SPECIFICATION

Product name：LBS-120W-260X

Release date：2024/6/20

Add: Suncom Industrial Park, No.1 Yongyi 3rd Rd,Yongxing Industrial Zone, Henglan Town, ZhongShan,Guangdong,China 528478
400-136-4566 www.gdsuncom.com

SUNCOM	Product Type	LED INTEGRATED SPECIAL DRIVER		
	Product Series	LBS-120W-260X Series	REV	V1.0

Features·

- Class I type for insulation
- Input voltage range:120-277V ～ 50/60Hz
- Efficiency 93%（Typ.）
- Constant current output ,with power limitation for control mode
- Metal material case, protection grade against water and dust: IP42
- Surge level：

  differential mode : 6kV

  common mode :6kV
- Function available：

  Output current is dimmed by external potentiometer (Only Type A)

  Output current is dimmed by Isolated 3 in 1 dimmer（Only Type P）

  Output current is dimmed by light intensity（Only Type L）
- guaranteed Lifetime ： 5 years

Applications

Street lighting、Industrial lighting、Stadium lighting

Floodlight lighting、Landscape lighting 、Plant lighting

Model list

Model NO.	Rated Input voltage	Max Output power	Output voltage	The default current	Eff.
LBS-120W-260A LBS-120W-260P LBS-120W-260L	120-277V 50/60Hz (Drop power is used with input less than 120 Vac)	120W	180-260Vdc Rated Power（200-260V）	0.6A	≥93%

Note：

1. Test conditions: Ta=25℃, under 230Vac input,after running for 30 minutes with full load .
2. When the input is less than 100Vac, the undervoltage protection power is reduced by 50%. Input 100-120 Vac, rated power of 96W; input 120-277 Vac, rated power of 120W. Please refer to “THE OUTPUT POWER VS INPUT VOLTAGE” curve chart for details.

Input characteristics

Parameter	Min	Typ.	Max	Remark
Rated input voltage	120Vac	230Vac	277Vac	-
Input voltage range	90Vac	-	305Vac	-
Rated frequency range	47Hz	50/60Hz	63Hz	-
Power factor	0.95	-	-	@230Vac input ,with full load
Power factor	0.9	-	-	@200-277Vac input ,with 70%-100%
T.H.D.	-	-	10%	@230Vac input ,with full load
T.H.D.	-	-	20%	@200-277Vac input ,with 70%-100%
Input current	-	-	1.3A	@200Vac input ,with full load
Inrush current	-	-	100A	230Vac, cold start (25℃)

Output characteristics

Parameter	Min	Typ.	Max	Remark
Rated current	-	0.461A	-	Rated Load :260VDC
Output current range	0.3A		0.6A	-
Output voltage range	180V		260V	Constant power output range:200-260VDC
Available power(100-120Vac)	-	96W	-	Decrease to a half once input voltage beingless than 100 Vac
Rated power(120-277Vac)	-	120W	-	-
No-load voltage			310V	

Output characteristics

Parameter	Min	Typ.	Max	Remark
Efficiency@230Vac	-	93%	-	@230Vac input ,with full load
Accuracy of output current	-5%	-	+5%	For constant-power range , with full load
Line regulation	-3%	-	+3%	full load
Load regulation	-3%	-	+3%	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;

Dimming characteristics

Dimming function		Min	Typ.	Max	Instructions
1-10V Dimming（Optional）	Safe operation voltage range	0V	-	10V	Beyond the range may lead to a failure of the driver.
	Dimming output range	10%	-	100%	-
	Rated operation voltage range	0V	-	10V	-
PWM Dimming（Optional）	PWM high level	9.5V	-	10.5V	-
	PWM low level	0V	-	0.3V	-
	Rated dimming 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.The maximum operation voltage for the dimming port is 12V. Wrong voltage beyond the range or a reverse connection may lead to a critical failure of the driver.

