

SPECIFICATION

Product name: LCS-300H-300X (JT)

Release date: 2026.06.09

SUNCOM	Product Type	LED INTEGRATED SPECIAL DRIVER		
	Product Series	LCS-300H-300X (JT)	REV	V1.4

Features:

- Class I type for insulation
- Input voltage range:100-277V ~ 50/60Hz
- Constant current output ,with power limitation for control mode
- Metal material case, protection grade against water and dust: IP65
- Surge level:
differential mode 4kV ,common mode 6kV
- Guaranteed Lifetime:5 years



Applications

Wall washing light, linear mining light, floodlight, wall light, shoebox light

Model list

Model NO.	Rated input voltage	Max output	Output voltage	The default current	EFF.
LCS-300H-300X	100-277V 50/60Hz	300W	180-300Vdc Rated Power (200-300V)	1A	≥95.5%

Note:

- 1.Test conditions: Ta=25°C, under 230Vac input,after running for 30 minutes with full load.
2. When the input is less than 160Vac±10Vac, the output power gradually decreases,and it recovers full power when the input is above 180VAC again. Please refer to "THE OUTPUT POWER VS INPUT VOLTAGE" curve chart for details

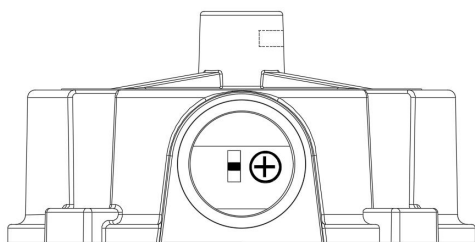
Function List of Optional Models

Editi on	Potenti ometer	1-10V/PWM/ Resistor	Off-line program	Dip switch power	Dip switch color	AUX 12V+	Remark
A	√						
P	√	√	√				
C	√	√	√			√	
D	√			√			
DD	√			√	√		
DP	√	√	√	√			
DDP	√	√	√	√	√		
DC	√	√	√	√		√	
DDC	√	√	√	√	√	√	

Dip switch

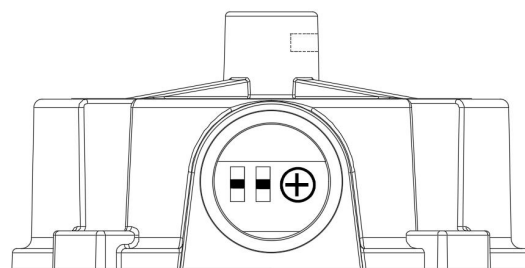
D/DP/DC

Power
LOW
MID
HIGH



DD/DDP/DDC

CCT	Power
A	LOW
A+B	MID
B	HIGH



A: warm light A+B: mixed light B: white light

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Input characteristics

Parameter	Min	Typ	Max	Remark
Rated input voltage	100Vac	-	277Vac	output power decreases when input is less than 180Vac
Input voltage range	90Vac	-	305Vac	-
Rated frequency range	47Hz	50/60Hz	63Hz	-
P.F.	0.95	-	-	@230Vac input ,with full load
T.H.D	-	-	10%	@230Vac input ,with full load
Input current	-	-	2.0A	@180Vac input ,with full load
Inrush current	-	-	120A	230Vac, cold start (25°C)

Output characteristics

Parameter	Min	Typ	Max	Remark
Rated current	0.5A	-	1.2A	The maximum output power is satisfied $P_o = V_o \cdot I_o = 300W$
Dip switch power adjustment	0.7A	-	1.2A	Typical value 1.091A@275Vdc, $P_o = 300W$
	0.67A	-	0.95A	Typical value 0.909A@275Vdc, $P_o = 250W$
	0.47A	-	0.55A	Typical value 0.545A@275Vdc, $P_o = 150W$
Output voltage range	180V	- -	300V	Constant power output range: 250-300Vdc
Rated power(180-277Vac)	-	300W	-	-
Rated power(100-180Vac)	-	150W	-	-
Non-load voltage	-	-	450V	-
Eff.@277Vac	-	95.5%	-	@277Vac input,with full load
Accuracy of output current	-5%	-	+5%	For constant-power range, with full load
Output ripple current (PK-AV)		5%	10%	Full load 20MHz BW
Line regulation	-3%	-	+3%	Full load
Load regulation	-5%	-	+5%	@250-300Vdc,full load
Starting time	-	-	500ms	Full load@230Vac

Note:

1.The output current is limited by the input and output voltage, please refer to "I-V WORKING AREA" for details.

