



SPECIFICATIONS

SS-1000M Series

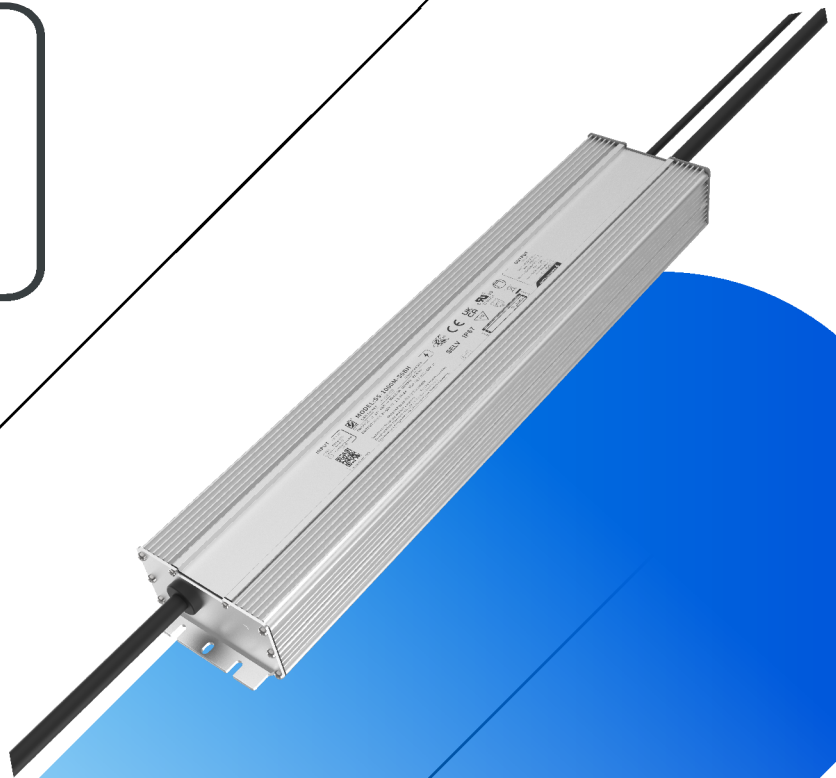
CC DRIVER

Model: SS-1000M-XX

Power: 1000W

Rev.: V02

Release date: 2025-12-09



SS-1000M Series LED DRIVER

Features

- Efficiency up to 96%
- Dimming: 0-10V,PWM,Resistor,Timing
- Dim-to-Off
- Surge protection: IEC: CM: 10kV, DM: 6kV
ANSI: CM: 6kV, DM: 6kV
- AUX Power: 12V/0.2A
- Constant Lumen O/P
- Standby Power<2W
- IP67
- Communication function with PC
- Type HL, suitable for hazardous locations
- Protections: SCP/OTP/OVP
- Warranty: 5 years



Description

SS-1000M series products for 1000W waterproof LED constant current driver, adapted to 249V-528V wide range of input voltage, with software programmable constant power output characteristics as well as isolated dimming, auxiliary power supply output, conducive to the design of the LED lights, reduce the cost of LED lamps and lanterns. With a full range of protection, including short circuit protection, over-temperature protection and under-voltage protection. Translated with DeepL.com (free version)

Applications:

Stadium lighting, Square lighting, Plant lighting, Fish lighting

Model List

Model	AC Input Range	Max. Pout	Vout Range	Recommended Volltage	Iout	THD (Typ.)	PF (Typ.)	Eff. (Typ.)	Max.Tc
SS-1000M-56*	249-528Vac	1000W	28-56V	48V-56V	2.1-20.8A	5%	0.98	96%	90°C

Note:

1.Default Tested:at480Vac,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)	Output- ground	Output-two wire	Remark
BH	✓		✓	✓			
BH-G	✓		✓	✓	✓		
BHN	✓	✓	✓	✓			
BHN-G	✓	✓	✓	✓	✓		
BH-2C	✓		✓	✓		✓	
BH-2CG	✓		✓	✓	✓	✓	

