

SOSEN LED Driver, Your Smart Choice

Specifications

SS-450UV Series LED Driver

Model: SS-450UV-XX

Description: 450W LED Driver

Rev.: V02

Release Date: 2026-10-12

SS-450UV Series LED Driver

SOSEN
LED DRIVER



LED DRIVER

UV Series



Features:

- Efficiency up to 90%
- Adjustable O/P current
- Dim-to-Off: 0-10V, PWM, Resistor
- Protections: SCP/OTP/OVP/OPP
- Fan cooling by temperature controlled
- OUTPUT PS-ON signal start control
- Metal shell
- Warranty: 3 years

Description

SS-450UV series are 450W constant current LED Driver with wide O/P voltage and adjustable O/P voltage and current. It has high efficiency, compact housing, good cooling, all-around protections. LED luminaries manufactures can design luminaries easily and reduce cost.

Applications:

UVLED Exposure Unit, UVLED Printer, UVLED Tunnel device, UVLED Curing Equipment, UVLED Driver, UVLED Plant lighting

Model List:

Model	Rated AC Input Range	Max. Pout	O/P Voltage Range	Adjustable O/P Current Range	Eff.(Typ.)	Max.Tc
SS-450UV-48B	220-240Vac	450W	24-48V	9.4A	89%	75°C
SS-450UV-75B	220-240Vac	480W	45-75V	6.5A	90%	75°C
SS-450UV-95B	220-240Vac	480W	60-95V	5.1A	90%	75°C

Note:

For SS-450UV, set AC input switch (220VAC) according to the AC input voltage before AC ON;

Default tested at 220Vac, full load, Ta 25°C.

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Input Characteristics:

Parameter	Min.	Typ.	Max.	Remark
Rated AC Input Range	220Vac		240Vac	
AC Input Range	200Vac		264Vac	
Input Frequency Range	47Hz	50/60Hz	63Hz	
Max Input Current			6.5A	200Vac, Full load
Max Inrush Current (220Vac)			150A	Cold start
No Load Power			6W	220Vac/50Hz, No load/Dim off

Output Characteristics(SS-450UV-48B):

Parameter	Min.	Typ.	Max.	Remark
Rated O/P Voltage	24V		48V	
No Load Voltage Range			55V	
Rated O/P Current		9.4A		
Adj. O/P Current (AOC)Range	6.5A		9.4A	
O/P Power			450W	
Efficiency	88.0%	89.0%		Full load@220Vac
Current accuracy	-5%		+5%	
O/P Current Ripple(PK-PK)			10%	Full load, Bandwidth limitation 20MHz, room temperature
Line Regulation	-1%		+1%	
Load Regulation	-2%		+2%	
Current Overshoot			10%	Full load
Start-up Time		1S	2S	
Temperature Coefficient	-0.1%/°C		+0.1%/°C	Ta:0°C~45°C

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Output Characteristics(SS-450UV-75B):

Parameter	Min.	Typ.	Max.	Remark
Rated O/P Voltage	45V		75V	
No Load Voltage Range			90V	
Rated O/P Current		6.5A		
Adj. O/P Current (AOC)Range	3.5A		6.5A	
O/P Power			480W	
Efficiency	88.0%	90.0%		Full load@220Vac
Current accuracy	-5%		+5%	
O/P Current Ripple(PK-PK)			10%	Full load, Bandwidth limitation 20MHz, room temperature
Line Regulation	-1%		+1%	
Load Regulation	-2%		+2%	
Current Overshoot			10%	Full load
Start-up Time		1S	2S	
PS-ON level signal	6V		24V	Turn-on current <5mA, PS-ON+ /PS-ON-Reverse connection or single-pole open circuit is strictly prohibited
PS-ON signal start delay			50mS	Full load, PS-ON ≥ 6V until output current up to 50%
Temperature Coefficient	-0.1%/°C		+0.1%/°C	Ta:0°C~45°C

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Output Characteristics(SS-450UV-95B):

Parameter	Min.	Typ.	Max.	Remark
Rated O/P Voltage	60V		95V	
No Load Voltage Range			105V	
Rated O/P Current		5.1A		
Adj. O/P Current (AOC)Range	2.5A		5.1A	
O/P Power			480W	
Efficiency	88.0%	90.0%		Full load@220Vac
Current accuracy	-5%		+5%	
O/P Current Ripple(PK-PK)			10%	Full load, Bandwidth limitation 20MHz, room temperature
Line Regulation	-1%		+1%	
Load Regulation	-2%		+2%	
Current Overshoot			10%	Full load
Start-up Time		1S	2S	
PS-ON level signal	6V		24V	Turn-on current <5mA, PS-ON+ /PS-ON-Reverse connection or single-pole open circuit is strictly prohibited
PS-ON signal start delay			50mS	Full load, PS-ON ≥ 6V until output current up to 50%
Temperature Coefficient	-0.1%/°C		+0.1%/°C	Ta:0°C~45°C

