

OWP320D-1W48V

Summary

OWP320D-1W48V is a dimming driver that can provide constant voltage output. Complies with DALI standard protocol IEC 62386. LED driver featuring the dimming by DALI master/Touch DIM(PushDIM) switch, with smooth dimming curve.

Product Feature

- Single channel output with 48V CV direct current
- Wide voltage input range from 120VAC to 277VAC
- Active PFC, full power
- Meet DALI protocol IEC 62386-207
- Support Touch DIM(Push DIM) function
- Ultra-thin design, Waterproof level IP67, High efficiency up to 93%
- Dimming effect smooth
- suitable for LED CV lighting, such as LED module, LED strip light, LED tube, and so on

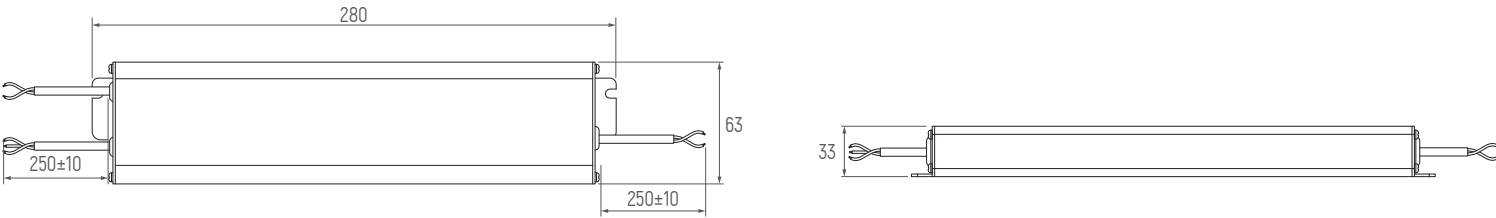
Technical Parameters

| Model      | OWP320D-1W48V           |                                                                                                           |
|------------|-------------------------|-----------------------------------------------------------------------------------------------------------|
| Input      | Efficiency              | ≥93%@230VAC, Full load                                                                                    |
|            | Voltage                 | 120VAC-277VAC                                                                                             |
|            | Frequency               | 50-60Hz                                                                                                   |
|            | Power Factor            | >0.95@230VAC, Full load                                                                                   |
|            | THD                     | ≤10%230VAC, Full load                                                                                     |
|            | Current                 | 3.2Amax@120VAC                                                                                            |
|            | Inrush Current          | Cold start 20.8A@230VAC 2.12ms                                                                            |
|            |                         |                                                                                                           |
| Output     | Channel                 | 1                                                                                                         |
|            | Direct voltage          | 48VDC                                                                                                     |
|            | Rated current           | 6.66A                                                                                                     |
|            | Rated Power             | 320W                                                                                                      |
|            | Voltage Tolerance       | ±5%                                                                                                       |
|            | No load output voltage  | 50.4VDC MAX                                                                                               |
|            | Standby power           | <0.5W                                                                                                     |
|            | Start delay             | <0.75s, at230Vac (when lights start to come on)                                                           |
| Protection | Short Circuit           | Self-recovery after removal                                                                               |
|            | Over Load               | Self-recovery after removal                                                                               |
| 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/1min/<5mA O/P-PG:500Vac/1min/<5mA Signal-O/P: 1500VAC/1min/<5mA |
|            | Safety Standards        | EN61347, GB19510                                                                                          |
|            | EMC Emission            | EN55015, EN61000-3-2                                                                                      |
|            | EMC Immunity            | EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547                                                                   |
| Function   | Dimming mode            | DALI/Touch DIM(Push DIM)                                                                                  |
|            | Dimming range           | 0.1%-100%                                                                                                 |
|            | DALI standard           | IEC62386-101, IEC62386-102, IEC62386-207                                                                  |
| Others     | Working Temp.           | -40°C~+55°C                                                                                               |
|            | Storage Temp.; Humidity | -40°C~85°C, 20-90%RH                                                                                      |
|            | Tc                      | 85°C                                                                                                      |
|            | Material                | Aluminum housing                                                                                          |
|            | IP Rating               | IP67                                                                                                      |
|            | Lifetime                | 50,000h@tc:70°C                                                                                           |
|            | Warranty Condition      | 5 years                                                                                                   |
|            | Switch Cycle            | >25,000 times                                                                                             |
|            | Packing Size            | Net weight: 1075g±5%/PCS; 10PCS/Carton; 11.25kg±5%/Carton; Carton Size: 316*202*194mm(L*W*H)              |
|            | Dimension               | 280*63*33mm(L*W*H)                                                                                        |

