

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

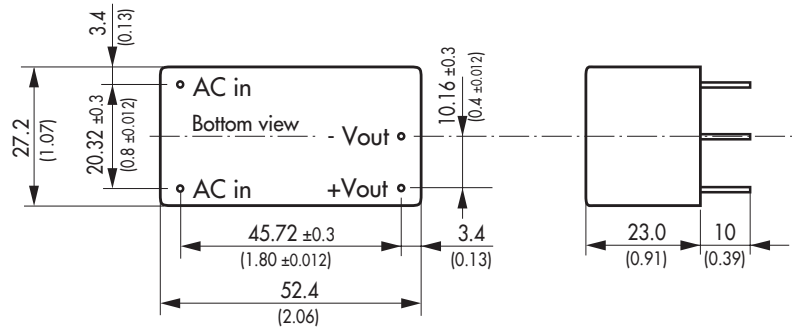
Voltage set accuracy	± 2 %	
Regulation	– Input variation – Load variation (5– 100%)	0.3 % max. 0.5 % max.
Minimum load	0 %	
Ripple and noise (20 MHz Bandwidth)	– 3.3 & 5 VDC output models: – other models:	< 1.5 % of Vout < 1.0 % of Vout
Over voltage protection	Zener diode clamp	
Current limitation	> 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

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