



SPECIFICATIONS

SS-60NM-V130A

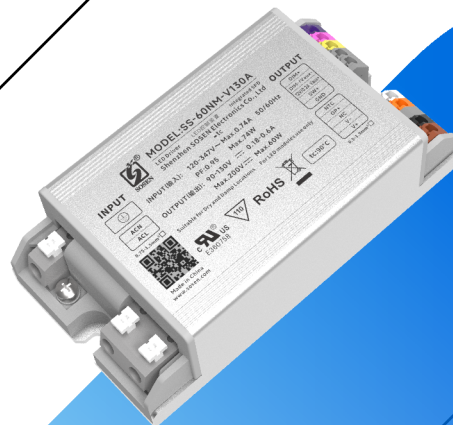
CC DRIVER

Model: SS-60NM-V130A

Power: 60W

Rev.: V00

Release date: 2026-09-09



SS-60NM-V130A LED DRIVER

Features

- Efficiency up to 93%
- Isolated dimming:0-10V,PWM,Resistor
- Optional aux: 12V/0.2A
- Time-controlled programmable
- Dim to off
- Standby Power<0.5W
- Protections: SCP/OTP/OVP/UVP
- Wide output voltage range
- NTC, Optical, Dial Power Range Programmable
- Surge protection: CM: 6kV,DM: 6kV
- Long lifetime
- Warranty: 5 years



RoHS

Description

SS-60NM-V130A are 60W non-isolated constant current LED Driver with 108-380VAC.This product series is designed for LED lighting; it employs a brand-new isolated dimming solution with dimmable shutdown capability, features an isolated auxiliary power supply, a compact, all-in-one housing design, and is fully encapsulated with thermally conductive silicone gel to ensure heat dissipation. It offers advantages such as ultra-high efficiency, high reliability, and excellent cost-effectiveness.

Applications:
Shoebox Light, Linear high bay light, Flood lighting, Wall lamp

Model List

Model	AC Input Range	Max. Pout	Vout Range	Recommended Voltage	Iout Range	Default Current	THD (Typ.)	PF (Typ.)	Eff. (Typ.)	Max.Tc
SS-60NM-V130A	108-380Vac	60W	90-130V	100V-130V	0.18-0.6A	0.48A	8%	0.97	93%	90°C

Note:

1.Default Tested: at 277Vac, full load, 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.

SS-60NM-V130A LED DRIVER

“A” Means Additional Function

"*"	AUX 12V (suffix:H)	Dimming off 0-10V/PWM/Resistor	adjust power (Single DIP)	Photosensitive control	NTC	Remark
A	✓	✓	✓	✓	✓	

Input Characteristics:

Parameter	Min.	Typ.	Max.	Remark
Rated AC Input Range	120Vac		347Vac	
AC Input Range	108Vac		380Vac	Reference derating curve
Input Frequency Range	47Hz	50/60Hz	63Hz	
Max Input Current			0.74A	120Vac, Full load
Max Input Power			74W	120Vac, Full load
Max Inrush Current(120Vac)			40A	Cold start
Max Inrush Current(220Vac)			70A	Cold start
Max Inrush Current(347Vac)			90A	Cold start
Standby Power			0.5W	230Vac/50Hz, Dim-to-off
Power Factor	0.95	0.97		277Vac, Full load
	0.90			120-347Vac, 70%-100% load
THD		8%	10%	277Vac, Full load
			20%	120-347Vac,70%-100% load

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Output Characteristics

Parameter	Min.	Typ.	Max.	Remark
O/P Voltage Range	90V		130V	Power derated @90-100V
Rated O/P Voltage	100V		130V	$P_o = V_o \cdot I_o = 60W$, Full load
Rated O/P Current	0.46A		0.6A	0.6A for 100V, 0.46A for 130V
Adj. O/P Current (AOC) Range	0.18A		0.6A	
No Load Voltage			200V	
Efficiency @120Vac	90.0%	91.5%		Output 130V/0.46A
Efficiency @220Vac	91.5%	93.0%		Output 130V/0.46A
Efficiency @347Vac	91.0%	92.5%		Output 130V/0.46A
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			1.0S	120Vac, Full load
			0.75S	220Vac, Full load
Line Regulation	-3%		+3%	Full load
Load Regulation	-5%		+5%	
Temperature Coefficient	-0.06%/°C		+0.06%/°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.
Short Circuit Protection				Driver will not be damaged Constant current mode or hiccups