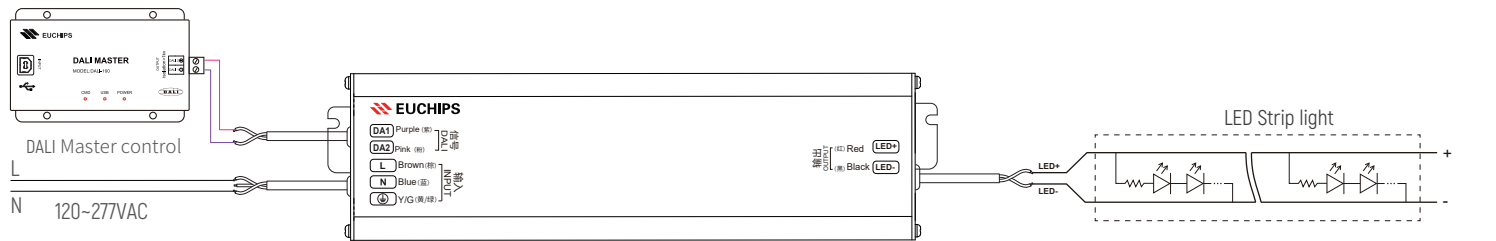
Note: Flicker free program can be customized.



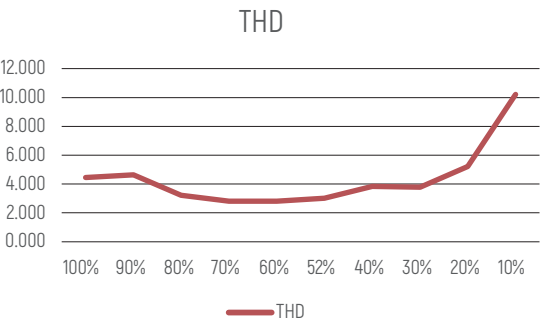
Dimension(mm)



