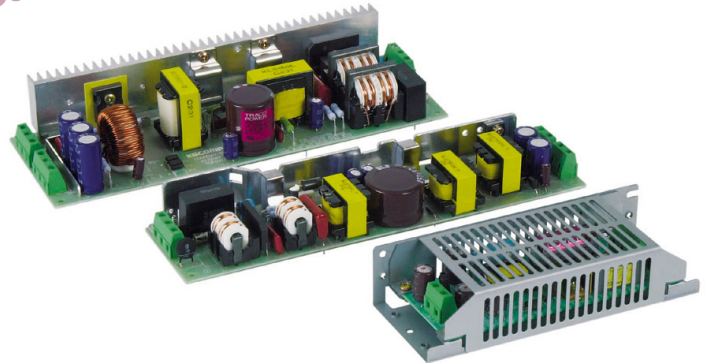


Obsolete



### 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.
Not recommended for new design in	TOF 10-05S	TOF 10-05SM	10 Watt	5 VDC	2.0 A
	TOF 10-12S	TOF 10-12SM		12 VDC	0.9 A
	TOF 10-15S	TOF 10-15SM		15 VDC	0.7 A
	TOF 10-24S	TOF 10-24SM		24 VDC	0.5 A
	TOF 15-05S	TOF 15-05SM	15 Watt	5 VDC	3.0 A
	TOF 15-12S	TOF 15-12SM		12 VDC	1.3 A
	TOF 15-15S	TOF 15-15SM		15 VDC	1.0 A
	TOF 15-24S	TOF 15-24SM		24 VDC	0.7 A
	TOF 30-05S	TOF 30-05SM	30 Watt	5 VDC	6.0 A
	TOF 30-12S	TOF 30-12SM		12 VDC	2.5 A
	TOF 30-15S	TOF 30-15SM		15 VDC	2.0 A
	TOF 30-24S	TOF 30-24SM		24 VDC	1.3 A
Obsolete discontinued December 2013	TOF 50-05S	TOF 50-12SM TOF 50-15SM TOF 50-24FM	50 Watt	5 VDC	10.0 A
	TOF 50-12S			12 VDC	4.3 A
	TOF 50-15S			15 VDC	3.5 A
	TOF 50-24F			24 VDC	2.1 A (3.0 A)*
	TOF 75-05S	TOF 75-12SM TOF 75-15SM TOF 75-24FM	75 Watt	5 VDC	15.0 A
	TOF 75-12S			12 VDC	6.3 A
	TOF 75-15S			15 VDC	5.0 A
	TOF 75-24F			24 VDC	3.2 A (4.5 A)*
Obsolete discontinued	TOF 100-05S	TOF 100-12SM TOF 100-15SM TOF 100-24FM	100 Watt	5 VDC	20.0 A
	TOF 100-12S			12 VDC	8.5 A
	TOF 100-15S			15 VDC	6.7 A
	TOF 100-24F			24 VDC	4.2 A (6.3 A)*
	TOF 150-05S	TOF 150-12SM TOF 150-15SM TOF 150-24FM	150 Watt	5 VDC	30.0 A
	TOF 150-12S			12 VDC	12.5 A
	TOF 150-15S			15 VDC	10.0 A
	TOF 150-24F			24 VDC	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

Obsolete  
Discontinued Y 2011

\* 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 TOF .....M 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      0.5 % max. – Load variation single output mod. (10–90%)      0.5 % max. – Load variation multi output mod. (10–90%)      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.

