



PXG SERIES LED DRIVERS

DL-120V-A/S/X-PXG SPEC V1.4



Features

- Class I structure
- Input voltage: 200-480V ~ 50/60Hz
- Efficiency : 94% (Typ.)
- Constant current output control mode,with constant power limitation.
- Metal shell structure, protection grade: IP42
- Lightning level: differential mode 6kV, Common mode 10kV
- Dim-off function available.(X version only)
- Function selection:

Output current is adjusted by external potentiometer (whole series)

Isolation dimming function: 3-in-1 dimming (0-10V, PWM, resistance) (X,S version)

Isolation Auxiliary Power supply (X version) :12VDC 300mA

- Lifetime design: 5 years



Applications

Road lighting、Industrial lighting、 Venue lighting

Floodlight lighting、 Landscape lighting 、 Plant lighting

cULus
E479166



Model list

Model NO.	Input voltage	Output power	Output voltage	The default current	Eff.	THD.	PF
DL-120V-260A-PXG	200-480V 50/60Hz	120W	180-260Vdc	0.5A	≥94%	≤10%	≥0.95
DL-120V-260S-PXG							
DL-120V-260X-PXG							

Note :

1. Test conditions of the above parameters: Ta=25°C, 380Vac input, full load operation for 30 minutes;
2. When the input is in the range of 220-480VAC, output the rated power of 120W,please ensure that the input voltage is within the allowable range.

Please refer to "THE OUTPUT POWER VS INPUT VOLTAGE" curve chart for details.



Input characteristics

Parameter	Min	Typ.	Max	Note
Rated input voltage	200Vac	380Vac	480Vac	-
Input voltage range	180Vac	-	528Vac	-
Rated frequency	47Hz	50/60Hz	63Hz	-
Power factor	-	0.95	-	@380Vac full load
	-	0.9	-	80%-100% load@200-480Vac
T.H.D.	-	-	10%	@380Vac/50Hz full load
	-	-	20%	80%-100% load@200-480Vac
Input current	-	-	0.7A	@200Vac full load
Inrush current	-	-	120A	@380Vac, cold start (25°C)

Output characteristic

Parameter	Min	Typ.	Max	Note
Rated current DL-120V-260A/S/X -PXG	-	0.46A	-	-
Output current range DL-120V-260A/S/X -PXG	0.25A	-	0.6A	-
Output voltage range DL-120V-260A/S/X -PXG	180V	-	260V	-
Constant power output voltage range	200V		260V	Maximum output power 120W
Constant current output voltage range	180V		260V	Maximum output current 0.6A
No-load voltage DL-120V-260A/S/X -PXG	-	-	320V	-
Efficiency@220Vac DL-120V-260A/S/X -PXG		92%	-	full load
Efficiency@380Vac DL-120V-260A/S/X -PXG	-	94%	-	full load
Accuracy of output current	-5%	-	+5%	full load
Ripple of output current	-	5%	-	full load
Line regulation	-3%	-	+3%	full load
Load regulation	-3%	-	+3%	full load
Starting time	100ms	-	1000ms	@200-480Vac full load

Note: The output current range is limited by the input and output Voltage, Please refers to "I-V WORKING AREA" for details.

Dimming Characteristic

Dimming function		Min	Typ.	Max	Instructions
0-10V Dimming (Optional)	Safe applied voltage range	0V	-	12V	Refer to note 2
	Dimming output range	0	-	100%	-
	Rated dimming voltage range	0V	-	10V	-
	Turn-on voltage S version X version	0.6V 0.65V	0.8V	1.5V 0.95V	
	Turn-off voltage S version X version	0.3V 0.25V	0.4V	1V 0.55V	
PWM Dimming (Optional)	PWM high level	9.5V	-	10.5V	-
	PWM low level	0	-	0.3V	-
	PWM frequency band	300Hz	-	2000Hz	-
	PWM duty cycle	0	-	100%	-
	Turn-on Duty Cycle		8%		
	Turn-Off Duty Cycle		4%		
Resistor Dimming (Optional)	External resistance value	0KΩ	-	100KΩ	-
	Dimming output range	0	-	100%	-

Note:

1. Output current of dimming port: 100uA (typical value);
2. The maximum voltage applied to the dimming port is suggested below 12V, but it also is protected against wrong voltage that below 230VAC or 300VDC. Please don't keep the wrong voltage apply to the port for a long time. Otherwise, it is possible to be damaged.

