



Features

- Efficiency up to 89%
- Optional dimming function: 1-10V, PWM, timing, dim to off.
- IP67, suitable for dry, wet, rain environment
- Comprehensive protection: short circuit/over temperature/over voltage
- Metal shell, internal glue, can be used for dangerous occasions
- RoHS approved



Description

SS-60H is constant current led driver with narrow voltage input 90-305Vac and high power factor. It is specifically designed for LED luminaries such as high bay light, high-pole lamp, stage lamp and street light. It embraces low standby power consumption, high efficiency, compact housing and sound heat dissipation, which greatly increase its reliability and extend the lifespan. Comprehensive protection, including over-voltage protection, short circuit protection and over temperature protection, ensures its proper functioning.

Model List

Model	Rated O/P Voltage	Rated O/P Current	Max. O/P Power	Output Current Tolerance	No load voltage	PF	Efficiency (typ.) (Vin=230Vac)
SS-60H-42*	32-42V	1.45A-1.9A	60.8W	±5%	44V	0.96	88%
SS-60H-54*	42-54V	1.1A-1.45A	60.9W	±5%	56V	0.96	89%

Note:

1. Testing at 230Vac, full load, 25°C
2. Optional T, B or space in the place of * means additional function on the output side. Space is the base model without any optional function; B is the model with 3-in-1 dimming; T is the model with timing control;

Input characteristics

Parameter	Min	Typ	Max	Remarks
Rated AC input range	100 Vac		277Vac	
AC input range	90 Vac		305 Vac	Vin ≥ 100Vac with 100% load, <100Vac, with 85% load
Input frequency range	50Hz		60Hz	
Max input current			1.0A	Vin=100Vac, Full Load
Inrush current			50A	Vin=230Vac/50Hz, Cold start
No load power		1.3W	1.5W	Vin=277Vac/50Hz, no load
Power factor	0.95	0.96		Vin=230Vac/50Hz, Full Load
	0.88	0.90		100-277Vac, 70-100% Load
THD			10%	Vin=230Vac/50Hz, Full Load
			20%	100-277Vac, 70-100% Load



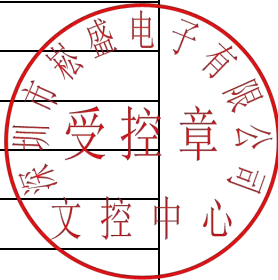
SHENZHEN SOSEN ELECTRONICS Co., Ltd.

SS-60H Series Rev.00

4th Generation 60W Outdoor LED Driver

Output characteristics

Parameter		Min	Typ	Max	Remarks
Output voltage range	SS-60H-42	24V		42V	
	SS-60H-54	32V		54V	
Rated output Voltage	SS-60H-42	32V		42V	Po=Vo*Io≤60W
	SS-60H-54	42V		54V	
Rated output current	SS-60H-42	1.45A		1.9A	6.3A for 32V,5.3A for 38V
	SS-60H-54	1.1A		1.45A	4.8A for 42V,3.7A for 54V
Current adjustable range	SS-60H-42	1.0A		1.9A	Rated Io 70%-100% adjustable
	SS-60H-54	0.8A		1.45A	Rated Io 70%-100% adjustable
No load Voltage	SS-60H-42	43V	44V	45V	
	SS-60H-54	55V	56V	57.5V	
Efficiency @230Vac	SS-60H-42	86.5%	87.5%		Output:32V/1.9A
		87.5%	88.5%		Output:42V/1.45A
	SS-60H-54	87%	88%		Output:42V/1.45A
		88%	89%		Output:54V/1.1A
Efficiency @120Vac	SS-60H-42	85%	85.5%		Output:32V/1.9A
		86%	86.5%		Output:42V/1.45A
	SS-60H-54	86%	87%		Output:42V/1.45A
		87%	88%		Output:54V/1.1A
Output current tolerance		-5%		+5%	
Line Regulation		-2%		+2%	Full Load
Load Regulation		-2%		+2%	
Output Voltage Ripple (PK-PK)			15%	18%	Full Load
Output current Ripple (PK-PK)			180%	200%	Full Load
Starting current overshoot				10%	Full Load
Starting time			1S	2S	Vin=230ac



