

## PES20-1W12V

### Product Feature

- Insulated PC design
- Isolated design, safe and reliable
- Protections: Short circuit, Over load, over current
- Protection grades is as high as IP65
- 5 years warranty



### Application



Light box

RoHS

SELV

IP65



Flicker free



Short Circuit Protection



Over Load Protection

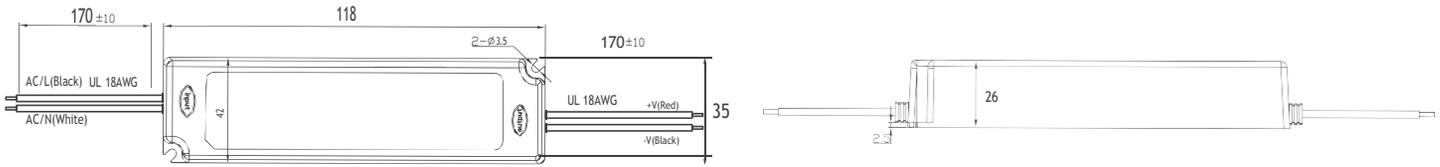


Over Current Protection

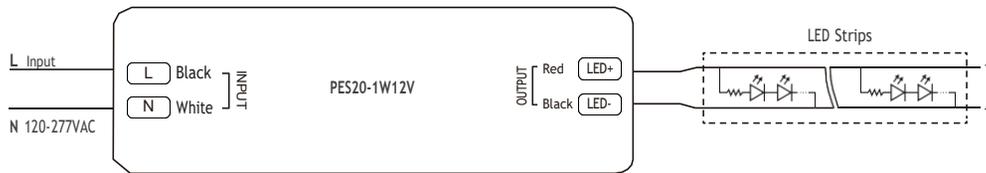
### Technical Parameters

Model	PES20-1W12V	
Input	Efficiency	≥82%@120VAC, full load ≥84%@277VAC, full load
	Voltage	120VAC-277VAC
	Frequency	50/60Hz
	Current	0.23Amax@120VAC 0.12Amax@277VAC
	PF	≥0.98@120VAC, full load ≥0.9@277VAC, full load
	THD	<10%@120VAC, full load <15%@277VAC, full load
	Inrush Current	Cold start,10A@120VAC 300us Cold start,25A@277VAC 300us
	No load power	<0.5W
	Turn On Delay Time	≤0.5s, at230Vac (When the light begins to shine)
Output	Current	1.666A
	Voltage	12VDC
	Power	20W
	Channel	1
	Voltage Accuracy	±5%
	Ripple Voltage	±3%
	No load output voltage	12.6VDC max
Protection	Over Load	Voltage drop hiccup, troubleshoot the fault output normal
	Short circuit	Short circuit No output, troubleshooting output normal
	Over Current	If no output is displayed, the troubleshooting output is normal
Safety & EMC	Lightning Surge	L-N:2kV
	Withstand Voltage	I/P-O/P:3750VAC/1min/5mA
	Safety Standards	EN61347-1,EN61347-2-13,UL8750,UL1310
	EMC Eission	EN55015,FCC Part 15 Class B
	EMC Immunity	EN61000-3-3,EN61000-3-2,EN61547
	Insulation Resistance	5MΩ
Others	Working Temp.	-20°C~+50°C [-4°F-122°F]
	Storage Temp.; Humidity	-40°C-85°C [-40°F-185°F] , 20-90%RH
	Tc	75°C [167°F]
	Material	PC
	IP Rating	IP65
	Lifetime	50,000h@tc:75°C [167°F]
	Warranty Condition	5 years
	Switch Cycle	>25,000 times
	Packing Size	Net weight: 180g(0.39 lb)±5%/PCS; 60PCS/Carton; 11.3kg(24.9 lb)±5%/Carton; Carton Size: 300*224*196mm(11.8*8.81*7.71 Inch)(L*W*H)
Dimension	118*35*26mm(4.64*1.38*1.02 Inch)	

## Dimension(mm)



## Wiring Diagram



### PC case

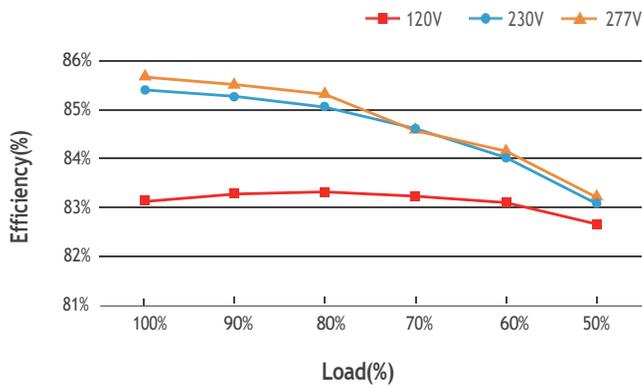
All material to be ROHs compliant to Directive 2002/95/EC

