

The logo for DONE, featuring the word "DONE" in a bold, teal, sans-serif font. The letter "D" is stylized with a white circular element on its left side. The logo is enclosed in a thin teal rounded rectangular border.

**DONE**

# PXC SERIES LED DRIVER

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**DL-60DU-2000-PXC Specification V1.0**

## Features

- Suitable for luminaire with protection Class I
- Input voltage range:550-750V DC
- Efficiency :94.5%(Typ.)
- Constant current output ,with power limitation for control mode
- Metal case, Ingress protection rating: IP67
- Input surge protection : DM 5kV, CM 10kV
- Dimming signal input is 0V, standby power consumption  $\leq 1.5W$ (P version only)
- Function selection:
  - P: Isolated 3-in-1 dimming 0-10V/PWM/Resistor
- Warranty: 5 years



## Applications

Road lighting、 Industrial lighting、 Venue lighting  
 Floodlight lighting、 Landscape lighting、 Plant lighting

## Model list

Model NO.	Input voltage	Output power	Output voltage	Default current	Eff. (Typ.)	THD	PF
DL-60DU-200P-PXC	550-750V DC	60W	130-200Vdc	0.35A	94.5%	/	/

### Note :

- 1.Test conditions for the above parameters: At 100%Load 30 minutes,750VDC;
- 2.When the input is 550-750VDC,the output power is 60W ; please refer to the output power Vs. input voltage curve.

## Input characteristics

Parameter	Min	Typ.	Max	Notes
Rated input voltage	550VDC	-	750VDC	-
Input voltage range	500VDC	-	825VDC	-
Input frequency	-	-	-	-
Power factor(PF)	-	-	-	-
	-	-	-	-
THD	-	-	-	-
	-	-	-	-
Input current	-	-	0.12A	100%load,750VDC 输入
Inrush current	-	-	150A	At 750VDC and 25°C cold start

## Output characteristics

Parameter	Min	Typ.	Max	Notes
Rated current		0.35A		With loading 200VDC
Output current range	0.20A		0.43A	Default current :0.86A
Output voltage range	130V		200V	
100%load Output voltage range	140V		200V	The maximum output power is 60W
100%load Output voltage range	130V		200V	The maximum output current is 0.35A
Open circuit voltage	-	-	310V	
Efficiency@550VDC	92.5%	93.0%	-	100% load
Efficiency@750VDC	93.5%	94.5%	-	100% load
output ripple current	-	5%	-	100% load
Output current tolerance	-5%	-	+5%	100% load
Line regulation	-5%	-	+5%	100% load
Load regulation	-5%	-	+5%	100% load
Turn-on delay time	-	-	1.0s	100% load@600-900VDC

**Note:** The output current range is limited by the input and output voltage, please refer to I-V Work area curve

## Dimming characteristics(P version only )

Parameter		Min	Typ.	Max	Note
0-10V Dimming ( Optional )	Safe operating voltage	0V	-	12V	Dim+ source current 100uA
	Recommended dimming input range	0V	-	10V	
	Dimming range	0%	-	100%	
	Turn-on voltage	0.6V	0.8V	1.0V	Dimming off may result in afterglow, which needs to be verified through the whole-lamp test.
	Turn-off voltage	0.4V	0.5V	0.6V	
PWM Dimming ( Optional )	PWM in high level	9.5V	-	10.5V	-
	PWM in low level	0V	-	0.3V	-
	PWM in frequency scope	300Hz	-	1500Hz	-
	PWM in duty cycle	0%	-	99%	Full power output at 99% duty cycle
	Turn-on duty cycle	6%	8%	10%	-
	Turn-off duty cycle	4%	5%	6%	-
Resistor Dimming ( Optional )	External resistor value	0KΩ	-	100KΩ	-
	Dimming range	0%	-	100%	-

### Note:

1. Default 0-10V, positive logic, with Dimming off, 100%load with Dimming floating
2. Other dimming modes (0-5V voltage, negative logic, non-shutdown, etc.) (can be set to timing dimming through programming software.

