## OWP320A-1W24V


### Product Feature

· Single channel constant voltage output, maximum output current 13.33A

· Lightning protection, short circuit, overcurrent, overload, metal shell

· Protection class IP67, suitable for outdoor lighting

· Dimming range 0.1%-100% dimming, smooth dimming without step sense and stroboscopic

· Life of 50,000 hours, 5 years warranty

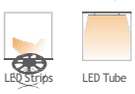
· Customizable dimming curve

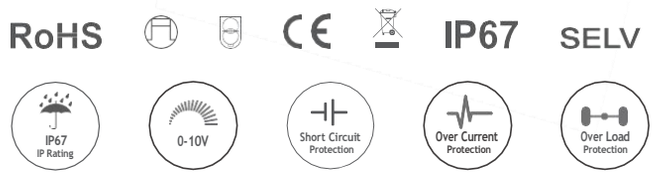
· Wide voltage input with active PFC, full power output

· Suitable for LED constant voltage lamps, lamp strips, lamp strips, etc

### Application

For LED constant voltage strip light only





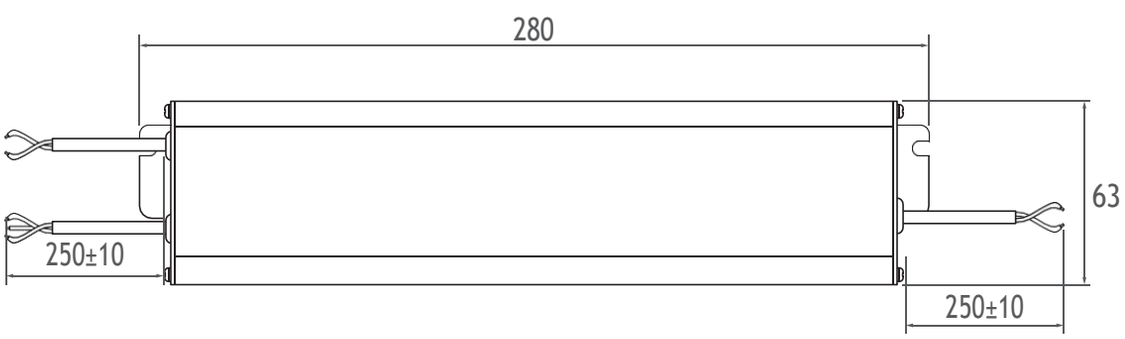


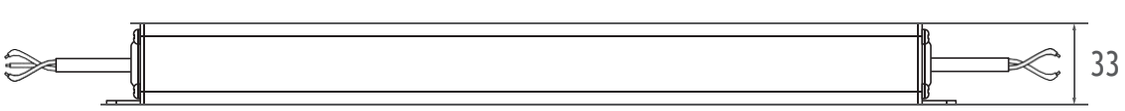
### Technical Parameters

| Model | OWP320A-1W24V | | | | | |
|---|---|---|---|---|---|---|
| Input | Input Voltage | 120VAC-277VAC | | | | |
| | Frequency Range(Hz) | 50/60Hz | | | | |
| | Input Current | 3.15Amax@120VAC 1.45Amax@277VAC | | | | |
| | Power Factor | ≥0.95@120VAC, Full load ≥0.95@277VAC, Full load | | | | |
| | Efficiency | ≥90%@120VAC, Full load ≥93%@277VAC, Full load | | | | |
| | THD | ≤10%@230VAC, Full load ≤10%@277VAC, Full load | | | | |
| | Standby power | <1.5W | | | | |
| | No-load power | <1.5W | | | | |
| | Inrush Current | Cold start,15.1A@120VAC 104us 73.2A@277VAC 164us | | | | |
| Output | Output Voltage | 24VDC | | | | |
| | Voltage Accuracy | ±5% | | | | |
| | Output Current | 13.33A Max. | | | | |
| | Current Accuracy | / | | | | |
| | Output Power | 320W Max. | | | | |
| | Output Power Range | 0W~320W | | | | |
| | PstLM | ≤1 | | | | |
| | SVM | ≤0.4 | | | | |
| | Dimming frequency | 20KHz | | | | |
| | Line Regulation | ±3% @Full load | | | | |
| | Load Regulation | ±3% @Full load | | | | |
| | Turn on delay Time | 0.75s, at230Vac (When the light begins to shine) | | | | |
| Function | Dimming Type | 0-10V | | | | |
| | Dimming Range | 0.1%-100% Dimming to OFF | | | | |
| | Dimming Curve | Logarithm | | | | |
| | Flicker free | Flicker free | | | | |