Input Characteristics

Parameter	Min.	Typ.	Max.	Remark
Rated AC Input Range	277Vac		480Vac	
AC Input Range	249Vac		528Vac	
Input Frequency Range	47Hz	50/60Hz	63Hz	
Max Input Current			5.0A	249Vac, Full load
Max Input Power			1200W	249Vac, Full load
Max Inrush Current(277Vac)			20A	Cold start
Max Inrush Current(347Vac)			25A	Cold start
Max Inrush Current(480Vac)			35A	Cold start
Standby Power			2W	347Vac/60Hz, Dim-off
Power Factor	0.95	0.97		347Vac/60Hz, Full load
	0.90			277-480Vac, 70-100% load
THD		5%	10%	347Vac/60Hz, Full load
			20%	200-480Vac, 80-100% load

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Output Characteristics

Parameter	Min.	Typ.	Max.	Remark
O/P Voltage Range	28V		56V	Power derated @28-48V
Rated O/P Voltage	48V		56V	$P_o = V_o \cdot I_o = 1000W$, Full load
Rated O/P Current	17.8A		20.8A	17.8A for 56V, 20.8A for 48V
Adj. O/P Current (AOC) Range	2.1A		20.8A	Adjustable by program
No Load Voltage			60V	
Efficiency @220Vac	92.5%	94.5%		O/P 56V/17.8A
Efficiency @347Vac	93.5%	95.5%		O/P 56V/17.8A
Efficiency @480Vac	94.5%	96.0%		O/P 56V/17.8A
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	277-480Vac, Full load
Line Regulation	-2%		+2%	Full load
Load Regulation	-2%		+2%	
Temperature Coefficient	-0.03%/°C		+0.03%/°C	Tc: 0°C~90°C
OTP	90°C	95°C	100°C	Drop current when OTP, and it can be automatically restored after the abnormality is removed.
Short Circuit Protection				Driver will not be damaged

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Other Characteristics

Parameter		Min.	Typ.	Max.	Remark
AUX Power	O/P Voltage	10.8V	12V	13.2V	
	O/P Current			200mA	Operate max 15min at 400mA
0-10V Positive Dimming (Optional)	Dim Vmax	0V		12V	DIM+ outputs 110uA current DIM+/DIM- must not be reversed Programmable to 0-5V
	Dim Range	10%loset		100%loset	
	Rec.Dim Range	0V		10V	
0-10V Negative Dimming (Optional)	Rec.Dim Range	0V		10V	DIM+ suction current max. 40uA DIM+/DIM- must not be reversed Programmable to 5-0V
PWM Dimming (Optional)	PWM High	9.8V		10.2V	DIM+ outputs 110uA current Dimming prohibits reverse connection
	PWM Low	0V		0.3V	
	Frequency	1KHz		2KHz	
	PWM Duty	0%		100%	
Resistor Dimming (Optional)	Resistance	0Kohm		100Kohm	
	Dim Range	10%lomax		100%loset	DIM+ outputs 110uA current
0-10VDim to Off	Dim-off	0.7V	0.8V	0.9V	Lamp bead voltage is less than 75% of the maximum rated output voltage.75% of the maximum rated output voltage, dimming shutdown may have afterglow.Please confirm with the whole lamp.
	Dim-on	0.8V	0.9V	1.0V	
10-0VDim to Off	Dim-off	9.0V	9.2V	9.4V	
	Dim-on	8.8V	9.0V	9.2V	
Timing Curve(Optional)		By programming			
Constant Lumen(Optional)		By programming			
Life Warning(Optional)		By programming			
NTC function (Optional)					10KΩ B3950K 10KΩ B3435K

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Other Characteristics

Parameter	Min.	Typ.	Max.	Remark
Life Time($T_c \leq 75^{\circ}\text{C}$)	50,000 hours			80% Load
MTBF	200,000 hours			347Vac, Full load, $T_a = 25^{\circ}\text{C}$ (MIL-HDBK-217F)
IP Grade	IP67			
T_c	90°C			
Warranty	5 years			$T_c \ 75^{\circ}\text{C}$
Net Weight	3800g			
Dimension	440mm*89.5mm*44.5mm			L x W x H

NOTE:

- 1, All the parameters above are tested $T_a \ 25^{\circ}\text{C}$ 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: $91\text{K}\Omega/\text{N}$.

