



SPECIFICATIONS

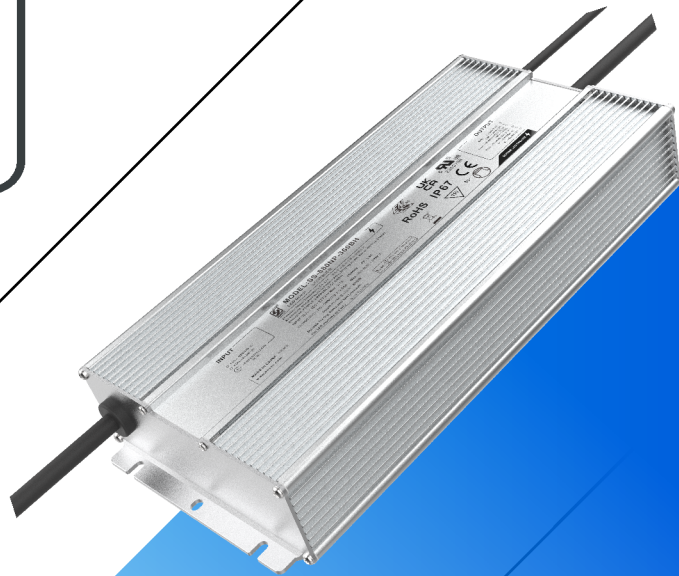
SS-880NP-360BH CV DRIVER

Model: SS-880NP-360BH

Power: 880W

Rev.: V03

Release date: 2025-04-01



SS-880NP-360BH LED DRIVER

Features

- Efficiency up to 97%
- Dimming: 0-10V,PWM,Resistor,Timing
- Surge protection: CM: 6kV, DM: 6kV
- AUX Power: 12V/0.2A
- IP67
- Communication with PC
- Protections: SCP/OTP
- Warranty: 5 years



Description

SS-880NP-360BH is 880W non-isolated constant current LED Driver with 90-305Vac input and wide O/P voltage range and adjustable O/P current by program. LED luminaire manufactures can easily design luminaires and reduce cost.

Applications:
Horticulture lighting, High pole lighting, Stadium lighting, Fish lighting

Model List

Model	AC Input Range	Max. Pout	Vout Range	Recommended Voltage	Iout	THD (Typ.)	PF (Typ.)	Eff. (Typ.)	Max.Tc
SS-880NP-360BH	90-305Vac	880W	210-360V	240V-360V	0.7-3.66A	6%	0.98	96.5%	90℃

Note:

1.Default Tested:at220Vac,fullload, Ta 25°C.

2.The performance of the LED Driver can be guaranteed within the full power Vo range.The voltage lower than full power Vo range, it is need to test the performance with the LED module.

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“*” Means Additional Function

“*”	AUX 12V (suffix:H)	NTC (suffix:N)	Timing	0-10V/PWM Dim /Resistor (suffix:B)	Remark
BH	✓		✓	✓	
BHN	✓	✓	✓	✓	

Input Characteristics

Parameter	Min.	Typ.	Max.	Remark
Rated AC Input Range	100Vac		277Vac	Ref. derating curve
AC Input Range	90Vac		305Vac	Ref. derating curve
Input Frequency Range	47Hz	50/60Hz	63Hz	
Max Input Current			9.7A	100Vac, Full load
Max Input Power			970W	100Vac, Full load
Max Inrush Current(120Vac)			20A	Cold start
Max Inrush Current(220Vac)			22A	Cold start
Max Inrush Current(277Vac)			25A	Cold start
Power Factor	0.95	0.98		220Vac/50Hz, Full load
	0.90			100-277Vac, 70-100% load
THD		6%	8%	220Vac/50Hz, Full load, Ta=25°C
			15%	100-277Vac, 70-100% load, Ta=25°C

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Output Characteristics

Parameter	Min.	Typ.	Max.	Remark
O/P Voltage Range	210V		360V	Power derated @210-240V
Rated O/P Voltage	240V		360V	$P_o = V_o \cdot I_o = 880W$, Full load
Rated O/P Current	2.44A		3.66A	3.66A for 240V, 2.44A for 360V
Adj. O/P Current (AOC) Range	0.7A		3.66A	Adjustable by program
No Load Voltage			390V	
Efficiency @120Vac	89.5%	91.5%		O/P 360V/2.44A
Efficiency @220Vac	94.0%	96.0%		O/P 360V/2.44A
Efficiency @277Vac	94.5%	96.5%		O/P 360V/2.44A
O/P Current Tolerance	-5%		+5%	
O/P Current Ripple(PK-AV)		5%	10%	Full load
Start-up Current Overshoot			10%	Full load
Start-up Time			0.5S	120Vac, Full load
			0.5S	220Vac, Full load
Line Regulation	-2%		+2%	Full load
Load Regulation	-2%		+2%	
Temperature Coefficient	-0.03%/°C		+0.03%/°C	$T_c: 0^{\circ}C \sim 90^{\circ}C$
OTP	90°C	100°C	110°C	Drop current when OTP, and it can be automatically restored after the abnormality is removed.
Short Circuit Protection				Driver will not be damaged, Constant current mode