| Protection | Short circuit | Close the output and recover after troubleshooting | | | | |
| | Over Current | Reduce current burp protection, self-recovery after troubleshooting | | | | |
| | Over load | Reduce current burp protection, self-recovery after troubleshooting | | | | |
| | Over Voltage | / | | | | |
| | Over temperature | / | | | | |
| Safety& EMC | Surge | L-N 6KV L-PE 10KV N-PE 10KV | | | | |
| | Withstand Voltage | I/P-O/P: 3750VAC/1min/5mA I/P-PG:1500VAC/5mA O/P-PG:500VAC/5mA I/P-0-10V( Signal port ):1500Vac/1min/<5mA | | | | |
| | Safety Standards | CCC (China) | GB19510.1 · GB19510.14 | TUV (Germany) | EN61347-1 · EN61347-2-13 · EN62493 | |
| | | CB (CBmember states) | IEC61347-1 · IEC61347-2-13 | CE (European Union) | EN61347-1 · EN61347-2-13 · EN62384 | |
| | | RCM (Australia) | AS 61347-1 · AS 61347-2-13 | EMEC (Europe) | EN61347-1 · EN61347-2-13 · EN62384 | |
| | EMC Emission | CCC (China) | GB/T17743 · GB17625.1 | | | |
| | | CE (European Union) | EN55015 · EN61000-3-2 · EN61000-3-3 · EN61547 | | | |
| | | RCM (Australia) | EN55015 · EN61000-3-2 · EN61000-3-3 · EN61547 | | | |
| | EMC Immunity | EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547 | | | | |

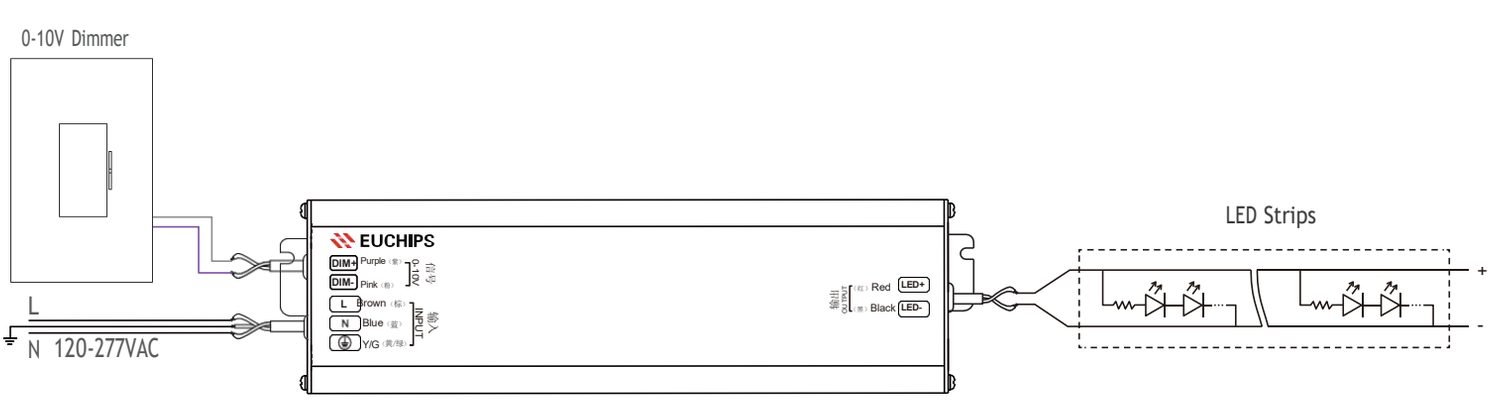
| | | |
|---|---|---|
| Environment | Working Temp. | -20℃~50℃ [-4°F~122°F] |
| | Storage Temp. | -40℃~90℃ [-40°F~194°F] |
| | Storage Humidity | 20-90%RH (No condensation) |
| Others | RoHS | Comply with 2015/863/EU |
| | tc | 90℃ [194°F] |
| | material | Metal |
| | IP Rating | IP67 |
| | Lifetime | 50,000h@tc:90℃ [194°F] |
| | Warranty Condition | 5years |
| | Switch Cycle | 25,000times |
| | Body size | 280*64*33mm (11.02*2.51*1.29 Inch) (L*W*H) |
| | Packing(weight) | Net weight: 1112g (2.45lb)±5%/PCS; 10PCS/Carton; 11.62kg(25.61lb)±5%/Carton; Carton Size: 316*202*194mm(12.44*7.95*7.63 Inch)(L*W*H) |
| | Noise | In a quiet environment, no noise beyond 30-50cm |
| Remark | All parameters were measured at an input voltage of 230VAC/50Hz and an ambient temperature of 25 ℃ without any special instructions. | |