Other functions

Parameter		Min	Typ	Max	Remarks
1-10V Dimming (Optional)	0-10V	-10V		12V	1. 3 in 1 Dimming (1-10V or PWM, Resistance) 2. 1-5V Dimming Optional 3. Negative logic Dimming Optional
	Dimming Rang	10%Iomax		100%Ioset	
	Voltage	1V		10V	
	OFF	0.3V	0.5V	0.7V	
	ON	0.5V	0.7V	0.9V	

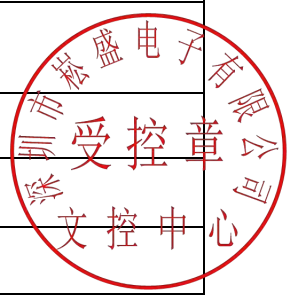


SHENZHEN SOSEN ELECTRONICS Co., Ltd.

SS-60H Series Rev.00

4th Generation 60W Outdoor LED Driver

PWM Dimming (Optional)	High	5V		10V	
	LOW	-0.3V		-0.6V	
	Frequency Rang	200Hz		2KHz	
	PWM Duty	1%		99%	
Resistance Dimming (Optional)	Resistance Rang	10Kohm		100Kohm	
	Dimming Rang	10%Iomax		100%Ioset	
Time Dimming (Optional)	Single Chip Control	Via program			1. Conventional setting 3or 4
	Time Control	5H, 6H, 7H, 8H			1. 24H a Circle 2. 50% Load
Protection	Short Circuit Protection	A long time short circuit is not damaged, Pin: ≤8W			
Life time		100,000 hours			230Vac, 100% LOAD, Tc 60°C,
MTBF		500,000 hours			230Vac, Ta= 25°C, 100%LOAD (MIL-HDBK-217F)
Temperature coefficient	-0.03%/°C		+0.03%/°C		Case temperature= 0°C ~ Tc Maximum
Tc			90°C		
Weight		500g			
Size	116.4mm*63mm*36.85mm				



NOTE: all the parameters above are tested under 25°C, unless specified.

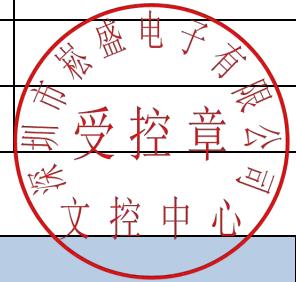
Environmental Requirements

Parameter	Min	Typ	Max	Remarks
Operating Temperature	-40°C	25°C	+60°C	
Storage Temperature	-40°C	25°C	+85°C	
Operation Humidity	10%RH		90%RH	
Storage Humidity	5%RH		95%RH	
Altitude	-65m		4000m	
Cooling Method	Air Cooling			



Safety Standards & EMI/EMS Standards

Safety Standards			
Certification	Standard	Status	Remark
CE	EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013	■	
TUV	EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013 EN62493:2010	■	
UL/CUL	UL8750	□	
CQC/CCC	GB 19510.14-2009	■	
BIS	IS15885:2012 Part 2 Sec 13	□	
SAA	AS/NZS61347.2.13	□	

