

SMWC025 SERIES

25W Single Constant Current Output LED Driver



- Wide Input Voltage 90 to 305VAC, 47 to 63Hz
- Over Voltage / Short Circuit / Over Temperature Protection
- High Efficiency (up to 87%), Active Power Factor Correction (PFC)
- IP67 Waterproof Rating, Fully isolated
- Comply to worldwide safety regulations for lighting
- Cooling by free air convection
- Suitable for LED lighting & moving sign applications, for dry / damp / wet locations

5 Year Warranty

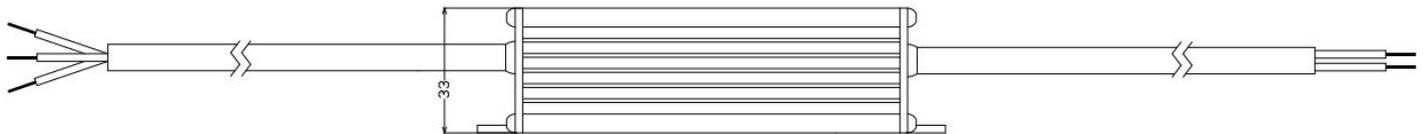
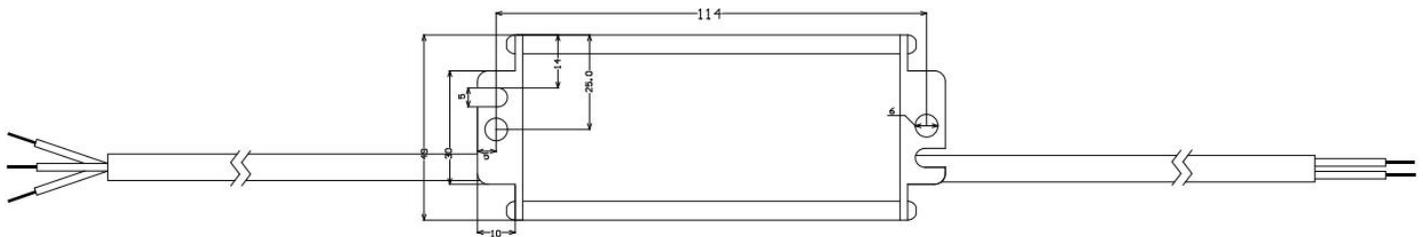
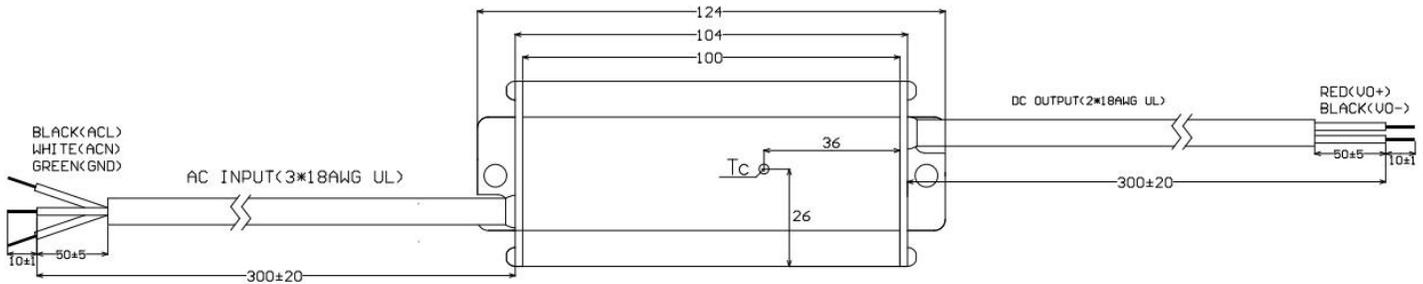
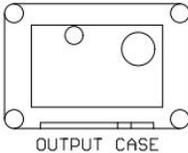
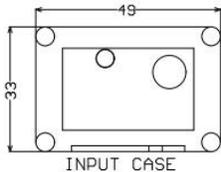
Approvals: IP67  

