODEL	SD-150B-12	SD-150C-12	SD-150D-12	SD-150B-24	SD-150C-24	SD-150D-24		
OUTPUT	DC VOLTAGE		12V	24V				
	RATED CURRENT		12.5A	6.3A				
	CURRENT RANGE		0 ~ 12.5A		0 ~ 6.3A			
	RATED POWER		150W		151.2W			
	RIPPLE & NOISE (max.) Note.2		120mVp-p		150mVp-p			
	VOLTAGE ADJ. RANGE		11 ~ 16VDC		23 ~ 30VDC			
	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°C (Refer to output load 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 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). 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°C / 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°C)		
	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°C 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." 5. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).							



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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

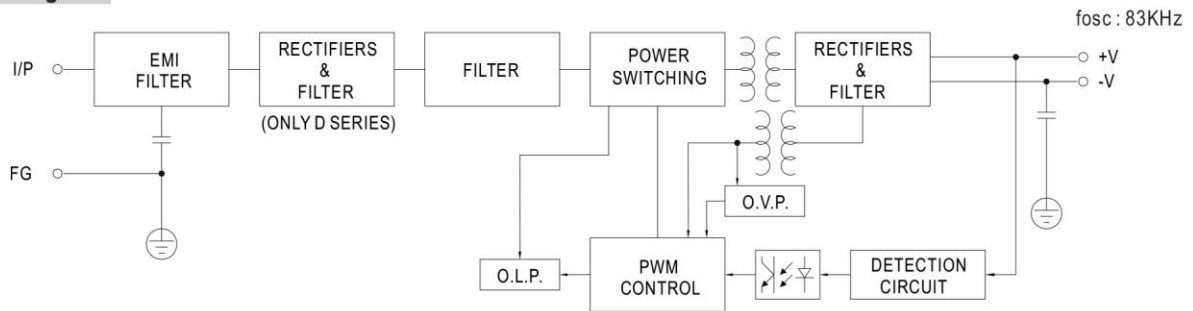
※ SD-150B,C

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

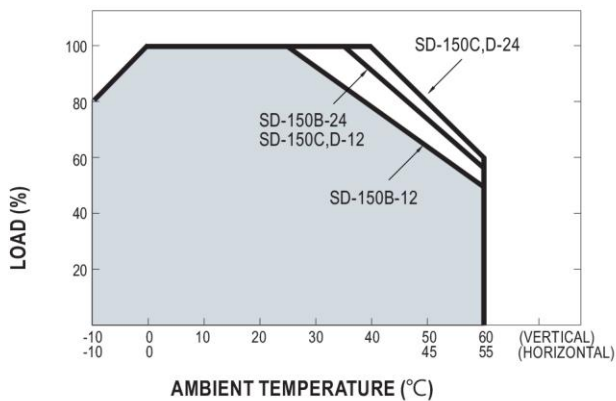
※ SD-150D

Pin No.	Assignment
1,2	AC/DC INPUT

Block Diagram



Derating Curve



Static Characteristics (24V)

