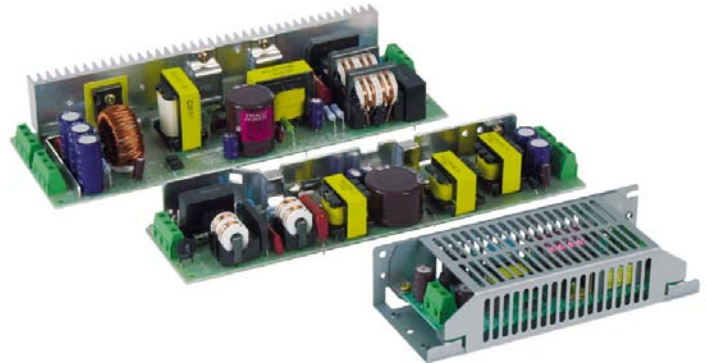


Features

- ◆ Compact open-frame power supplies
- ◆ Easy connection via screw terminal block or molex pin connector terminal
- ◆ Universal input 85–264 VAC
- ◆ Industrial grade components
- ◆ Low ripple and noise
- ◆ Overload protection
- ◆ EMI meets EN55022, Class B
- ◆ Optional with case
- ◆ Low profile
- ◆ Lead free design, RoHS compliant
- ◆ 3-year product warranty



The TOF Series power supplies are the choice for demanding applications. They feature compact dimensions and a low profile. They are easy to instal and connect via screw terminals or pin connector. Chassi and cover kit are available as an accessory. Compliance with international safety standards (CE/UL) and EMC requirements qualify this product for worldwide use. A very high reliability is guaranteed by the use of industrial quality grade components.

Single Output Models

Ordercode Screw Terminal Block	Ordercode Molex Pin Connector	Output Power	Output Voltage	Output Current max.
TOF 10-05S TOF 10-12S TOF 10-15S TOF 10-24S	TOF 10-05SM TOF 10-12SM TOF 10-15SM TOF 10-24SM	10 Watt	5 VDC 12 VDC 15 VDC 24 VDC	2.0 A 0.9 A 0.7 A 0.5 A
TOF 15-05S TOF 15-12S TOF 15-15S TOF 15-24S	TOF 15-05SM TOF 15-12SM TOF 15-15SM TOF 15-24SM	15 Watt	5 VDC 12 VDC 15 VDC 24 VDC	3.0 A 1.3 A 1.0 A 0.7 A
TOF 30-05S TOF 30-12S TOF 30-15S TOF 30-24S	TOF 30-05SM TOF 30-12SM TOF 30-15SM TOF 30-24SM	30 Watt	5 VDC 12 VDC 15 VDC 24 VDC	6.0 A 2.5 A 2.0 A 1.3 A
TOF 50-05S TOF 50-12S TOF 50-15S TOF 50-24F	TOF 50-12SM TOF 50-15SM TOF 50-24FM	50 Watt	5 VDC 12 VDC 15 VDC 24 VDC	10.0 A 4.3 A 3.5 A 2.1 A (3.0 A)*
TOF 75-05S TOF 75-12S TOF 75-15S TOF 75-24F	TOF 75-12SM TOF 75-15SM TOF 75-24FM	75 Watt	5 VDC 12 VDC 15 VDC 24 VDC	15.0 A 6.3 A 5.0 A 3.2 A (4.5 A)*
TOF 100-05S TOF 100-12S TOF 100-15S TOF 100-24F	TOF 100-12SM TOF 100-15SM TOF 100-24FM	100 Watt	5 VDC 12 VDC 15 VDC 24 VDC	20.0 A 8.5 A 6.7 A 4.2 A (6.3 A)*
TOF 150-05S TOF 150-12S TOF 150-15S TOF 150-24F	TOF 150-12SM TOF 150-15SM TOF 150-24FM	150 Watt	5 VDC 12 VDC 15 VDC 24 VDC	30.0 A 12.5 A 10.0 A 6.3 A (9.1 A)*

* () = Peak current for max. 10 sec.

Triple Output Models: Not recommended for new design in!

Order code Screw Terminal Block	Output Power max.	*Output 1	*Output 2/3
TOF 15-0522T TOF 15-0533T	15 Watt	5 VDC/2A 5 VDC/2A	±12 VDC/0.5A ±15 VDC/0.45A
TOF 30-0522T TOF 30-0533T	30 Watt	5 VDC/4A 5 VDC/4A	+12 VDC/1.2A –12 VDC/0.5A +15 VDC/1.0A –15 VDC/0.5A

* Total power should not exceed nominal power

Order Codes for Chassis/Cover Kit

Code	for Models	Code	for Models	Code	for Models
TOF 10-MC	TOF 10-xx	TOF 50-MC	TOF 50-xx	TOF 150-MC	TOF 150-xx
TOF 15-MC	TOF 15-xx	TOF 75-MC	TOF 75-xx	TOF 15T-MC	TOF 15-xxxT
TOF 30-MC	TOF 30-xx	TOF 100-MC	TOF 100-xx	TOF 30T-MC	TOF 30-xxxT

Molex Mating Connectors for TOFM Series (to purchase on local market)

TOF.....M units are equipped with Molex Pin Connector SPOX 5273-NA (3.96 mm pitch)

Connector mates with

1x Housing 09-50-1051, 3x Crimp Terminal 08-70-1028: For all Models Input

1x Housing 09-50-1031, 2x Crimp Terminal 08-70-1028: For up to 50 W models output