## Protection

Protection	description
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°C, the output power decreases With increasing case temperature.

**Note:** All parameters should be measured at a 750VDC/50Hz input voltage, with a rated load unless otherwise specified.

## Environmental

Categories	Parameter
Operating temperature Ta	-40 ~ +55°C@550-750VDC(refer to "Life Curve ")
Operating case temperature for Safety Tc_s	-40°C ~ +90°C
Operating case temperature for Warranty Tc_w	-20°C ~ +95°C, RH, non-condensing
Storage temperature, humidity	-40°C ~ +80°C, 10% ~ 95% RH
Resistant to vibration	10Hz ~ 500Hz, 5G 12 min/cycle, X, Y, Z axis 72 min each
MTBF	200,000 hours ,MIL-HDBK-217F ( Ta=25°C )
Lifetime	70,000 hours @Tc≤75°C,750VDC, 100% Load,Please refer to "Tcase VS Lifetime" curve

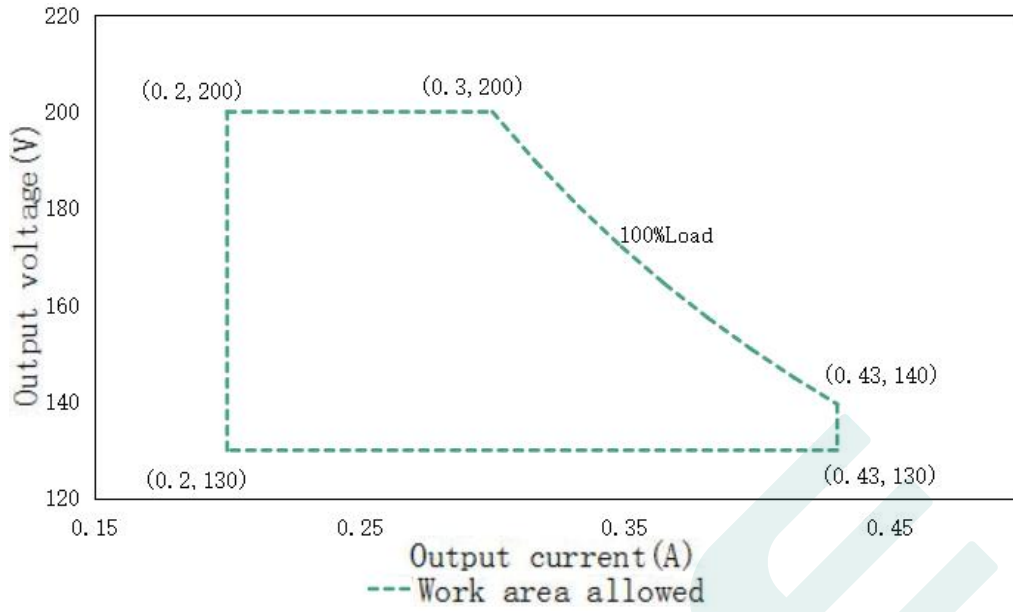
## Safety and EMC

Safety categories	Standard
Safety	EN61347-1、 EN61347-2-13、 IEC61347-1、 IEC61347-2-13、 AS/NZS61347.1、 AS61347.2.13、 EN 62384、 UL8750 ;
EMC	EN 55015、 EN 61000-3-2 、 EN 61000-3-3
Surge level	Differential mode L-N ±5KV ( 2 ohm ) ,common mode L , N-PE± 10KV ( 12 ohm ) ; Refer to IEC61000-4-5 2014
High-pot test	I/P-PE :1.5KVac O/P-PE : 1.5KVac I/P-DIM:1.5KVac O/P-DIM:1.5KVac
Insulation impedance	I/P-PE:100MΩ / 500VDC; O/P-PE:100MΩ / 500VDC / 25°C/ 70% RH
Leakage current	< 0.75mA @277Vac

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.