Protection

Function	Function instructions
Output overload protection	Protection mode: hiccup mode, recovers automatically after fault condition is removed.
Output short circuit protection	Hiccup mode: recovers automatically after fault condition is removed
Over temperature protection	Self-recovery type : when the housing temperature is greater than 95+/-5°C, the output power decreases gradually.
Output over-voltage protection	Protection mode: Hiccup mode or clamped in output highest voltage , the product is not damaged , LED driver works normally after fault condition is removed.
Surge protection	Differential L/N ± 6 KV (2 Ω), Common L/N-PE ± 10 KV (12 Ω); residual voltage ≤ 3100 V

Note: Unless otherwise specified, all specifications and parameters shall be measured at the conditions of 380Vac (50Hz), rated load and 25°C of ambient temperature;

Environmental

Environmental categories	Parameter
Working temperature	-40 ~ +55°C @200-480Vac (refer to "Life Curve ")
Working humidity	20 ~ 95% RH, non-condensing
Tcase	95+/-5°C
Storage temperature、humidity	-40~+80°C, 10 ~ 95% RH
Resistant to vibration	10 ~ 500Hz, 5G 12 min/cycle, X, Y, Z axis 72 min each
MTBF	100Khrs min. MIL-HDBK-217F (Ta=25°C)
Lifetime	70000H@Tcase75°C,(Please refer to Lifetime VS Tcase curve for details)

Safety

Safety Categories	Area	Standards	Approved
CCC	China	GB 19510.1, GB 19510.14	
CE	Europe	EN 61347-1, EN 61347-2-13	
ENEC		EN 62384	
CB	CB member state	IEC 61347-1, IEC 61347-2-13	
SAA	Australia	AS/NZS 61347.1, AS/NZS 61347.2.13	
UL	USA	UL 8750	√
CUL	Canada	CSA C22.2 No.250.13	√
EAC	Russia	ГОСТ IEC 61347-1-2019 ГОСТ IEC 61347-2-13-2013	
BIS	India	IS 15885(PART 2/SEC 13)	

EMC

EMI/EMS Categories	Area	Standards	Approved
CCC	China	GB/T 17743, GB 17625.1	
CE	Europe	EN IEC 55015 EN 61547 EN IEC 61000-3-2;3-3;4-5	
EAC	Russia	ГОСТ IEC 61547-2013 ГОСТ CISPR 15-2014 ГОСТ IEC 6100-3-2-2017 ГОСТ IEC 6100-3-3-2015	
FCC	USA	FCC Part 15 Subpart B	√

RoHS

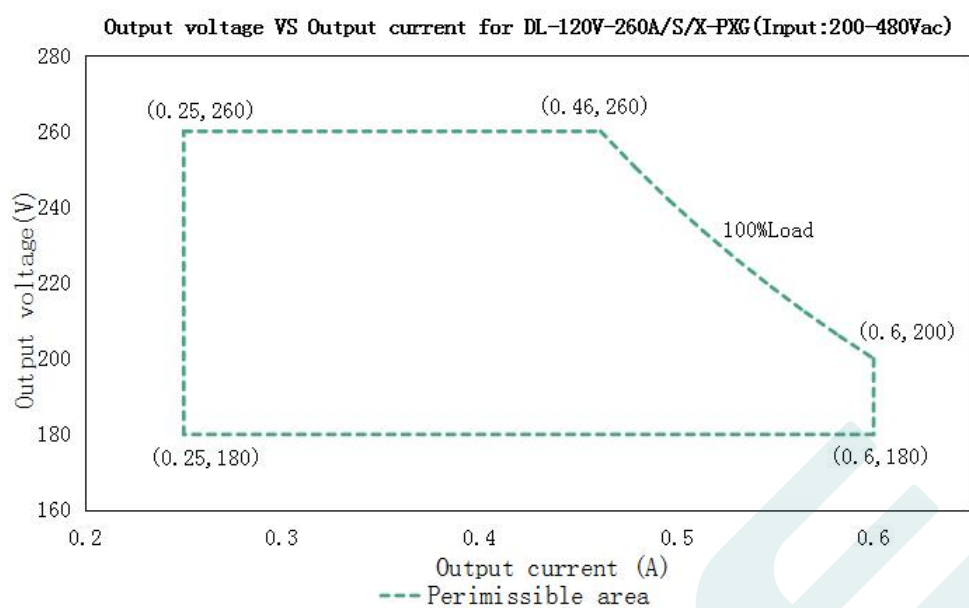
Our products comply with reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU.