SS-60NM-V130A LED DRIVER

Output Characteristics

Parameter		Min.	Typ.	Max.	Remark
Aux Power	O/P Voltage	10.8V	12V	13.2V	
	O/P Current			200mA	
0-10V Dimming (Optional)	Dim Vmax	0V		12V	DIM+ source current 110uA.
	Dim Range	10%Iomax		100%Ioset	Dimming prohibits reverse connection
	Rec.Dim Range	0V		10V	
PWM Dimming (Optional)	PWM High	9.8V		10.2V	DIM+ source current 110uA.
	PWM Low	0V		0.3V	Dimming prohibits reverse connection
	Frequency	1KHz		2KHz	
	PWM Duty	0%		100%	
Resistor Dimming (Optional)	Resistance	0Kohm		100Kohm	DIM+ source current 110uA.
	Dim Range	10%Iomax		100%Ioset	
Dim to Off	Dim off	0.7V	0.8V	0.9V	Auxiliary source 12V unloaded
	Dim on	0.9V	1.0V	1.1V	
Dial adjustment	Current range	0.15A		0.6A	Dialing range can be set via PC software
Default light control	Shutdown Voltage	0V	1.0V	1.2V	Default: 5S action; time/voltage on, off can be set by PC software
	Turn-On Voltage	3.2V	3.5V	5.0V	
Timing Curve(Optional)		By programming			Set by program
Lifetime(Tc≤85°C)		≥50,000 hours			80% load
MTBF		200,150 hours			220Vac, Full load, Ta=25°C (MIL-HDBK-217F)
Tc		90°C			
Warranty		5 years			Tc 85°C
Net Weight		280g			
Dimension		105mm*55mm*32mm			L x W x H

NOTE: All the parameters above are tested Ta 25°C and LED load, unless specified.

SS-60NM-V130A LED DRIVER

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 IEC 62384		
RCM	AS/NZS61347.2.13		
BIS	IS15885		
CCC	GB/T 19510.1 GB/T 19510.213		
CE	EN 61347-2-13 EN61347-1		

EMI/EMS	Criterion	Remark
Conduction Emission	FCC Part15: Subpart B ANSI 63.4	120Vac:Class B,347Vac:Class A
Radiation Emission	FCC Part15: Subpart B ANSI 63.4	120Vac:Class B,347Vac:Class A
Harmonic Current Emissions	IEC/EN 61000-3-2	Class C
Surge	ANSI/C82.77-5	DM: 6kV,CM: 6kV,Criterion B
Ring Wave	ANSI/C82.77-5	DM: 6kV,CM: 6kV,Criterion B

SS-60NM-V130A LED DRIVER

Safety Test Items

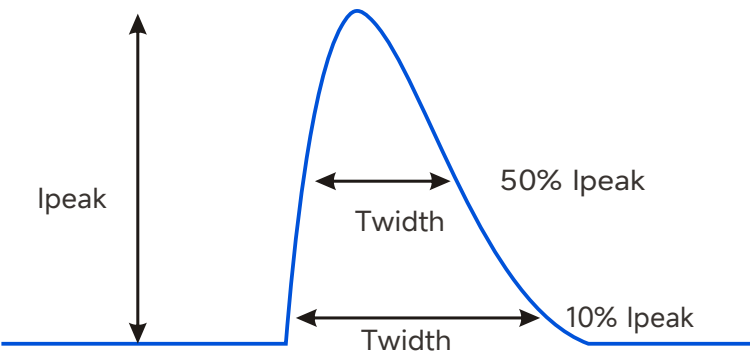
Safety Test Items	Technical Indicators	Remark
Insulation Requirements	UL Insulation Requirements	
Input-Case	2U+1000Vac	
Input-Dim	2U+1000Vac	
Dim-Case	500Vac	
Insulation Resistance	$\geq 10M\Omega$	Input-Dim, Test voltage: 500Vdc
Ground Resistance	$\leq 0.1\Omega$	25A/1min
Leakage Current	$\leq 0.75mA$	347Vac

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. For voltage withstand test, short-circuit between L/N, short-circuit between output line positive/negative, short-circuit between dimmer line and VPP or between dimmer line and auxiliary source positive/negative.

