

Features

- ◆ Compact U-bracket and enclosed power supplies
- ◆ Screw terminal block
- ◆ Very high efficiency up to 93 %
- ◆ No internal fan for 120 W & 240 W models.
- ◆ Universal input 90 – 264 VAC
- ◆ Adjustable output voltage
- ◆ EMI/EMC compliance with EN 61000-6-3 and EN 61000-6-1
- ◆ Compliance to EN 61000-3-2 (PFC)
- ◆ Short circuit and overvoltage protection
- ◆ 3-year product warranty



The TRACOPOWER TXH series is a family of power supplies in metal enclosure, designed for a wide range of cost critical applications. The very high efficiency of up to 93% admits of a compact design with free air convection cooling for the 120 and 240 Watt models. The units are equipped with screw terminal blocks and are easy to install in any equipment.

These power supplies have universal input and comply with European EMC standards and the Low Voltage Directive (LVD).

Models with Single Output

Order code	Output power max.	Output voltage nom.	Output current max.	Efficiency typ. at 230 VAC
TXH 120-112	120 Watt	12 VDC	10 A	90 %
TXH 120-124		24 VDC	5.0 A	91 %
TXH 120-148		48 VDC	2.5 A	92 %
TXH 240-112	240 Watt	12 VDC	20 A	90 %
TXH 240-124		24 VDC	10 A	92 %
TXH 240-148		48 VDC	5.0 A	93 %
TXH 360-112	360 Watt	12 VDC	30 A	89 %
TXH 360-124		24 VDC	15 A	91 %
TXH 360-148		48 VDC	7.5 A	93 %
TXH 480-112	480 Watt	12 VDC	40 A	88 %
TXH 480-124		24 VDC	20 A	90 %
TXH 480-136		36 VDC	13.33 A	92 %
TXH 480-148		48 VDC	10 A	91 %

Input Specifications

Input voltage	– nominal	100 – 240 VAC
	– AC range (universal input)	90 – 264 VAC
	– DC range	120 – 370 VDC
Input frequency		47 – 63 Hz
Earth leakage current (240 VAC / 63 Hz)		360 W models: 300 µA max. other models: 500 µA max.
Input current at full load	– at 115 VAC / 230 VAC	120 W models: 2.0 A typ. / 1.0 A typ.
		240 W models: 3.0 A typ. / 1.5 A typ.
		360 W models: 4.0 A typ. / 2.0 A typ.
		480 W models: 5.5 A typ. / 3.0 A typ.
Recommended circuit breaker (characteristic C) or slow blow fuse		120 & 240 W models: 5 A 360 & 480 W models: 10 A

Output Specifications

Voltage set accuracy		±2 % max.				
Output voltage adjustment range		120 & 240 W models:	fixed			
		360 & 480 W models:	±10 % with internal potentiometer			
Regulation	– Input variation	1 % max.				
	– Load variation (0–100%)	1 % max.				
Minimum load		not required				
Ripple and noise (20 MHz bandwidth) [mVp-p] max.		Models:	12 VDC	24 VDC	36 VDC	48 VDC
		120 W	120	240	-	480
		240 W	120	200	-	200
		360 W	150	200	-	200
		480 W	100	200	200	300
Hold-up time		10 ms min.				
Current limitation		130 - 150 % foldback, auto recovery				
Short circuit protection		360 & 480 W models:	indefinite, auto recovery			
		120 & 240 W models:	no auto recovery (power disconnect required)			
Overvoltage protection by Zener diode		360 & 480 W models:	120 % of Vout typ. auto recovery			
		120 & 240 W models:	no auto recovery (power disconnect required)			
Overtemperature protection		for 360 & 480 W models only, auto recovery				
Capacitive load, [µF] max.		Models:	12 VDC	24 VDC	36 VDC	48 VDC
		120 W	23'000	tba	-	470
		240 W	23'000	tba	-	470
		360 W	85'000	48'000	-	13'000
		480 W	180'000	75'000	50'000	25'000

General Specifications

Temperature ranges	– Operating	480 W models:	-20°C to +70°C
	– Storage (non operating)	other models:	-10°C to +70°C -25°C to +85°C
Derating		2.5 %/K above +50°C (-20°C to +5°C operation also requires a derating for THX 480-112 model: 2%/K below 5°C)	
Temperature coefficient		0.03 %/K	
Humidity (non condensing)		95 % rel max.	

