

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 µA max. other models: 500 µA 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: | 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) |
| Overvoltage 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, [µF] max. | Models: | 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°C 480 W models: –20°C to +70°C other models: –10°C to +70°C –25°C to +85°C |
| Derating | – Ambient temperature – Low input voltage | 2.5 %/K above +50°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°C after warm-up time unless otherwise stated.

General Specifications

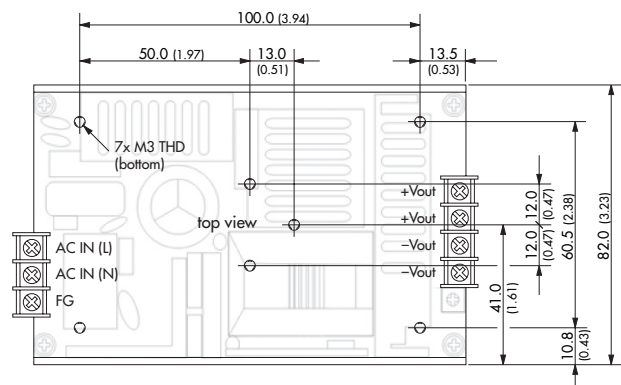
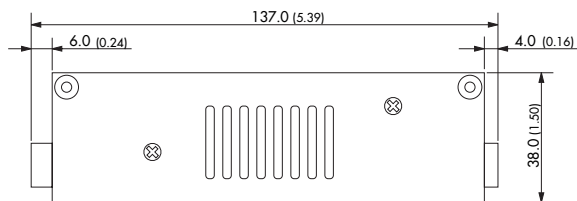
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|--|--|
| Switching frequency (pulse width modulation PWM) | 120 & 240 W models: 100 kHz typ. 360 W models: 75 kHz typ. 480 W models: 62.5 kHz typ. |
| Isolation voltage (60 sec.) | <ul style="list-style-type: none"> – Input / Output 120 & 240 W models: 4'000 VAC 360 & 480 W models: 3'000 VAC – Input / Case 120 & 240 W models: 2'000 VAC 360 & 480 W models: 1'500 VAC – Output / Case 500 VAC |
| Reliability /calculated MTBF (MIL-HDBK-217F, at +25°C, ground benign) | <ul style="list-style-type: none"> 120 & 360 W models: >120'000 h 240 W models: >50'000 h 480 W models: >100'000 h |
| Electromagnetic compatibility (EMC), Emissions | <ul style="list-style-type: none"> – Conducted input RI suppression EN 55022, class B, FCC part 15, level B – Harmonic current emissions 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 style="list-style-type: none"> – UL/cUL 60950-1 www.ul.com -> certifications -> File e188913 – CB report according to IEC 60950-1 www.tracopower.com/products/txh-cb.pdf |
| Environment | – Vibration 3 axes, sine sweep, 10–500Hz, 2g, 0.1 oct/min |
| Environmental compliance | <ul style="list-style-type: none"> – Reach www.tracopower.com/products/txh-reach.pdf – RoHS RoHS directive 2011/65/EU |
| Altitude during operation | <ul style="list-style-type: none"> 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 480 models

Weight: 1050 g (37 oz)

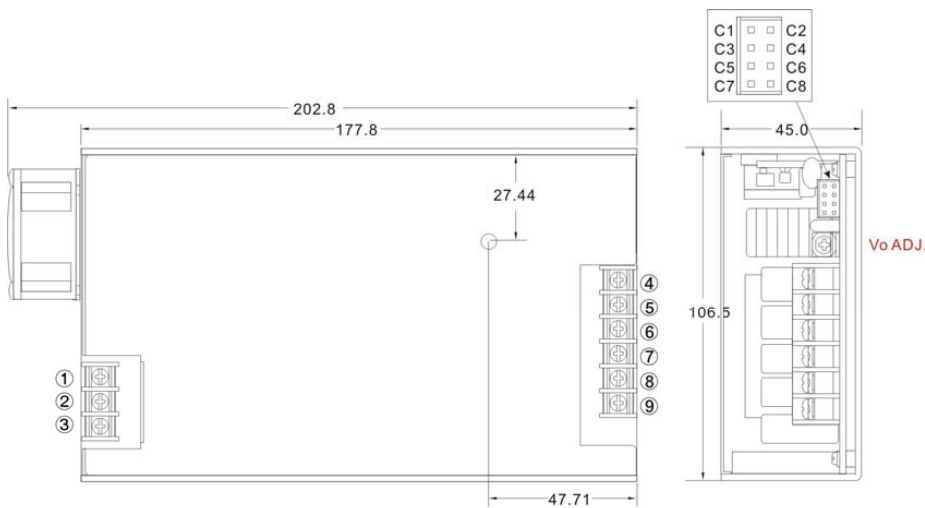
Mating connector:

Housing: JST PHDR-08VS

Crimp: JST SPHD-002T-P0.5

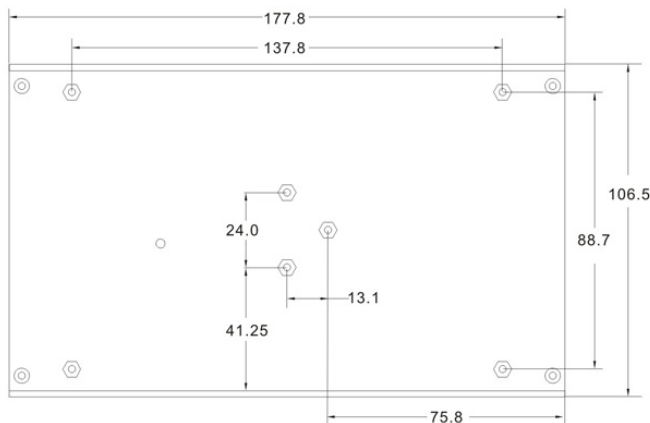
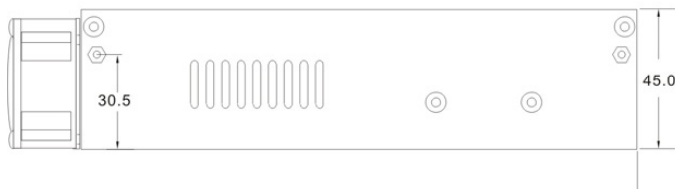
Connection cable with 500mm flying leads included!

| 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