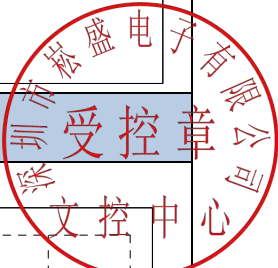
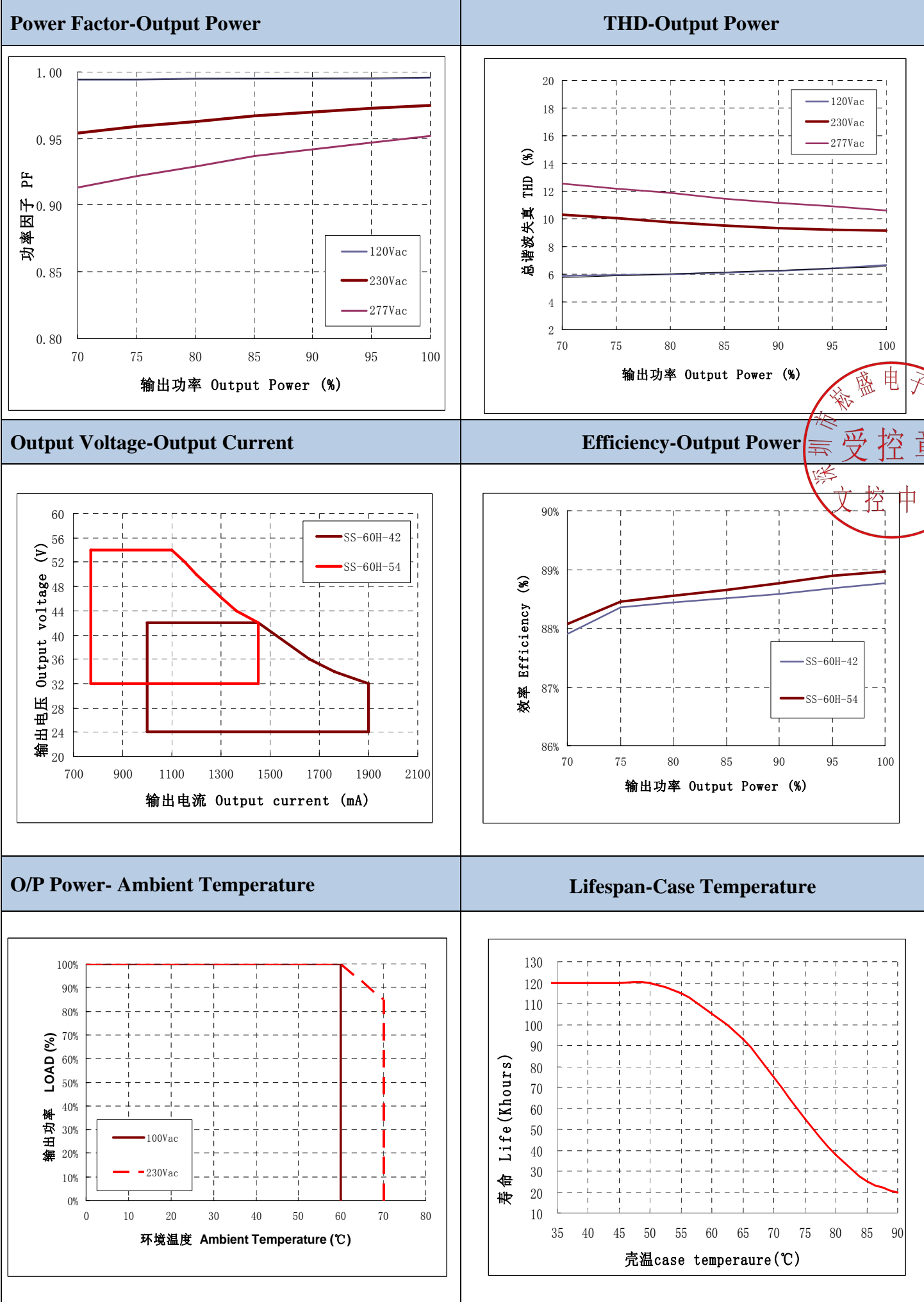


