

# T1A1240085P-25DE

Constant current DALI-2 DT6 LED Driver (PUS-DIM + CLO + NFC)



### **FEATURES**

- Supports DALI-2 + PUSH DIM Control + NFC
- Inbuilt CLO Function
- Compliance to DALI-2 PART 101, 102, 207, 250, 251, 252, 253
- DALI Function setting through NFC
  - a. O/P Current setting in step of 1mA.
  - b. Set Min-Max level.
  - c. Set system failure level.
  - d. Set power on level.
  - e. Set address manually 0 to 63.
  - f. Create Groups manually 1 to 16.
  - g. Set Fade time.
  - h. Set fade rate.
  - i. change dimming curve manually Linear OR Logarithmic.
  - j. Set Scenes manually.
- SELV CLASS II Design.
- Dimming range 0.1% to 100%.
- High PF, Low THD, High Efficiency.
- CE, Flicker free.
- Life 50,000hrs.
- Suitable for indoor use only.

### INTERFACE

- DALI-2 DT6
- PUSH-DIM

### **FUNCTIONS**

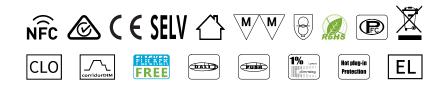
- Memory function
- Suitable for emergency lighting (EL)
- Protection features (short circuit, open circuit, over load, no load, hot plug-in)

### SUITABLE FOR LIGHTS

- Suitable for Linear lights, tri-proof lights, working lights and other linear or ultra thin lights.

## TYPICAL APPLICATIONS

- LED Indoor lighting.
- LED Office lighting.
- LED Commercial lighting.





# T1A1240085P-25DE

**SPECIFICATIONS** 



- **Dimmable Constant Current 1-Channel LED Driver with DALI DT6**
- Support DALI dimming function
- Dimming range 0.1 to 100%
- **NFC Programable**
- DALI PART 101, 102, 207, 251, 252 & 253

# **General Specifications**

| • | Inbuilt CLO Function     |
|---|--------------------------|
| • | Output Wattage : 25W Max |

- Output voltage range of 3-42Vdc
- Output Current: 300 850mA
- Flicker-free Output ripple current <5%
- Application

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- LED indoor lighting
- LED office lighting
- LED architectural lighting
- LED panel lamp lighting

| General Specifications                      |  |  |  |  |
|---|--|--|--|--|
| Rated Input Voltage                         | 240VAC ±10%, 50/60Hz   |  |  |  |
| Operating Input Voltage Range               | 196-264VAC, 50/60Hz  |  |  |  |
| Input Current Max.                          | 0.20 @ 230Vac  |  |  |  |
| Input Power                                 | 31.2W  |  |  |  |
| Power Factor                                | >0.97 @ 230Vac Full Load   |  |  |  |
| Power Factor (Min)                          | 0.92 @ 230Vac Max Voltage full load                                  |  |  |  |
| THD   | <10% @ 230Vac Full Load  |  |  |  |
| Efficiency (Typical)                        | 80%  |  |  |  |
| Driver Type                                 | Constant Current DALI-2  |  |  |  |
| Output Current                              | 300mA to 850mA ±5% (Current setting through NFC, with step of 0.1mA) |  |  |  |
|   | Default 500mA *Refer Voltage vs O/P current graph                    |  |  |  |
| Output Voltage Range                        | 3-42Vdc  |  |  |  |
| Dimming Controller Type                     | DALI-2 (Amplitude/CCR dimming)                                       |  |  |  |
| Output Power                                | 25W  |  |  |  |
| Output ripple current                       | <5%, Flicker Free at 100Hz   |  |  |  |
| Number of Output Channels                   | 1 Channel  |  |  |  |
| Output Type                                 | Class II   |  |  |  |
| Ambient Operating Temperature Range         | -20°C to 60°C  |  |  |  |
| Max. Case Temperature                       | 85°C   |  |  |  |
| Input Surge Protection                      | 2KV  |  |  |  |
| Protections                                 | Input Over Current : Non Resettable (Fuse)                           |  |  |  |
|   | Output Short Circuit : Auto Recovery (HICCUP Mode)                   |  |  |  |
|   | Output Open Circuit : Auto Recovery (HICCUP Mode)                    |  |  |  |
|   | Output Overload : YES  |  |  |  |
|   | Over Temperature : Auto Recovery (HICCUP Mode)                       |  |  |  |
| Standards                                   | EN55015, EN61000-3-2, EN61000-3-3                                    |  |  |  |
|   | EN61547, EN61000-4-2,3,4,5,6,8,11                                    |  |  |  |
|   | EN61347-1, EN61347-2-13  |  |  |  |
|   |  |  |  |  |
| Withstand Voltage                           | I/P-O/P:3750Vac, I/P-FG:1750Vac, O/P-FG:500Vac, I/P-DALI:500Vac      |  |  |  |
| Leakage Current                             | <0.5mA @ 240Vac  |  |  |  |
| Isolation resistance                        | I/P-O/P:100MΩ / 500Vdc / 25°C / 70% RH                               |  |  |  |
| Life  | 50,000 Hours @ 75°C  |  |  |  |
| Approvals / Class                           | SELV Equivalent  |  |  |  |
| Warranty                                    | 5 Years at Tc 75°C   |  |  |  |
| Weight                                      | 0.150 Kg   |  |  |  |
| Note : Suitable for indoor application only |  |  |  |  |

