



Features

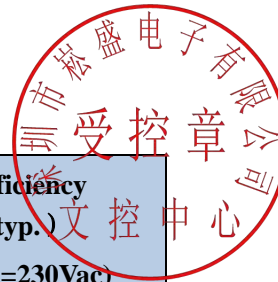
- Efficiency up to 88%
- Optional dimming function: 1-10V, PWM, timing, dim to off.
- IP67, suitable for dry, wet, rain environment.
- Comprehensive protection: short circuit/over temperature/over voltage.
- Metal shell, internal glue, can be used for dangerous occasions
- RoHS approved.



Description

SS-35H 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 (CCC certification)



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-35H-30	24--30V	1.2A	36W	±5%	44V	0.95	86%
SS-35H-36	24--36V	1.0A	36W	±5%	44V	0.95	87%
SS-35H-42	30--42V	0.85A	35.7W	±5%	44V	0.95	87%
SS-35H-48	36--48V	0.75A	36W	±5%	56V	0.95	88%
SS-35H-54	42--54V	0.65A	35.1W	±5%	56V	0.95	88%

Model List (UL BIS certification)

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-35H-42*	24--42V	0.63-1.2A	35.7W	±5%	44V	0.95	87%
SS-35H-54*	42--54V	0.48-0.85A	35.1W	±5%	56V	0.95	88%

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	100Vac		277Vac	V _{in} ≥ 100Vac with 100% load, <100Vac, with 90% load
AC input range	90Vac		305Vac	




SHENZHEN SOSEN ELECTRONICS Co., Ltd.

SS-35H Series Rev.00

4th Generation 35W Outdoor LED Driver

Input frequency range	50Hz		60Hz	
Max input current			0.5A	Vin=90Vac, Full Load
Inrush current			40A	Vin=230Vac/50Hz, Cold start
No load power		1.2W	1.5W	Vin=277Vac/50Hz, no load
Power factor	0.95	0.96		Vin=230Vac/50Hz, Full Load
	0.88	0.90		100-277Vac, 75-100% Load
THD			10%	Vin=230Vac/50Hz, Full Load
			20%	100-277Vac, 75-100% Load (26W---35W)

Output characteristics

Parameter		Min	Typ	Max	Remarks
Output voltage range	SS-35H-30	24V		30V	
	SS-35H-36	24V		36V	
	SS-35H-42	30V		42V	
	SS-35H-48	36V		48V	
	SS-35H-54	42V		54V	
Current adjustable range	SS-35H-30	0.9A		1.2A	Rated Io 75%-100% adjustable
	SS-35H-36	0.75A		1.0A	
	SS-35H-42	0.63A		0.85A	
	SS-35H-48	0.56A		0.75A	
	SS-35H-54	0.48A		0.65A	
No load Voltage	SS-35H-30/36/42	43V	44V	45V	
	SS-35H-48/54	55V	56V	58V	
Efficiency @230Vac	SS-35H-30	85%	86%		Vin=230Vac/50Hz, Full Load, Ta=25°C
	SS-35H-36	86%	87%		
	SS-35H-42	86%	87%		
	SS-35H-48	87%	88%		
	SS-35H-54	87%	88%		
Efficiency @120Vac	SS-35H-30	85%	86%		Vin=120Vac/50Hz, Full Load, Ta=25°C
	SS-35H-36	85%	86%		
	SS-35H-42	85%	86%		
	SS-35H-48	86%	87%		
	SS-35H-54	86%	87%		
Output current tolerance		-5%		+5%	
Line Regulation		-3%		+3%	Full Load
Load Regulation		-3%		+3%	
Output Voltage Ripple (PK-PK)			10%	12%	Full Load
Output current Ripple (PK-PK)			260	300%	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)	1-10V	-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				
	ON				
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℃,
MTBF			500,000 hours		230Vac, Ta= 25℃, 100%LOAD (MIL-HDBK-217F)
Temperature coefficient		-0.03%/℃		+0.03%/℃	Case temperature= 0℃~Tc Maximum
Tc				90℃	
Weight			350g		
Size		140mm*46.5mm*31.4mm			

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

Environmental Requirements

Parameter	Min	Typ	Max	Remarks
Operating Temperature	-40℃	25℃	+60℃	
Storage Temperature	-40℃	25℃	+85℃	
Operation Humidity	10%RH		90%RH	