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Other Characteristics:

Parameter		Min.	Typ.	Max.	Remark
0-10V Dimming	Dim Vmax	0V		10V	DIM+ source current 100uA.
	Dim Range	10%loset		100%loset	Dimming prohibits reverse connection
	Dim on	0.6V	0.8V	0.9V	
	Dim off	0.3V	0.4V	0.7V	
PWM Dimming	PWM High	9.8V		10.2V	DIM+ source current 100uA.
	PWM Low	0V		0.3V	Dimming prohibits reverse connection
	Frequency	1KHz		2KHz	
	PWM Duty	0%		100%	
	Dim Range	10%loset		100%loset	
	Turn on duty	6%	8%	9%	
	Off duty	2%	4%	7%	
Resistor Dimming	Resistance	0Kohm		100Kohm	DIM+ source current 100uA.
	Dim Range	10%loset		100%loset	
	Turn on Resistance	6Kohm	8Kohm	9Kohm	
	Off Resistance	4Kohm	5Kohm	7Kohm	
Protective function	OTP	55°C		75°C	> Tc Typ., O/P off < Tc Min., O/P recovery
	OVP	/		/	Hiccup mode
	SCP	Driver will not be damaged			1, Current mode; 2, If O/P off, driver is in OTP mode
Lifetime	Tc≤50°C	30,000 hours			80% load
MTBF		200,000 hours			220Vac, Full load, Ta=25°C (MIL-HDBK-217F)
Warranty		3 years			TC:50°C, 80% load
Net Weight		790g			
Dimension		224.5mm*115mm*50mm			L x W x H

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

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Environmental Requirements

Parameter	Min.	Typ.	Max.	Remark
Operating Temperature(Ta)	-15℃	25℃	+45℃	Ambient temperature
Storage Temperature	-40℃	25℃	+85℃	
Operation Humidity	20%RH		90%RH	Non-condensing
Storage Humidity	10%RH		95%RH	Non-condensing
Cooling method	Fan cooling			Don't block the fan duct when assembly driver

Safety and EMI/EMS Standards

Certification	Standard	Status	Remark
UL/cUL	UL60950		
TUV	EN60950		
CCC	GB4943.1-2011		

EMI/EMS	Criterion	Remark
Conduction Emission	/	
Radiation Emission	/	
Harmonic Current Emissions	/	
Surge	IEC/EN61000-4-5	DM: 1kV,CM: 2kV,Criterion B

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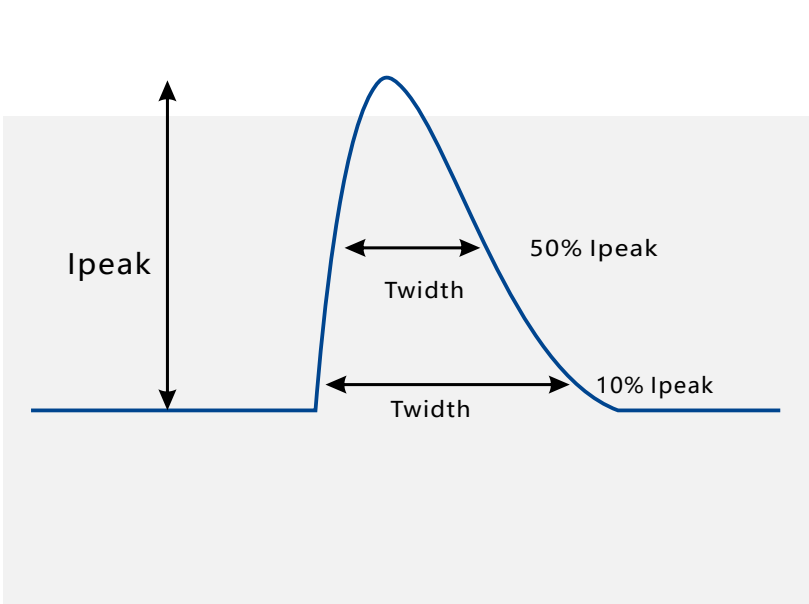
Safety Test Items:

Safety Test Items	Technical Indicators	Remark
Insulation Requirements	Insulation Requirements	
Input-Output	1500Vac/5mA	Basic insulation
Input-Case	1500Vac/5mA	Basic insulation
Output-Case	500Vac/10mA	Basic insulation
Insulation Resistance	$\geq 10M\Omega$	Input-Output, Test voltage: 500Vdc
Ground Resistance	$\leq 0.1\Omega$	25A/1min
Leakage Current	$\leq 2mA$	240Vac

NOTE:
1. Please short Line and Neutral, V+ and V- ,DIM+ and DIM- when Hi-pot test.

