

## Features

- Support DALI-2+PUSH-CCT control
- Support advanced functions and programming configurations such as CorridorFunction,EL,
- Functionals configurable via DALI interfaces
- Suitable for emergency lighting acc. to EN 50172
-10-level current output can be realized through external DIP-switch, easier to adjust the luminaire power

Soft dimming and flicker-free at any brightness, meets the new requirements of ErP certification

- Using HPC patented technology, at any dimming level, the current output between drivers is the same
- Dimming range $1 \% \sim 100 \%$, output current accuracy $1 \%$
- Standby power input<0.5W, meets the requirements of ErP certification
- High PF, high efficiency, low THD
- Screw-free and pressing type strain relief, easier install
- Intelligent LED hot-plug protection function
- SELV and Class II design, suitable for use outside of the light
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h


## Interfaces

- DALI-2(DALI-2 DT8)
- PUSH(PUSH-DIM, corridorFUNCTION)
- PUSH(PUSH-CCT)

Functions

- PUSH-CCT with memory function(PUSH)
- Corridor function mode(CF)
- Suitable for emergency lighting(EL)
- Protective features
(short-circuit, overload,no-load, hot plug-in protection )


## Suitable for lights

- Suitable for lights with independent drivers such as downlights, spotlights, panel lights, etc
- Not suitable for lights with built-in drivers

Typical applications

- LED indoor lighting
- LED office lighting
- LED commercial lighting



## T1A2240035S-10FE <br> SPECIFICATIONS

- Dimmable Constant current 2-Channel LED driver with DALI DT8
- Support DALI dimming and tunable white function
- Support PUSH dimming and tunable white function
- Dimming range 1 to $100 \%$
- Tunable White
- Output Wattage : 10.5W Max
- Output voltage range of $12-54 \mathrm{Vdc}$

Output Current: 100-350mA
Flicker-free at any brightness, meeting the standard of flicker-free(IEEE 1789-2015)

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


## General Specifications

| Rated Input Voltage | 200-240Vac, $50 / 60 \mathrm{~Hz}$ |
| :---: | :---: |
| Operating Input Voltage Range | 180-264Vac, $50 / 60 \mathrm{~Hz}$ |
| Input Current | <0.07A @ 230Vac |
| Input Power | 13.9 W |
| Power Factor | >0.95@ 230Vac/Full Load |
| THD | <10\% @ 230Vac/Full Load |
| Efficiency (Typical) | 78\% @ 230Vac/Full Load |
| Driver Type | Constant Current DALI 2.0 |
| Output Current | $\begin{aligned} & 350 \mathrm{~mA} \pm 3 \%, 300 \mathrm{~mA} \pm 3 \%, 275 \mathrm{~mA} \pm 3 \%, 250 \mathrm{~mA} \pm 3 \%, 225 \mathrm{~mA} \pm 3 \%, 200 \mathrm{~mA} \pm 3 \%, 175 \mathrm{~mA} \pm 3 \%, \\ & 150 \mathrm{~mA} \pm 3 \%, 125 \mathrm{~mA} \pm 3 \%, 100 \mathrm{~mA} \pm 3 \% \text { *Refer DIP switch Table for O/P current selection } \end{aligned}$ |
| Output Voltage Range | $12-54 \mathrm{Vdc}(12-30 \mathrm{Vdc}$ @ $350 \mathrm{~mA}, 12-36 \mathrm{Vdc}$ @ $300 \mathrm{~mA}, 12-40 \mathrm{Vdc}$ @ $275 \mathrm{~mA}, 12-44 \mathrm{Vdc}$ @ 250 mA , $12-48 \mathrm{Vdc}$ @ 225 mA ) |
| Output Power | 10.5 W |
| Number of Output Channels | 2 Channel |
| Output Type | Class II |
| Dimming Controller Type | DALI 2.0 |
| Ambient Operating Temperature Range | $-10^{\circ} \mathrm{C}$ to $50^{\circ} \mathrm{C}$ |
| Max. Case Temperature | $90^{\circ} \mathrm{C}$ |
| 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) |
| Safety Standards | EN61347-1, EN61347-2-13, EN62384 |
| Flicker-free standard | IEEE1789 |
| Withstand Voltage | I/P-O/P:3750Vac, I/P DALI:500Vac |
| Leakage Current | <0.7mA @ 240Vac |
| Isolation resistance | I/P-O/P:100M $/ 200 \mathrm{Vdc} / 25^{\circ} \mathrm{C} / 70 \% \mathrm{RH}$ |
| Life | 50,000 Hours @ Tc $75^{\circ} \mathrm{C}$ |
| Approvals / Class | SELV Equivalent |
| Warranty | 3 Years |
| Weight | 0.096 Kg |