Safety Test Items:

Safety Test Item	UL	CE/CB/ENEC	CCC	Insulation Requirements
Input-Case/Ground	1960Vac	-	-	Basic insulation, 1min< 5mA
Input-Dim	1960Vac	-	-	Reinforced insulation, 1min< 5mA
Output-Case/Ground	1960Vac	-	-	Basic insulation, 1min< 5mA
Dim-Case	500Vac	-	-	
Insulation Resistance	≥10MΩ			Input-Dim, Test voltage: 500Vdc
Ground Resistance	≤0.1Ω			25A/1min; Ta=25°C±10°C

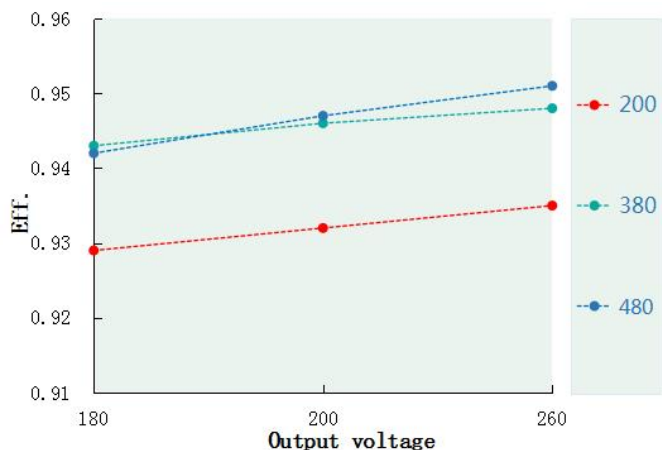
Note: The driver is considered as a component that will be operated in combination with the final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.

I-V Working area

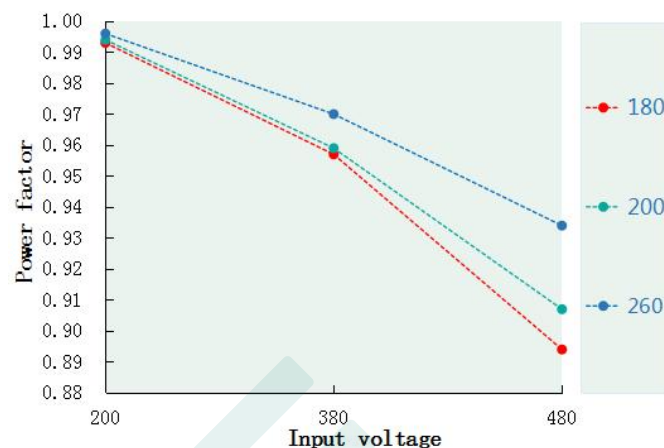


Load	Output								
Load working Voltage	180V	190V	200V	210V	220V	230V	240V	250V	260V
Io_ MAX	0.6A	0.6A	0.6A	0.571A	0.545A	0.521A	0.5A	0.48A	0.46A
Po_ MAX	108W	114W	120W	120W	120W	120W	120W	120W	120W

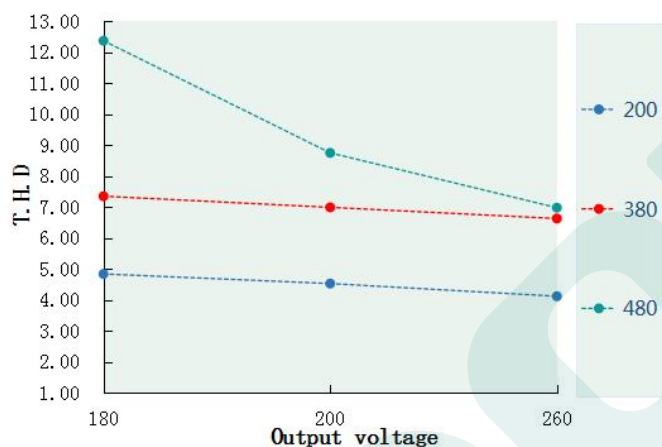
Eff. VS Output voltage (DL-120V-260A/S/X-PXG)