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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	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		Class B
Radiation Emission	EN IEC 55015	✓	
	GB/T 17743		
	FCC Part 15 Subpart B;ANSI C63.4		Class B
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

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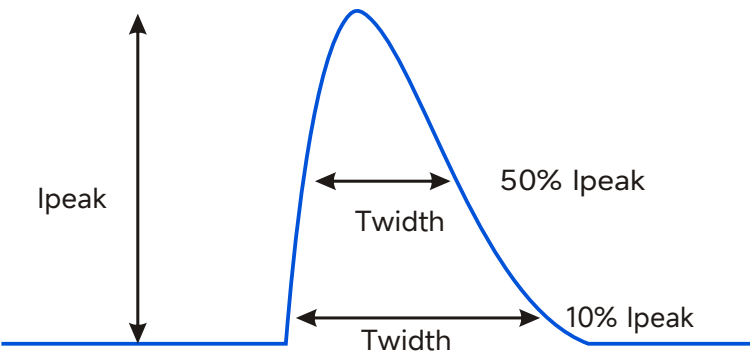
Safety Test Items

Safety Test Items	Technical Indicators		Remark
Insulation Requirements	UL Insulation Requirements	ENEC Insulation Requirements	
Input-Case	2U+1000Vac	2U+1000Vac	Basic insulation
Input-Dim	2U+1000Vac	4U+2000Vac	Reinforced insulation
Output to Dim	500Vac	500Vac	Basic insulation
Insulation Resistance	$\geq 10M\Omega$		Input-O/P, Test voltage: 500Vdc
Ground Resistance	$\leq 0.1\Omega$		25A/1min
Leakage Current	$\leq 0.75mA$		480Vac

- 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), (V+ and V-), (Dim+ and Dim - and Vaux+)when Hi-pot test.

Performance Curves

Input Inrush Current

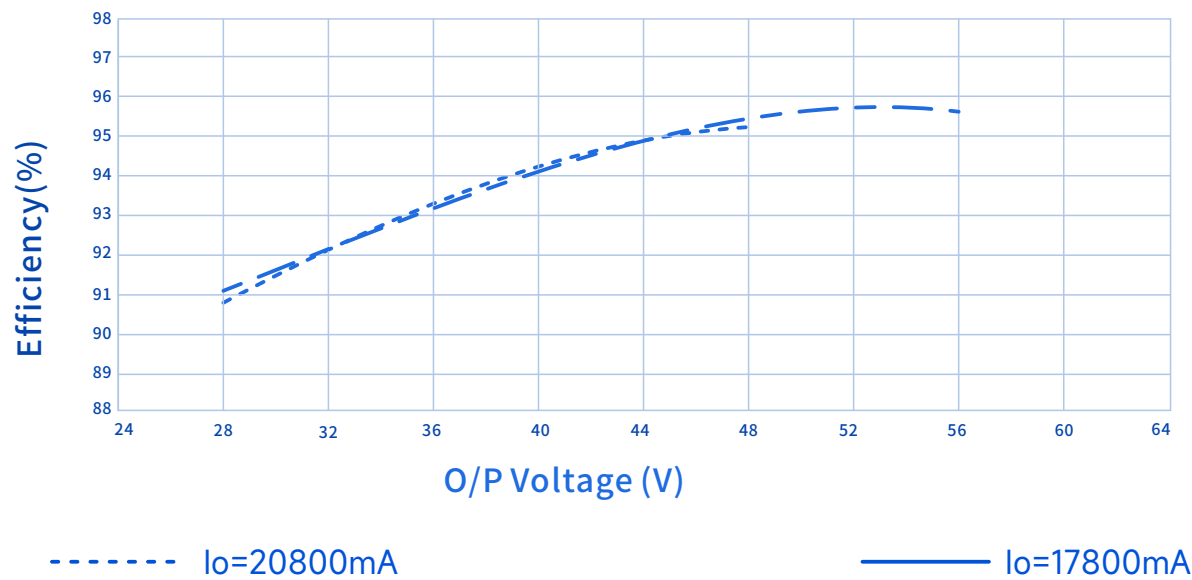


Vin	Ipeak	T(@10% of Ipeak)	T(@50% of Ipeak)
277Vac	20A	10mS	3mS
347Vac	25A	10.5mS	3.5mS
480Vac	35A	12.5mS	4mS