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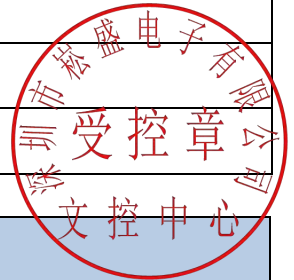
SS-35H Series Rev.00

4th Generation 35W Outdoor LED Driver

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	■	

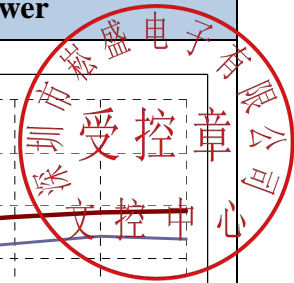
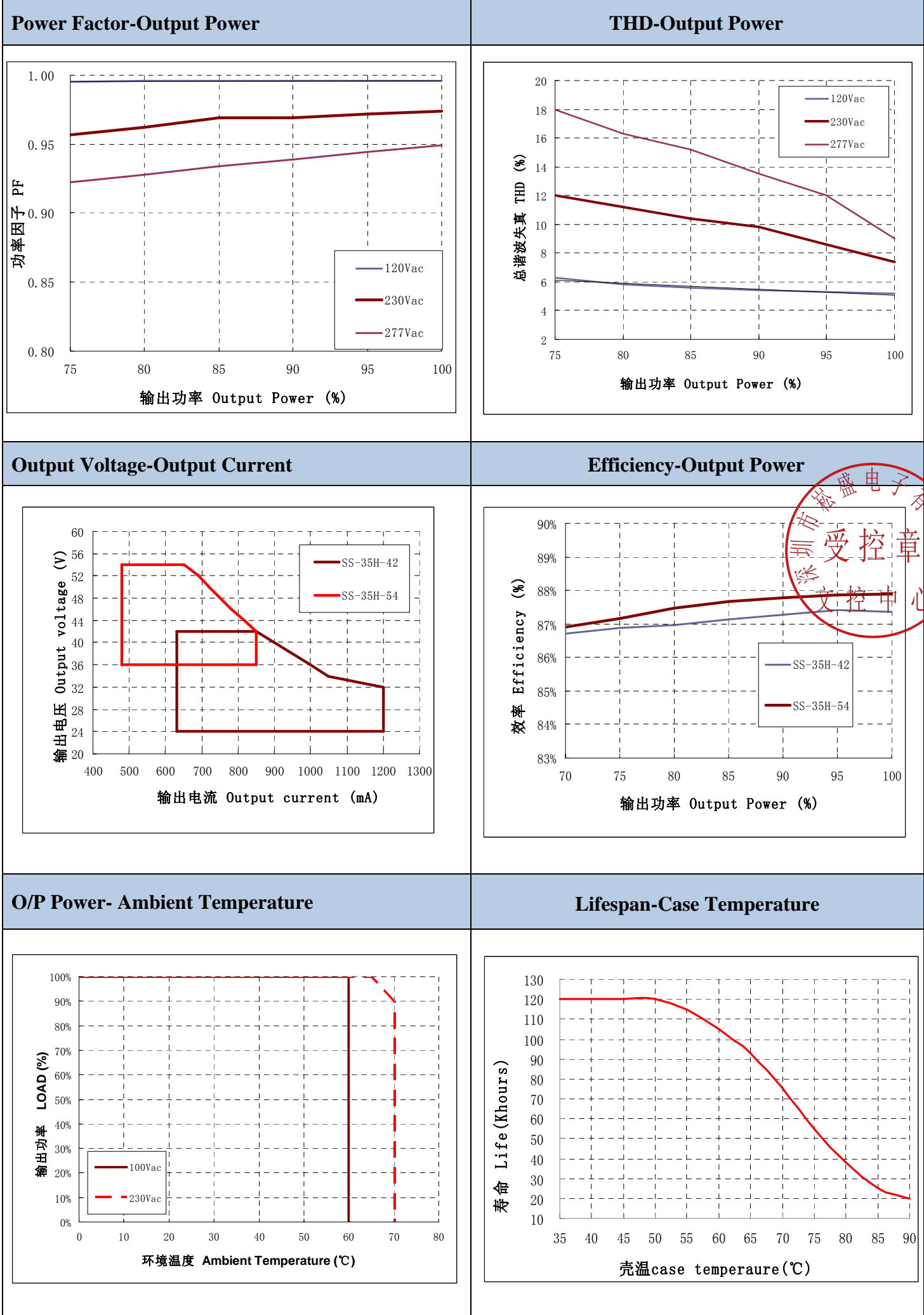


