

SMWC150 SERIES

150W 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 92%), 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

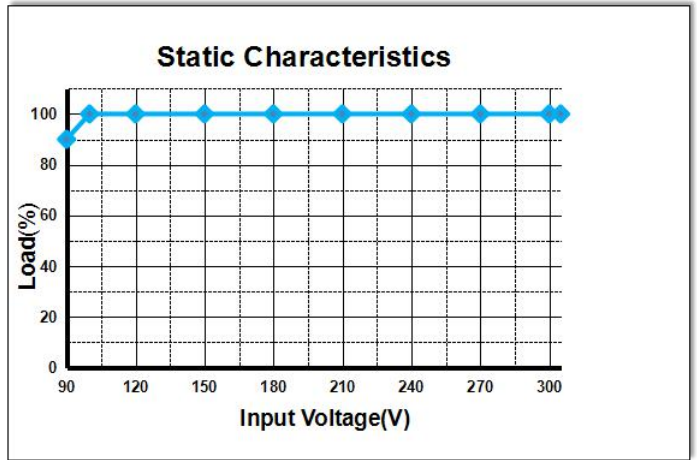
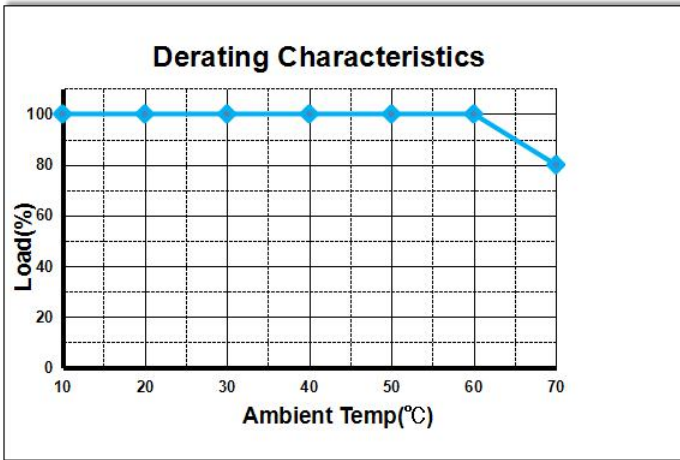
Part Number		SMWC150-0350SS/D	SMWC150-0700SS/D	SMWC150-1050SS/D	SMWC150-1400SS/D	SMWC150-2800SS/D	SMWC150-4200SS/D
OUTPUT	DC VOLTAGE	257-429V	129-214V	86-143V	64 -107V	32-54V	22-36V
	CONSTANT CURRENT REGION Note.4	350mA	700mA	1050mA	1400mA	2800mA	4200mA
	RATED POWER	150W					
	RIPPLE & NOISE(max.) Note.2	12.9	6.4V	4.3V	3.2V	1.6V	1.1V
	CURRENT TOLERANCE Note.3	±5.0%					
	LINE REGULATION	±2.0%					
	LOAD REGULATION	±3.0%					
	SETUP, RISE TIME(Typ.) Note.7	1000ms/50ms 115VAC at full load			400ms/50ms 230VAC		
INPUT	VOLTAGE RANGE Note.5	90 ~305VAC					
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR(Typ.)	0.99@115VAC 60HZ 0.96@230VAC 50HZ					
	EFFICIENCY(Typ.)	93%	93%	93%	92.5%	91%	91%
	AC CURRENT(Typ.)	1.6A/115VAC		0.75A/230VAC			
	INRUSH CURRENT(Typ.)	COLD START 65A (Twidth=270us measured at 50% Ipeak) at 230VAC					
	LEAKAGE CURRENT	<0.75mA/265VAC					
PROTECTION	OVER CURRENT Note.4	95 ~ 108%					
	SHORT CURRENT	Protection type: Constant current limiting, recovers automatically after fault condition is removed					
	OVER VOLTAGE	446V	223V	149V	111V	58V	40V
	OVER TEMP.	Protection type: Hiccup mode, recovers automatically after fault condition is removed					
	WORKING TEMP.	Hiccup mode, recovers automatically after fault condition is removed					
ENVIRONMENT	WORKING HUMIDITY	-35 ~ +70°C (Refer to "Derating Curve")					
	STORAGE TEMP., HUMIDITY	10 ~ 100% RH non-condensing					
	TEMP. COEFFICIENT	-40 ~ +85°C, 5 ~ 100% RH					
	VIBRATION	±0.03%°C (0~50°C)					
	SATETY STANDARDS Note.6	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes					
SAFETY & EMC	WITHSTAND VOLTAGE	UL8750, UL935, UL1012, CSA-C22.2 No.107.1, EN61347-1, EN61347-2-13					
	ISOLTATION RESISTANCE	I/P – O/P: 3.75kVAC,I/P-FG: 2KVAC					
	EMC EMISSION	I/P – O/P: 100M Ohms / 500VDC /25°C / 70% RH					
	EMC IMMUNITY	Compliance to EN55015, EN61000-3-2 Class C (≥60% load); EN61000-3-3					
	MTBF	Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, EN55024, light industry level (surge 4kV), criteria A					
OTHERS	DIMENSIION	350khrs min. MIL-HDBK-217F (25°C)					
	PACKING	158.5(188.5)*78*37MM(L*W*H)					
		900±10g					