2x Housing 09-50-1031, 4x Crimp Terminal 08-70-1028: For 75 and 100W models output

2x Housing 09-50-1051, 6x Crimp Terminal 08-70-1028: For 150W models output

Input Specifications

Input voltage range	85 – 264 VAC 110 – 370 VDC (10...50 W single output models)
Input frequency	47 – 63 Hz
Recommended circuit breaker (characteristic C) or slow blow fuse	10...75 Watt models: 5.0 A 100 & 150 Watt models: 10.0 A

Output Specifications

Voltage adjustment range	10...50 Watt single output models: ±5 % 75...150 Watt single output models: ±10 % 15...30 Watt multi output models: ±15 % on output 1 ±2.5 % on output 2&3
Regulation	– Input variation – Load variation single output mod. (10–90%) – Load variation multi output mod. (10–90%) 0.5 % max. 0.5 % max. 2.0 % on output 1 1.0 % on output 2&3
Ripple and noise (20Mhz Bandwidth)	<1 % Vout +50 mVp-p
Overload protection by current limit at	>105 % Inom.
Short circuit protection	indefinite (automatic recovery)
Overvoltage protection	115 – 140 % Vout nom.
Capacitive load	10'000 µF max.

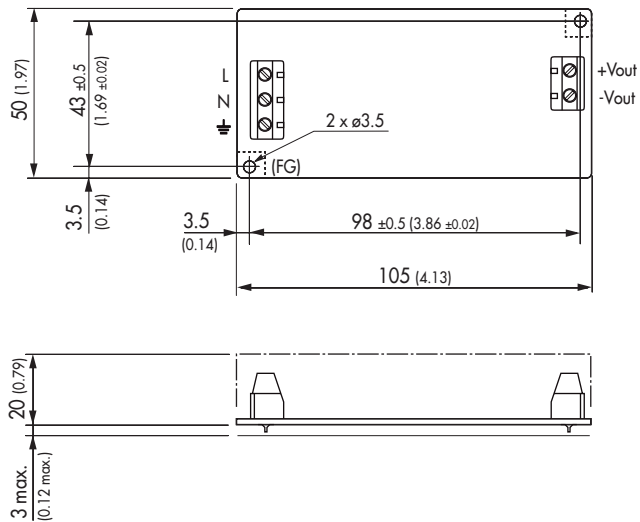
General Specifications

Temperature ranges	– Operating – Derating – Storage (non operating)	–10°C to +60°C above +50°C: 5 %/K –20°C to +75°C
Temperature coefficient		0.02 %/K
Efficiency	– Single output models – Multi output models	78 % typ. 70 % typ.
Humidity (non condensing)		85 % rel H max.
Switching frequency	– Single output models – Multi output models	140 kHz typ. (puls width modulation) 150 kHz typ. at 50 % load (frequency modulation)
Hold-up time	– Single output models Vin = 115/230 VAC – Multi output models Vin = 115/230 VAC	30 ms typ. 20 ms typ.
I/O Isolation voltage (60 sec.)		3'000 VAC
Leakage current		0.75 mA RMS typ. / 230 VAC / 50 Hz
Electromagnetic compatibility (EMC), Emissions	– Conducted input RI suppression – Harmonic current emissions	EN 55022, class B, FCC part 15, level B IEC/EN 61000-3-2, class A (75-150 Watt models)
Electromagnetic compatibility (EMC), Immunity	– Electrostatic discharge ESD – RF field susceptibility	IEC/EN 61000-4-2 level 2 4 kV / 4 kV IEC/EN 61000-4-3 level 2 3 V /m
	– Electrical fast transients/bursts on mainsline – Surge – Voltage dip	IEC/EN 61000-4-4 level 2 1 kV IEC/EN 61000-4-5 level 2 0.5 kV / 1kV IEC/EN 61000-4-11
Safety standards		IEC/EN 60950-1, cUL/UL 60950-1
Safety approvals	– UL/cUL 60950-1 – CB report (IEC 60950-1, 2nd edition)	www.ul.com -> certifications -> File e141988 www.tracopower.com/products/tof-cb.pdf
Reliability, calculated MTBF (MIL-HDBK-217F, at +25°C, ground benign)		>250'000 h
Vibration		10–55 Hz 0.5 mm width/ 1 minute cycle (3 directions each 30 minutes)
Shock		20 G (3 directions each 3 times)
Environmental compliance	– Reach – RoHS	www.tracopower.com/products/tof-reach.pdf RoHS directive 2011/65/EU

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

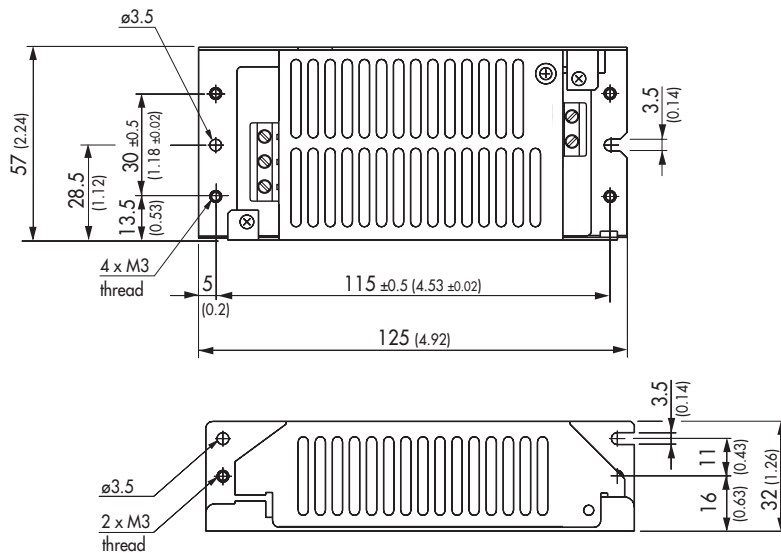
Outline Dimensions mm (inches)

