PXC SERIES LED DRIVERS

DL-200H-A/P-PXC SPEC V1.0

GUANGDONG DONE POWER TECHNOLOGY CO.,LTD

Features

- Class I structure
- Input voltage range:100~277VAC

  Rated voltage:180-277 V ~ 50/60 Hz 200W max.

  Input voltage:100~150V ~ 50/60 Hz 100W max.
- Efficiency :95%(Typ.)
- Constant power drive and constant current output control mode
- Metal shell structure, protection grade: IP67
- Surge level:

  differential mode :6kV,

  common mode :10kV
- With residual light when turn-off.
- Available version:

  P version: 1.default dimming method of Isolated 3 in 1 dimmer
- Lifetime design： 5 years

Applications

Road lighting、Industrial lighting、Venue lighting

Floodlight lighting、Landscape lighting

Model list

Model NO.	Input voltage	Output power	Output voltage	The default current	Eff.	T.H.D	PF
DL-200H-260P-PXC DL-200H-260A-PXC	100-277V 50/60Hz	200W	180-260Vdc	1.05A	≥95%	≤10%	≥0.95

Note:

1. Test conditions : Ta=25℃, 230Vac input, after 30 minutes operation with full load ;
2. When the input is less than 165±15Vac,the output power gradually decreases to 50%±20%. And when the input is above 180VAC, the rated power of 200W is available.Please refer to “THE OUTPUT POWER VS INPUT VOLTAGE” curve chart for details.

Input characteristics

Parameter	Min	Typ.	Max	Note
Rated input voltage	200Vac	230Vac	277Vac	
Input voltage range	100Vac	-	305Vac	The output decrease to about 50% when input is below 165±15VAC
Rated frequency	47Hz	50/60Hz	63Hz	
Power factor	-	0.95	-	@230Vac input ,with full load
	0.9	-	-	@277Vac input ,with full load
T.H.D.	-	-	10%	@230Vac input ,with full load
			20%	@200-277Vac input ,with 75%-100%
Input current	-	-	1.3A	@180Vac input ,with full load
Inrush current	-	-	120A	230Vac, cold start (25℃)

Output characteristic

Parameter	Min	Typ.	Max	Note
Rated current DL-200H-260P-PXC DL-200H-260A-PXC	-	0.77A	-	With loading 260VDC
Output current range DL-200H-260P-PXC DL-200H-260A-PXC	0.58A	-	1.05A	
Output voltage range DL-200H-260P-PXC DL-200H-260A-PXC	180V	-	260V	
Constant power output voltage range	200V	-	260V	Maximum output power 200W
Constant current output voltage range	180V	-	260V	Maximum output current 1.05A
No-load voltage DL-200H-260P-PXC DL-200H-260A-PXC	-	-	350V	-
Efficiency@200Vac DL-200H-260P-PXC DL-200H-260A-PXC	-	94.5%	-	100% load @200Vac Output current 0.77A, 200W

Output characteristic

Parameter	Min	Typ.	Max	Note
Efficiency@230Vac DL-200H-260P-PXC DL-200H-260A-PXC	-	95%	-	100% load @230Vac Output current 0.77A, 200W
Accuracy of output current	-5%	-	+5%	full load
output ripple current	-	5%	-	with100% load, 20MHZ band Width, and percent of ripple current = (Imax-Imin) /(Imax+Imin)*100%
Line regulation	-5%	-	+5%	full load
Load regulation	-5%	-	+5%	full load
Starting time		-	1000ms	Full load@230Vac

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

Dimming characteristic

Dimming function		Min	Typ.	Max	Instructions
1-10V Dimming (Optional)	Safe operation voltage range	0V	-	12V	Refer to note 2.
	Rated operation voltage range	1V	-	10V	-
	Dimming output range	10%	-	100%	-
PWM Dimming (Optional)	PWM high level	9.5V	-	10.5V	-
	PWM low level	0V	-	0.3V	-
	PWM frequency band	300Hz	-	2000Hz	-
	PWM duty cycle	0	-	99%	Output full power at 99% duty cycle
Resistor Dimming (Optional)	External resistance value	0KΩ	-	100KΩ	Bigger resistor won't increase the output.
	Dimming output range	0	-	100%	-
Multiple time-controlled dimming (Optional)	MCU control	set dimming function Segment by segment through program			three operation modes for selection.
	Timer control	The default is six segments, Can be customized. 24H a cycle.			With extra timer controller outside.