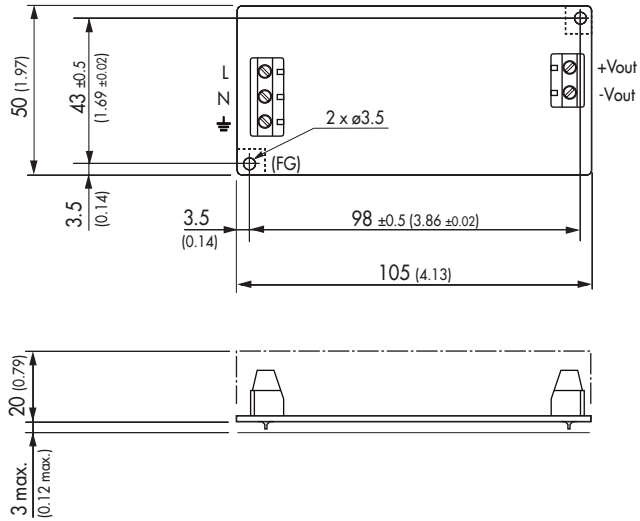
**General Specifications**

Temperature ranges	<ul style="list-style-type: none"> <li>– Operating</li> <li>– Derating</li> <li>– Storage (non operating)</li> </ul>	–10°C to +60°C above +50°C: 5 %/K –20°C to +75°C
Temperature coefficient		0.02 %/K
Efficiency	<ul style="list-style-type: none"> <li>– Single output models</li> <li>– Multi output models</li> </ul>	78 % typ. 70 % typ.
Humidity (non condensing)		85 % rel H max.
Switching frequency	<ul style="list-style-type: none"> <li>– Single output models</li> <li>– Multi output models</li> </ul>	140 kHz typ. (puls width modulation) 150 kHz typ. at 50 % load (frequency modulation)
Hold-up time	<ul style="list-style-type: none"> <li>– Single output models Vin = 115/230 VAC</li> <li>– Multi output models Vin = 115/230 VAC</li> </ul>	30 ms typ. 20 ms typ.
Isolation voltage (60sec.)	– Input/Output	3'000 VDC
Leakage current		0.75 mA RMS typ. / 230 VAC / 50 Hz
Electromagnetic compatibility (EMC), Emissions	<ul style="list-style-type: none"> <li>– Conducted input RI suppression</li> <li>– Harmonic current emissions</li> </ul>	EN 55022, class B, FCC part 15, level B IEC/EN 61000-3-2, class A (75-150 Watt models)
Electromagnetic compatibility (EMC), Immunity	<ul style="list-style-type: none"> <li>– Electrostatic discharge ESD</li> <li>– RF field susceptibility</li> <li>– Electrical fast transients/bursts on mainsline</li> <li>– Surge</li> <li>– Voltage dip</li> </ul>	IEC/EN 61000-4-2 level 2      4 kV / 4 kV IEC/EN 61000-4-3 level 2      3 V /m 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 style="list-style-type: none"> <li>– UL/cUL 60950-1</li> <li>– CB report (IEC 60950-1, 2nd edition)</li> </ul>	<a href="http://www.ul.com">www.ul.com</a> -> certifications -> File e141988 <a href="http://www.tracopower.com/products/tof-cb.pdf">www.tracopower.com/products/tof-cb.pdf</a>
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	<ul style="list-style-type: none"> <li>– Reach</li> <li>– RoHS</li> </ul>	<a href="http://www.tracopower.com/products/tof-reach.pdf">www.tracopower.com/products/tof-reach.pdf</a> RoHS directive 2011/65/EU

