



SPECIFICATIONS

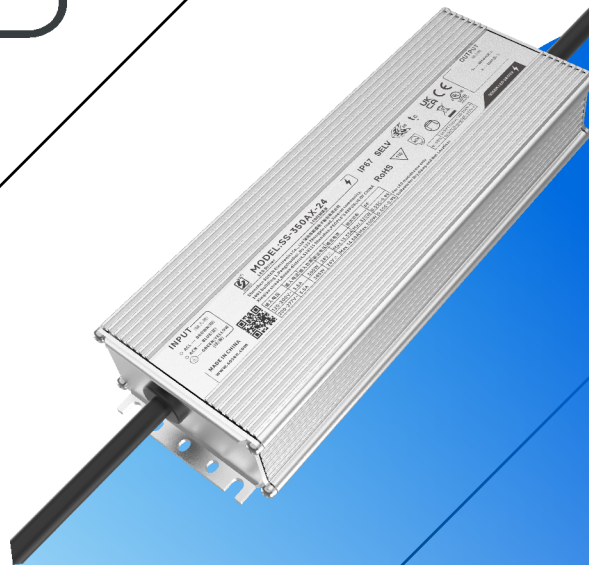
SS-350AX-XX CV DRIVER

Model: SS-350AX-XX

Power: 350W

Rev.: V00

Release date: 2025-09-04



SS-350AX-XX Series LED DRIVER

Features

- Wide input voltage 100-305Vac (class I)
- Constant voltage function
- Efficiency up to 95%
- Surge protection: CM: 10kV, DM: 6kV
- Full metal housing,IP67
- No-load power consumption<0.5W
- Type HL, suitable for hazardous locations
- Protections: SCP/OTP/OVP/OCP
- Warranty: 5 years



Description

The SS-350AX-XX series is a 350W outdoor constant voltage LED driver power supply featuring all-metal housing with IP67 protection, it operates reliably in extreme temperatures from -40°C to 90°C (Tc) through natural heat dissipation. Its ultra-compact size simplifies installation, and the wide input voltage range offers design flexibility for luminaire manufactures. It is created for lighting applications including landscape lighting, sinage,etc.

Applications:
Outdoor landscape lighting,signage,LED strips.

Model List

Model	AC Input Range	Max. Pout	Vout	Iout Range	THD (Typ.)	PF (Typ.)	Eff. (Typ.)	Max.Tc
SS-350AX-24	100-305Vac	350W	24V	0-14.6A	6%	0.97	94.5%	90°C
SS-350AX-48	100-305Vac	350W	48V	0-7.3A	6%	0.97	95.0%	90°C

Note:

1.Default Tested:at 220Vac,Full load, Ta 25°C.

2.The performance of the LED Driver can be guaranteed within the full power range.

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Input Characteristics

Parameter	Min.	Typ.	Max.	Remark
Rated AC Input Range	120Vac		277Vac	Refer to the specific input voltage and output power derating curve.
AC Input Range	100Vac		305Vac	
Input Frequency Range	47Hz	50/60Hz	63Hz	
Max Input Current			3.5A	120Vac, Load 320W
Max Input Power			380W	120Vac, Load 320W
Max Inrush Current(120Vac)			35A	Cold Start
Max Inrush Current(220Vac)			50A	Cold Start
Max Inrush Current(277Vac)			60A	Cold Start
No-load Power Consumption			0.5W	220Vac/50Hz
Power Factor	0.95	0.97		220Vac/50Hz, full load
	0.90			120-277Vac, 70-100% load
THD		3%	6%	220Vac/50Hz, full load
			20%	120-277Vac, 70-100% load

SS-350AX-XX Series LED DRIVER

Output Characteristics(SS-350AX-24)

