### PE-N60DA 60W







# Features:

- Integrated DALI/Push/0-10V/1-10V/PWM/R DIM standard dimming interface
- DAL2 certification, DALI member
- Digital control output, flicker free
- International general AC input 200-250V rang
- Protection type: short circuit / over current / over voltage
- Natural air cooling, moisture-proof, Thermal silicone heat dissipation process
- Suitable for LED home and business intelligent lighting applications
- Output fast pressure terminal, safe and convenient
- Comply with world lighting safety code
- Protection class II
- 5-year warranty



0-10V

DIM

Push DIM



1-10V

DIM



Resistor



10V PWM



Member



RoHS SELV ( Class 2







(4)  $\eta > 0.85$ Over-heat Efficiency Protection







# General description:

DALI Dimming LED Driver is one of the constant current dimming LED driver developed by my company with high power factor, high efficiency, high precision, the use of the efficient stable low loss switch control chip and the high performance components makes it with low noise, long life and other characteristics.

PE-N60DA have DALI/Push/0-10V/ 1-10V/PWM/R DIM six dimming ways, Dali is the main default, 6 kinds of dimming mode switching, no interference with each other

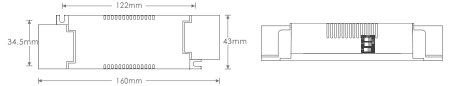
Dimming interface: 1.DALI dimming, use standard DALI signal interface. can match with all DALI control system in the marker.

- DALI full name: Digital Addressable Lighting Interface 2.0-10V dimming, use the standard 0-10V /100K resistance/10V PWM dimming.
- 3. Push dimming mode is shared with Dali interface, and one of them can be selected.

#### Specification:

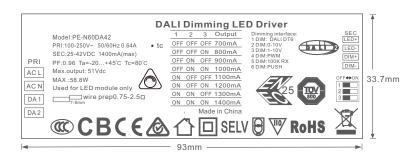
	Model	PE-N60DA42
	Output Voltage	9-42Vdc
	Max Output Voltage	42Vdc
	Non-load Output Voltage	55Vdc
	Output Current	700/800/900/1000/1100/1200/1300/1400mA
OUTPUT	Output Power	6. 3W-58. 8W
000.	Strobe Level	No Flicker
	Dimming Range	0~100%, LEDstart at 0.03%possible.
	PWM Dimming Frequency	>3600Hz
	Current Accuracy	±3%
	Ripple & Noise	Power down memory function
	Dimming Interface	DALI (IEC62386), Push /0-10V/1-10V/PWM/100KR DIM Signal control current < 0.1 mA
	Input Voltage Range	200-250Vac
	Frequency	50/60Hz
	Input Current	<0.64A ac230v
	Power Factor	PF>0.97/230Vac, at full load
INPUT	THD	230Vac@THD ≤8% (full load)
	Efficiency(typ.)	88%
	Inrush Current(typ.)	Cold start 20A@230Vac
	Anti Surge	L-N: 2kV
	Leakage Current	<0.25mA/230Vac ac( 50%   peak test twidth=58.4us )
	Working Temperature	ta: 45°C tc: 80°C
	Working Humidity	20 ~ 95%RH, non-condensing
ENVIRONMENT	Storage Temp., Humidity	-40 ~ 80°C, 10~95%RH
	Temp. Coefficient	±0.03%/°C(0-50) °C
	Vibration	10~500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes.
	Over-heat Protection	Intelligently adjusting or turning off the output current if the PCB temperature ≥110°C, , auto recovers.
DDOTECTION	Over Load Protection	Shut down the output when rated power≥102%, auto recovers.
PROTECTION	Short Circuit Protection	Shut down automatically if short circuit occurs, auto recovers.
	Non-load Protection	output Constant Voltage.
	Withstand Voltage	I/P-O/P: 3750Vac
	Isolation Resistance	I/P-O/P: 100M \( \Omega \)/500VDC/25°C/70%RH
SAFETY &	Safety Standards	IEC/EN61347-1, IEC/EN61347-2-13
EMC	EMC Emission	EN55015, EN61000-3-2 Class C, IEC61000-3-3
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547
	Strobe Test Standard	IEEE 1789
	Dimension	160(130)×43×30mm(L×W×H)
OTHERS	Packing	PE plastic bag packing
	Weight(G.W.)	245g/245g±10g

#### Dimensions :





#### Product Label:



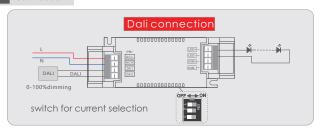
## LED Current Selection:

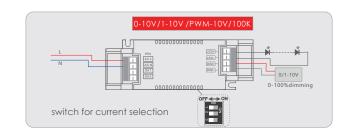
DIP switch for 8 optional currents' quick selection (see the table below).