3.This product has 0-10V dimming function, standby power consumption >0.5W when 0V dim -off, 1-10V dimming is recommended at the terminal use.

Protections

Protection	description
under-voltage protection	When the input voltage is less than 95 ±5Vac, the power derates gradually to 60W, as shown in the derating curve
Output overload protection	Protection mode:hiccup mode,and recovers automatically when the fault condition is removed.
Output short circuit protection	Hiccup mode,and recovery automatically when the fault condition is removed.
Over temperature protection	Could recover automatically；when the temperature of the case is greater than 90℃, the output power decreases to a half.
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℃;
2. Including setting error, linear adjustment rate and load adjustment rate;

Environmental characteristics

Environmental categories	Parameter
Working temperature	-40 ~ +55℃@200-277Vac((Refer to "Service Life Curve"))
Safety case temperature	-40 ~ 90℃
Working humidity	20 ~ 95% RH,non-condensing
Storage temperature、humidity	-40~+80℃, 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℃)
Lifetime	50000 hours @230Vac,80% load, Tcase=75℃,.Refer to” Tcase VS Lifetime” curve for details.

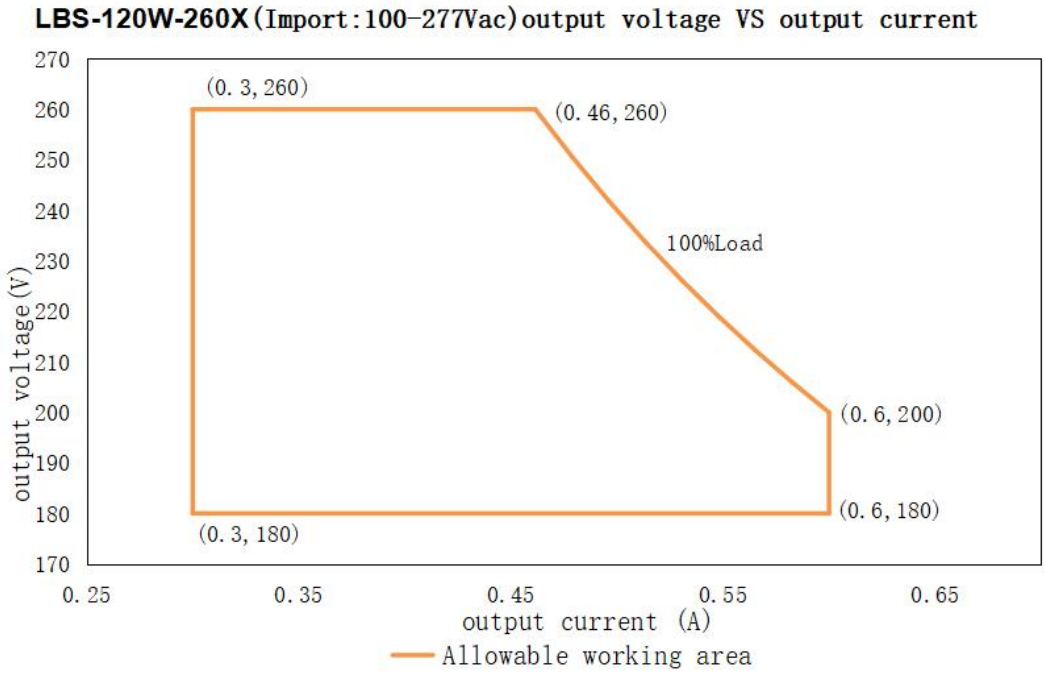
Safety and EMC

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	Differential mode L-N ±6KV(2Ω),common mode L，N-PE±6KV (12Ω) Refer toIEC61000-4-5 2014
High-pot test	I/P-PE:1.5KVac I/P-DIM:3.75KVac
Insulation impedance	I/P-PE :10MΩ / 500VDC / 25℃/ 70% RH
Leakage current	<0.7mA@277Vac

