



## PE80AA 80W LED dimming driver



### Features :

- Universal AC input (up to 265VAC)
- With the active Power Factor Correction function
- Protections: short circuit/over voltage/over current /no-load
- Natural cold wind
- Three in one dimming function (1~10Vdc or PWM signal or resistance)
- Big wiring terminal locked by screw
- Suitable for LED home lighting, commercial lighting and etc.
- Safety no load protection device
- Economic and convenient installation
- Conform to the world lighting equipment safety standards
- Protection class II
- Three years warranty

### Description

PE80AA 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, energy saving, environmental protection, long life and other characteristics.

Adopting active power factor correction +DC/DC two designs ,high PFC, high efficiency.

Three kinds of dimming function

0/1~10Vdc

10V PWM signal

Variable resistor (potentiometer)

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Specifications:

	Model No	PE80AA24	PE80AA30	PE80AA36	PE80AA42	PE80AA48	PE80AA54
Output	Rated Power	81.6W	81W	82.8W	81.9W	81.6W	81W
	DC voltage	24V	30V	36V	42V	48V	54V
	Constant current range	15-24V	18-30V	22-36V	25-42V	38-48V	32-54V
	Voltage accuracy	±1%	±1%	±1%	±1%	±1%	±1%
	CC current	3400mA	2700mA	2300mA	1950mA	1700mA	1500mA
	CC accuracy	±1%	±1%	±1%	±1%	±1%	±1%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Ripple	150mVp-p	200mVp-p	200mVp-p	300mVp-p	300mVp-p	300mVp-p
	Start、 Rise time	1500ms,80ms/115VAC(Full load);1000ms,80ms / 230VAC(Full load)					
	Storage time	16ms/230VAC 16ms/115VAC(Full load)					
Input	Voltage range	90~305VAC					
	Frequency range	47 ~ 63Hz					
	PFC	PF>0.98/115VAC, PF>0.95/230VAC,PF>0.92/277VAC(full load)					
	Efficiency (Typ.)	89.5%	90%	90%	90%	90.5%	90.5%
	DC current	0.84A /115VAC		0.42A/230VAC		0.4A/277VAC	
	Surge voltage (Typ.)	冷启动:70A/230VAC					
	Leakage current	<0.75mA /277VAC					
Protection	Over current	95 ~ 108% Protection mode: constant current limit mode, The load of an abnormal condition can be automatically restored after removed					
	Short-circuit protection	Hiccups mode, abnormal condition can be automatically restored after removed					
	Over voltage	35V	43V	49V	58V	63V	68V
		Protection mode: close input voltage, recover after removed					
Over temperature	95°C±10°C Protection mode: close output voltage, recover after removed						
Environment	Operating temperature	-40~ +70°C					
	Operating humidity	20-85%RH					
	Storage temperature humidity	-40~ 85°C					
		10~95%RH					
Temperature coefficient	±0.03%/°C(0-60°C)						
Safety and EMC	Safety	EN 61347-2-13:2006 /EN 61347-1:2008					
	Withstand voltage	I/P-O/P:3.75KVAC					
	Insulation resistance	I/P-O/P:100M Ohms / 500VDC /25°C/70%RH					
	Electromagnetic interference	EN55015					
	Harmonic current	EN6000-3-2/EN6000-3-3					
	Electromagnetic tolerance	EN6000-4-2					
Dimension	(L*W*H) = 234mm * 76mm * 49mm						

