

Input Specifications

Input Current	- At no load	5 Vin models: 30 mA typ. 12 Vin models: 12 mA typ. 15 Vin models: 11 mA typ. 24 Vin models: 7 mA typ.
	- At full load	5 Vin models: 270 mA typ. 12 Vin models: 110 mA typ. 15 Vin models: 90 mA typ. 24 Vin models: 55 mA typ.
Surge Voltage		5 Vin models: 9 VDC max. (1 s max.) 12 Vin models: 18 VDC max. (1 s max.) 15 Vin models: 18 VDC max. (1 s max.) 24 Vin models: 30 VDC max. (1 s max.)
Recommended Input Fuse		(The need of an external fuse has to be assessed in the final application.)
Input Filter		Internal Capacitor

Output Specifications

Voltage Set Accuracy		±3% max.
Regulation	- Input Variation (Vmin - Vmax)	single output models: 1.5% max. dual output models: 1.5% max.
	- Load Variation (20 - 100%)	single output models: 10% max. dual output models: 10% max. (Output 1) 10% max. (Output 2)
	- Voltage Balance (symmetrical load)	dual output models: 1% max.
Ripple and Noise	- 20 MHz Bandwidth	50 mVp-p typ. 75 mVp-p max.
Capacitive Load	- single output	5 Vout models: 220 µF max. 12 Vout models: 220 µF max. 15 Vout models: 220 µF max.
	- dual output	5 / -5 Vout models: 100 / 100 µF max. 12 / -12 Vout models: 100 / 100 µF max. 15 / -15 Vout models: 100 / 100 µF max.
Minimum Load		Not required
Temperature Coefficient		±0.02 %/K max.
Short Circuit Protection		Limited 0.5 s max., Automatic recovery

Safety Specifications

Safety Standards	- IT / Multimedia Equipment	Designed for EN 62368-1 (no certification)
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General Specifications

Relative Humidity		95% max. (non condensing)
Temperature Ranges	- Operating Temperature	-40°C to +85°C
	- Case Temperature	+105°C max.
	- Storage Temperature	-50°C to +125°C
Power Derating	- High Temperature	4 %/K above 75°C (5 & ±5 Vout models) 4 %/K above 80°C (other models)
Cooling System		Natural convection (20 LFM)
Switching Frequency		70 - 120 kHz (PFM)
		100 kHz typ. (PFM)
Insulation System		Functional Insulation
Isolation Test Voltage	- Input to Output, 60 s	1'000 VDC
Isolation Resistance	- Input to Output, 500 VDC	1'000 MΩ min.

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

Isolation Capacitance	- Input to Output, 100 kHz, 1 V	60 pF typ. 100 pF max.
Reliability	- Calculated MTBF	2'000'000 h (MIL-HDBK-217F, ground benign)
Washing Process	See Cleaning Guideline:	Allowed (hermetical product) www.tracopower.com/info/cleaning.pdf
Housing Material		Non-conductive Plastic (UL 94 V-0 rated)
Potting Material		Epoxy (UL 94 V-0 rated)
Pin Material		Nickel-Iron (Alloy 42)
Pin Foundation Plating		Nickel (1 µm min.)
Pin Surface Plating		Tin (3 - 5 µm), matte
Housing Type		Plastic Case
Mounting Type		PCB Mount
Connection Type		THD (Through-Hole Device)
Footprint Type		SIP7
Soldering Profile		Wave Soldering 260°C / 10 s max.
Weight	5 Vin models: 12 Vin models: 15 Vin models: 24 Vin models:	2.2 g 2.2 g 2.6 g 2.6 g
Environmental Compliance	- REACH Declaration - RoHS Declaration	www.tracopower.com/info/reach-declaration.pdf REACH SVHC list compliant REACH Annex XVII compliant www.tracopower.com/info/rohs-declaration.pdf Exemptions: No Exemptions

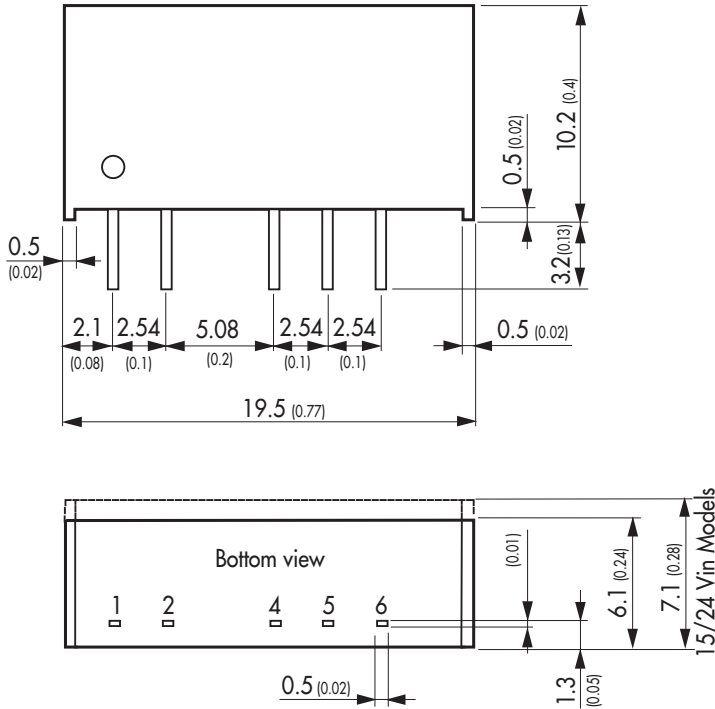
Supporting Documents

Overview Link (for additional Documents)

www.tracopower.com/overview/tma

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Outline Dimensions



Pinout		
Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
4	-Vout	-Vout
5	No pin	Common
6	+Vout	+Vout

Tolerances ± 0.25 (± 0.01)
 Pin pitch tolerances ± 0.13 (± 0.005)
 Pins ± 0.05 (± 0.002)

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