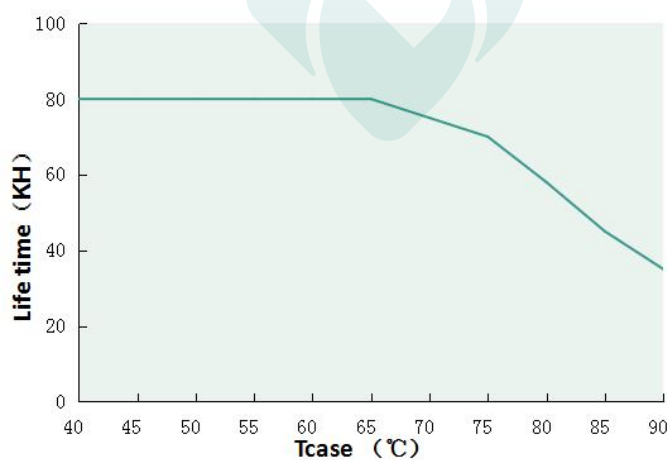
Power Factor VS Input Voltage (DL-120V-260A/S/X-PXG)



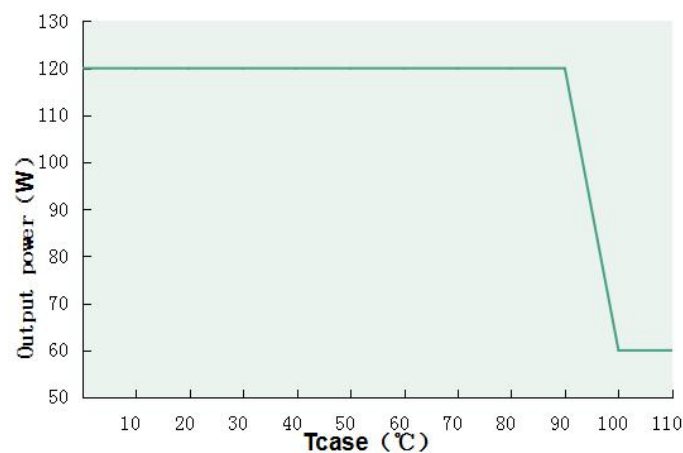
T.H.D. VS Output voltage (DL-120V-260A/S/X-PXG)



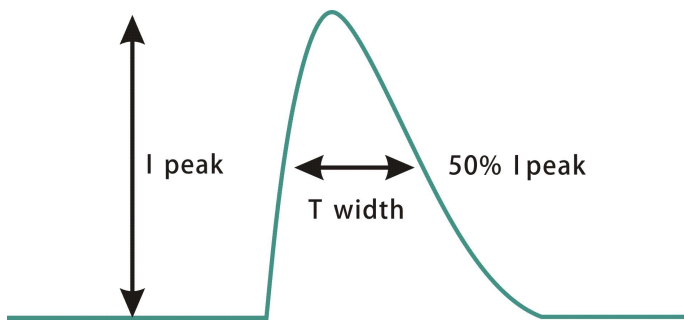
Lifetime VS Tcase (DL-120V-260A/S/X-PXG)



Output power VS Tcase (DL-120V-260A/S/X-PXG)