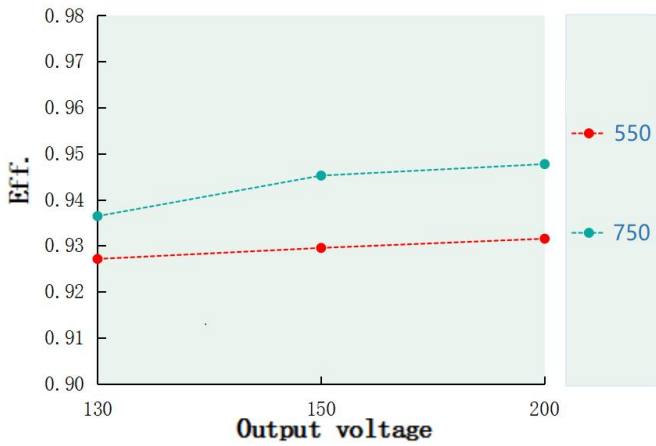
2. Not recommended for no-load operation, as the power supply enters OVP restart mode.

**I-V Working area**

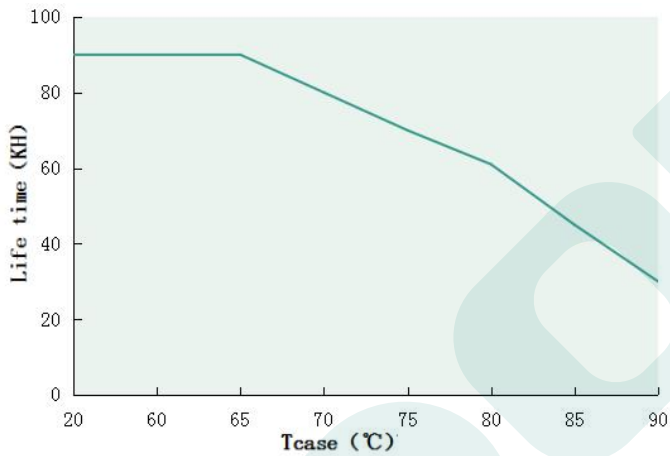


Load	Output								
Output Voltage	120V	130V	140V	150V	160V	170V	180V	190V	200V
Output Current Io_MAX	0.43A	0.43A	0.43A	0.40A	0.37A	0.35A	0.33A	0.31A	0.3A
Output Power Po_MAX	52W	55W	60W	60W	60W	60W	60W	60W	60W

