



### ■ Features :

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

### SPECIFICATION

MODEL	SMN-ES50-5	SMN-ES50-12	SMN-ES50-15	SMN-ES50-24	SMN-ES50-48	
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	48V
	RATED CURRENT	10A	4.2A	3.4A	2.2A	1.1A
	CURRENT RANGE	0 ~ 10A	0 ~ 4.2A	0 ~ 3.4A	0 ~ 2.2A	0 ~ 1.1A
	RATED POWER	50W	50.4W	51W	52.8W	52.8W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	150mVp-p	200mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	4.75 ~ 5.5V	10.8 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 26.4V	43.2 ~ 52.8V
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION Note.4	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION Note.5	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	500ms, 30ms/230VAC      1200ms, 30ms/115VAC at full load				
HOLD TIME (Typ.)	50ms/230VAC      10ms/115VAC at full load					
INPUT	VOLTAGE RANGE	85 ~ 264VAC      120 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz				
	EFFICIENCY(Typ.)	79%	82%	83%	86%	87%
	AC CURRENT (Typ.)	1.1A/115VAC      0.65A/230VAC				
	INRUSH CURRENT (Typ.)	COLD START 45A				
	LEAKAGE CURRENT	<2mA / 240VAC				
PROTECTION	OVER LOAD	110 ~ 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	55.2 ~ 64.8V
		Protection type : Shut down o/p voltage, re-power on to recover				
ENVIRONMENT	WORKING TEMP.	-20 ~ +60°C (Refer to output load derating curve)				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 45°C)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
SAFETY & EMC (Note 6)	SAFETY STANDARDS	-				
	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, EN61000-6-1 Light industry level, criteria A				
OTHERS	MTBF	374.2K hrs min.    MIL-HDBK-217F (25°C)				
	DIMENSION	129*98*38mm (L*W*H)				
	PACKING	0.41Kg; 45pcs/19.5Kg/1.24CUFT				
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. 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>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. Line regulation is measured from low line to high line at rated load.</li> <li>5. Load regulation is measured from 0% to 100% rated load.</li> <li>6. 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.</li> </ol>					

# PRETA

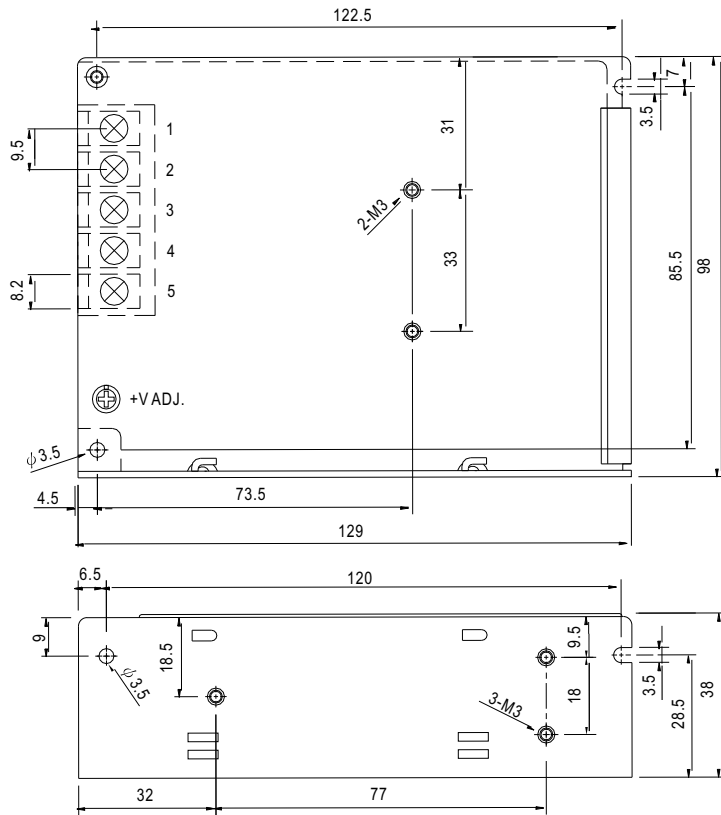
50W Single Output Switching Power Supply

## SMN-ES50 Series

### Mechanical Specification

Features :

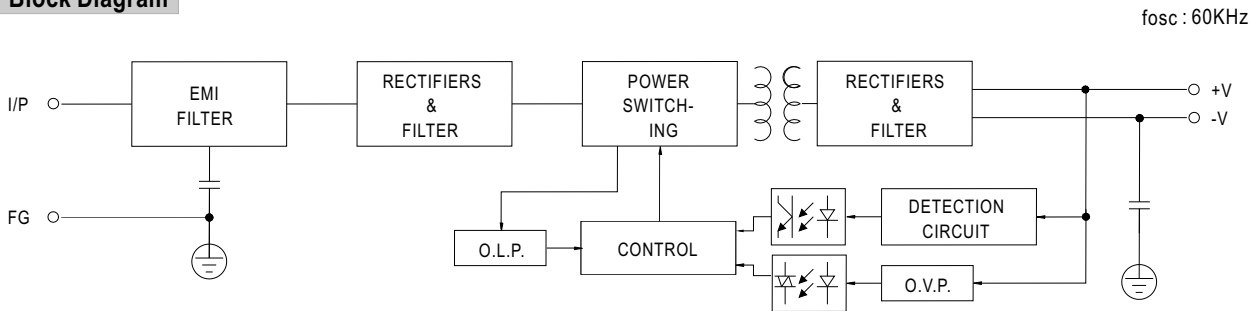
Case No. 903 Unit:mm



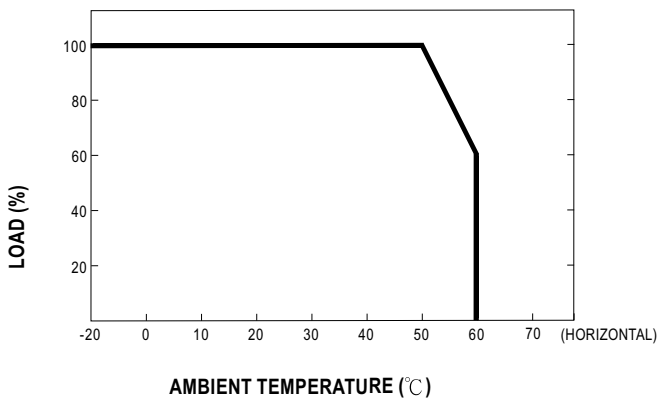
Terminal Pin. No Assignment

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

### Block Diagram



### Derating Curve



### Output Derating VS Input Voltage

