

Features

- ◆ AC/DC open frame modul
- ◆ PCB mountable with solderpins
- ◆ Ultra compact dimension
- ◆ Universal input 85–264 VAC
- ◆ Overload protection
- ◆ Conducted EMI meets EN 55022, Level B
- ◆ Safety approvals to IEC/EN 60950-1, UL 60950-1
- ◆ Lead free design, RoHS compliant
- ◆ 3-year product warranty



The TRACOPOWER TOM series are AC/DC switching power supplies for direct PCB-mounting. A ultra compact design makes this product interesting for many applications in small industrial and consumer electronic equipments with low power requirements. A very high reliability can be guaranteed by the use of industrial quality grade components.

Models

Ordercode	Output Voltage	Output Current max. at Input 230 VAC	Output Current max. at Input 115 VAC
TOM 12105	5 VDC	2000 mA	2000 mA
TOM 12112	12 VDC	1000 mA	840 mA
TOM 12115	15 VDC	800 mA	670 mA
TOM 12124	24 VDC	500 mA	420 mA
TOM 12212	±12 VDC	±500 mA	±420 mA
TOM 12215	±15 VDC	±420 mA	±350 mA
TOM 25105	5 VDC	5000 mA	5000 mA
TOM 25112	12 VDC	2100 mA	2100 mA
TOM 25115	15 VDC	1700 mA	1700 mA
TOM 25124	24 VDC	1100 mA	1100 mA

Input Specifications

Input voltage range	85 – 264 VAC
Input frequency	47 – 63 Hz
Input current at full load $V_{in} = 115 \text{ VAC} / 230 \text{ VAC}$	12 W models: 220 mA / 150 mA max. 25 W models: 550 mA / 300 mA max.
Leakage current	0.75 mA max. (at 230 VAC)

Output Specifications

Voltage set accuracy	±5%
Regulation	– Input variation <20 mV – Load variation 12 W (0 – 100%) <50 mV – Load variation 25 W (0 – 100%) <100 mV
Ripple and noise (20Mhz Bandwidth)	12 W models: <150 mVp-p 25 W models: <200 mVp-p
Overload protection by current limit at	>105 % I _{out} nom.
Current limitation	foldback (automatic recovery)
Capacitive load	10'000 µF max.

General Specifications

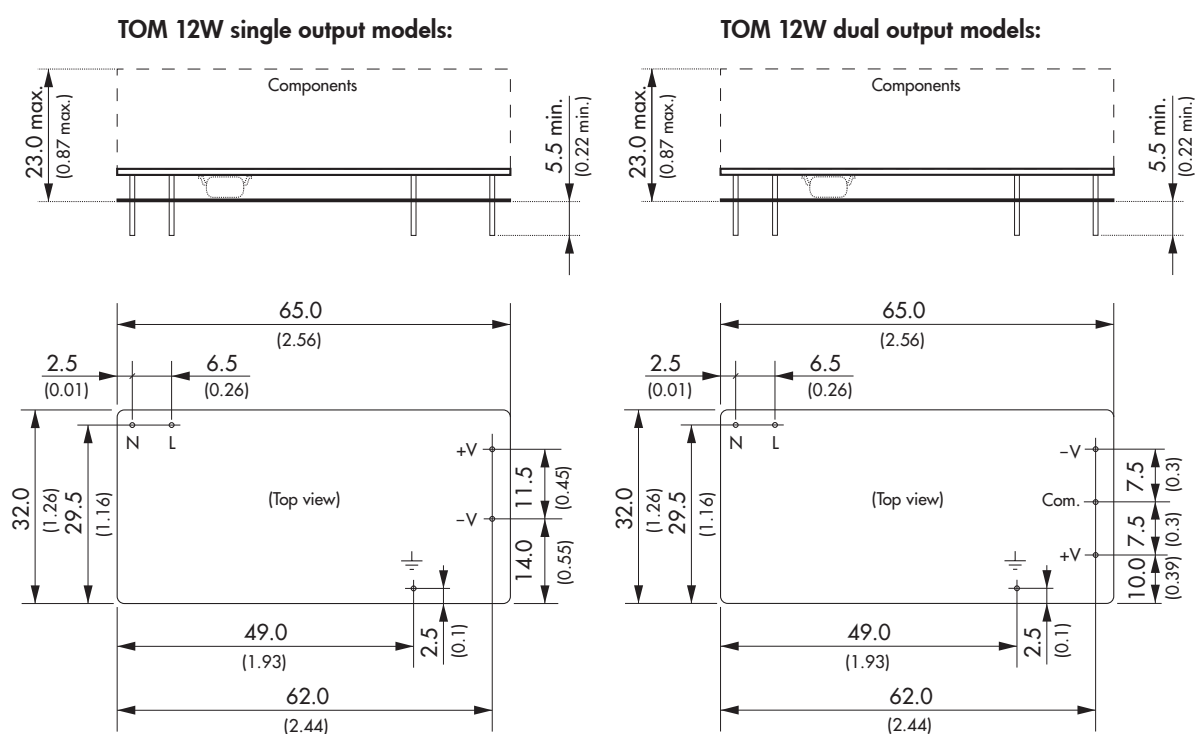
Temperature ranges	– Operating – Derating: (25W) 5 V _{out} models: all other models: – Storage (non operating) – safety approval reference temperature	–10°C to +70°C ambient temp. max. 3 %/K above +45°C 5 %/K above +55°C –20°C to +85 °C 25°C
Temperature coefficient		0.02 %/K
Efficiency	5.0 V _{out} models: all other models:	75 % typ. 80 % typ.
Humidity (non condensing)		20 – 85 % rel H max.
Switching frequency		100 kHz typ. (puls width modulation)
Hold-up time	– $V_{in} = 115 \text{ VAC}$ – $V_{in} = 230 \text{ VAC}$	10 ms typ. 100 ms typ.
Rise-up time	– $V_{in} = 115 \text{ VAC}$ – $V_{in} = 230 \text{ VAC}$	<200 ms <300 ms
Isolation Voltage	– Input / Output – Input / Field Ground – Output / Field Ground	3000 VAC 2000 VAC 500 VAC
Isolation Resistance (at 500 VDC)		100 Mohm min.
Electromagnetic compatibility (EMC), Emissions	– Conducted input RI suppression	EN 55022, class B, FCC part 15, level B
Safety standards		IEC/EN 60950-1, UL/cUL 60950-1
Safety approvals	– UL/cUL 60950-1 – CB report according to IEC 60950-1	www.ul.com -> certifications -> File e141988 www.tracopower.com/products/tom121-cb.pdf www.tracopower.com/products/tom122-cb.pdf www.tracopower.com/products/tom251-cb.pdf
Reliability, calculated MTBF at +25°C		>2'800'000 h according to IEC 61709