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

General Specifications

Switching frequency (pulse width modulation PWM)	120 & 240 W models:	100 kHz typ.
	360 W models:	75 kHz typ.
	480 W models:	62.5 kHz typ.
Isolation voltage (60 sec.)	– Input / Output	120 & 240 W models: 4'000 VAC
	– Input / Case	360 & 480 W models: 3'000 VAC
	– Output / Case	120 & 240 W models: 2'000 VAC
		360 & 480 W models: 1'500 VAC
		500 VAC
Reliability /calculated MTBF (MIL-HDBK-217F, at +25°C, ground benign)	120 & 360 W models:	>120'000 h
	240 W models:	>50'000 h
	480 W models:	>100'000 h
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 B
Electromagnetic compatibility (EMC), Immunity		EN 55024
Degree of protection		class I
Safety standards		UL 60950-1, IEC/EN 60950-1
Safety approvals	– UL/cUL 60950-1 – CB report according to IEC 60950-1	www.ul.com -> certifications -> File e188913 www.tracopower.com/products/txh-cb.pdf
Environment	– Vibration – Shock	3 axes, sine sweep, 10–500Hz, 2g, 0.1 oct/min tba.
Environmental compliance	– Reach – RoHS	www.tracopower.com/products/txh-reach.pdf RoHS directive 2011/65/EU
Altitude during operation	120 / 240 & 360 W models:	up to 4'000 m (13'120 ft) approved
	480 W models:	up to 3'000 m (9'840 ft) approved

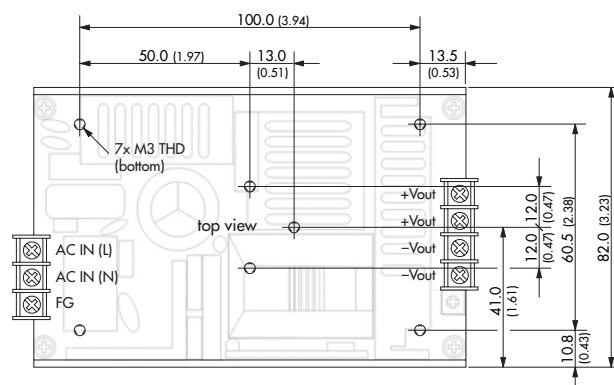
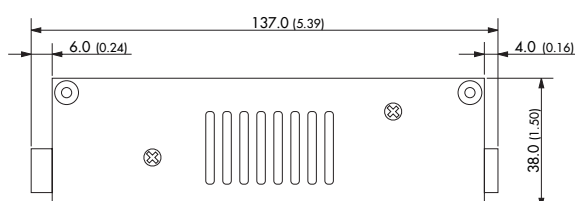
Outline Dimensions

TXH 120 models

Weight: 390 g (13.8 oz)

