

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 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 [VDC]		Output current max.	Efficiency typ. at 230 VAC
		nominal *	adjustable		
TXH 120-112	120 Watt	12	11.4 – 13.2	10 A	90 %
TXH 120-124		24	22.8 – 26.4	5.0 A	91 %
TXH 120-148		48	45.6 – 52.0	2.5 A	92 %
TXH 240-112	240 Watt	12	11.4 – 12.6	20 A	90 %
TXH 240-124		24	22.8 – 25.2	10 A	92 %
TXH 240-148		48	45.6 – 50.4	5.0 A	93 %
TXH 360-112	360 Watt	12	10.8 – 13.2	30 A	89 %
TXH 360-124		24	21.6 – 26.4	15 A	91 %
TXH 360-148		48	44.0 – 51.0	7.5 A	93 %
TXH 480-112	480 Watt	12	10.8 – 13.2	40 A	88 %
TXH 480-124		24	21.6 – 26.4	20 A	90 %
TXH 480-148		48	43.2 – 50.4	10 A	91 %

* 36 VDC output voltage models on request.

Input Specifications

Input voltage	– nominal – AC range (universal input) – DC range	100 – 240 VAC 90 – 264 VAC 120 – 370 VDC
Input frequency		47 – 63 Hz
Earth leakage current (240 VAC / 63 Hz)		360 W models: 300 μ A max. other models: 500 μ A max.
Input current at full load	– at 115 VAC / 230 VAC	120 W models: 1.2 A typ. / 0.6 A typ. 240 W models: 2.3 A typ. / 1.1 A typ. 360 W models: 3.6 A typ. / 1.8 A typ. 480 W models: 5.1 A typ. / 2.5 A typ.
Recommended circuit breaker (characteristic C) or slow blow fuse		120 W models: 3.15 A 240 W models: 5 A 360 W models: 6.3 A 480 W models: 10 A

Output Specifications

Voltage set accuracy		± 2 % max.																				
Output voltage adjustment range		details see table page 1																				
Regulation	– Input variation – Load variation (0–100%)	1 % max. 1 % max.																				
Minimum load		not required																				
Ripple and noise (20 MHz bandwidth) [mVp-p] max.	Models:	<table border="1"> <thead> <tr> <th></th> <th>12 VDC</th> <th>24 VDC</th> <th>48 VDC</th> </tr> </thead> <tbody> <tr> <td>120 W</td> <td>120</td> <td>240</td> <td>480</td> </tr> <tr> <td>240 W</td> <td>120</td> <td>200</td> <td>200</td> </tr> <tr> <td>360 W</td> <td>150</td> <td>200</td> <td>200</td> </tr> <tr> <td>480 W</td> <td>100</td> <td>200</td> <td>300</td> </tr> </tbody> </table>		12 VDC	24 VDC	48 VDC	120 W	120	240	480	240 W	120	200	200	360 W	150	200	200	480 W	100	200	300
	12 VDC	24 VDC	48 VDC																			
120 W	120	240	480																			
240 W	120	200	200																			
360 W	150	200	200																			
480 W	100	200	300																			
Hold-up time		10 ms min.																				
Current limitation		130 - 150 % foldback, auto recovery																				
Short circuit protection	360 & 480 W models: 120 & 240 W models:	indefinite, auto recovery no auto recovery (power disconnect required)																				
Oversoltage protection by Zener diode	360 & 480 W models: 120 & 240 W models:	120 % of Vout typ. auto recovery no auto recovery (power disconnect required)																				
Overtemperature protection		for 360 & 480 W models only, auto recovery																				
Capacitive load, [μ F] max.	Models:	<table border="1"> <thead> <tr> <th></th> <th>12 VDC</th> <th>24 VDC</th> <th>48 VDC</th> </tr> </thead> <tbody> <tr> <td>120 W</td> <td>23'000</td> <td>10'000</td> <td>470</td> </tr> <tr> <td>240 W</td> <td>23'000</td> <td>10'000</td> <td>470</td> </tr> <tr> <td>360 W</td> <td>85'000</td> <td>48'000</td> <td>13'000</td> </tr> <tr> <td>480 W</td> <td>180'000</td> <td>75'000</td> <td>25'000</td> </tr> </tbody> </table>		12 VDC	24 VDC	48 VDC	120 W	23'000	10'000	470	240 W	23'000	10'000	470	360 W	85'000	48'000	13'000	480 W	180'000	75'000	25'000
	12 VDC	24 VDC	48 VDC																			
120 W	23'000	10'000	470																			
240 W	23'000	10'000	470																			
360 W	85'000	48'000	13'000																			
480 W	180'000	75'000	25'000																			

General Specifications

Temperature ranges	– Operating – Storage (non operating)	120 W models: -25°C to $+70^{\circ}\text{C}$ 480 W models: -20°C to $+70^{\circ}\text{C}$ other models: -10°C to $+70^{\circ}\text{C}$ -25°C to $+85^{\circ}\text{C}$
Derating	– Ambient temperature – Low input voltage	2.5 %/K above $+50^{\circ}\text{C}$ low temperature derating for TXH480-112 model: 2%K below 5°C below 100 VAC: 1%/V
Temperature coefficient		0.03 %/K
Humidity (non condensing)		95 % rel max.

