



**100W Enclosed Type DC to DC Power Supply < SD-100**



■ 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



(for D type only)



(for D type only)



**SPECIFICATION**

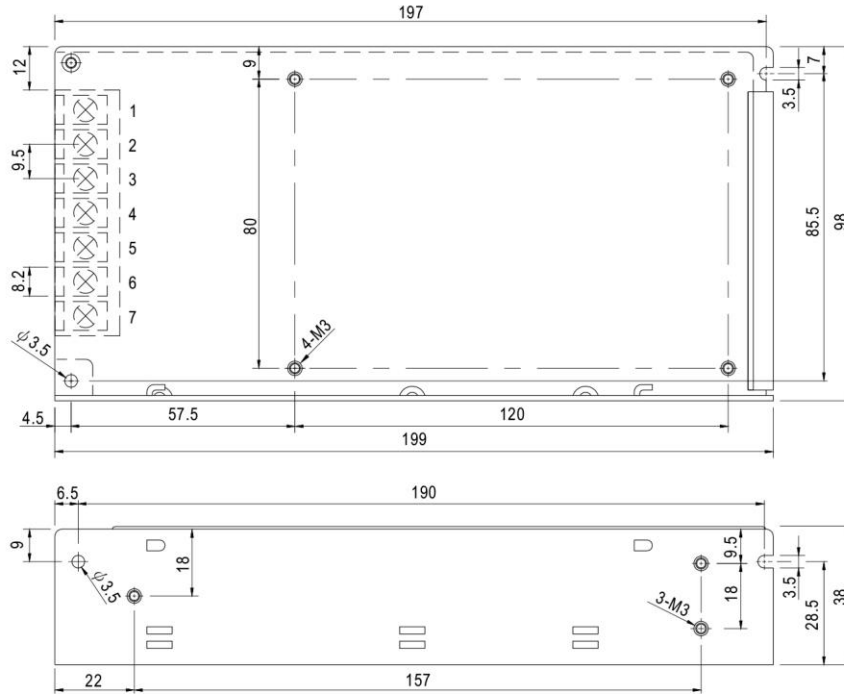
MODEL		SD-100A-5	SD-100B-5	SD-100C-5	SD-100D-5	SD-100A-12	SD-100B-12	SD-100C-12	SD-100D-12	SD-100A-24	SD-100B-24	SD-100C-24	SD-100D-24	
OUTPUT	DC VOLTAGE	5V				12V				24V				
	RATED CURRENT	18A	20A			8.5A				4.2A				
	CURRENT RANGE	0 ~ 18A		0 ~ 20A		0 ~ 8.5A				0 ~ 4.2A				
	RATED POWER	90W	100W			102W				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					±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	TUV EN62368-1(for D type only), IEC62368-1 CB approved by TUV (for D type only), EAC TP TC 004 approved												
	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC I/P-FG: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 EN55032 (CISPR32) Class B, EAC TP TC 020												
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,6,8, light industry level, criteria A, EAC TP TC 020												
OTHERS	MTBF	399.9K hrs min.(SD-100A)		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/0.85CUFT												
NOTE	1. All parameters NOT specially mentioned are measured at 12,24,48,96VDC 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. 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

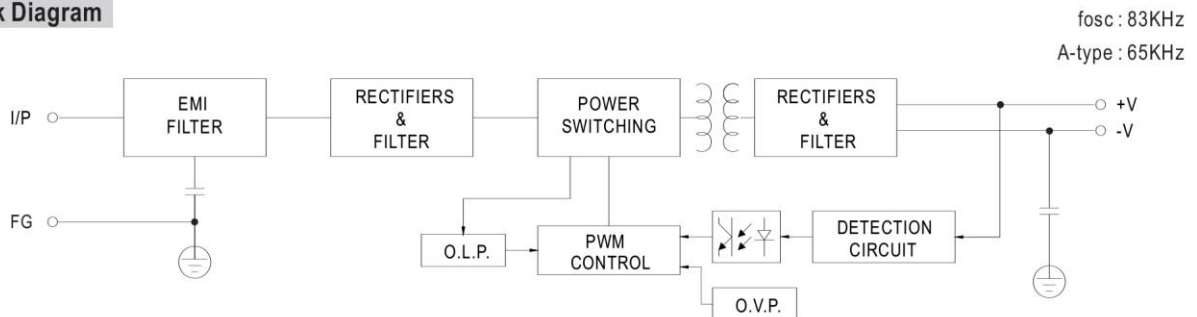
※ SD-100A,B,C

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

※ SD-100D

Pin No.	Assignment
1,2	AC/DC INPUT

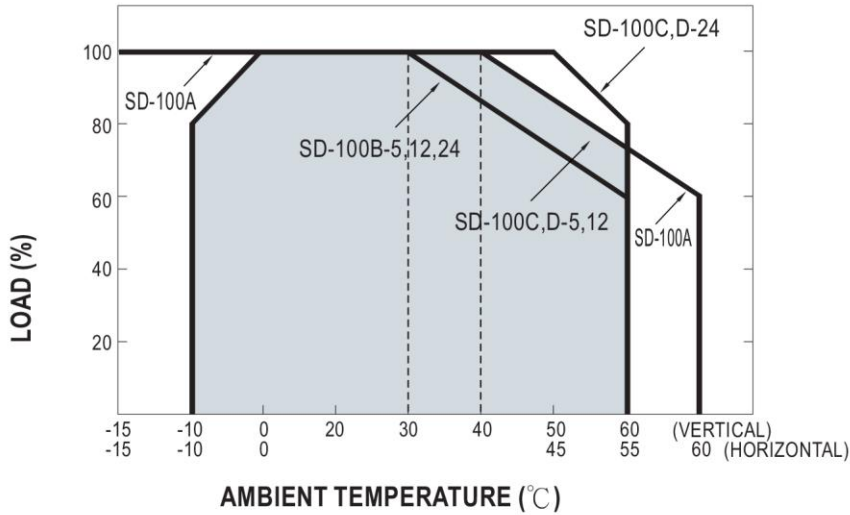
**Block Diagram**



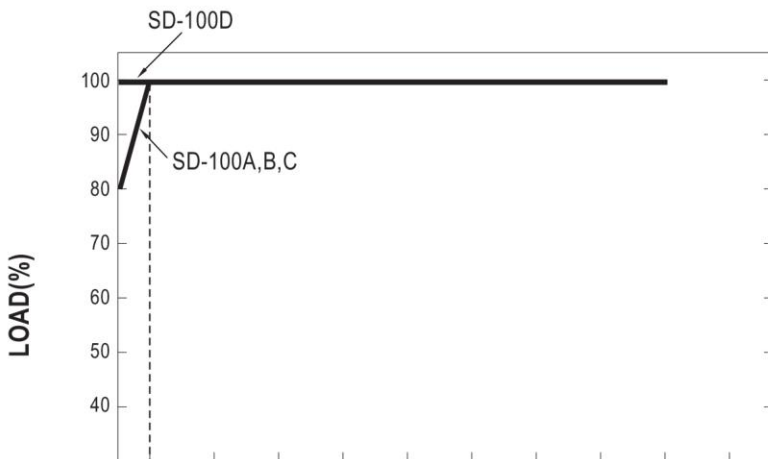


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**Derating Curve**



**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