Performance Curves

Input Inrush Current

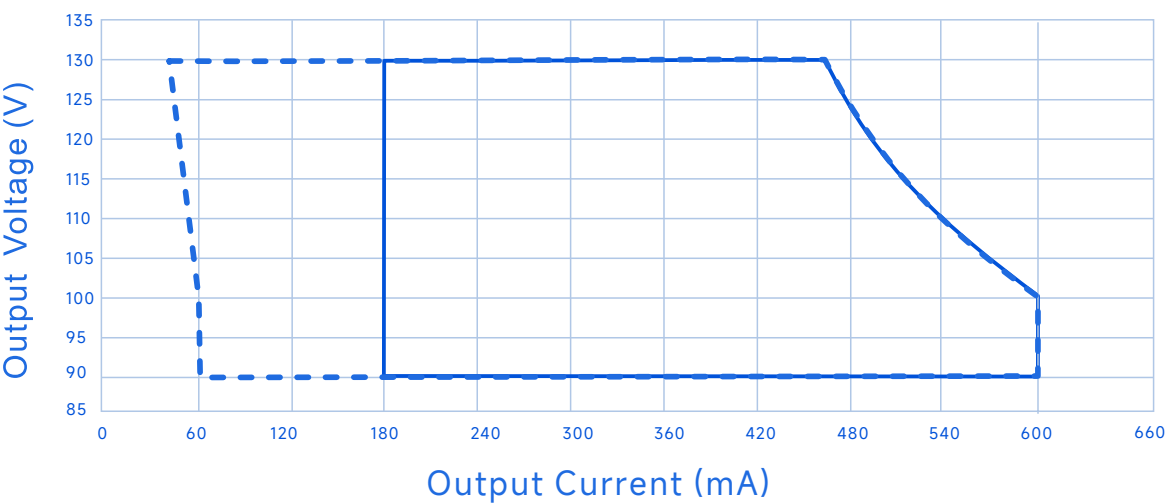


Vin	Ipeak	T(@10% of Ipeak)	T(@50% of Ipeak)
120Vac	40A	230uS	160uS
220Vac	70A	230uS	160uS
347Vac	90A	230uS	160uS

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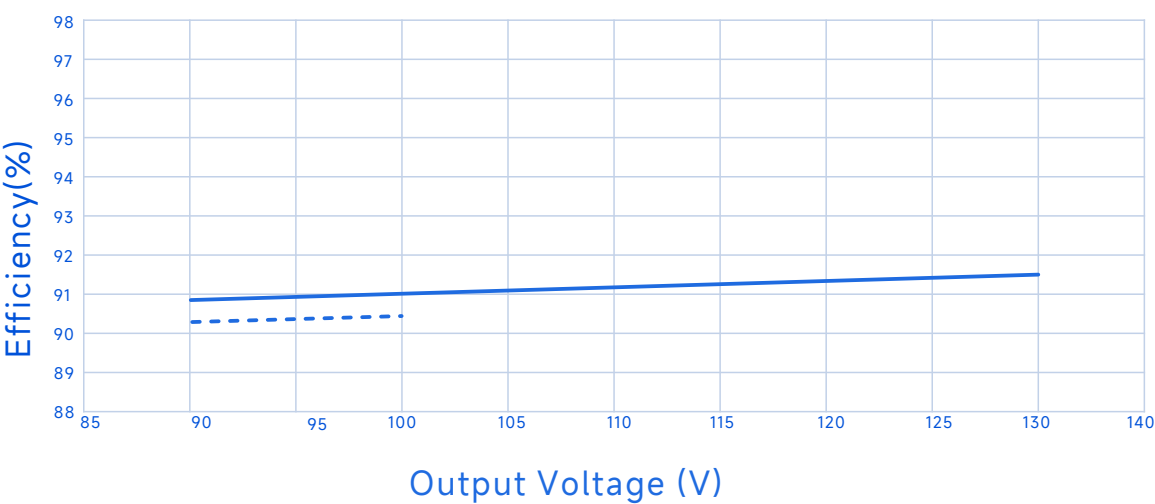
Performance Curves

Output Voltage Vs. Output Current(Dim/AOC Window)



----- Dimming Window ————— AOC Window

Efficiency Vs. Output Voltage (Vin=120Vac)