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 up to 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.
3. When over-temperature protection happens, the threshold of output power(or output current) for dim-off and turn-on will keep the same as that in normal condition. Since the output power has been decreased to a half of normal condition, the dimming signal from the port need to be doubled to meet the same threshold as a result. Only for P version.
4. User is suggested to use 1-10V for dimming. However , dim -off function is also available through the software or program if necessary, for some application that don't care the stand-by power. Please consult the technician for details if you have other requirements.
5. All these drivers will not work in the no-load mode.

Protection

Function	Function instructions
Input under-voltage protection	When the input voltage is less than 165Vac±15Vac, the output power decreases to 50% ±20%.
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 90℃, the output power decreases to 50%±20%.
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.

Note:

1. Unless otherwise specified, all specifications and parameters shall be measured at the conditions of 380Vac (50Hz), rated load and 25℃ of ambient temperature;
2. Including setting error, line regualtion and load regualtion.

Environmental

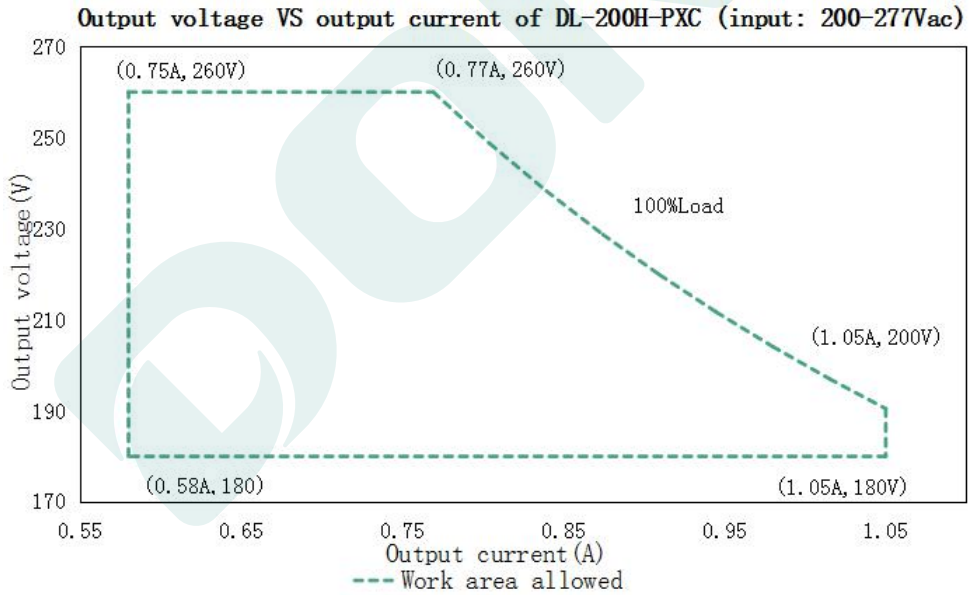
Environmental categories	Parameter
Working temperature	-40 ~ +55℃@200-277Vac (refer to "Life Curve ")
Working humidity	20 ~ 95% RH, non condensing
Tc temperature	90℃
Storage temperature、humidity	-40~+85℃, 10 ~ 95% RH
Resistant to vibration	10 ~ 500Hz, 5G 12 min/cycle, X, Y, Z axis 72 min each
MTBF	50Khrs min. MIL-HDBK-217F (Ta=25℃)
Lifetime	70000 hours @Tcase≤75℃,230Vac, 80% Load, Please refer to "Tcase VS Lifetime" curve

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 UL8750;
EMC	EN IEC 55015、EN IEC 61000-3-2 、GB/T 17743、GB17625.1、 EN 61000-3-3、EN 61547
Surge protection	Differential mode L-N ±6KV（2 ohm）,common mode L，N-PE± 15 KV (12 ohm)；Refer to IEC61000-4-5 2014 Criterion B
High-pot test	I/P-PE :1.554KVac I/P-DIM:1.554KVac O/P-PE : 1.7KVac O/P-DIM:1.7KVac
Insulation impedance	I/P-PE:100MΩ / 500VDC/ 500VDC / 25℃/ 70% RH
Leakage current	<0.7mA@277Vac