## Dimension(mm)

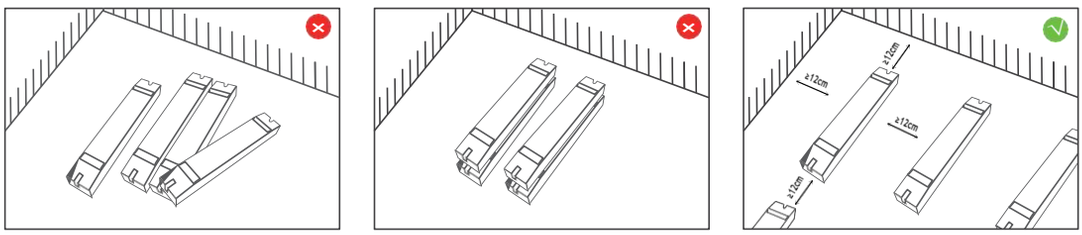



## Wiring Diagram



## Installation Precautions



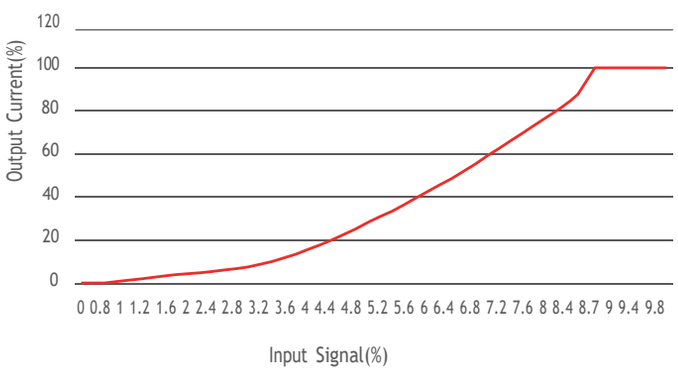

Please do not stack the products. The distance between two products should be>12cm so as not to affect heat dissipation and the lifespan of the products.