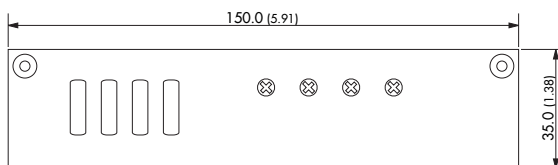
Optional Cover

TXH 120-COV Cover incl. screws for TXH 120 models

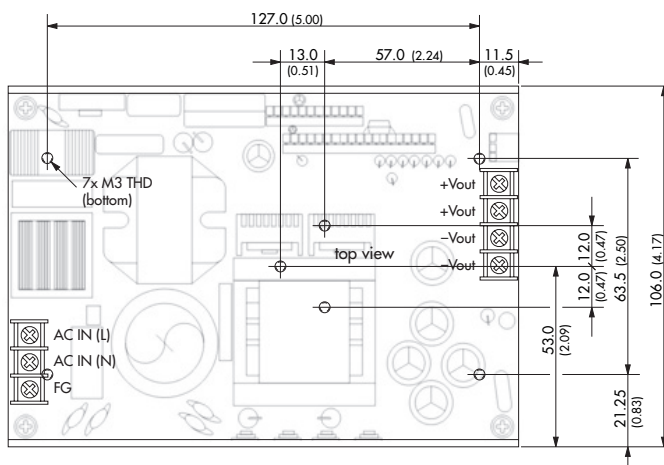


TXH 240 models

Weight: 580 g (20.5 oz)

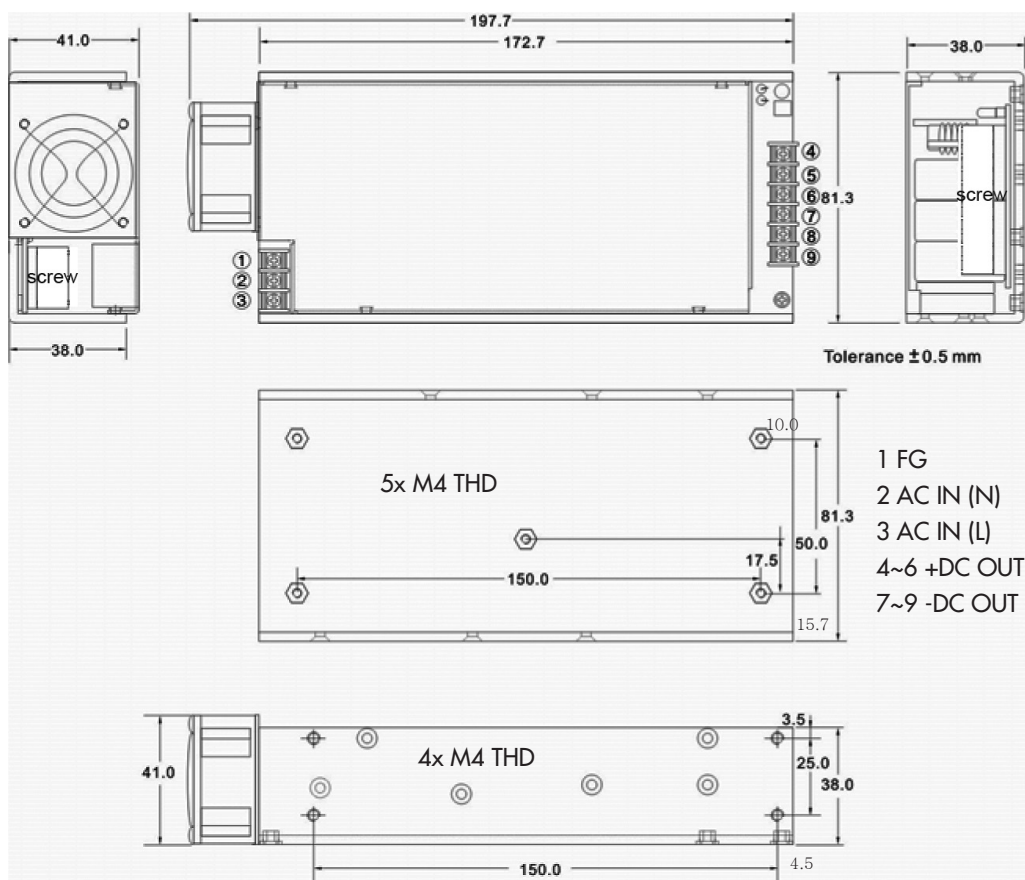


TXH 240-COV	Cover incl. screws for TXH 240 models
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TXH 360 models

Weight: 750 g (26 oz)



Dimensions in [mm], () = Inch
Tolerances ± 0.8 (± 0.03)
Mounting hole pitch tolerances ± 0.5 (± 0.02)

Max mounting screw penetration: 3.0 mm (0.12)

