

Features

- ◆ Ultra compact, fully encapsulated plastic case
- ◆ 2 package styles:
 - with screw terminal block for chassis mount
 - with solder pins for PCB mount
- ◆ DIN-rail mounting adaptor (option)
- ◆ Universal Input 85-264VAC, 50/60Hz
- ◆ Safety Class II product
- ◆ Approved to EN/UL 60950-1 and EN/UL 60601-1 medical safety standard
- ◆ EMI according to EN 55022, class B and FCC level B
- ◆ Short circuit and overload protection
- ◆ Lead-free design – RoHS compliant
- ◆ 3-year product warranty



The TMT series power Modules are AC/DC power supplies in an ultra compact fully encapsulated module. They feature easy installation with screw terminals and optional DIN-rail mounting adaptor or direct PCB mounting with solder pins. Compliance with international safety and EMC standards qualify these products for worldwide markets. For application in medical instrumentation, the modules are also approved to the EN/UL 60601-1 safety standard.

High reliability is provided by use of industrial quality grade components and conservative temperature specifications. These AC/DC modules offer an interesting power supply solution for many space critical applications in commercial and industrial electronic equipment.

Models

Order Code		Output Power max.	Output 1	Output 2
PCB-Mount with Solder Pins	Chassis Mount with Screw Terminal Block			
TMT 15105 TMT 15112 TMT 15115 TMT 15124 TMT 15212 TMT 15215	TMT 15105C TMT 15112C TMT 15115C TMT 15124C TMT 15212C TMT 15215C	15 Watt	5 VDC/3000 mA 12 VDC/1250 mA 15 VDC/1000 mA 24 VDC/625 mA +12 VDC/625 mA +15 VDC/500 mA	-12 VDC/625 mA -15 VDC/500 mA
TMT 30105 TMT 30112 TMT 30115 TMT 30124 TMT 30212 TMT 30215	TMT 30105C TMT 30112C TMT 30115C TMT 30124C TMT 30212C TMT 30215C	30 Watt	5 VDC/6000 mA 12 VDC/2500 mA 15 VDC/2000 mA 24 VDC/1250 mA +12 VDC/1250 mA +15 VDC/1000 mA	-12 VDC/1250 mA -15 VDC/1000 mA
TMT 50105 TMT 50112 TMT 50115 TMT 50124 TMT 50148	TMT 50105C TMT 50112C TMT 50115C TMT 50124C TMT 50148C	50 Watt	5 VDC/9000 mA 12 VDC/4200 mA 15 VDC/3400 mA 24 VDC/2100 mA 48 VDC/1050 mA	

Input Specifications

Input voltage range	85 – 264 VAC 120 – 370 VDC
Input frequency	47 – 63 Hz
Input current full load	115 VAC/ 230 VAC 15 watt models: 280 mA/ 180 mA typ. 30 watt models: 570 mA/ 360 mA typ. 50 watt models: 870 mA/ 540 mA typ.
Inrush current	115 VAC/ 230 VAC 24 A/ 36 A
External input fuse (recommended)	15 watt models: 1.0 A slow blow 30 watt models: 2.0 A slow blow 50 watt models: 3.15 A slow blow

Output Specifications

Voltage set accuracy	± 2 %
Regulation	– Input variation – Load variation single output models (0–100%): 50 mV max. dual output models (min. load 10%): 500 mV max.
Ripple and noise (20MHz bandwidth)	150 mVpk-pk max.
Overload protection by current limit	>105 % Inom. automatic recovery (long term short circuit operation may cause damage to the unit)
Capacitive load	10'000 µF max.
Rise time	200 ms typ.
Hold-up time	115 VAC/ 230 VAC 15 watt models: 25 ms/ 130 ms min. other models: 17 ms/ 93 ms min.