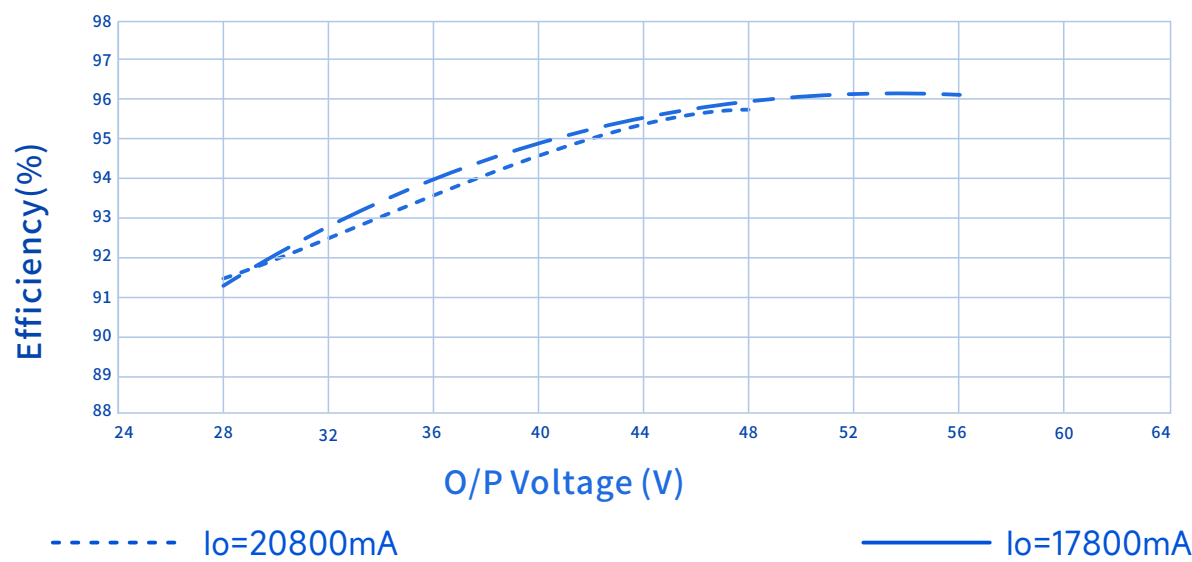
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Performance Curves

Efficiency Vs. Output Voltage (Vin=347Vac)



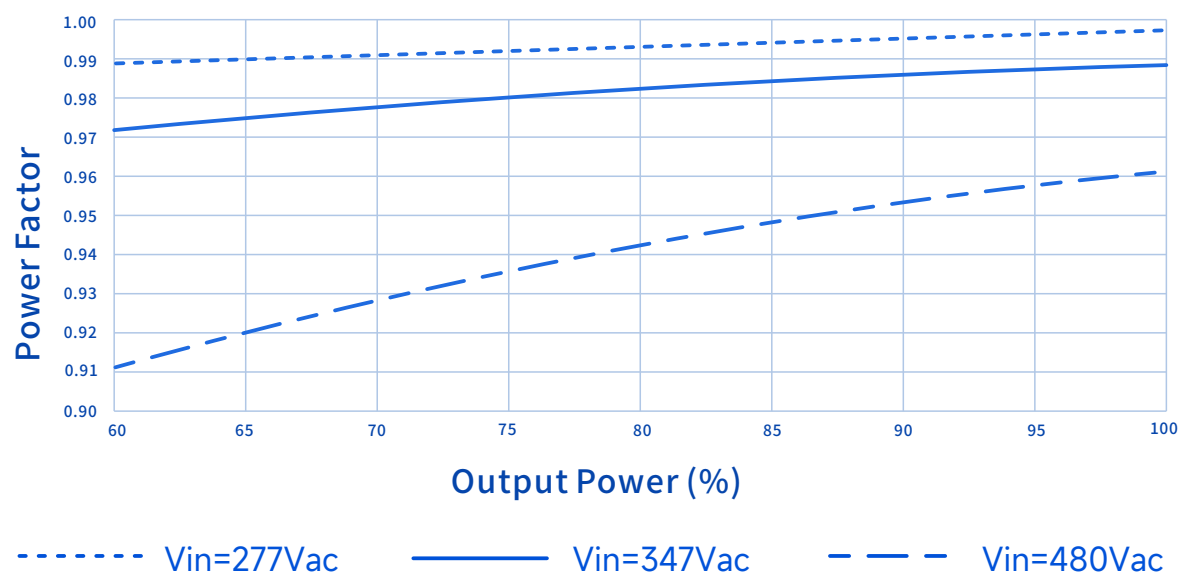
Efficiency Vs. Output Voltage(Vin=480Vac)