Note : Suitable for Indoor application only

[^0]
## DIP Switch Chart :

| Switch selection sheet |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pin | Irated | Voltage | 1 | 2 | 3 | 4 |  |
| 7.00 W | 100 mA | 54 VDC | -- | ON | ON | ON |  |
| 8.60 W | 125 mA | 54 VDC | ON | -- | ON | ON |  |
| 10.2 W | 150 mA | 54 VDC | -- | -- | ON | ON |  |
| 11.7 W | 175 mA | 54 VDC | -- | ON | -- | ON |  |
| 13.3 W | 200 mA | 54 VDC | -- | -- | -- | ON |  |
| 13.4 W | 225 mA | 48VDC | ON | ON | ON | - |  |
| 13.7 W | 250 mA | 44 VDC | -- | - | ON | - |  |
| 13.9 W | 275 mA | 40VDC | -- | ON | -- | - |  |
| 13.9 W | 300 mA | 36VDC | ON | -- | -- | - |  |
| 13.9 W | 350mA $\star$ | 30VDC | -- | -- | -- | - |  |
| Before use,always check dipswitch settings |  |  |  |  |  |  |  |

THD vs. Load


Load

Efficiency vs. Load


Load

Remark: $\star$ this current is factory default.

- this Switch is off.

Power factor vs. Load


Load

Lifetime vs. case temperature

case temperature(Tc)

Fulham extends a limited warranty only to the original purchaser or to the first user for a period of 03 years $@ \mathrm{Tc} 75^{\circ} \mathrm{C}$ 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.

## DALI dimming application

Wiring diagram


## 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.


## Remarks:

- Standard DALI control line voltage range:9.5V to 22.5 V ,type 16 V .
- 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 300 m at $2 \times 1.5 \mathrm{~mm}^{2}$.
- DALI bus can be wired together with any mains voltage cables, but separate wiring is recommended.


## Wiring distance vs cable size

| Cable size | Distance |
| :---: | :---: |
| $2 \times 0.50 \mathrm{~mm}^{2}$ | max. 100 m |
| $2 \times 0.75 \mathrm{~mm}^{2}$ | max. 150 m |
| $2 \times 1.00 \mathrm{~mm}^{2}$ | max. 200 m |
| $\geqslant 2 \times 1.50 \mathrm{~mm}^{2}$ | max. 300 m |

## Dimming curve



Remarks: The dimming curve can be selected by DALI configuration. The default is logarithmic dimming curve.

Fulham extends a limited warranty only to the original purchaser or to the first user for a period of 03 years @ $\mathrm{Tc} 75^{\circ} \mathrm{C}$ 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.
 strings should be less than 0.5 V

## Activating PUSH control mode

- Method 1: After installation according to the wiring diagram of PUSH-DIM control application, short press the PUSH dimmming switch(PUSH-DIM port) 5 times within 3 seconds, the driver will automatically switch to PUSH control mode.
- Method 2: Use the configuration tool to set the driver's PUSH control function parameters and turn on the PUSH control function.
- After activating the PUSH control mode, the corridorFUNCTION dimming mode will be automatically deactivate.


## Number of mounted drivers

- Up to 50pcs drivers can be mounted.


## PUSH dimming switch operating instructions

- Turn on or turn off: short press PUSH dimming switch for 0.2-1s.
- Stepless dimming : long press PUSH dimming switch for 1-6s, Press again to switch dimming directions.


