

Features

- AC/DC Power Modules for PCB Mounting
- Highest Power Density
- Fully encapsulated Plastic Case
- Universal Input 90-264 VAC, 47 - 440 Hz
- High Efficiency
- EMI meets EN 55022, Class B
- Low Ripple and Noise
- Short Circuit and Overload Protection
- 3 Year Product Warranty



The TMLM Series switching power supplies, offer highest power density in a fully encapsulated module. This feature makes these modules an ideal solution for all space critical applications in commercial and industrial electronic equipment. Full compliance to European low voltage and EMC directive, UL and cUL safety approval qualifies this product for worldwide markets. SMD-technology and a high efficiency guarantees a high reliability of these Power Supplies.

| Models | | | |
|------------|--------------------|----------------|----------------------|
| Order code | Output power, max. | Output voltage | Output current, max. |
| TMLM 10103 | 10 Watt | 3.3 VDC | 2500 mA |
| TMLM 10105 | | 5 VDC | 2000 mA |
| TMLM 10112 | | 12 VDC | 830 mA |
| TMLM 10115 | | 15 VDC | 666 mA |
| TMLM 10124 | | 24 VDC | 420 mA |

Input Specifications

| | |
|-----------------------------|-------------------------------------|
| Input voltage range | 90 – 264 VAC or 120 – 370 VDC |
| Input frequency | 47 – 440 Hz |
| Input current full load | 220 mA @ 115 VAC / 150 mA @ 230 VAC |
| External fuse (recommended) | 1.5 A slow blow type |

Output Specifications

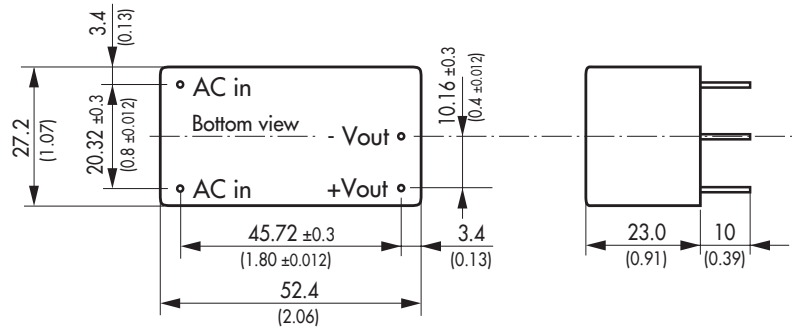
| | | |
|-------------------------------------|---|------------------------------------|
| Voltage set accuracy | ± 2 % | |
| Regulation | – Input variation – Load variation (5– 100%) | 0.3 % max. 0.5 % max. |
| Minimum load | 0 % | |
| Ripple and noise (20 MHz Bandwidth) | – 3.3 & 5 VDC output models: – other models: | < 1.5 % of Vout < 1.0 % of Vout |
| Over voltage protection | Zener diode clamp | |
| Current limitation | > 120 % fold back | |
| Short circuit protection | hiccup mode, indefinite (automatic recovery) | |
| Maximum capacitive load | 10'000 µF | |

General Specifications

| | | |
|--|--|---|
| Temperature ranges | – Operating – Power derating above 50°C – Storage (non operating) | – 25 °C...+71 °C 3.75 %/°C – 40 °C...+85 °C |
| Temperature coefficient | | 0.02 % / °C |
| Efficiency | | 80 % (depending on model) |
| Humidity (non condensing) | | 95 % rel max. |
| Switching frequency | | 125 kHz typ. (Puls width modulation PWM) |
| Hold-up time | | 15 ms min. |
| Isolation voltage | – Input/ Output | 3'000 VAC |
| Reliability /calculated MTBF (MIL-HDBK-217E) | | t.b.a. |
| EMI / RFI conducted | | EN 55022, class B |
| EMC compliance | – Electrostatic discharge ESD – RF field susceptibility – Electrical fast transients / bursts on mainsline | IEC / EN 61000-4-2 4 kV / 8 kV IEC / EN 61000-4-3 3 V/m IEC / EN 61000-4-4 1 kV |
| Safety Class II | | to IEC / EN 60536 |
| Safety standards | | UL 60950, IEC 60950, EN 60950 |
| Safety approval | | cUL / UL File E188913 |
| Case material | | Plastic resin + Fiberglass (UL 94V-0 - rated) |

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Outline Dimensions mm (inches)



Pin diameter \varnothing 1.0 mm

Weight: 30 g (1.1 oz)

() = Inches

Tolerances = 0.5mm (0.02)

Specifications can be changed without notice