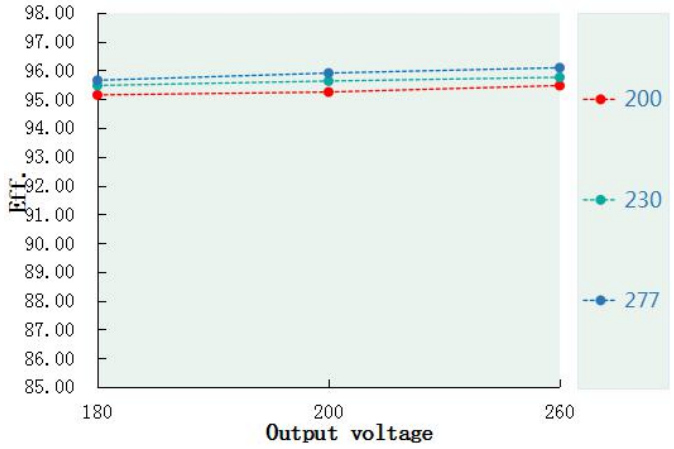
Note: Attention! As a component of the whole, the EMC performance of the final product is not only decided by the driver, even if the driver is well-designed and fulfil all the required compliance. The final equipment manufacturers must re-qualify EMC Directive on the complete product.

I-V Working area

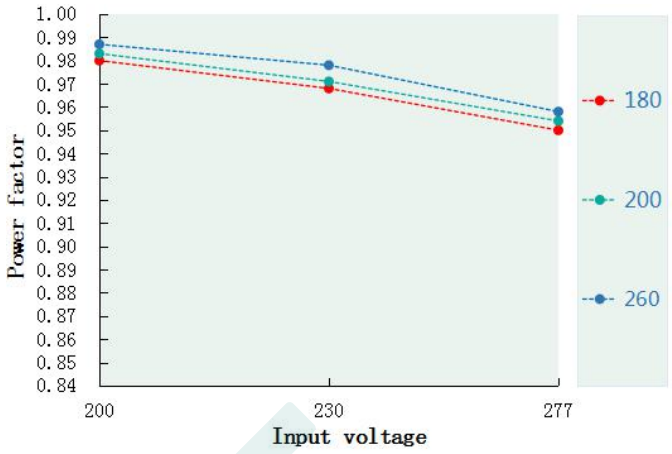


Load	Output								
Load working Voltage	180V	190V	200V	210V	220V	230V	240V	250V	260V
Io_MAX	1.05A	1.05A	1.00A	0.95A	0.91A	0.87A	0.83A	0.80A	0.77A
Po_MAX	189W	199.5W	200W	200W	200W	200W	200W	200W	200W

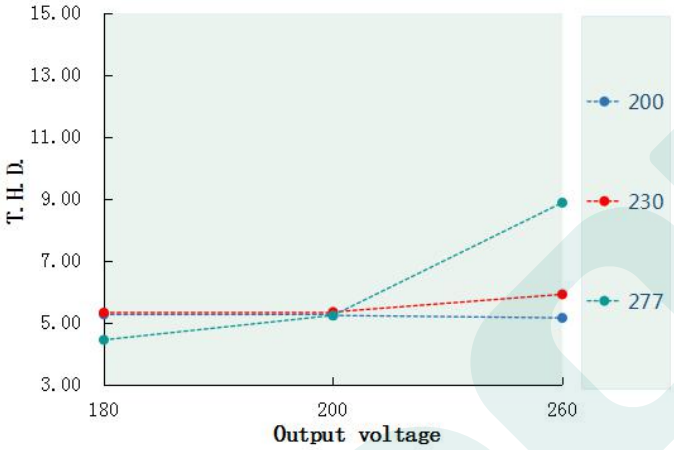
Eff. VS Output voltage(DL-200H-PXC)



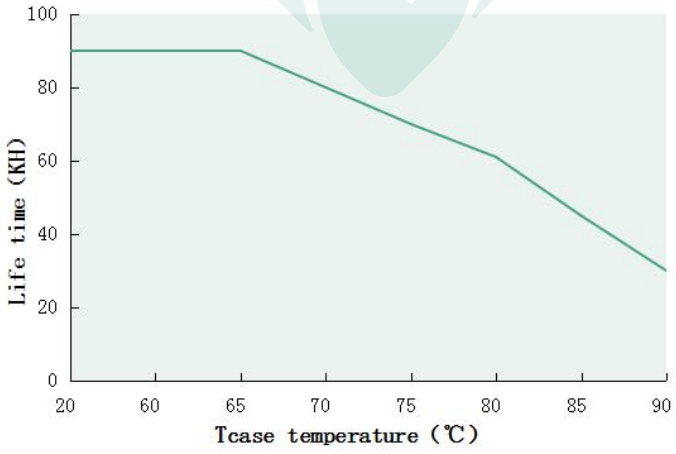
Power factor VS Input voltage(DL-200H-PXC)