Note:

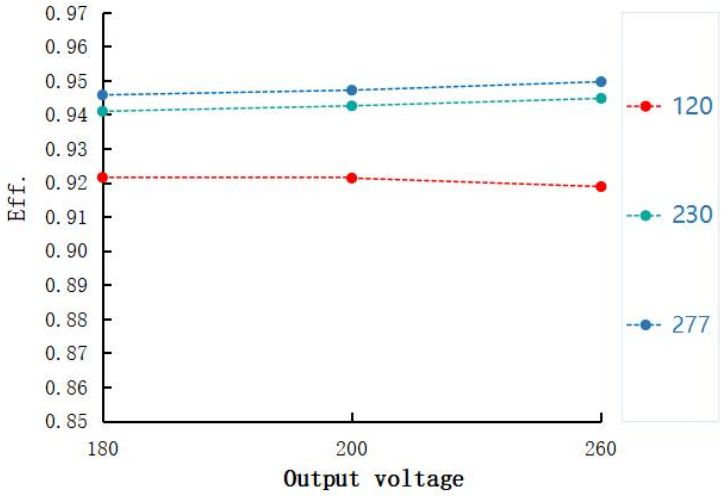
1.Attention! As a component of the whole, the EMC performance of the final product is not only decided by the driver, even if the driver is well-designed and fulfil all the required compliance. The final equipment manufacturers must re-qualify EMC Directive on the complete product.

I-V Working area

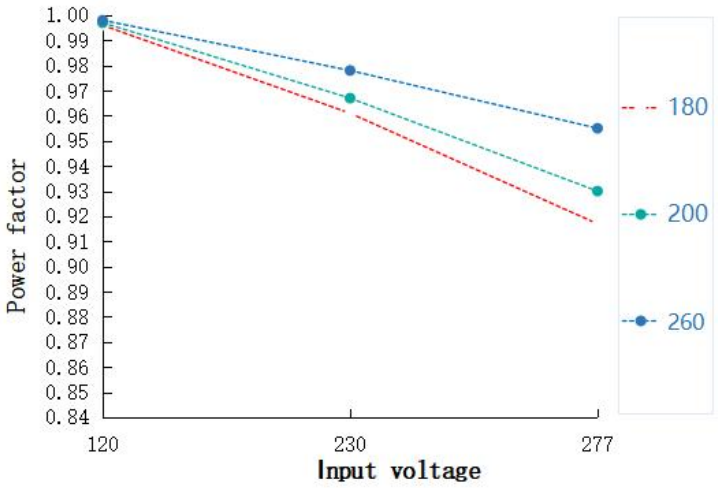


Load	Output								
Load working Voltage	180V	190V	200V	210V	220V	230V	240V	250V	260V
Io_MAX	0.6A	0.6A	0.6A	0.57A	0.545A	0.521A	0.5A	0.48A	0.461A
Po_MAX	108W	114W	120W	120W	120W	120W	120W	120W	120W