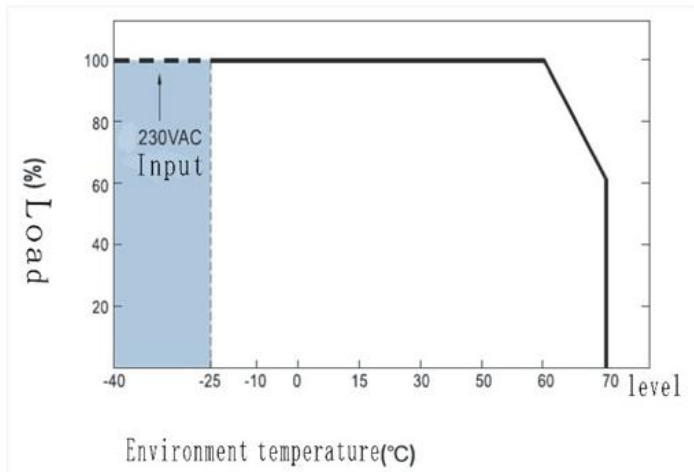


Other	Package	
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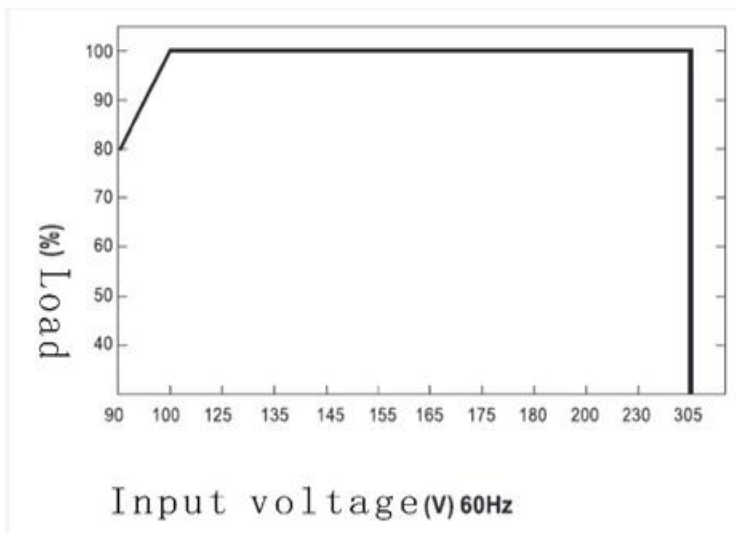
Note:

- 1.All the parameters were tested in the input 230VAC, the rated load, 25 C ambient temperature conditions if no special instructions.
- 2.The dimming driver should be used with the terminal equipment, So the customer should re-test the EMC of the whole set of equipment.

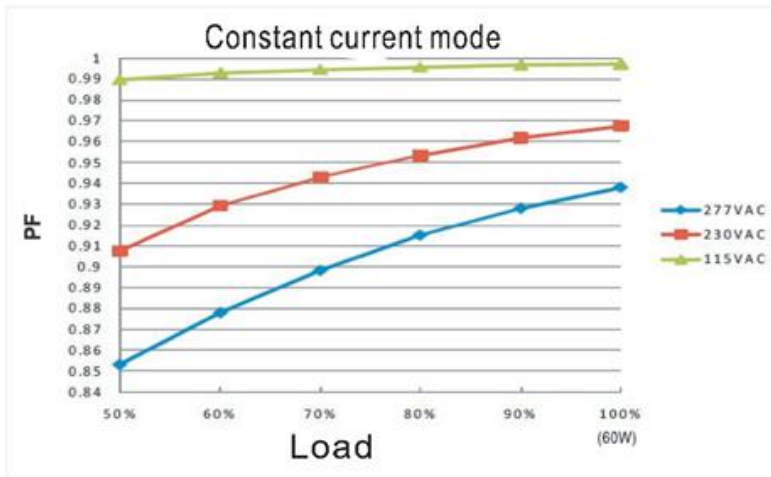
### DE-rating curve



### Static characteristic curve

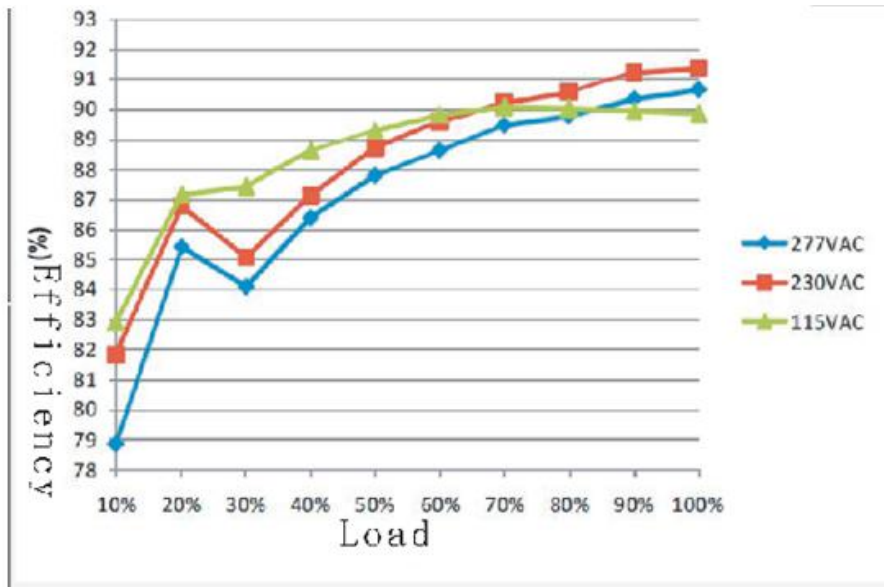


### Power factor characteristic



Efficiency VS Load (48V)

