

PE-N14DA 14.7W

PE-N20DA 21W



6  
six in one dimming

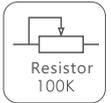
### Features:

- 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 100-250V 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

5 years



RoHS SELV CE Class 2



### 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-N14DA/PE-N20DA 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

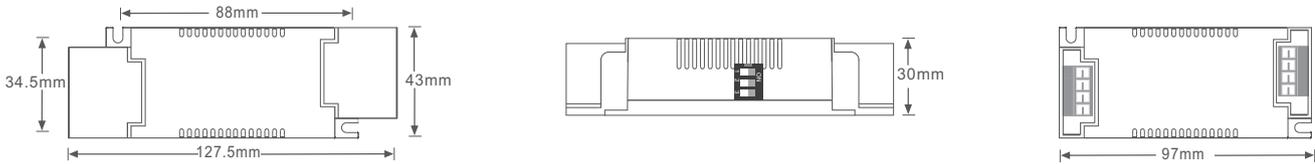
2. 0-10V dimming, use the standard 0-10V /100K resistance/10V PWM dimming.

3. Push dimming mode is shared with Dali interface, and one of them can be selected.

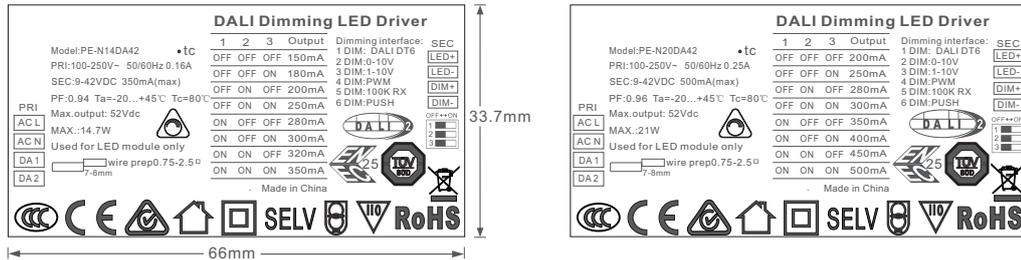
### Specification:

Model		PE-N14DA24	PE-N14DA42	PE-N20DA24	PE-N20DA42
OUTPUT	Output Voltage	9-24Vdc	9-42Vdc	9-24Vdc	9-42Vdc
	Max Output Voltage	24Vdc	42Vdc	24Vdc	42Vdc
	Non-load Output Voltage	30Vdc	55Vdc	30Vdc	55Vdc
	Output Current	200/250/280/300 350/400/450/500mA	150/180/200/250 280/300/320/350mA	450/500/550/600 650/700/750/800mA	200/250/280/300 350/400/450/500mA
	Output Power	1.8W~12W	1.35W~14.7W	4W~19.2W	1.8W~21W
	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				
INPUT	Dimming Interface	DALI (IEC62386), Push /0-10V/1-10V/PWM/100KR DIM			Signal control current < 0.1mA
	Input Voltage Range	100-250Vac			
	Frequency	50/60Hz			
	Input Current	<0.16A ac110v	<0.16A ac110v	<0.25A ac110v	<0.27A ac110v
	Power Factor	PF>0.99/100V ac, at full load	PF>0.99/100V ac, at full load	PF>0.99/100V ac, at full load	PF>0.99/100V ac, at full load
	THD	230Vac@THD ≤10% (full load)			
	Efficiency (typ.)	83%	83.7%	84%	85.4%
	Inrush Current (typ.)	Cold start 20A@230Vac	Cold start 20A@230Vac	Cold start 20A@230Vac	Cold start 20A@230Vac
	Anti Surge	L-N: 2kV			
Leakage Current	<0.25mA/230Vac ac(50% Ipeak test twidth=58.4us)				
ENVIRONMENT	Working Temperature	ta: 45°C tc: 80 °C			
	Working Humidity	20 ~ 95%RH, non-condensing			
	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.			
PROTECTION	Over-heat Protection	Intelligently adjusting or turning off the output current if the PCB temperature ≥110°C, , auto recovers.			
	Over Load Protection	Shut down the output when rated power ≥102%, auto recovers.			
	Short Circuit Protection	Shut down automatically if short circuit occurs, auto recovers.			
	Non-load Protection	output Constant Voltage.			
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750Vac			
	Isolation Resistance	I/P-O/P: 100MΩ /500VDC/25°C/70%RH			
	Safety Standards	IEC/EN61347-1, IEC/EN61347-2-13			
	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			
OTHERS	Dimension	127.5(97)×43×30mm(L×W×H)			
	Packing	PE plastic bag packing			
	Weight(G.W.)	116g/126g±10g			

**Dimensions :**



**Product Label:**



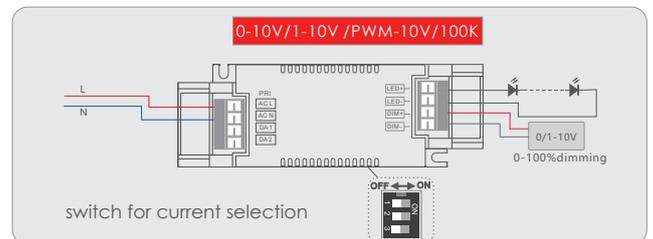
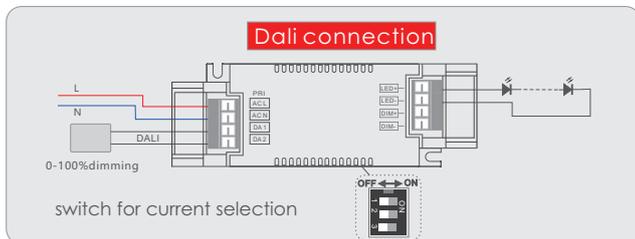
**LED Current Selection:**