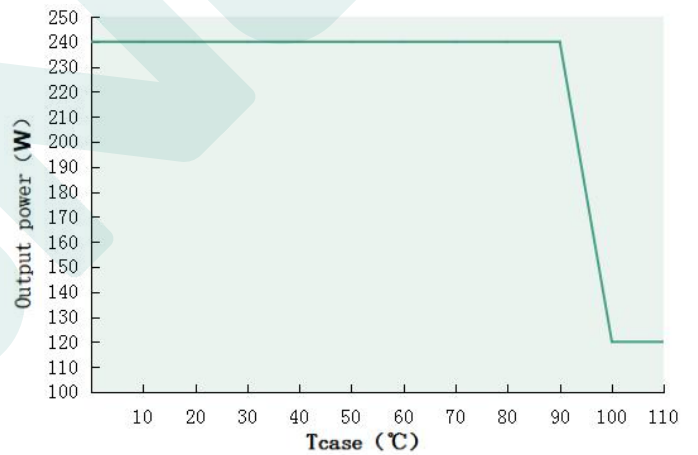
**Eff. VS output voltage**



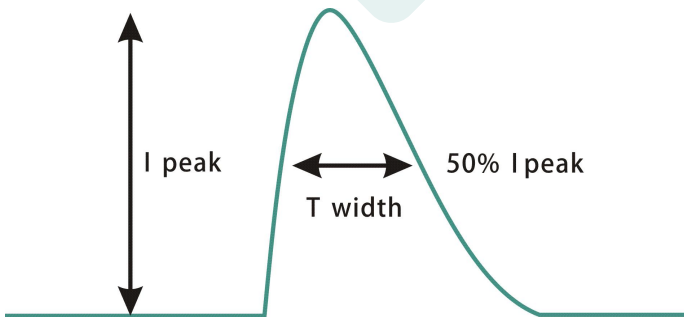
**Lifetime VS TC**



**output power VS Tcase**



**Inrush Current**



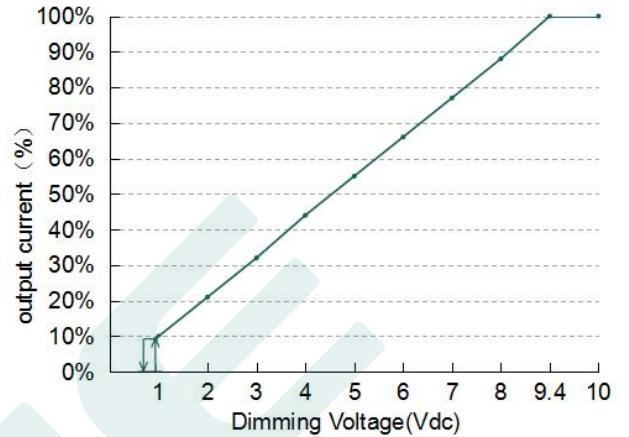
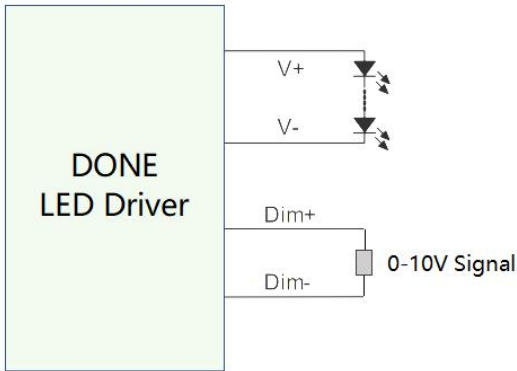
Input voltage	Peak current	T(@50% Peak current)
550VDC	100.1A	165us
750VDC	128.1A	174us

## Dimming operation

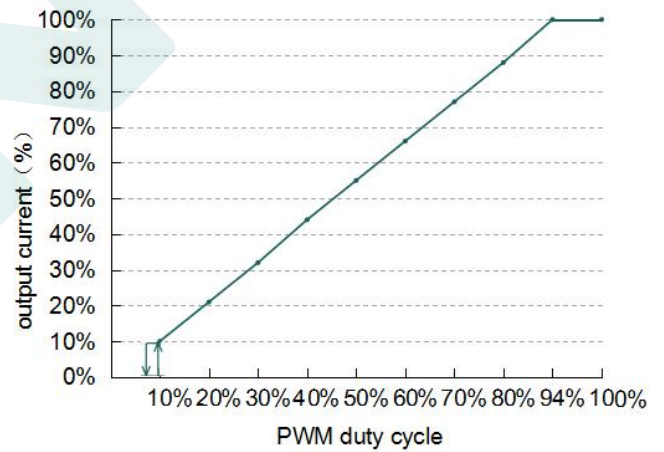
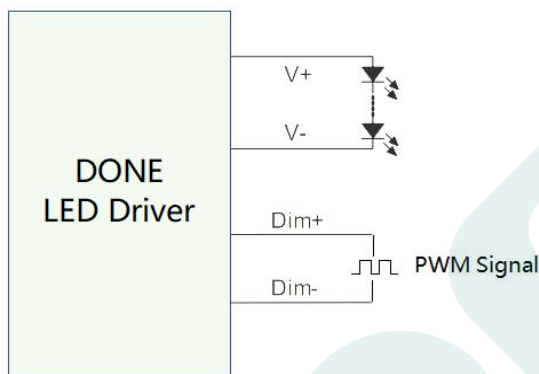
### 3-in-1 dimming function

