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TRACO POWER

AC/DC Power Modules

TMT Series, 10 to 50 Watt

CB Scheme

UL 60950-1
UL 60601-1

UL 508

Features

- Ultra compact, fully encapsulated plastic case
- Single-, dual- and triple output models
- 2 package styles:
  – with screw terminal block for chassis mount
  – with solder pins for PCB mount
- DIN-rail mount adaptor (option)
- Universal Input 85-264VAC, 50/60Hz
- Protection class II
- Approved to IEC/UL 60950-1 safety standard
- UL 508 listed (chassis mount version)
- 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 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 standards including UL 508 listing qualify these products for worldwide markets.
These AC/DC modules offer an interesting power supply solution for many space critical applications in commercial and industrial electronic equipment.
The series is approved to medical standard IEC60601-1 ed.3.0. A re-approval to IEC60601-1 ed.3.1 is not scheduled.

Single Output Models

Order Code		Output Power	Output 1
PCB-Mount with Solder Pins	Chassis Mount with Screw Terminal Block	max.	
TMT 10105		10 Watt	5 VDC/2000 mA
TMT 10112			12 VDC/840 mA
TMT 10115			15 VDC/670 mA
TMT 10124			24 VDC/420 mA
TMT 15105	TMT 15105C	15 Watt	5 VDC/3000 mA
TMT 15112	TMT 15112C		12 VDC/1250 mA
TMT 15115	TMT 15115C		15 VDC/1000 mA
TMT 15124	TMT 15124C		24 VDC/625 mA
TMT 30105	TMT 30105C	30 Watt	5 VDC/6000 mA
TMT 30112	TMT 30112C		12 VDC/2500 mA
TMT 30115	TMT 30115C		15 VDC/2000 mA
TMT 30124	TMT 30124C		24 VDC/1250 mA
TMT 50105	TMT 50105C	50 Watt	5 VDC/9000 mA
TMT 50112	TMT 50112C		12 VDC/4200 mA
TMT 50115	TMT 50115C		15 VDC/3400 mA
TMT 50124	TMT 50124C		24 VDC/2300 mA
TMT 50148	TMT 50148C		48 VDC/1150 mA

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AC/DC Power Modules

TMT Series **10 to 50 Watt**

Dual- and Triple Output Models

Order Code: PCB-Mount with Solder Pins	Order Code: Chassis Mount with Screw Terminal Block	Output Power max.	Output 1	Output 2	Output 3
TMT 15212	TMT 15212C	15 Watt	+12 VDC/625 mA	–12 VDC/625 mA	
TMT 15215	TMT 15215C		+15 VDC/500 mA	–15 VDC/500 mA	
TMT 30212	TMT 30212C	30 Watt	+12 VDC/1250 mA	–12 VDC/1250 mA	
TMT 30215	TMT 30215C		+15 VDC/1000 mA	–15 VDC/1000 mA	
TMT 30252*	TMT 30252C*		+5 VDC/3000 mA[1]	+12 VDC/1200 mA[4]	
TMT 30522*	TMT 30522C*		+5 VDC/3000 mA[1]	+12 VDC/1000 mA[5]	–12 VDC/250 mA[7]
TMT 30515*	TMT 30515C*		+5 VDC/3000 mA[1]	+15 VDC/500 mA	–15 VDC/500 mA
TMT 30503*			+3.3 VDC/6000 mA[2]	+5 VDC/1500 mA[5]	+12 VDC/250 mA[7]
TMT 30505*			+5 VDC/5000 mA[3]	+3.3 VDC/1000 mA[6]	+12 VDC/250 mA[7]

* EOL announcement May 2016 / April 2022
www.tracopower.com/overview/tmt
www.tracopower.com/overview/tmt-c

[1] 4500 mA
[2] 7500 mA
[3] 6000 mA
[4] 1800 mA
[5] 2000 mA
[6] 1500 mA
[7] 500 mA

Peak current <30 sec., 10 % duty cycle max, total load not to exceed 30 Watt.