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Dimming characteristics

Dimming function		Min	Typ	Max	Remark
1-10V dimming (optional)	Safe operation voltage range	1V	-	12V	Beyond the range may lead to a failure of the driver
	Dimming output range	10%	-	100%	-
	Rated operation voltage range	1V	-	10V	
PWM dimming (optional)	PWM high level	9.5V	-	10.5V	-
	PWM low level	0V	-	0.3V	-
	PWM frequency	300Hz	-	2000Hz	-
	PWM duty cycle	10%	-	99%	Full power output at 99% duty cycle
Resistor dimming (optional)	Rated external resistance value	10KΩ	-	100KΩ	-
	Dimming output range	10%	-	100%	-

Note:

1. Output current of dimming port: 100uA (typical value).
2. Within the constant power range, when the dimming signal is 0V, the lamp can be turned off.

Protections

Protection	Description
Under-voltage protection	When the input is less than 160Vac ± 10Vac, the output power gradually decreases, and it recovers full power when the input is above 180VAC again.
Output short circuit protection	Hiccup mode, and recovery automatically when the fault condition is removed.
Over temperature protection	Self-recoverable type; When the casing temperature is greater than 90 ± 5°C, the output power decreases as the casing temperature increases.
Output over-voltage protection	Protection mode: Hiccup or clamp at a certain output highest voltage state, the product will not be damaged, when the fault is removed, the driver works normally.

Note:

1. Unless otherwise specified, all parameters should be measured at the condition of 230Vac (50Hz) input, with rated load, and ambient temperature of 25°C;
2. Including setting error, linear adjustment rate and load adjustment rate.

Environmental characteristics

Environmental	Parameter
Working temperature	-40 ~ +55°C @ 100-277Vac (Refer to "Service Life Curve")
Safety case temperature	-40 ~ 90°C
Working humidity	20 ~ 95% RH, non-condensing
Storage temperature,	-40 ~ +80°C, 10 ~ 95% RH
Resistant to vibration	10 ~ 500Hz, 5G 12 min/cycle, X、Y、Z axis 72 min each
MTBF	230Khrs min. MIL-HDBK-217F (Ta=25°C)
Lifetime	50000 hours, 230Vac, 80% load, Tcase=75°C, "Tcase VS Lifetime" curve for details.

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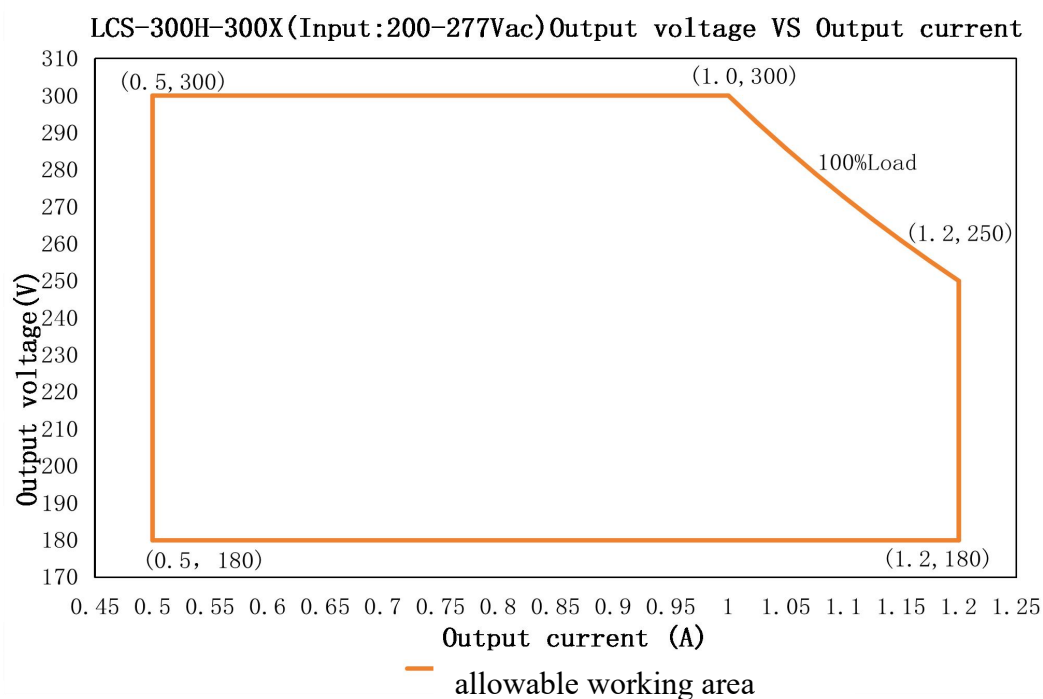
Safety and EMC