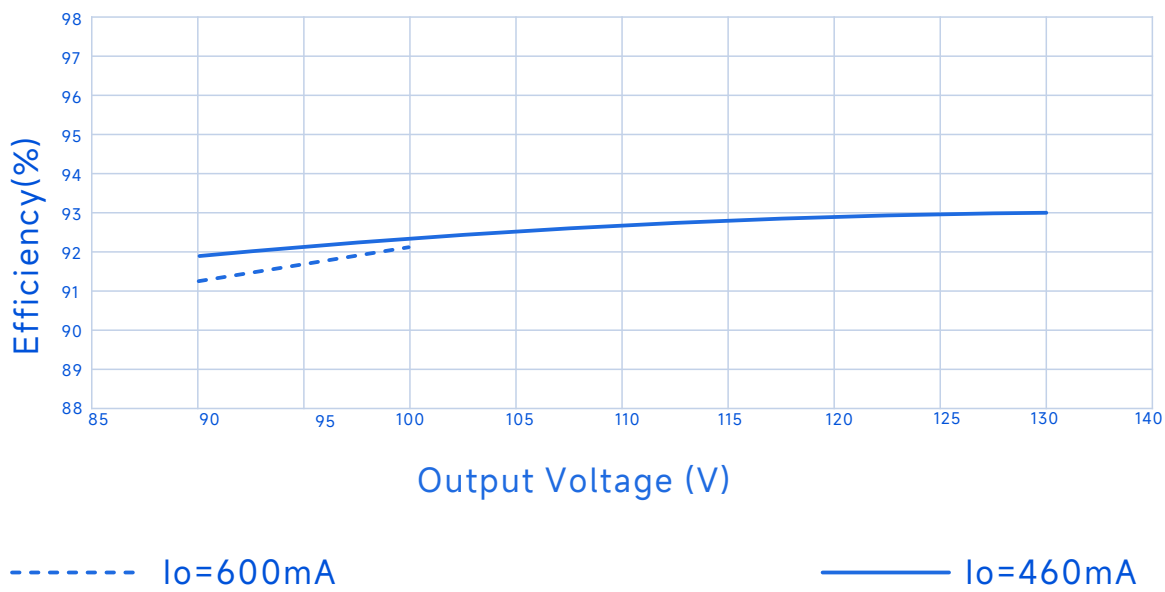


----- Io=600mA ————— Io=460mA

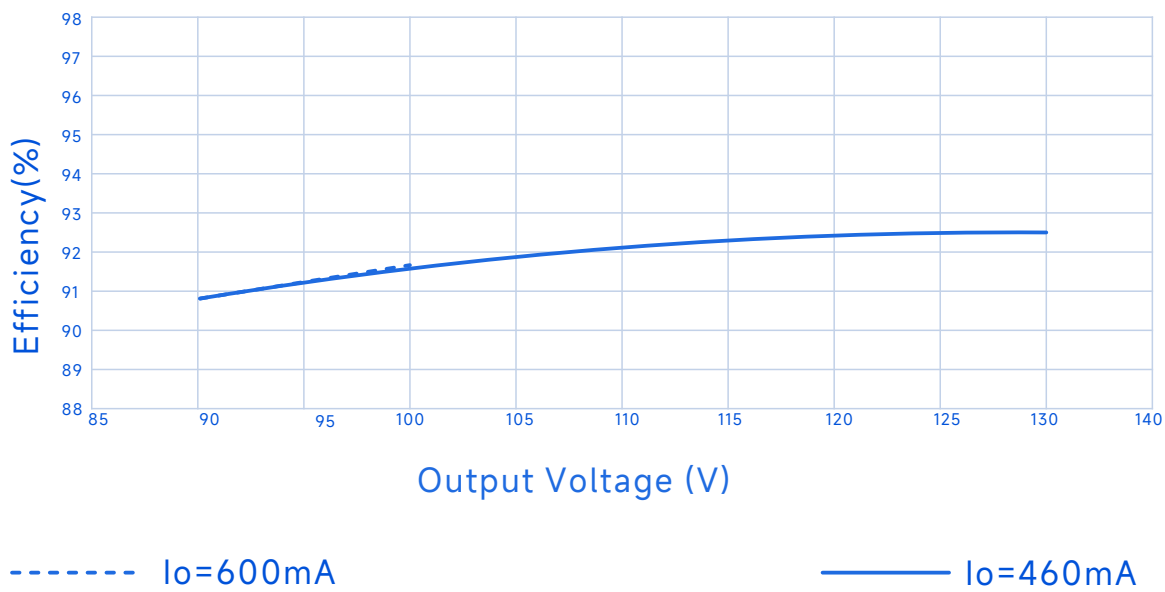
SS-60NM-V130A LED DRIVER

Performance Curves

Efficiency Vs. Output Voltage (Vin=220Vac)