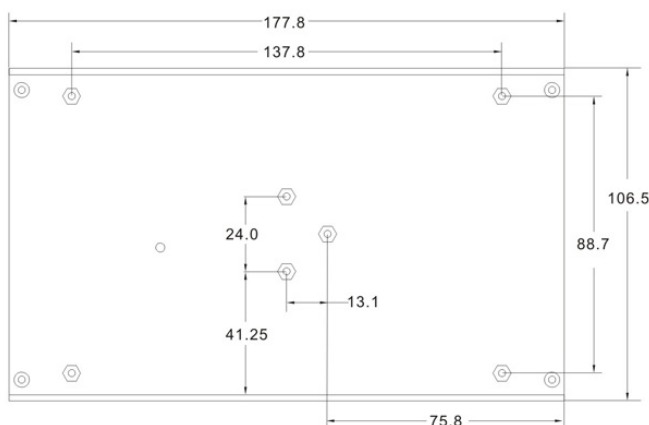
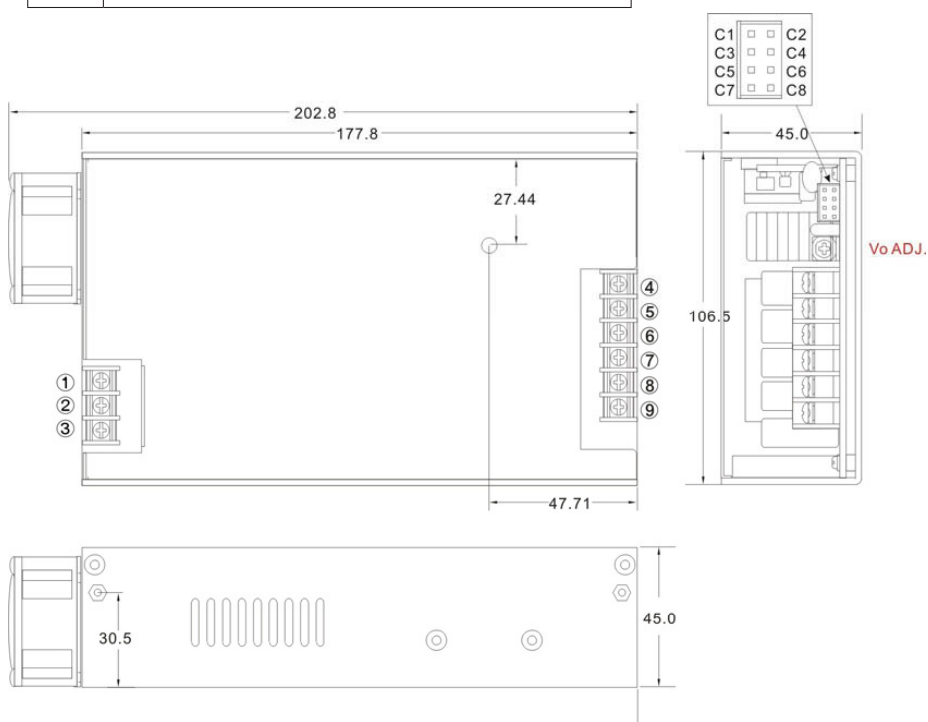
Outline Dimensions

TXH 480 models

Control connector	
C1	+ Sense
C2	- Sense
C3	Remote Control: open = On, short = Off
C4	
C5	DC-OK: 4-6 VDC = On, 0-1 VDC = Off
C6	GND
C7	+5 VDC aux. $\pm 10\%$, 0.6 A max.
C8	GND aux.

Input terminal	
1	AC (N)
2	AC (L)
3	FG

Output terminal	
4-6	+ Vout
7-9	- Vout



Max mounting screw penetration: 2.5 mm (0.10)

Weight: 1050 g (37 oz)

Dimensions in [mm], () = Inch

 Tolerances ± 0.8 (± 0.03)

 Mounting hole pitch tolerances ± 0.5 (± 0.02)

 Specifications can be changed without notice! Make sure you are using the latest documentation, downloadable at www.tracopower.com