

AC-DC Power Modules



TMLM Series, 4 to 20 Watt

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Features

- Ultra compact 20W in 50.8 x 25.4mm package
- Fully encapsulated modules for PCB mount
- Universal input 85-264Vac, 47-440Hz
- EMI meets EN 55022 class B
- Safety class II product
- Low ripple and noise
- Short circuit and overload protection



Electrical Specification

Input voltage range	85-264Vac, 47-440Hz / 120-370VDC (TMLM04 & TMLM05 only)
EMI suppression	EN55011 class B, EN55022 class B, FCC level B
EMC immunity	EN61000-6-1
Over Voltage Protection	120% of Vout typical
Output current limitation	120-180% foldback, automatic recovery
Short Circuit Protection	Continuous, automatic recovery
Efficiency	72% typical
Operating Temperature Range	-25°C to +60°C (derate as follows) TMLM 04 at 2.5%/°C above 50°C TMLM 05 at 3.75%/°C above 50°C TMLM 10 at 3.75%/°C above 50°C TMLM 20 at 2.5%/°C above 40°C
Safety Approvals	cUL/UL 60950-1, EN 60950-1,
Degree of protection	safety class II
Casing	plastic (UL94V-0 rated)

Output Voltage and Current Ratings

MODEL	OUTPUT P	OUTPUT 1	OUTPUT 2	RIPPLE & NOISE	LINE REG.	LOAD REG.
TMLM 04103	4W	3.3VDC / 1200mA		100mV pk-pk max.	0.3%	1.0%
TMLM 04105	4W	5.0VDC / 800mA		100mV pk-pk max.	0.3%	1.0%
TMLM 04109	4W	9.0VDC / 444mA		100mV pk-pk max.	0.3%	1.0%
TMLM 04112	4W	12VDC / 333mA		150mV pk-pk max.	0.3%	0.5%
TMLM 04115	4W	15VDC / 267mA		150mV pk-pk max.	0.3%	0.5%
TMLM 04124	4W	24VDC / 167mA		220mV pk-pk max.	0.3%	0.5%
TMLM 04253	3.5W	+5VDC / 600mA	+3.3VDC / 150mA	100mV pk-pk max.	0.3%	0.5%
TMLM 04225	3.6W	+12VDC / 250mA	+5VDC / 120mA	150mV pk-pk max.	0.3%	0.5%
TMLM 05103	4.1W	3.3VDC / 1250mA		100mV pk-pk max.	0.3%	0.5%
TMLM 05105	5W	5.0VDC / 1000mA		100mV pk-pk max.	0.3%	0.5%
TMLM 05112	5W	12VDC / 420mA		150mV pk-pk max.	0.3%	0.5%
TMLM 05115	5W	15VDC / 330mA		150mV pk-pk max.	0.3%	0.5%
TMLM 05124	5.5W	24VDC / 230mA		220mV pk-pk max.	0.3%	0.5%
TMLM 10103	8.2W	3.3VDC / 2500mA		100mV pk-pk max.	0.3%	0.5%
TMLM 10105	10W	5VDC / 2000mA		100mV pk-pk max.	0.3%	0.5%
TMLM 10112	10W	12VDC / 830mA		150mV pk-pk max.	0.3%	0.5%
TMLM 10115	10W	15VDC / 665mA		150mV pk-pk max.	0.3%	0.5%
TMLM 10124	10W	24VDC / 420mA		220mV pk-pk max.	0.3%	0.5%
TMLM 20103	12W	3.3VDC / 3600mA		100mV pk-pk max.	0.5%	1.0%
TMLM 20105	18W	5VDC / 3600mA		100mV pk-pk max.	0.5%	1.0%
TMLM 20112	20W	12VDC / 1670mA		150mV pk-pk max.	0.5%	1.0%
TMLM 20115	20W	15VDC / 1330mA		150mV pk-pk max.	0.5%	1.0%
TMLM 20124	20W	24VDC / 830mA		220mV pk-pk max.	0.5%	1.0%

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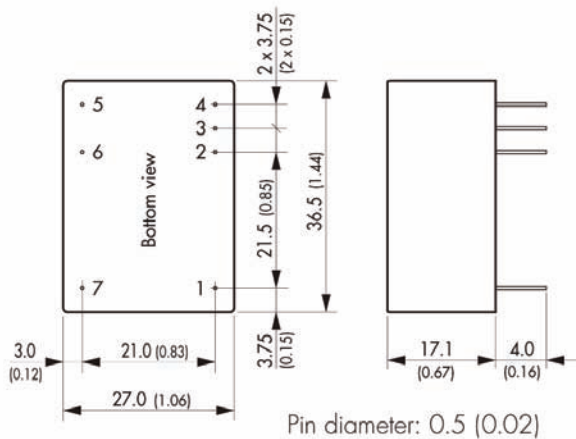
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Mechanical and Connection Details

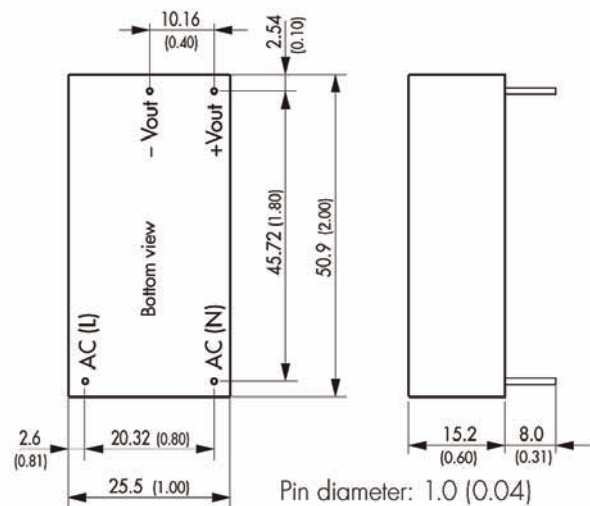
Dimensions in mm (inches)
Tolerances: ± 0.5 (± 0.02)
Pin Pitch Tolerance ± 0.3 (± 0.012)

Pin	Single Output	Dual Output
1	No conn.	No conn.
2	+Vout	Vout 1
3	-Vout	Common
4	No conn.	Vout 2
5	AC (L)	AC (L)
6	AC (N)	AC (N)
7	No conn.	No conn.

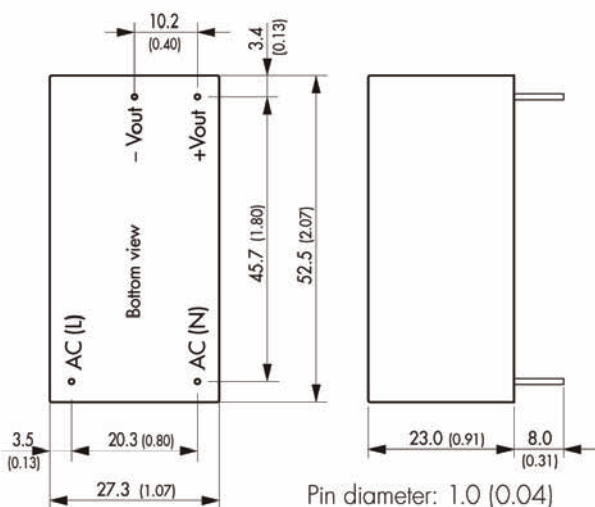
TMLM04 Models



TMLM05 Models



TMLM10 Models



TMLM20 Models