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Other Characteristics

Parameter		Min.	Typ.	Max.	Remark
AUX Power	O/P Voltage	10.8V	12V	13.8V	
	O/P Current			200mA	
0-10V Dimming (Optional)	Dim Vmax	0V		12V	Negative dimming by programming
	Dim Range	10%loset		100%loset	DIM+ source current 110uA .
	Rec.Dim Range	0V		10V	Dimming prohibits reverse connection
PWM Dimming (Optional)	PWM High	9.8V		10.2V	Negative dimming by programming
	PWM Low	0V		0.3V	DIM+ source current 110uA .
	Frequency	1KHz		2KHz	Dimming prohibits reverse connection
	PWM Duty	0%		100%	
Resistor Dimming (Optional)	Resistance	0Kohm		100Kohm	
	Dim Range	10%loset		100%loset	DIM+ source current 110uA .
Dim to Off	Dim-off	7%	8%	9%	By DC voltage, PWM,dimming ratio
	Dim-on	9%	10%	12%	By DC voltage, PWM,dimming ratio
Timing Curve(Optional)		By programming			Set by program
Constant Lumen(Optional)		By programming			Set by program
Life Warning(Optional)		By programming			Set by program
Life Time(Tc≤75°C)		50,000 hours			80% Load
MTBF		200,000 hours			220Vac,Full load, Ta=25°C (MIL-HDBK-217F)
IP Grade		IP67			
Tc		90°C			
Warranty		5 years			Tc: 75°C
Net Weight		3025g			
Dimension		272mm*125mm*44.5mm			L x W x H

NOTE:

- 1.All the parameters above are tested Ta 25°C and LED load, unless specified.
2. When using resistor dimming (parallel connection of dimming wires), if the number of parallels is: N, the dimming resistor should be realized 0-100% dimming range, resistance value: 91KΩ/N.

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Environmental Requirements

Parameter	Min.	Typ.	Max.	Remark
Operating Temperature(Tcase)	-40℃	25℃	+90℃	
Storage Temperature	-40℃	25℃	+90℃	
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/cUL	UL8750	✓	
ENEC	EN 61347-1 EN 61347-2-13 EN 61347-2-13	✓	
UKCA	EN 61347-1 EN 61347-2-13 EN 62493 BS EN 61347-1 BS EN 61347-2-13 BS EN 62493	✓	
CE	EN 61347-2-13 EN61347-1	✓	

EMI/EMS	Criterion	Remark
Conduction Emission	EN IEC 55015	Class B
Radiation Emission	EN IEC 55015	Class B
Harmonic Current Emissions	IEC/EN 61000-3-2	Class C
Surge	IEC/EN61000-4-5	DM: 6kV,CM: 6kV,Criterion B
	ANSI/C82.77-5	DM: 6kV,CM: 6kV,Criterion B
Ring Wave	IEC/EN 61000-4-12;ANSI/C82.77-5	DM: 6kV,CM: 6kV,Criterion B

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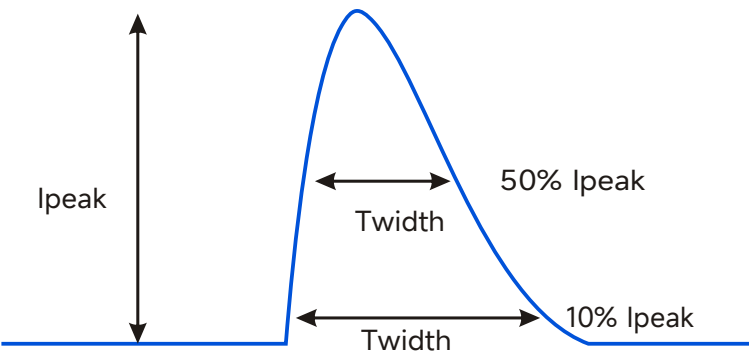
Safety Test Items