Fulham extends a limited warranty only to the original purchaser or to the first user for a period of <u>05 years @ Tc 75°C</u> from the date of manufacture when properly installed and operated under normal conditions of use. For complete terms and conditions, please reference the Fulham Product Catalog (www.fulham.com). Due to a program of continuous improvement, Fulham reserves the right to make modifications or variations in design or construction to the equipment described. © Fulham Company Limited, All Rights Reserved.

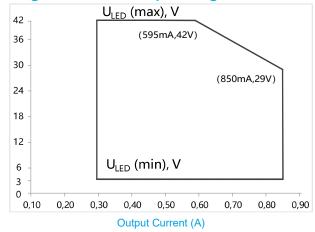


# T1A1240085P-25DE

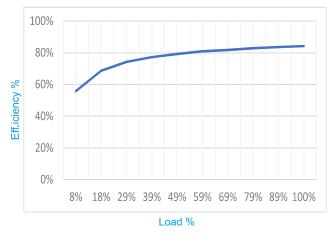
**SPECIFICATIONS** 



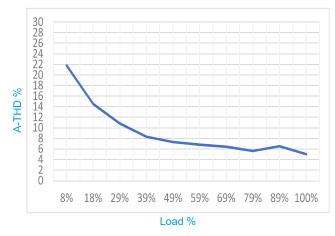
# Voltage and current operating window



# Typical Efficiency Vs Load %

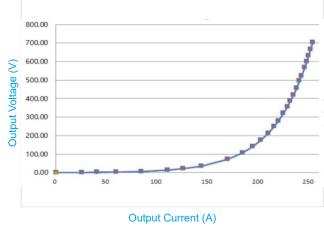


# A-THD Vs Load %



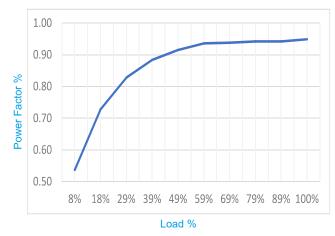
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## **Dimming Curve**

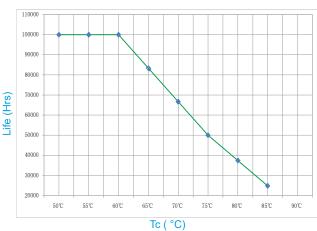


**Remarks:** The default is logarithmic dimming curve.

## **Power factor vs Load**





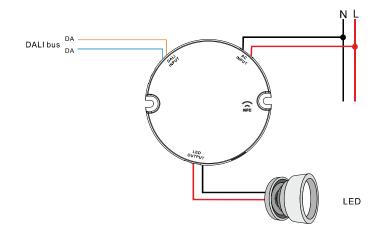


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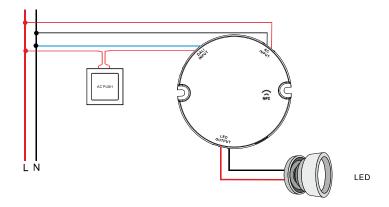
## **DALI dimming application**