Parameter	Min.	Typ.	Max.	Remark
DC Output Voltage	23.5V		24.5V	
Rated O/P Current	0A		13.33A	100-180Vac
	0A		14.6A	180-305Vac
No Load Voltage			24.5V	
Efficiency @120Vac	90.5%	92.5%		O/P 24V/13.33A
Efficiency @220Vac	92.5%	94.5%		O/P24V/14.6A
Efficiency @277Vac	93.0%	95.0%		O/P24V/14.6A
Ripple Noise (PK-PK)	-3%		+3%	Full load (Ripple and noise measurement method: Use a twisted pair of cable with 0.1uF and 10uF capacitors in parallel at the terminals.(Measured at 20 MHZ bandwidth).
Starting Voltage Overshoot			10%	
Current Accuracy	-2%		+2%	
Start-up Time			0.75S	120Vac,24V/13.33A
			0.5S	220Vac/277Vac,Full load
Line Regulation	-2%		+2%	Full load
Load Regulation	-2%		+2%	
Temperature Coefficient		0.03%/°C		Tc:0°C~90°C
OTP	90°C	93°C	96°C	Drop current when OTP, and it can be automatically restored after the abnormality is removed.
Overcurrent Protection				Constant current limiting. Automatic recovery after removal of abnormal load conditions
Overvoltage Protection				Automatic recovery after removal of abnormal conditions
Short Circuit Protection				Driver not be damaged

SS-350AX-XX Series LED DRIVER

Output Characteristics(SS-350AX-48)

Parameter	Min.	Typ.	Max.	Remark
DC Output Voltage	47.04V		48.96V	
Rated O/P Current	0A		6.67A	100-180Vac
	0A		7.3A	180-305Vac
No Load Voltage			48.96V	
Efficiency @120Vac	91.0%	93.0%		O/P 48V/6.67A
Efficiency @220Vac	93.0%	95.0%		O/P 48V/7.3A
Efficiency @277Vac	93.0%	95.0%		O/P 48V/7.3A
Ripple Noise (PK-PK)	-3%		+3%	Full load (Ripple and noise measurement method: Use a twisted pair of cable with 0.1uF and 10uF capacitors in parallel at the terminals.(Measured at 20 MHZ bandwidth).
Starting Voltage Overshoot			10%	
Current Accuracy	-2%		+2%	
Start-up Time			0.75S	120Vac,48V/6.67A
			0.5S	220Vac/277Vac,Full load
Line Regulation	-2%		+2%	Full load
Load Regulation	-2%		+2%	
Temperature Coefficient		0.03%/°C		Tc:0°C~90°C
OTP	90°C	93°C	96°C	Drop current when OTP, and it can be automatically restored after the abnormality is removed.
Overcurrent Protection				Constant current limiting. Automatic recovery after removal of abnormal load conditions
Overvoltage Protection				Automatic recovery after removal of abnormal conditions
Short Circuit Protection				Driver not be damaged

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Other Characteristics

Parameter	Min.	Typ.	Max.	Remark
Lifetime(Tc≤75℃)	50,000 hours			80% Load
MTBF	201,200 hours			220Vac,full load, Ta=25℃ (MIL-HDBK-217F)
IP Grade	IP67			Suitable for dry, humid,rainy environments
Tc	90℃			
Warranty	5 years			Tc 75℃
Net Weight	1208g			
Dimension	218mm*76.5mm*38.5mm			L x W x H
	5.53inch*1.94inch*0.98inch			

- NOTE:
- 1.All the parameters above are tested Ta 25℃ and LED load, unless specified.
 - 2.If you need to use this product with capacitive loads, we recommend that the load specifications be within 1000uF.