Safety Test Items	Technical Indicators		Remark
Insulation Requirements	UL Insulation Requirements	ENEC Insulation Requirements	
Input-Case	2U+1000	2U+1000	Basic insulation
Input-Dim	2U+1000	4U+2000	Reinforced insulation
Dim-Case	500Vac	500Vac	Basic insulation
Insulation Resistance	$\geq 10\text{M}\Omega$		Primary-DIM, Test voltage: 500Vdc
Ground Resistance	$\leq 0.1\Omega$		25A/1min
Leakage Current	$\leq 0.75\text{mA}$		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 as component.
 2. Please short (ACL and ACN and V+ and V-), (Dim+ and Dim - and Vaux+)when Hi-pot test.
 3. Remove the SPD screw from the baffle plate at the input end during the Hi-pot test, install and tighten the SPD screw after the Hi-pot test.

Performance Curves

Input Inrush Current

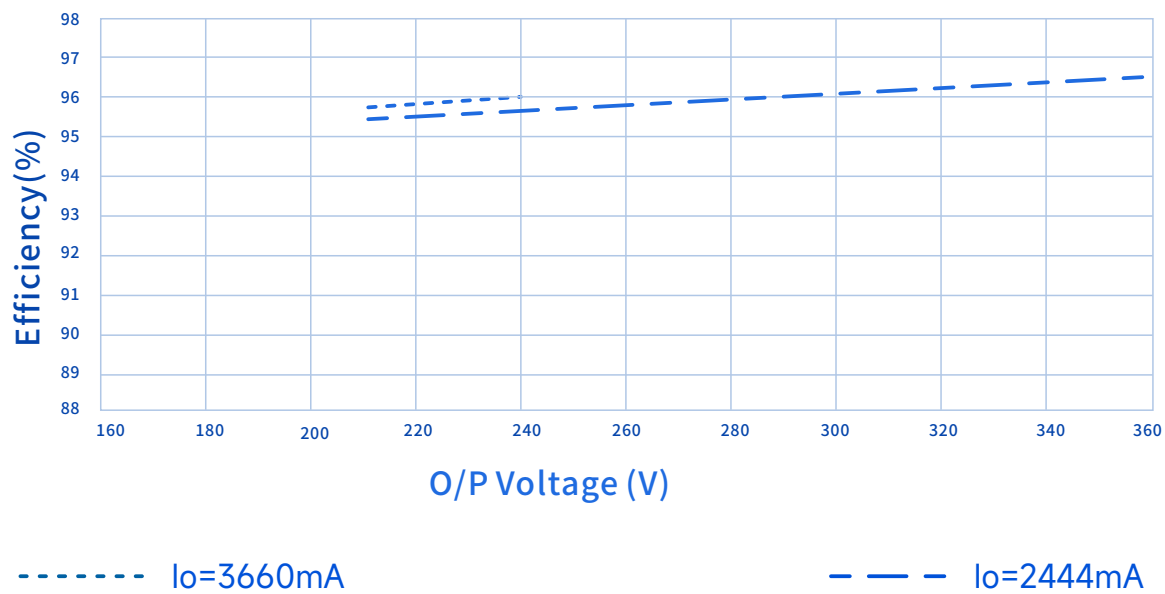


Vin	Ipeak	T(@10% of Ipeak)	T(@50% of Ipeak)
120Vac	20A	9.9mS	
220Vac	22A		3.1mS
277Vac	25A	9.9mS	

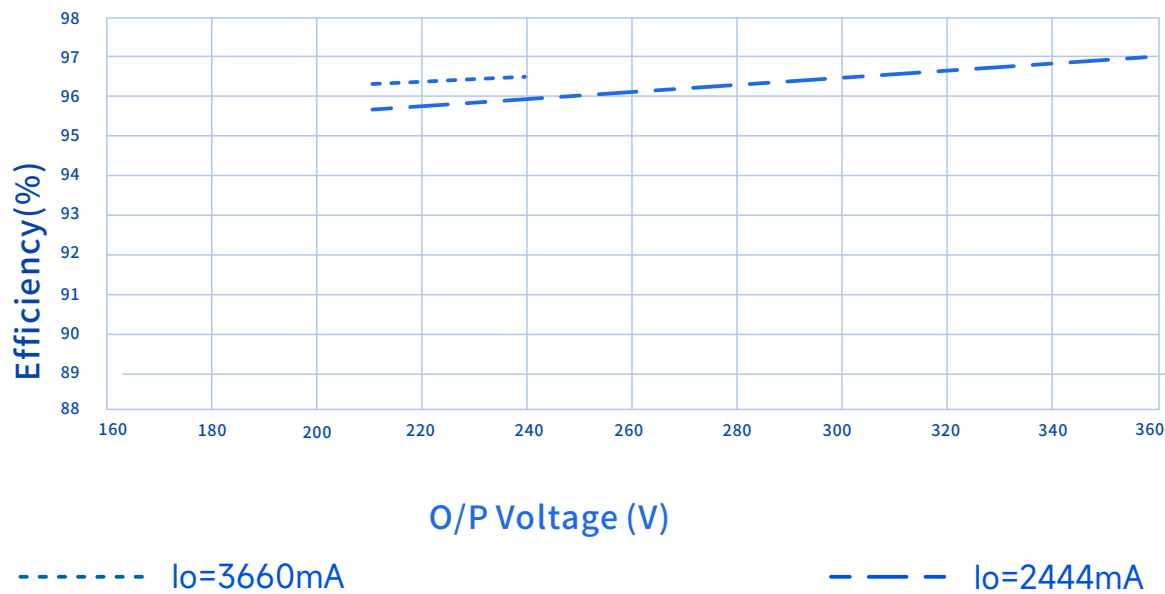
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Performance Curves