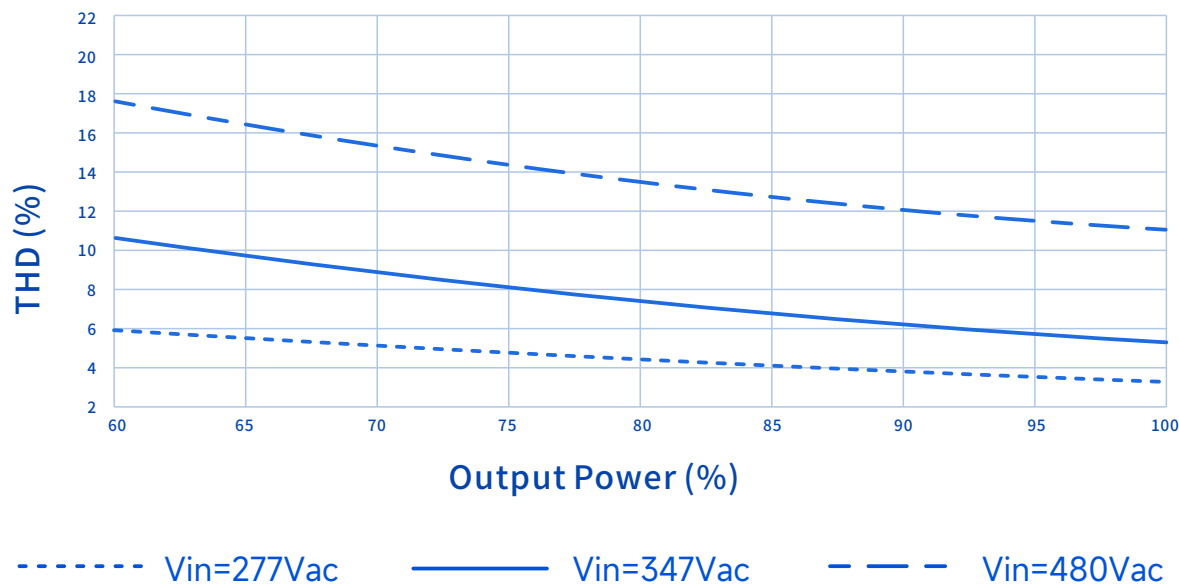
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Performance Curves

Power Factor Vs. Output Power



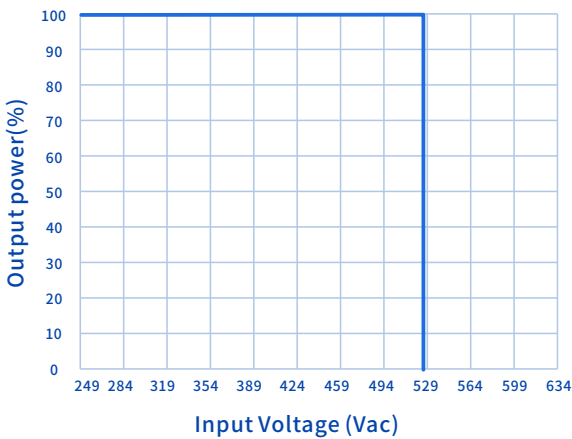
THD Vs. Output Power



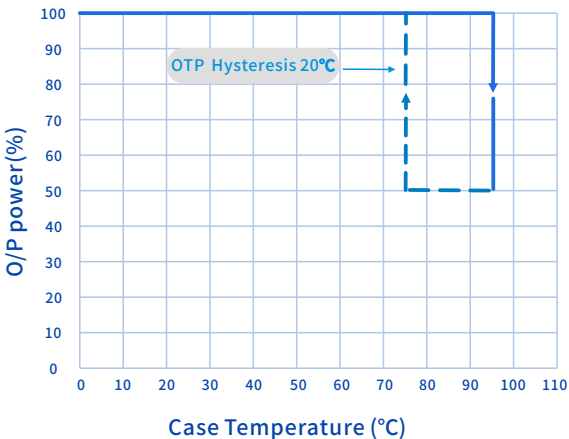
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Performance Curves

