

FTPC50V-L series

50W LED Power Supply (CV)



■ Features:

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



ELECTRICAL SPECIFICATION

MODEL	FTPC50V12-L			FTPC50V24-L		
OUTPUT						
RATED VOLTAGE	12V			24V		
RATED CURRENT	4.16A			2.08A		
CURRENT RANGE	0 ÷ 4.16A			0 ÷ 2.08A		
RATED POWER	49.92W			49.92W		
No Load OUTPUT VOLTAGE (MAX.)	12.6V			25.2V		
LINE REGULATION	± 1%			± 1%		
LOAD REGULATION	± 1%			± 1%		
VOLTAGE TOLERANCE [3]	± 5%			± 5%		
RIPPLE & NOISE (MAX.) [2]	360mV _{p,p}			720mV _{p,p}		
SETUP TIME [4]	500ms / 230VAC at full load					
INPUT						
VOLTAGE RANGE	200 ÷ 240VAC					
FREQUENCY RANGE	50 / 60Hz					
POWER FACTOR (MIN.)	PF ≥ 0.9 / 230VAC at full load					
THD (MAX)	10%					
EFFICIENCY (MAX.)	88%			89%		
AC CURRENT (TYP.)	< 0.27A / 230VAC					
INRUSH CURRENT (TYP.)	21A / 230VAC; T _{WIDTH} = 750μs					
MAX. No. of PSU ON CIRCUIT BREAKER	B10	B16	C10	C16	D10	D16
	15	24	23	36	30	49
No Load POWER CONSUMPTION (MAX.)	< 0.5W					

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PROTECTIONS

OVER CURRENT	Range: 120% rated output power
	Type: hiccup mode. Recovers automatically after fault condition is removed.
SHORT CIRCUIT	Type: hiccup mode. Recovers automatically after fault condition is removed.
OVER VOLTAGE	Range: 150% rated output voltage.
OVER TEMPERATURE	Range: IC detection (115°)
	Type: shut down output voltage. Re-power on to recovery

WORKING ENVIRONMENT

WORKING TEMPERATURE	-20°C ÷ +45°C
WORKING HUMIDITY	10 ÷ 90% RH

SAFETY AND EMC REGULATIONS

SAFETY STANDARDS	Compliance to EN61347-1, EN61347-2-13
EMC EMISSION	Compliance to EN55015
EMC IMMUNITY	Compliance to EN61547
HARMONIC CURRENT	Compliance to EN61000-3-2 Class C
OTHER REGULATIONS	Compliance to Commission Regulation (EU) 2019/2020

OTHERS

DIMENSIONS	149 x 40.4 x 26.7mm (L x W x H)
LIFETIME	50 000 hours / 230VAC, full load, $t_c < 80^{\circ}\text{C}$
MTBF	200 000 hours / 230VAC, full load, $t_a = 45^{\circ}\text{C}$
WEIGHT AND PACKING	0.15kg; 50pcs./carton; carton dimensions: 31 x 23 x 17 cm

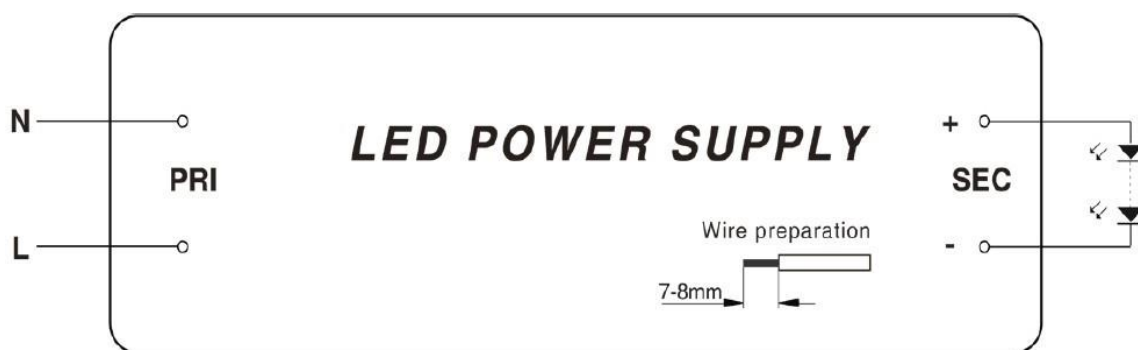
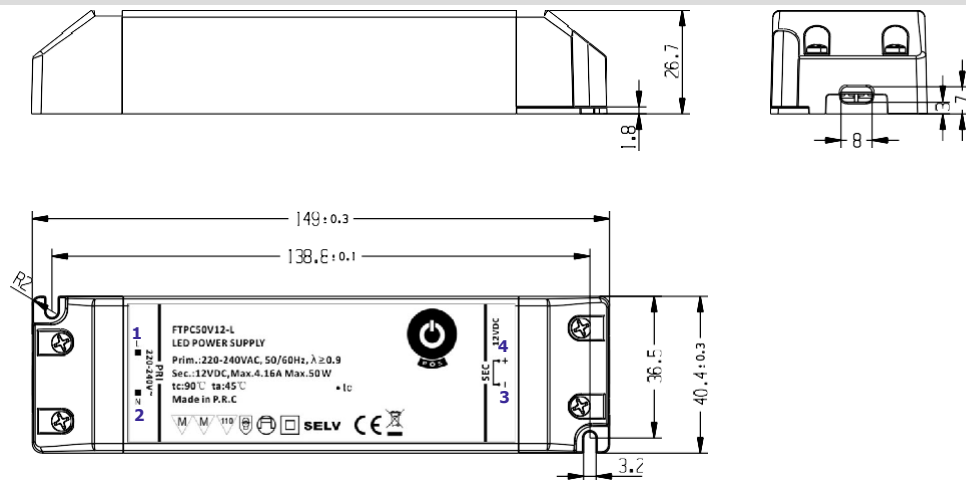
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μF i 47μF parallel capacitor.
3. Tolerance includes set up tolerance, line regulation 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-qualified to comply with EMC Directives.

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MECHANICAL SPECIFICATION



PIN ASSIGNMENT

No.	Assignment	No.	Assignment
1	Input: AC/L	3	Output: U _{OUT} -
2	Input: AC/N	4	Output: U _{OUT} +