Efficiency Vs. Output Voltage (Vin=220Vac)



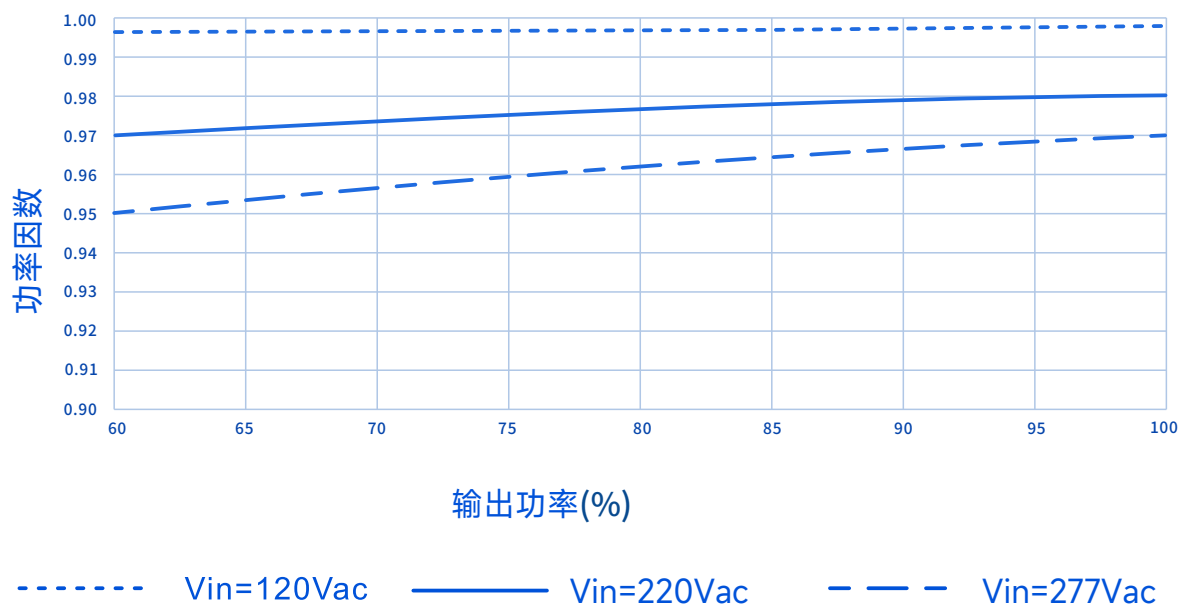
Efficiency Vs. Output Voltage(Vin=277Vac)



