



**SOSEN LED Driver,  
Your Best Choice**

**Specifications**

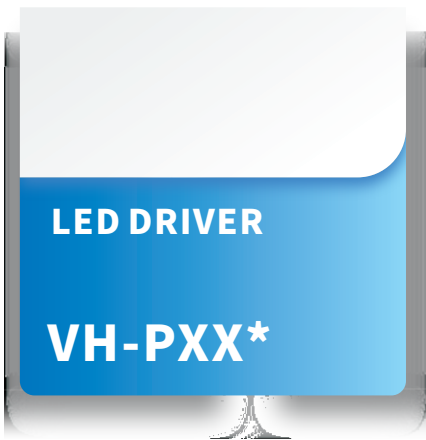
**SS-40VH-PXX\* LED Driver**

**Model: SS-40VH-PXX\***

**Description: 40W LED Driver**

**Rev.: V00**

**Release Date: 2024-5-29**



SS-40VH-PXX\* is 40W waterproof constant current LED drive power supply, adapts to global voltage input, is compatible with a variety of dimming, has high power factor, high reliability, high efficiency, and a compact housing. Good heat dissipation and comprehensive protection are conducive to the design of LED lamps and reduce the cost of LED lamp manufacturers.

# SS-40VH-PXX\* LED Driver

\* Means Additional Function

Model	0-10V/PWM Dim /Resistor Ⓞ 0-0V (suffix:B)	DALI (suffix:D)	NFC	Class I*	Class Ia	Remark
B	✓			✓		
BE	✓				✓	

## Input Characteristics:

Parameter	Min.	Typ.	Max.	Remark
Rated AC Input Range	100Vac		277Vac	
AC Input Range	90Vac		305Vac	Reference derating curve
Input Frequency Range	47Hz	50/60Hz	63Hz	
Max Input Current			0.5 A	100Vac, Full load
			0.18 A	277Vac, Full load
Max Input Power			5.0 W	100Vac, Full load
Max Inrush Current (120Vac)			5.0 A	Cold start
Max Inrush Current (220Vac)			6.5 A	Cold start
Max Inrush Current (277Vac)			7.5 A	Cold start
No Load Power			3 W	220Vac/50Hz
Power Factor	0.95	0.97		220Vac/50Hz, Full load
	0.90			100-277Vac/50Hz, 80-100% load
THD		12%	15%	220Vac/50Hz, Full load
			20%	100-277Vac/50Hz, 80-100% load

## O/P Characteristics (SS-40VH-P62\*):

O/P Voltage Range	30V		62V	Power derated @30-38V
Rated Output Voltage	38V		62V	Po=Vo*Io=40W, Full load
	0.65A		1.05A	1.05A for 38V,0.65A for 62V
	0.35A		1.05A	
			80V	
	85.0%	87.0%		O/P 62V/0.65A
	86.5%	88.0%		O/P 62V/0.65A
	86.0%	88.0%		O/P 62V/0.65A
			+8%	
		70%	90%	
			10%	Full load
			1.0S	120Vac,Full load
			0.5S	220Vac,Full load
	-8%		+8%	Full load
	-8%		+8%	
	-0.07%/!		+0.07%/!	Tc:0! ~ 90!

# SS-40VH-PXX\* LED Driver

## Other Characteristics:

Parameter		Min.	Typ.	Max.	Remark
0-10V Positive Dimming (Configurable)	Dim Vmax	0V		12V	DIM+ source current 110uA. Dimming prohibits reverse connection Configurable to 0-5V
	Dim Range	10%Iomax		100%Ioset	
	Rec Dim Range	0V		10V	
10-0V Negative Dimming (Configurable)	Rec Dim Range	0V		10V	DIM+ sink current I <sub>max</sub> 40uA. Dimming prohibits reverse connection
PWM Dimming (Optional)	PWM High	9.8V		10.2V	DIM+ source current 110uA. Dimming prohibits reverse connection
	PWM Low	0V		0.3V	
	Frequency	1KHz		2KHz	
	PWM Duty	0%		100%	
Resistor Dimming (Optional)	Resistance	0Kohm		100Kohm	Not available with negative logic
	Dim Range	10%Iomax		100%Ioset	DIM+ source current 110uA .
0-10V Dim to Off	Dim off	0.6V	0.8V	1.0V	If the led is less than maximum rated output voltage of 75%,the luminaries may possibly have slight light when dim-to-off. Thus the whole lighting system needs to be tested
	Dim on	0.7V	0.9V	1.1V	
10-0V Dim to Off	Dim off	9.0V	9.2V	9.4V	
	Dim on	8.8V	9.0V	9.2V	
Timing Curve(Optional)	By programming			Set by program (Externally programmable)	
Lifetime(Tc"d75! )	"e55,000 hours			80% load	
MTBF	262,000 hours			220Vac Full load, Ta=25! (MIL-HDBK-217F)	
IP Grade	IP65				
Tc	90!				
Warranty	5 years			Tcÿ 75!	
Net Weight	430g				
Dimension	105mm*66mm*35mm			L x W x H	