All specifications valid at nominal input voltage, full load and $+25^{\circ}\text{C}$ 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.)	120 & 240 W models: 4'000 VAC 360 & 480 W models: 3'000 VAC
– Input / Output	120 & 240 W models: 2'000 VAC 360 & 480 W models: 1'500 VAC
– Input / Case	500 VAC
– Output / Case	
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 3 axes, sine sweep, 10–500Hz, 2g, 0.1 oct/min
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

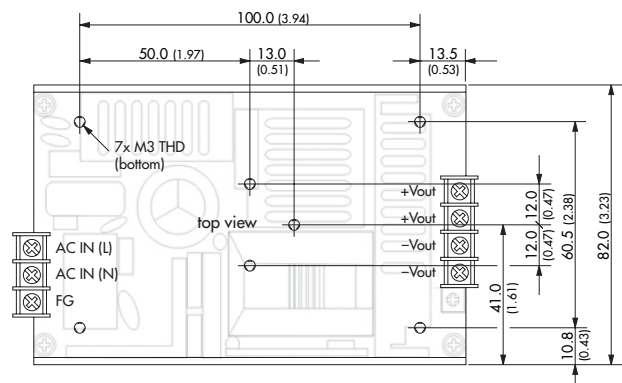
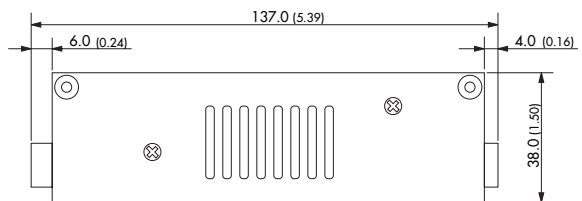
Outline Dimensions

TXH 120 models

Weight: 390 g (13.8 oz)

Optional Cover

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



Max mounting screw penetration: 2.5 mm (0.1)

Outline Dimensions

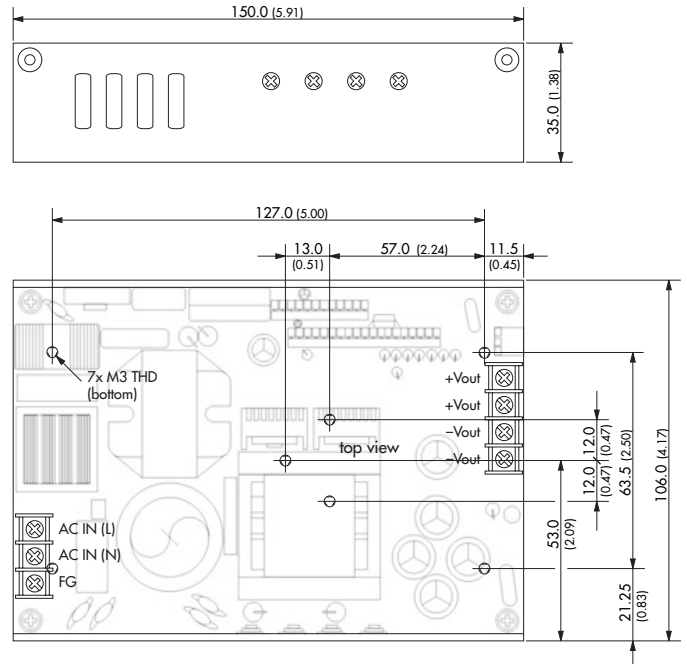
TXH 240 models

Weight: 580 g (20.5 oz)