Input Specifications

Input voltage	– nominal	115 / 230 VAC
	– range	85 – 264 VAC 85 – 370 VDC below 110 VDC: 1.2%/V output power derating
Input frequency		47 – 63 Hz
Input current full load		115 VAC / 230 VAC
	10 watt models:	210 mA / 140 mA typ
	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 required (recommended values)	10–15 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	20 mV max.
	– Load variation	
	single output models (0–100%):	50 mV max.
	dual and triple output models (min. load 10%):	500 mV max.
Ripple and noise (20MHz bandwidth)		150 mVpk-pk max.
Overload protection by current limit		>105 % Inom (long term overload condition may cause damage)
Capacitive load		10'000 µF max.
Rise time		200 ms typ.
Hold-up time		115 VAC / 230 VAC
	15/50 watt models:	25 ms / 130 ms min.
	other models:	17 ms / 93 ms min.

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General Specifications

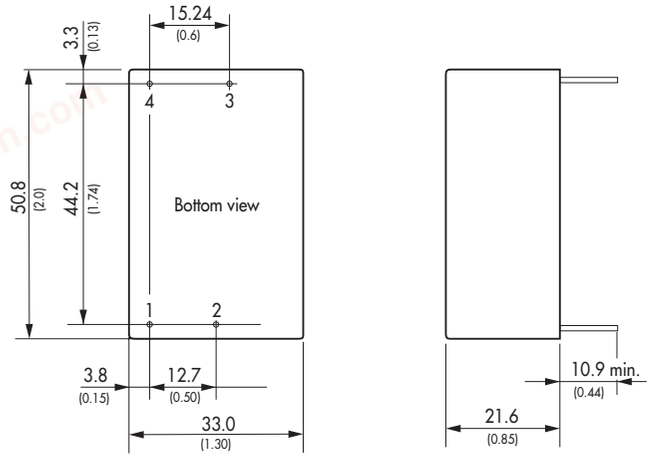
Temperature ranges	– Operating – Storage (non operating)	–25°C to +50°C max. –25°C to +85°C
Derating		5 %/K above +40°C
Temperature coefficient		0.02 %/K
Humidity (non condensing)		85 % rel. H max.
Efficiency		83 % typ.
Switching frequency		100 kHz typ. (fixed)
Isolation voltage	– Input/Output	4'000 VAC
Isolation resistance	– Input/Output	100 MOhm (500 VDC)
Isolation capacitance	– Input/Output	4'700 pF
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		IEC/EN 60601-1-2
	– Electrostatic discharge ESD	IEC/EN 61000-4-2, 8 kV/8 kV
	– RF field susceptibility	IEC/EN 61000-4-3, 3 V/m
	– Electrical fast transients / bursts on mains line	IEC/EN 61000-4-4, 2 kV
	– Surge	IEC/EN 61000-4-5, 1 kV
	– Immunity to conducted RF disturbances	IEC/EN 61000-4-6, 10 V/m
	– Power frequency field immunity	IEC/EN 61000-4-8, 3 A/m
	– Voltage sags	IEC/EN 61000-4-11
Protection class		class II (in closed cabinets)
Safety standards	– Information technology equipment TMT 10 & TMT 50 & TMT 30(C) models:	IEC/EN 60950-1, UL 60950-1, IEC/EN 62368-1, UL 62368-1 CSA-C22.2 No. 60950-1-03
	– Industrial control equipment	UL/cUL 508 (chassis mount version only)
	– Medical equipment*	IEC/EN 60601-1, ed.3.0 (for 2 x MOOP), UL 60601-1 no re-approval according latest medical standards scheduled!
Safety approvals	– CB certificates	www.tracopower.com/overview/tmt
	– UL approvals for UL 60950-1 and UL 60601	www.ul.com -> certifications -> File: e188913
	– UL approval for UL 508	www.ul.com -> certifications -> File: e322109
Reliability, calculated MTBF, at +25°C acc. to IEC 61709		>1.8 Mio h.
Environment	– Vibration	3 axes, sine sweep, 0.5 mm, 10 – 55Hz, 1 oct. / min, 30 min.
	– Shock	20 g (3 directions each 3 times)
casing		plastic with silicone rubber compound (UL 94V-0 rated)
Environmental compliance	– Reach	www.tracopower.com/overview/tmt
	– RoHS	RoHS directive 2011/65/EU
Soldering temperature		265°C max. / 10 sec.