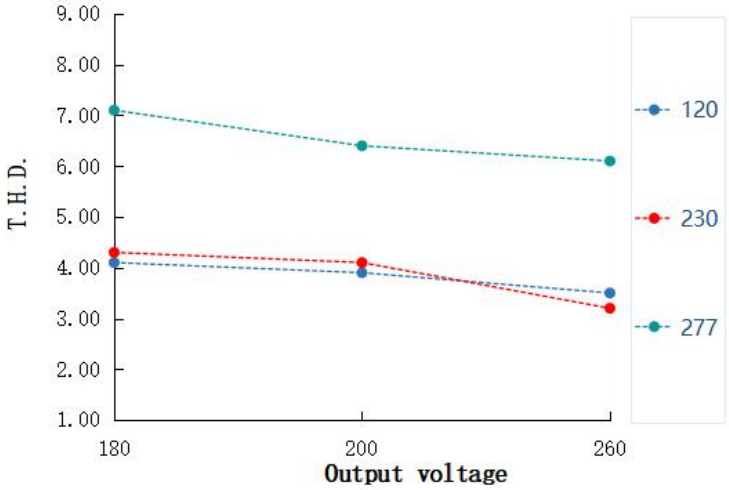
Eff. VS Output voltage



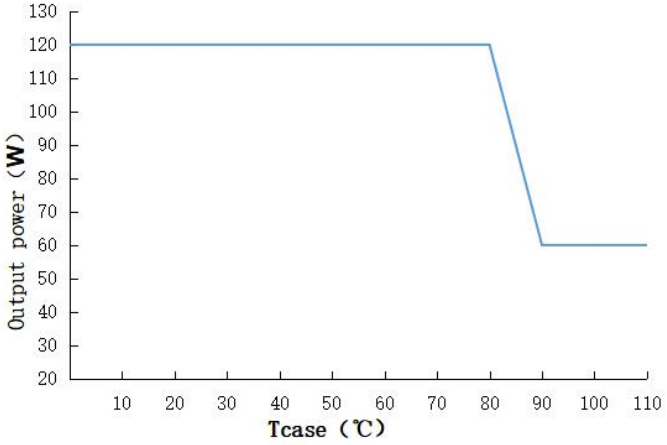
Power factor VS Input voltage



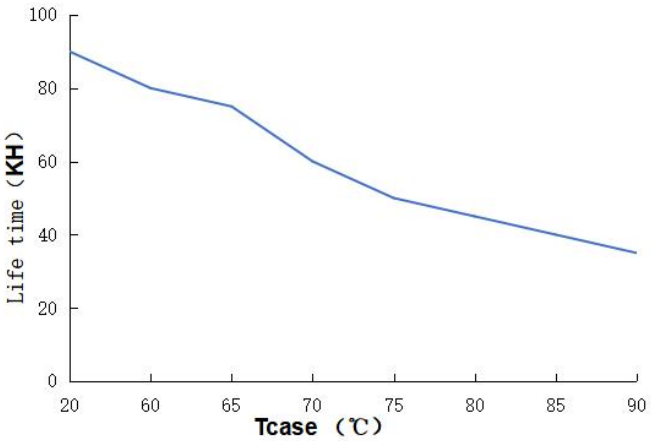
T.H.D. VS Output voltage



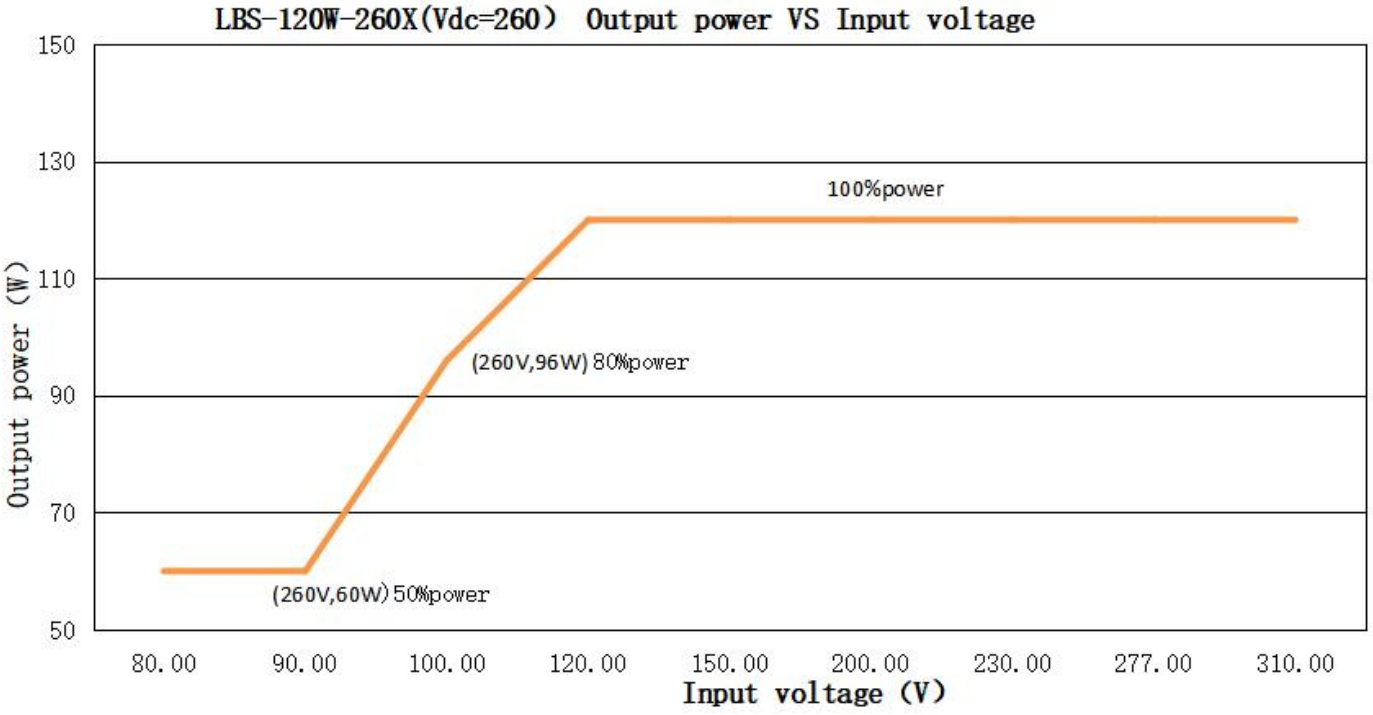
Output power VS Tcase



Tcase VS Life time



Output power VS Input voltage