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

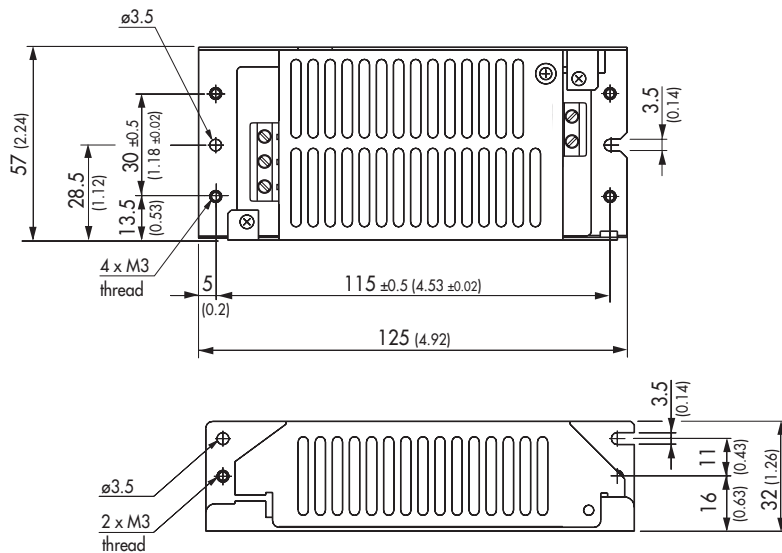
**Outline Dimensions mm (inches)**

**TOF 10 standard open frame version**



**Weight:** 75 g (2.6 oz)

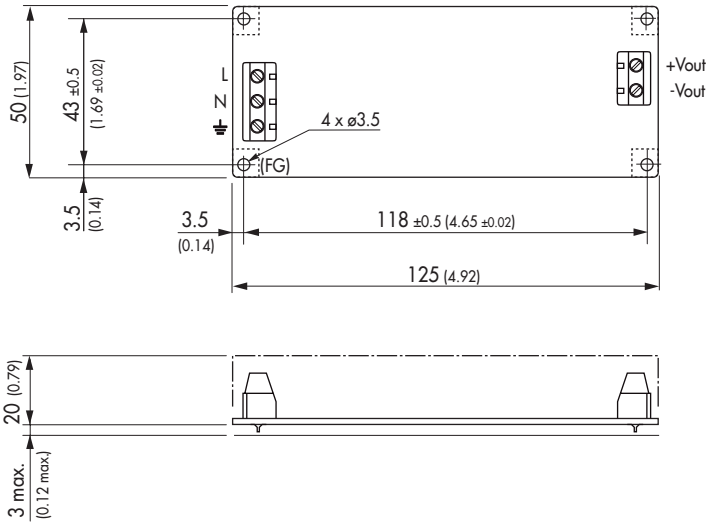
**TOF 10 with chassis / cover option**



**Weight:** 175g (6.2 oz)

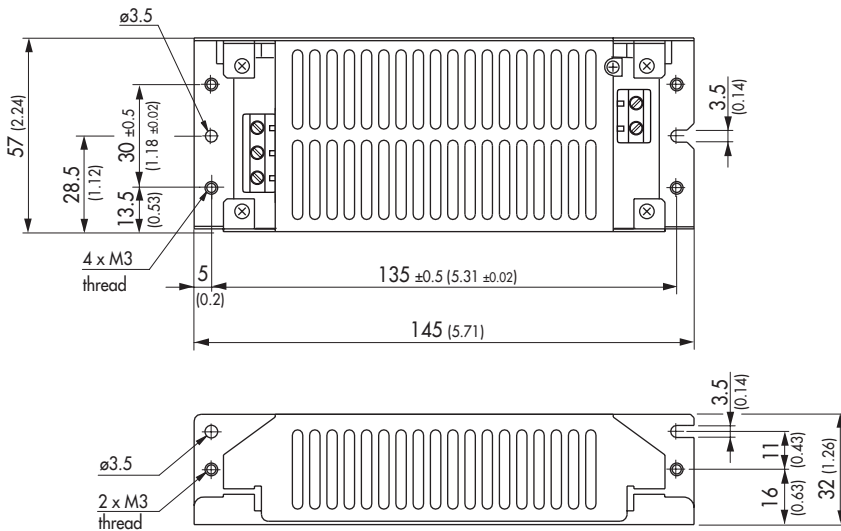