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

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Outline Dimensions

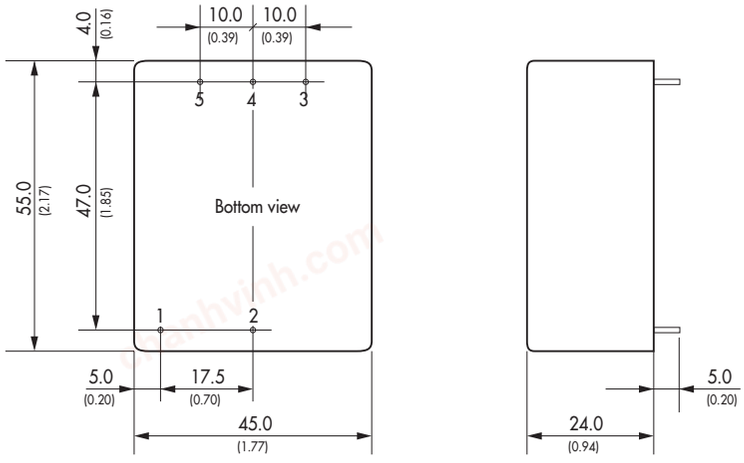
TMT 10 models



Connection	
Pin	
1	AC in
2	AC in
3	–V out
4	+V out

Weight: 52 g (1.8 oz)

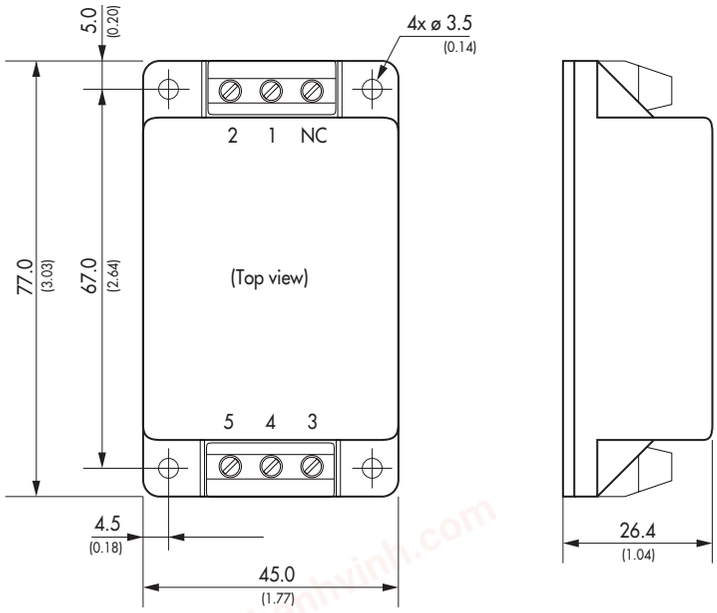
TMT 15 models with solder pins



Pin diameter: 1.0 (0.04)

Weight: 75 g (2.6 oz)

TMT 15C models with screw terminal block



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

NC = Not connected

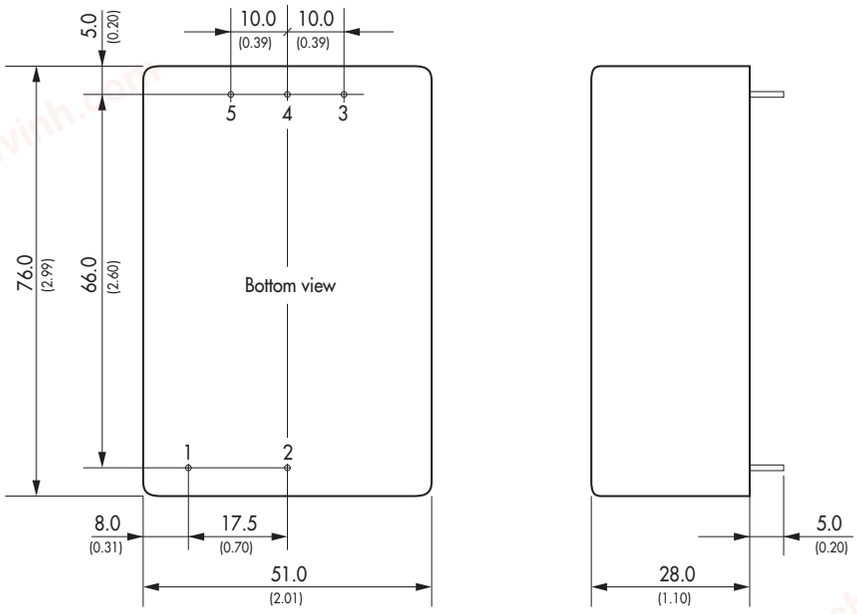
Weight: 90 g (3.2oz)