TOF 10 standard open frame version



Weight: 75 g (2.6 oz)

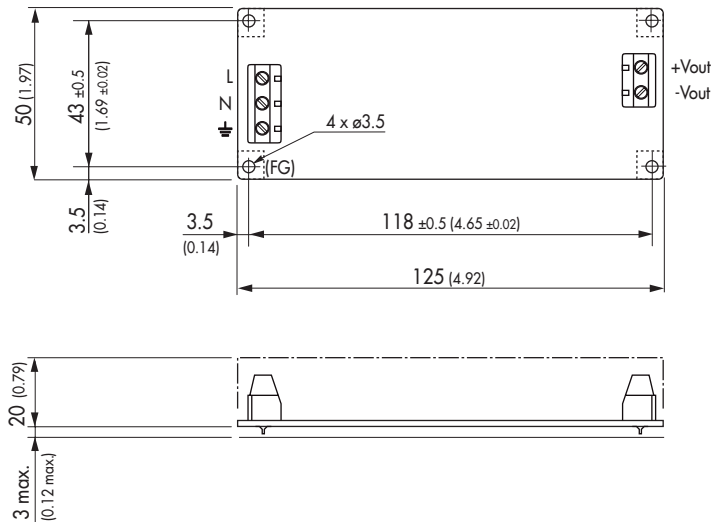
TOF 10 with chassis / cover option



Weight: 175g (6.2 oz)

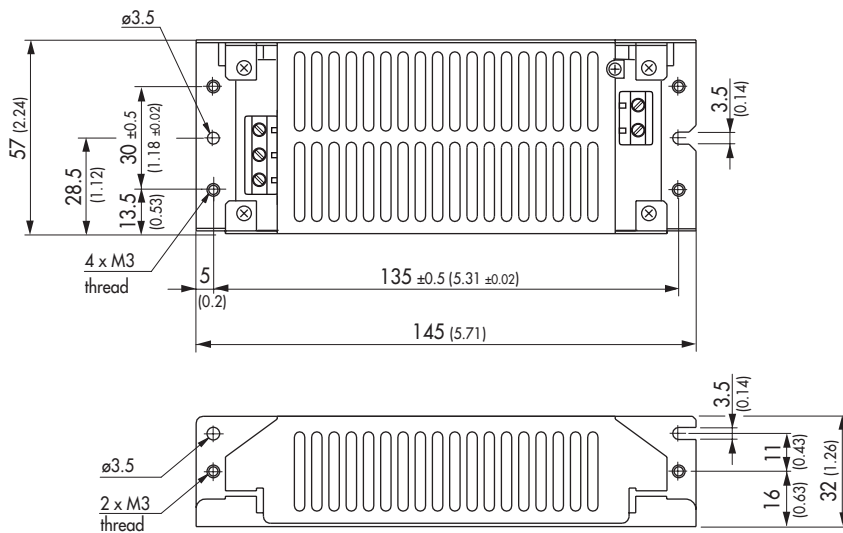
Outline Dimensions mm (inches)

TOF 15 standard open frame version



Weight: 90 g (3.2 oz)

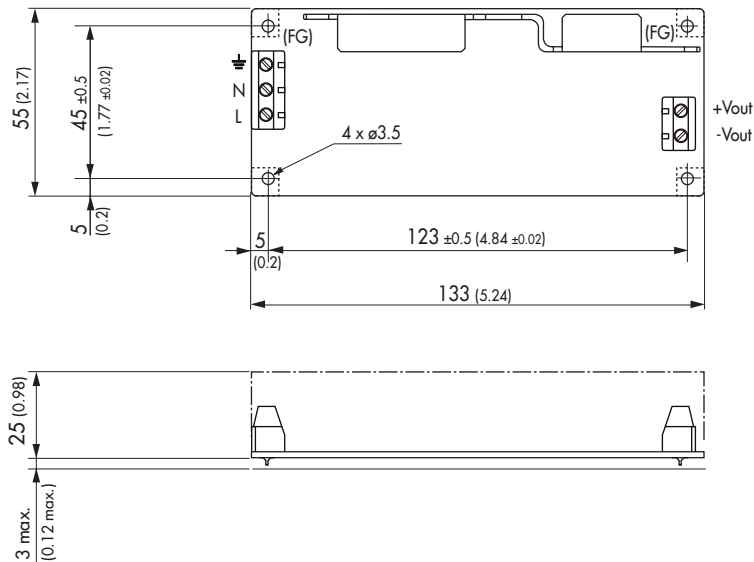
TOF 15 with chassis / cover option



Weight: 210 g (7.4 oz)