**Outline Dimensions mm (inches)**

**TOF 15 standard open frame version**



**Weight:** 90 g (3.2 oz)

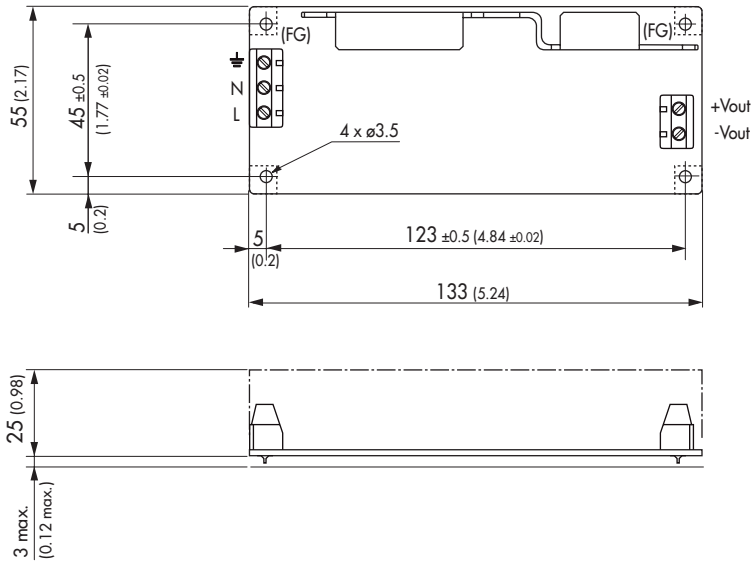
**TOF 15 with chassis / cover option**



**Weight:** 210 g (7.4 oz)

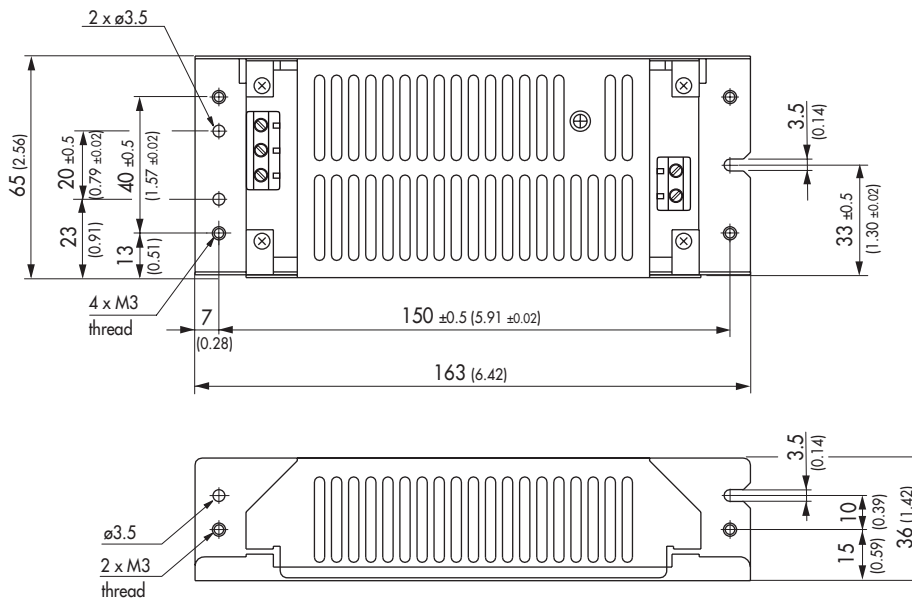
**Outline Dimensions mm (inches)**

**TOF 30 standard open frame version**



**Weight:** 170 g (6 oz)

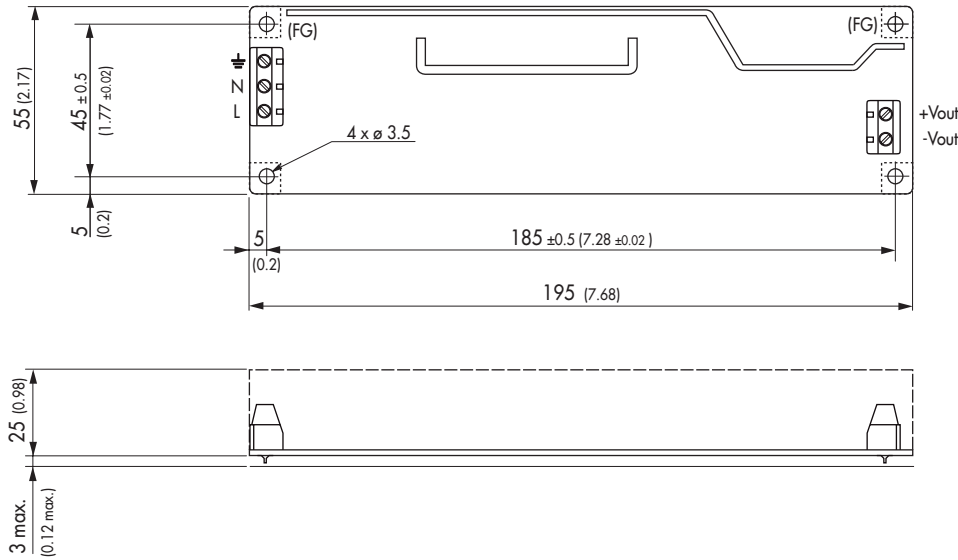