Model	DIP switch	2 0 0 V	→ ■ ON N W ■ ■ ON	1 0 N	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- ON	Y DE S	1 0 0 V	2 0 0 2 0 0 2 0 0	OFF ←→ ON
PE-N60DA42	output current	700mA	800mA	900mA	1000mA	1100mA	1200mA	1300mA	1400mA	1
	output voltage	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	
	output power	6. 3W-29. 4W	7. 2W-33. 6W	8. 1W-37. 8W	9W-42W	9. 9W-46. 2W	10. 8W-50. 4W	11. 7W-54. 6W	12. 6W-58. 8W	

- \* After current setting by DIP switch, power off and then power on to make the new current effective.
- \* E.g. LED 3.2V/pcs: 9-24V can power 3-7pcs LEDs in series, 9-42V can power 3-12pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.

## Connection:





## Push Dimming:



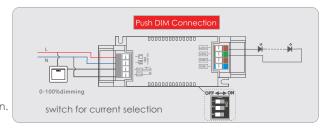
On/off control: Short press.

Stepless dimming: Long press.

With every other long press, the light level goes

to the opposite direction.

Dimming memory: Brightness will be the same as previously adjusted when turning off and on again.



## Wiring:

\* 1.DALI interface Dali is a digital addressable lighting interface, which is directly connected with Dali control system, and the signal line is not divided into positive and negative poles.

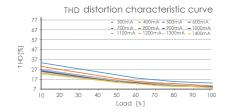
※ 2.PUSH interface: AC voltage is connected to Dali two ports through a switch with automatic reset to realize key dimming. Single press switch function, long press dimming.

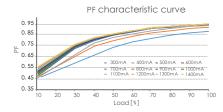
4.Do not connect voltage higher than 10V at 0-10V interface

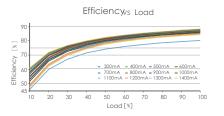
💥 5.The input terminal: wire gauge 22AWG-14AWG (0.5mm2 – 1.5mm2)wire stripping requirement:9-10mm

\* 6.The output terminal: wire gauge 22AWG-12AWG (0.5mm2 - 1.5mm/2) wire stripping requirement :6-7mm.

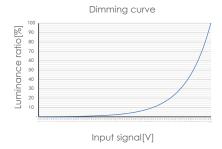
### Relationship Diagrams:

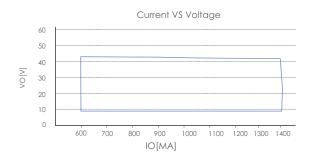






## Relationship Diagrams:





## The use of guidance:

Unless otherwise specified, all specifications and parameters are measured at 230VAC input, rated load and 25  $^{\circ}$ C Ambient Temperature

This product has a press line cap at the input, with self-locking clamping, it can be opened up with a screwdriver, then you will see the input terminal connected with the AC line L and the null lime N, The output terminal connect a according to the product label, notice the positive and negative pole.

- \*\*1:please pay attention to the distinction between input and out put , connect correctly, then power on
- \*\*2:please connect first the load of the DC output, open the driver after checking; in the constant current mode, if power on at open circuit, please turn off the driver and can't connect the LED until the electric energy stored by the output release, or it may damage the LED;
- \*\*3. this type of driver is only limited to the use of the LED lamps, the input voltage range is AC200-250V, the heat insulation cotton and other items that obstruct the heat dissipation of the product, which conforms to the product under the specified output voltage, current range, the use environment temperature is -20-45 degrees, and the surface can not cover the conditions of the environment, this product enjoys three years of free warranty.
- 1.the LED lamp doesn't bright after the dimming driver is connected at the first time, please turn off the AC input and check as follow:
- 1) whether or not DC output bad contact;
- 2) whether DC output polarity is reversed, or the LED board is welded anti;
- 3) whether AC input is bad contact, test after eliminating these failures;
- 2.the device has good connection, LED lights, but the LED flicker, please turn off the AC input and check as follow:
- 1). whether or not the parameters and actual parameters match.
- 2).please timely communicate with us if you have any questions in the using, we will try our best to solve the problems with you.

#### Statement

The pictures and specifications is for reference only, in kind prevail, specifications are subject to change with further notice.

## The abnormal conditions and the corresponding treatment methods:

Digital Addressable lighting Interface (DALI)

DALI slave unit will send data only master unit requests, that is, adopt command answering mode

There are 64 slave units at most in the same DALI network, each unit has a separate address (short address), A salve unit can also be assigned to a certain group, and a slave unit can belong to different group, salve unit can exist up to 16 groups at the same time, each unit can set 16 scenarios.

The main features of the DALI protocol

- 1) Asynchronous serial communication.
- 2) 1200 baud rate, using the Manchester encoding format.
- 3)Two lies differential signal.
- 4) The high level when differential voltage is larger than 9.5V.
- 5) The low level when differential voltage is less than 6.5 V.
- 6) The master unit controls communication process.
- 7) One DALI bus can connect with 64 slave units.
- 8) Each slave unit can be individually addressed.

## **DALI Electrical Specification**

Under the idle state, from machine unit method to control the bus:

- 1) High Output power at ordinary time, not to interference in the hold signal.
- 2) Output low electricity at ordinary time, directly to the DALI bus short circuit to each other.
- 3)DALI bus maximum current of 250mA
- 4) Not a two-way communication at the same time.
- 5)Transmission cable up to 300 meters, or pressure drop is no more than 2v