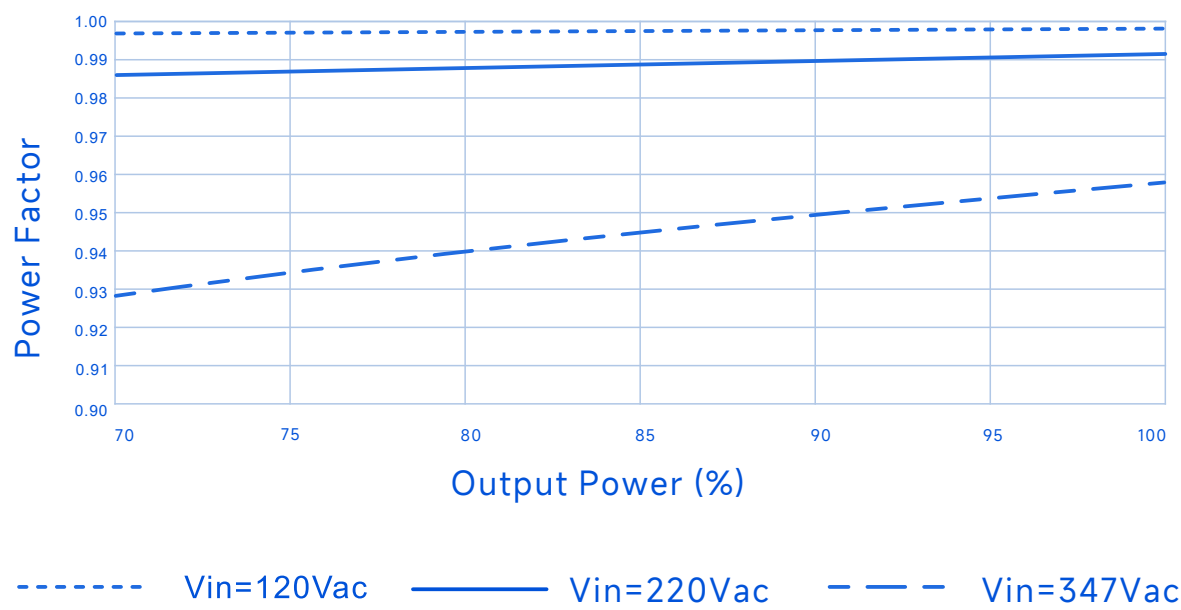
Efficiency Vs. Output Voltage (Vin=347Vac)



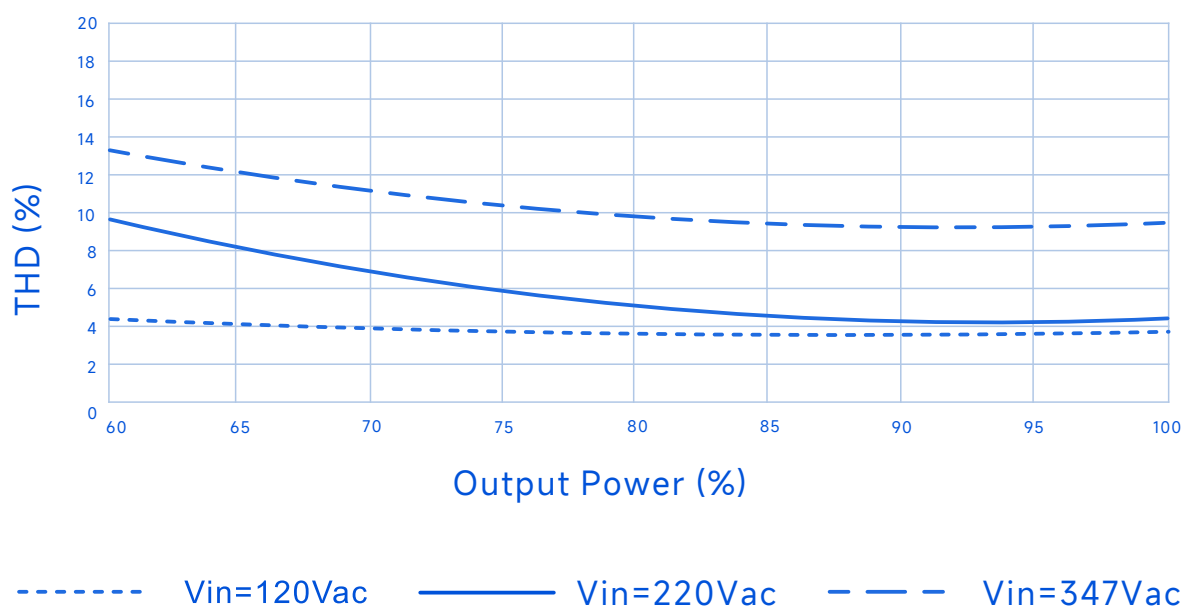
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Performance Curves