**TOF 30 with chassis / cover option**



**Weight:** 320 g (11.3 oz)

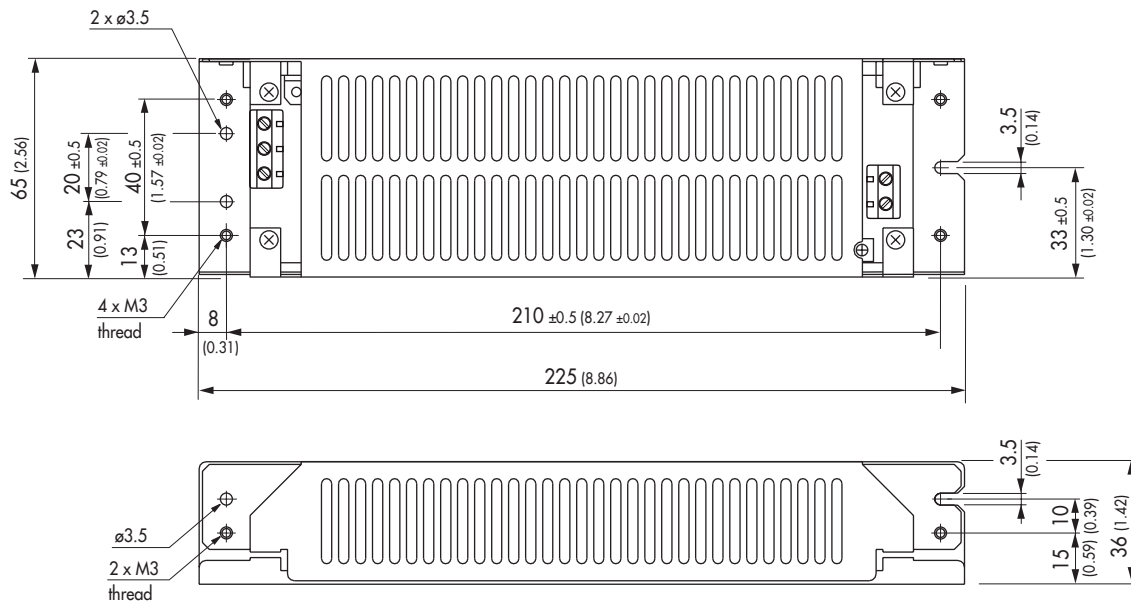
**Outline Dimensions mm (inches)**

**TOF 50 standard open frame version**



**Weight: 245 g (8.6 oz)**

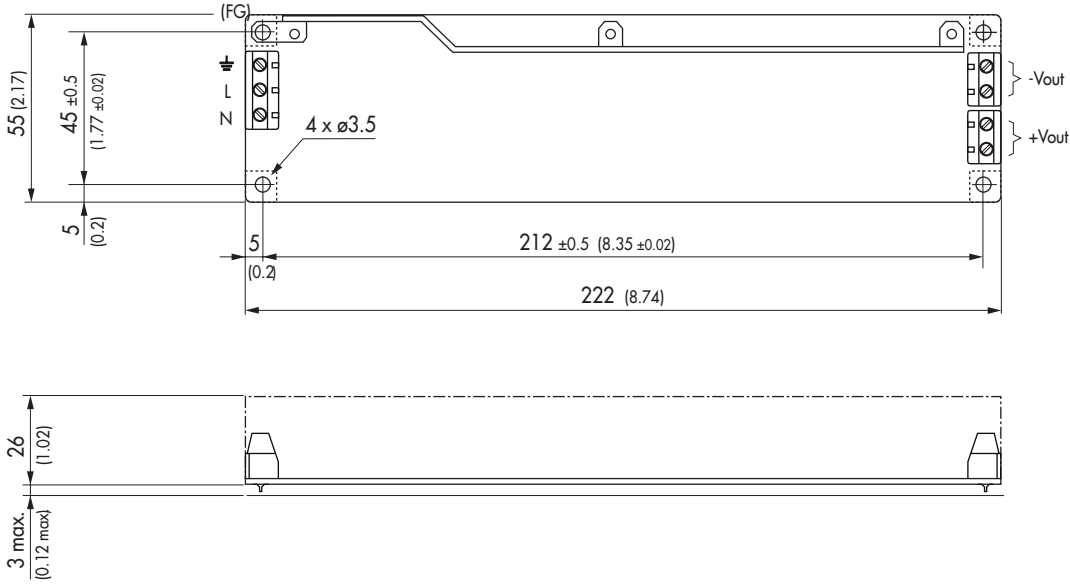
**TOF 50 with chassis / cover option**



**Weight: 455 g (16.0 oz)**

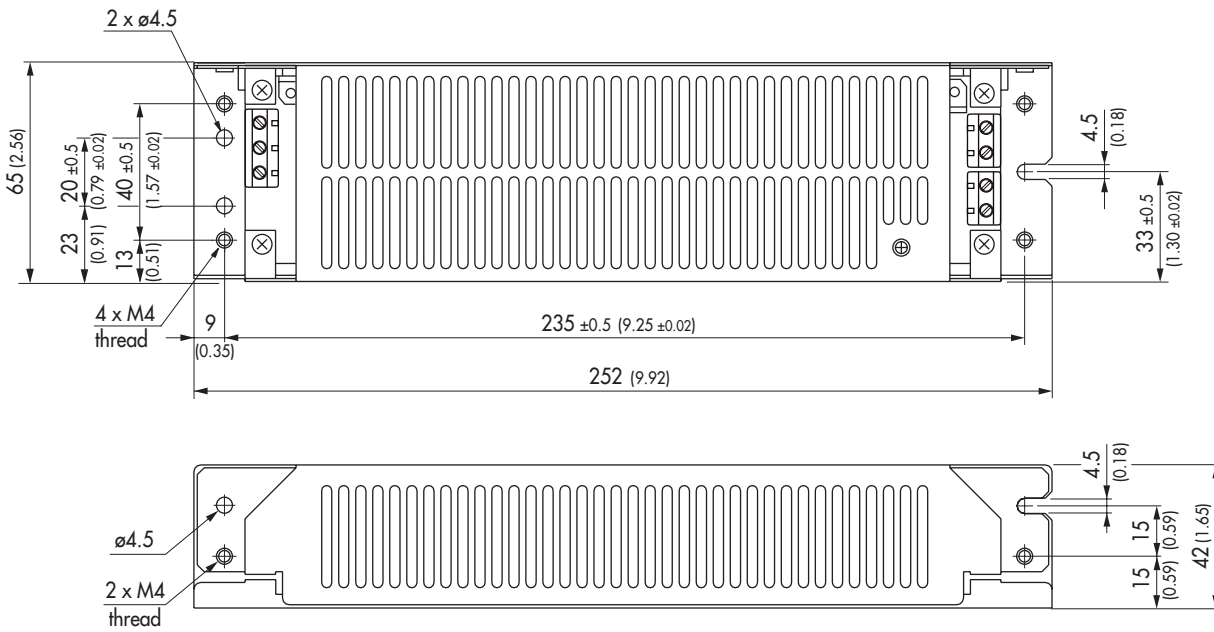