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



# SS-40VH-PXX\* LED Driver

## Safety Test Items (Class I equipment):

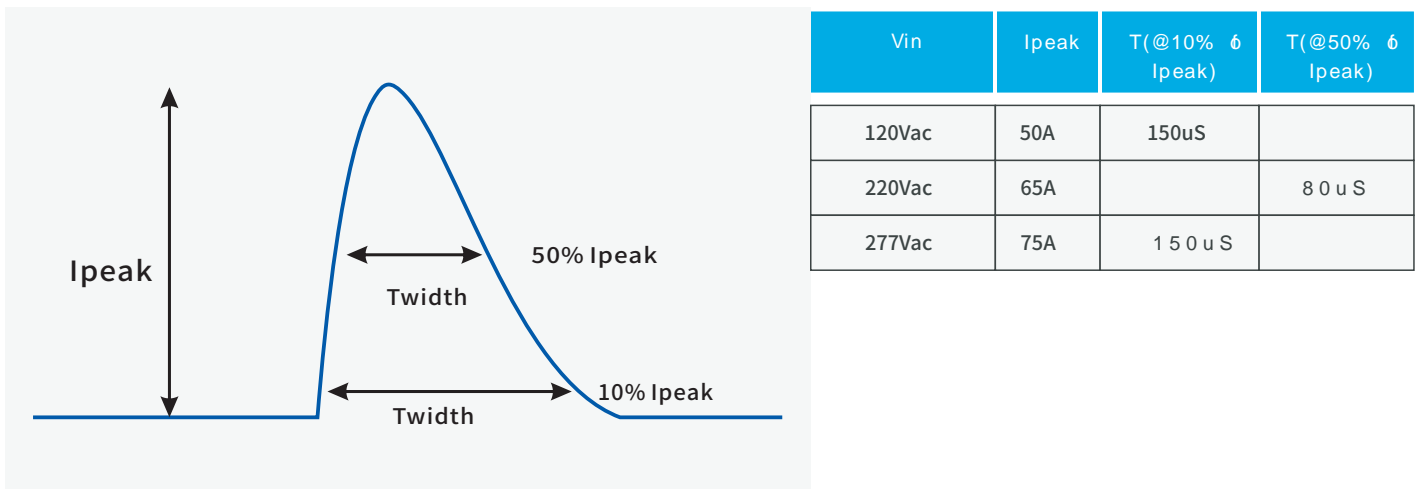
Safety Test Items	Technical Indicators			Remark
Input-O/P	/		3750Vac	
	/		1875Vac	Basic insulation
Input-Dim	/		3750Vac	
O/P-Dim	/		1000Vac	Basic insulation
O/P-Case	/		1000Vac	Basic insulation
Dim-Case	/		500Vac	
Insulation Resistance	"e10MΩ			Input-O/P Test voltage 500Vdc
Ground Prohibit	"d0.1Ω			25A/1min

### 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 -) ,(Dim +and Dim - and VPP+ )when Hi pot test .

## Performance Curves:

### Input Inrush Current



# SS-40VH-PXX\* LED Driver

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-PXX\* LED D

Curves:

Current

$i_{\text{avg}}$

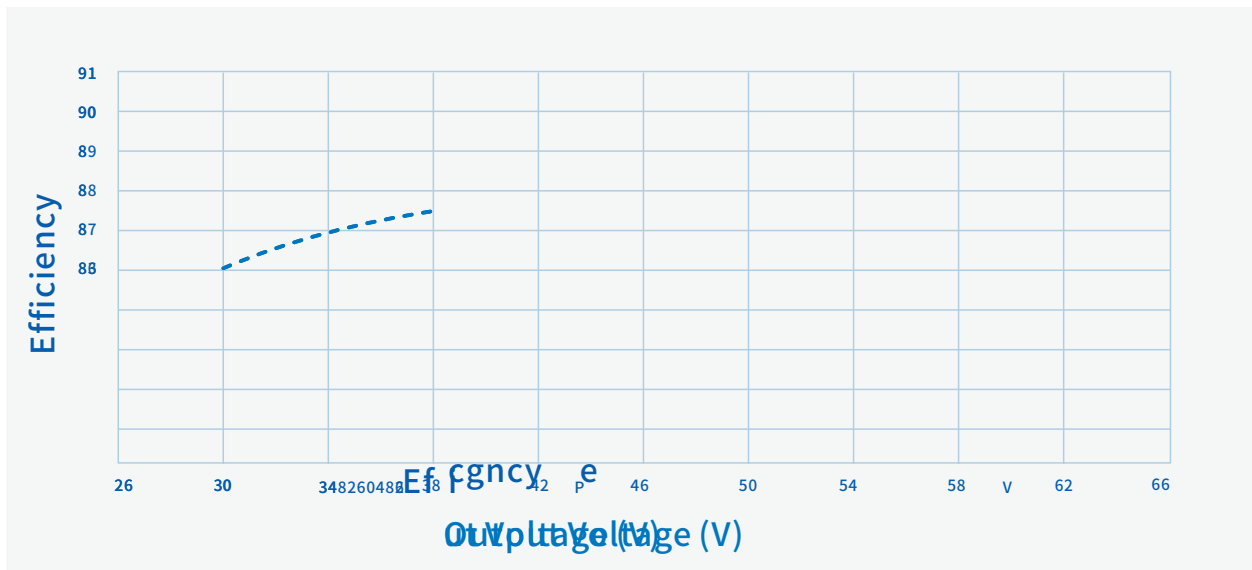
P Voltage (min=@

# SS-40VH-PXX\* LED Driver

## Performance Curves:

Efficiency Vs. O/P Voltage (Vin=220Vac)

Efficiency Vs. O/P Voltage (Vin=277Vac)