Power Factor Vs. Output Power



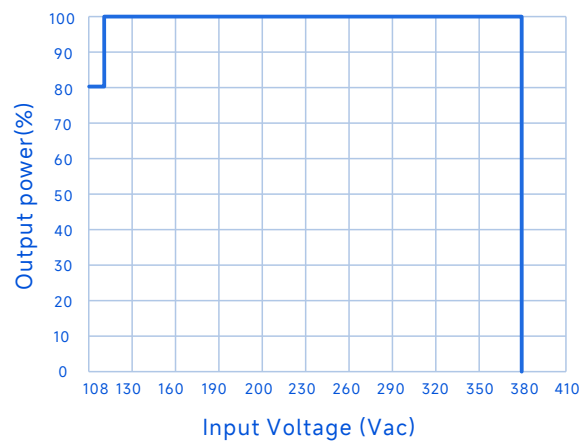
THD Vs. Output Power



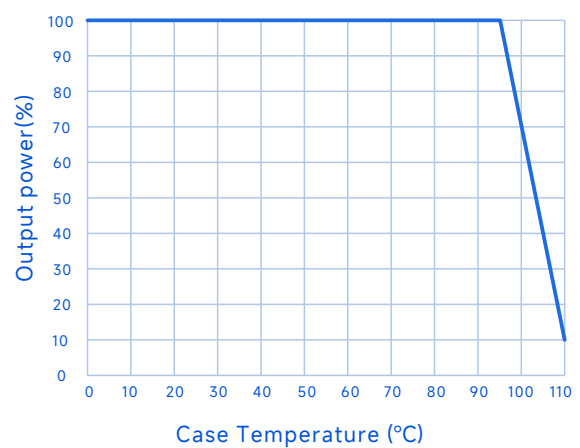
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Performance Curves

