

SOSEN LED Driver, Your Smart Choice

Specifications

SS-160UV Series LED Driver

Model: SS-160UV-XX

Description: 160W LED Driver

Rev.: V01

Release Date: 2021-05-29

SS-160UV Series LED Driver

SOSEN
LED DRIVER



LED DRIVER

UV Series



Features:

- Efficiency up to 92%
- Non-isolated dimming:0-10V,PWM,Resistor
- Protections: SCP/OTP/OVP/OPP
- Warranty: 3 years

Description:

SS-160UV series are 160W constant current LED Driver with wide O/P voltage and adjustable O/P current. It has high efficiency, compact housing, good cooling, all-around protections. LED luminaries manufacturers can design luminaries easily and reduce cost.

Applications:

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

Model List:

Model	AC Input Range	Max. Pout	Vout Range	Adjustable O/P Current Range	Standby Power	Eff.(Typ.)	Max.Tc
SS-160UV-65B	180-264Vac	159.25W	40-65V	1.7-2.45A	2W	92%	90°C

Note:

1.Default Tested: at 220Vac, 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;

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Input Characteristics:

Parameter	Min.	Typ.	Max.	Remark
Rated AC Input Range	200Vac		240Vac	
AC Input Range	180Vac		264Vac	
Input Frequency Range	47Hz	50/60Hz	63Hz	
Max Input Current			2.2A	180Vac, Full load
Max Input Power			200W	180Vac, Full load
Max Inrush Current(220Vac)			100A	Cold start
Standby Power			2W	220Vac/50Hz, No load/Dim to off

O/P Characteristics:

Parameter	Min.	Typ.	Max.	Remark
Rated O/P Voltage		65V		
O/P Voltage Range	40V		65V	
No Load Voltage			72V	
Rated O/P Current		2.45A		
Adj. O/P Current (AOC)Range	1.7A		2.45A	
O/P Power			159.25W	
Efficiency @220Vac	90.0%	92.0%		Full load
O/P Current Tolerance	-5%		+5%	
O/P Current Ripple(PK-PK)		5%	10%	Full load
Line Regulation	-1%		+1%	
Load Regulation	-2%		+2%	
Start-up Current Overshoot			10%	Full load
Start-up Time			1S	
Temperature Coefficient	-0.03%/°C		+0.03%/°C	Tc:0°C~90°C
OTP	90°C	100°C	110°C	> Tc Typ., O/P off < Tc Min., O/P recovery
Short Circuit Protection			10W	Driver will not be damaged, Current mode

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Other Characteristics:

Parameter		Min.	Typ.	Max.	Remark
0-10V Dimming (Optional)	Dim Vmax	0V		12V	DIM+ source current 100uA.
	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 100uA.
	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 100uA.
	Dim Range	10%Iomax		100%Ioset	
Dim to Off (Optional)	Dim-off	0.7V	0.9V	1.1V	
	Dim-on	1.0V	1.2V	1.4V	
Lifetime(Tc≤70℃)		≥30,000 hours			80% load,220Vac
MTBF		200,200 hours			220Vac,Full load, Ta=25℃ (MIL-HDBK-217F)
Tc		90℃			
Warranty		3 years			Tc : 70℃
Net Weight		790g			
Dimension		179mm*71mm*39.6mm			L x Wx H

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

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Environmental Requirements

Parameter	Min.	Typ.	Max.	Remark
Operating Temperature(Tcase)	-20℃	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		
TUV	EN 61347-2-13:2014/A1:2017 EN61347-1:2015 EN62493:2015		
RCM	AS/NZS61347.2.13		
BIS	IS15885:2012 Part 2 Sec 13		
CCC	GB 19510.14-2009		
CE	EN 61347-2-13:2014 EN61347-1:2008+A1:2011+A2:2013		