NOTE

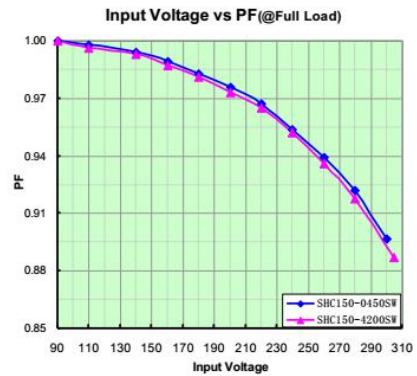
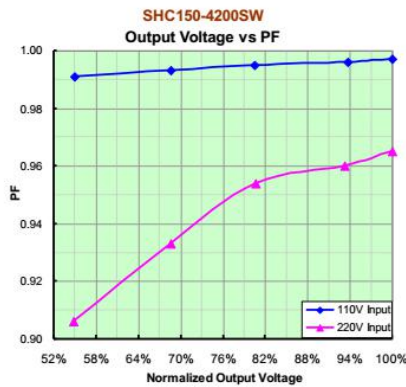
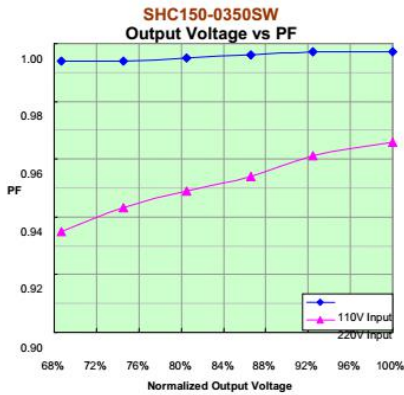
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation & 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.

Derating Curve

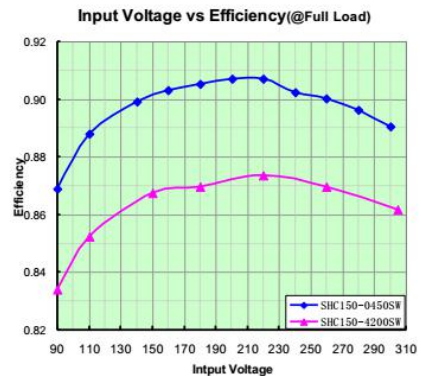
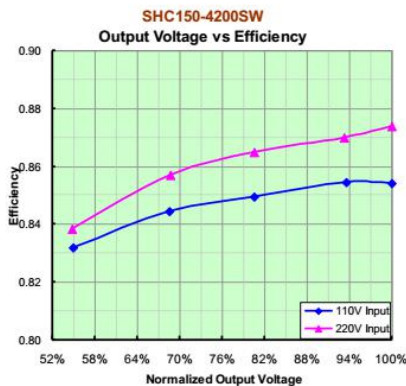
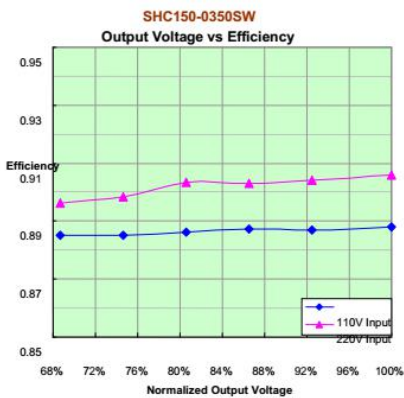
DERATING CHARACTER