Connect a 0-10V Dimmer or 10V PWM signal or resistor between DIM+ and DIM-

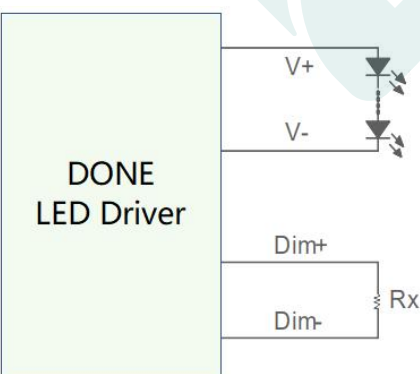
• **0-10V dimming:**



• **PWM dimming :**



• **Resistor Dimming:**





### Caution:

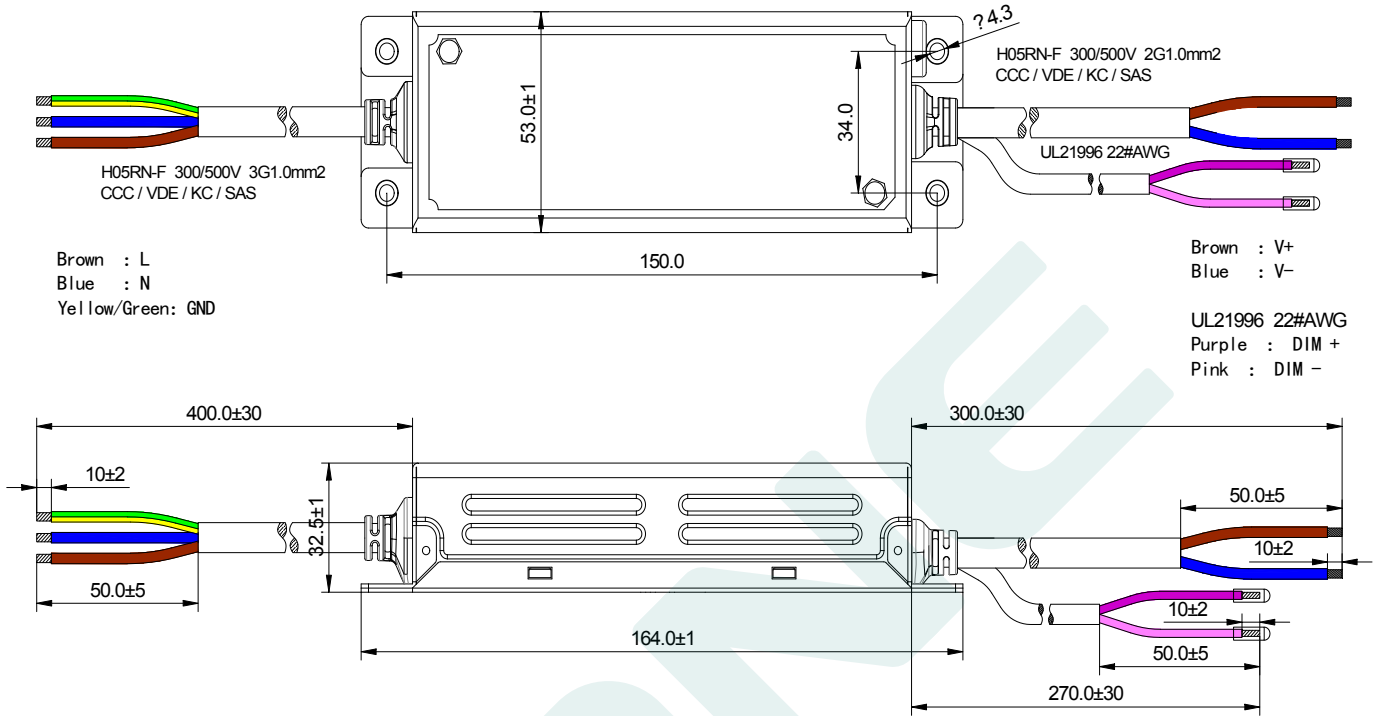
1. It is recommended to design LED beads in series first and then in parallel.
2. There is no excessive heat-dissipating copper foil left on the aluminum substrate.
3. The creepage distance of the aluminum substrate wiring > 5mm.
4. The creepage distance between LED+ and LED- on the aluminum substrate > 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