General Specifications

Temperature ranges	– Operating – Storage (non operating)	–25 °C to +70 °C max. –25 °C to +85 °C
Derating		2.5 %/K above +50 °C
Temperature coefficient		0.02 %/K
Humidity (non condensing)		85 % rel. H max.
Efficiency		83 % typ.
Isolation voltage	– Input/Output	4'000 VAC
Isolation resistance	– Input/Output	100 MOhm (500 VDC)
Electromagnetic compatibility (EMC), Emissions		EN 55022, level B, FCC Part 15 level B UL/EN 60601-1-2 (for medical equipment)
Electromagnetic compatibility (EMC), Immunity	– Electrostatic discharge ESD – RF field susceptibility – Electrical fast transients / bursts on mains line – Surge – Voltage sags	IEC/EN 60601-1-2 IEC/EN 61000-4-2, 8 kV/8 kV IEC/EN 61000-4-3, 3 V/m IEC/EN 61000-4-4, 2 kV IEC/EN 61000-4-5, 1 kV/2 kV IEC/EN 61000-4-11
Safety Class II		to IEC/EN 60536

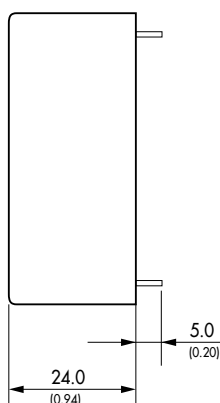
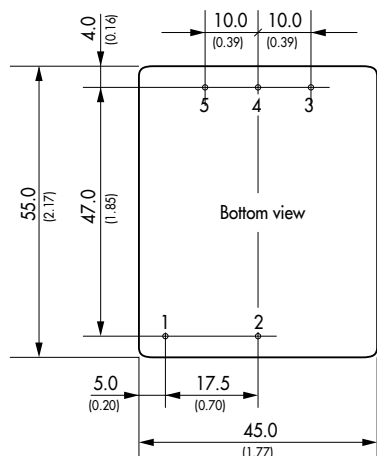
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

General Specifications

Safety standards	– Information technology equipment	IEC/EN 60950-1, UL 60950-1, CSA-C22.2 No. 60950-1-03
	– Medical equipment	IEC/EN 60601-1 ed.2, UL 60601-1
Safety approvals (TMT 50 models pending)	– CB certificate for IEC 60950-1	TMT 15 models: www.tracopower.com/products/tmt15_CB60950.pdf
	– CB certificate for IEC 60601-1	TMT 30 models: www.tracopower.com/products/tmt30_CB60950.pdf
	– UL approvals	TMT 15 models: www.tracopower.com/products/tmt15_CB60601.pdf
		TMT 30 models: www.tracopower.com/products/tmt30_CB60601.pdf
		UL/cUL 60950-1 and UL/cUL 60601 www.ul.com -> certifications -> File: E141988
Environment	– Vibration	3 axes, sine sweep, 0.5 mm, 10–55Hz, 1 oct./min, 30 min.
	– Shock	20 g (3 directions each 3 times)
Soldering temperature	265 °C max/10 sec	

Outline Dimensions

TMT 15 models with solder pins



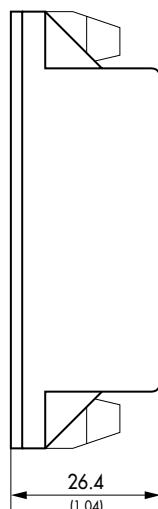
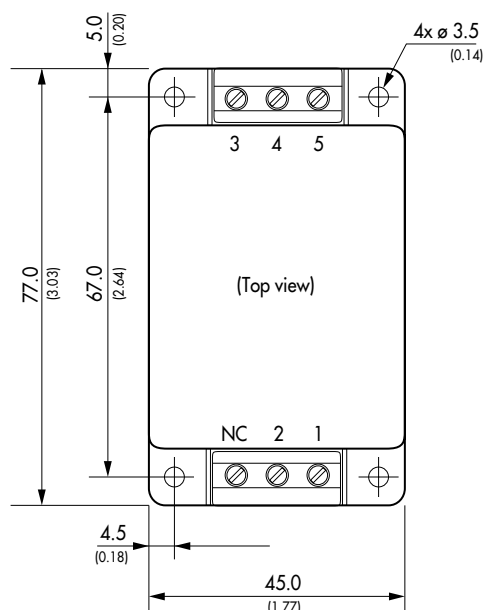
Pin diameter: 1.0 (0.04)

Weight: 75 g (2.6 oz)