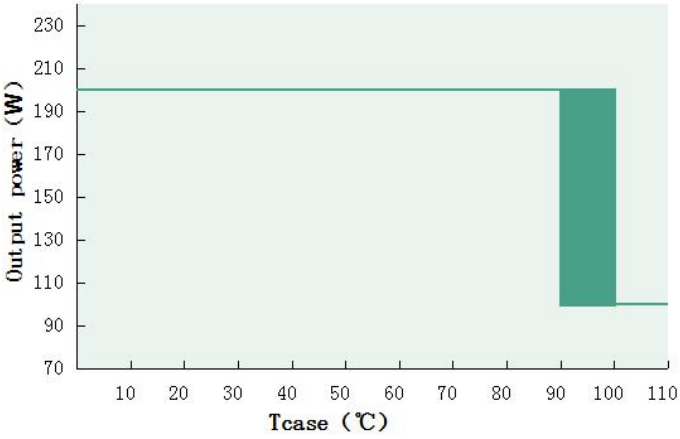
T.H.D. VS Output voltage(DL-200H-PXC)



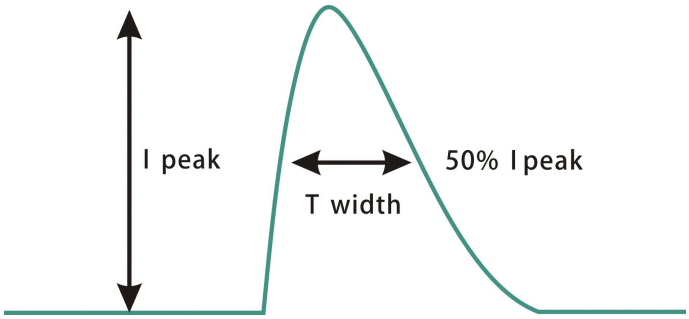
Tcase VS Lifetime(DL-200H-PXC)



Output power VS Tcase(DL-200H-PXC)

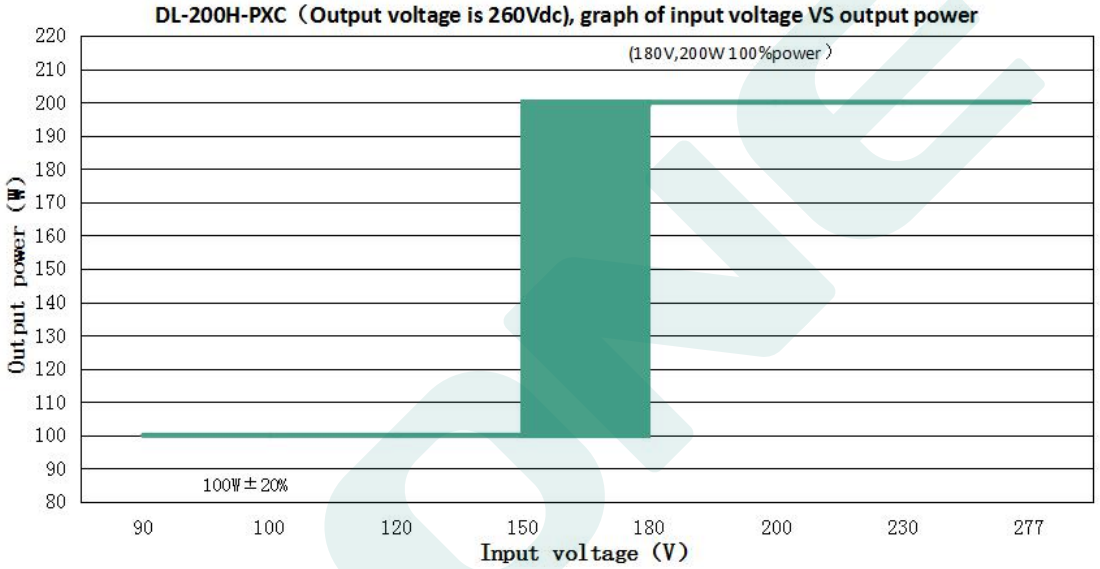


Inrush Current (DL-200H-PXC)



