

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, 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.
- Nominal Life 100,000hrs.
- Suitable for indoor use only.

### INTERFACE

- DALI-2 DT6
- PUSH-DIM

### **FUNCTIONS**

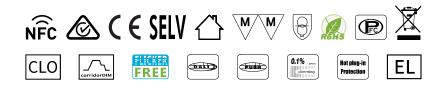
- Memory function
- Suitable for emergency lighting (EL)
- Protection features (short circuit, open circuit, over load, no load, hot plug-in)

## 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.





**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**

Rated Input Voltage	240VAC <u>+</u> 10%, 50/60Hz			
Operating Input Voltage Range	196-264VAC, 50/60Hz			
Input Current Max.	0.10 @ 230Vac			
Input Power	20W			
Power Factor	>0.92 @ 230Vac Full Load			
THD	<10% @ 230Vac Full Load			
Efficiency	76%			
Driver Type	Constant Current DALI-2			
Output Current	100mA to 700mA ±3% (Current setting through NFC, with step of 0.1mA)			
	Default Current setting 350mA			
	*Refer Voltage vs O/P current graph			
Output Voltage Range	6-42Vdc			
Dimming Controller Type	DALI-2 (Amplitude/CCR dimming)			
Output Power	15W			
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 45°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			
	IEEE1789			
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 @ 80°C			
Approvals / Class	SELV Equivalent			
Warranty	5 Years at Tc 80°C			
Weight	0.080 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 80°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.

REV A Page - 2 of 5 RD-FR-032 / Rev.00

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

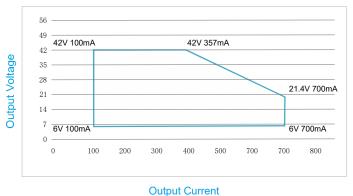
- Inbuilt CLO FunctionOutput Wattage : 15W Max
- Output voltage range of 6-42Vdc
  - Output Current: 100 700mA
    - Flicker-free Output ripple current <5% LF

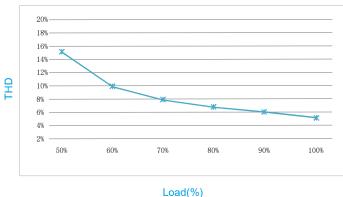


THD vs. Load

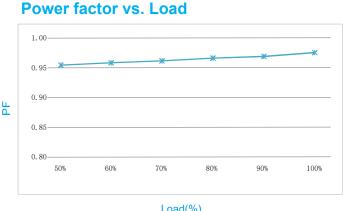
SELV 🖉 

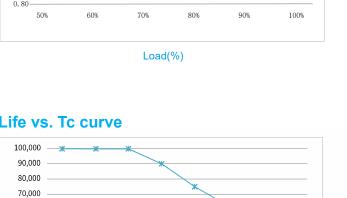
# **Output Voltage Vs Output Current**





# \* Default Current - 350mA





65°C

70°C

Тс

75°C

80°C

85C

# Life vs. Tc curve

60,000

50,000

40,000 30,000

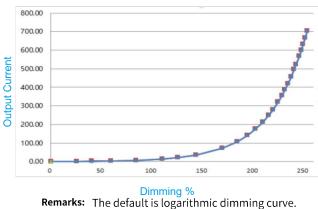
20,000 -

10,000

0.80 50°C 55°C 60°C

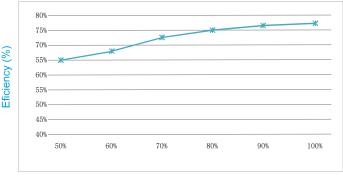
Life

# **Dimming Curve**



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# Load(%) Efficiency vs load



Load(%)



SPECIFICATIONS

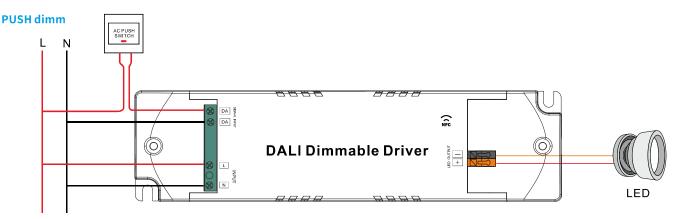


**DALI dimming application** 



# 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.



### 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		

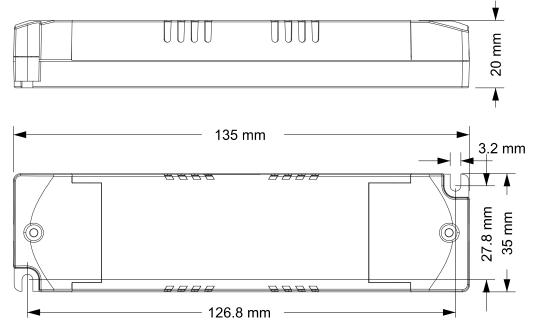
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SPECIFICATIONS

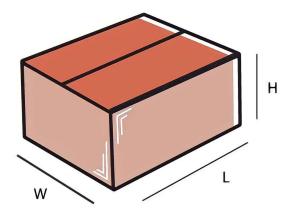


### Mechanical Data :



Note : All Dimensions are in mm.

# Packaging



Tolerance=±0.5mm

Master carton						
OUTER DIMENSION						
L	W			Н		
185mm		150mm		140mm		
Net Weight		Gross Weight	QUANTITY			
3.20 kg		3.60 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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