Safety Requirements			
Item	Standard	Remark	
Insulation strength	Input-output	3200Vac/5mA Max/60 seconds	Reinforced insulation ; No flashover and breakdown
	Primary- Earth	1600Vac/5mA Max/60 seconds	Based insulation ; No flashover and breakdown
	Secondary- Earth	1000Vac/5mA Max/60seconds	Function insulation ; 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:

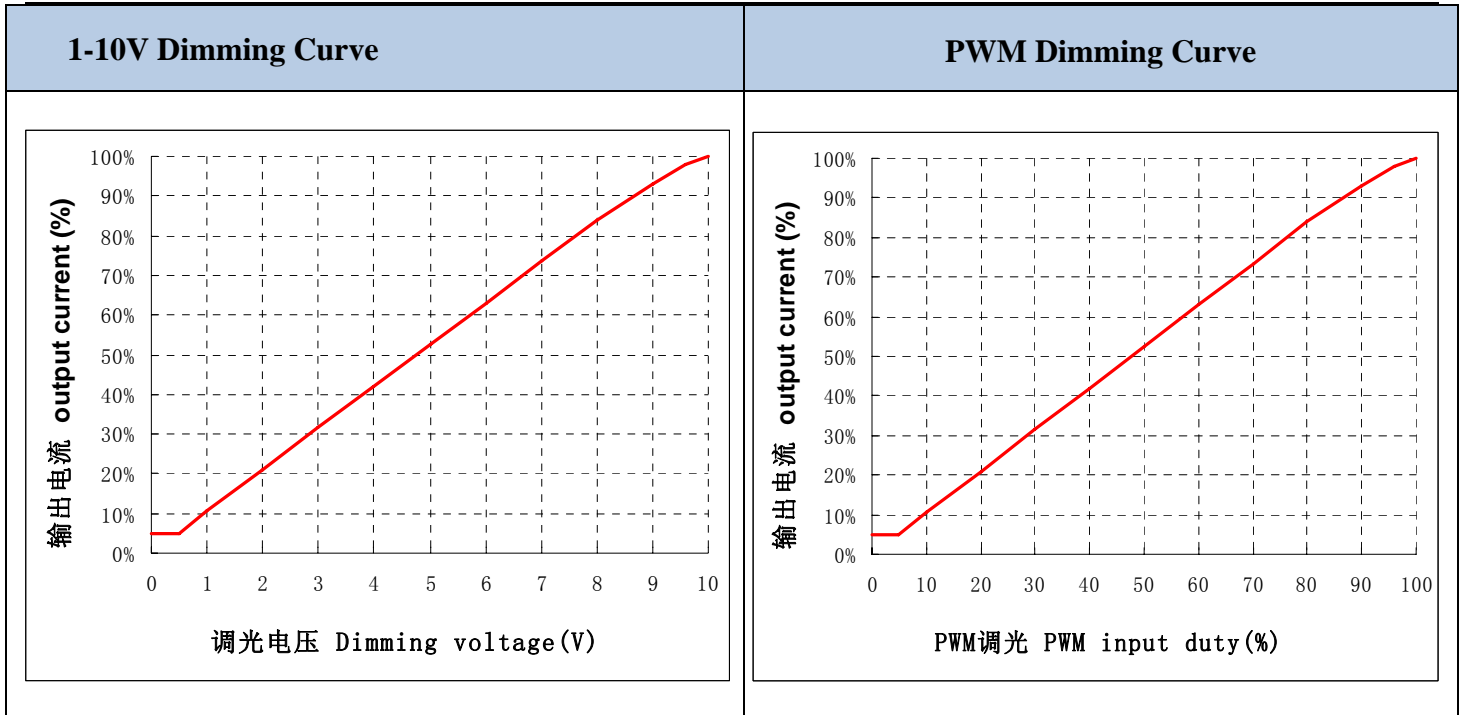




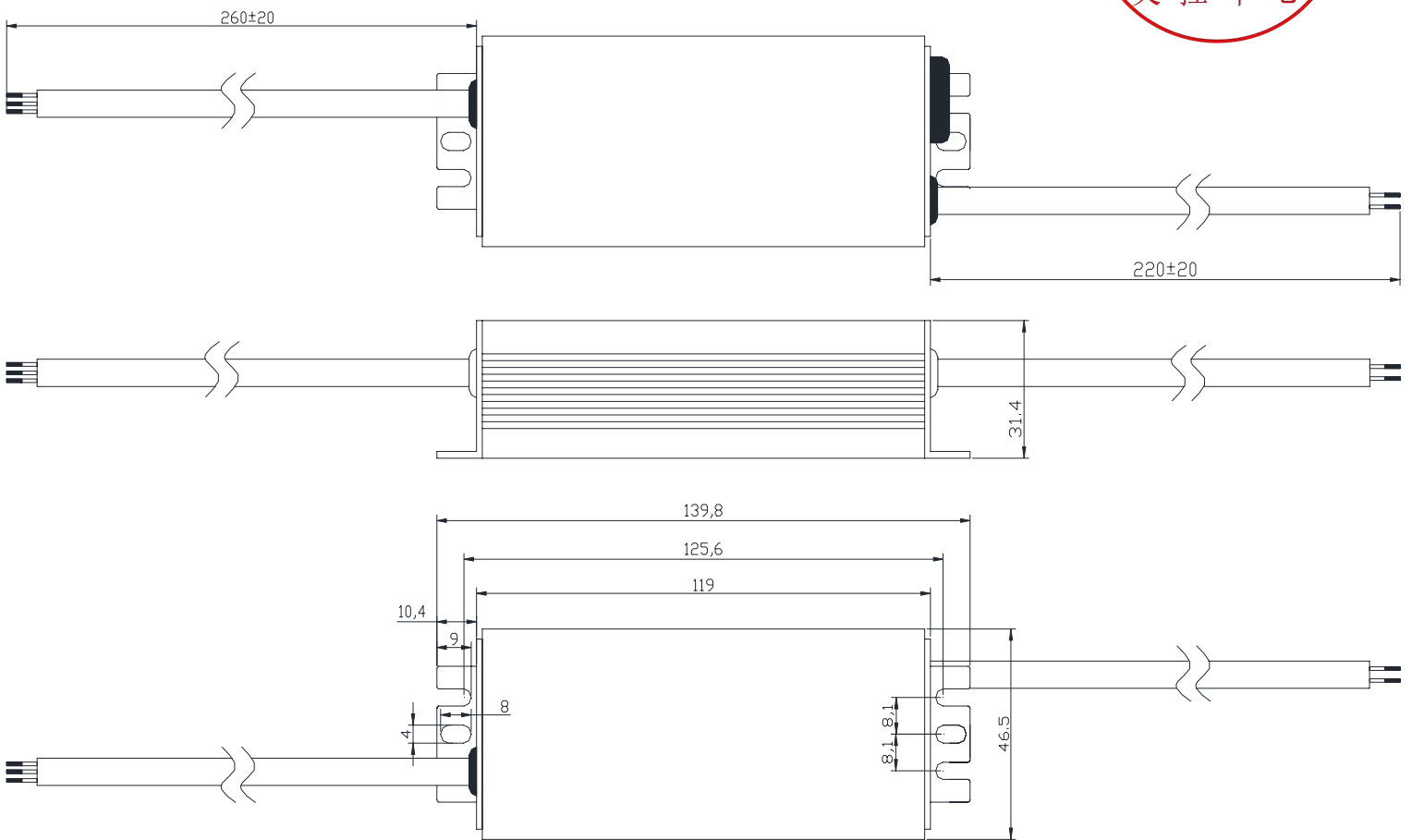
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SS-35H Series Rev.00

