

PE-N14DA 14.7W

PE-N20DA 21W



5年质保

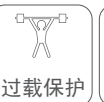
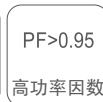
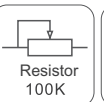


RoHS SELV CE Class 2

6合一调光

特性:

- 集成DALI/Push /0-10V/1-10V/PWM/R DIM标准调光接口
- DALI2认证,DALI会员
- 采用数字控制输出完全无频闪
- 国际通用交流输入100-250V范围
- 保护种类:短路/过电流/过电压
- 自然风冷,防潮,导热硅胶散热工艺
- 适用于LED家居和商业智能照明等应用
- 输出快压端子,安全便捷
- 符合世界照明设备安全规范
- 保护等级II
- 5年质保



产品描述:

DALI数字调光电源是我公司研发的一款高功率因素、高效率、高精度的LED恒流调光驱动电源,采用美国高效、稳定、低损耗的开关控制芯片,使用性能优良的元器件,具有低噪声、长寿命等特点。

PE-N14DA/PE-N20DA 拥有DALI/Push /0-10V/1-10V/PWM/R DIM 6种调光方式,默认DALI为主,6种调光方式切换,互不干扰。

调光方式一: DALI调光采用标准DALI信号接口,可以匹配市面上所有DALI控制系统。

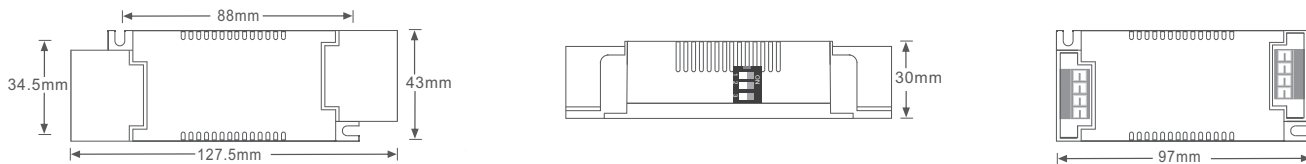
DALI 全称为:Digital Addressable Lighting Interface 数字可寻址照明接口。

调光方式二: 0-10V 采用标准0-10V调光/100K电阻调光/10V PWM调光。

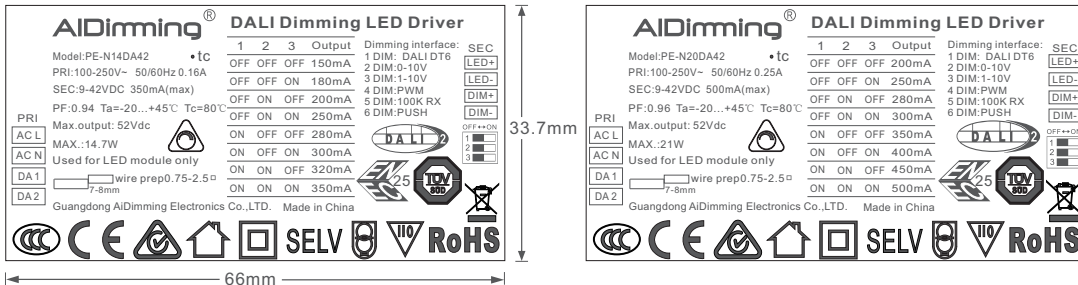
技术参数:

型号	PE-N14DA24	PE-N14DA42	PE-N20DA24	PE-N20DA42	
输出	工作电压范围	9-24Vdc	9-42Vdc	9-24Vdc	9-42Vdc
	最大输出电压	24Vdc	42Vdc	24Vdc	42Vdc
	空载输出电压	30Vdc	55Vdc	30Vdc	55Vdc
	工作电流范围	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
	负载功率范围	1.8W~12W	1.35W~14.7W	4W~19.2W	1.8W~21W
	频闪级别	无频闪			
	调光范围	0~100%, LED从0.03%开始调光			
	PWM频率	>3600Hz			
输入	调光接口	DALI (IEC62386), Push /0-10V/1-10V/PWM/100KR DIM 信号接口电流<1mA			
	输入电压	100-250Vac			
	频率范围	50/60Hz			
	输入电流	<0.16A ac110v	<0.16A ac110v	<0.25A ac110v	<0.27A ac110v
	功率因数	PF>0.99/100V ac(满载)	PF>0.99/100V ac(满载)	PF>0.99/100V ac(满载)	PF>0.99/100V ac(满载)
	THD	230Vac@THD <10% (满载)			
	效率 (Typ.)	83%	83.7%	84%	85.4%
	浪涌电流	冷启动20A@230Vac			
	抗浪涌	L-N: 2kV			
	漏电流	<0.25mA/230Vac			ac (在50% Ipeak下测试twidth=58.4us)
环境	工作温度	ta: 45°C tc: 80°C			
	工作湿度	20 ~ 95%RH, 无冷凝			
	储存温度 湿度	-40 ~ 80°C, 10~95%RH			
	温度系数	±0.03%/°C(0-50)°C			
耐振动	10-500HZ, 2G 12分钟/周期, X,Y,Z轴各72分钟。				
保护	过温保护	根据PCB温度超标情况(≥110°C), 智能调节电流输出或关闭, 可自动恢复。			
	过载保护	负载功率≥102%, 输出电流变低, 可自动恢复			
	短路保护	输出线路短路自动关闭, 可自动恢复			
	空载保护	无负载时恒压输出			
安规和电磁规格	耐压	输入对输出: 3750Vac			
	绝缘阻抗	输入对输出: 100MO/500VDC/25°C/70%RH			
	安全规范	IEC/EN61347-1, IEC/EN61347-2-13			
	电磁兼容发射	EN55015, EN61000-3-2 Class C, IEC61000-3-3			
	电磁兼容抗扰度	EN61000-4-2,3,4,5,6,8,11, EN61547			
	频闪测试标准	IEEE 1789			
其他	产品尺寸	127.5(97)×43×30mm(L×W×H)			
	包装尺寸	PE胶袋包装			
	产品重量	116g/126g±10g			

产品尺寸:



产品标识:



LED 电流选择:

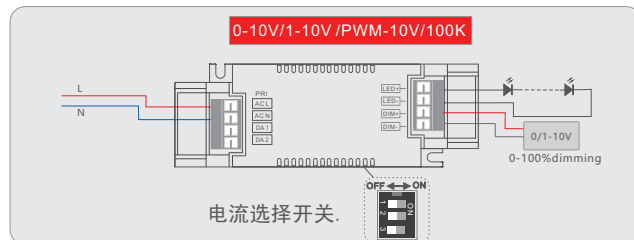
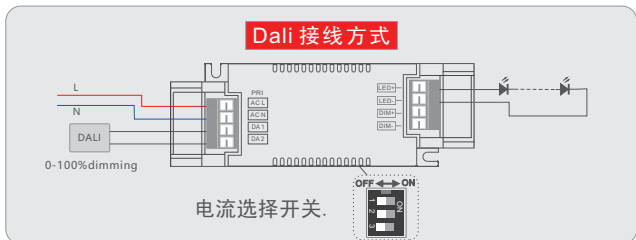
DIP开关快速选择 8 档电流值设定。(具体方法见表格)

产品型号	DIP开关								
PE-N14DA42	电流输出	150mA	180mA	200mA	250mA	280mA	300mA	320mA	350mA
	电压输出	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V
	功率输出	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	电流输出	200mA	250mA	280mA	300mA	350mA	400mA	450mA	500mA
	电压输出	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V
	功率输出	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	电流输出	200mA	250mA	280mA	300mA	350mA	400mA	450mA	500mA
	电压输出	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V
	功率输出	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	电流输出	450mA	500mA	550mA	600mA	650mA	700mA	750mA	800mA
	电压输出	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V	9-24V
	功率输出	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

* DIP开关设置不同的电流后，需要断电后再通电，这样新设置的电流才有效。

* 假设LED的电压是3.2V/颗，电源9-24V的输出电压范围可串联3-7颗LED，9-42V的输出电压范围可串联3-12颗LED，最大串联数量以LED实际电压为准。