SS-350AX-XX Series LED DRIVER

Environmental Requirements

Parameter	Min.	Typ.	Max.	Remark
Operating Temperature(TCase)	-40°C	25°C	+90°C	Please refer to “Output load vs. temperature”
Storage Temperature	-40°C	25°C	+90°C	
Operation Humidity	10%RH		90%RH	
Storage Humidity	5%RH		95%RH	
Altitude	-65m		4000m	

Safety and EMI/EMS Standards

Certification	Standard	Status	Remark
UL	UL8750	✓	
CUL	CSA/CSA C22.2 No.250.13	✓	
ENEC	EN 61347-1 EN 61347-2-13 EN IEC 62384	✓	
RCM	AS/NZS61347.2.13		
CCC	GB/T 19510.1 GB/T 19510.213	✓	
CE	EN 61347-1 EN 61347-2-13 EN 62493	✓	
	EN 301 489-1 EN 301 489-3 EN 300 330 EN 62479/EN 50663/EN 50665/EN 50364		

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Safety and EMI/EMS Standards

EMI/EMS	Criterion	Status	Remark
Conduction Emission	EN IEC 55015	✓	
	GB/T 17743	✓	
	FCC Part 15 Subpart B;ANSI C63.4	✓	120Vac:Class B 277Vac:Class A
Radiation Emission	EN IEC 55015	✓	
	GB/T 17743	✓	
	FCC Part 15 Subpart B;ANSI C63.4	✓	120Vac:Class B 277Vac:Class A
Harmonic Current Emissions	EN IEC 61000-3-2	✓	ClassC
	GB 17625.1	✓	ClassC
Surge	IEC/EN61000-4-5	✓	DM: 6kV,CM: 10kV,Criterion B
	ANSI/C82.77-5	✓	DM: 6kV,CM: 6kV,Criterion B
Ring Wave	IEC/EN 61000-4-12	✓	DM: 6kV,CM: 6kV,Criterion B
	ANSI/C82.77-5	✓	DM: 6kV,CM: 6kV,Criterion B

SS-350AX-XX Series LED DRIVER

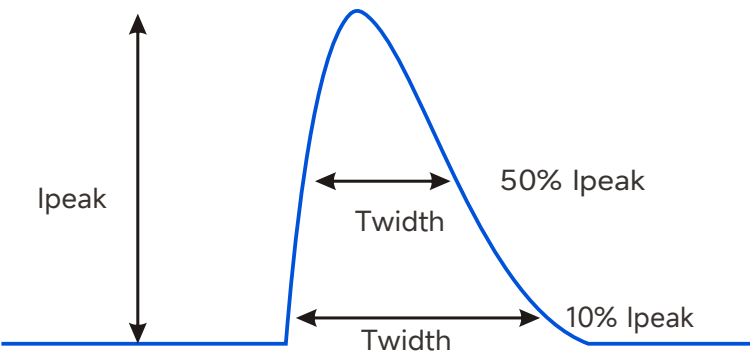
Safety Test Items

Safety Test Items	Technical Indicators			Remark
Insulation Requirements	UL Insulation Requirements	TUV Insulation Requirements	CCCInsulation Requirements	
Input-O/P	2U+1000Vac	4U+2000Vac	4U+2000Vac	
Input-Case	2U+1000Vac	2U+1000Vac	2U+1000Vac	
Insulation Resistance	$\geq 10M\Omega$			Input-O/P,Test voltage:500Vdc
Ground Resistance	$\leq 0.1\Omega$			25A/1min
Leakage Current	$\leq 0.75mA$			277Vac

- NOTE:
1. SOSEN warrants the LED Driver itself complies with EMC standard. However, LED Driver's EMC should be re-checked when integrated into lighting systems due to unexpected interference of components.
 - 2.Please short (ACL and ACN), (V+ and V-)when Hi-pot test.