SPECIFICATION

Part Number		SMWC025-0300SS	SMWC025-0450SS	SMWC025-0600SS
OUTPUT	DC VOLTAGE	50-83V	33-56V	24-42V
	CONSTANT CURRENT REGION Note.4	300mA	450mA	600mA
	RATED POWER	25W		
	RIPPLE & NOISE(max.) Note.2	8.7V	6.8V	4.4V
	CURRENT TOLERANCE Note.3	±5.0%		
	LINE REGULATION	±2.0%		
	LOAD REGULATION	±3.0%		
	SETUP, RISE TIME(Typ.) Note.7	1900ms/50ms 115VAC at full load		680ms/50ms 230VAC
INPUT	VOLTAGE RANGE Note.5	90 ~305VAC		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR(Typ.)	0.99@115VAC 60HZ	0.99@115VAC 60HZ	0.99@115VAC 60HZ
		0.98@230VAC 50HZ	0.98@230VAC 50HZ	0.98@230VAC 50HZ
	EFFICIENCY(Typ.)	88.5%	88%	87.5%
	AC CURRENT(Typ.)	150mA/115VAC 80mA/230VAC		
	INRUSH CURRENT(Typ.)	COLD START 48A (Twidth=270us measured at 50% Ipeak) at 230VAC		
LEAKAGE CURRENT	<0.75mA/265VAC			
PROTECTION	OVER CURRENT Note.4	95 ~ 108% Protection type: Constant current limiting, recovers automatically after fault condition is removed		
	SHORT CURRENT	Hiccup mode, recovers automatically after fault condition is removed		
	OVER VOLTAGE	98V	62V	48V
		Protection type: Hiccup mode, recovers automatically after fault condition is removed		
OVER TEMP.	Hiccup mode, recovers automatically after fault condition is removed			
ENVIRONMENT	WORKING TEMP.	-35 ~ +70 °C (Refer to "Derating Curve")		
	WORKING HUMIDITY	10 ~ 100% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +85 °C, 5 ~ 100% RH		
	TEMP. COEFFICIENT	±0.03% °C (0~50 °C)		
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes		
SAFETY & EMC	SAFETY STANDARDS Note.6	UL8750, UL935, UL1012, CSA-C22.2 No.107.1, EN61347-1, EN61347-2-13		
	WITHSTAND VOLTAGE	I/P – O/P: 3.75kVAC		
	ISOLATION RESISTANCE	I/P – O/P: 100M Ohms / 500VDC /25 °C / 70% RH		
	EMC EMISSION	Compliance to EN55015, EN61000-3-2 Class C (≥60% load); EN61000-3-3		
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, EN55024, light industry level (surge 2kV), criteria A		
OTHERS	MTBF	200khrs min. MIL-HDBK-217F (25 °C)		
	DIMENSION	104(124)*49*33MM(L*W*H)		
	PACKING	310±10g		

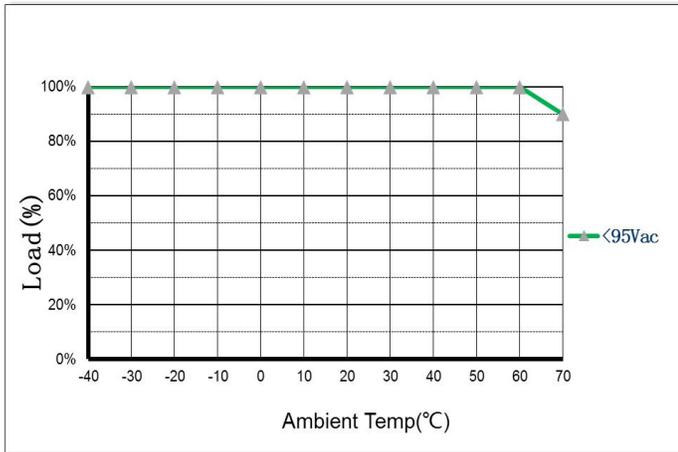
NOTE	<ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance: includes set up tolerance, line regulation & load regulation. 4. Please refer to "DRIVING METHODS OF LED MODULE". 5. Derating may be needed under low input voltages. Please check the static characteristics for details. 6. Suitable for indoor use or outdoor use without direct sunlight exposure. Please avoid immerse in the water over 30 minutes. 7. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time. 8. 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 manufactures must re-qualify EMC DIRECTIVE on the complete installation again. 9. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers. 10. To fulfill requirements of the latest ERP regulation for lighting fixtures, this LED power supply can only be used behind switch without permanently connected to the mains.
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Mechanical Specification

