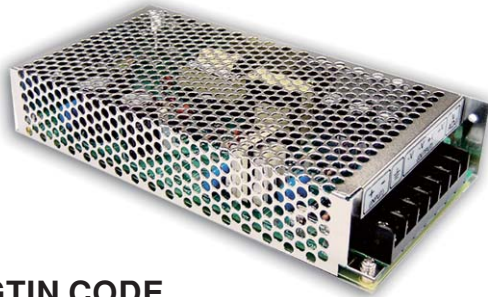




# 100W Single Output DC-DC Converter

# 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
- Low cost
- High reliability
- 2 years warranty



### ■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

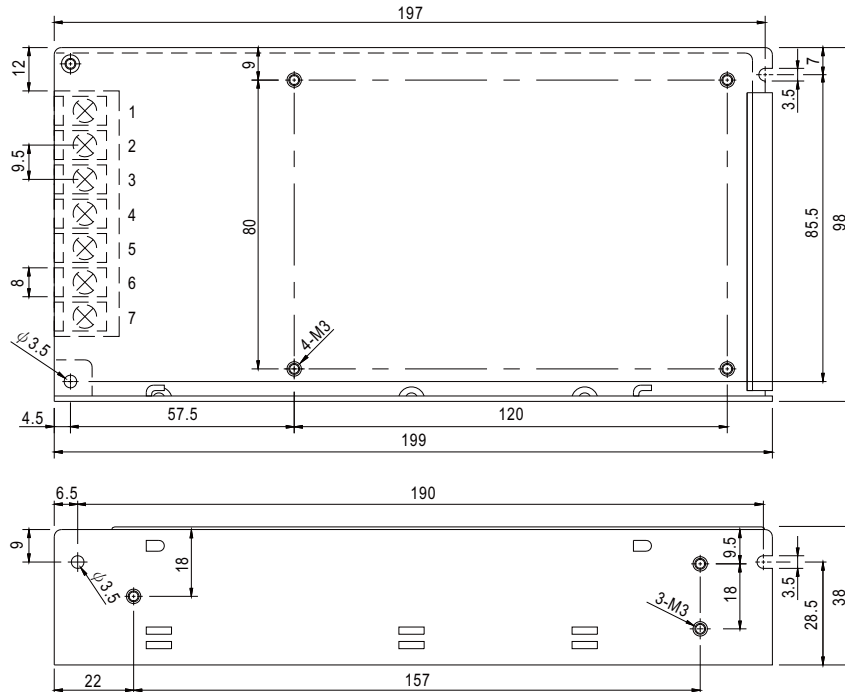


### SPECIFICATION

MODEL	SD-100A-5	SD-100B-5	SD-100C-5	SD-100D-5	SD-100A-12	SD-100B-12	SD-100C-12	SD-100D-12	SD-100A-24	SD-100B-24	SD-100C-24	SD-100D-24		
OUTPUT	DC VOLTAGE				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.) Note.2		100mVp-p				120mVp-p				150mVp-p			
	VOLTAGE ADJ. RANGE		4.5 ~ 5.5VDC				11 ~ 16VDC				23 ~ 30VDC			
	VOLTAGE TOLERANCE Note.3		±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		A:9.5 ~ 18VDC		B:19 ~ 36VDC		C:36 ~ 72VDC		D:72 ~ 144VDC or 85 ~ 132VAC					
	EFFICIENCY (Typ.)		78%	74%	75%	76%	82%	75%	77%	80%	84%	78%	81%	83%
	DC CURRENT (Typ.)		9.7A/12V	4.8A/24V	2.4A/48V	1.8A/96V	10.4A/12V	4.8A/24V	2.4A/48V	1.8A/96V	10A/12V	4.8A/24V	2.4A/48V	1.8A/96V
	INRUSH CURRENT (Typ.)		D:18A/96VDC											
	LEAKAGE CURRENT		<0.75mA/120VAC(SD-100D)											
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/5% load		31.5 ~ 37.5V/10% load	
ENVIRONMENT	WORKING TEMP.		-15 ~ +60°C(SD-100A), -10 ~ +60°C(SD-100B/C/D) (Refer to "Derating Curve")											
	WORKING HUMIDITY		20 ~ 90% RH non-condensing											
	STORAGE TEMP., HUMIDITY		-20 ~ +85°C, 10 ~ 95% RH non-condensing											
	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		IEC/BS EN/EN 62368-1(for D type only), EAC TP TC 004 approved, design refer to AS/NZS 62368.1											
	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:100M Ohms / 500VDC / 25°C / 70% RH											
	EMC EMISSION		Compliance to BS EN/EN55032 (CISPR32) Class B, EAC TP TC 020											
	EMC IMMUNITY		Compliance to BS EN/EN61000-4-2,3,4,6,8, BS EN/EN55035, light industry level, EAC TP TC 020											
OTHERS	MTBF		2600.2K hrs min. Telcordia SR-332 (Bellcore) ; 399.9K hrs min. MIL-HDBK-217F (25°C)											
	DIMENSION		199*98*38mm (L*W*H)											
	PACKING		0.65Kg; 20pcs/13.8Kg/0.85CUFT											
NOTE	<ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 12,24,48,96VDC input, rated load and 25°C of ambient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor.</li> <li>Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>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 <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li> <li>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).</li> </ol> ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>													