POWER FACTOR CHARACTERS

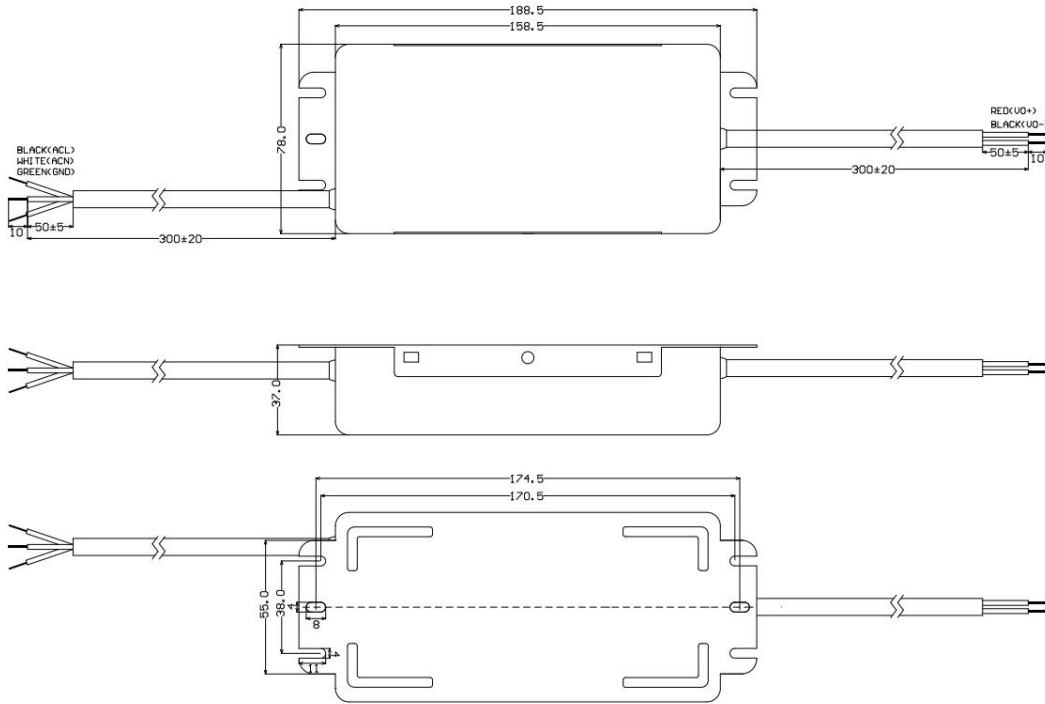


EFFICIENCY vs LOAD

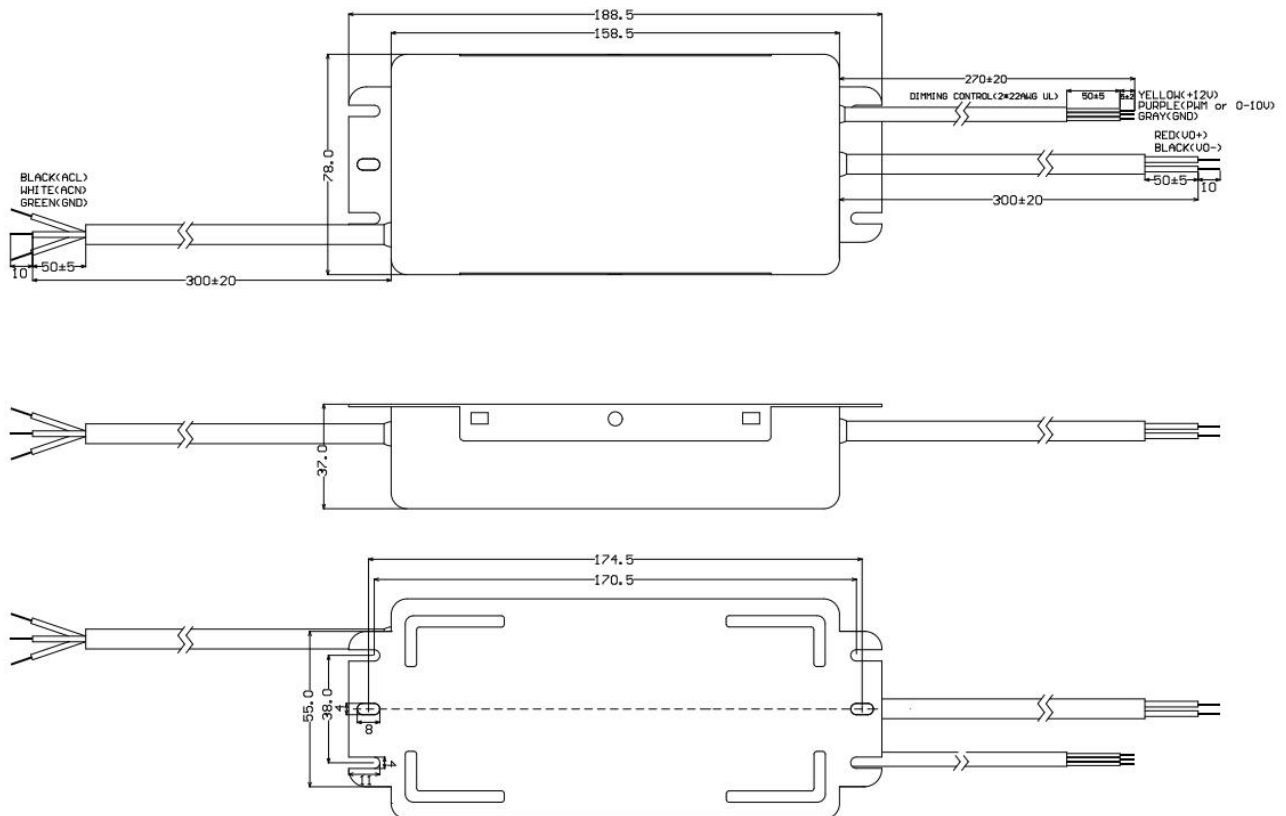


Mechanical Specification

NO or TIMER Dimming Function Mechanical

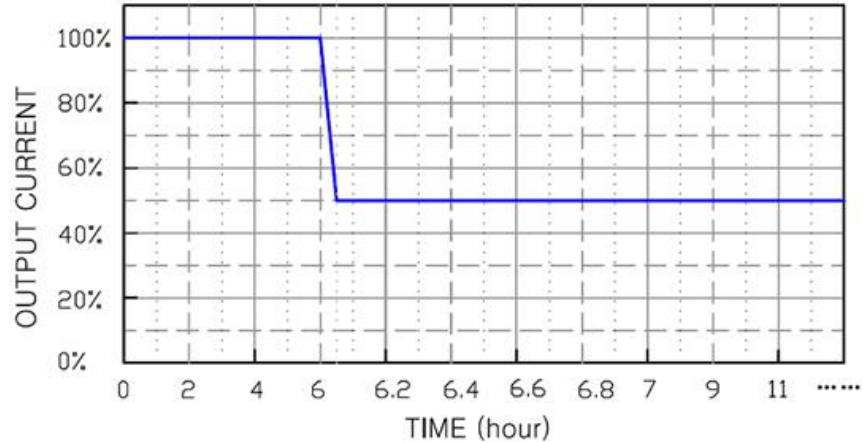


0-10V or PWM Dimming Function Mechanical



Dimming Function

TIMER Dimming

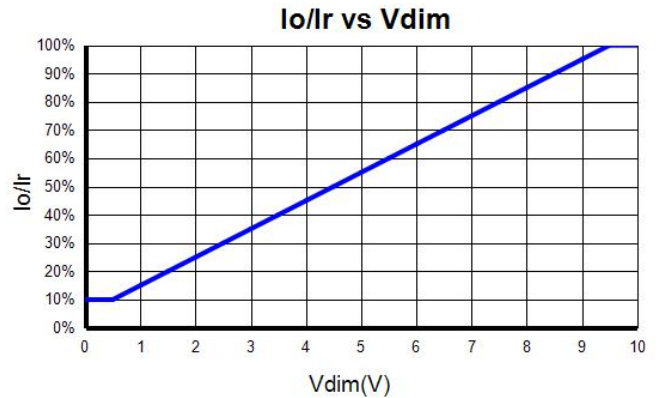


NOTE:

1. The dimming time can be customized according to different orders.

0-10V Analog Dimming

Input Dimming Voltage	0-12V	Normal 10-11V
Input Source Current	0-10mA	47 ~ 63Hz



NOTE:

1. If the dimming function is not used, all wire NC.
2. I_o is actual output current and I_r is rated current without dimming control.
3. For the driver to operate properly, the load voltage must be maintained above the input voltage t , proximately 50% of the max. output voltage for any given mode.
4. The dimming signal is allowed to be less than 1V, when it for 0-1V, the connected LEDs may flicker. Keeping dimming voltage greater than 1V in application is strongly recommended.
5. Do not connect the **GND of dimming (gray)** to the output. Otherwise, the LED driver can not work normally.

PWM Dimming