Optional Cover

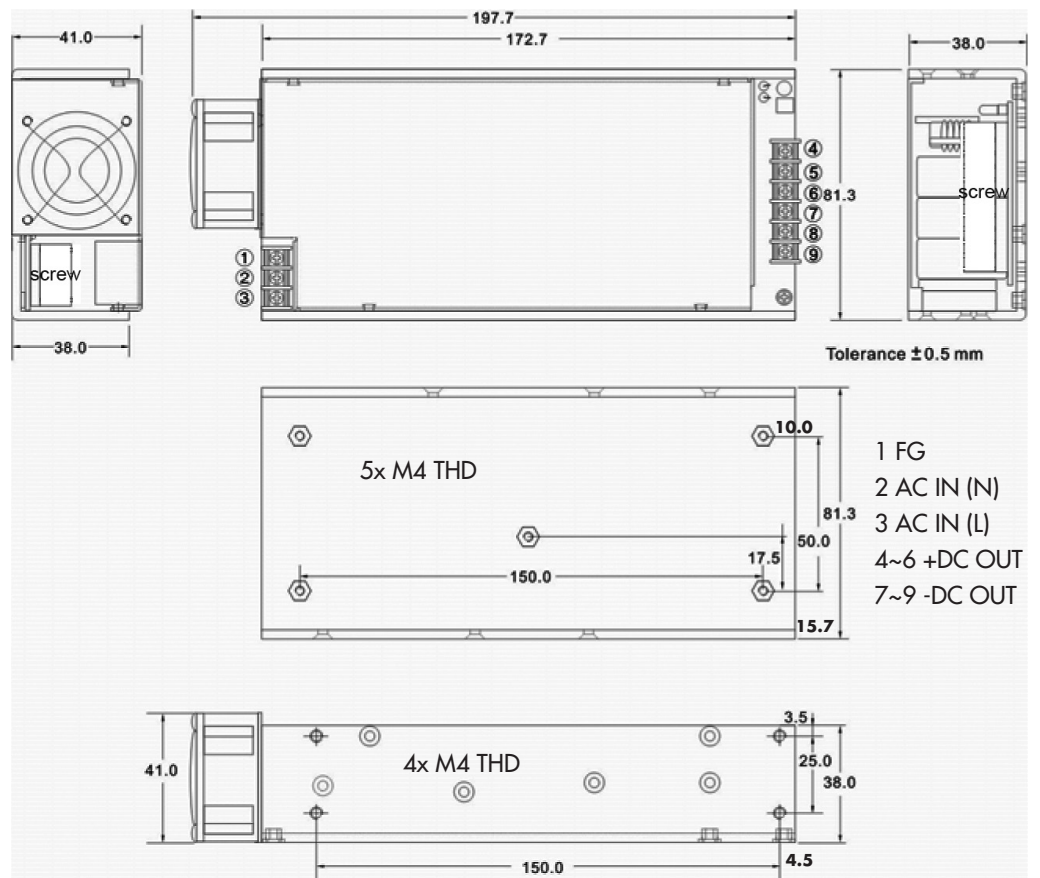
TXH 240-COV Cover incl. screws for TXH 240 models

Max mounting screw penetration: 2.5 mm (0.10)
Terminal rating: 25A
At higher current connection has to be splitted



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: 2.5 mm (0.10)
Terminal rating: 25A
At higher current connection has to be splitted

Outline Dimensions

TXH 480 models

Weight: 1050 g (37 oz)

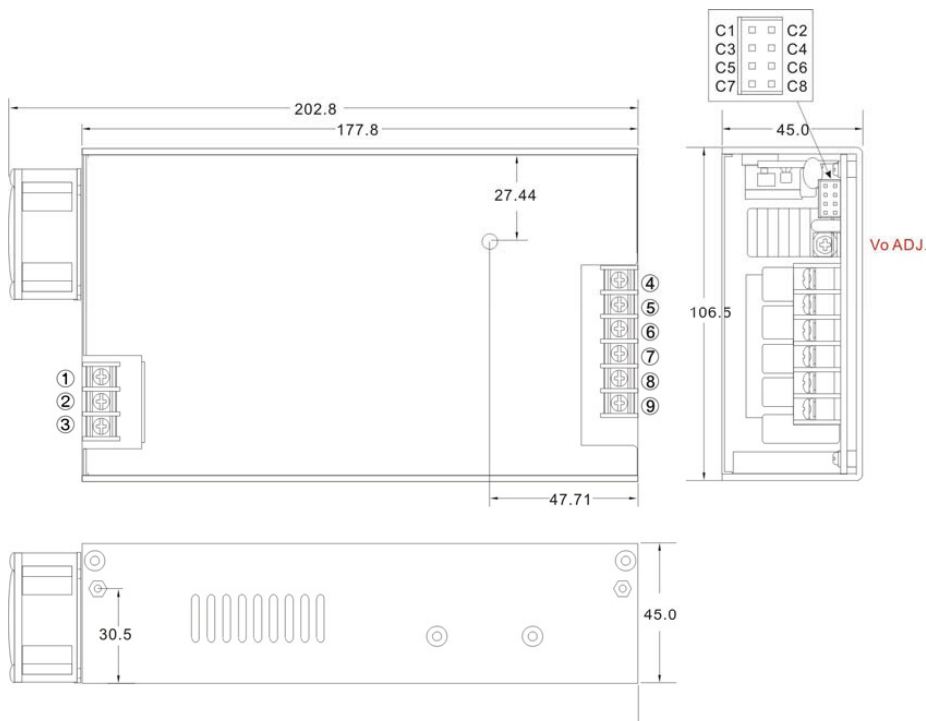
Mating connector:

Housing: JST PHDR-08VS

Crimp: JST SPHD-002T-P0.5

Connection cable with 500mm flying leads included!

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)
Terminal rating: 25A
At higher current connection has to be splitted

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