Safety categories	Standard
Safety	GB19510.1、GB19510.14、EN61347-1、EN61347-2-13、IEC61347-1、IEC61347-2-13、AS/NZS61347.1、AS61347.2.13、EN 62384;
EMC	EN 55015、EN 61547、EN 61000-3-2、GB/T 17743、GB17625.1、EN 61000-3-3
Surge level	DM: L-N $\pm$ 4KV (2 Ω), CM:L, N-PE $\pm$ 6KV (12 Ω) refer to IEC61000-4-5 2014
High-pot test	I/P-PE:1.5KVac I/P-DIM:3.75KVac
Insulation impedance	I/P-PG:100M Ohms/500Vdc
Leakage current	<0.7mA@277Vac

NOTE:

1. Attention! As a component of the whole, the ENC performance of the final product is not only decided by the driver, even if the driver is well-designed and fulfils all the required compliance. The final equipment manufacturers must re-qualify EMC Directive on the complete product.

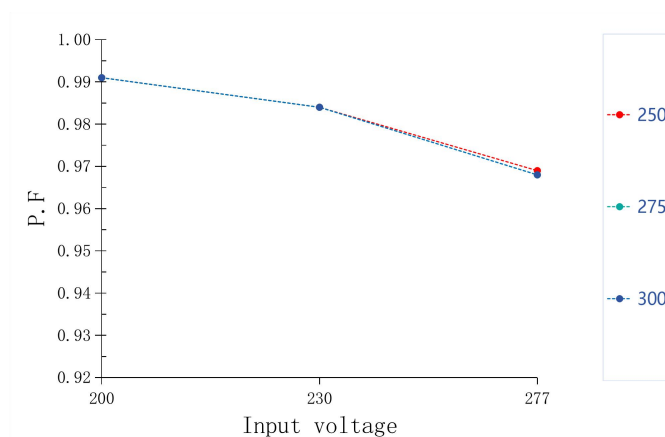
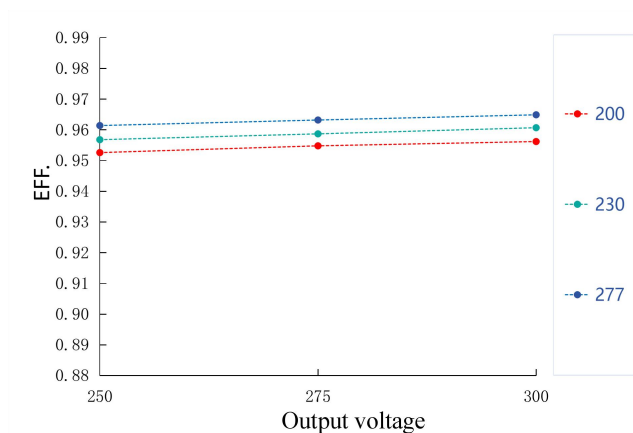
V-I Working area



Load	Output								
Load working Voltage	180V	200V	220V	240V	250V	270V	280V	290V	300V
Io_MAX	1.2A	1.2A	1.2A	1.2A	1.2A	1.11A	1.07A	1.03A	1.0A
Po_MAX	216W	240W	264W	288W	300W	300W	300W	300W	300W