Performance Curves

Input Inrush Current

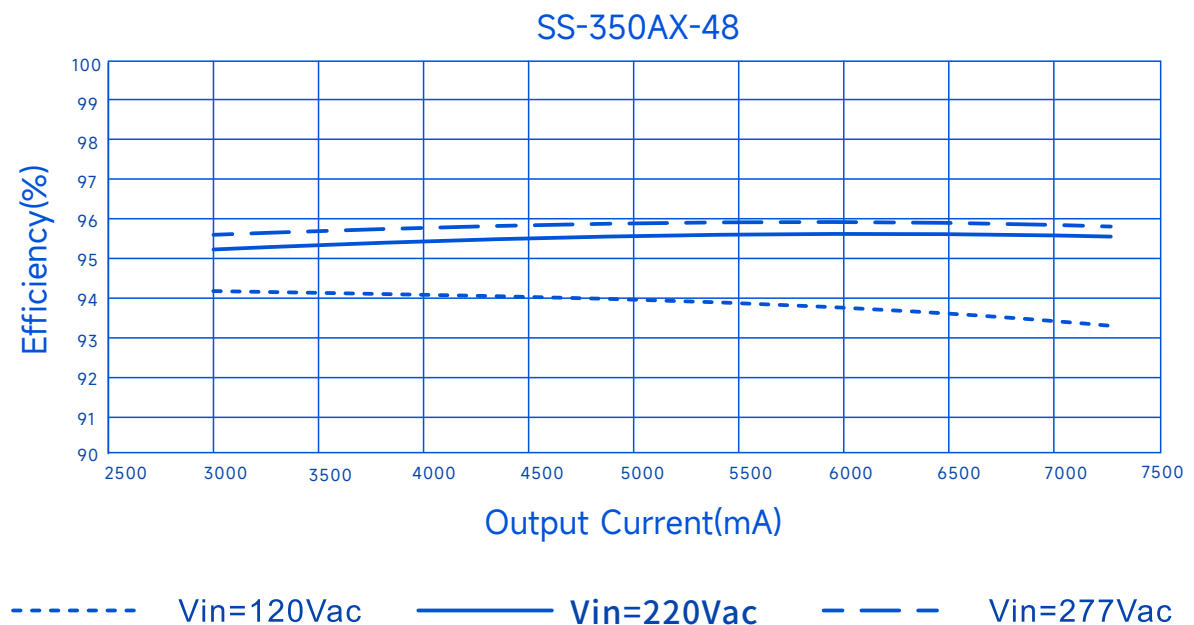
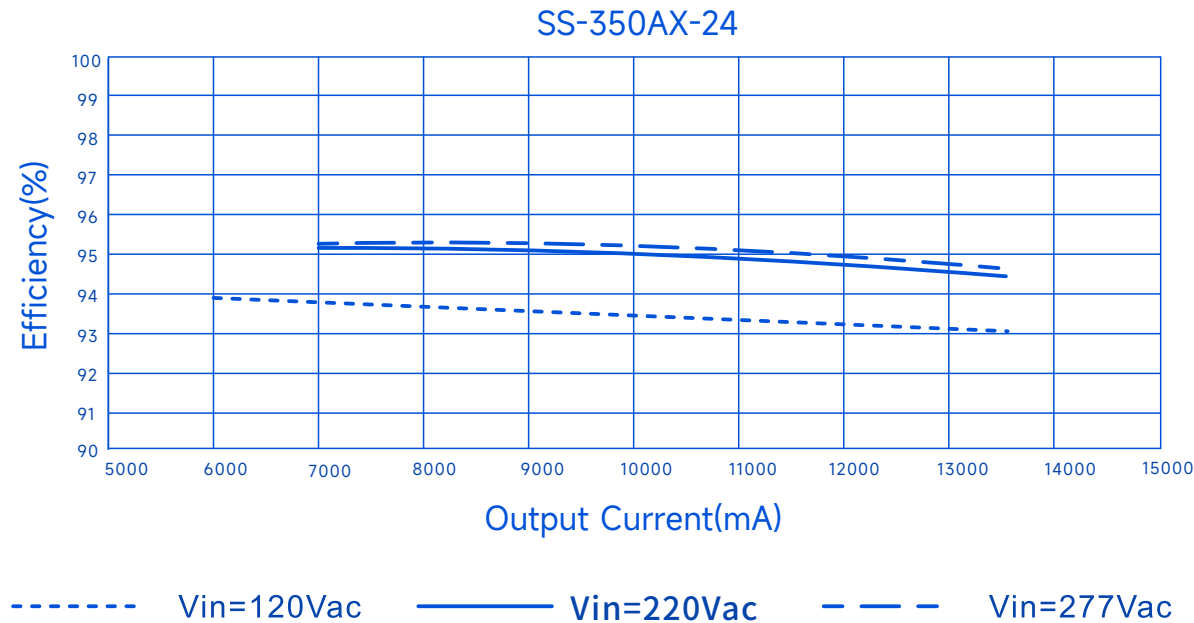