**Outline Dimensions mm (inches)**

**TOF 75 standard open frame version**



**Weight: 280 g (9.9 oz)**

**TOF 75 with chassis / cover option**

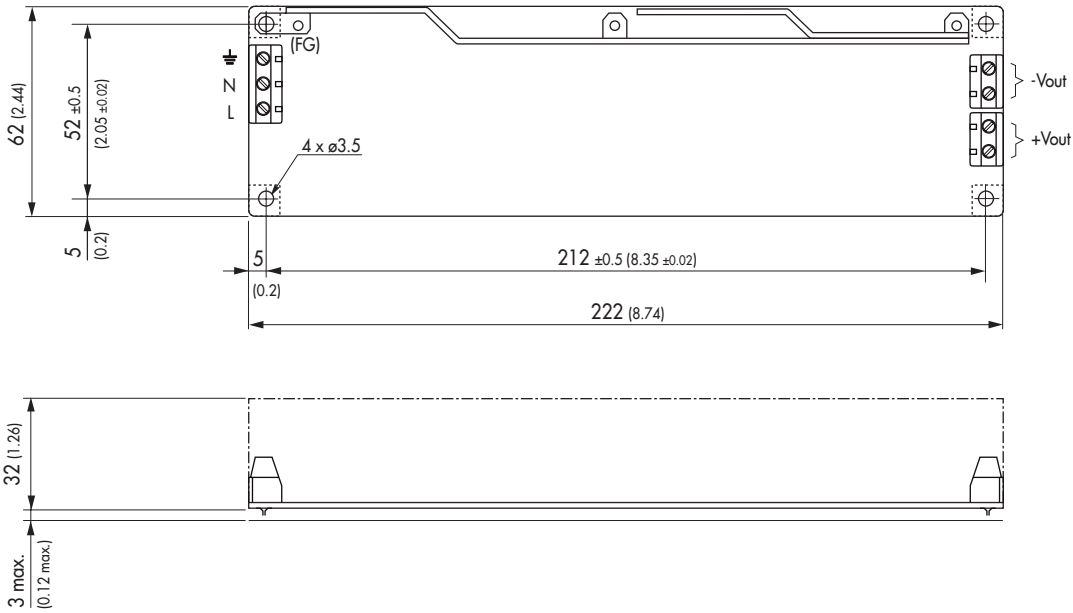


**Weight: 525 g (18.5 oz)**



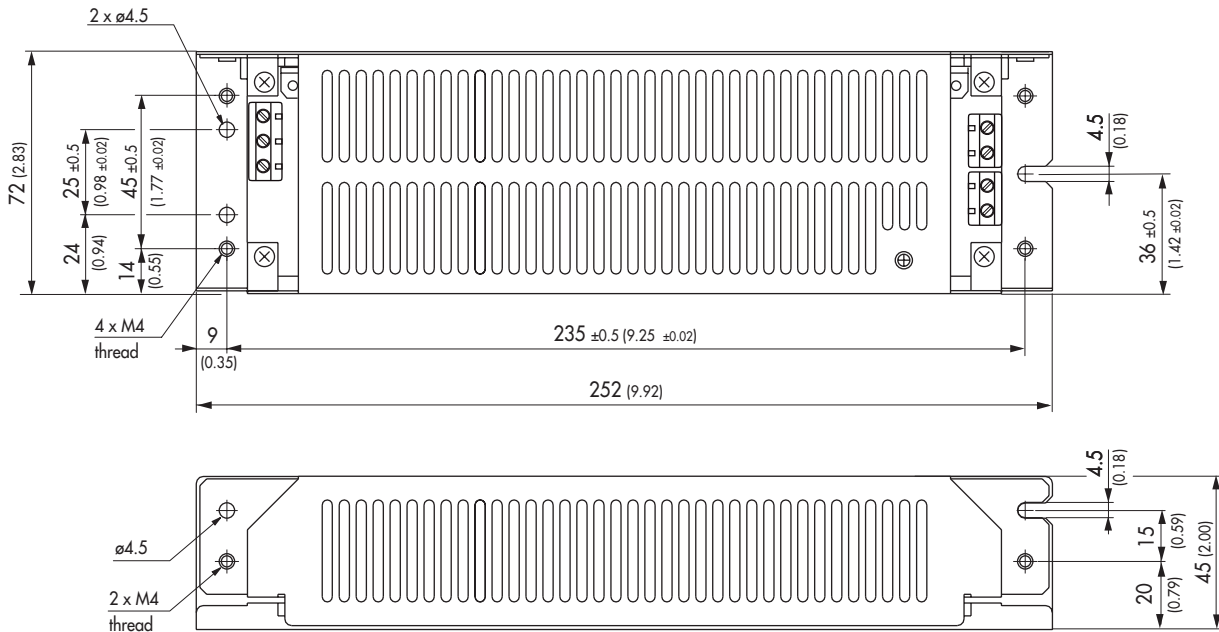
**Outline Dimensions mm (inches)**

**TOF 100 standard open frame version**



**Weight:** 380 g (13.4 oz)

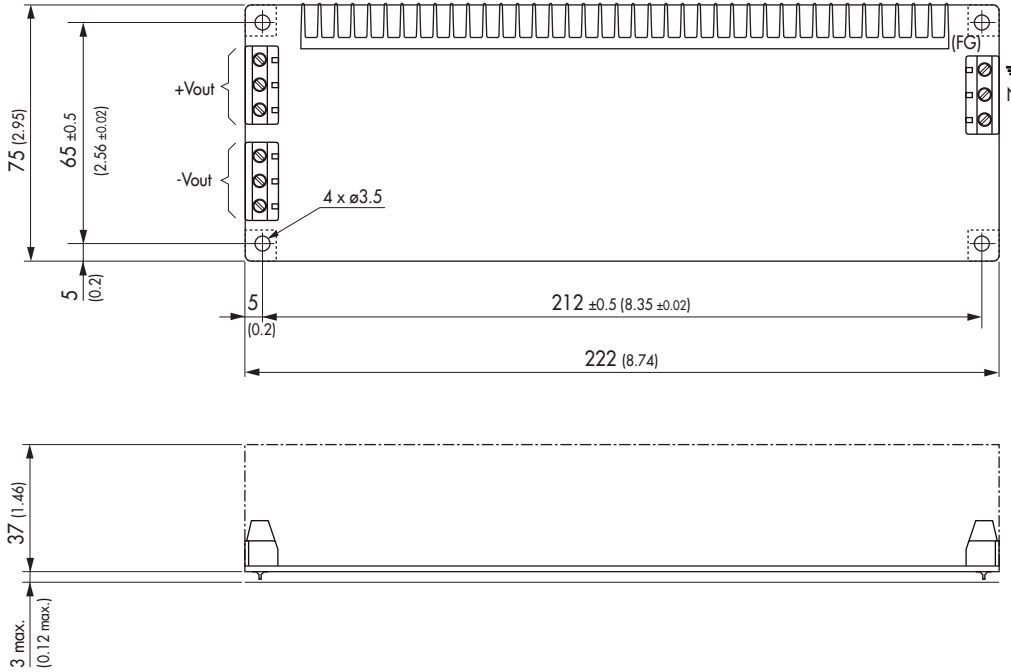