----- Io=1050mA

———— Io=650mA

# SS-40WH-PXX\* LED Driver

## Performance Curves:

Power Factor Vs. O/P Power

THD Vs. O/P Power

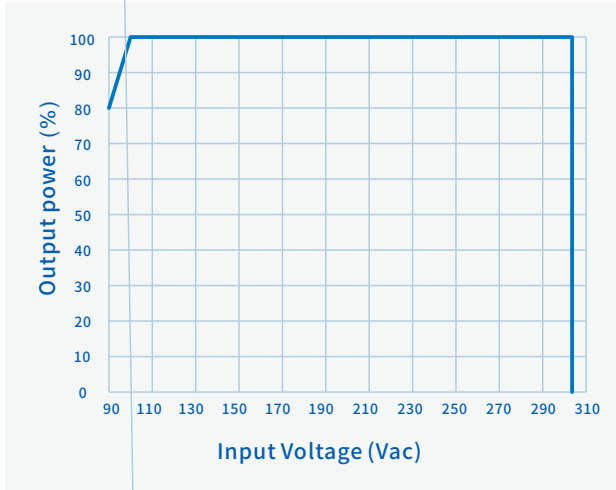
$V_{in} = 120V_{ac}$

$V_{in} = 277V_{ac}$

# SS-40VH-PXX\* LED Driver

## Performance Curves:

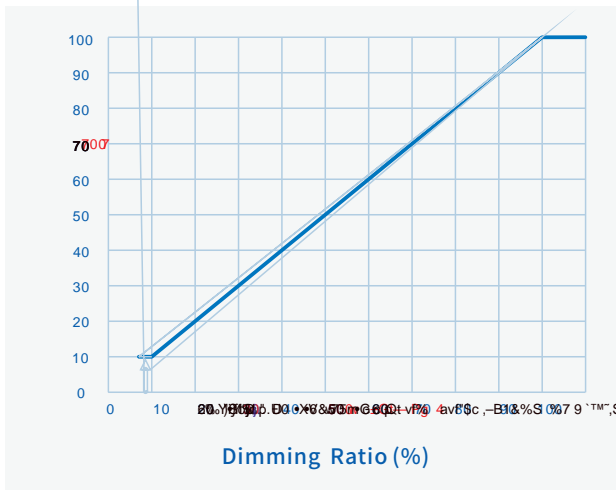
### O/P Power Vs. Input Voltage



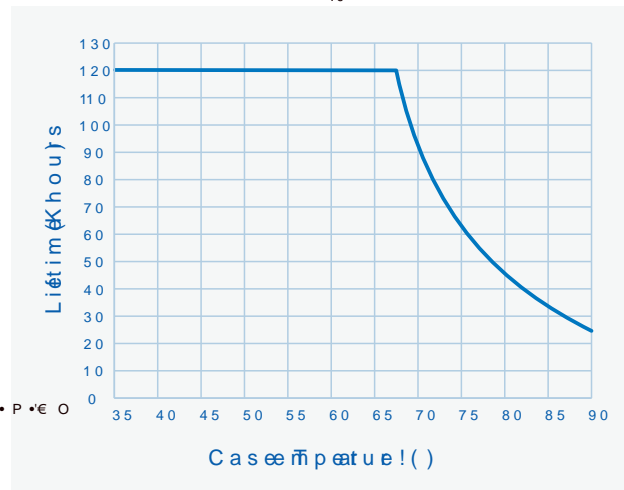
### Output power Vs. Case Temperature



### O/P Power Vs. Dimming



### Lifetime Vs. Case Temperature



# SS-40VH-PXX\* LED Driver

## Constant Lumen Output

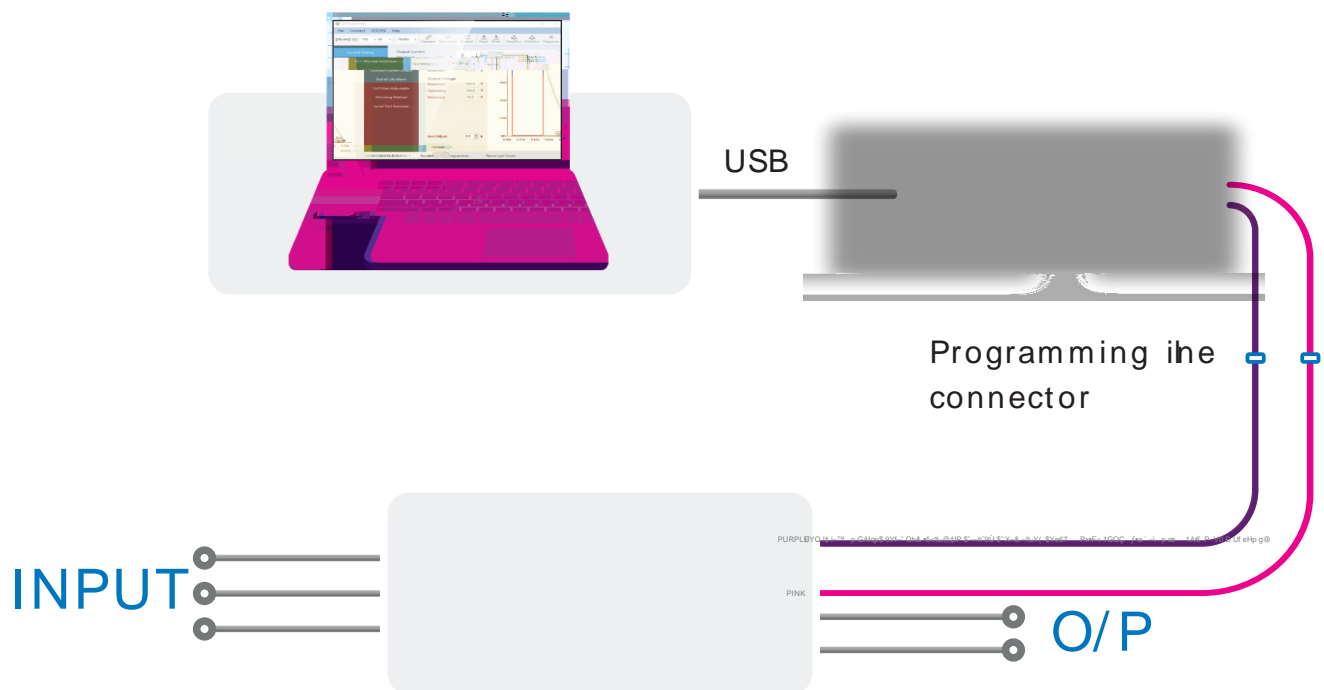
Constant Lumen output are design to maintain fixture's stable output lumen by increasing driver's output current within driver's life span to counteract LED lumen degradation.