## Max. quantity of drivers per miniature circuit breaker

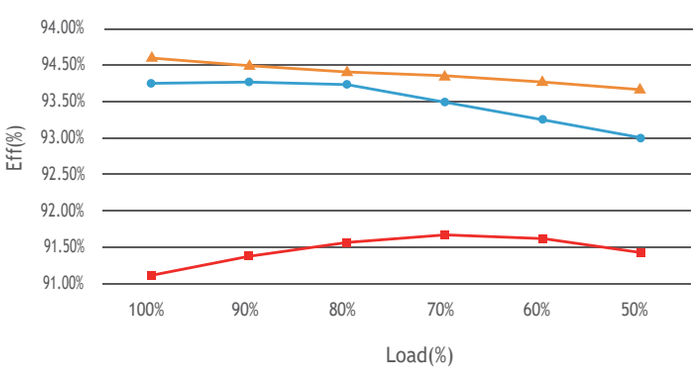
| Specification item | Value | Value | Condition |
|---|---|---|---|
| Inrush current Ipeak | 15.1A (120V) | 73.2A (277V) | Input Voltage120V/277V |
| Inrush current Twidth | 104us (120V) | 164us (277V) | Input Voltage120V/277V, measured ta 50% Ipeak |

| MCB | Input Voltage 120V Drivers | Input Voltage 277V Drivers | MCB | Input Voltage 120V Drivers | Input Voltage 277V Drivers |
|---|---|---|---|---|---|
| B10 | 3pcs | 6pcs | C10 | 3pcs | 6pcs |
| B13 | 4pcs | 8pcs | C13 | 4pcs | 8pcs |
| B16 | 5pcs | 11pcs | C16 | 5pcs | 11pcs |
| B20 | 6pcs | 13pcs | C20 | 6pcs | 13pcs |
| | | | D16 | 5pcs | 11pcs |

