

## PUP10D-1WMC-700 (102100680101)

### Summary

PUP10D-1WMC-700 is a constant current output mode LED driver. Support DALI dimming function, Touch DIM (Push DIM) function. The output and dimming circuit are also completely in accordance with the new regulations with isolation to ensure the users and luminaire system during installation.

### Product Features

- Single channel output, output current level selectable by DIP S.W.
- Support DALI dimming function, Touch DIM (Push DIM) function
- Input voltage of 120VAC ~ 277VAC
- Dimming range: 0.1-100%, Dimming effect smooth, no flicker
- Protections: Short circuit, Over load, Over voltage
- Suitable for indoor LED lighting application



### Application



### Technical Paramaters

| Model        | PUP10D-1WMC-700           |                                                                                     |                                      |                                      |                                       |
|--------------|---------------------------|-------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|
| Input        | Voltage                   | 120VAC-277VAC                                                                       |                                      |                                      |                                       |
|              | Frequency                 | 50/60Hz                                                                             |                                      |                                      |                                       |
|              | Efficiency                | 79%@120VAC, Full load                                                               |                                      |                                      |                                       |
|              | PF                        | 0.98@120VAC, Full load                                                              |                                      |                                      |                                       |
|              | THD(full load)            | <10%@120VAC, Full load                                                              |                                      |                                      |                                       |
|              | Current                   | 0.12Amax@120VAC                                                                     |                                      |                                      |                                       |
|              | Inrush Current            | Cold start,30A@120VAC                                                               |                                      |                                      |                                       |
|              | Standby Power             | <1W                                                                                 |                                      |                                      |                                       |
| Output       | Current/Voltage/Power     | 350mA/2-21V/7.35W<br>400mA/2-21V/8.4W                                               | 450mA/2-21V/9.45W<br>500mA/2-20V/10W | 550mA/2-18V/9.9W<br>600mA/2-16V/9.6W | 650mA/2-15V/9.75W<br>700mA/2-14V/9.8W |
|              | Channel                   | 1                                                                                   |                                      |                                      |                                       |
|              | No load output voltage    | 58V Max                                                                             |                                      |                                      |                                       |
|              | Frequency                 | 1KHz Min PWM                                                                        |                                      |                                      |                                       |
|              | Current Accuracy          | ±5%                                                                                 |                                      |                                      |                                       |
|              | LF current ripple(<120Hz) | <3%                                                                                 |                                      |                                      |                                       |
| Protection   | Over Voltage              | Hiccup, recovers after fault condition is removed                                   |                                      |                                      |                                       |
|              | Over load                 | Hiccup, recovers after fault condition is removed                                   |                                      |                                      |                                       |
|              | Short circuit             | Close output, recovers automatically after fault removed                            |                                      |                                      |                                       |
| Safety & EMC | Surge                     | L-N:1KV                                                                             |                                      |                                      |                                       |
|              | Withstand Voltage         | I/P-O/P: 3000VAC/1min/5mA; I/P-Gnd: 1500VAC/1min/5mA; O/P-Gnd: 500VAC/1min/5m       |                                      |                                      |                                       |
|              | Safety standards          | UL8750/UL1310/CSA25013,CSA class P                                                  |                                      |                                      |                                       |
|              | EMI Eission               | EN55015,EN61000-3-2 Class C,IEC61000-3-3                                            |                                      |                                      |                                       |
|              | EMC Immunity              | FCC class B(120V)/class A(277V)                                                     |                                      |                                      |                                       |
| Function     | Dimming type              | DALI/Touch DIM (Push DIM)                                                           |                                      |                                      |                                       |
|              | Dimming range             | 0.1%-100% Dimming to off                                                            |                                      |                                      |                                       |
| Others       | Dimension                 | 75*35*26.5mm[L*W*H]                                                                 |                                      |                                      |                                       |
|              | Pack Information          | N.W: 96g±5%/PCS; 100PCS/Carton; 10.1kg±5%/Carton; Carton Size: 398x210x208mm[L*W*H] |                                      |                                      |                                       |
|              | IP rating                 | IP20                                                                                |                                      |                                      |                                       |
|              | Working temp.             | -20°C-50°C                                                                          |                                      |                                      |                                       |
|              | tc                        | 90°C                                                                                |                                      |                                      |                                       |
|              | Relative humidity         | 20~90% RH                                                                           |                                      |                                      |                                       |
|              | Lifetime                  | 50,000h@tc:85°C                                                                     |                                      |                                      |                                       |
|              | Material                  | PC                                                                                  |                                      |                                      |                                       |
|              | Switch cycle              | >25,000 times                                                                       |                                      |                                      |                                       |

Remark: Use only within an enclosure

[illegible]