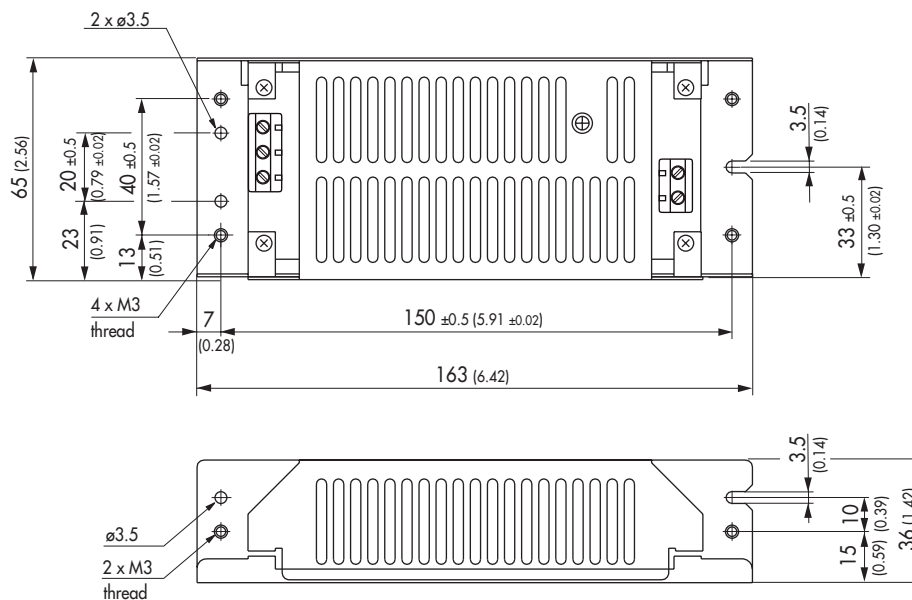
Outline Dimensions mm (inches)

TOF 30 standard open frame version



Weight: 170 g (6 oz)

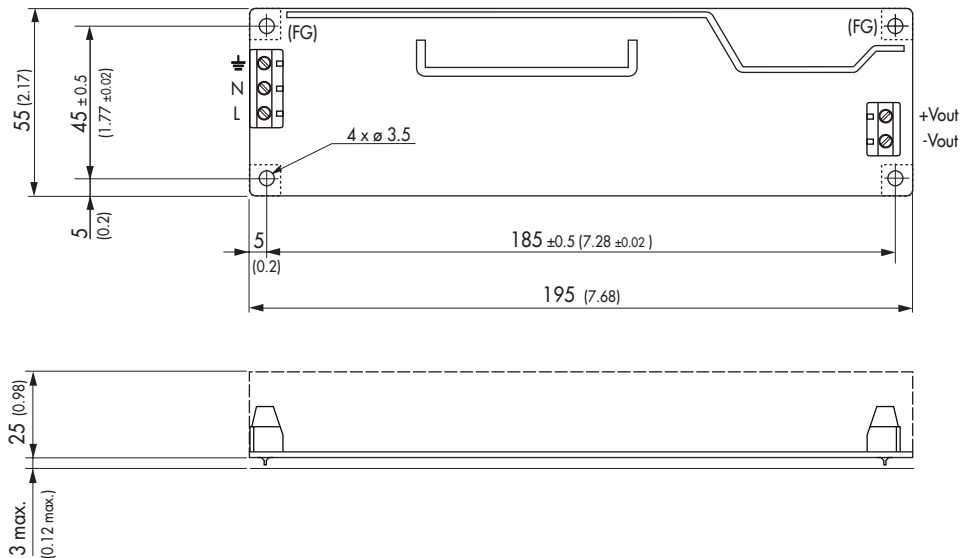
TOF 30 with chassis / cover option



Weight: 320 g (11.3 oz)

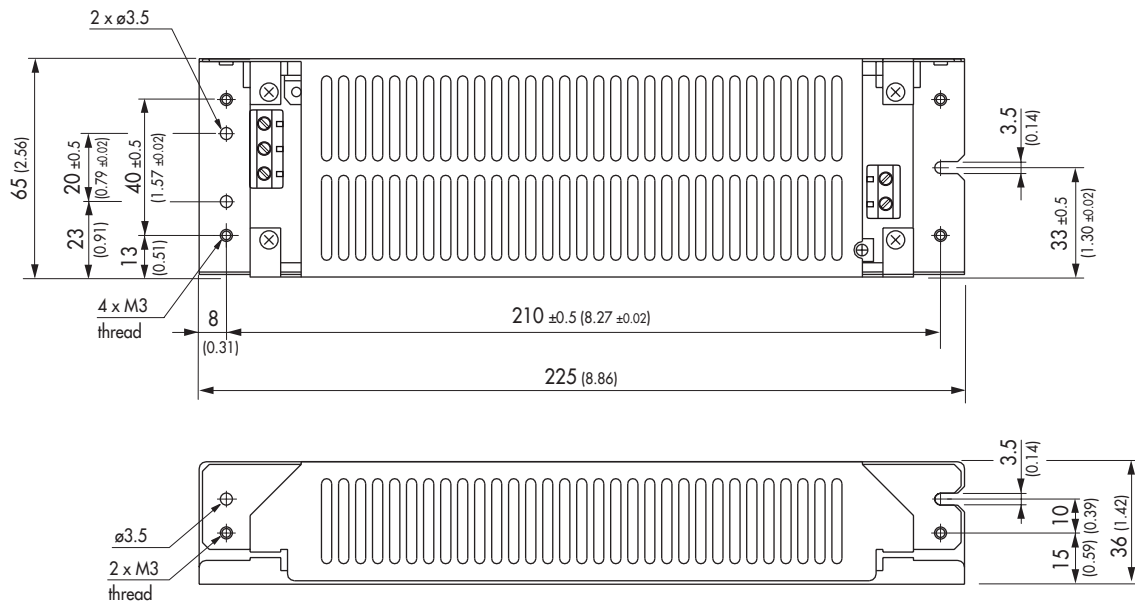
Outline Dimensions mm (inches)