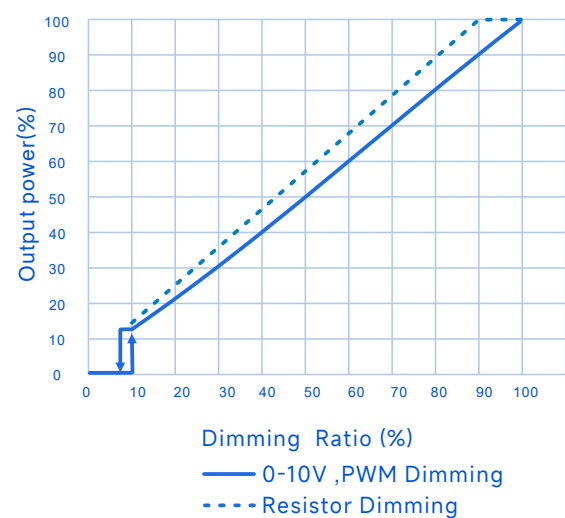
Output Power Vs. Input Voltage



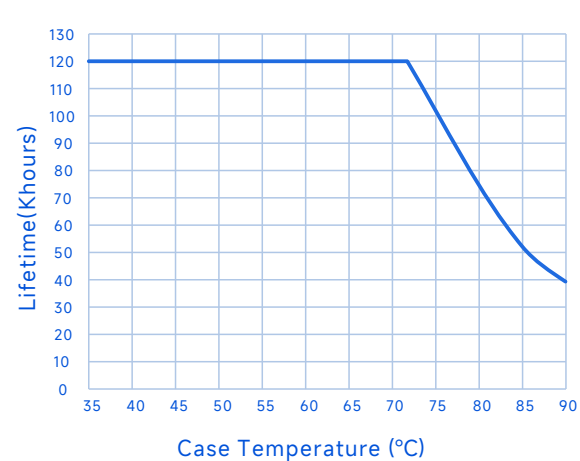
Output Power Vs. Case Temperature



Output Power Vs. Dimming



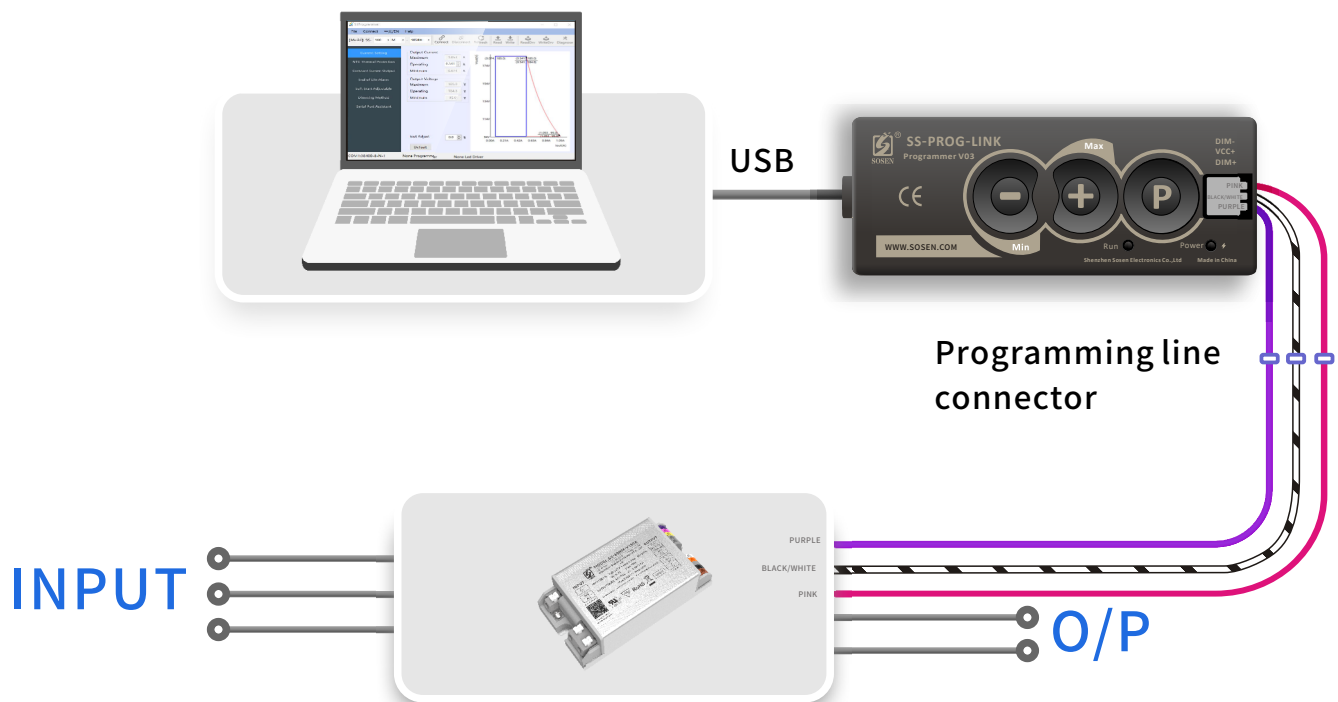
Lifetime Vs. Case Temperature



SS-60NM-V130A LED DRIVER

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:

For details, please refer to the Sosen SS-PROG-LINK Programmer Manual.