**DALI Signal Input**

**L**

**N**

**EUCHIPS**

**PUP10D-1WMC-700**

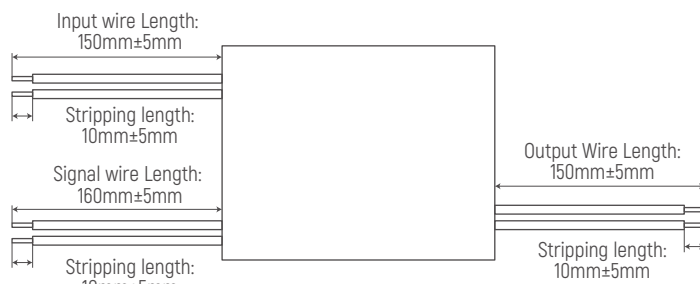
**Signal Input**

- (紫) DA1(Purple)
- (灰) DA2(Gray)
- (黒) L (Black)
- (白) N (White)

**Output**

- (紅) LED+(Red)
- (黒) LED-(Black)

**3 2 1**



The diagram illustrates a DALI system configuration. A DALI Controller is connected to three DALI Driver 1 units. The controller provides a common L (Live) and N (Neutral) line to all drivers. Each driver is individually addressed via its DA (Data Address) line. The output of each driver is connected to an LED light fixture, with the LED+ and LED- terminals.

Push DIM Panel (Touch DIM)

The diagram shows a single phase connection (N, L) to a Push DIM Panel (Touch DIM). The panel is connected to three DALI Driver 1 units. Each DALI Driver 1 unit is connected to an LED light. The wiring for each DALI Driver 1 unit is as follows:

- DA (Data) line: Connected to the panel's DA line.
- L (Line) line: Connected to the panel's L line.
- N (Neutral) line: Connected to the panel's N line.
- LED+ and LED- lines: Connected to the LED light.

The graph illustrates the relationship between the DALI Dimming Level and the Output Current (%). The main graph shows a curve that starts at 0% current for DALI level 1 and rises to 100% current at DALI level 254. An inset graph provides a detailed view of the curve for DALI levels 1 to 50, showing that the output current increases from approximately 0.05% to 0.4%.

| DALI Dimming Level | Output Current (%) |
|--------------------|--------------------|
| 1                  | 0.05               |
| 10                 | 0.1                |
| 20                 | 0.15               |
| 30                 | 0.2                |
| 40                 | 0.25               |
| 50                 | 0.3                |
| 100                | 0.5                |
| 150                | 0.75               |
| 200                | 1.0                |
| 250                | 1.5                |
| 254                | 1.6                |

## Push DIM Function

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

PUP10D-1WMC-700 is a multi-current dimming driver, output current level selectable by DIP S.W., as the following:

|                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                             |                |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|  |  | 1  2  3  |    |    |    |    |    |    |                |
| ON                                                                                  | OFF                                                                                 | 350mA<br>2-21V                                                                                                                                                                                                                                                    | 400mA<br>2-21V                                                                                                                                                                                                                                              | 450mA<br>2-21V                                                                                                                                                                                                                                              | 500mA<br>2-20V                                                                                                                                                                                                                                              | 550mA<br>2-18V                                                                                                                                                                                                                                              | 600mA<br>2-16V                                                                                                                                                                                                                                              | 650mA<br>2-15V                                                                                                                                                                                                                                              | 700mA<br>2-14V |

### 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.

PUP10D-1WMC-700 (102100680101)

概述

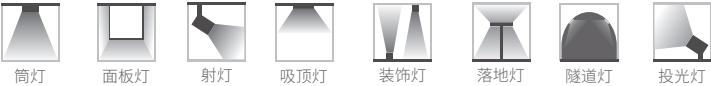
PUP10D-1WMC-700是一款恒流输出模式LED驱动器。输出和调光电路完全符合新规定，隔离，确保用户和灯具系统在安装过程中使用。

产品特点

- 单通道输出，输出电流电平可通过DIP S.W.选择。
- 支持DALI调光功能, 触摸调光(按键调光)功能
- 输入电压120V~277V
- 调光范围：0.1-100% 调光效果平滑，无闪烁
- 保护：短路、过载、过压
- 适用于室内LED照明应用，如筒灯、聚光灯、面板灯等