Connection

Pin	Single	Dual
1	AC in	AC in
2	AC in	AC in
3	–V out	–V out
4	No pinn	Common
5	+V out	+V out

TMT 15C models with screw terminal block

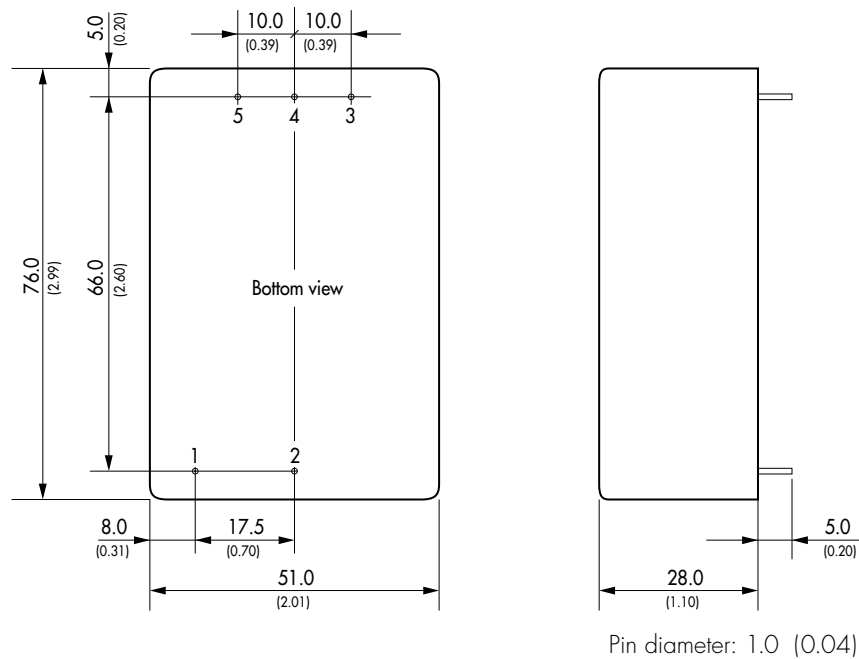


Weight: 90 g (3.2oz)

Dimensions in [mm], () = Inches
Tolerances = 0.5 (0.02)

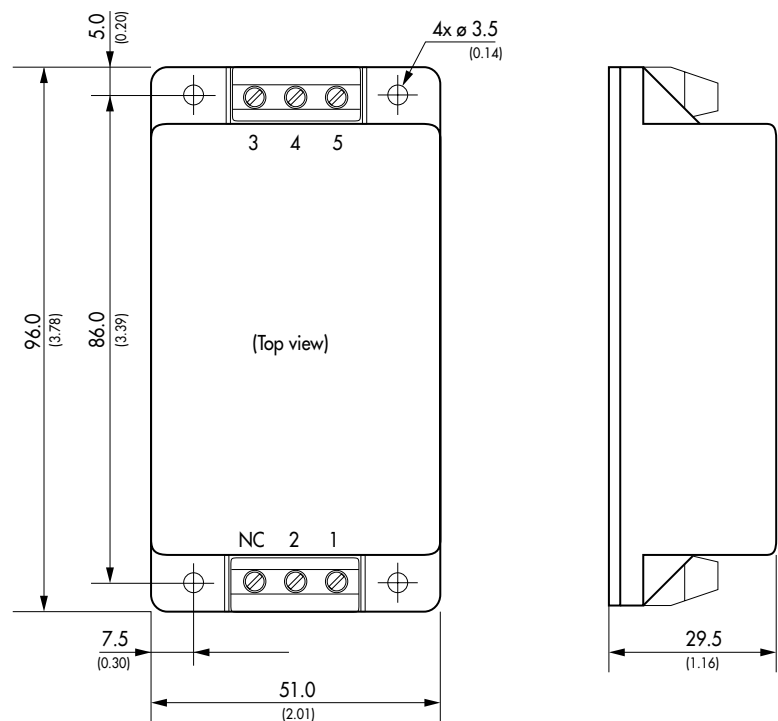
Outline Dimensions

TMT 30 models with solder pins



Weight: 165 g (5.8 oz)