**TOF 100 with chassis / cover option**



**Weight:** 655 g (23.1 oz)

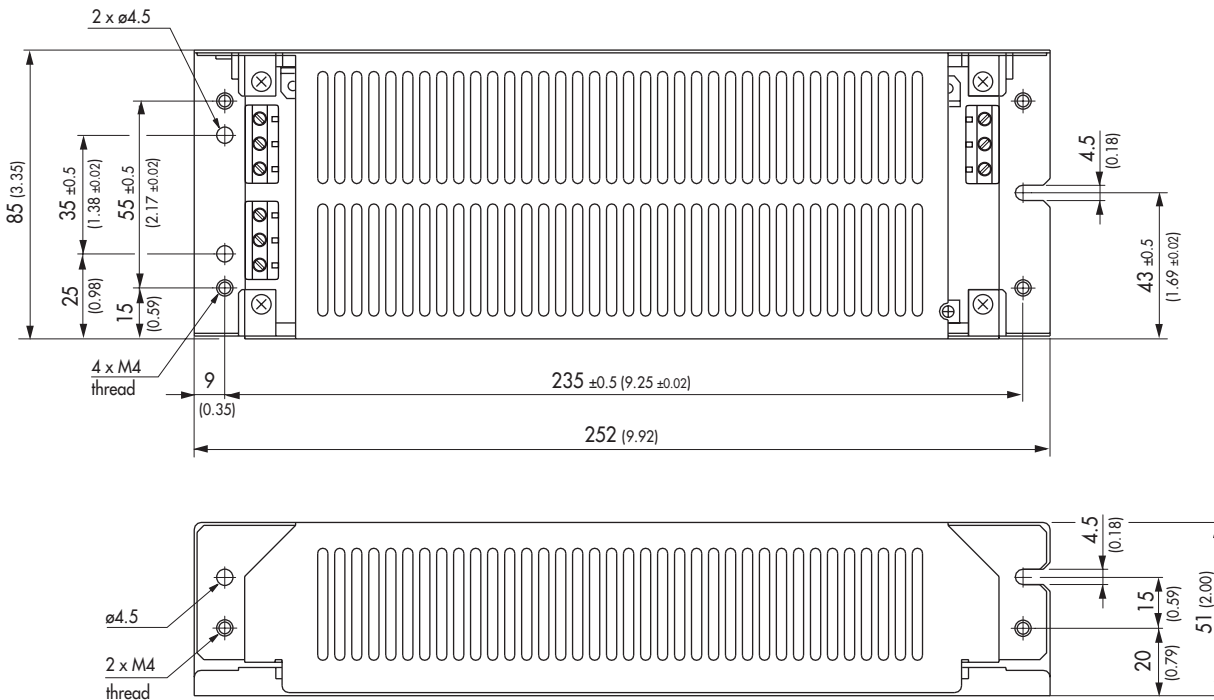
**Outline Dimensions mm (inches)**

**TOF 150 standard open frame version**



**Weight:** 540 g (19.0 oz)

**TOF 150 with chassis / cover option**

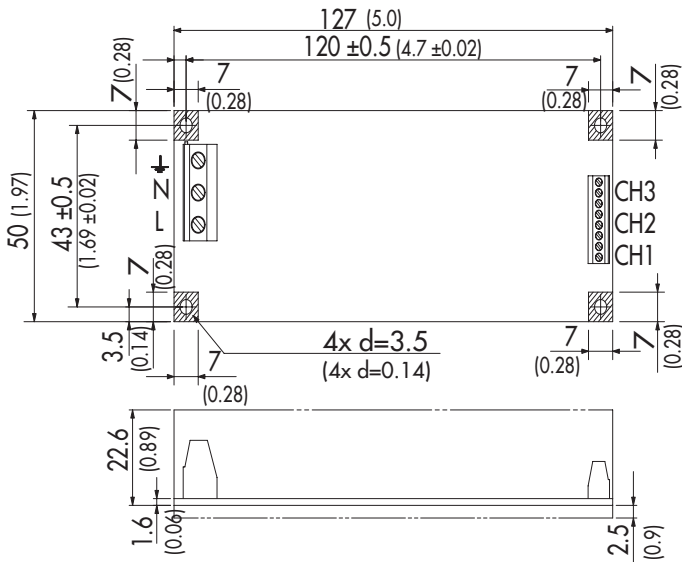


Tolerances:  $\pm 1.0$  mm ( $\pm 0.04$ )