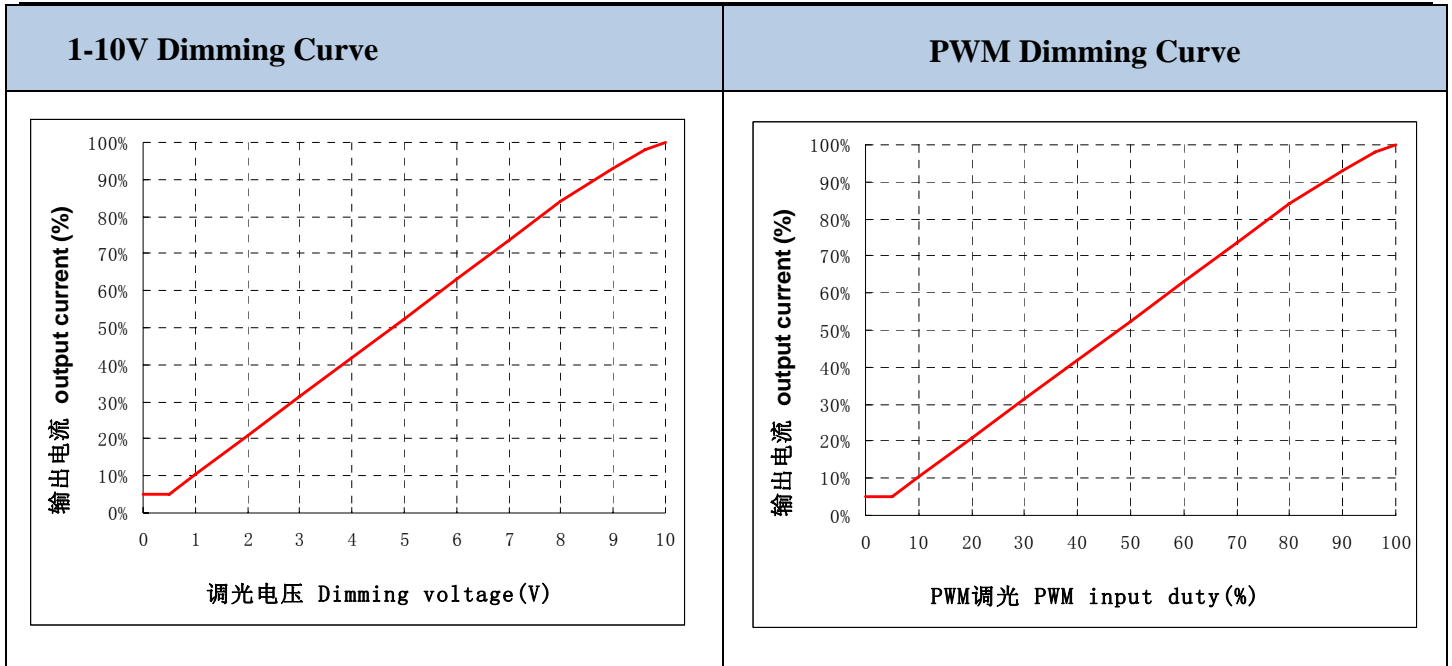
Safety Requirements			
Item	Standard	Remark	
Insulation strength	Input-output	3200Vac/5mA Max/60 seconds	Reinforced insulation ; No flashover and breakdown
	Primary- Earth	1600Vac/5mA Max/60 seconds	Based insulation ; No flashover and breakdown
	Secondary- Earth	1000Vac/5mA Max/60seconds	Function insulation ; No flashover and breakdown
Insulation resistance	Input-output	≥10 MΩ	Testing Voltage: 500Vdc
Ground resistor		≤0.1Ω	25A/1min
Leakage current		≤0.75mA	Vin=277Vac

EMI/EMS Requirements		
Item	Criterion	Remark
CE	EN55015:2006+A1:2007+A2:2009	CLASS B
RE	EN55015:2006+A1:2007+A2:2009	CLASS B
Harmonic current emissions	IEC/EN 61000-3-2	
SURGE	IEC/EN61000-4-5	Difference mode±4KV, Common mode ±6KV Criterion B