Wires to be Stranded with UL approval

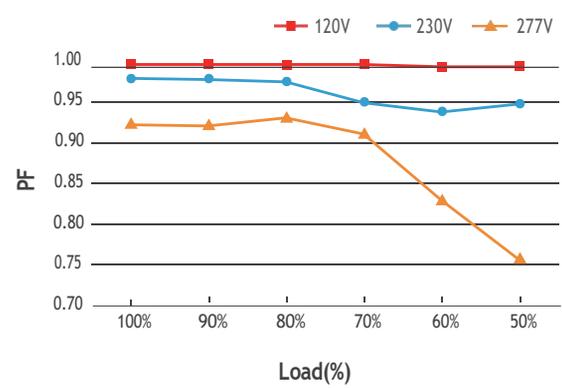
Input: Black & White: 170mm, 18AWG

Output: Red & Blue: 170mm, 18AWG

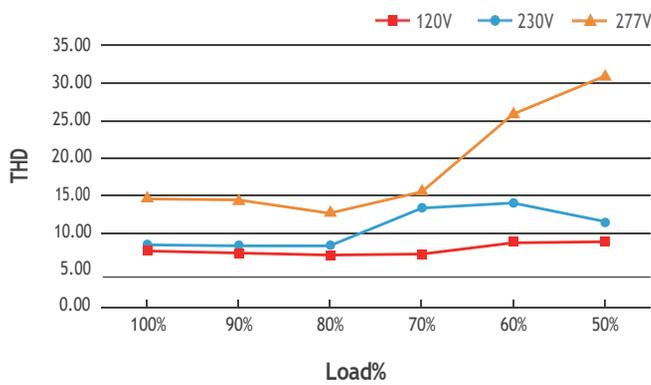
## Efficiency vs Load



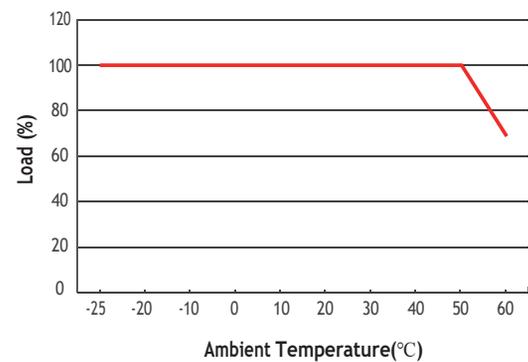
## PF vs Load



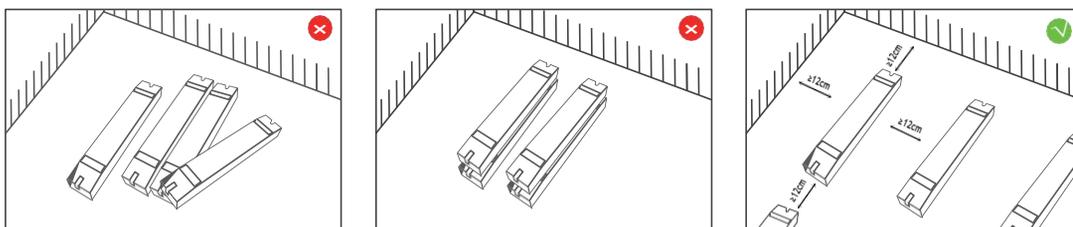
## THD vs Load



## Derating Curve



## Installation Precautions



Please do not stack the products. The distance between two products should be >12cm so as not to affect heat dissipation and the lifespan of the products.

## Max. quantity of drivers per miniature circuit breaker

Specification item	Value	Value	Condition
Inrush current $I_{peak}$	10A (120V)	25A (277V)	Input Voltage 120V/277V
Inrush current $T_{width}$	300us (120V)	300us (277V)	Input Voltage 120V/277V, measured to 50% $I_{peak}$

MCB	Input Voltage 120V Drivers	Input Voltage 277V Drivers	MCB	Input Voltage 120V Drivers	Input Voltage 277V Drivers
B10	26pcs	10pcs	C10	43pcs	17pcs
B13	34pcs	13pcs	C13	56pcs	23pcs
B16	42pcs	17pcs	C16	69pcs	28pcs
B20	53pcs	21pcs	C20	86pcs	35pcs
			D16	69pcs	56pcs

## Warranty Agreement

1. Warranty periods from the date of delivery : 5 years.
2. Free repair or replacement services for quality problems are provided within warranty periods.

### Warranty exclusions below:

1. Beyond warranty periods.
  2. Any artificial damage caused by high voltage, overload, or improper operations
  3. Products with severe physical damage.
  4. Damage caused by natural disasters and force majeure.
  5. Warranty labels and barcodes have been damaged.
  6. No any contract signed by EUCHIPS.
- Repair or replacement provided is the only remedy for customers. EUCHIPS is not liable for any incidental or consequential damage unless it is within the law.
  - EUCHIPS has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.

## Cautions

1. This product should be installed by qualified personnel.
2. This product is non waterproof, need to avoid sun and rain. In case of outdoor use, please ensure it is mounted in a water proof enclosure.
3. Good heat dissipation conditions extend product life. Please install the product in a well-ventilated environment.
4. Please make sure LED power supply output voltage, current is used to meet the product requirements.
5. Please ensure that adequate sized cable is used from the controller to the LED lights to carry the current. Please also ensure that the cable is secured tightly in the connector.
6. Due to safety concerns, PVC or rubber cord of 0.75- 2.5mm<sup>2</sup> is recommended for input and output terminal(s)(excluding signal terminals). Flat power cord is not suitable. Ensure all wire connections and polarities are correct before applying power to avoid any damages to the LED lights.
7. In case of malfunction, do not repair it yourself.

※ The contents of this manual are updated without prior notice. If the function of the product you are using is inconsistent with the instructions, the function of the product shall prevail. Please contact us if you have any questions .