V_{in}	I_{peak}	$T(@10\% \text{ of } I_{peak})$	$T(@50\% \text{ of } I_{peak})$
120Vac	20A	3000uS	1200uS
220Vac	35A	3000uS	1200uS
277Vac	50A	3000uS	1200uS

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Performance Curves

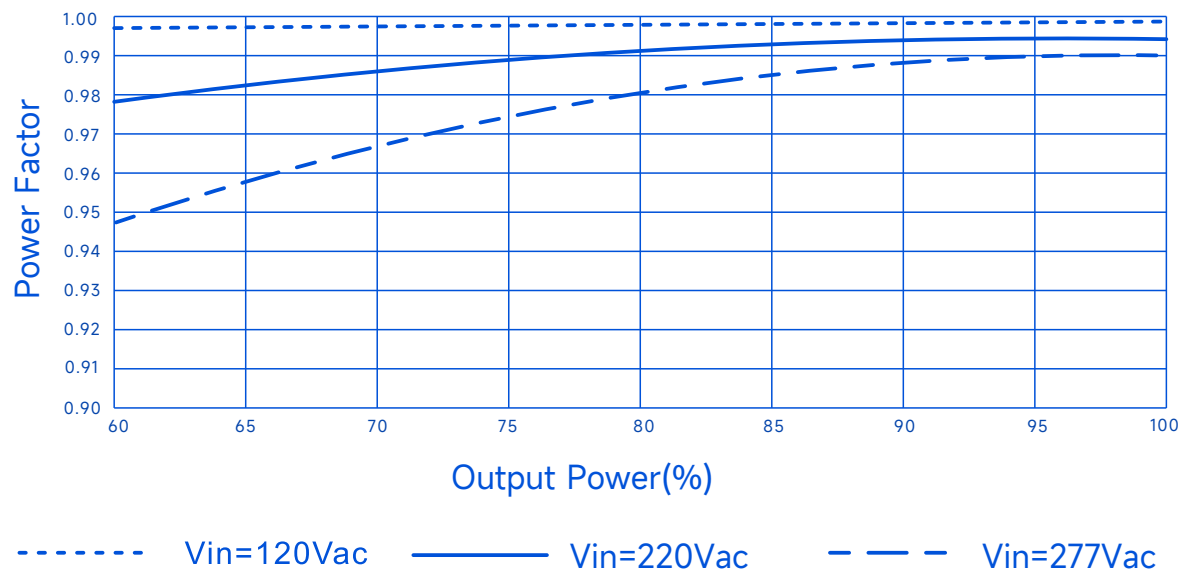
Efficiency Vs. Output Current



