

# FTPC150V-DA series

150W LED Constant voltage Switching Power Supply, DALI and push dimming



PRELIMINARY

## ■ Features:

- Constant voltage design
- European AC input range
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- Isolation class II
- Built-in active PFC function
- Linear shape
- DALI and push dimming function
- Dimming range: 1-100%



## © ELECTRICAL SPECIFICATION

| MODEL                         | FTPC150V12-DA   | FTPC150V24-DA |
|-------------------------------|---|---------------|
| <b>OUTPUT</b>                 |   |               |
| Rated Voltage                 | 12V   | 24V           |
| Rated Current                 | 11A   | 6.25A         |
| Rated Power                   | 132W  |               |
| No Load Output Voltage (max.) | 12.6V   | 25.2V         |
| Line Regulation               | ± 1%  |               |
| Load Regulation               | ± 6%  |               |
| Voltage Tolerance [3]         | ± 5%  |               |
| Ripple & Noise (max.) [2]     | 1.50V <sub>p-p</sub>  |               |
| Setup, Rise Time [4]          | 20ms, 500ms / 230VAC at full load   |               |
| Hold up Time (typ.)           | 1.5ms / 230VAC at full load   |               |
| <b>INPUT</b>                  |   |               |
| Voltage Range                 | 220 ÷ 240VAC  |               |
| Frequency Range               | 47 ÷ 63Hz   |               |
| Power Factor (typ.)           | PF > 0.9 / 230VAC at full load  |               |
| Efficiency (typ.)             | 92%   |               |
| AC current (typ.)             | 0.8A / 230VAC   |               |
| Inrush current (max.)         | 50A / 230VAC (25°C)   |               |
| <b>DIMMING</b>                |   |               |
| Dimming Range                 | 1 – 100% of rated output current  |               |
| Suitable dimmers              | DALI or PUSH DIMMING  |               |
| <b>PROTECTIONS</b>            |   |               |
| Over Current                  | Range: 110% - 160%  |               |
|                               | Type: Hiccup mode auto-recovery.  |               |
| Short Circuit                 | Type: Hiccup mode auto-recovery.  |               |
| Over Voltage                  | < 18V   | < 36V         |
|                               | Type: Hiccup mode auto-recovery.  |               |
| Over Temperature              | Range: 115°C ± 10°C   |               |
|                               | Type: Decrease output current. Recovers automatically after fault condition is removed. |               |

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## WORKING ENVIRONMENT

|   |   |
|---|---|
| <b>Working Temperature</b>              | -40°C ÷ +45°C                             |
| <b>Working Humidity</b>                 | 15 ÷ 95% RH non-condensing                |
| <b>Storage Temperature and Humidity</b> | -40°C ÷ +80°C, 10 ÷ 95% RH non-condensing |

## SAFETY AND EMC REGULATIONS

|                          |  |
|--------------------------|--|
| <b>Safety Standards</b>  | Compliance to EN61347-1, EN61347-2-13  |
| <b>Dali Standards</b>    | Compliance to IEC 62386-101, 102,207   |
| <b>Withstand Voltage</b> | IN/OUT: 5.3kVDC                        |
| <b>EMC Emission</b>      | Compliance to EN55015                  |
| <b>EMC Immunity</b>      | Compliance to EN61547                  |
| <b>Harmonic Current</b>  | Compliance to EN61000-3-2, EN61000-3-3 |