### Activating DALI control mode

- After installation according to the wiring diagram of DALI control application, the driver will automatically switch to the DALI control mode after receiving any DALI command.

### **PUSH dimm**



#### Using PUSH DIM controls:

After installation according to the wiring diagram of PUSH-DIM control application,

1. Press PUSH switch it will increase the Brightness, release the witch and again press PUSH switch it will Reduce the Brightness.

### Multiple lights synchronize control operation

method 1: Step 1:long press the PUSH-DIM switch,confirm each light is on. Step 2:short press the PUSH-DIM switch,confirm each light is off.

Step 3:long press the PUSH-DIM switch, confirm each light is from darkest to brightest and all the lights are synchronous.

method 2: - Long press the PUSH-DIM dimming switch for more than 15s, all drivers will output 100% brightness and the color temperature is natural white (middle of color temperature range).

#### **Remarks:**

- Standard DALI control line voltage range:9.5V to 22.5V, type 16V.

- The two DALI control lines polarity-reversible.

- Max. 64 DALI drivers per DALI control line.
- The maximum distance length of the DALI control line is 300m at  $2 \times 1.5$  mm<sup>2</sup>.
- DALI bus can be wired together with any mains voltage cables, but separate wiring is recommended.

#### Wiring distance vs cable size

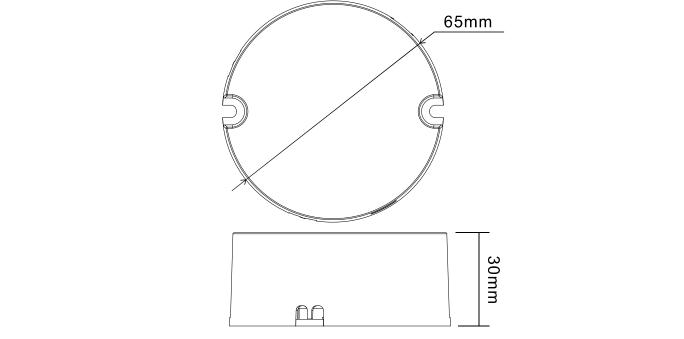
| Cable size             | Distance |
|------------------------|----------|
| 2×0.50mm <sup>2</sup>  | max.100m |
| 2×0.75mm <sup>2</sup>  | max.150m |
| 2×1.00mm <sup>2</sup>  | max.200m |
| ≥2×1.50mm <sup>2</sup> | max.300m |

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**Mechanical Data :** 

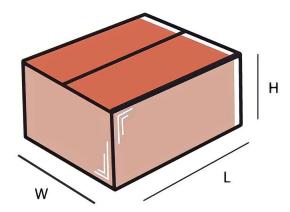


#### Note : All Dimensions are in mm.

Tolerance=±0.5mm

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#### Packaging



Master carton

| OUTER DIMENSION |                 |       |   |         |  |  |  |
|-----------------|-----------------|-------|---|---------|--|--|--|
| L               |                 | W     |   | Н       |  |  |  |
| 205mm           |                 | 160mm |   | 170mm   |  |  |  |
| Net<br>Weight   | Gross<br>Weight |       | Q | UANTITY |  |  |  |
| 4.5 kg          | 4.7 kg          |       |   | 30 pc.  |  |  |  |

Installation Instructions:

Connect Wires as per details given on the Driver Screen. Keep proper ventilation around the LED Driver and do not stack any object on it. Also a 10-15 cm clearance must be kept when the adjacent device is a heat source. Do not exceed the declared Hot spot temperature(Tc max) under any circumstances.

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