## 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.



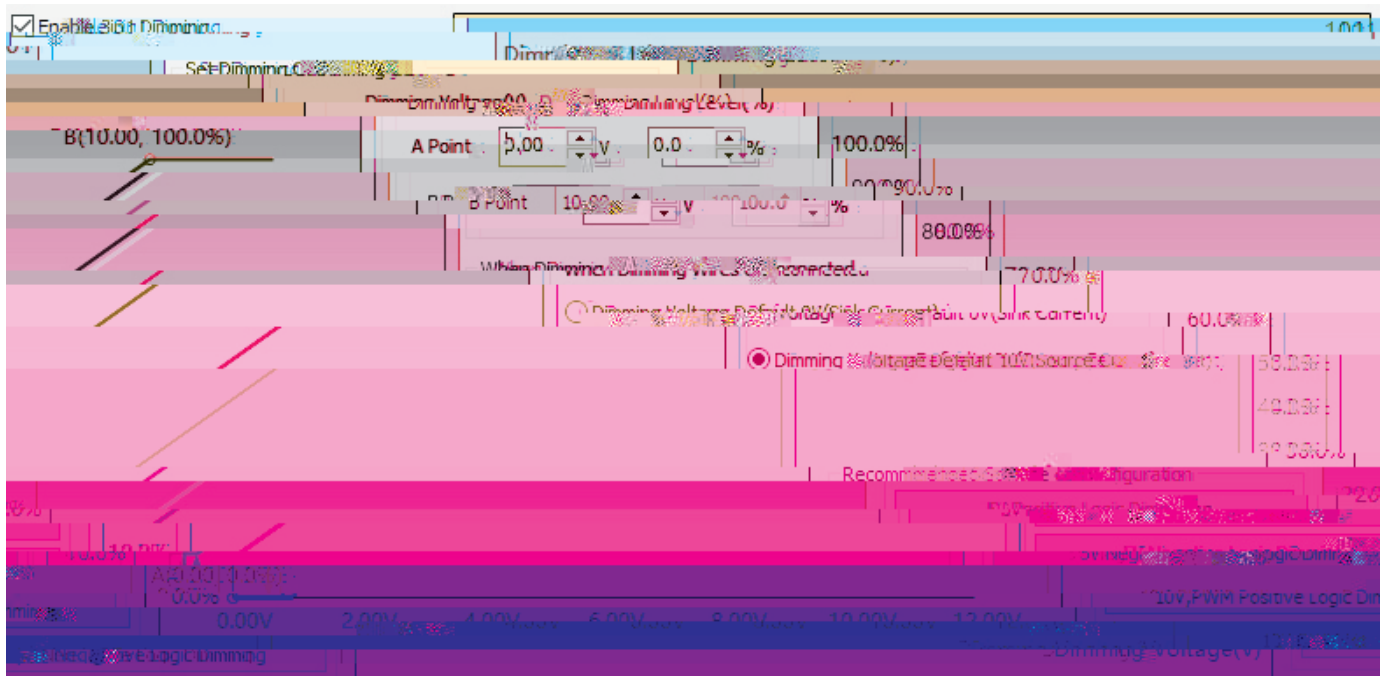
### Note:

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

# SS-40VH-PXX\* LED Driver

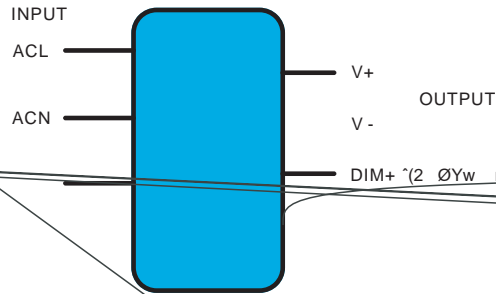
Parameter			Remark
Default setting	Positive logic dimming (0-10V)	Dimming voltage default 10V (source current)	
	Negative logic dimming (10-0V)	Dimming voltage default 0V (sink current)	
Dimming optional function	Positive logic dimming (0-10V)	Dimming voltage default 0V (sink current)	When the dimming 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)

## Settings Interface



# SS-40VH-PXX\* LED Driver

## Mechanical Characteristics (Class I equipment)



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

EU model: H05RN-F, 3\*1.0mm<sup>2</sup> O.D: 7.3mm, Brown:L, Blue:N, Yellow/Green: ⊕

### PE Ground Wire With Copper Ear (Exposed Length 60 ± 10mm):

UL model: 21996, 18AWG, O.D: 2.7-2.85mm, 600V, Yellow/Green:

### DIM/Timing Cable(Exposed Length 220 ± 10mm):

UL model: UL 21996, 3\*22AWG, O.D: 4.7mm, Purple: DIM+, Pink: DIM-

Name Description	Standard Code	mm (In .)
Case Length	L3	92(3.62)
Case Width	W1	66(2.6)
Case Height	H	35(1.38)
Overall Length	L1	105(4.13)
Mounting Hole Length	L2	100(3.94)
Mounting Hole Width	W2	32(1.26)
TC Point Position	X	70(1.38)
TC Point Position	Y	30(1.18)

#### 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.

## Package

- Outside carton dimension: L × W × H =495mm × 385mm × 162mm;
- 28PCS/Carton;
- Net weight/Piece: 0.43kg;Gross weight/Carton: 13.5kg;
- 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 3873ÿ 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	2024/05/29	