The efficiency of the PE60AA is up to 90.5% in the practical application

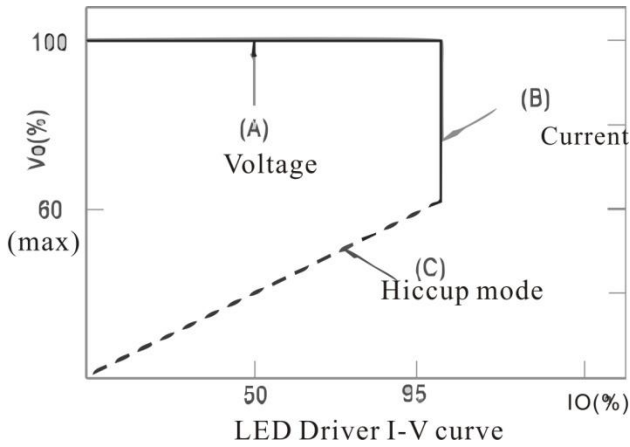


LED module driving mode

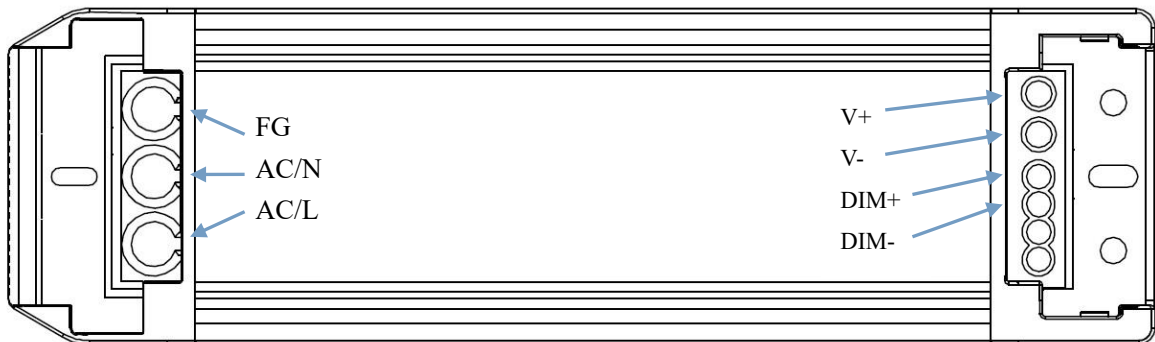
The LED driving method have direct drive and drive with LED.

The LED dimming driver have two drive mode: the constant voltage mode (CV) and the constant current mode (CC) .

PE60AA LED dimming driver can use both drive modes : constant voltage CV (drive with LED, the picture below A zone), and constant current (CC) drive (direct drive, the B zone).



Instructions



※ A resistance or 1-10V direct voltage or 10V PWM signal be connected between DIM+ and DIM-, which can adjust the output constant current value.

※ Please don't connect DIM- with V-

※ Reference resistance when adjusting the output current (typical)

Value of resistance	Single driver	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100KΩ	OPEN
	N drivers	10KΩ/N	20KΩ/N	30KΩ/N	40KΩ/N	50KΩ/N	60KΩ/N	70KΩ/N	80KΩ/N	90KΩ/N	100KΩ/N	OPEN
Rated current percentage		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-105%

※ 1-10V adjust output current (typical value)

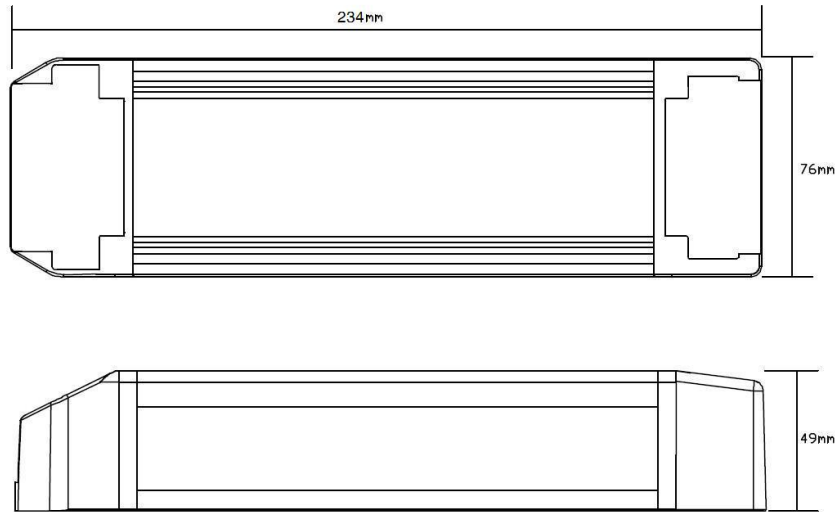
Voltage	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Rated current percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-105%

※ 10V PWM adjust output current (typical value) : Frequency range: 100Hz~3KHz

Duty factor	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Rated current percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-105%



## Boundary dimension



## Wiring

The input end: the wire of 16AWG-6AWG (1.25mm<sup>2</sup> – 12.5mm<sup>2</sup>), wire stripping requirement: 9-10mm.

The output end: the wire of 22AWG-12AWG (0.315mm<sup>2</sup> – 3.15mm<sup>2</sup>), wire stripping requirement 6-7mm.

## The use of guidance

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 according to the product label, notice positive and negative pole.

Note:

\* \* 1: please pay attention to the distinction between input and output, connect correctly, then power on

\* \*2: please connect first the load of the DC output, open the power supply after checking; in the constant current mode, if power on at open circuit, please turn off the power supply and can't connect the LED until the electric energy stored by the output release , or it may damage the LED;

## FAQ:

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:

- A) Whether or not DC output bad contact;
- B)Whether DC output polarity is reversed, or the LED board is welded anti;
- C)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, then check the DC output:

- a) overload, under load.
- b) Whether or not the parameters and actual parameters match.

3, please timely communicate with us if you any questions in the using, we will try our best to solve the problems

## Statement

The pictures and specifications is for reference only.