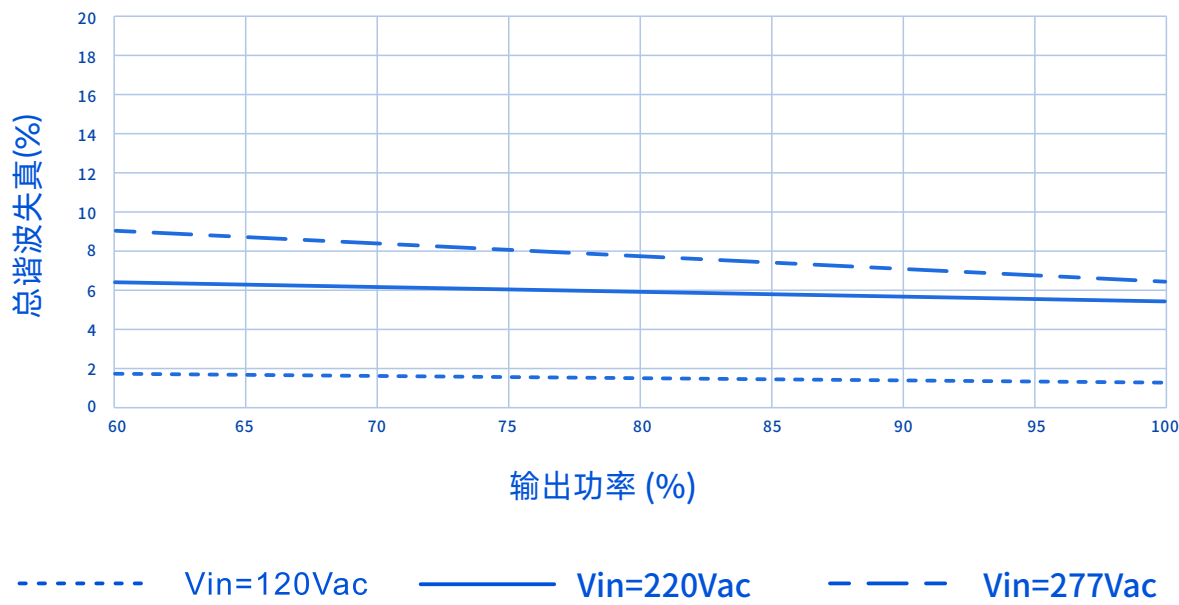
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Performance Curves

Power Factor Vs. Output Power



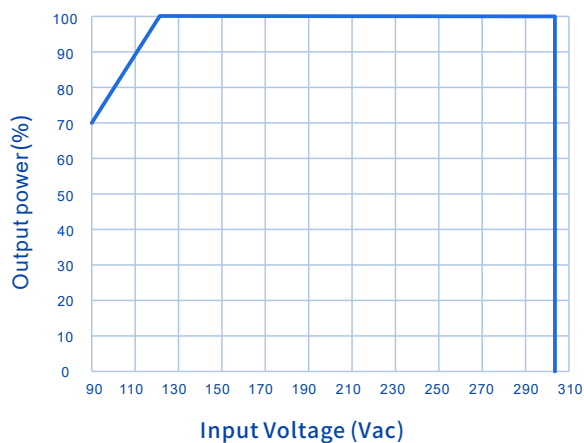
THD Vs. Output Power



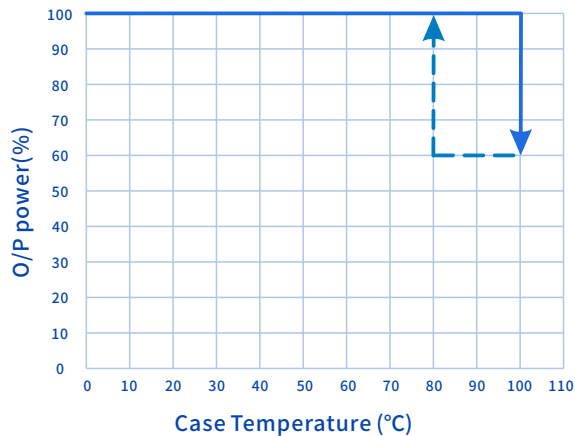
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Performance Curves