Dimensions in [mm], ( ) = Inches
Case tolerances: ±1.0 (±0.0.4)
Pin pich tolerance: ±0.5 (±0.02)
Mounting hole tolerance: ±0.5 (±0.02)

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Outline Dimensions

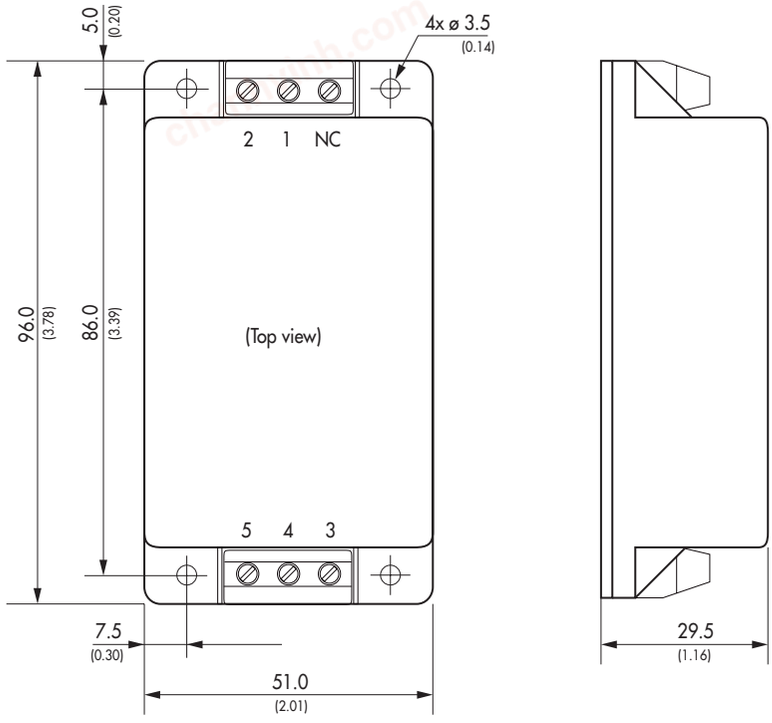
TMT 30 single output models and TMT 30212 & TMT 30215 (solder pins)



Pin diameter: 1.0 (0.04)

Weight: 165 g (5.8 oz)

TMT 30C single output models and TMT 30212C & TMT 30215C (screw terminal block)



Connection		
Pin	**Single**	**Dual**
1	AC in	AC in
2	AC in	AC in
3	–V out	–V out
4	No pin/NC	Common
5	+V out	+V out

NC = Not connected

Weight: 180 g (6.3 oz)