SS-60NM-V130A LED DRIVER

Mechanical Characteristic

INPUT

LED DRIVER

AC Input Terminal

ACL: connect to L wire, ACN: connect to N wire,
⊕: connect to earth wire

DC Input Terminal

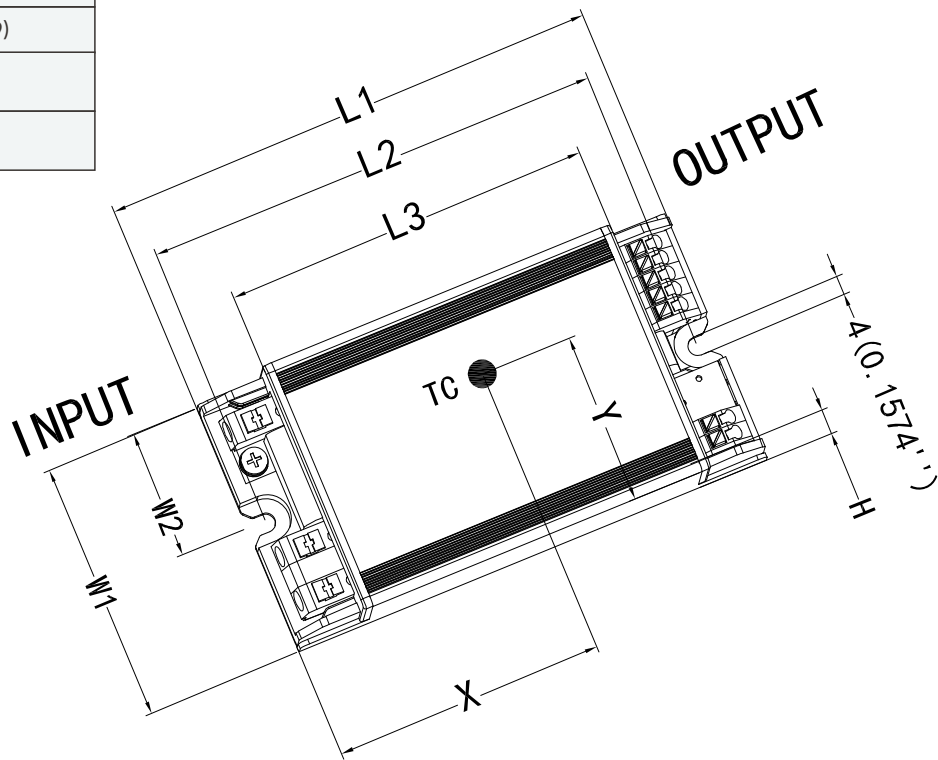
V+: light source board positive, V-: light source board negative

Function Terminal

DIM+:Dimming Positive, DIM-:Dimming Negative, VAUX+:Auxiliary Source, SW+:Dialing Power, GND:Negative, NTC:LED Over-temperature Protection, OP+:Light Sensing Function

Name Description	Standard Code	mm(In.)
Case Width	W1	55(2.165)
Mounting Hole Width	W2	27.5(1.083)
Overall Length	L1	105(4.133)
Mounting Hole Length	L2	97(3.82)
Case Length	L3	78(3.08)
Case Height	H	32(1.259)
TC Point Position	X	55(2.17)
TC Point Position	Y	36(1.42)

Note
1,Please follow the "LED Driver User Manual" obtained from SOSEN's official website for assembly.



SS-60NM-V130A LED DRIVER



Assembly Tips

1. The trace routing on aluminum substrates is designed in compliance with creepage distance requirements specified by relevant certification regulations.
2. The creepage distance between LED+ and LED- on the aluminum substrate is designed in compliance with the relevant certification regulations.
3. Minimize the copper area on the aluminum PCB to reduce parasitic capacitance and leakage current.
4. It is recommended to design LED beads in parallel first and then in series.
5. The insulation level of LED light panels should meet the reliability design requirements.
6. For other precautions, please refer to the "LED Driver User Manual".
7. SOSEN reserves the right of final interpretation of the above parameters.

Warning

Insufficient or compromised insulation voltage resistance in LED light panels may cause breakdown and short circuits to earth, resulting in damage to the luminaire and LED driver, and posing significant safety hazards. It is recommended to install a residual current device (RCD) during application.

Package

- Outside carton dimension: L×W×H = 325mm×315mm×165mm;
- 42PCS/Carton;
- Net weight/Piece: 0.28kg; Gross weight/Carton: 12.26kg;
- 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	2026/09/09	