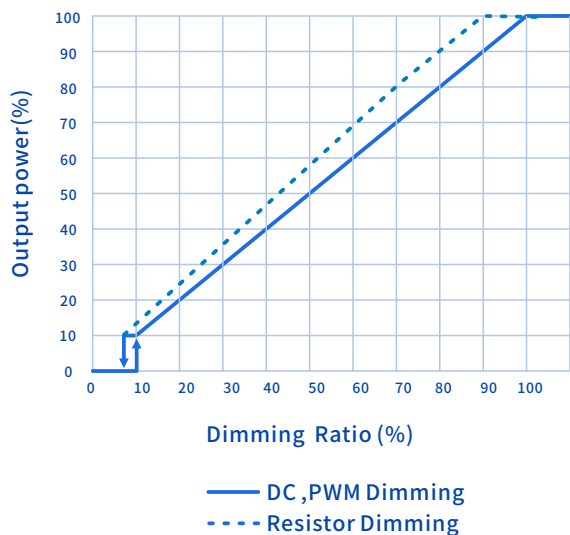
Output Power Vs. Input Voltage



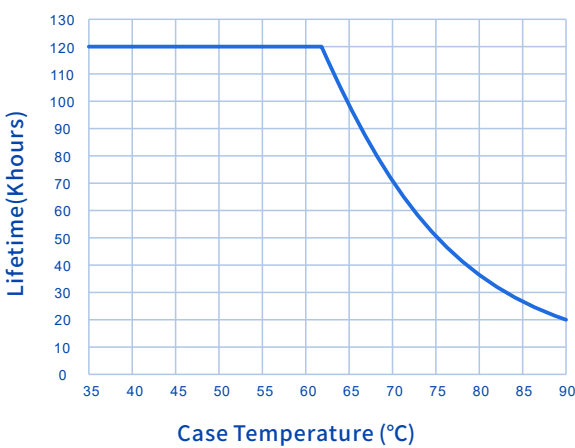
Output Power Vs. Case Temperature



Output Power Vs. Dimming



Lifetime Vs. Case Temperature



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Constant Lumen Output

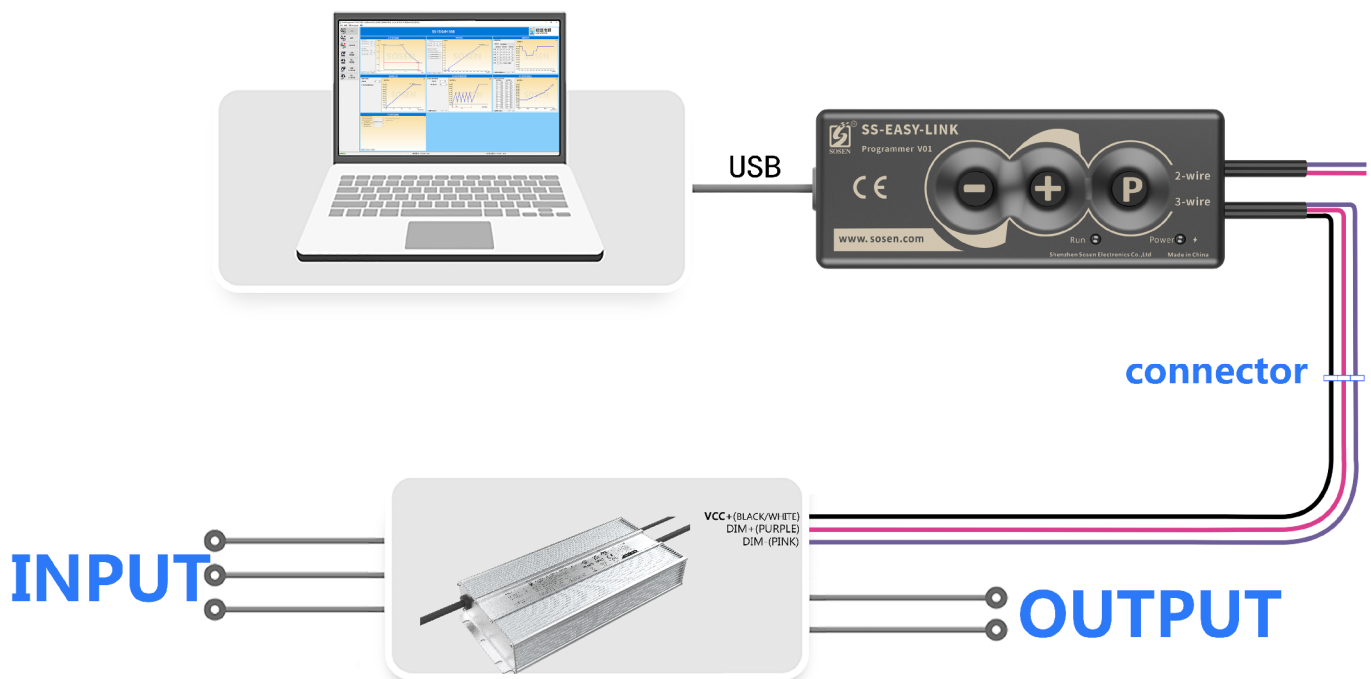
Constant Lumen Output are design to maintain fixture's stable output lumen by increasing driver's output current within driver's life span to counteract LED lumen degradation.

Programming connection diagram

Legacy Timer: Driver's O/P follows the pre-programmed timing curve after turn-on.

Auto-Adjust by Percentage: Driver's O/P will be adjusted by automatically changed dimming curve by the period percentage based on the latest 5 dimming curve.

Auto-Adjust by Mid-point: Driver's O/P will be adjusted by automatically changed dimming curve by mid-point based on the latest 5 dimming curve.