Input voltage	Peak current	T(@50% Peak current)
180Vac	67A	1.73us
230Vac	76.3A	1.83us
277Vac	100A	1.79us

Output power VS Input voltage



DL-200H-260A/P-PXC(When the output voltage is 260Vdc, the rated output current value and output power corresponding to different input voltage)							
Input Voltage	100Vac	120Vac	150Vac	180Vac	200Vac	230Vac	277Vac
Iout	0.385A	0.385A	0.385A	0.77A	0.77A	0.77A	0.77A
Pout	100W	100W	100W	200W	200W	200W	200W

Note: When the input voltage is below 165±15Vac,the output power decreases to 100W±20%.

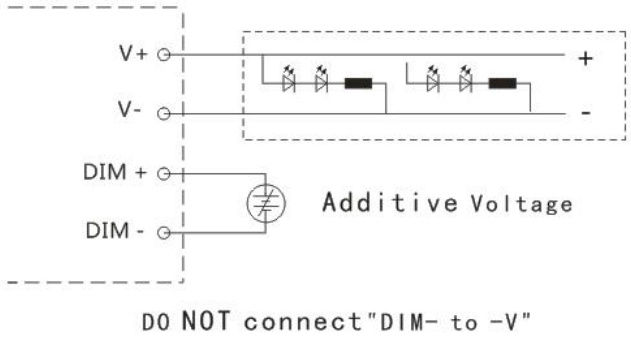
Dimming operation

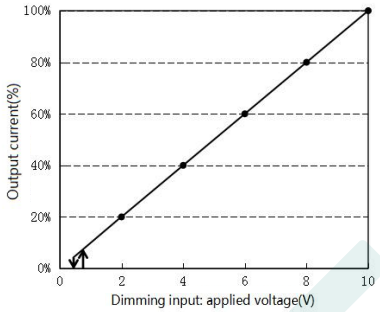
※ Three-in-one dimming function (P version only)

A. connect a resistor 0-100K or 0-10V DC voltage or 10V PWM signal between DIM+ and DIM- to adjust the output current.

B. output current of dimming port: 108uA (typical value).

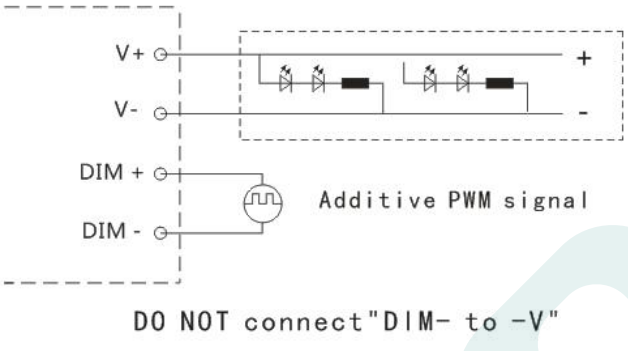
◎ **With an applied voltage of 0-10V:**

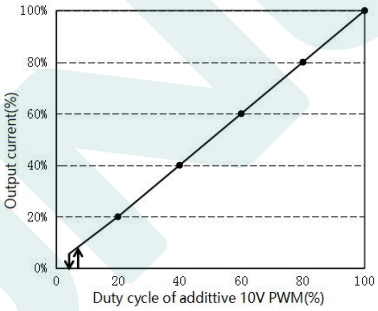




Positive logic dimming curve

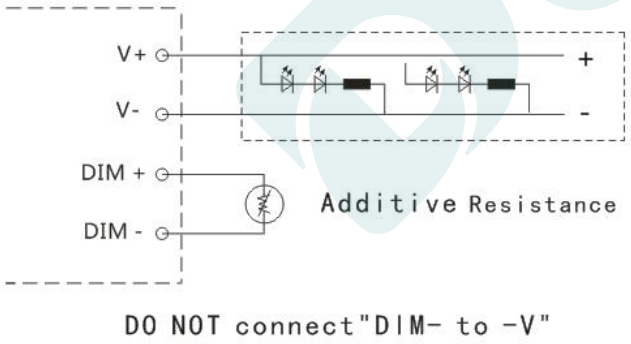
◎ **Applying additive 10V PWM signal（Frequency range：300Hz-2K Hz）：**