EMI/EMS	Criterion	Remark
Conduction Emission	/	
Radiation Emission	/	
Harmonic Current Emissions	/	
Surge	IEC/EN 61000-4-5	DM: 2kV,CM: 4kV,Criterion B
Ring Wave	IEC/EN 61000-4-12	DM: 2kV,CM: 4kV,Criterion B

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Safety Test Items:

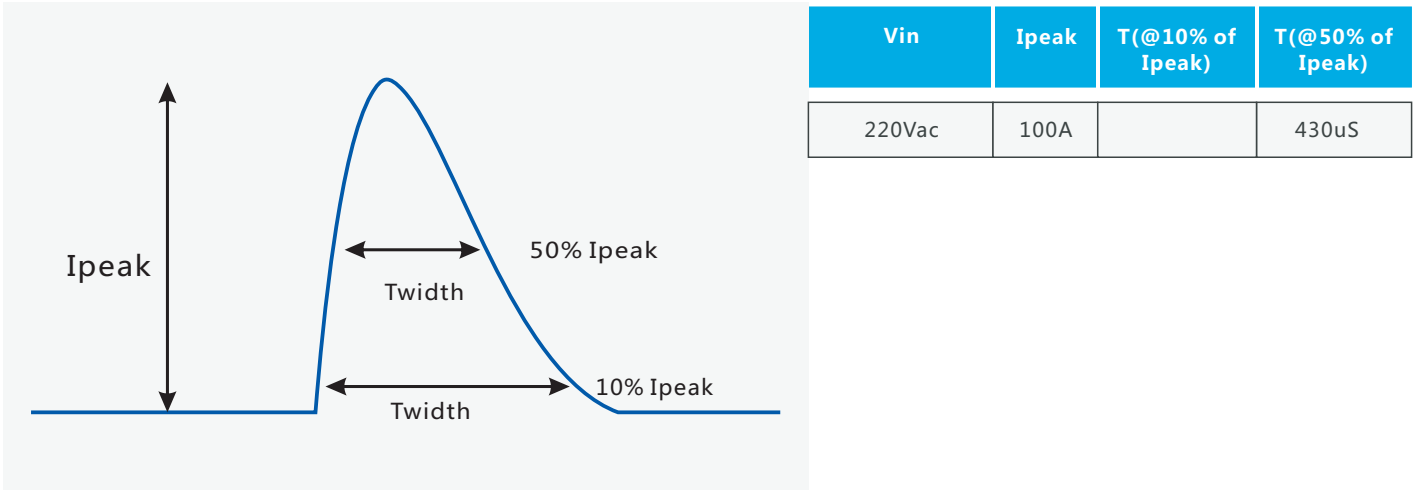
Safety Test Items	Technical Indicators	Remark
Insulation Requirements	Security Testing Requirements	
Input-O/P	3000Vac/10mA	Reinforced insulation
Input-Case	1500Vac/10mA	Basic insulation
O/P-Case	500Vac/10mA	Basic insulation
Insulation Resistance	$\geq 10M\Omega$	Input-O/P,Test voltage:500Vdc
Ground Resistance	$\leq 0.1\Omega$	25A/1min
Leakage Current	$\leq 0.75mA$	240Vac

NOTE:

1. Please short (ACL and ACN), (V+ and V-), (Dim+ and Dim -)when Hi-pot test.

Performance Curves:

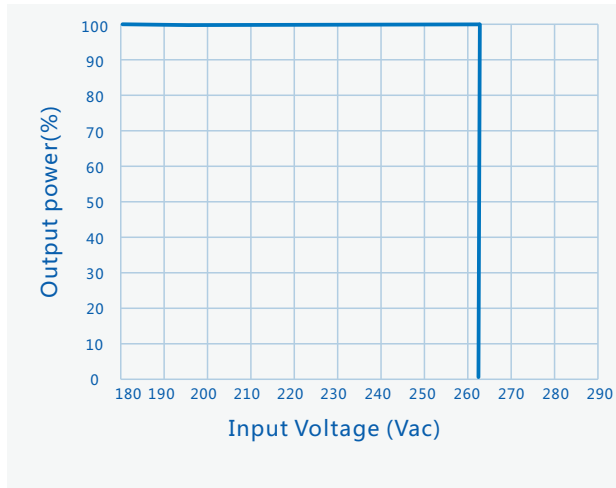
Input Inrush Current



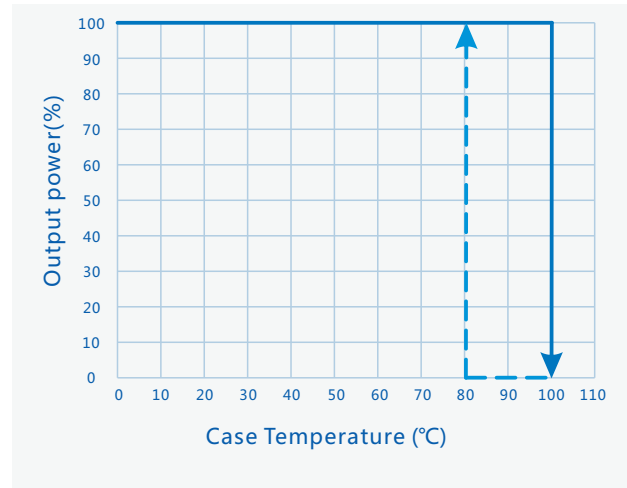
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Performance Curves:

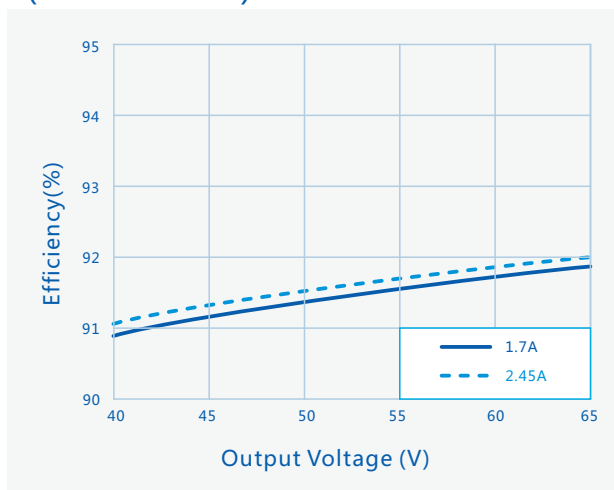
O/P Power Vs. Input Voltage
(Ta Max.60°C)



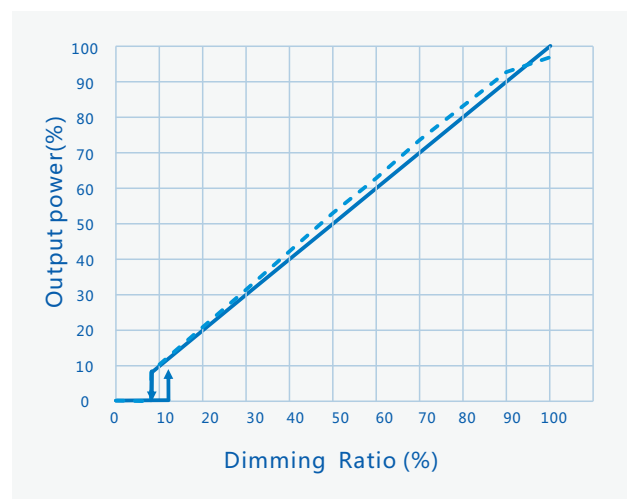
O/P Power Vs. Case Temperature



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



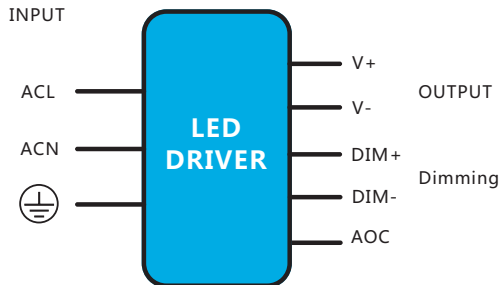
O/P Power Vs. Dimming



—— 0-10V/PWM ----- Resistance

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Mechanical Characteristics



AC Input Cable(Exposed Length 300±10mm):