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

General Specifications

Vibration	10 – 55 Hz 0.5 mm width / 1 minute cycle (3 directions each 30 minutes)
Shock	20 G (3 directions each 3 times)

Outline Dimensions



Weight: 30 g (1.1 oz)

Pin diameter: 0.8 (0.031)

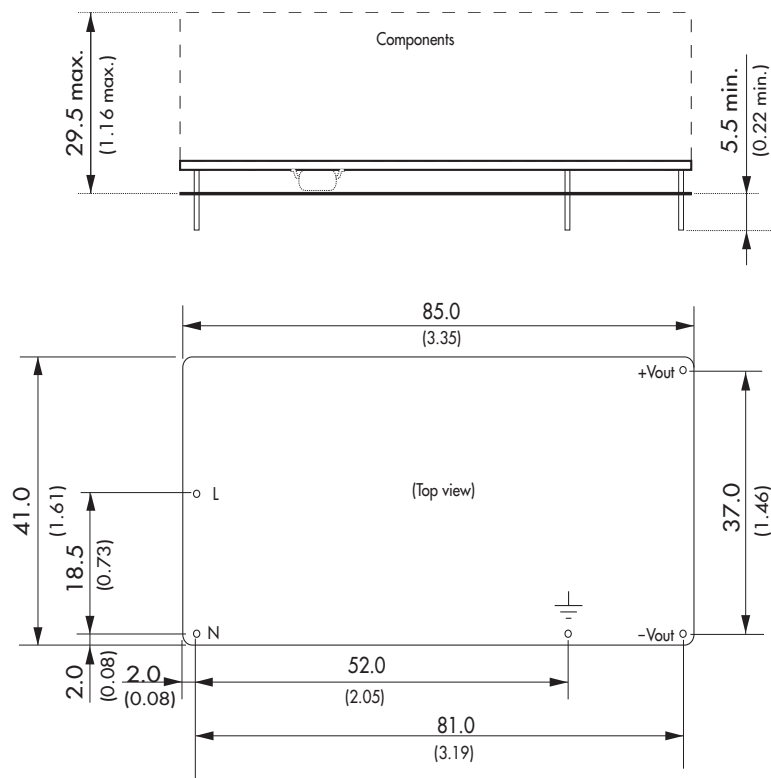
Dimensions in mm () = inches

Tolerances: $\pm 0.5\text{mm}$ (± 0.02)

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

Outline Dimensions

TOM 25W models:



Weight: 100 g (3.7 oz)

Pin diameter: 0.8 (0.031)

Dimensions in mm() = inches

Tolerances: $\pm 0.5\text{mm}$ (± 0.02)

Specifications can be changed any time without notice.

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