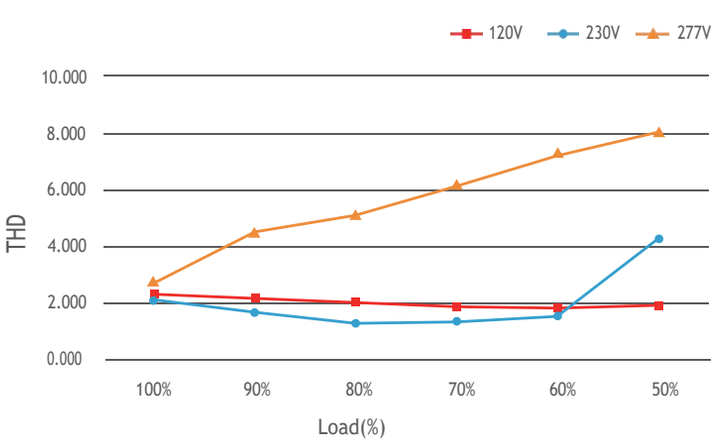
## 0-10V Dimming Curve



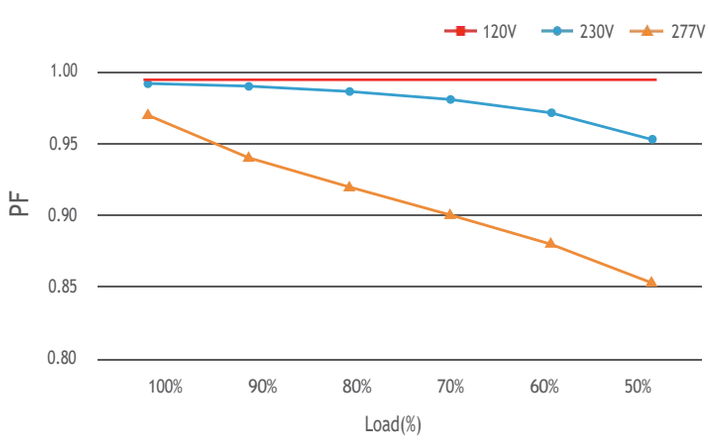

## Efficiency vs Load Curve



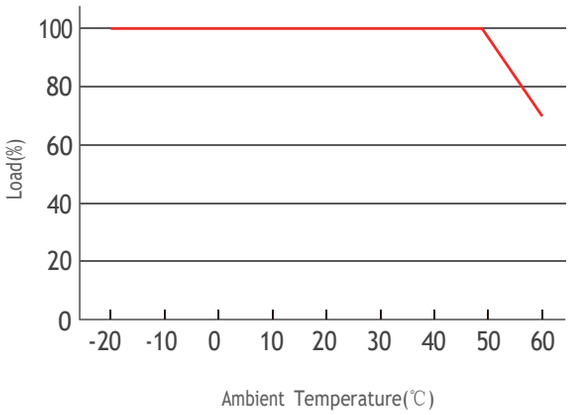

## THD vs Load Curve




## PF vs Load Curve

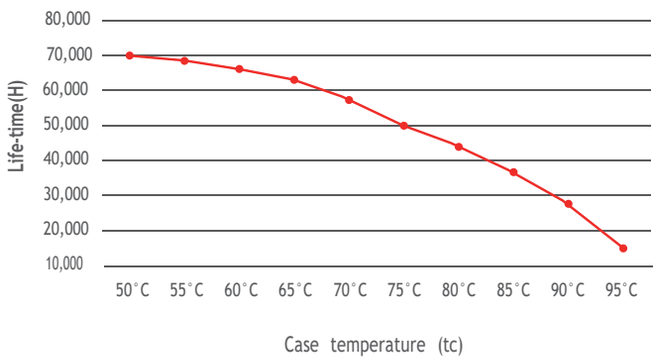


## Derating Curve




## Life-time vs. case temperature

The life-time of the led driver is shown in the figure above
(calculated based on the 90% survival rate).
The relation of tc ta temperature depends also on the luminaire design.




## Cautions

| This product must be installed and adjusted by a qualified professional. | | |
|---|---|---|
| 1 | Confirmation of installation conditions | · **Waterproof and Protection:** Install in a suitable location according to the waterproof and protection requirements of the power supply. Products without waterproof function should be protected from direct sunlight and rain. When installing outdoors, please use a waterproof box for protection.<br>· **Heat dissipation requirements:** The drive power supply should avoid exposure to high temperature environments. Please ensure that the working environment temperature is within the recommended range. To ensure proper heat dissipation of the drive power supply, a well ventilated area should be selected for installation. Good heat dissipation conditions can help extend product lifespan. |
| 2 | Power check | · Before use, check the product parameters and confirm that the output voltage and current of the LED power supply meet the requirements |
| 3 | Safe wiring | · Use cables that meet the specifications to ensure that the cross-section of the wire matches the requirements of the driving power supply. Solid cables typically measuring 0.75-2.5 mm $^2$,<br>(Please refer to the silk screen printing or wiring diagram in the instruction manual for specific wire diameter requirements).<br>· If the power supply (metal casing) is installed on a grounded lighting component or equipment, the power supply needs to be grounded.<br>· To avoid hot swapping, power off and restart the driver before connecting the LED load. |
| 4 | Wiring confirmation | · Before power on debugging, ensure that the wiring is secure and avoid poor contact to prevent unstable current or equipment damage. |
| 5 | Repair suggestions | · If the product malfunctions, please do not repair it without authorization. If you have any questions, please contact the supplier or sales team for assistance. |

※ 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 .

## 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:

The following situations are not covered by the free warranty or replacement service:

1. Exceeding the warranty period.
2. Damage caused by human factors such as high voltage, overload, and improper operation.
3. The appearance of the product is severely damaged or deformed.
4. Normal wear and tear or aging during regular product use.
5. Damage caused by natural disasters or force majeure factors.
6. The quality inspection label of the product is damaged (QC PASS).
7. No contract or valid invoice proof signed with EUCHIPS has been provided.

※Remedies: Repair or replacement is the only remedy provided by EUCHIPS to the customer, and EUCHIPS shall not be liable for incidental damages arising from repair or replacement, unless within the scope of applicable law.

※Adjustment of Warranty Terms: EUCHIPS reserves the right to modify or adjust the warranty terms, which shall be published in writing.