Note:

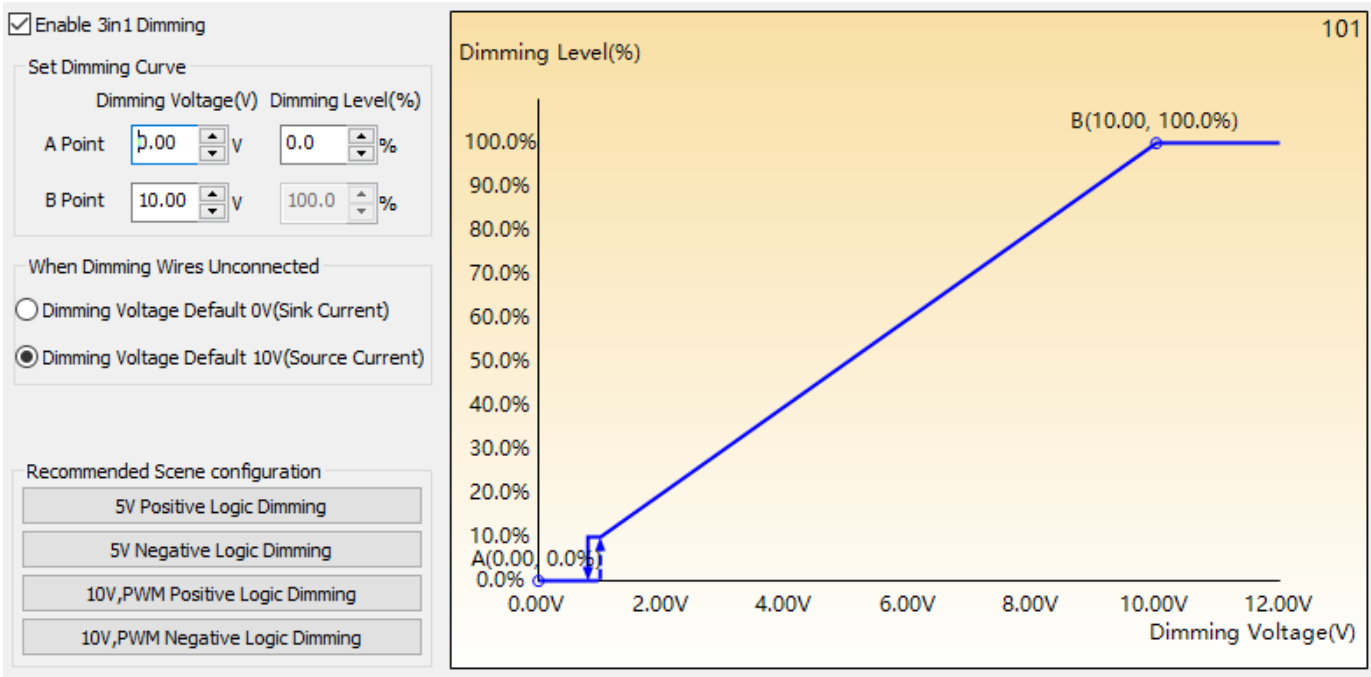
Programming could be completed by off-line mode either without turn on the driver or without PC, other than the traditional on-line mode.

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Parameter			Remark
Default setting	Positive logic dimming (0-10V)	Dimming voltage default 10V (source current)	
	Negative logic dimming (10-0V)	Dimming voltage default 0V (sink current)	
Dimming optional function	Positive logic dimming (0-10V)	Dimming voltage default 0V (sink current)	When the dimming wire is not connected, the LED driver output is the minimum (to be noted in the order)
		Resistance dimming not available	For parallel dimming applications with multiple LED drivers, it is recommended to use the sink current mode (to be noted in the order)

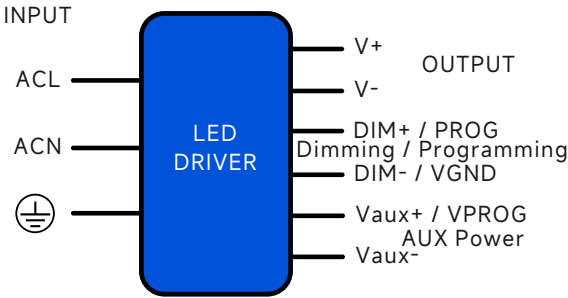
Note: Selecting “Dimming Voltage Default 10V (Output Current)”/“Dimming Voltage Default 0V (Inlet Current)” needs to be set according to the dimmer used by the end user.