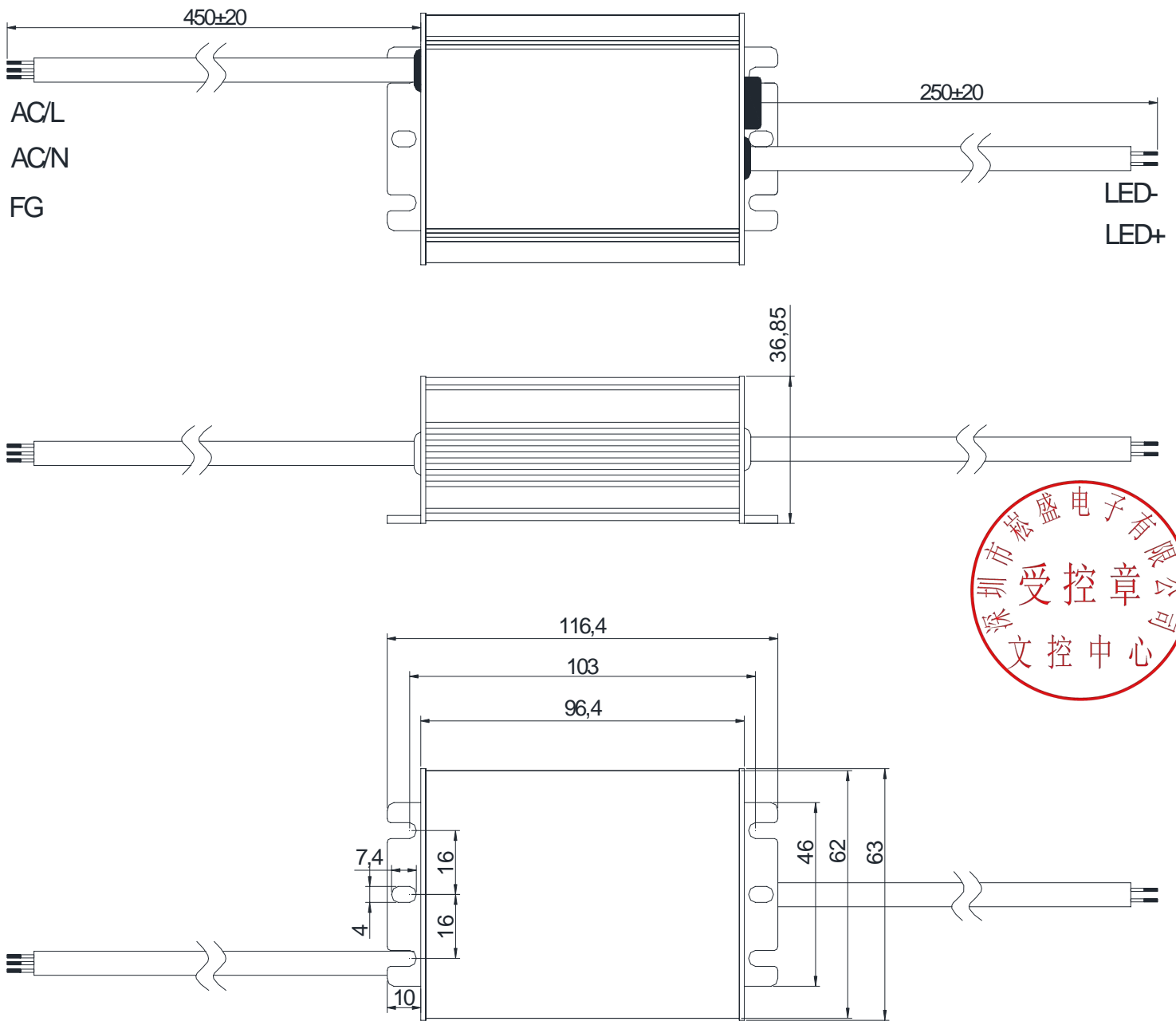


Performance curve:





