



60W Single Output Switching Power Supply

S-60 series



■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 77KHz
- 2 years warranty



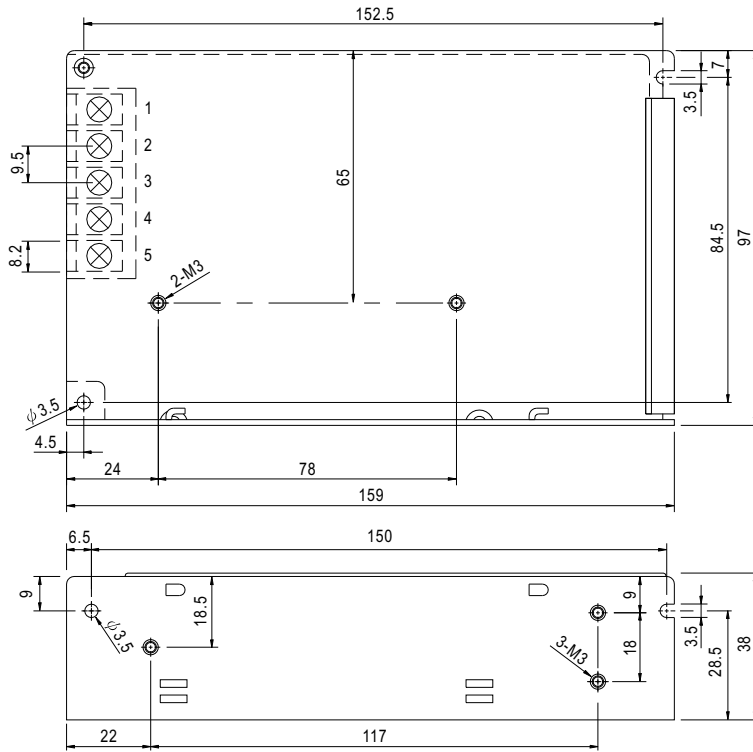
SPECIFICATION

MODEL	S-60-5	S-60-12	S-60-15	S-60-24	
OUTPUT	DC VOLTAGE	5V	12V	15V	24V
	RATED CURRENT	12A	5A	4A	2.5A
	CURRENT RANGE	0 ~ 12A	0 ~ 5A	0 ~ 4A	0 ~ 2.5A
	RATED POWER	60W	60W	60W	60W
	RIPPLE & NOISE (max.) Note.2	120mVp-p	120mVp-p	150mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	4.75 ~ 5.5V	10.8 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 26.4V
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	300ms, 50ms/230VAC	800ms, 50ms/115VAC at full load		
HOLD UP TIME (Typ.)	80ms/230VAC	12ms/115VAC at full load			
INPUT	VOLTAGE RANGE	85 ~ 264VAC	120 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY(Typ.)	73%	76%	77%	79%
	AC CURRENT (Typ.)	2A/115VAC	1A/230VAC		
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC	40A/230VAC		
LEAKAGE CURRENT	<3.5mA / 240VAC				
PROTECTION	OVERLOAD	105 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed.			
	OVER VOLTAGE	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25	27.6 ~ 32.4V
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, period for 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL1012, UL60950-1, TUV EN60950-1 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC 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			
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B			
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3			
EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A				
OTHERS	MTBF	316.2K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	159*97*38mm (L*W*H)			
	PACKING	0.51Kg; 24pcs/13.1Kg/0.7CUFT			
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC 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.				



**Mechanical Specification**

Case No. 901 Unit:mm

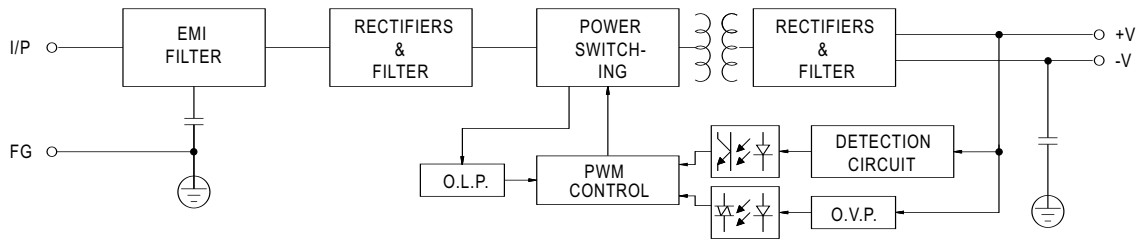


Terminal Pin No. Assignment

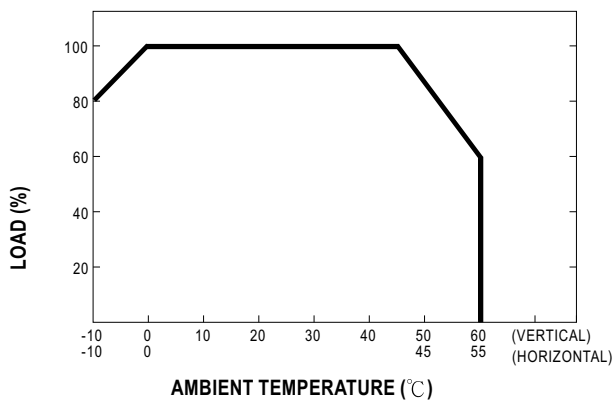
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	DC OUTPUT -V
2	AC/N	5	DC OUTPUT +V
3	FG $\perp$		

**Block Diagram**

fosc : 77KHz



**Derating Curve**



**Static Characteristics (24V)**