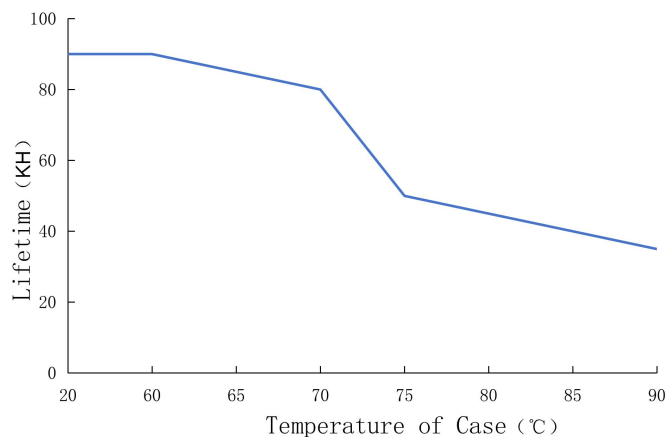
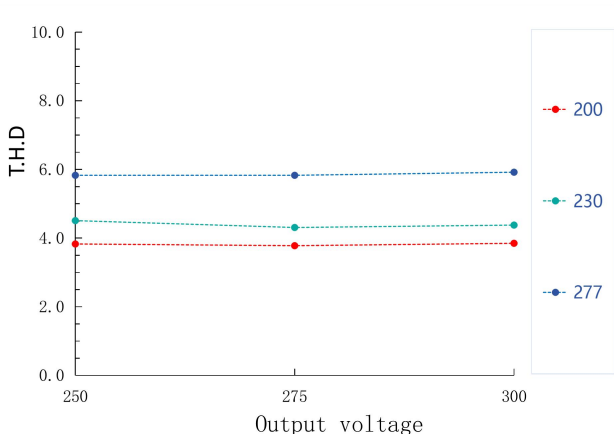
EFF. VS Output voltage

Power factor VS Input voltage



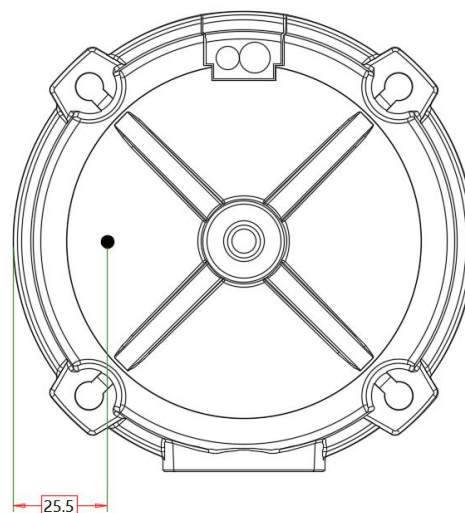
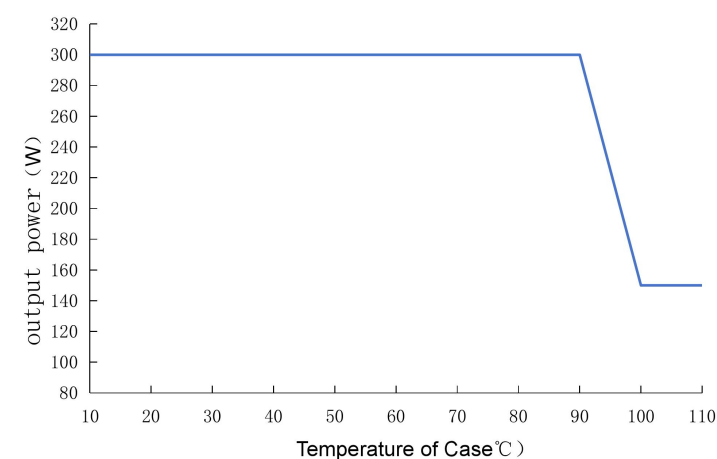
T.H.D. VS Output voltage