TMT 30C models with screw terminal block



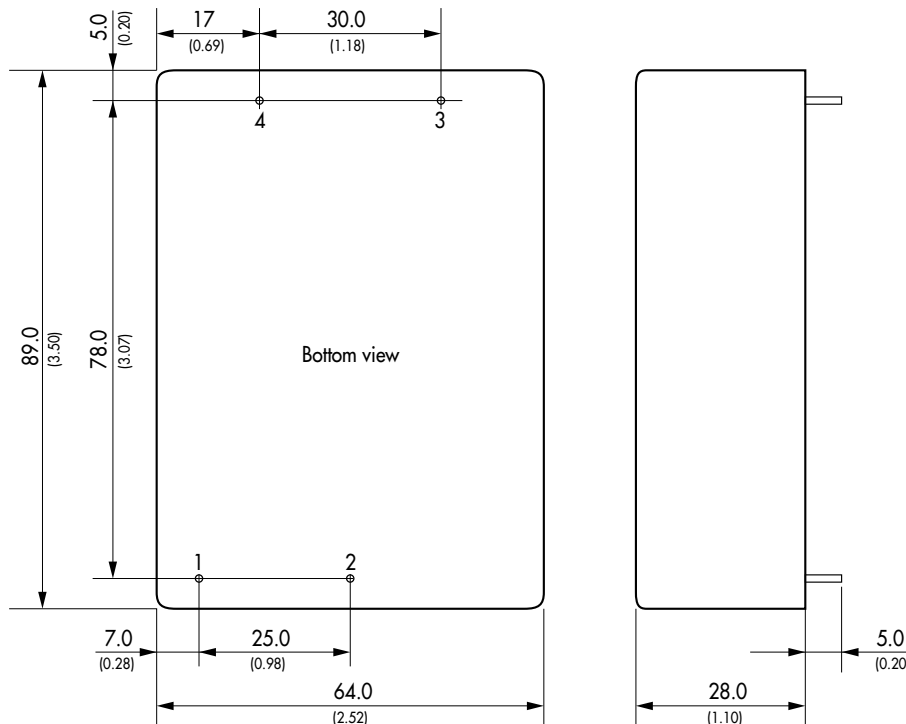
Weight: 180 g (6.3 oz)

Connection		
Pin	Single	Dual
1	AC in	AC in
2	AC in	AC in
3	-V out	-V out
4	No pin	Common
5	+V out	+V out

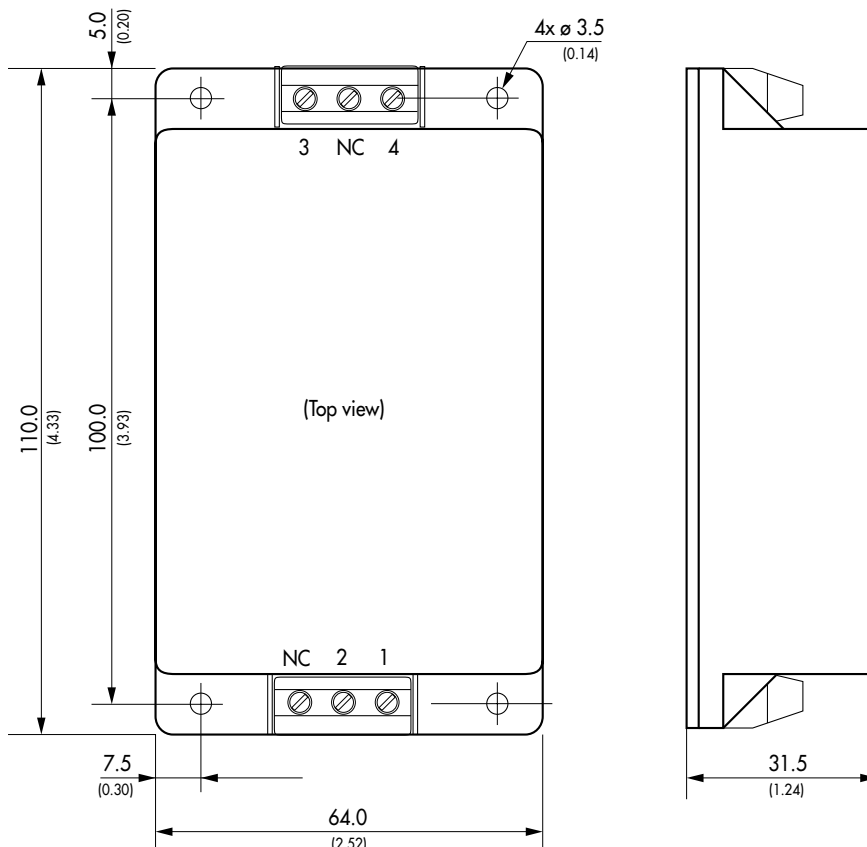
Dimensions in [mm], () = Inches
Tolerances = 0.5 (0.02)