TOF 50 standard open frame version



Weight: 245 g (8.6 oz)

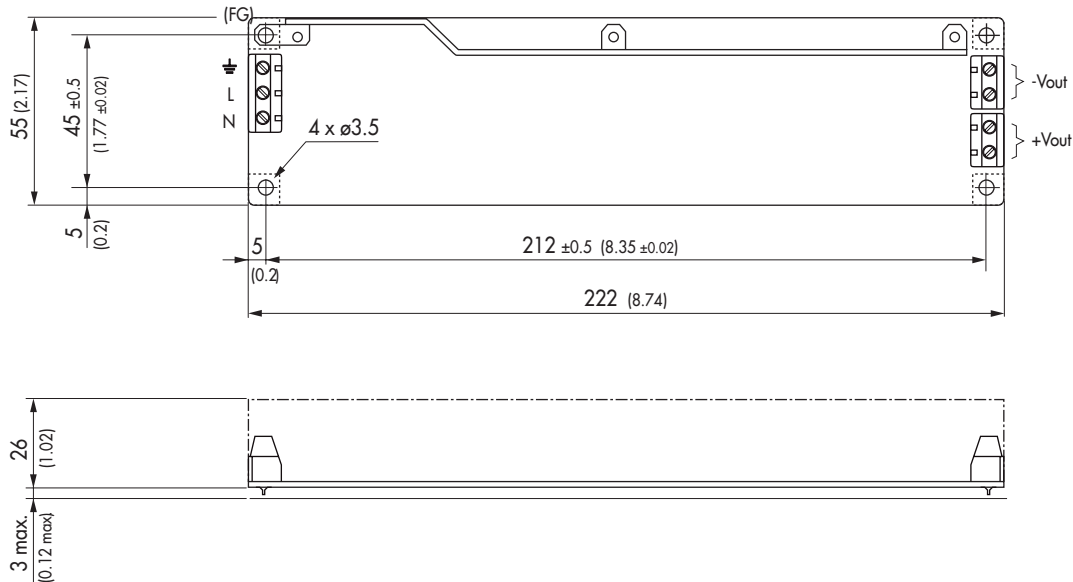
TOF 50 with chassis / cover option



Weight: 455 g (16.0 oz)

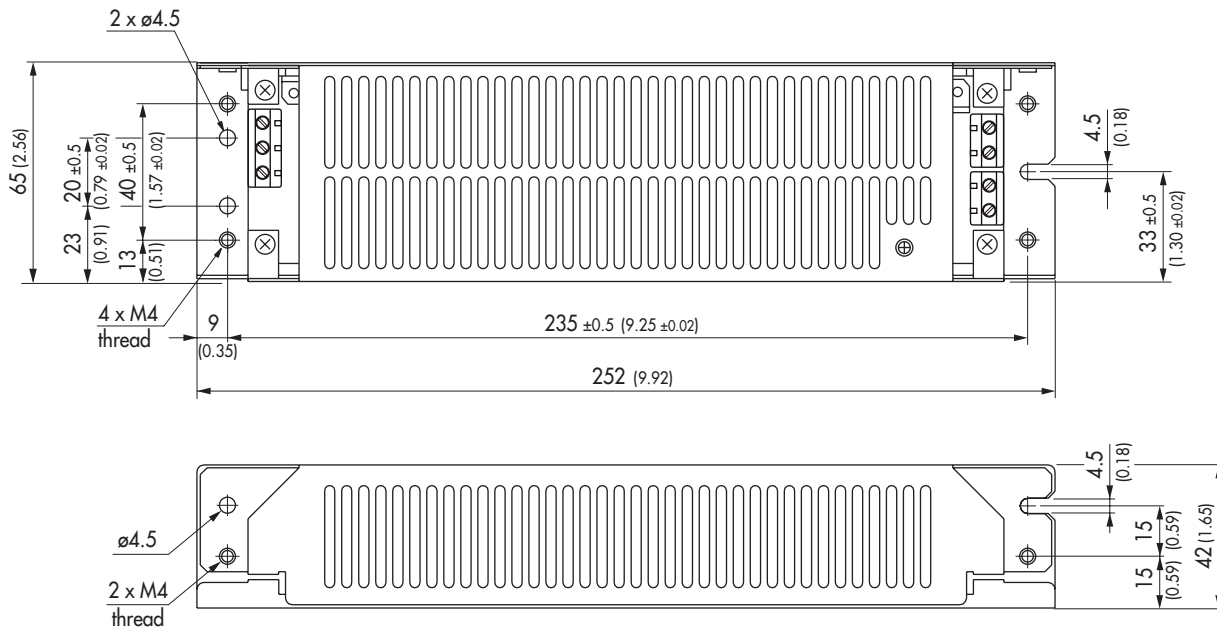
Outline Dimensions mm (inches)

TOF 75 standard open frame version



Weight: 280 g (9.9 oz)