Tc VS Lifetime

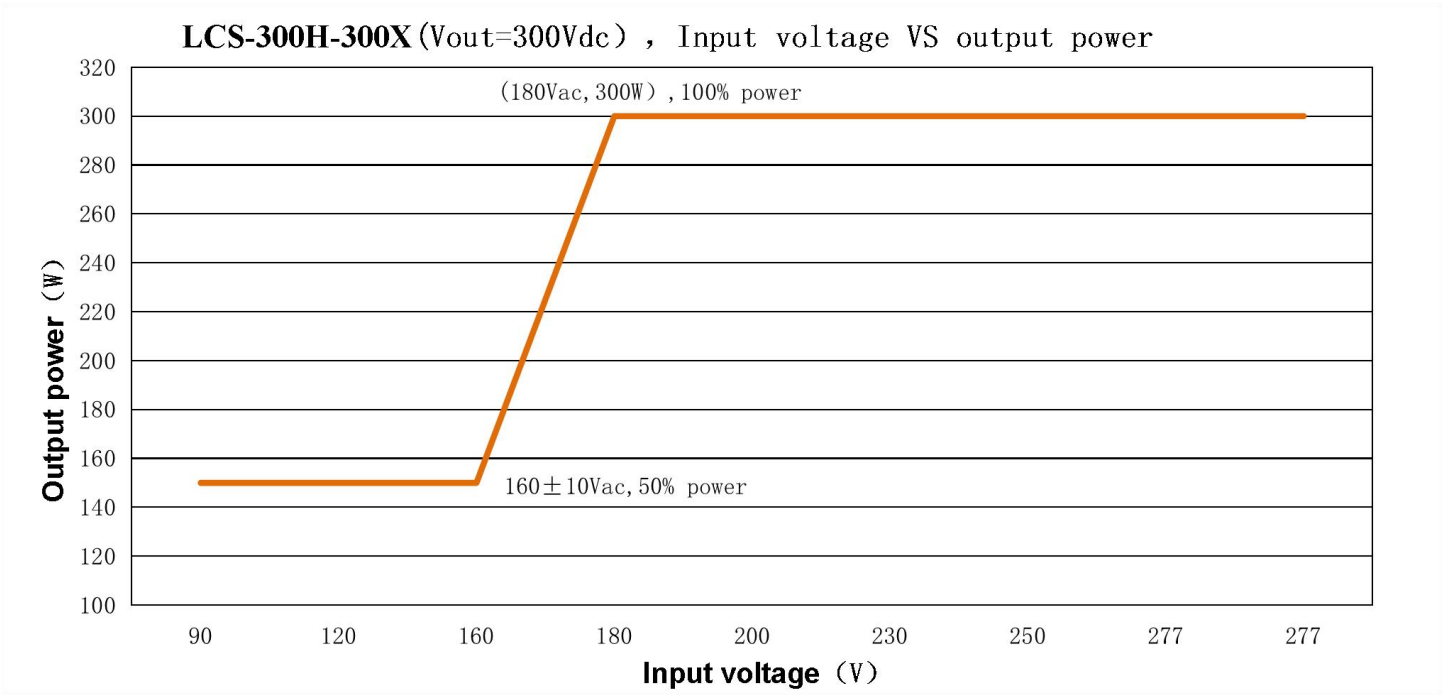


Output power VS Tcase

TcPoint



Input voltage VS Output power

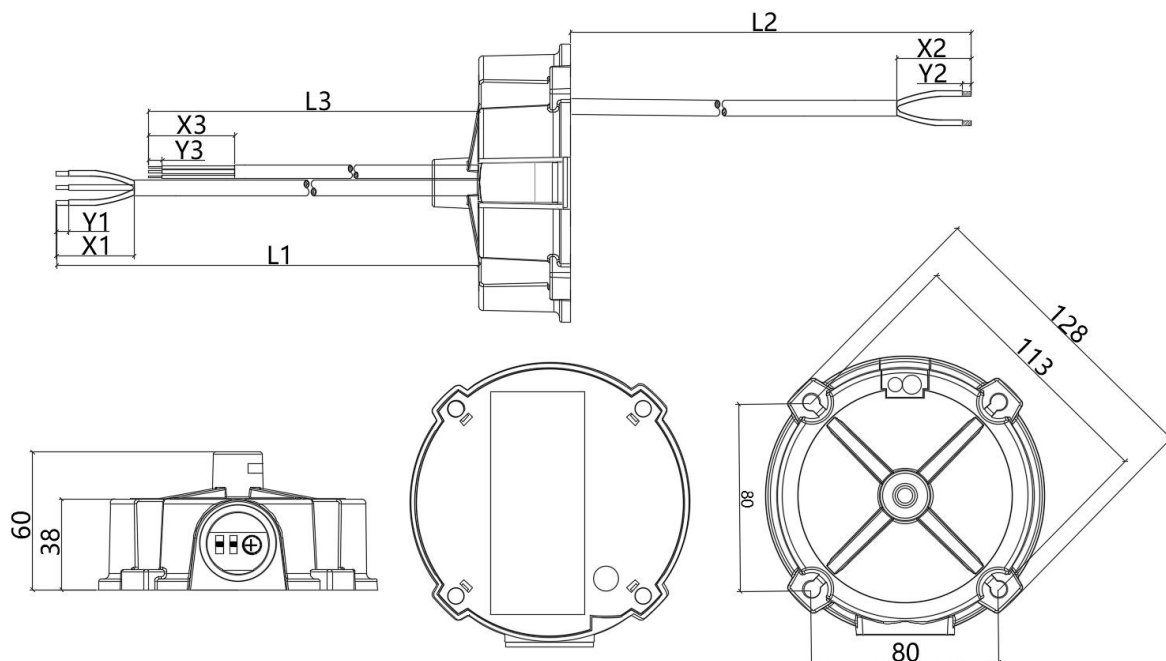


LCS-300H-300X (For output 300Vdc, the rated output current & power under different input voltage)								
Input voltage	90Vac	120Vac	160Vac	180Vac	200Vac	230Vac	250Vac	277Vac
Io	0. 51A	0. 51A	0. 51A	1A	1A	1A	1A	1A
Po	155W	155W	155W	300W	300W	300W	300W	300W

Mechanical specification

Size (mm)	Φ128*60mm Fixed hole spacing 113mm
Weight (Kg)	720g
Packaging (mm)	430*430*160

LCS-300H-300X



Type	Specifications	Color	Length	Peeled	Tinned	Remark
Input wire	H05RN-F 3*1.0mm ² OD:7.2mm 300V/500V VDE/CCC/SAA	AC-L Brown; AC-N Blue PG Kelly	300±10mm (L1)	50±5mm (X1)	10±1mm (Y1)	/
	SJOW 3*0.824mm ² OD:7.8mm UL 18AWG*3C	AC-L Black; AC-N White PG Green	300±10mm (L1)	50±5mm (X1)	10±1mm (Y1)	/
Output wire	H05RN-F 2*1.0mm ² OD:6.8mm 300/500V VDE/CCC/SAA	LED+Brown; LED-Blue	200±10mm (L2)	40±5mm (X2)	10±1mm (Y2)	A/P/C/D/DP/DC