Performance Curves:

Input Inrush Current

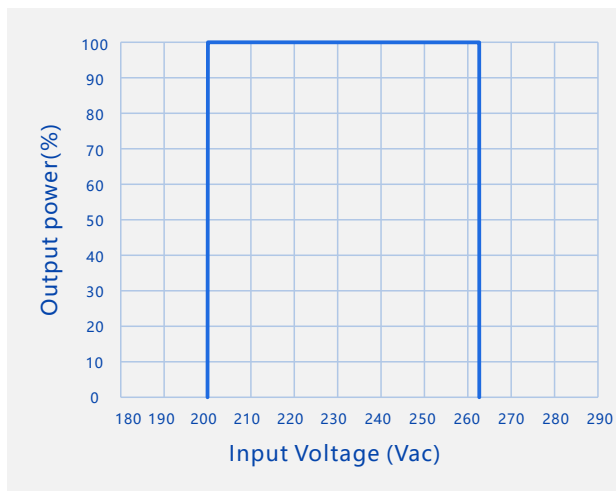


Vin	Ipeak	T(@10% of Ipeak)	T(@50% of Ipeak)
220Vac	150A		900uS

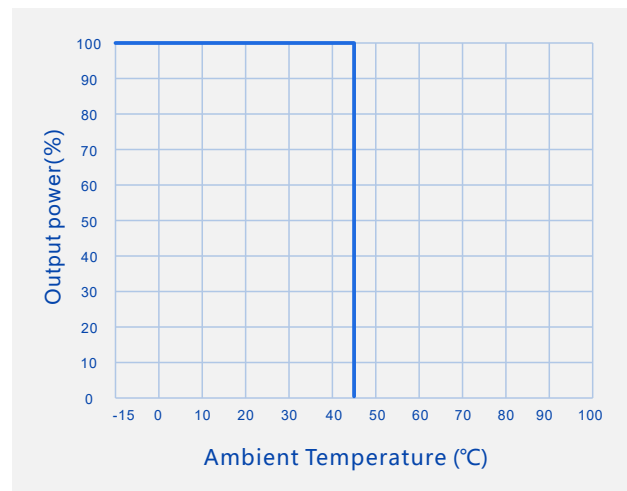
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Performance Curves:

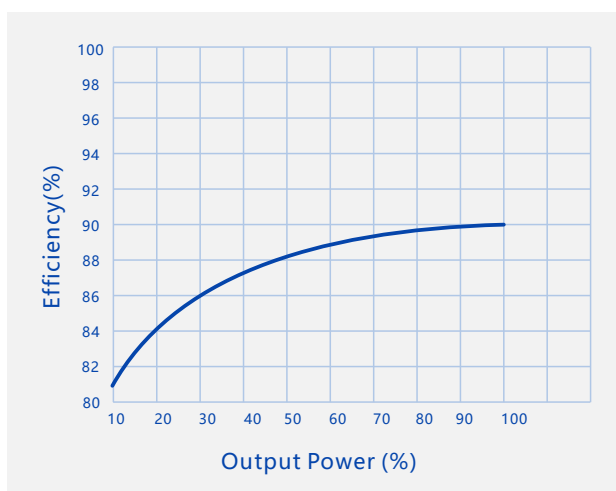
Output Power Vs. Input Voltage



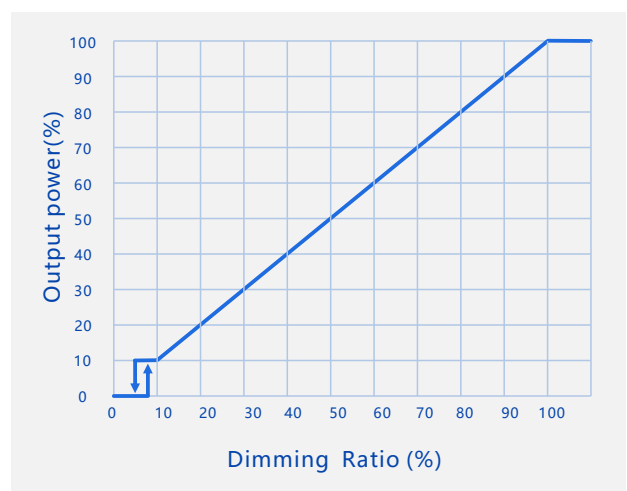
Output Power Vs. Ambient Temperature



Efficiency Vs. Output Power

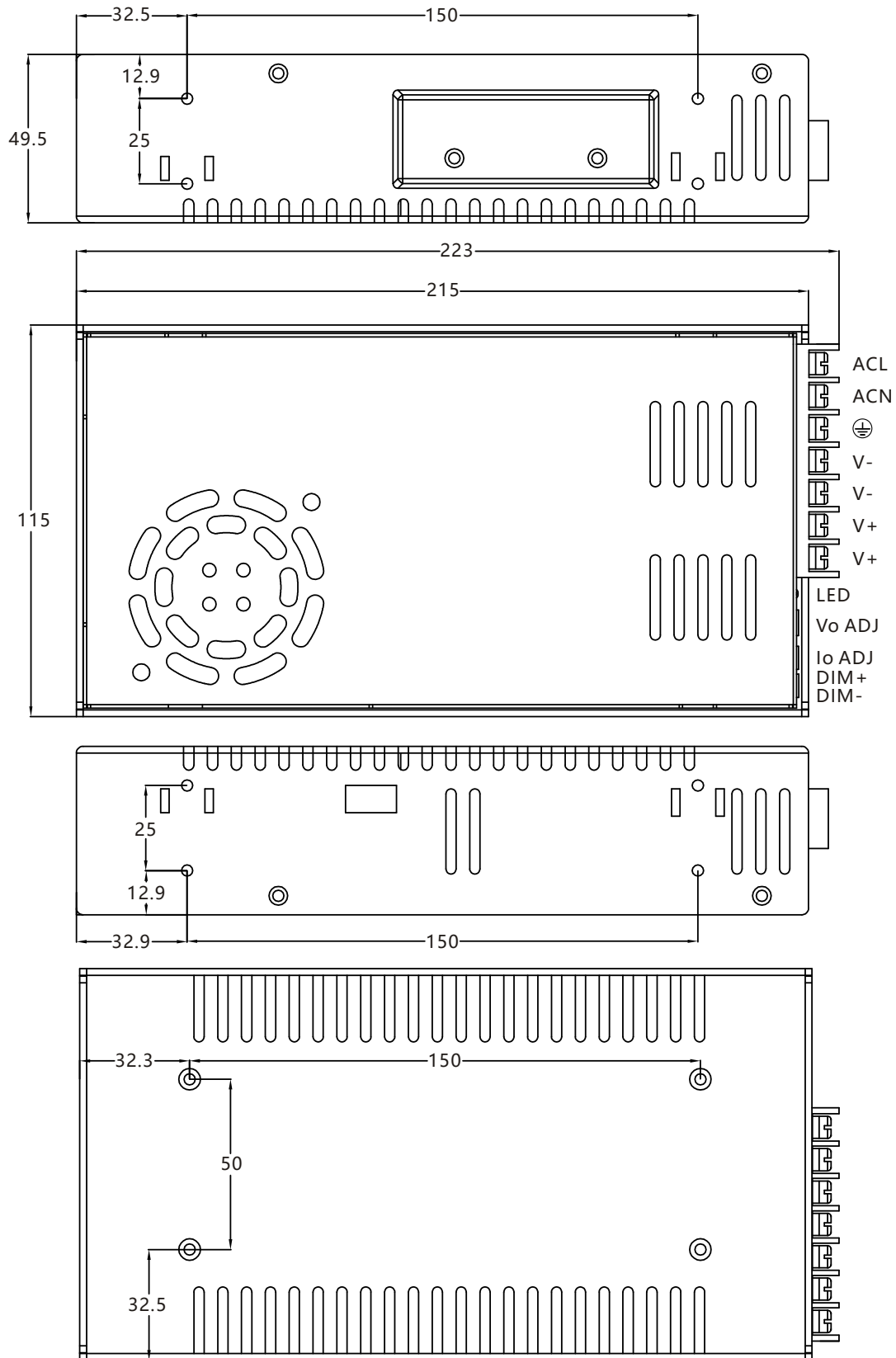


Output Power Vs. Dimming Signal



SS-450UV Series LED Driver

Mechanical Characteristics(Unit: mm)



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Package

- Outside carton dimension: L×W×H =412mm×240mm×175mm;
- 12PCS/Carton;
- Net weight/Piece: 0.79kg;Gross weight/Carton: 11kg;
- 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	2022/02/15	
V01	Add SS-450UV-95B Model	2023/04/23	
V02	Update Characteristic Curves	2026/10/12	