UL model: 18AWG , 105°C 600V,O.D: 2.7mm,Brown:L,Blue:N,Yellow/Green:GND

DC O/P Cable(Exposed Length 1200±10mm):

UL model: 18AWG , 105°C 300V,O.D: 2.0mm,Brown:V+ , Blue:V-

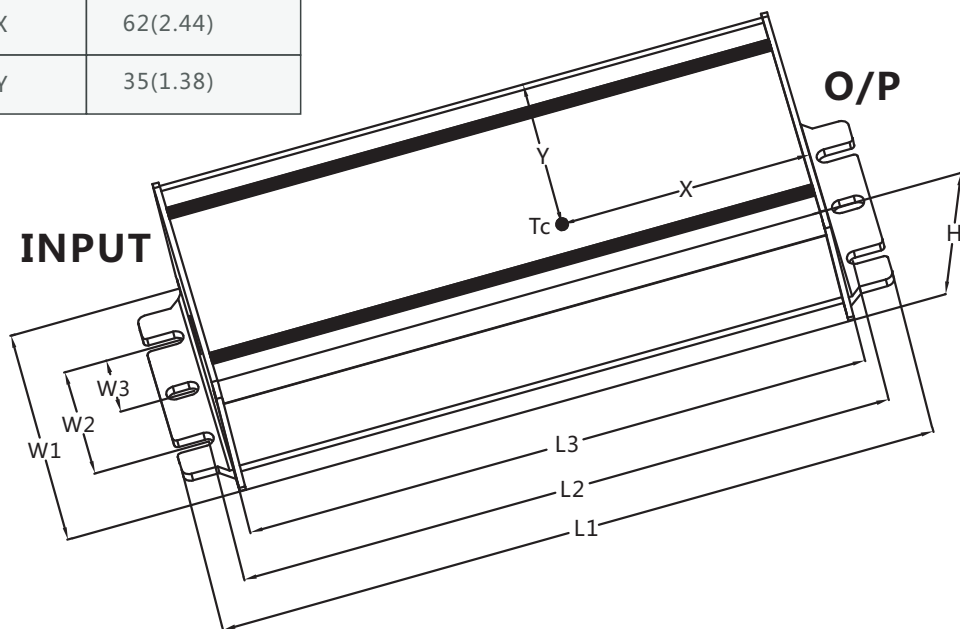
DIM Power Cable(Exposed Length 1200±10mm):

UL model: 2C*22AWG,O.D: 1.5mm , Red : DIM+ , Black: DIM-

Name Description	Standard Code	mm(In.)
Case Length	L3	154(6.06)
Mounting Hole Width	W1	71(2.8)
Case Height	H	39.6(1.56)
Overall Length	L1	179(7.05)
Mounting Hole Length	L2	164(6.46)
Case Width	W2	34(1.34)
Case Width	W3	17(0.67)
TC Point Position	X	62(2.44)
TC Point Position	Y	35(1.38)

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:
Tinned length of wire:6±1mm



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Assembly Tips

1. Highly recommended to seal the adjustable hole with silicon glue(#704 preferred) after adjusting the Driver' s O/P current. Avoid permanent damage to adjust the potentiometer with suitable strength.
2. Dimming tinned connectors should be capped if not used to avoid dimming parts damage from external signals.

Package

- Outside carton dimension: L×W×H =495mm×385mm×162mm;
- 14PCS/Carton;
- Net weight/Piece: 0.79kg;Gross weight/Carton: 12kg;
- 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	2020/07/05	
V01	Update Security Testing Requirements	2021/05/29	

