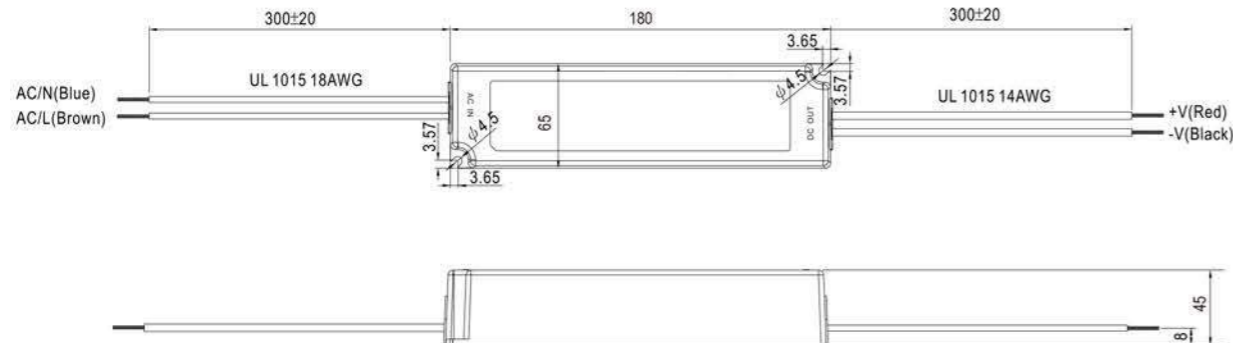


### 120W Single Output Switching Power Supply

**Mechanical Specification**

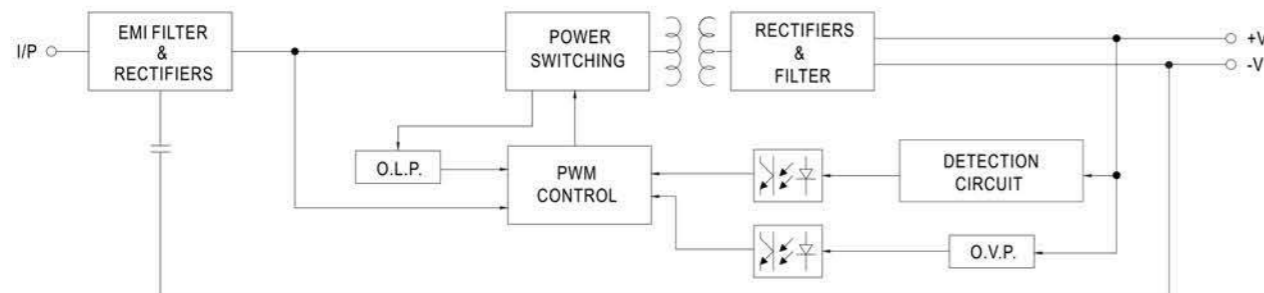
Case No. 999A Unit:mm



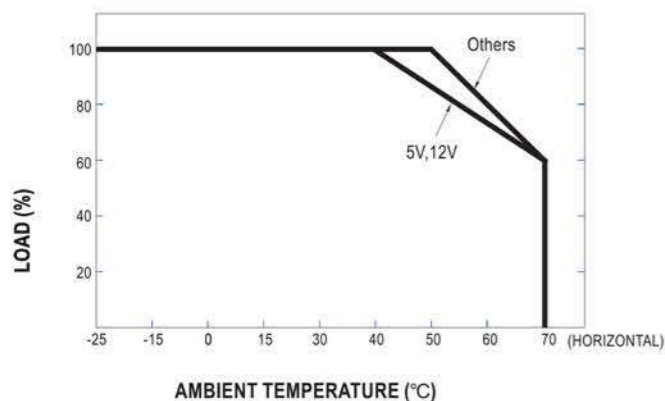
**Recommend Mounting Direction**



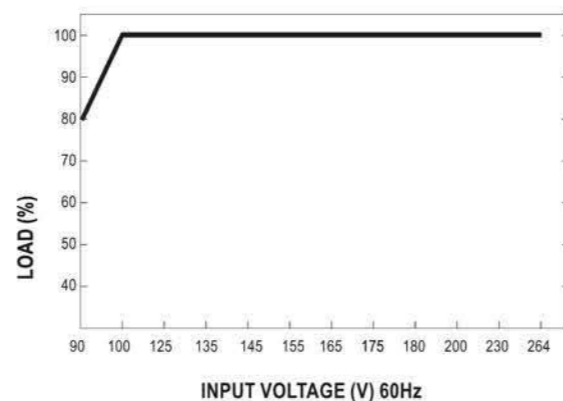
**Block Diagram**



**Derating Curve**



**Static Characteristics**



### 120W Single Output Switching Power Supply



**Features :**

- Constant voltage design
- Universal AC input / Full range
- Fully encapsulated with IP67 level (Note.8)
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Over current / Over voltage
- Fully isolated plastic case
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED lighting and moving sign applications(Note 7.)

**SPECIFICATION**

MODEL	SFS-120-5	SFS-120-12	SFS-120-15	SFS-120-24	SFS-120-36	SFS-120-48	
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	36V	48V
	RATED CURRENT	12A	10A	8A	5A	3A	2.5A
	CURRENT RANGE	0 ~ 12A	0~10A	0~8A	0~5A	0~3A	0~2.5A
	RATED POWER	60W	120W	120W	120W	108W	120W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	120mVp-p	150mVp-p	150mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3	±8.0%	±5.0%				
	LINE REGULATION	±1.0%					
	LOAD REGULATION	±6.0%	±2.0%				
	SETUP, RISE TIME Note.6	2000ms, 25ms / 230VAC	2000ms, 25ms / 115VAC				
	HOLD UP TIME (Typ.)	50ms/230VAC	14ms/115VAC at full load				
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC	127 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY (Typ.)	80%	85%	87%	88%	88%	89%
	AC CURRENT	2.2A/115VAC	1.2A/230VAC				
	INRUSH CURRENT(Typ.)	COLD START 75A(twidth=700µs measured at 50% Ipeak) at 230VAC					
	LEAKAGE CURRENT	0.25mA / 240VAC					
PROTECTION	OVER CURRENT	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 ~ 20.25V	27.6 ~ 32.4V	41.4 ~ 48.6V	55.2 ~ 64.8V
ENVIRONMENT	WORKING TEMP.	-25 ~ +70°C (Refer to "Derating Curve")					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +80°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	SAFETY STANDARDS	IP67 approved; Design refer to TUV EN60950-1					
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC					
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25°C/ 70% RH					
OTHERS	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2 Class A(<80% load), EN61000-3-3					
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; EN55024, light industry level, criteria A					
	MTBF	703Khrs min. MIL-HDBK-217F (25°C)					
NOTE	DIMENSION	190*53*40mm (L*W*H)					
	PACKING	0.81Kg, 45pcs/25.5Kg/0.56CUFT					

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 0.1µf & 47µf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Derating may be needed under low input voltage. Please check the static characteristics for more details.
5. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.
6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.
7. The unit might not be suitable for lighting applications in EU countries. Please check with your local authorities for the possible use of the unit.
8. Suitable for indoor use or outdoor use without direct sunlight exposure.