## OTHERS

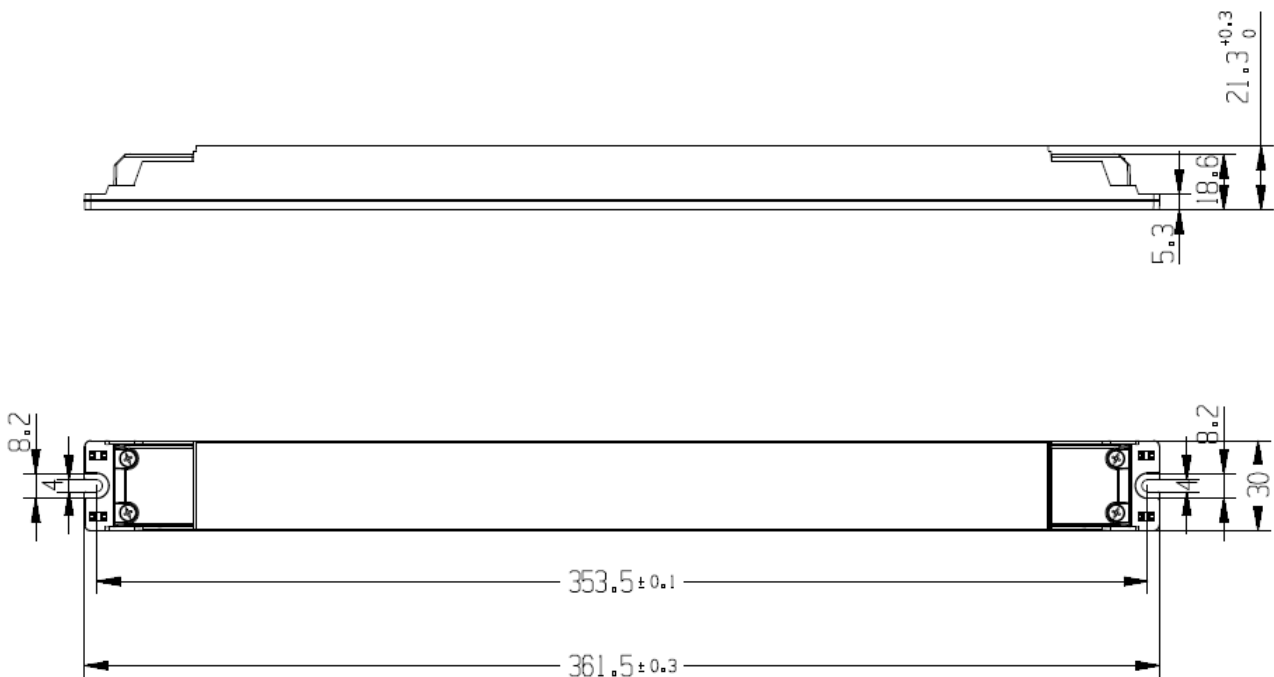
|                           |  |
|---------------------------|--|
| <b>Dimensions</b>         | 361,5 x 30 x 21.3mm (L x W x H)                  |
| <b>Weight and Packing</b> | 0.2kg; 20pcs./ctn, ctn dimensions: 38x18x16.5 cm |

**EAN Code**



1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF i 47µF parallel capacitor.
3. Tolerance includes set up tolerance, line regulation and load regulation.
4. Setup and rise time is measured from 0 to 90% rated output voltage.
5. Power supply is considered as component not indented to apply by end-user. Power supply meets safety and EMC standards however the final equipment with power supply must be re-quality to comply with EMC Directives.

## © MECHANICAL SPECIFICATION



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## © PUSH DIMMING WIRING DIAGRAM



| FUNCTION            | Push time   |
|---------------------|-------------|
| No status change    | <0.05 sec.  |
| Push on/off         | 0.1-1 sec.  |
| Dimming up or down  | 1.5-10 sec. |
| Set 100% brightness | >11 sec.    |

Factory setting 100%

Each time press will change the dimming direction

## © DALI WIRING DIAGRAM



| PIN ASSIGNMENT |                           |
|----------------|---------------------------|
| Function       | Description               |
| DA             | DA signal/ neutral wire   |
| DA             | DA signal/ line wire      |
| AC/N           | Input: AC/N               |
| AC/L           | Input: AC/L               |
| Vout +         | Output: U <sub>OUT+</sub> |
| Vout -         | Output: U <sub>OUT-</sub> |