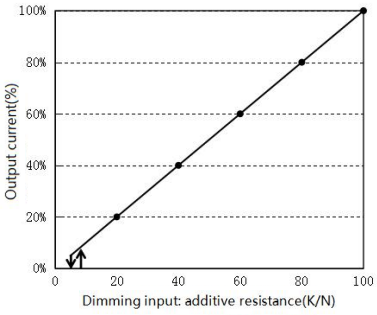




Positive logic dimming curve

◎ **With an additional 0-100K resistor:**





Positive logic dimming curve

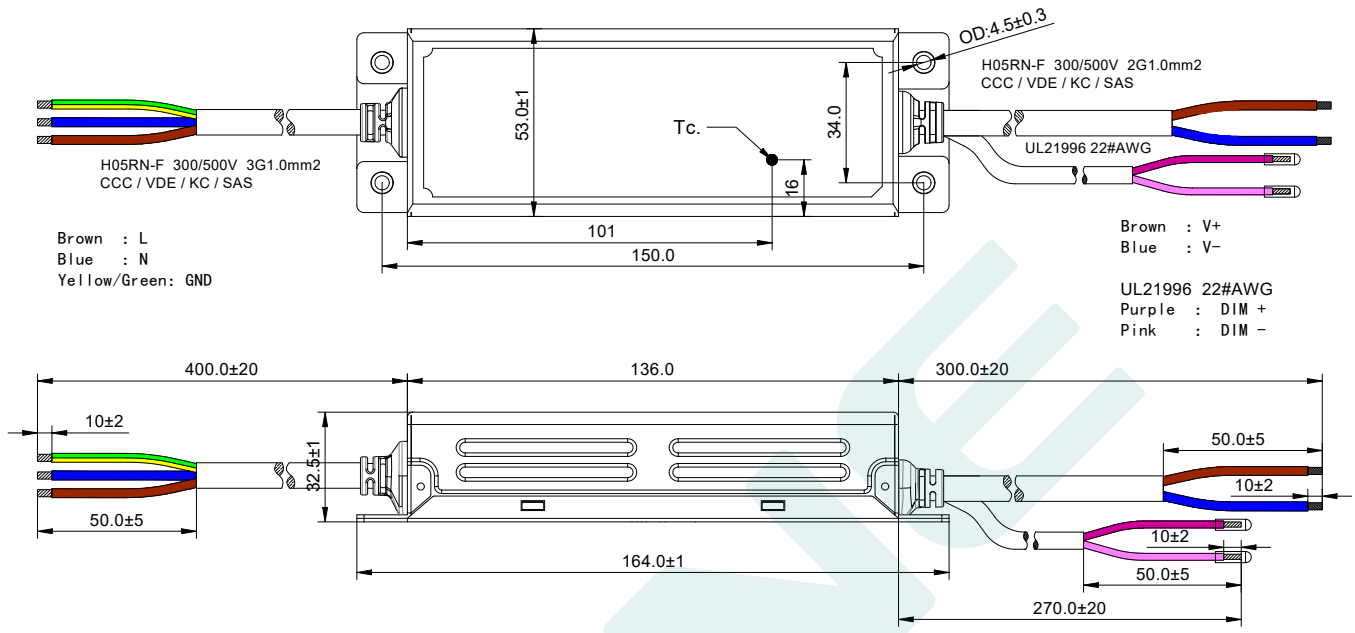
Remark:

1. Both operation way, of positive logic or negative logic,can be selected by program.
2. Dim -off is only available for positive logic dimming .Other requirements need to contact with the technician for help.