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

Model	DIP switch									
PE-N14DA42	output current	150mA	180mA	200mA	250mA	280mA	300mA	320mA	350mA	
	output voltage	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	
	output power	1.3W-6.3W	1.6W-7.6W	1.8W-8.4W	2.2W-10.5W	2.5W-11.7W	2.7W-12.6W	2.8W-13.4W	3.15W-14.7W	
PE-N14DA24	output current	200mA	250mA	280mA	300mA	350mA	400mA	450mA	500mA	
	output voltage	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V	
	output power	1.8W-4.8W	2.2W-6W	2.5W-6.7W	2.7W-7.2W	3.1W-8.4W	3.6W-9.6W	4W-10.8W	4.5W-12W	
PE-N20DA42	output current	200mA	250mA	280mA	300mA	350mA	400mA	450mA	500mA	
	output voltage	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	
	output power	1.8W-8.4W	2.2W-10.5W	2.5W-11.7W	2.7W-12.6W	3.1W-14.7W	3.6W-16.8W	4W-18.9W	4.5W-21W	
PE-N20DA24	output current	450mA	500mA	550mA	600mA	650mA	700mA	750mA	800mA	
	output voltage	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V	
	output power	4W-10.8W	4.5W-12W	4.9W-13.2W	5.4W-14.4W	5.8W-15.6W	6.3W-16.8W	6.7W-18W	7.2W-19.2W	

- \* 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.

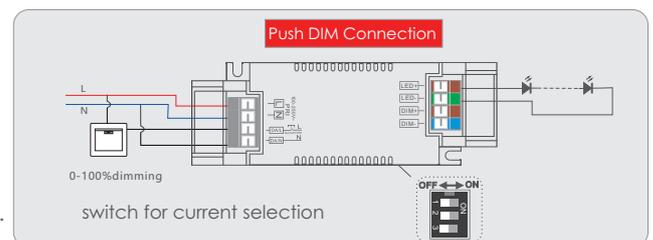
**Connection:**



**Push Dimming:**



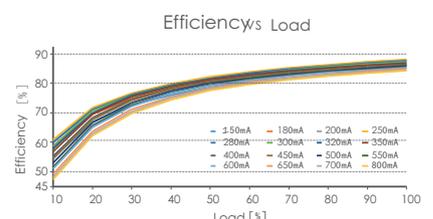
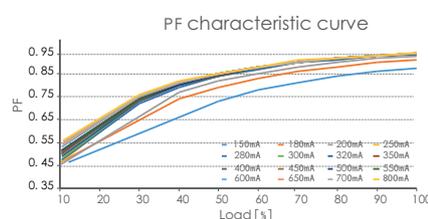
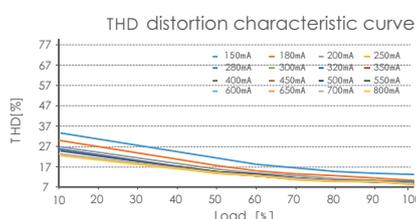
On/off control: Short press.  
 Stepless dimming: Long press.  
 With every other long press, the light level goes to the opposite direction.  
 Dimming memory: Brightness will be the same as previously adjusted when turning off and on again.



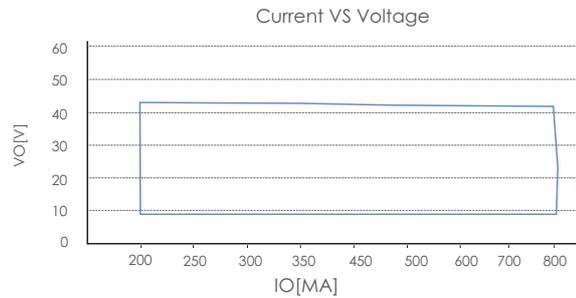
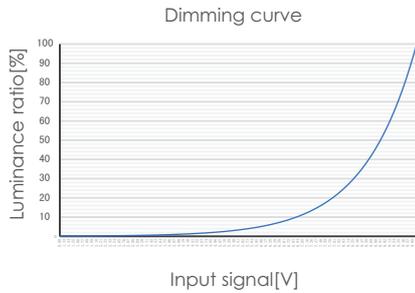
**Wiring:**

- ※ 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.
- ※ 3.0-10V interface: 0-10V dimmer interface, 100k resistance dimmer without positive and negative, 0 / 1-10V dimmer with positive and negative
- ※ 4.Do not connect voltage higher than 10V at 0-10V interface
- ※ 5.The input terminal: wire gauge 22AWG-14AWG (0.5mm<sup>2</sup> - 1.5mm<sup>2</sup>)wire stripping requirement :9-10mm
- ※ 6.The output terminal: wire gauge 22AWG-12AWG (0.5mm<sup>2</sup> - 1.5mm<sup>2</sup>)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 °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 line 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 AC 100-250V, 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 slave unit can also be assigned to a certain group, and a slave unit can belong to different group, slave 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 lines differential signal.
- 4) The high level when differential voltage is larger than 9.5V.
- 5) The low level when differential voltage is less than 6.5V.
- 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