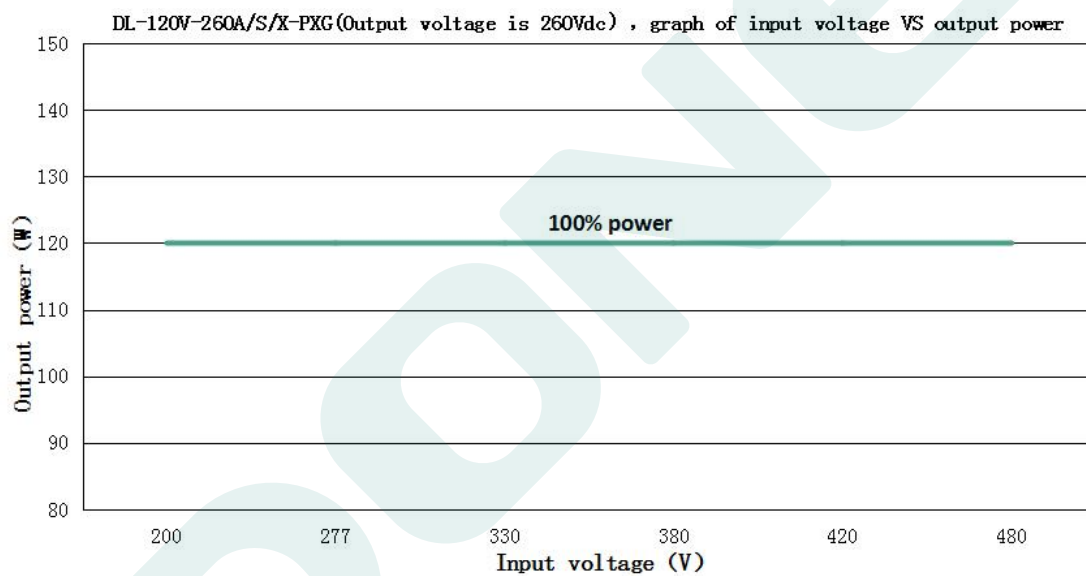


Inrush Current (DL-120V-260A/S/X-PXG)



Input voltage	Peak current	T(@50% Peak current)
200Vac	86A	2.9us
380Vac	108A	2.47us
480Vac	110A	2.56us

Output power VS Input voltage



DL-120V-260A/S/X-PXG Input voltage VS Output Current($V_o=260V_{dc}$) VS Output Power

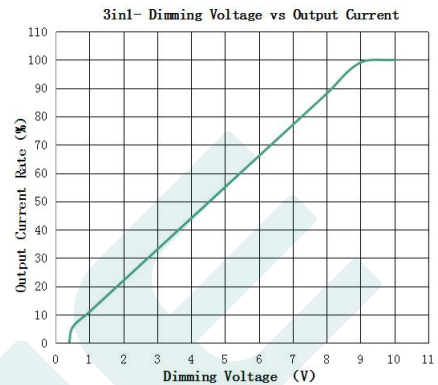
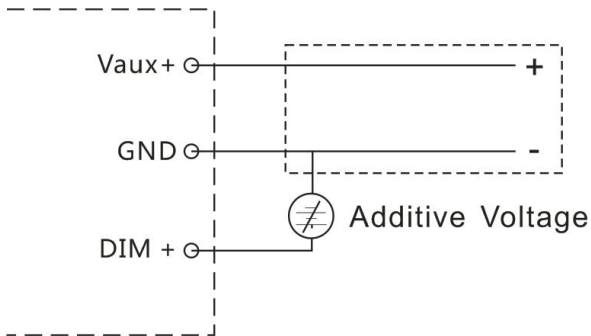
Input Voltage	200Vac	277Vac	330Vac	380Vac	420Vac	480Vac
I out	0.46A	0.46A	0.46A	0.46A	0.46A	0.46A
Pout	120W	120W	120W	120W	120W	120W

Dimming operation

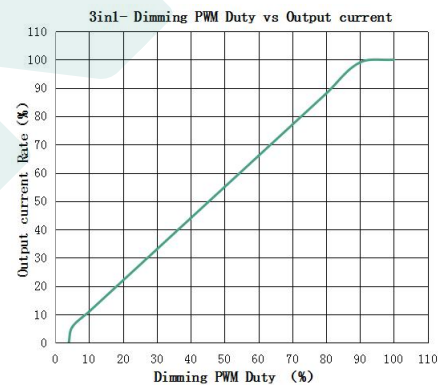
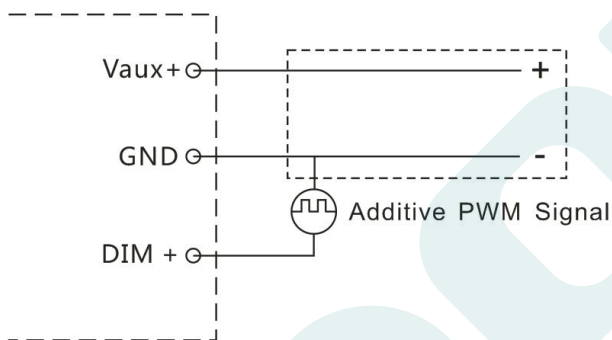
※ Three-in-one dimming function (S/X version)

- A. Connect a resistor 0-100K or 0-10V DC voltage or 10V PWM signal between DIM+ and GND to adjust the output current.
B. Output current of dimming port: 100uA (typical value).