Size (mm)	L164mm*W53mm*H32.5mm
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**DL-60DU-200P-PXC**

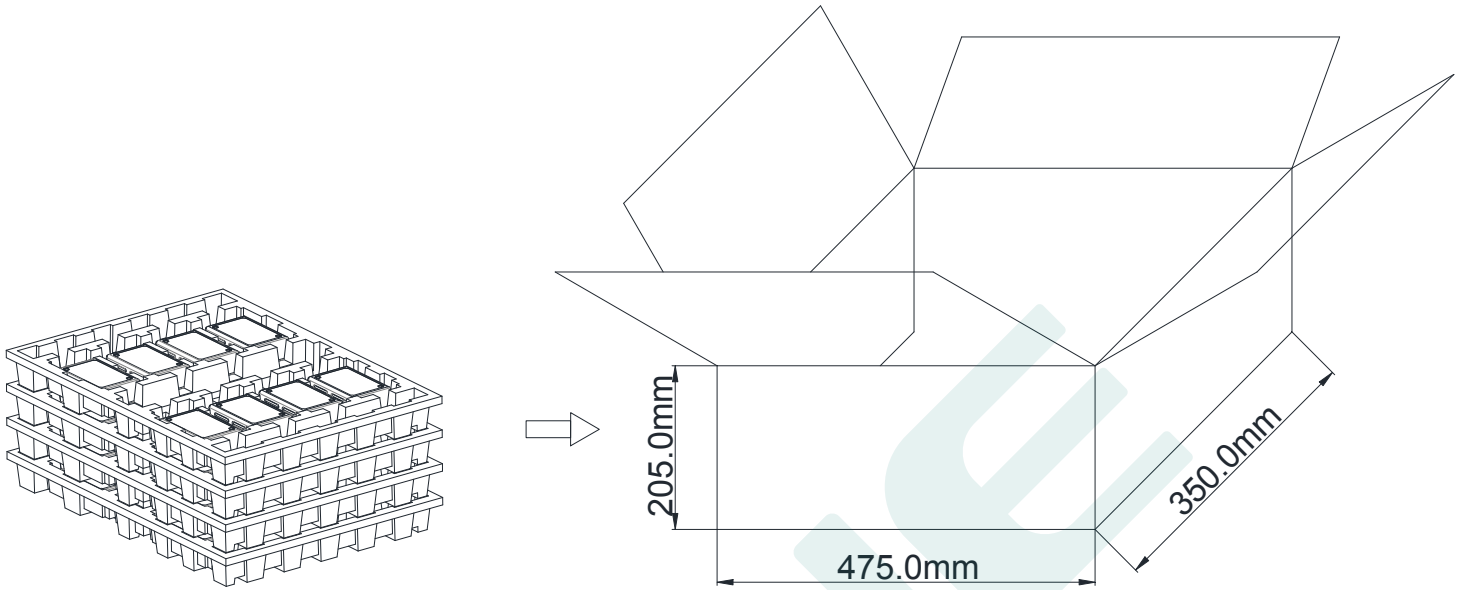


### Weight

Weight	490 g
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**Packaging**

Packaging ( mm ) 475\*350\*160



Note: One Carton 3 layers and 5 pcs each layer, total 15 pcs/carton.

**Note:**

1. According to the qualified certificate of the LED DRIVER, that with English label is for sale in Europe, America and India.
2. That with Chinese label are used for Chinese market.

## Version

DATE	DESCRIPTION	REV.	CHECK
2026.4.23	Initial version	V1.0	

## MANUFACTRUER

EDIT	CHECK	APPROVE