**Mechanical Specification**

Case No. 902 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

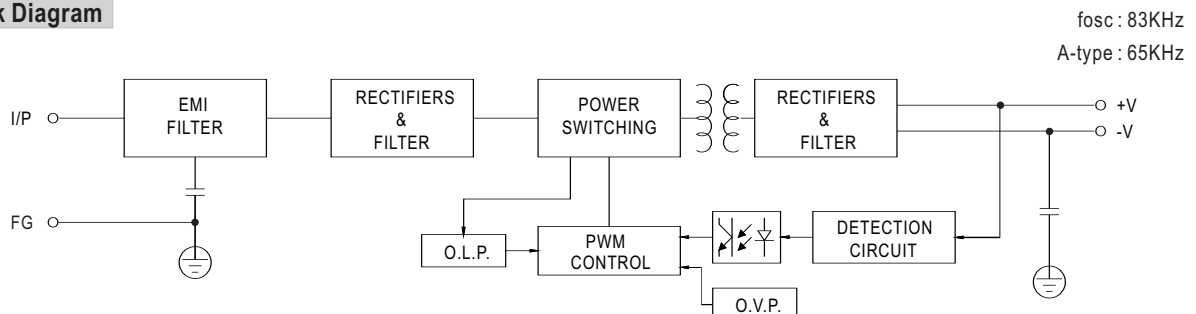
※ SD-100A,B,C

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

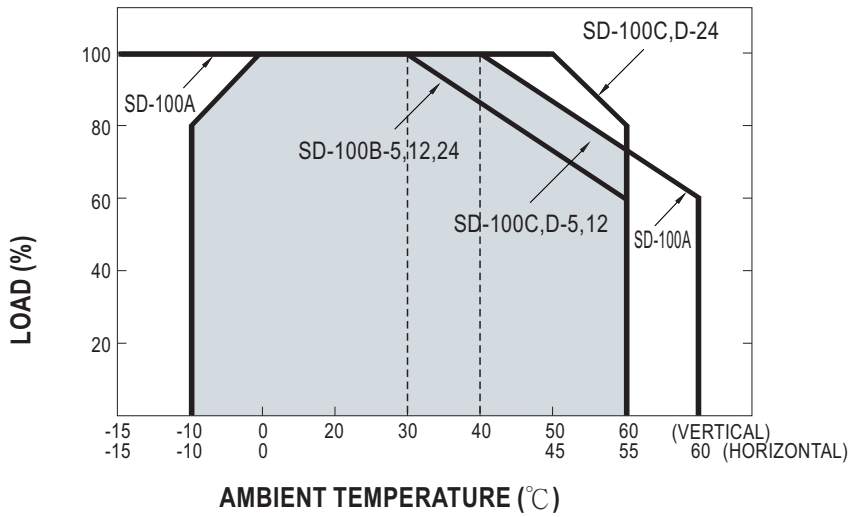
※ SD-100D

Pin No.	Assignment
1,2	AC/DC INPUT

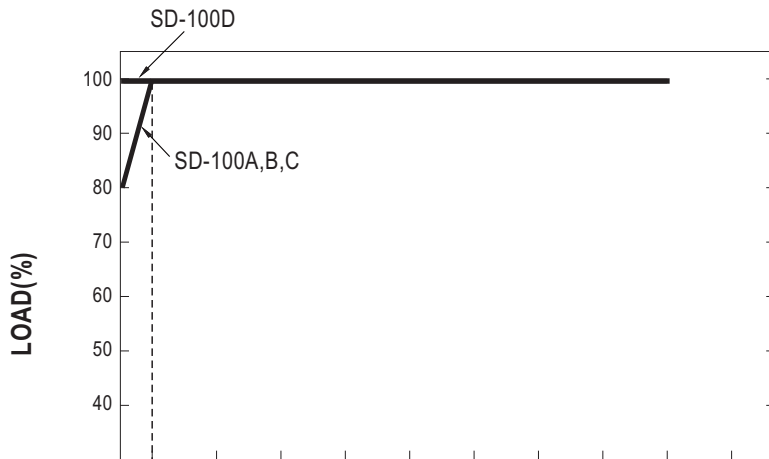
**Block Diagram**



■ Derating Curve



■ Output Derating VS Input Voltage



A:	9.5	10	11	12	13	14	15	16	17	18
B:	19	20	22	24	26	28	30	32	34	36
C:	36	38	44	48	52	56	60	64	68	72
D:	72	76	88	96	104	112	120	128	136	144