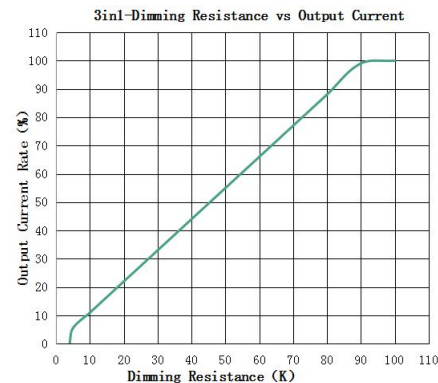
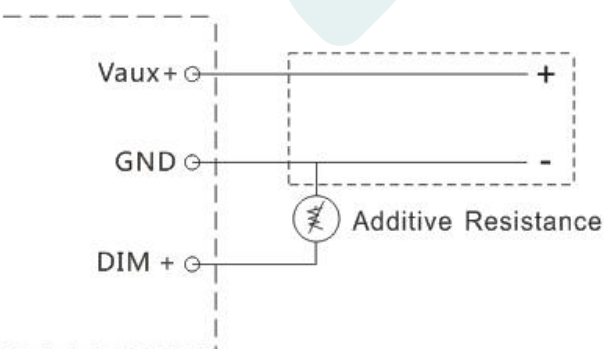
•Applied voltage of 0-10V:



• Applying additive 10V PWM signal (Frequency range : 300Hz-2K Hz) :



•Applied an additional 0-100K resistor:





Caution:

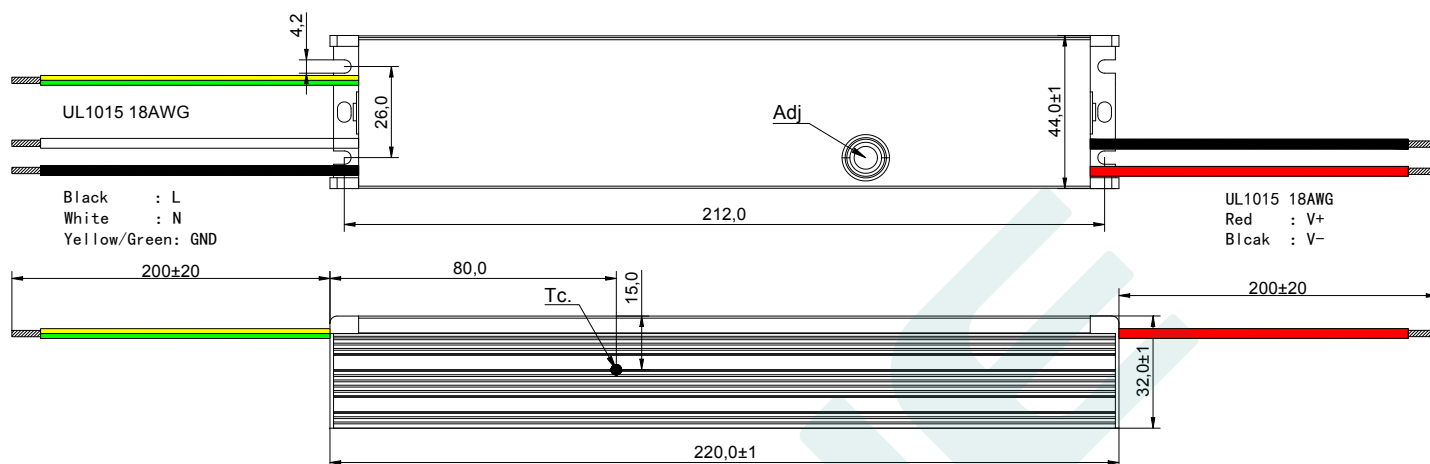
1. It is recommended to design LED beads in series first and then in parallel.
2. There is no excessive heat-dissipating copper foil left on the aluminum substrate.
3. The creepage distance of the aluminum substrate wiring > 5.6mm.
4. The creepage distance between LED+ and LED- on the aluminum substrate > 2.5mm.
5. The insulation level of the LED lamp board should meet the requirements of reliability design. The recommended withstand voltage between the LED lamp beads and the aluminum substrate is 100% full inspection > 3.5KVAC.
6. The final right of interpretation of the parameters above belongs to Guangdong Done Power Technology Co., Ltd.