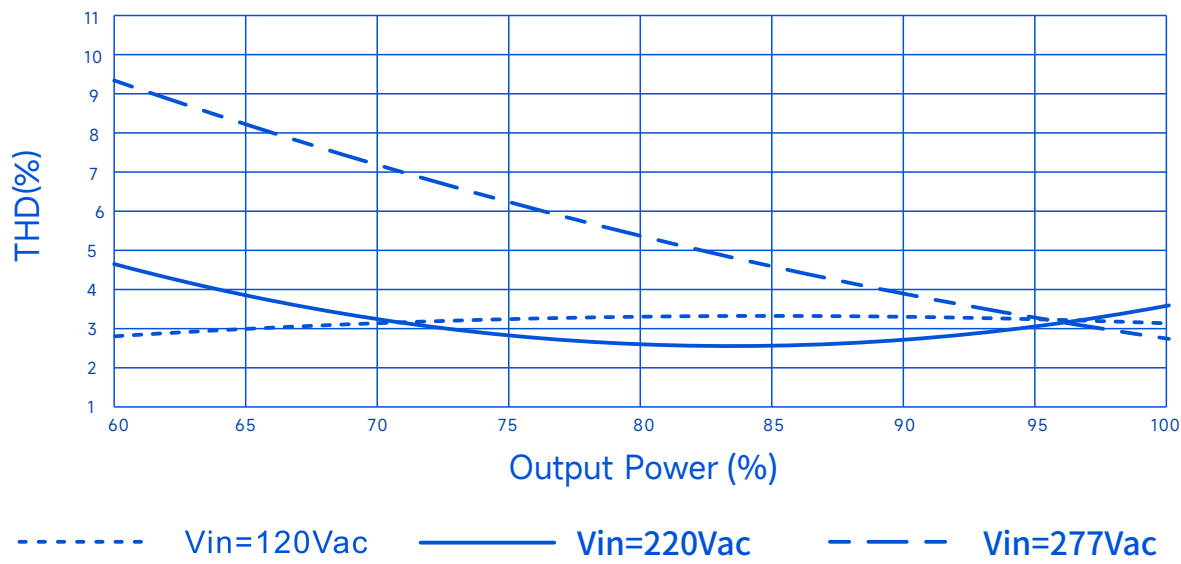
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Performance Curves

Power Factor Vs. Output Power



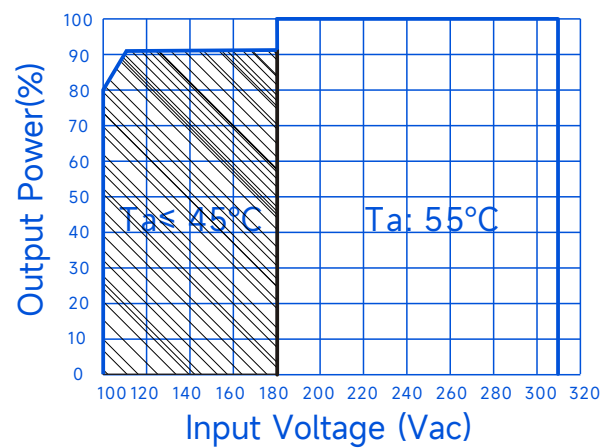
THD Vs. Output Power



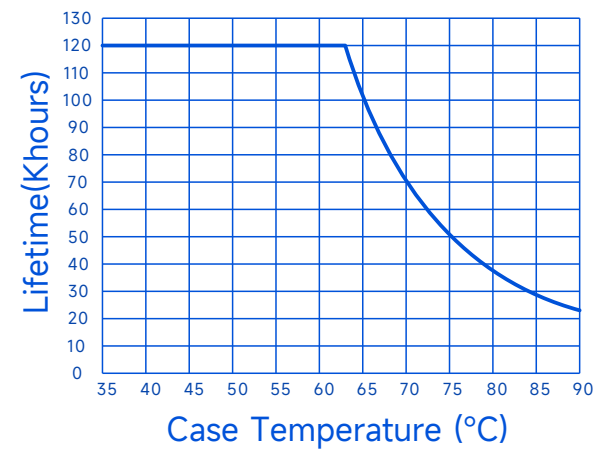
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Performance Curves