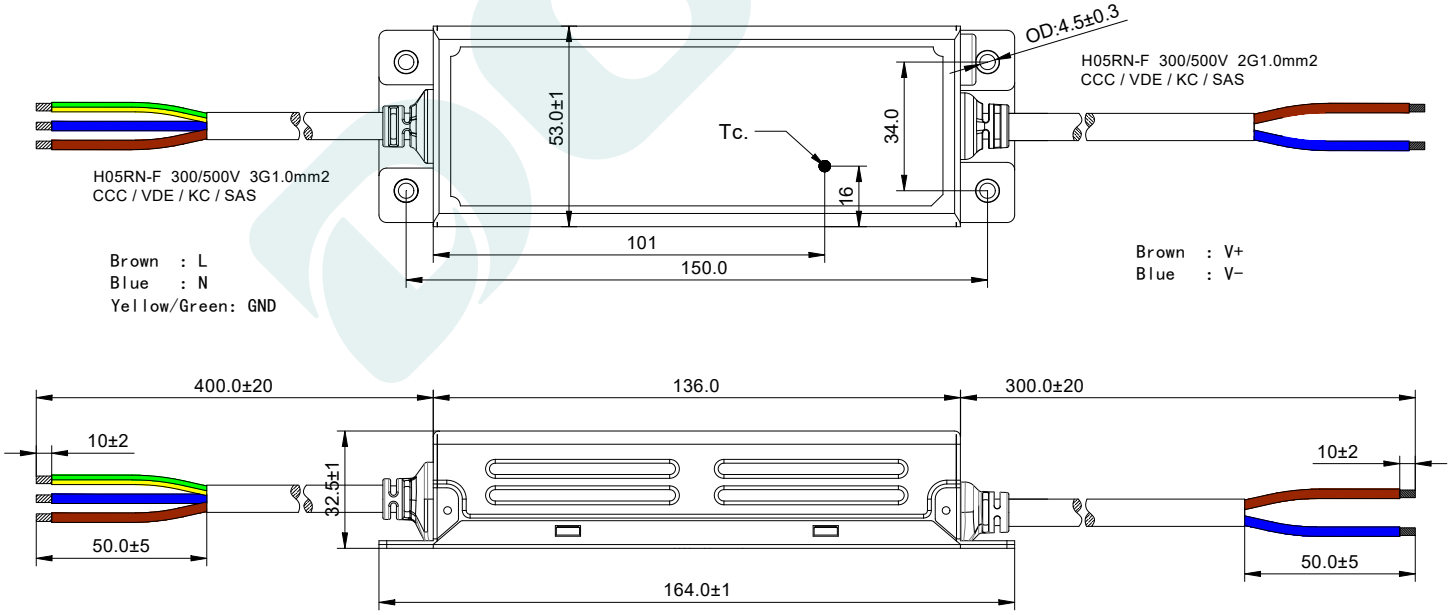
Mechanical specifiation

Size (mm)	L164*W53*H32.5

DL-200H-260P-PXC



DL-200H-260A-PXC

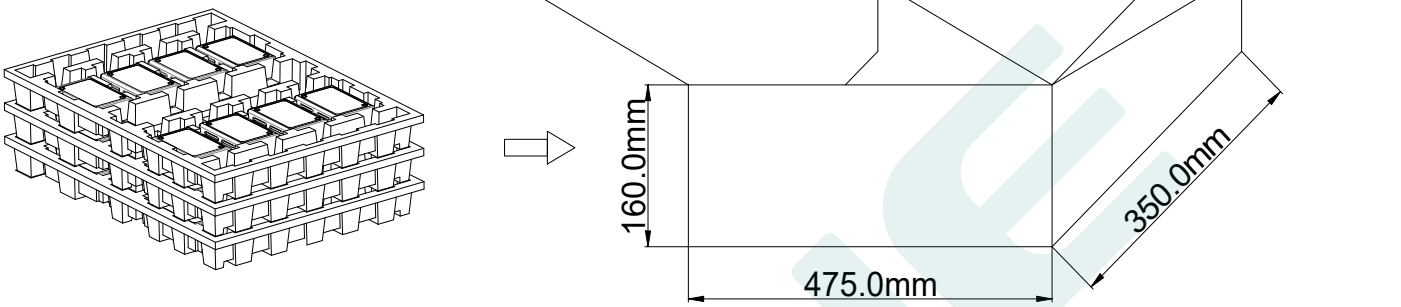


Weight

Weight	540g

Packaging

Packaging (mm)	L475*W350*H160



Note: One Carton 3 layers and8 pcs each layer, total 24pcs/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.

Version

DATE	DESCRIPTION	REV.	CHECK
2025.4.18	Initial version.	V1.0	JH 2025.04.24 19:47:19 +08'00' DYX 2025.04.26 08:28:15 +08'00'

MANUFACTRUER		
EDIT	CHECK	APPROVE
ZMH 2025.04.18 10:52:32 +08'00' YS 2025.04.19 09:27:07 +08'00'	TQC 2025.04.24 14:17:52 +08'00'	