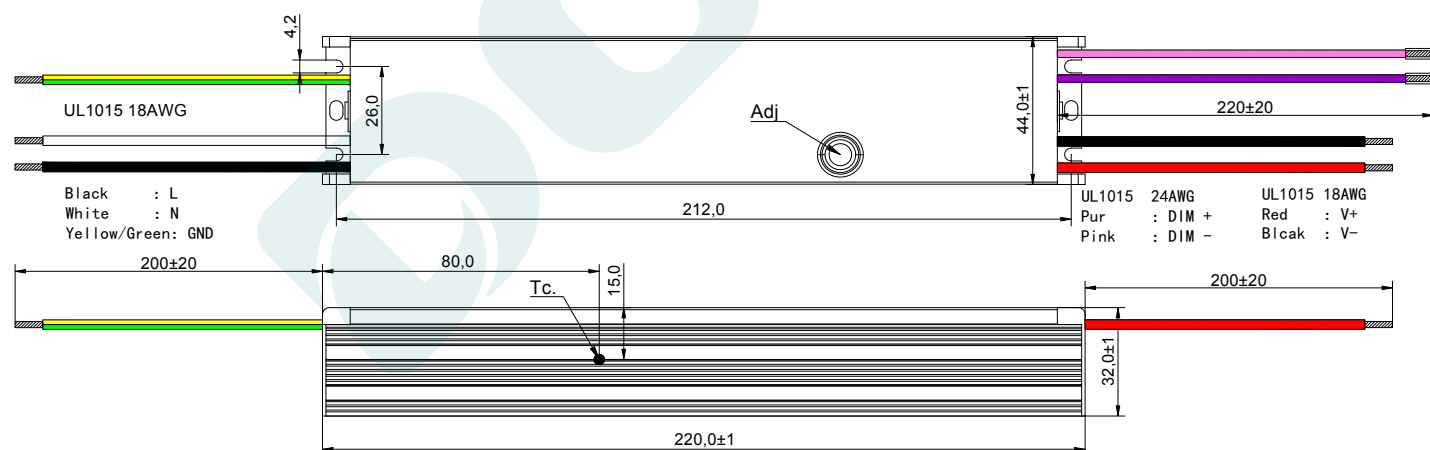
Mechanical Specification

Dimension (mm) L220*W44*H32

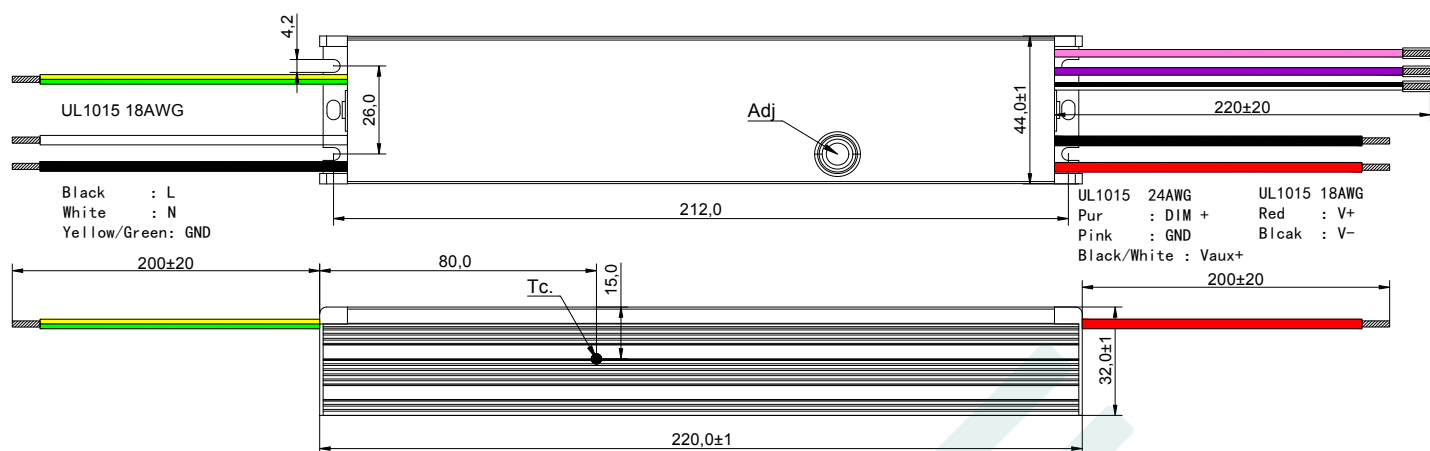
DL-120V-260A-PXG



DL-120V-260S-PXG



DL-120V-260X-PXG



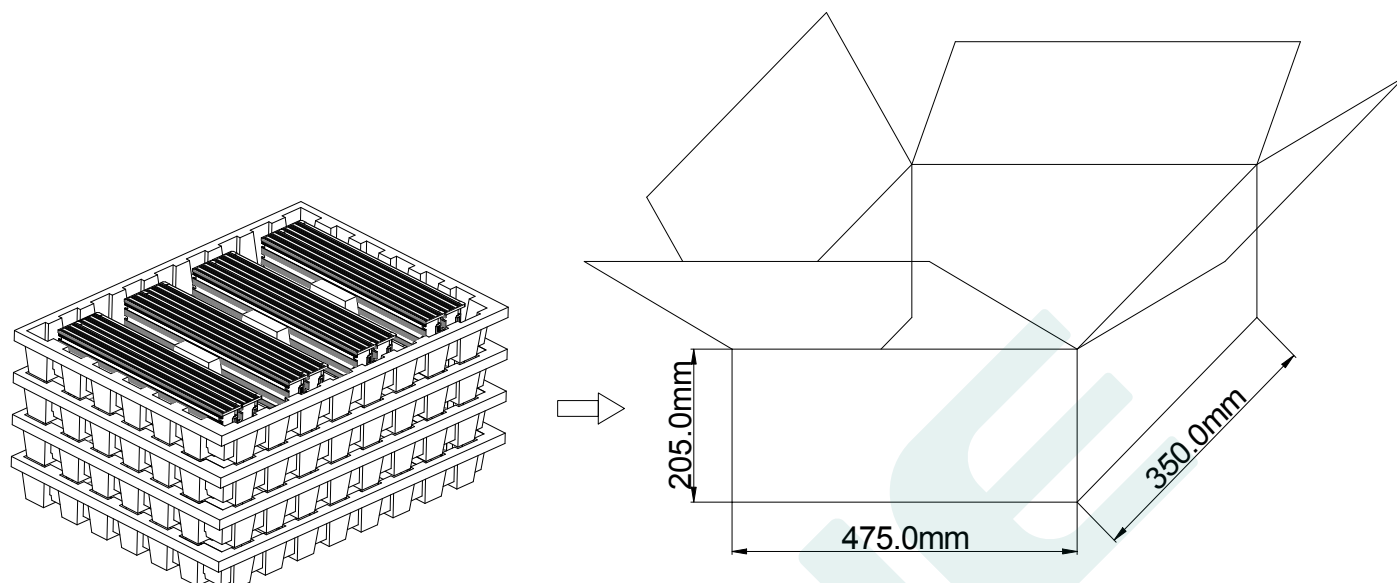
Weight

Weight 490 g

Packaging

BOX (mm)

L475*W350*H205



Note : One Carton 4 layers and 8 pcs each layer, total 32pcs/carton.

Note:

1. According to the certificate obtained by the LED DRIVER, the LED DRIVER with the English label is sold in Europe, America and India.
2. The LED DRIVER with Chinese label is only used for China market.

Revise & Version

DATE	DESCRIPTION	REV.	CHECK
2024.3.8	Initial version.	V1.0	
2024.5.21	Modified efficiency and Mechanical Specification	V1.1	
2025.4.23	Update Package	V1.2	
2025.7.28	Add Turn-on/off voltage on page 4, add residual voltage on page 5, modify Safety Test Item on page 6, add Caution on page 11	V1.3	
2025.9.1	Update Safety Test Item on page 6	V1.4	

MANUFACTRUER		
EDIT	CHECK	APPROVE