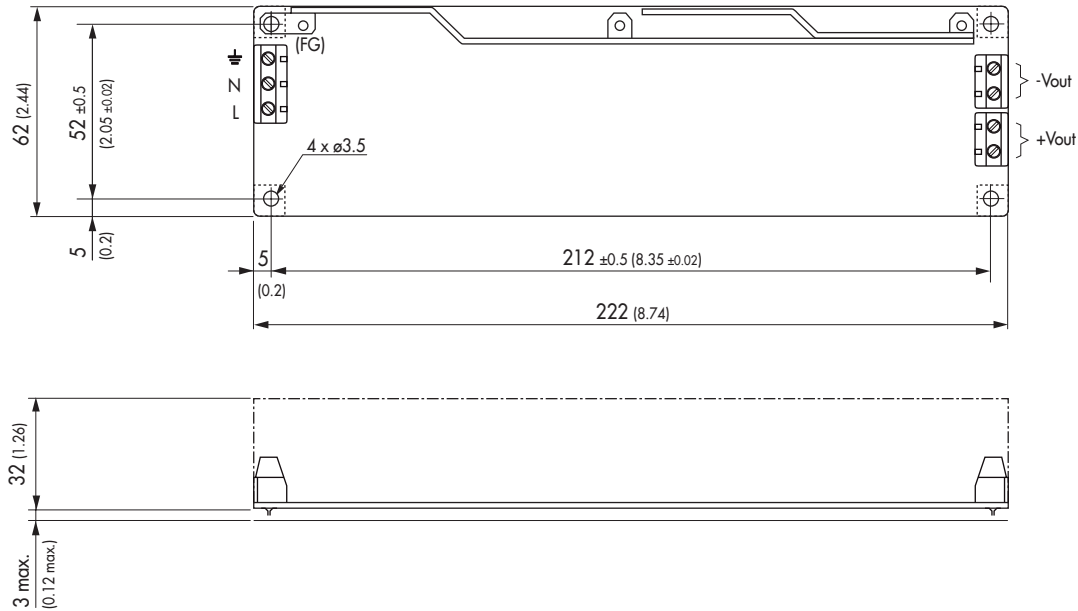
TOF 75 with chassis / cover option



Weight: 525 g (18.5 oz)

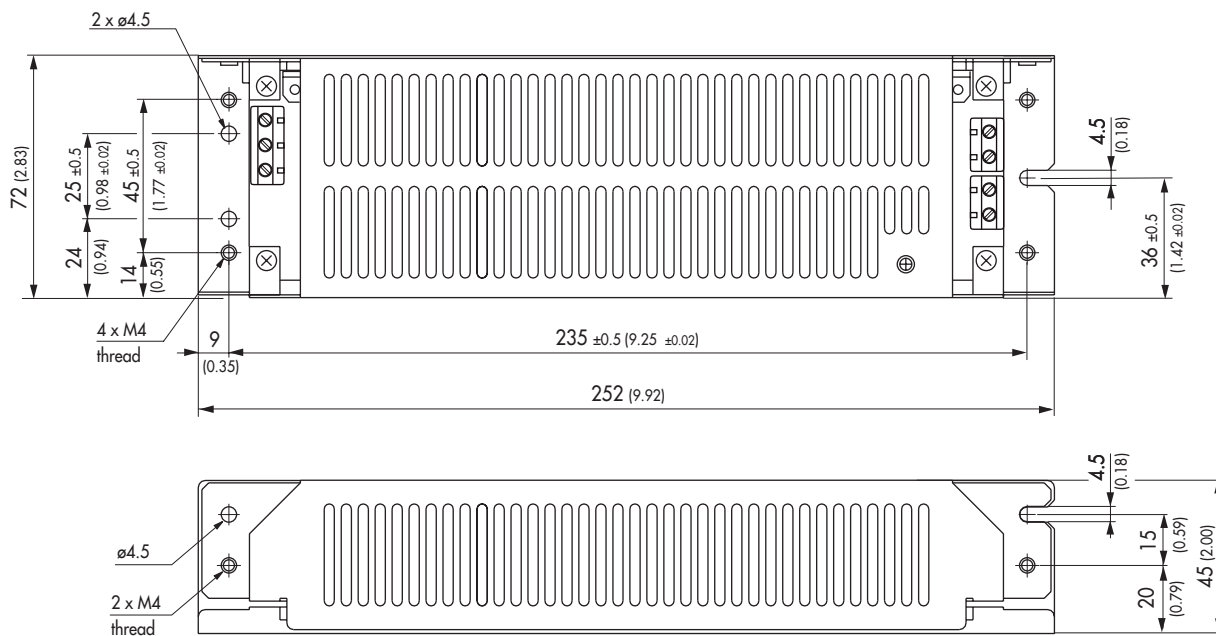
Outline Dimensions mm (inches)

TOF 100 standard open frame version



Weight: 380 g (13.4 oz)