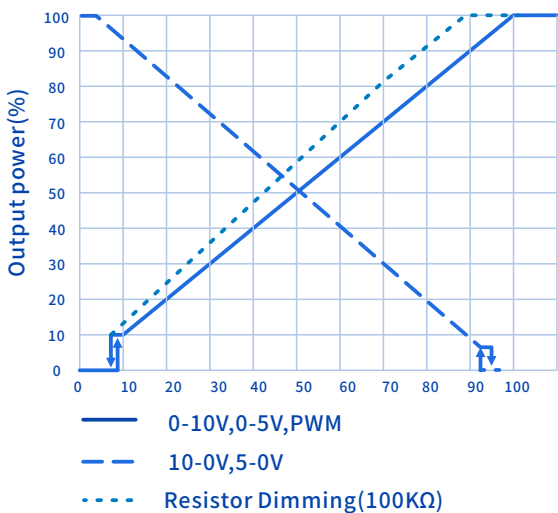
Output Power Vs. Input Voltage



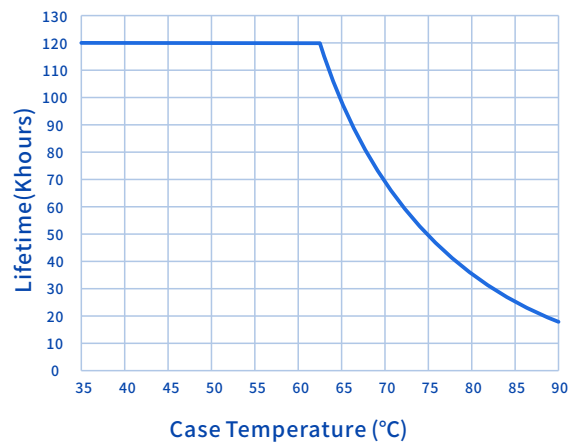
Output Power Vs. Case Temperature



Output Power Vs. Dimming



Lifetime Vs. Case Temperature



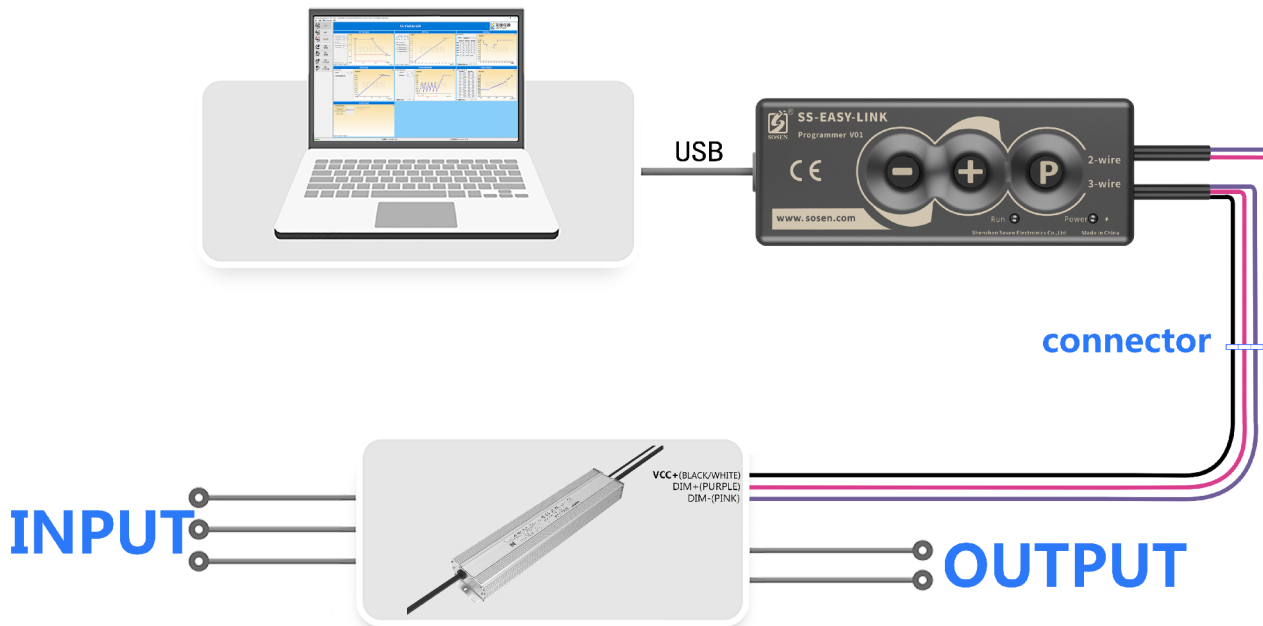
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Programming connection diagram

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-PR OG-LINK Programmer Manual.