Outline Dimensions

TMT 50 models with solder pins



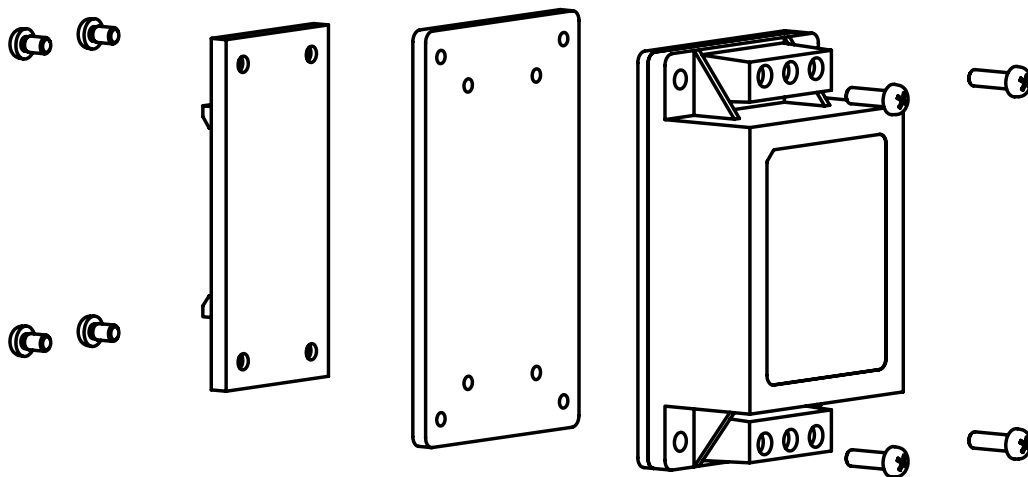
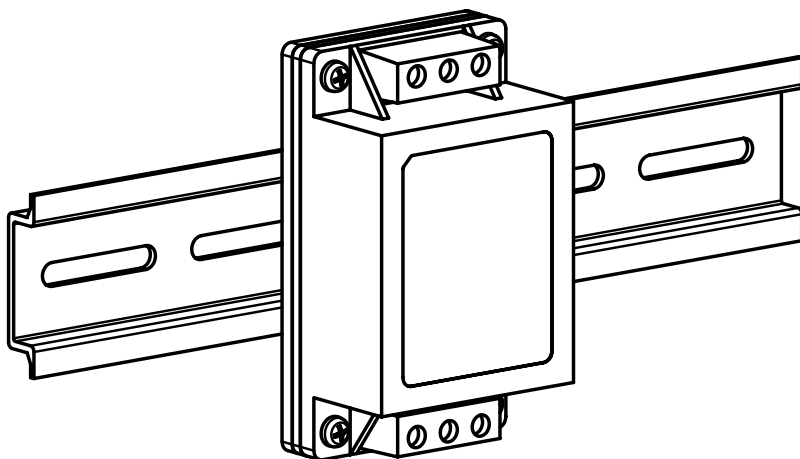
TMT 50C models with screw terminal block



Connection	
Pin	Single
1	AC in
2	AC in
3	-V out
4	+V out

DIN-Rail Mounting Kit

Adapter for mounting on DIN-rails as per EN 50022-35 (snap-on mounting)



DIN-Rail Mounting Kit	
Order Code	For Models
TMT-MK1	TMT 15xxxC
TMT-MK2	TMT 30xxxC
TMT-MK3	TMT 50xxxC

Kit contains interface plate, DIN-rail clip and necessary screws.

Specifications can be changed any time without notice.