4th Generation 35W Outdoor LED Driver



Mechanical characteristics



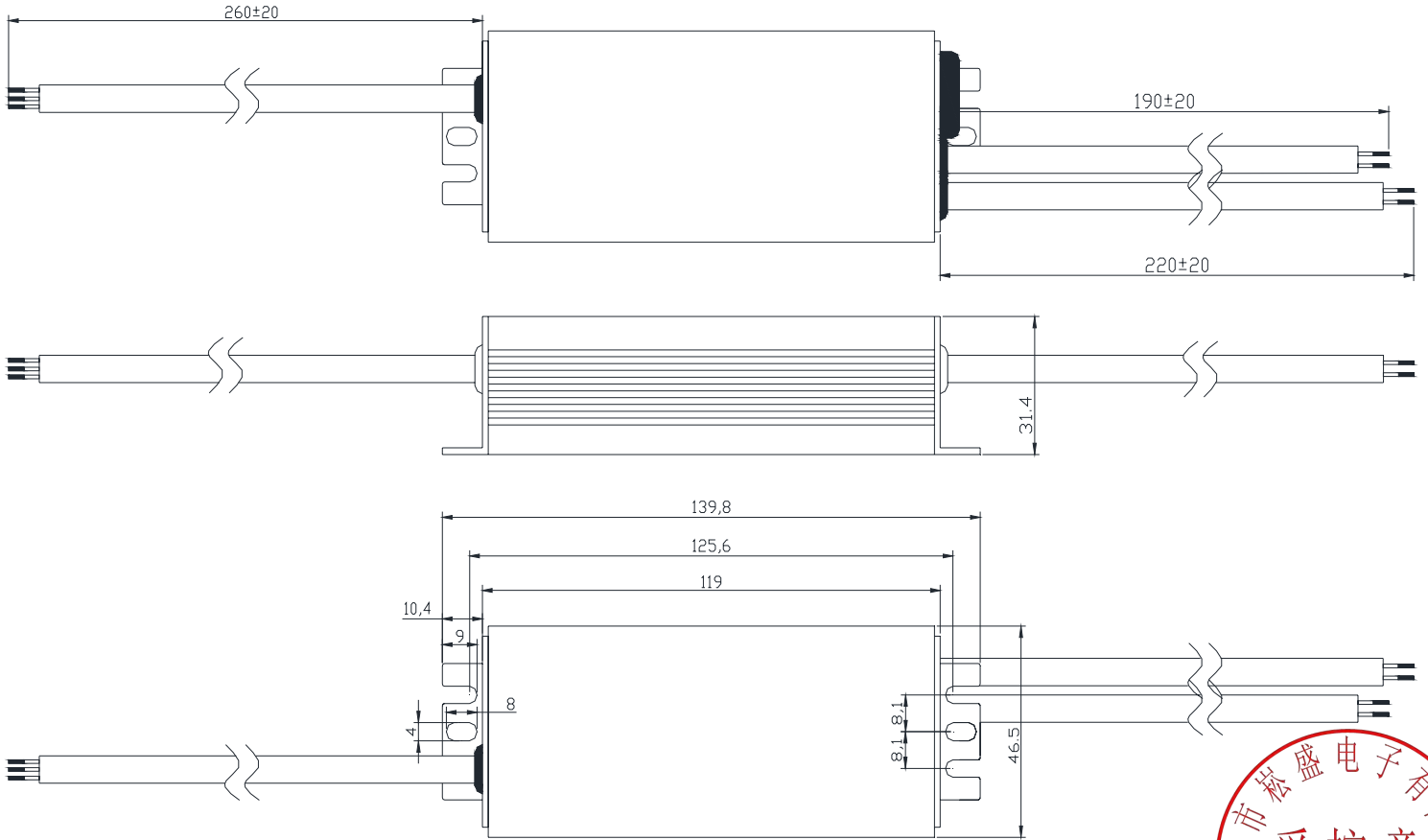
Based model (SS-35H-XX)



SHENZHEN SOSEN ELECTRONICS Co., Ltd.

SS-35H Series Rev.00

4th Generation 35W Outdoor LED Driver



with dimmable function model (SS-35H-XXB)



Note:

AC	<ol style="list-style-type: none"> For America: UL 2464 #20AWG 3*0.5m m², O.D:5.5mm; BLACK:L, WHITE:N, GREEN: PE For Europe : VDE H05RN-F 3*1.0m m², O.D:7.5mm, BROWN:L, BLUE:N, GREEN /YELLOW:PE
DC	<ol style="list-style-type: none"> For America: UL 2464 #20AWG 2*0.5m m², O.D:5.0mm, RED:V+, BLACK:V- For Europe: VDE H05RN-F 2*0.75m m², O.D:6.0mm, BROWN:V+, BLUE:V-
DIM	<ol style="list-style-type: none"> STYLE 2733 #22AWG O.D:5.8mm, PURPLE:DIM+, GRAY:DIM-