SS-1000M Series LED DRIVER

Mechanical Characteristic

The diagram shows a central blue box labeled "LED DRIVER". On the left, under the heading "INPUT", there are three terminals: "ACL", "ACN", and a ground symbol. On the right, under the heading "OUTPUT", there are seven terminals: "V+", "V-", "DIM+ / PROG Dimming / Programming", "DIM- / VGND", "Vaux+ / VPROG AUX Power", "Vaux-", and "NTC".

AC Input Cable(Exposed Length 450±10mm):
Global model:SOOW/H07RN-F 3*17AWG,O.D: 9.8mm,Brown: L, Blue: N, Yellow-Green: ⊕
UL model: STW, 3*18AWG, O.D: 9.4mm,, Black:L, White: N, Green: ⊕

DC O/P Cable(Exposed Length 250±10mm):
Global model:SJOW 2*12AWG,O.D: 10.7mm,Black: V+, White: V-
Global model:SJOW 3*12AWG,O.D: 10.7mm,Black: V+, White: V-, Green: ⊕
UL model: SJTW, 2*12AWG, O.D: 9.2mm,, Black:L, White: N

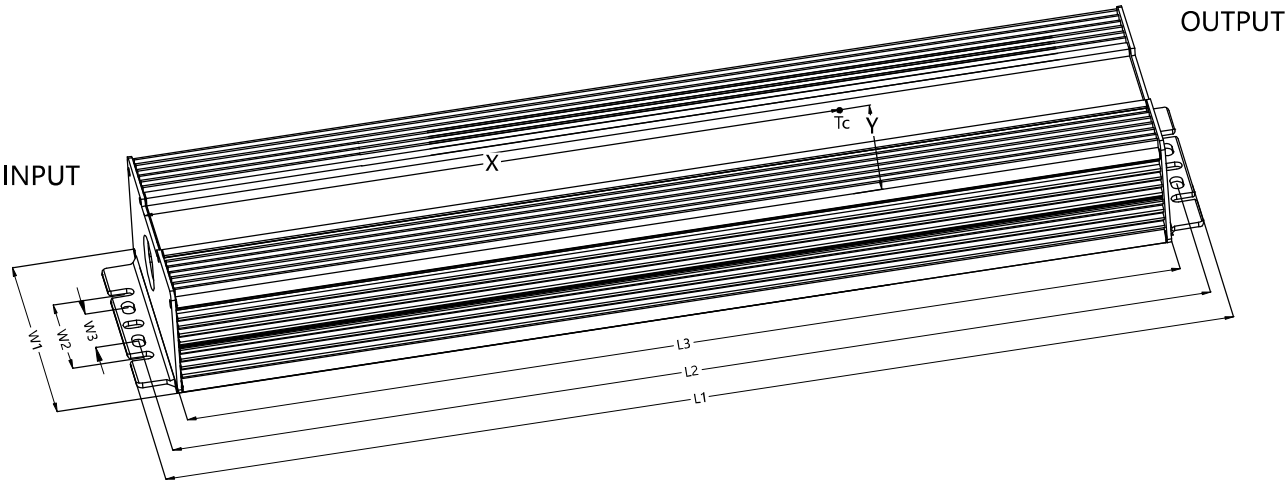
DIM/AUX Power/Programming Cable (Exposed Length 220±10mm):
UL model: STYLE 21996, 4*22AWG , O.D: 5.6mm Purple DIM+, Pink: DIM-, Black/White: Vaux+, Blue/White: Vaux-

NTC Cable(Exposed Length 220±10mm):
Global model:SJOW 2*14AWG,O.D: 8.8mm,Brown: NTC+, Blue: NTC-

Name Description	Standard Code	mm(in.)
Assembly Length	L1	440(17.32)
Overall Length	L2	426.5(16.79)
Mounting Hole Length	L3	413.2(16.27)
Case Height	H	44.5(1.75)

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

Name Description	Standard Code	mm(in.)
Case Width	W1	89.5(3.52)
Mounting Hole Width	W2	40(1.57)
	W3	21(0.83)
TC Point Position	X	303.2(11.94)
TC Point Position	Y	35(1.38)



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Assembly Tips

Please take isolation and waterproof measures if the dimming cable is not in use.

Package

- Outside carton dimension: L×W×H =495mm×385mm×162mm;
- 5PCS/Carton;
- Net weight/Piece: 3.8kg;Gross weight/Carton: 20.5kg;
- 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	2025/04/17	
V01	Update Certification	2025/11/28	
V02	Update Certification	2025/12/09	