应用

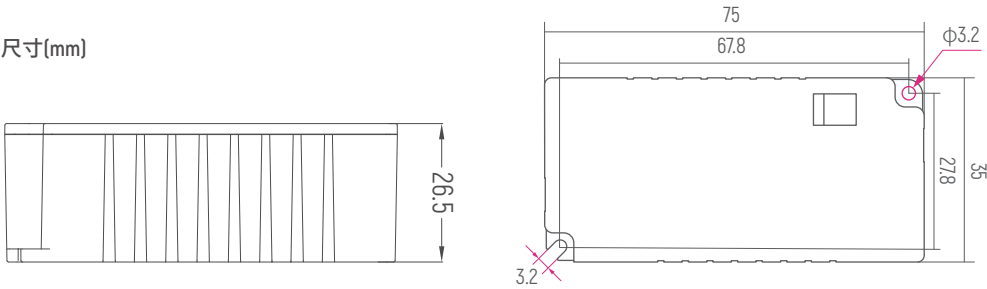


技术参数

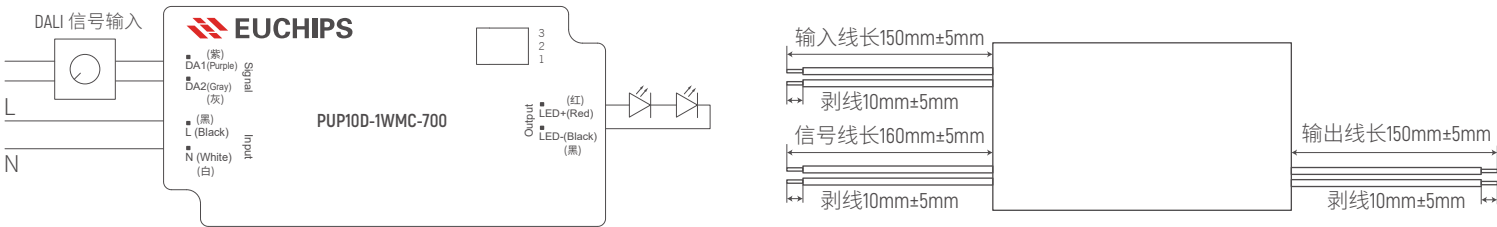
| 产品型号    | PUP10D-1WMC-700 |                                                                               |                                      |                                      |                                       |
|---------|-----------------|-------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|
| 输入      | 电压              | 120VAC-277VAC                                                                 |                                      |                                      |                                       |
|         | 频率              | 50/60Hz                                                                       |                                      |                                      |                                       |
|         | 效率[典型]          | 79%@120VAC,满载                                                                 |                                      |                                      |                                       |
|         | 功率因数[典型]        | 0.98@120VAC,满载                                                                |                                      |                                      |                                       |
|         | THD[满载]         | <10%@120VAC, 满载                                                               |                                      |                                      |                                       |
|         | 电流              | 0.12Amax@120VAC                                                               |                                      |                                      |                                       |
|         | 浪涌电流            | Cold start,30A@120VAC                                                         |                                      |                                      |                                       |
|         | 待机功耗            | <1W                                                                           |                                      |                                      |                                       |
| 输出      | 电流/电压/功率        | 350mA/2-21V/7.35W<br>400mA/2-21V/8.4W                                         | 450mA/2-21V/9.45W<br>500mA/2-20V/10W | 550mA/2-18V/9.9W<br>600mA/2-16V/9.6W | 650mA/2-15V/9.75W<br>700mA/2-14V/9.8W |
|         | 通道              | 1                                                                             |                                      |                                      |                                       |
|         | 空载输出电压          | 58V Max                                                                       |                                      |                                      |                                       |
|         | 输出频率            | 1KHz Min PWM                                                                  |                                      |                                      |                                       |
|         | 电流精度            | ±5%                                                                           |                                      |                                      |                                       |
|         | 低频纹波电流[<120Hz]  | <3%                                                                           |                                      |                                      |                                       |
| 保护      | 过压保护            | 打嗝，移除故障后自恢复                                                                   |                                      |                                      |                                       |
|         | 过载保护            | 打嗝，移除故障后自恢复                                                                   |                                      |                                      |                                       |
|         | 短路保护            | 关断输出，移除故障后自恢复                                                                 |                                      |                                      |                                       |
| 安全与电磁兼容 | 浪涌              | L-N:1KV                                                                       |                                      |                                      |                                       |
|         | 耐受电压            | I/P-O/P: 3000VAC/1min/5mA; I/P-Gnd: 1500VAC/1min/5mA; O/P-Gnd: 500VAC/1min/5m |                                      |                                      |                                       |
|         | 安全标准            | UL8750/UL1310/CSA25013,CSA class P                                            |                                      |                                      |                                       |
|         | 电磁兼容            | EN55015,EN61000-3-2 Class C,IEC61000-3-3                                      |                                      |                                      |                                       |
|         | EMC电磁抗扰度        | FCC class B(120V)/class A(277V)                                               |                                      |                                      |                                       |
| 功能      | 调光模式            | DALI/Touch DIM (Push DIM)                                                     |                                      |                                      |                                       |
|         | 调光范围            | 0.1%-100% 可调灭                                                                 |                                      |                                      |                                       |
| 其它      | 产品尺寸            | 75*35*26.5毫米(长*宽*高)                                                           |                                      |                                      |                                       |
|         | 包装信息            | 净重: 96g±5%/个; 100个/箱; 10.1kg±5%/箱; 外箱尺寸: 398x210x208mm(L*W*H)                 |                                      |                                      |                                       |
|         | 防水等级            | IP20                                                                          |                                      |                                      |                                       |
|         | 工作环境温度          | -20℃-50℃                                                                      |                                      |                                      |                                       |
|         | tc              | 90℃                                                                           |                                      |                                      |                                       |
|         | 相对湿度            | 20~90% RH                                                                     |                                      |                                      |                                       |
|         | 寿命              | 50,000h@tc:85℃                                                                |                                      |                                      |                                       |
|         | 材料              | PC                                                                            |                                      |                                      |                                       |
|         | 开关机次数           | >25,000 次                                                                     |                                      |                                      |                                       |