Mechanical characteristics



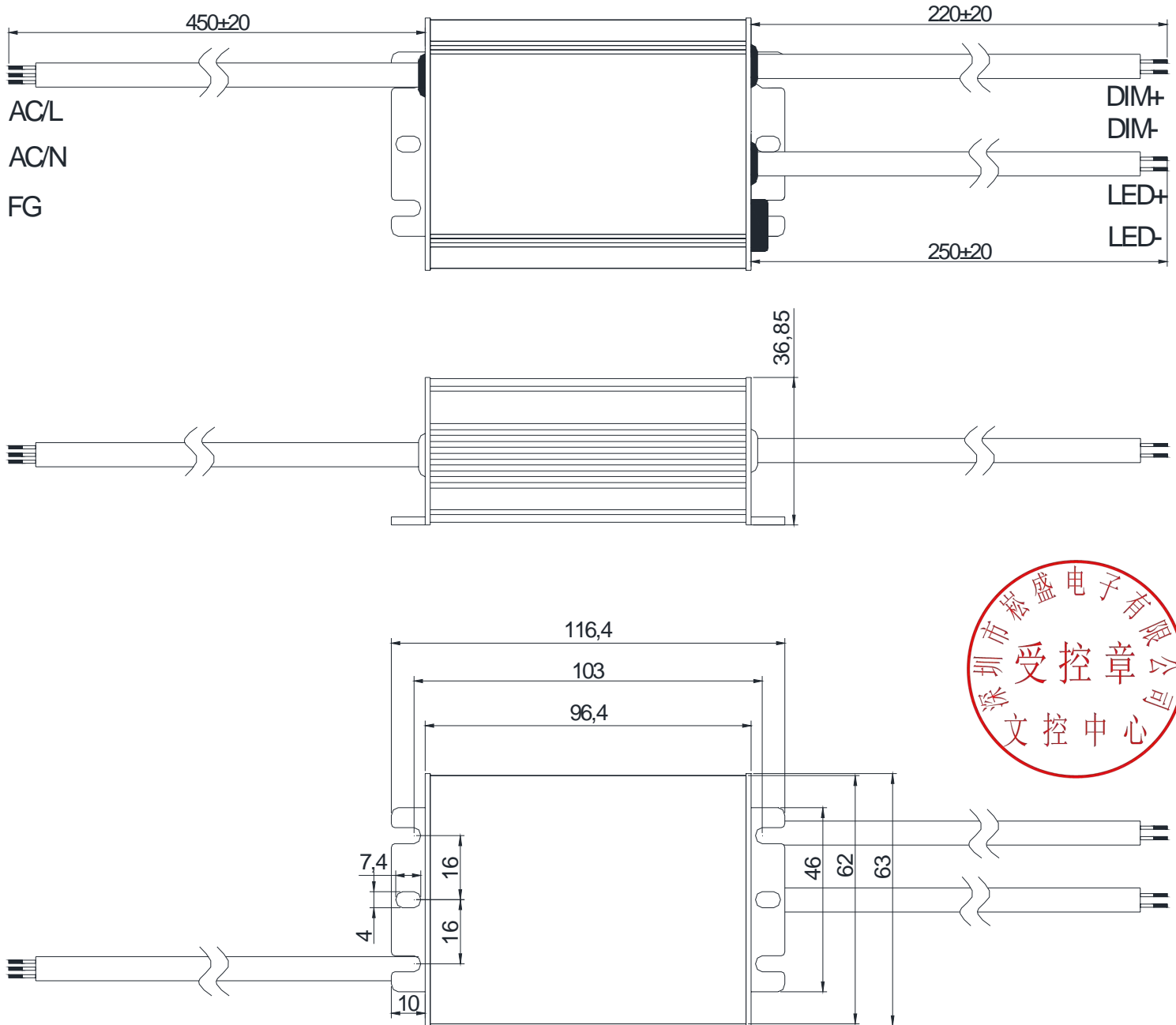
Based model (SS-60H-XX)



SHENZHEN SOSEN ELECTRONICS Co., Ltd.

SS-60H Series Rev.00

4th Generation 60W Outdoor LED Driver



with dimmable function model (SS-60H-XXB)

Note:

AC	<ol style="list-style-type: none"> For America: UL SJTW #18AWG 3*0.824mm², O.D:8.0mm; BLACK:L, WHITE:N, GREEN: PE For Europe: VDE H05RN-F 3*1.0mm², O.D:7.5mm, BROWN:L, BLUE:N, GREEN/YELLOW:PE
DC	<ol style="list-style-type: none"> For America: UL SJTW #18AWG 2*0.824mm², O.D:7.5mm; RED:V+, BLACK:V- For Europe: VDE H05RR-F 2*1.0mm², O.D:7.0 mm; BROWN:V+, BLUE:V-
DIM	<ol style="list-style-type: none"> SJTW #18AWG 2*0.824 mm², O.D:7.5mm; WHITE:DIM+, BLACK:DIM-




SHENZHEN SOSEN ELECTRONICS Co., Ltd.