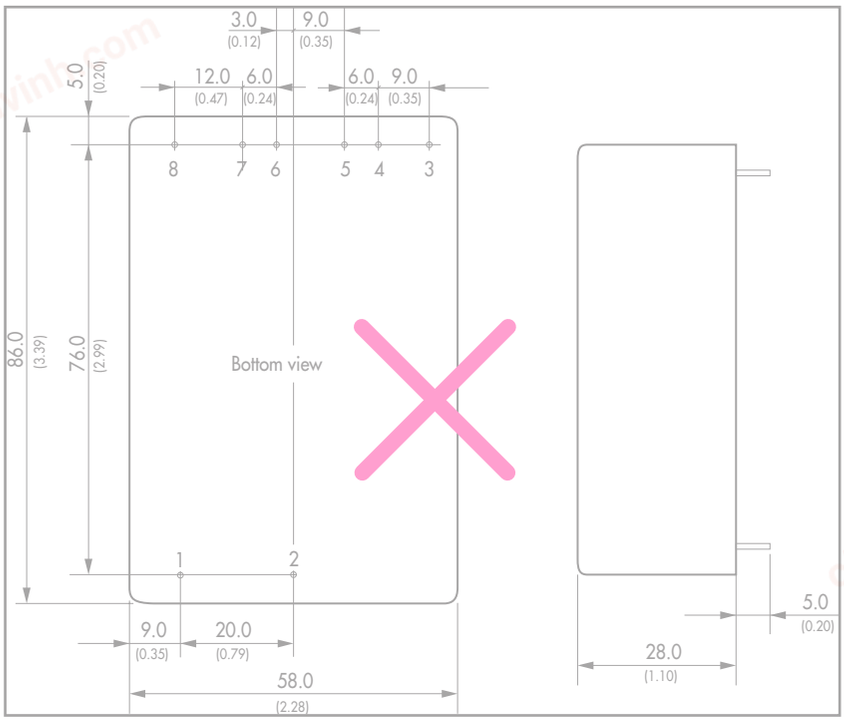
Dimensions in [mm], ( ) = Inches
Case tolerances: ±1.0 (±0.0.4)
Pin pich tolerance: ±0.5 (±0.02)
Mounting hole tolerance: ±0.5 (±0.02)

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Outline Dimensions

TMT 30 triple output models and TMT 30252 (solder pins)

EOL announcemente Apirl 2022 www.tracopower.com/overview/tmt



Weight: 200 g (7.1 oz)

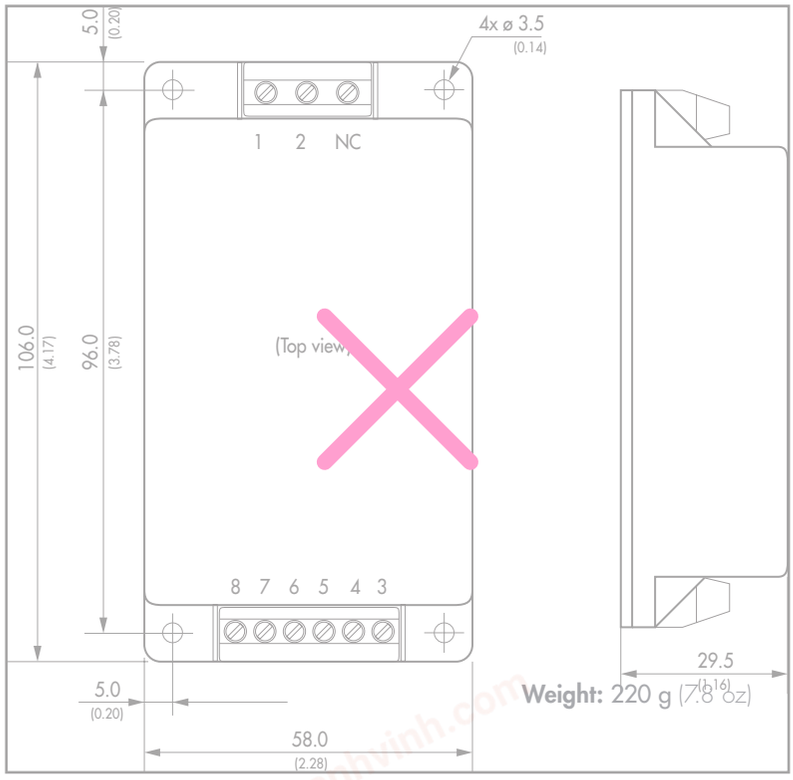
Pin diameter: 1.0 (0.04)

Connection		
Pin	**Dual**	**Triple**
1	AC in	AC in
2	AC in	AC in
3	No pin/NC	–V out 3
4	No pin/NC	+V out 3
5	–V out 2	–V out 2
6	+V out 2	+V out 2
7	–V out 1	–V out 1
8	+V out 1	+V out 1

NC = Not connected

TMT 30C triple output models and TMT 30252C (screw terminal block)