	SJOW 2*0.824mm ² OD:7.2mm UL 18AWG*2C	LED+Red; LED-Black	200±10mm (L2)	40±5mm (X2)	10±1mm (Y2)	A/P/C/D/DP/DC
	H05RN-F 3*1.0mm ² OD:7.2mm 300/500V VDE/CCC/SAA	LED+Brown; LED1-BlueLED2-Black	200±10mm (L2)	40±5mm (X2)	10±1mm (Y2)	DD/DDP/DDC
	SJOW 3*0.824mm ² OD:7.8mm UL 18AWG*3C	LED+Red; LED1-Black LED2-Blue	200±10mm (L2)	40±5mm (X2)	10±1mm (Y2)	DD/DDP/DDC
Dimming wire	PVC 300V 105°C OD: 4.8mm UL 22AWG*2C	DIM+Purple; DIM-Pink	200±10mm (L3)	45±5mm (X3)	10±1mm (Y3)	P/DP/DDP
	PVC 300V 105°C OD: 4.8mm UL 22AWG*3C	DIM+Purple; DIM-Pink;12V+Black and White	200±10mm (L3)	45±5mm (X3)	10±1mm (Y3)	C/DC/DDC

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Version

Date	Update log	version	approved
2026.03.06	Initial version	V1.0	
2026.04.02	Change the color of the dimming wire.	V1.1	
2026.04.13	Uniform description.	V1.2	
2026.05.04	Corrected parameter.	V1.3	
2026.06.09	Optimize parameters	V1.4	