



100W Single Output DC-DC Converter

SD-100 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
- Fixed switching frequency at 83KHz
- 24V and 48V input voltage design refer to LVD
- Low cost
- High reliability
- 2 years warranty

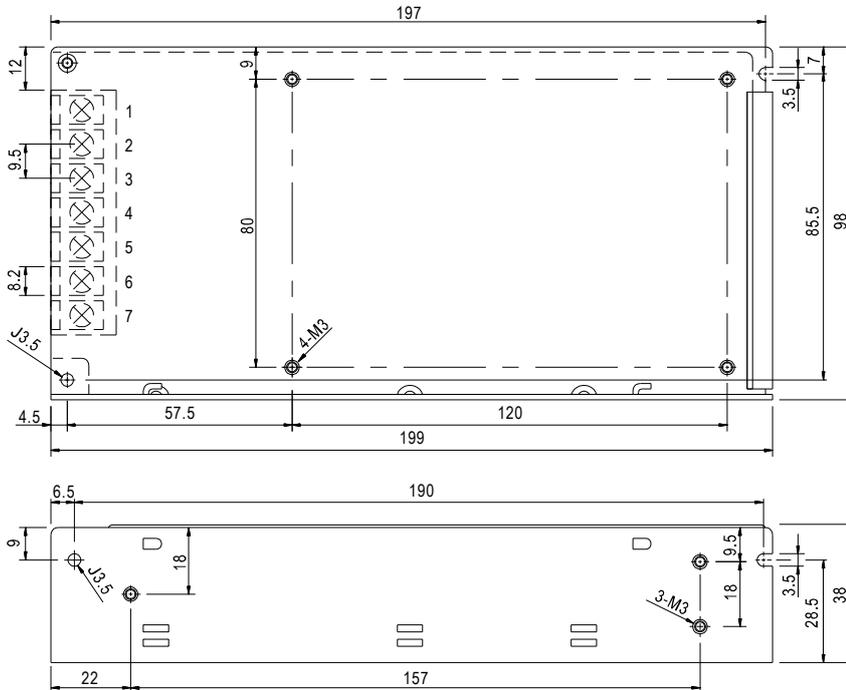
CB (for D type only) **CE**

SPECIFICATION

MODEL	SD-100B-5	SD-100C-5	SD-100D-5	SD-100B-12	SD-100C-12	SD-100D-12	SD-100B-24	SD-100C-24	SD-100D-24		
OUTPUT	DC VOLTAGE			12V			24V				
	RATED CURRENT			8.5A			4.2A				
	CURRENT RANGE			0 ~ 8.5A			0 ~ 4.2A				
	RATED POWER			102W			100.8W				
	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			±0.3%			±0.2%				
	LOAD REGULATION			±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 (Typ.)		D:18A/96VDC								
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			
	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										
	IEC60950-1 CB approved by TUV (for D type only)										
	WITHSTAND VOLTAGE										
	I/P-O/P:1.5KVAC I/P-FG:2.0KVAC 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 EN55022 (CISPR22) Class B											
EMS IMMUNITY											
Compliance to EN61000-4-2,3,4,6,8; ENV50204, light industry level, criteria A											
OTHERS	MTBF										
	356.7K hrs min.(SD-100B)			355.5K hrs min.(SD-100C)			341.9K Hrs min.(SD-100D)		MIL-HDBK-217F (25°C)		
	DIMENSION										
199*98*38mm (L*W*H)											
PACKING											
0.65Kg; 20pcs/13.8Kg/0.8CUFT											
NOTE	<ol style="list-style-type: none"> 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. 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) 										

Mechanical Specification

Case No. 902 Unit:mm



Terminal Pin No. Assignment

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

* SD-100B,C

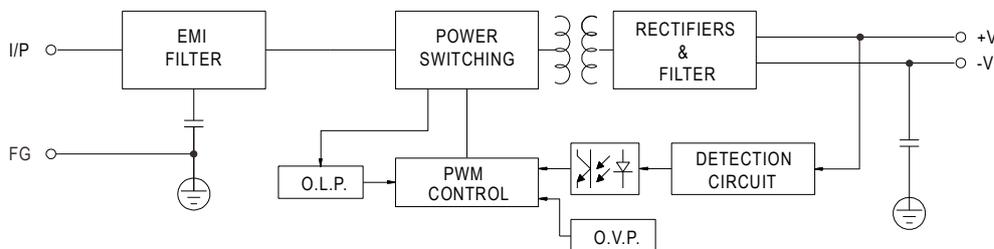
Pin No.	Assignment
1	DC INPUT V ₊
2	DC INPUT V ₋

* SD-100D

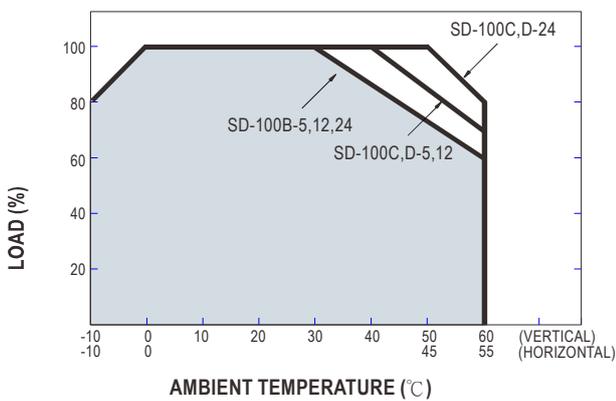
Pin No.	Assignment
1,2	AC/DC INPUT

Block Diagram

fosc : 83KHz



Derating Curve



Static Characteristics(SD-100D-24V)