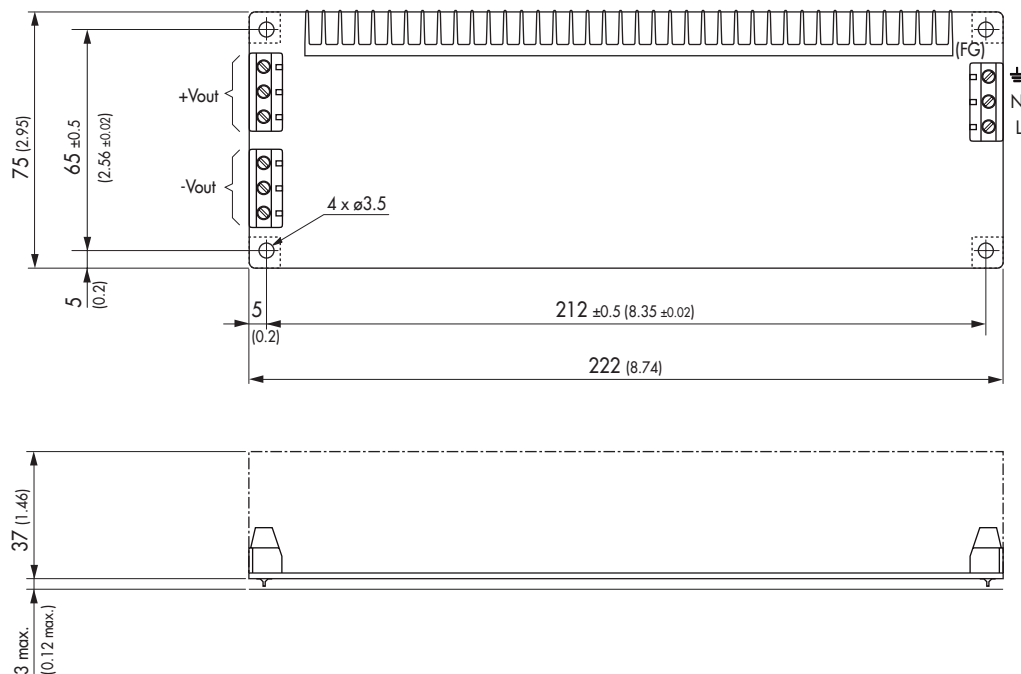
TOF 100 with chassis / cover option



Weight: 655 g (23.1 oz)

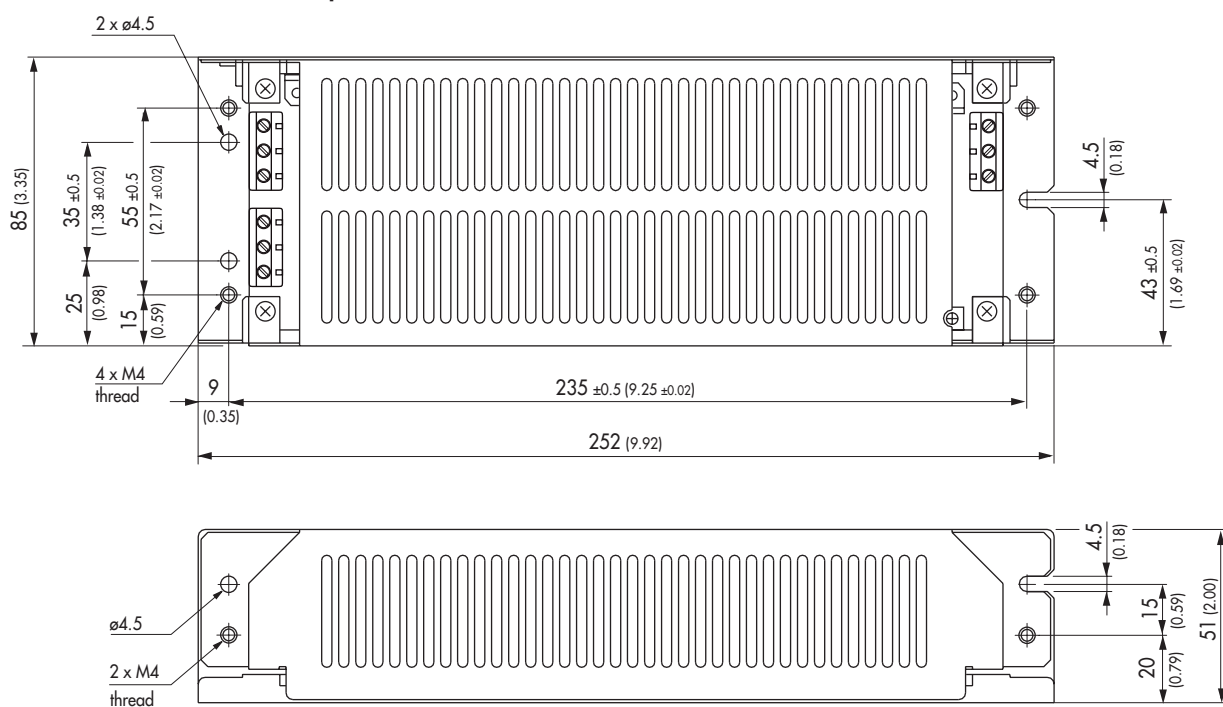
Outline Dimensions mm (inches)

TOF 150 standard open frame version



Weight: 540 g (19.0 oz)

TOF 150 with chassis / cover option

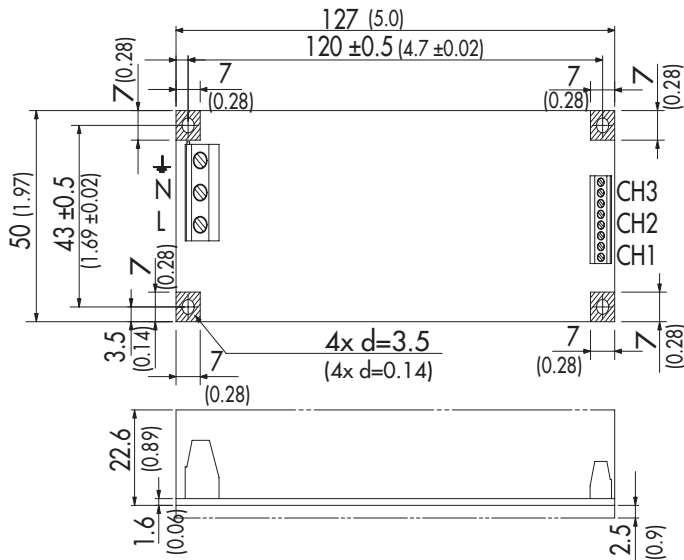


Tolerances: ±1.0 mm (±0.04)