SS-60H Series Rev.00

4th Generation 60W Outdoor LED Driver

Label

CCC



MODEL (型号): SS-60H-42B
LED DRIVER (LED模块用交流电子控制装置)

MANUFACTURERS: SHENZHEN CITY SOSEN ELECTRONICS CO.,LTD
制造商: 深圳市崧盛电子有限公司

INPUT (输入): 100-240V ~ 1.0A 50/60Hz $t_c: 90^\circ\text{C}$
277V ~ 0.32A 50/60Hz $t_a: 60^\circ\text{C}$
(277V ~ 只适用于北美)


OUTPUT (输出): 24-42V \approx 1.0-1.9A Max.44V
输出功率: 60W (LED模块)

INPUT (输入端)

OUTPUT (输出端)

○ ACL --- BROWN (棕)

○ ACN --- BLUE (蓝)

○  --- GREEN/YELLOW (绿黄)

HTTP://www.szsofen.com
MADE IN CHINA 制造地: 中国







DIM+ --- WHITE (白色)

DIM- --- BLACK (黑色)


V+ --- BROWN (棕色)

V- --- BLUE (蓝色)

Io ADJ. (电流可调)

RoHS SELV    IP67   

TUV



MODEL: SS-60H-42B
LED Driver


MANUFACTURERS: SHENZHEN CITY SOSEN ELECTRONICS CO.,LTD
INPUT: 100-277V ~ Max.1.0A 50/60Hz PF>0.95 $t_c: 90^\circ\text{C}$
OUTPUT: 24-42V \approx 1.0-1.9A Max.44V \approx Max.60W $t_a: 60^\circ\text{C}$
Suitable for use in Dry, Damp and Wet Locations
For LED modules use only
A3 building, Gonghe Fourth industrial area, Xinxhe Avenue,
Shajing, ShenZhen, CHINA

INPUT

OUTPUT

○ ACL --- BROWN

○ ACN --- BLUE

○  --- GREEN/YELLOW

MADE IN CHINA
HTTP://www.szsofen.com







DIM+ --- WHITE

DIM- --- BLACK

V+ --- BROWN

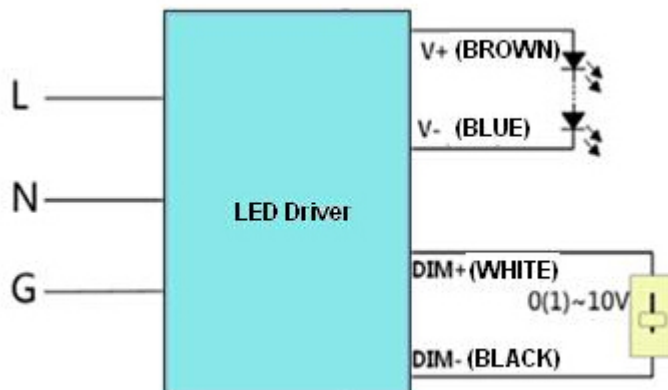
V- --- BLUE

Io ADJ. (电流可调)

RoHS SELV    IP67   

市崧盛电子有限公司
受控章
文控中心

Dimming operation





SHENZHEN SOSEN ELECTRONICS Co., Ltd.

SS-60H Series Rev.00

4th Generation 60W Outdoor LED Driver

•DIM + and DIM - connection between 1-10V or PWM 10V&1KHZ signal, can adjust the output current

•Please do not connect "DIM -" and "V -"

•1-10V dimmer function to adjust the output current value (typical)

Adjust voltage	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Rated current percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%-108%

•10V PWM frequency range(typical): 200Hz---2KHz

PWM duty	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Rated current percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%-108%

•Resistor

Resistor	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100KΩ	OPEN
Rated current percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%-108%

Installation tips:

1.If the driver is output current adjustable, please seal the adjustable hole by 704 silicon glue and cover the water proof rubber plug after adjusting the current



Package, Transportation & Storage

1.Package

a、 Outside carton dimension (Unit: mm): L×W×H =522×234×197;

b、 20PCS/Carton;

c、 Net weight/PCS: 0.5kg; Gross weight/Carton: 11kg;

d、 product name, model, marking of manufacturer, safety approval, and manufacturing date on the box and manual of specifications and packing list in the box.

2. Transportation

Packaging is designed suitable for transportation by truck, ship, and plane. The products should be shielded from sunshine, and loaded and unloaded carefully.

3.Storage

The product storage meets the standard of the GB 3873—83.

Product should be rechecked if the period of storage is over 1 year before install