备注: 仅在外壳内使用

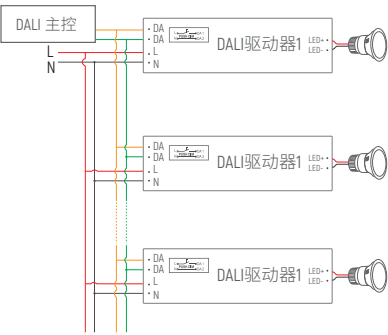
尺寸(mm)



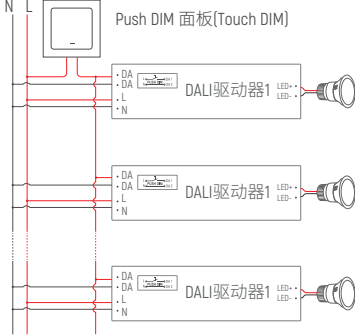
## 应用接线图



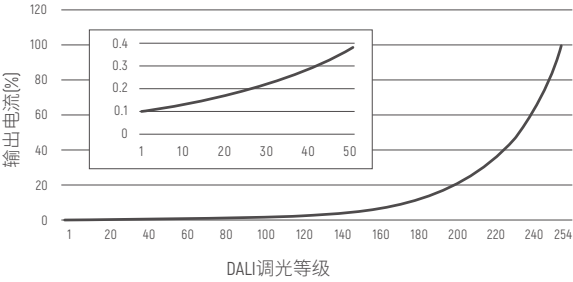
### DALI接线图



### Touch DIM(Push DIM) 接线图



### 调光曲线



备注: 只能使用开路的按压式开关(不带指示灯). 采用同步连线时每个设备和设备之间的线长不超过20米.

## Push DIM 功能

- 1.短按Push DIM (Touch DIM) 开关 [ $<0.5$ 秒] 进行灯的亮暗控制。
- 2.长按Push DIM (Touch DIM)开关 [ $>0.5$ 秒] 进行灯具的亮度调节，光是调亮还是调暗，随着每次按压的开关变化而变换。
- 3.双击Push DIM (Touch DIM)开关 [ $<0.3$ 秒]，连接的所有灯具将达到最亮状态。
- 4.亮度调节范围为1%-100%。
- 5.具有断电记忆功能，重新上电将恢复到上一次断电的状态。

### 电流选择表

PUP10D-1WMC-700 是一个多电流调光驱动器，输出电流可通过DIP S.W.选择，如下所示：

|    |  |     |       |       |       |       |       |       |       |       |  |  |
|----|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
|    |  |     | 1     | 2     | 3     |       |       |       |       |       |  |  |
| ON |  | OFF | 350mA | 400mA | 450mA | 500mA | 550mA | 600mA | 650mA | 700mA |  |  |
|    |  |     | 2-21V | 2-21V | 2-21V | 2-20V | 2-18V | 2-16V | 2-15V | 2-14V |  |  |

备注：出厂默认设置电流为350mA (1,2,3在OFF状态)

注意事项:

1. 本产品请由具有专业资格的人员进行调试安装。
2. 本产品不能防水，需避免日晒雨淋，如安装在户外，请用防水箱。
3. 良好的散热条件会延长产品的使用寿命，请把产品安装在通风良好的环境。
4. 请检查使用的LED电源输出电压电流，是否符合产品要求。
5. 出于安全考虑，推荐输入和输出(信号端除外)用0.75-1.5mm<sup>2</sup>PVC或橡胶线缆，并确保接线牢固，以免电线过热或接触不良触发事故。扁平电源线不适用。
6. 通电调试前，应确保所有接线正确，以避免因接线错误而导致灯具损坏。
7. 如果发生故障，请勿私自维修；如有疑问，请联系供应商。