EOL announcement May 2016 www.tracopower.com/overview/tmt-c



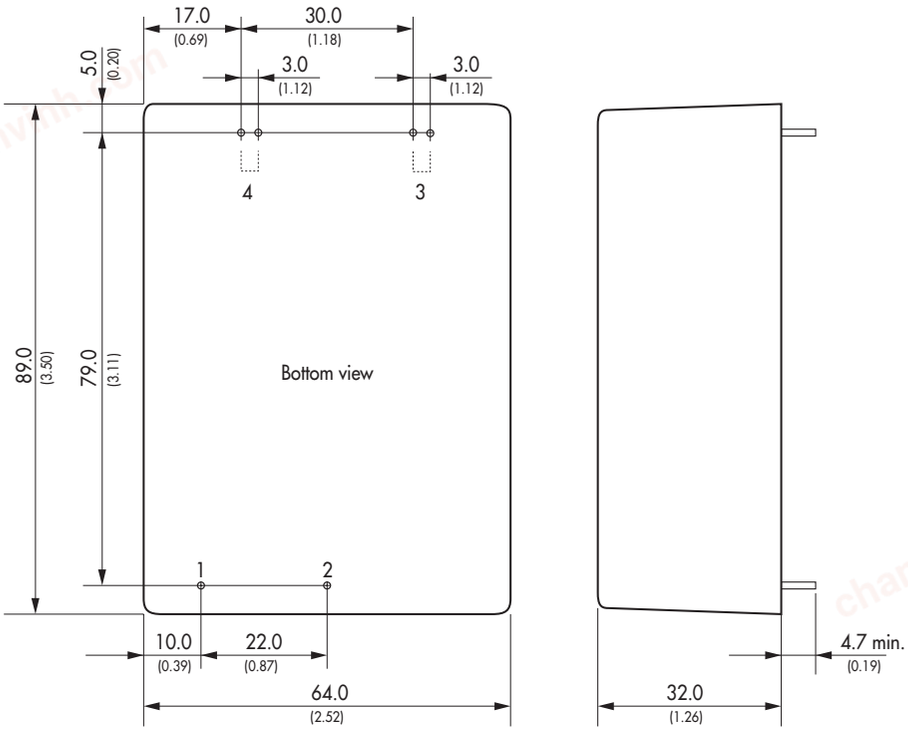
Weight: 220 g (7.8 oz)

Dimensions in [mm], ( ) = Inches
Casing tolerances: ±1.0 (±0.0.4)
Pin pich tolerance: ±0.5 (±0.02)
Mounting hole tolerance: ±0.5 (±0.02)