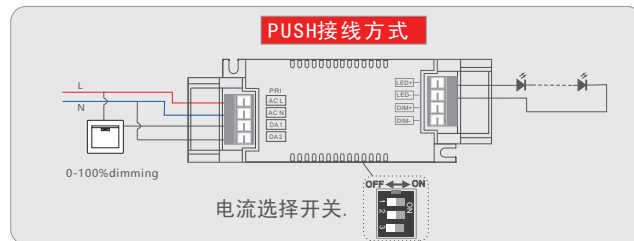
连接应用图:



Push 调光:



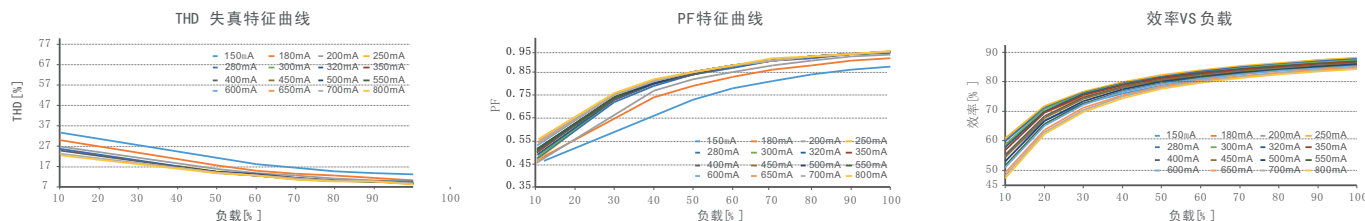
开关控制:短按.
 无级调光:长按
 每隔一次长按, 明暗度会向相反方向调整.
 调光记忆:当再次开关时, 灯光会回到先前调整的亮度水平.



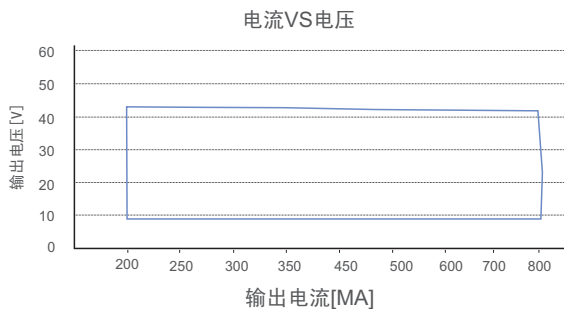
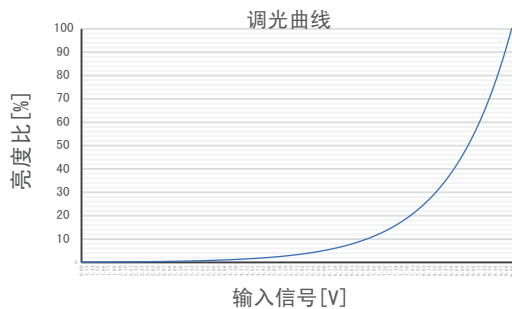
接线规格:

- ※ 1. DALI功能: DALI为数字可寻址照明接口, 直接与DALI控制系统相连, 信号线不分正负极。
- ※ 2. PUSH功能: AC电压通过一个具有自动复位的开关, 接入DALI两个口, 实现按键调光。单按开关功能, 长按调光。
- ※ 3. 0-10V功能: 0-10V调光器接口, 100K电阻调光不分正负、0/1-10V调光器要分正负
- ※ 4. 请勿在0-10V接口接入高于10V的电压
- ※ 5. 输入端接线: 适合线规22AWG-14AWG (0.5mm²-1.5mm²), 剥线要求9-10mm上锡。
- ※ 6. 输出端接线: 适合线规22AWG-12AWG (0.5mm²-1.5mm²), 剥线要求6-7mm上锡。

工作曲线:



工作曲线:



使用指导:

如未特别说明,所有规格参数均在输入为230VAC、额定负载25℃环境温度下进行量测。

产品输入端有个输入线压线盖,带自锁卡紧,用一字螺丝刀均匀用力向上慢慢翘开,露出输入端子,接交流火线L和零线N输出端子按产品标识接线,注意正负极。

注意事项:

★注1:在使用本电源时,请注意区分输入端和输出端,请正确接线,核对无误后才能通电;

★注2:请先接好DC输出端的负载,确认无误,再开电源;在恒流模式下,如果开路通电,请关闭电源后,必须等输出端储存的电能释放完后,再接LED,否则可能烧坏LED;

