## FTPC20V series

20W LED Switching Power Supply (CV)





## ■ Features:

- Constant voltage design
- European AC input range
- Protections: Short circuit / Overload / Over temperature
  - Cooling by free air convection
  - Compliance to worldwide regulations for lighting















| TOV                              | SELV                                                                                                                            |  |  |  |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| ® ELECTRICAL SPECIFICATION       |                                                                                                                                 |  |  |  |
| MODEL                            | FTPC20V12-C                                                                                                                     |  |  |  |
| ОИТРИТ                           |                                                                                                                                 |  |  |  |
| Rated Voltage                    | 12V                                                                                                                             |  |  |  |
| Rated Current                    | 1.67A                                                                                                                           |  |  |  |
| Current Range                    | 0 ÷ 1.67A                                                                                                                       |  |  |  |
| Rated Power                      | 20.04W                                                                                                                          |  |  |  |
| No Output Voltage (max.)         | 12.6V                                                                                                                           |  |  |  |
| Line Regulation                  | ± 1%                                                                                                                            |  |  |  |
| Load Regulation                  | ± 2%                                                                                                                            |  |  |  |
| Voltage Tolerance [3]            | ± 5%                                                                                                                            |  |  |  |
| Ripple & Noise (max.) [2]        | 200mV <sub>P-P</sub>                                                                                                            |  |  |  |
| Setup, Rise Time [4]             | 500ms, 20ms / 230VAC at full load                                                                                               |  |  |  |
| Hold up Time (typ.)              | 10ms / 230VAC at full load                                                                                                      |  |  |  |
| INPUT                            |                                                                                                                                 |  |  |  |
| Voltage Range                    | 180 ÷ 264VAC                                                                                                                    |  |  |  |
| Frequency Range                  | 47 ÷ 63Hz                                                                                                                       |  |  |  |
| Power Factor (typ.)              | PF > 0.5 / 230VAC at full load                                                                                                  |  |  |  |
| Efficiency (typ.)                | 85%                                                                                                                             |  |  |  |
| AC current (typ.)                | 0.23A / 230VAC                                                                                                                  |  |  |  |
| Inrush current (max.)            | 50A / 230VAC(25°C)                                                                                                              |  |  |  |
| No Load Power Consumption (max.) | 0.5W                                                                                                                            |  |  |  |
| PROTECTIONS                      |                                                                                                                                 |  |  |  |
| Over Current                     | Range: 110 ÷ 140%                                                                                                               |  |  |  |
|                                  | Type: constant current limiting to 60% rated voltage next hiccup mode. Recovers automatically after fault condition is removed. |  |  |  |
| Short Circuit                    | Type: hiccup mode. Recovers automatically after fault condition is removed.                                                     |  |  |  |
| Over Temperature                 | Range: 110°C ± 10°C                                                                                                             |  |  |  |
|                                  | Type: shut down output voltage. Recovers automatically after fault condition is removed.                                        |  |  |  |

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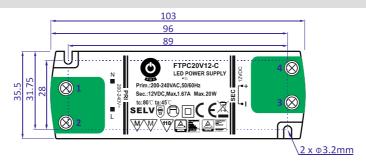
20W LED Switching Power Supply (CV)

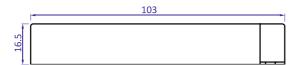


| WORKING ENVIRONMENT              |                                                           |  |  |  |
|----------------------------------|-----------------------------------------------------------|--|--|--|
| Working Temperature              | -20°C ÷ +45°C                                             |  |  |  |
| Working Humidity                 | 45 ÷ 85% RH non-condensing                                |  |  |  |
| Storage Temperature and Humidity | -30°C ÷ +70°C, 10 ÷ 95% RH non-condensing                 |  |  |  |
| SAFETY AND EMC REGULATIONS       |                                                           |  |  |  |
| Safety Standards                 | Compliance to EN61347-1, EN61347-2-13 , EN 62493          |  |  |  |
| Withstand Voltage                | IN/OUT: 3.75kVAC                                          |  |  |  |
| EMC Emission                     | Compliance to EN55015                                     |  |  |  |
| EMC Immunity                     | Compliance to EN61547                                     |  |  |  |
| Harmonic Current                 | Compliance to EN61000-3-3; EN61000-3-2                    |  |  |  |
| OTHERS                           |                                                           |  |  |  |
| Dimensions                       | 103 x 35.5 x 16.5mm (L x W x H)                           |  |  |  |
| Weight and Packing               | 0.06kg; 200pcs./box; box dimensions: 38.5 x 21.6 x 21.5cm |  |  |  |
| EAN Code                         | 519021351121689                                           |  |  |  |

- 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**





| PIN ASSIGNMENT |             |     |                            |  |  |
|----------------|-------------|-----|----------------------------|--|--|
| No.            | Assignment  | No. | Assignment                 |  |  |
| 1              | Input: AC/N | 3   | Output: U <sub>OUT</sub> - |  |  |
| 2              | Input: AC/L | 4   | Output: U <sub>OUT</sub> + |  |  |

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