The rated output current & power under different input voltage							
Input Voltage	90Vac	100Vac	108Vac	120Vac	180Vac	230Vac	277Vac
Io	0.3A	0.3A	0.48A	0.6A	0.6A	0.6A	0.6A
Po	60W	60W	96W	120W	120W	120W	120W

Note:

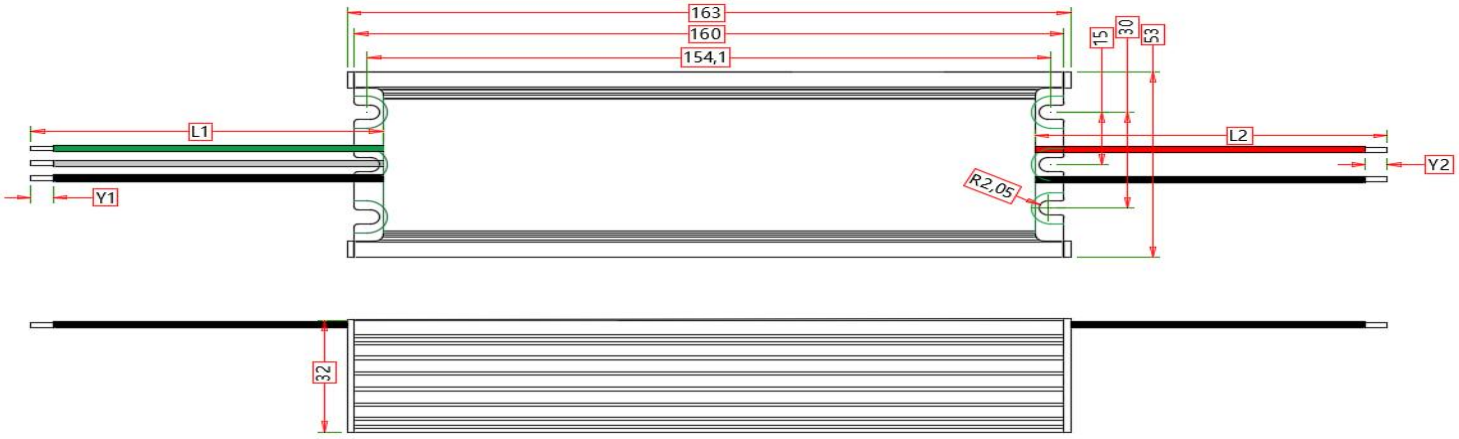
1. When the input voltage is below 85±10Vac,the output power decreases to zero。