## PUSH CCT switch operating instructions

- Switch CCT level: short press PUSH CCT switch for 0.2-1s, 9 levels of preset CCT can be switched.
- Stepless CCT adjustment: long press CCT PUSH switch for 1-6s,Press again to switch CCT adjustment directions.


## Power on status:

- After power on,the light state will be the same as the last dimming level and the last CCT level.
- If the light is on before the power is turned off, after turning the power back on, the brightness will be the same as the last time, and the color temperature will be the same as the last time.
- If the light is off before the power is turned off, the light will be turned off after the power is turned back on. You need to press the PUSH-DIM dimming switch for a short time to turn on the light. The brightness after lighting will be the same as the last time, and the color temperature will be the same as the last time.



## 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 15 s , all drivers will output $100 \%$ brightness and the color temperature is natural white (middle of color temperature range).

Fulham extends a limited warranty only to the original purchaser or to the first user for a period of 03 years @ $\mathbf{T c} 75^{\circ} \mathrm{C}$ 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.

## CorridorFUNCTION dimming

Wiring diagram


## Activating the CorridorFUNCTION dimming mode

Method 1: Activating by sensor.
After installation according to the wiring diagram of CorridorFUNCTION dimming application, you can use the following methods to activate.
Method 1: Keep the movement in the effective sensing area for 5 minutes, the CorridorFUNCTION dimming function of the drive will be activated and light up $100 \%$ (under the default setting).

Method 2: Activate by Hold-time
Set the hold-time of the sensor to more than 5 minutes. When the motion sensor detects a person and turns on the output for 5 minutes, the CorridorFUNCTION dimming function will be activated and the light will be on $100 \%$ (Default), finally restore the hold-time that the sensor actually needs.
-Method 2: Activate by normal switch
After installation according to the wiring diagram of the CorridorFUNCTION dimming application, first replace the sensor with a normal switch, and then turn on the normal switch for 5 minutes, and the driver will automatically switch to CorridorFUNCTION dimming mode, then remove the normal switch and replace it with the sensor.

- Method 3: Use the configuration tool to turn on the driver's CorridorFUNCTION dimming mode and set the parameters.
- After activating the CorridorFUNCTION dimming mode, the PUSH dimming mode will be automatically deactivate .


## Remarks

- It is recommended to set the hold-time of the motion sensor to within 5 s .
- Need to use a motion sensor with AC switch.


## CorridorFUNCTION working process

Brightness level


- The parameters of CorridorFUNCTION can be set through the configuration tool.
- CorridorFUNCTION is not activated by default.

| Name | Symbol | Factory setting | Settable range |
| :--- | :---: | :---: | :---: |
| Fade-in time | F1 | 0 s | $0-9600 \mathrm{~s}$ |
| Presence level | PL | $100 \%$ | $0-100 \%$ |
| Hold-on time | T1 | By sensor setting |  |
| Run-on time | T2 | 120 s | $0-2500 \mathrm{~s}$ |
| Fade-out time | F2 | 32 s | $0-9600 \mathrm{~s}$ |
| Absence level | AL | $10 \%$ | $0-100 \%$ |
| Stand-by Time | T2 | unlimited | $0-2540 \mathrm{~s}$, unlimited |
| Fade-off time | F3 | 0 s | $0-9600 \mathrm{~s}$ |

## Fulham extends a limited warranty only to the original purchaser or to the first user for a period of 03 years @ $\mathbf{T c} 75^{\circ} \mathrm{C}$ 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.

## T1A2240035S-10FE SPECIFICATIONS

Mechanical Data :


Note: All Dimensions are in mm.

Unit: mm
Tolerance $= \pm 0.5 \mathrm{~mm}$

## Packaging



Master carton

| OUTER DIMENSION |  |  |  |
| :---: | :---: | :---: | :---: |
| L | W | H |  |
| 450 mm | 350 mm |  |  |
| Net <br> Weight | Gross <br> Weight | QUANTITY |  |
| 6.68 kg | 8.28 kg | 72 pc. |  |


[^0]:    Fulham extends a limited warranty only to the original purchaser or to the first user for a period of 03 years @ $\mathbf{T c} 75^{\circ} \mathrm{C}$ 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.