Label

UL

<input type="radio"/> ACL --- BLACK <input type="radio"/> ACN --- WHITE <input type="radio"/> ⊕ --- GREEN MADE IN CHINA	MODEL:SS-35H-42B LED Driver MANUFACTURERS: SHENZHEN CITY SOSEN ELECTRONICS CO.,LTD HTTP:// www.szsofen.com	INPUT: 100-277V~ 0.5A 50/60Hz OUTPUT: 24-42V ⚡ 0.65-1.2A Max.44V Max.36W Suitable for use in Dry, Damp and Wet Locations tc: 90 °C ta: 60 °C RoHS SELV IP67	OUTPUT Io ADJ ⊕ <input type="radio"/> DIM+ --- PURPLE <input type="radio"/> DIM- --- GRAY <input type="radio"/> V+ --- RED <input type="radio"/> V- --- BLACK
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CCC

<input type="radio"/> ACL---BROWN (棕) <input type="radio"/> ACN---BLUE (蓝) <input type="radio"/> ⊕ ---GREEN/YELLOW (绿黄) HTTP:// www.szsofen.com MADE IN CHINA 制造地: 中国	MODEL (型号): SS-35H-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: 深圳市松盛电子有限公司	INPUT (额定输入): 100-240V~ 0.5A 50/60Hz 工作电压范围: 90-264V~ OUTPUT (额定输出): 30-42V ⚡ 0.85A Max.44V 输出功率: 36W (LED模块) tc:90°C ta:60°C SELV IP67	OUTPUT (输出端) Io ADJ ⊕ <input type="radio"/> DIM+ --- PURPLE (紫色) <input type="radio"/> DIM- --- GRAY (灰色) <input type="radio"/> V+ --- BROWN (棕色) <input type="radio"/> V- --- BLUE (蓝色)
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SS-35H Series Rev.00

4th Generation 35W Outdoor LED Driver

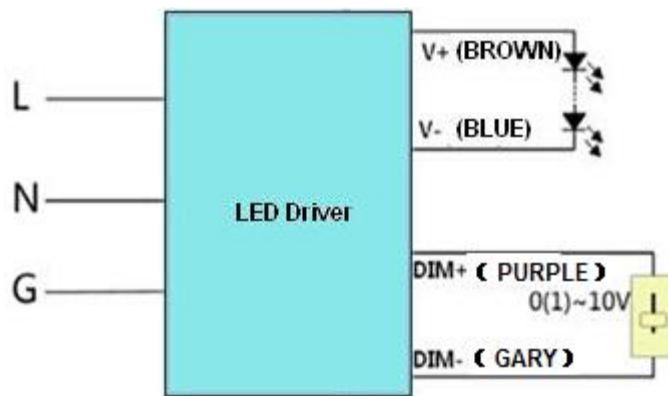
BIS

<input type="radio"/> ACL---BROWN <input type="radio"/> ACN---BLUE <input type="radio"/> ---GREEN/YELLOW	INPUT		MODEL:SS-35H-42B LED DRIVER MANUFACTURERS: SHENZHEN CITY SOSEN ELECTRONICS CO.,LTD HTTP:// www.szsofen.com	INPUT : 100-240V~ 0.5A 50/60Hz OUTPUT : 24-42V 0.6-1.2A Max.44V Max.36W Suitable for use in Dry,Damp and Wet Locations	OUTPUT Io ADJ () DIM+ ---PURPLE () DIM --- GRAY () V+ --- BROWN () V- --- BLUE ()
MADE IN CHINA			tc:90°C ta:60°C		

TUV

<input type="radio"/> ACL --- BROWN <input type="radio"/> ACN --- BLUE <input type="radio"/> --- GREEN/YELLOW	INPUT		MODEL:SS-35H-42B LED Driver MANUFACTURERS: SHENZHEN CITY SOSEN ELECTRONICS CO.,LTD A3 building,Gonghe Fourth industrial area,Xinhe Avenue,Shajing,ShenZhen,CHINA For LED modules use only	INPUT: 100-277V~ 0.5A 50/60Hz OUTPUT: 24-42V 0.65-1.2A Max.44V Max.36W Suitable for use in Dry, Damp and Wet Locations	OUTPUT Io ADJ () DIM+ ---PURPLE () DIM --- GRAY () V+ --- BROWN () V- --- BLUE ()
HTTP:// www.szsofen.com MADE IN CHINA			tc: 90 °C ta: 60 °C		

Dimming operation



- 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%