SUNCOM	Product Type	LED INTEGRATED SPECIAL DRIVER		
	Product Series	LBS-120W-260X Series	REV	V1.0

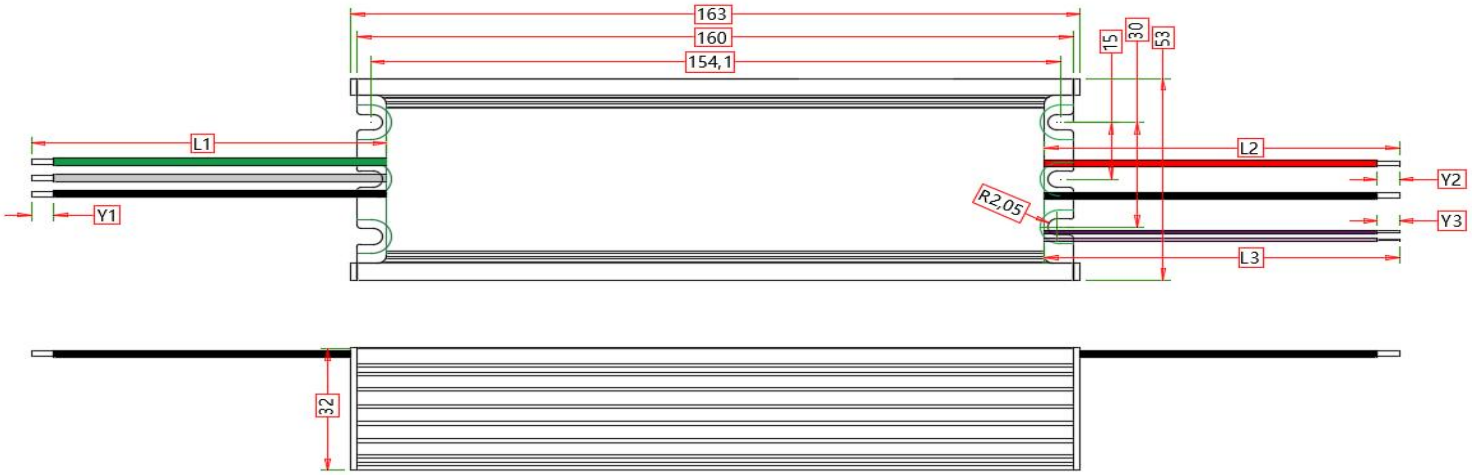
Mechanical specification

Size（mm）	L 163 mm* W 53 mm* H 32mm
Weight（Kg）	0.51kg
Packaging（mm）	

LBS-120W-260A



LBS-120W-260P



Type	Input Wire	Output Wire	Dimming Wire & AUX Output Wire
Specifications	PVC Electronic UL1015 18AWGPVC 300V,105℃ OD:2.8mm	Electronic UL1015 18AWGPVC 300V,105℃ OD:2.8mm	ElectronicUL1569 22AWG 300V,105C OD:1.6mm
Color	AC-L(Black); AC-N(White) PG(Green/Yellow Green)	LED+(Red);LED-(Black)	DIM+(Purple);DIM-(Pink)
Length	300±10mm (L1)	300±10mm (L2)	300±10mm (L3)
Tinned	5±1mm (Y1)	5±1mm (Y2)	5±1mm (Y3)

Version

DATE	DESCRIPTION	REV.	CHECK
2024.06.20	Initial version.	V1.0	