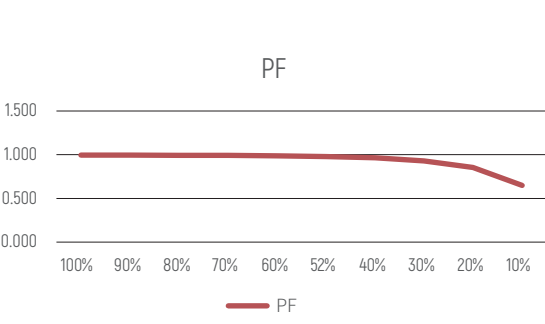
Wiring Diagram



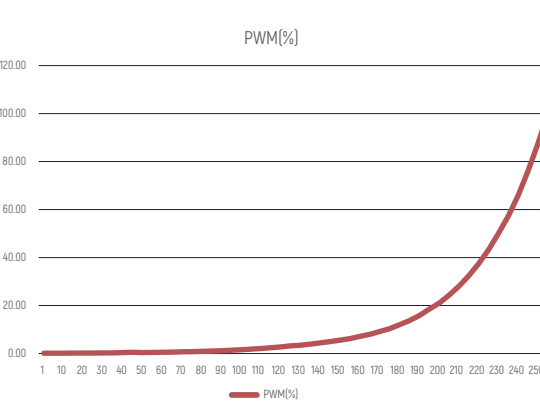
THD vs load



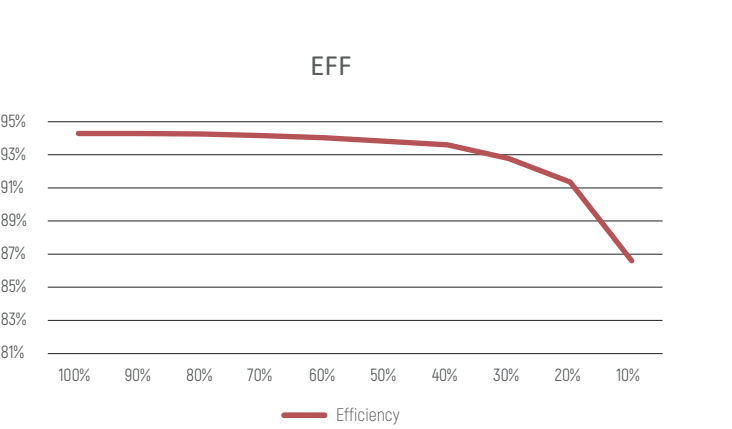
PF vs load



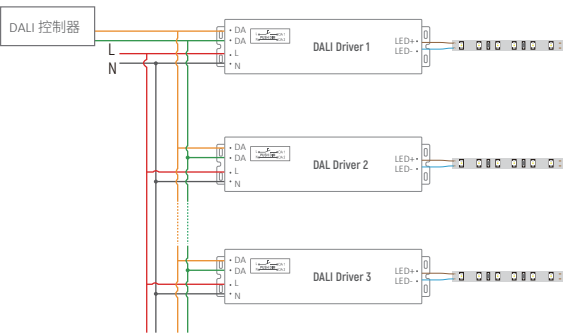
Dimming curve



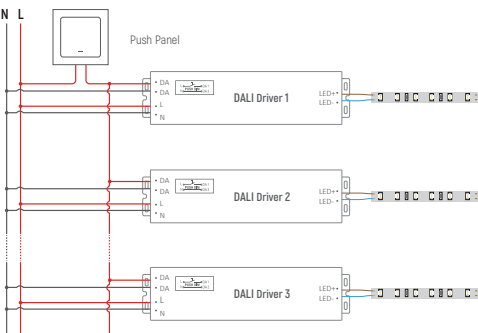
Efficiency vs load



DALI Diagram



Touch DIM(Push DIM) Diagram



Remark: Only use open push button without indicator light. Maximum cable length between each Unit: 20 meters.

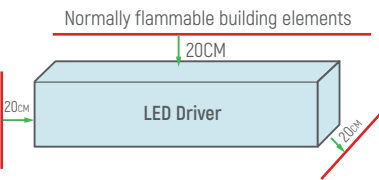
Touch Dim(Push DIM) Function

- 1. Press the Touch DIM switch for 8s or more,the driver can be controlled via Touch DIM switch.
- 2. Short press the Touch DIM switch (<0.5s) to control the lamp on or off.
- 3. Long press the Touch DIM switch (>0.5s) to dim the brightness of light. The dimming direction will change every time after pressing switch.
- 4. Double-click the Touch DIM switch (<0.3s), then all lamps connected on the device will be set maximum brightness.
- 5. The brightness adjustment range is 0.1%-100%, and the light can be turned off through short pressing when doing the adjustment with long pressing Touch DIM switch.
- 6. With the Power off memory function, the power-down state will be recovered when power on again.

Max. quantity of drivers per miniature circuit breaker

| Specification item                | Value  | Condition                                               |
|-----------------------------------|--------|---------------------------------------------------------|
| Inrush current I <sub>peak</sub>  | 20.8A  | Input Voltage 230VAC                                    |
| Inrush current T <sub>width</sub> | 2.12us | Input Voltage 230VAC, measured at 50% I <sub>peak</sub> |

| MCB | Input Voltage 230V Drivers | MCB | Input Voltage 230V Drivers |
|-----|----------------------------|-----|----------------------------|
| B10 | 3pcs                       | C10 | 3pcs                       |
| B13 | 4pcs                       | C13 | 4pcs                       |
| B16 | 5pcs                       | C16 | 5pcs                       |
| B20 | 6pcs                       | C20 | 6pcs                       |
|     |                            | D16 | 5pcs                       |



Instructions shall be provided with controlgear that have FELV control terminals that state the following:  
Warning: FELV terminals marked "Risk of electric shock" are not safe to touch.  
Warning: Circuits connected to any FELV control terminal shall be insulated for the LV supply voltage of the controlgear and any terminalis connected to the FELV circuit shall be protcted against accidental contact.

The external flexible cable or cord of this lamp cannot be replaced; If the flexible wire is damaged, the dimming circuit (FELV circuit) of the lamp should be insulated from the input end, the basic insulation dimming circuit (FELV circuit) should be insulated from the output end, and the auxiliary insulation dimming circuit (FELV circuit) and the output end should be insulated by functional insulation and grounding conductive parts.

※ 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.