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Outline Dimensions

TMT 50 models with solder pins

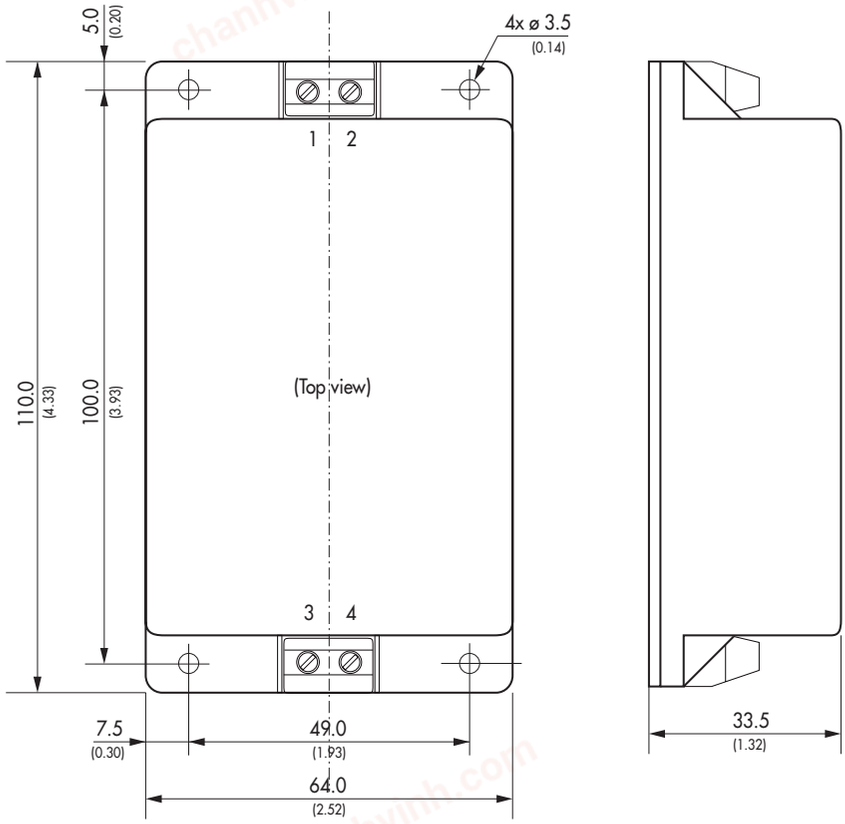


Weight: 245 g (8.6 oz)

Pin diameter: 1.0 (0.04)

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

TMT 50C models with screw terminal block



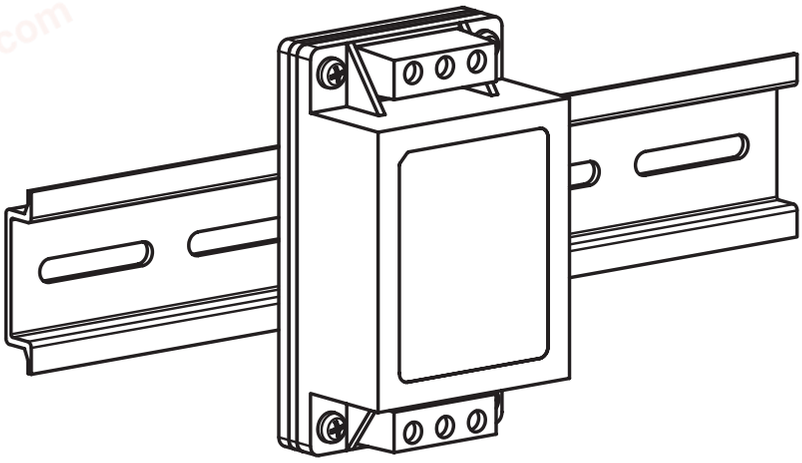
Weight: 295 g (10.4 oz)

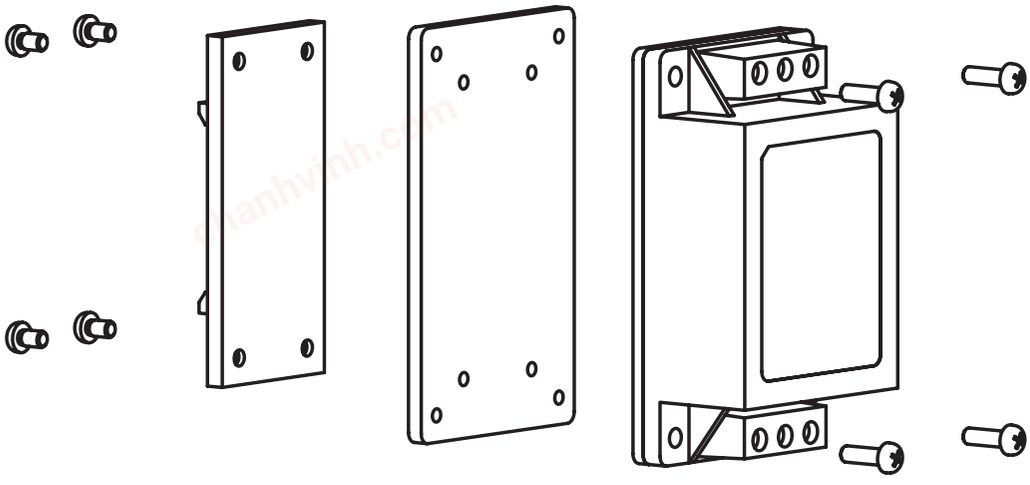
Dimensions in [mm], ( ) = Inches
Case tolerances: ±1.0 (±0.04)
Pin pich tolerance: ±0.5 (±0.02)
Mounting hole tolerance: ±0.5 (±0.02)

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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 single & ±12/±15VDC
TMT-MK3	~~For triple and dual asymetric output~~ -EOL
TMT-MK5	TMT 50xxxC

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

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