Output Power Vs. Input Voltage

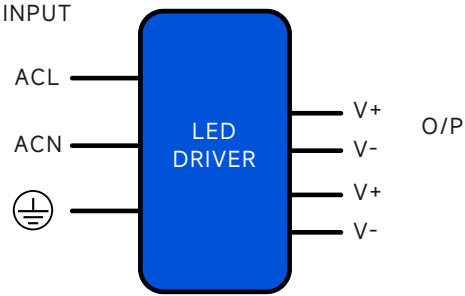


Lifetime Vs. Case Temperature



SS-350AX-XX Series LED DRIVER

Mechanical Characteristic(SS-350AX-24)



AC Input Cable(Exposed Length 300±10mm):

Global model: SJOW, 3*17AWG, O.D: 8.0mm, Brown: L, Blue: N, Yellow/Green: ⊕

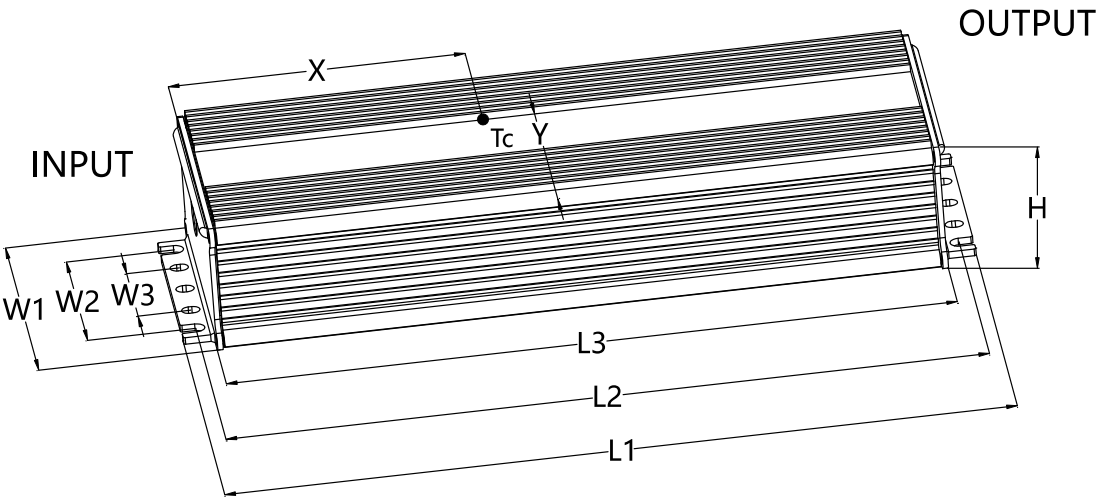
DC O/P Cable(Exposed Length 300±10mm):

Global model: SJOW, 2*14AWG, O.D: 7.7mm, Brown: V+ Blue: V-

Global model: SJOW, 2*14AWG, O.D: 7.7mm, Brown: V+ Blue: V-

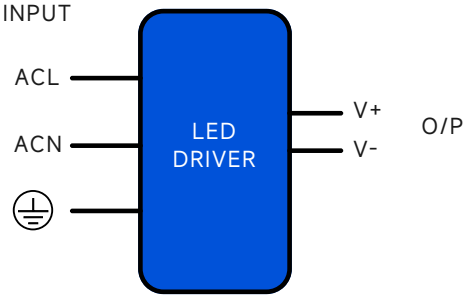
Name Description	Standard Code	mm(In.)
Overall Length	L1	218(8.58)
Mounting Hole Length	L2	210(8.26)
Case Length	L3	201(7.91)
Case Width	W1	76.5(3.01)
Mounting Hole Width	W2	50(1.96)
Mounting Hole Width	W3	27(1.06)
Case Height	H	38.5(1.51)
TC Point Position	X	78.5(3.09)
TC Point Position	Y	51.5(2.03)

Note
1,Please follow the "LED Driver User Manual" obtained from SOSEN's official website for assembly.
2,AC Input Cable,DC O/P Cable:Peeled lengthof cable:43±5mm, Tinned length of wire:10±2mm