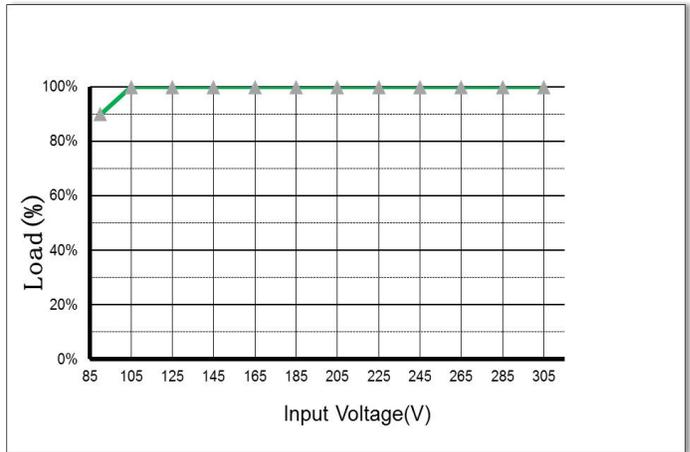


SMWC025-0600SS Derating Curve

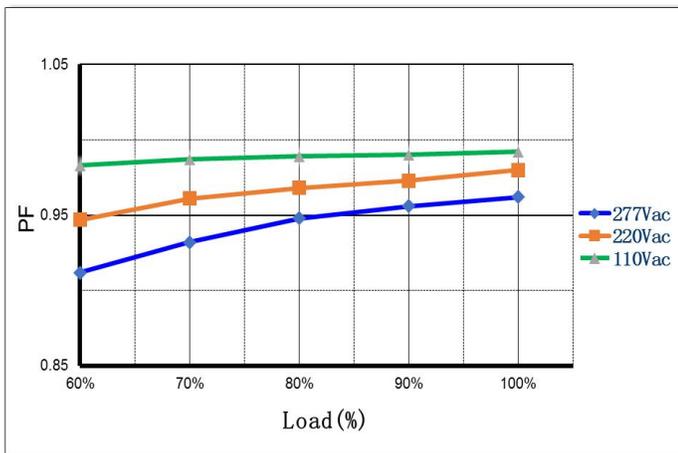
Derating Characteristics



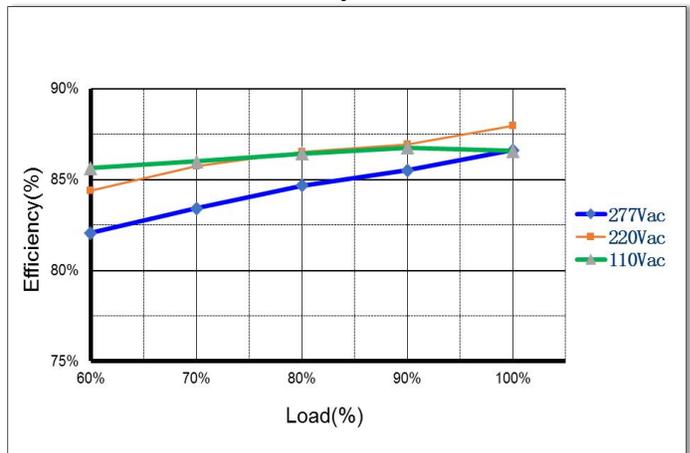
Static Characteristics



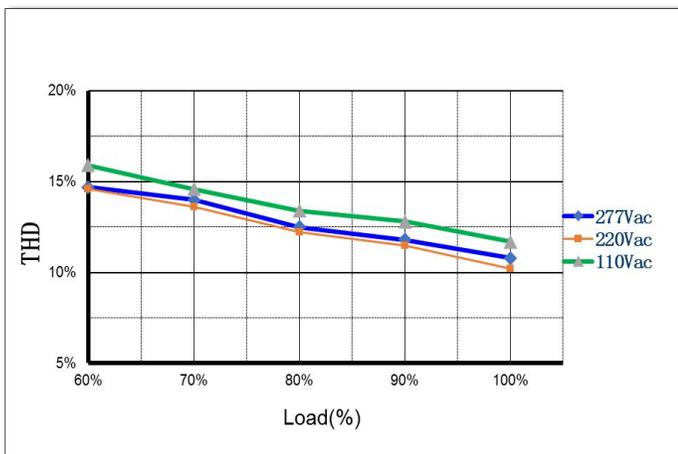
PF VS Load



Efficiency VS Load



THD VS Load



Lifetime VS Case Temp