**Weight:** 865 g (30.5 oz)

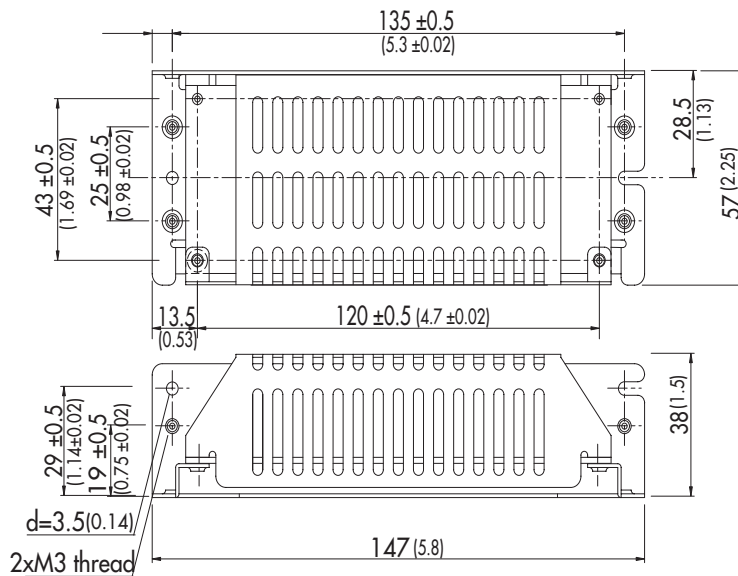
**Outline Dimensions mm (inches)**

**TOF 15-T standard open frame version**



**Weight:** 107g (3.8 oz)

**TOF 15-T with chassis / cover option**

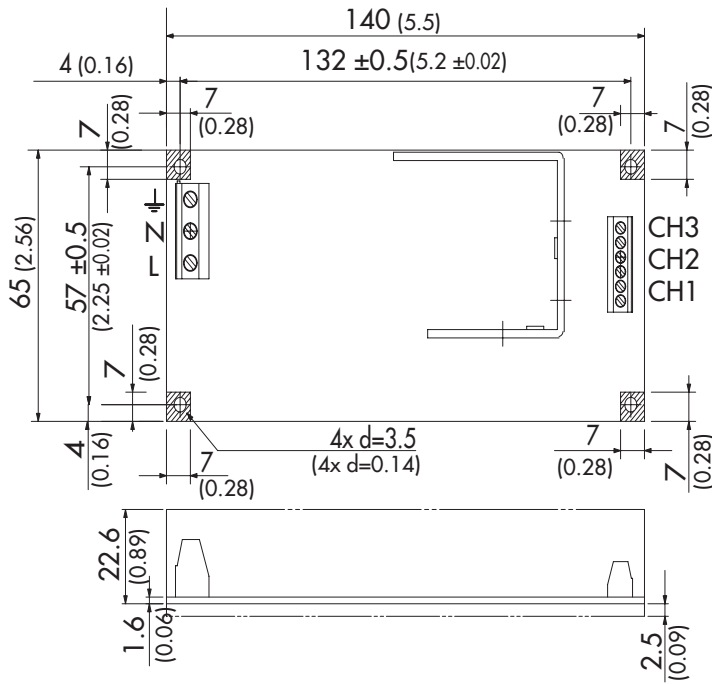


**Weight:** 226g (8 oz)

Tolerances: ±1.0 mm (±0.04)

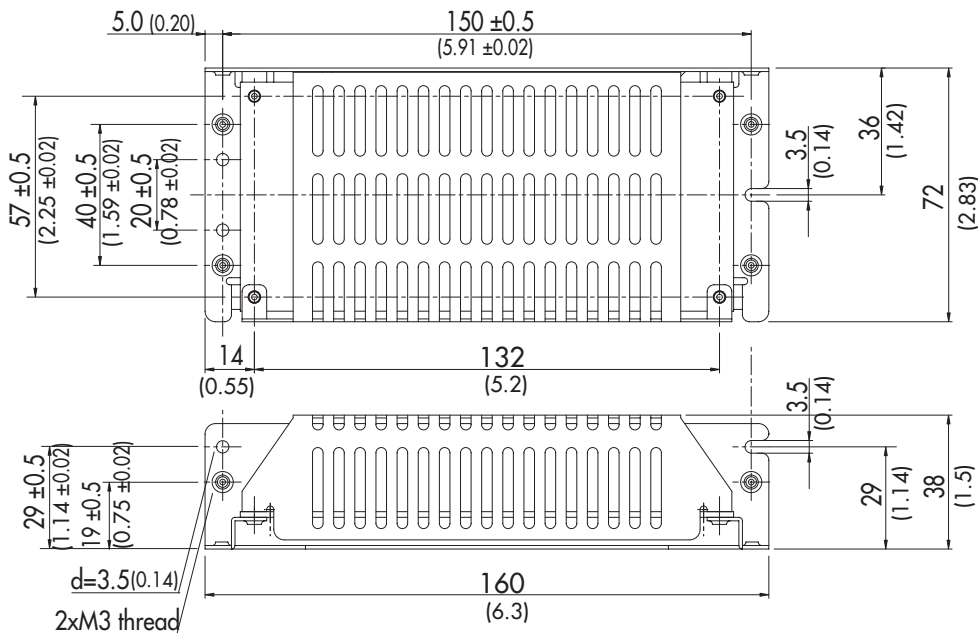
**Outline Dimensions mm (inches)**

**TOF 30-T standard open frame version**



**Weight:** 170g (6 oz)

**TOF 30-T with chassis / cover option**



**Weight:** 337g (11.9 oz)

Specifications can be changed without notice! Make sure you are using the latest documentation, downloadable at [www.tracopower.com](http://www.tracopower.com)