Settings Interface



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Mechanical Characteristic



AC Input Cable(Exposed Length 450±10mm):

Global model: SJOW/H05RN-F, 3*17AWG, O.D: 8mm, Brown: ACL, Blue: ACN, Yellow/Green:

DC O/P Cable(Exposed Length 250±10mm):

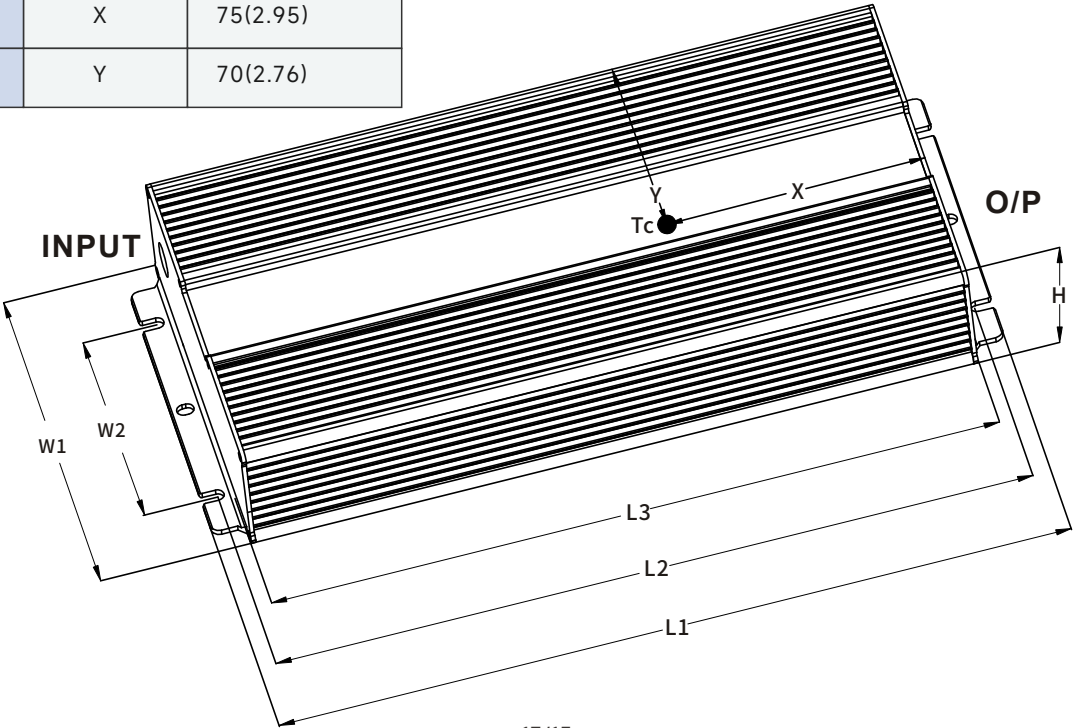
Global model: SJOW/H05RN-F, 2*17AWG, O.D: 7.7mm, Brown: V+, Blue: V-

DIM/AUX Power/Programming Cable (Exposed Length 220±10mm):

UL/EU /Global model: 21996, 4*22AWG , O.D: 5.6mm, Purple: DIM+, Pink: DIM-, Black/White: Vaux+, Blue/White: Vaux-

Name Description	Standard Code	mm(In.)
Case Length	L3	250(9.84)
Case Width	W1	125(4.92)
Case Height	H	44.5(1.75)
Overall Length	L1	272(10.71)
Mounting Hole Length	L2	261(10.28)
Mounting Hole Width	W2	78(3.07)
TC Point Position	X	75(2.95)
TC Point Position	Y	70(2.76)

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, DIM/AUX Power/Programming Cable:
Peeled length of cable: 43±5mm, Tinned length of wire: 10±2mm.



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Assembly Tips

1. Please take isolation and waterproof measures if the dimming cable is not in use.
2. Safety space between aluminum base and LED coppers >5mm.
3. Safety space/coppers between LED+ and LED- ≥ 3.6 mm.
4. Minimize the copper area on the aluminum PCB to reduce parasitic capacitance and leakage current.
5. It is recommended to design LED beads in parallel first and then in series.
6. The insulation level of LED light panels should meet the reliability design requirements.
7. It's recommended to add resistors or capacitors in parallel with the LED on PCB to reduce the risk of surge when a non isolated LED driver is used for the luminaire.
8. For other precautions, please refer to the "LED Driver User Manual".

Package

- Outside carton dimension: L×W×H =495mm×385mm×162mm;
- 6PCS/Carton;
- Net weight/Piece: 3.025kg;Gross weight/Carton: 19.2kg;
- 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	2023/06/06	
V01	Renewal of certification	2024/05/23	
V02	Renewal of wires	2024/11/15	
V03	Version Upgrade	2025/04/01	