★注3:本款电源驱动只限于LED灯具使用,产品输入电压范围为AC 100-265V,使用在规定的输出电压电流范围内,使用环境温度在-20到+45摄氏度,并且表面不能覆盖阻挡产品散热的隔热棉等物品,符合产品使用条件的环境下,本产品享有五年免费质保。

1. 电源在第一次装置好电气连接后,出现不亮,请切断AC输入端并检查:

- 1). DC输出端有无接触不良。
- 2). DC输出端正负极是否有接反。
- 3). AC输入端有无接触不良,排出已上故障再通电测试。

2. 在装置接好电气连接后,LED灯点亮,但LED灯出现闪烁,请切断AC输入电源,检查DC输出端:

- 1). 电源设计参数与实际LED灯的使用参数是否相符。
- 2). 产品在使用过程中如遇其它疑问或问题,请及时联系我公司沟通,反馈不良信息,我公司将积极协助贵公司解决问题。

附录DALI简单介绍:

Digital Addressable Lighting interface (DALI)

数字可寻址照明接口 (DALI)

DALI从单元只有在主机请求数据时,才发送数据,即,采用命令应答的方式。

在同一个DALI网络中,最多有64个从单元,每个从单元都具备一个独立的地址(Short address)。也可以将某个从单元分配给某一个组,最多可以同时存在16个组,而且一个从单元可以属于不同的组。每个单元可以设定16个场景。

DALI 协议的主要特点

- 1). 异步串行通信
- 2). 1200波特率,采用曼彻斯特编码格式
- 3). 两线差分信号
- 4). 差分电压大于9.5V时,为高电平
- 5). 差分电压小于6.5V时,为低电平
- 6). 由主机单元控制通信过程
- 7). 一个DALI总线能够连接64个从机
- 8). 每个从机都可以被单独寻址

DALI 电气特性

空闲状态下,DALI总线为高电平,从机单元控制总线的方法

- 1). 输出高电平时,不干预主机的信号即可
- 2). 输出低电平时,直接将DALI总线相互短路即可
- 3). DALI总线最大电流为250mA
- 4). 不能同时进行双向通信
- 5). 传送数据线最长300米,或压降不能超过2V



PE-N14DA 14.7W

PE-N20DA 21W



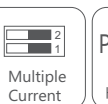
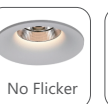
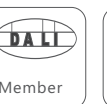
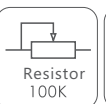
Features:

- 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

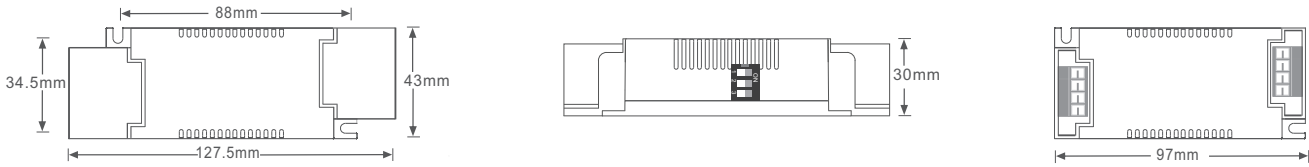
2. 0-10V dimming, use the standard 0-10V /100K resistance/10V PWM dimming.

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

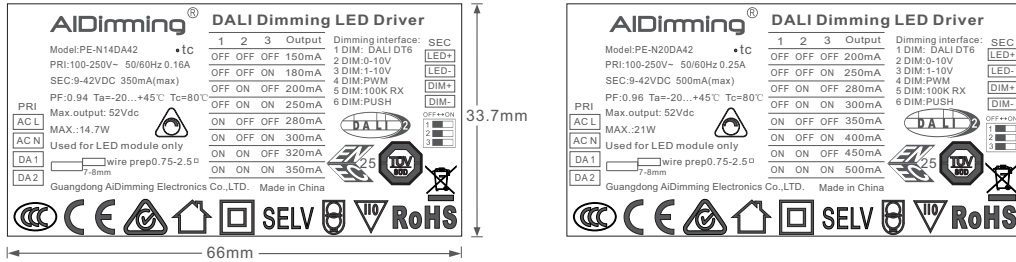
Specification:

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: 100M Ω /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:



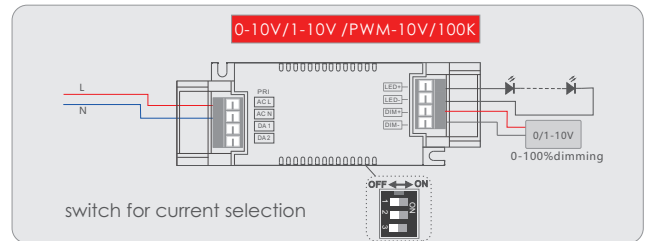
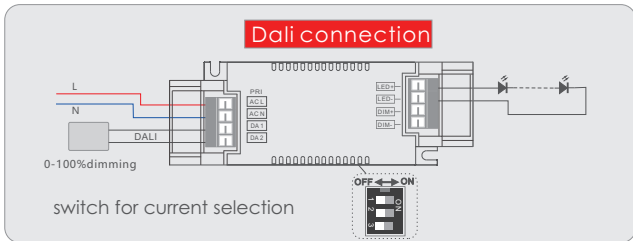
LED Current Selection:

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.

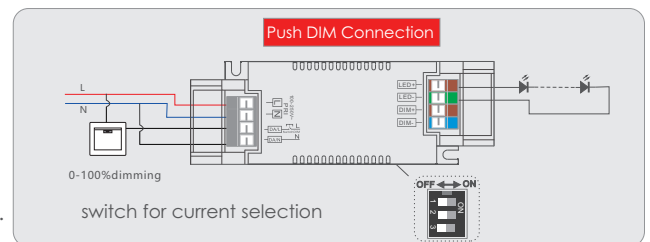
Connection:



Push Dimming:



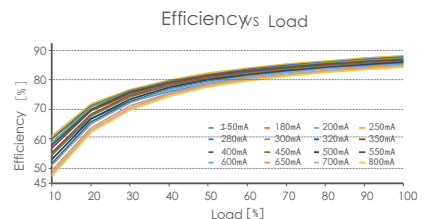
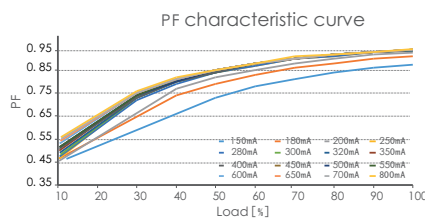
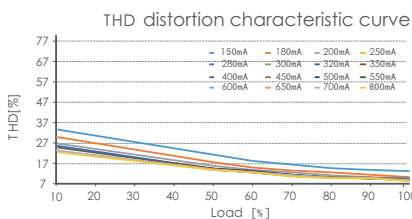
On/off control: Short press.
 Stepless dimming: Long press.
 With every other long press, the light level goes to the opposite direction.
 Dimming memory: Brightness will be the same as previously adjusted when turning off and on again.



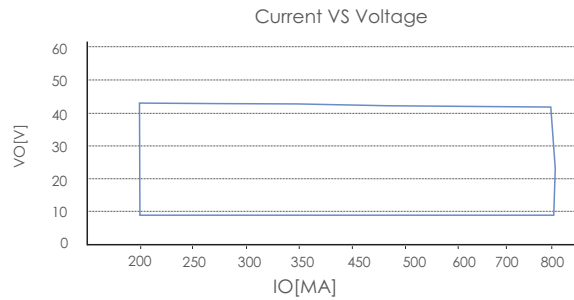
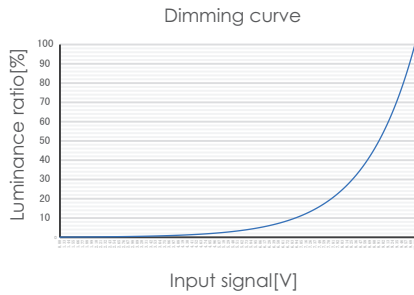
Wiring:

- ※ 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 (0.5mm² - 1.5mm²)wire stripping requirement:9-10mm
- ※ 6.The output terminal: wire gauge 22AWG-12AWG (0.5mm² - 1.5mm²)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