SS-350AX-XX Series LED DRIVER

Mechanical Characteristic(SS-350AX-48)



AC Input Cable(Exposed Length 300±10mm):

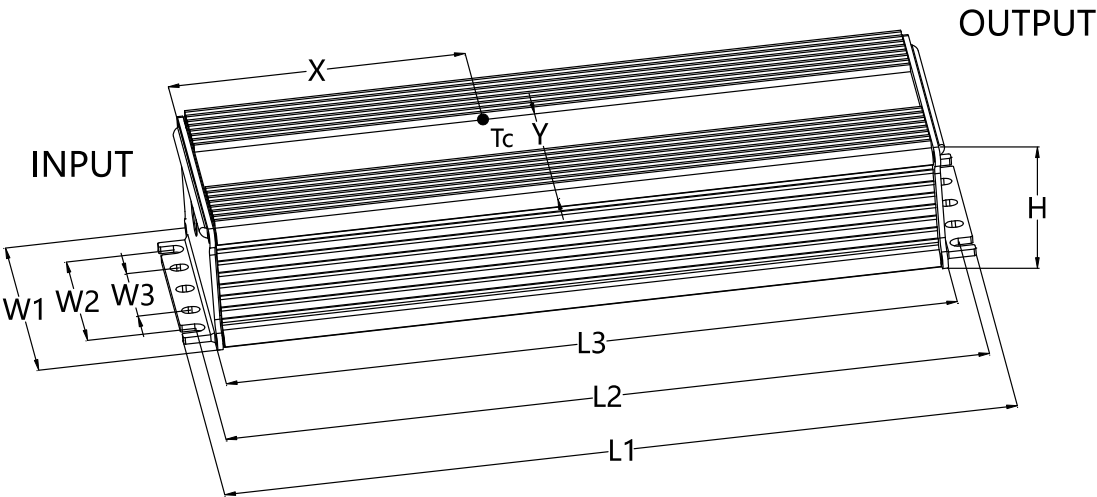
Global model: SJOW, 3*17AWG, O.D: 8.0mm, Brown: L, Blue: N, Yellow/Green: ⊕

DC O/P Cable(Exposed Length 300±10mm):

Global model: SJOW, 2*14AWG, O.D: 7.7mm, Brown: V+ Blue: V-

Name Description	Standard Code	mm(In.)
Overall Length	L1	218(8.58)
Mounting Hole Length	L2	210(8.26)
Case Length	L3	201(7.91)
Case Width	W1	76.5(3.01)
Mounting Hole Width	W2	50(1.96)
Mounting Hole Width	W3	27(1.06)
Case Height	H	38.5(1.51)
TC Point Position	X	78.5(3.09)
TC Point Position	Y	51.5(2.03)

Note
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2,AC Input Cable,DC O/P Cable:Peeled lengthof cable:43±5mm, Tinned length of wire:10±2mm



SS-350AX-XX Series LED DRIVER



Assembly Tips

The output current of constant voltage products is relatively large, please use connectors and wires that meet the maximum output current resistance to prevent the wires from heating up.

Package

- Outside carton dimension: L×W×H =493mm×385mm×116mm(19.41in×15.16in×4.57in);
- 7PCS/Carton;
- Net weight/Piece1.208kg;Gross weight/Carton: 9.725kg;
- Please refer to the product name, model number, manufacturer identification, QC PASS, manufacturing date on the package.

Transportation

Packaging is designed suitable for transportation by trucks, vessels and flights. The products should be avoided direct sunlight and rain, loaded/unloaded with caution.

Storage

The product storage meets the standard of the GB 3873—83.
Products should be rechecked if stored for over 1 year before assembly.

RoHS

Products comply with RoHS Directive (2011/65/EU) and amendment 2015/863/EU.

Revision History

Version	Description of Update	Updated Date	Remark
V00	Original Release	2025/09/04	