Weight: 865 g (30.5 oz)

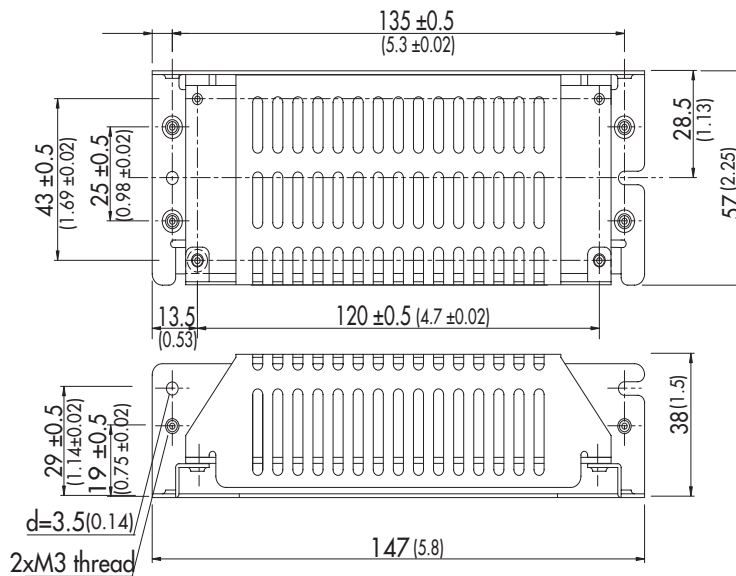
Outline Dimensions mm (inches)

TOF 15-T standard open frame version



Weight: 107g (3.8 oz)

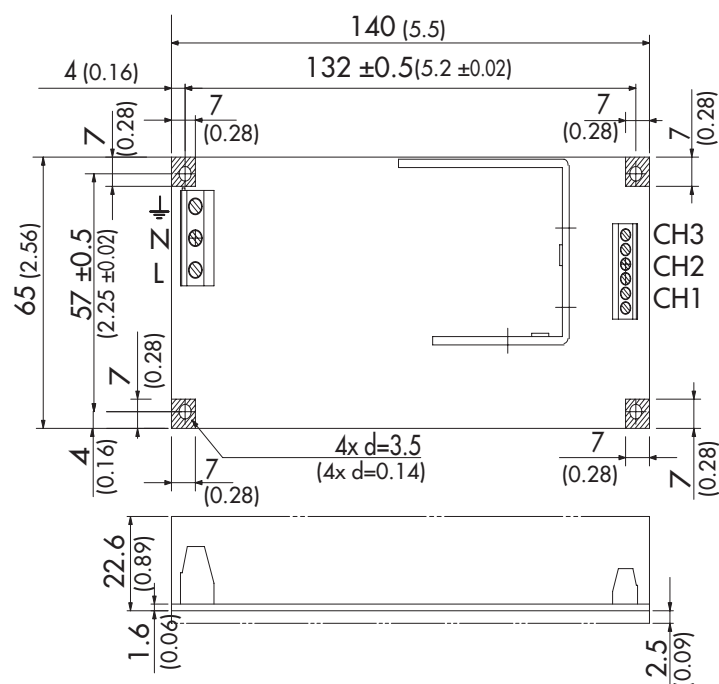
TOF 15-T with chassis / cover option



Weight: 226g (8 oz)

Tolerances: ± 1.0 mm (± 0.04)

TOF 30-T standard open frame version



Weight: 170g (6 oz)

Technical drawing of a rectangular metal plate with dimensions and tolerances. The drawing shows two views: a top view and a side view.

Top View Dimensions:

- Overall width: 150 ± 0.5 (5.91 ± 0.02)
- Overall height: 72 (2.83)
- Distance from top edge to first row of holes: 5.0 (0.20)
- Distance between rows of holes: 40 ± 0.5 (1.59 ± 0.02)
- Distance from bottom edge to last row of holes: 20 ± 0.5 (0.78 ± 0.02)
- Distance from left edge to first column of holes: 14 (0.55)
- Distance between columns of holes: 132 (5.2)
- Distance from right edge to last column of holes: 3.5 (0.14)

Side View Dimensions:

- Overall width: 160 (6.3)
- Overall height: 38 (1.5)
- Distance from top edge to first row of holes: 29 ± 0.5 (1.14 ± 0.02)
- Distance between rows of holes: 19 ± 0.5 (0.75 ± 0.02)
- Distance from bottom edge to last row of holes: 3.5 (0.14)
- Distance from left edge to first column of holes: $d=3.5$ (0.14)
- Distance between columns of holes: 132 (5.2)
- Distance from right edge to last column of holes: 3.5 (0.14)

Notes:

- 2xM3 thread

Weight: 337g (11.9 oz)

TRACO
ELECTRONIC AG

Tel. +41 43 311 45 11 · Fax +41 43 311 45 45 · info@traco.ch · www.tracopower.com

Rev. 10/12