

- Very compact metal cased power supplies
- High operating temperature up to 70°C
- Screw terminal block
- No internal fan
- Universal AC input, full range
- Active power factor correction >0.95
- Withstand 300 VAC surge input for 5 s
- Adjustable output voltage
- 3-year product warranty



The TXM 150 series of 150 Watt is a family of enclosed AC/DC power supplies designed for cost critical applications. With a low profile metal case and screw terminal block connections, they are easy to install in any equipment. There are four models of single output voltages from 12 VDC to 48 VDC. These power supplies have universal input and comply with European EMC standards and the Low Voltage Directive (LVD).

| Models | | | | |
|-------------|-------------------|----------------------------------|---------------------|-----------------|
| Order Code | Output Power max. | Output Voltage nom. (adjustable) | Output Current max. | Efficiency typ. |
| TXM 150-112 | 150 W | 12 VDC (10.8 - 13.2 VDC) | 12'500 mA | 86 % |
| TXM 150-115 | | 15 VDC (13.5 - 16.5 VDC) | 10'000 mA | 87 % |
| TXM 150-124 | 151 W | 24 VDC (21.6 - 26.4 VDC) | 6'300 mA | 88 % |
| TXM 150-148 | 154 W | 48 VDC (43.2 - 52.8 VDC) | 3'200 mA | 88 % |

Input Specifications

| | | |
|------------------------|-----------------------------|---|
| Input Voltage | - AC Range | Operational Range: 85 - 264 VAC (Full Range) Rated Range: 100 - 240 VAC (Full Range) |
| | - DC Range | Operational Range: 120 - 375 VDC (Designed for, no certification) Polarity: irrelevant (Surge voltage (5 s max.): 300 VAC max.) |
| Input Frequency | | Operational Range: 47 - 63 Hz Certified: 50/60 Hz |
| Input Current | - Full Load & Vin = 115 VAC | 2'000 mA max. |
| Power Consumption | - No load & Vin = 230 VAC | 5'600 mW max. |
| | - No load & Vin = 115 VAC | 4'400 mW max. |
| Input Inrush Current | - At 230 VAC | 45 A max. |
| | - At 115 VAC | 30 A max. |
| Power Factor | - At 230 VAC | 0.95 min. (Active Power Factor Correction) |
| | - At 115 VAC | 0.98 min. (Active Power Factor Correction) |
| Recommended Input Fuse | | (The need of an external fuse has to be assessed in the final application.) |

Output Specifications

| | | |
|--|---------------------------------|--|
| Output Voltage Adjustment | | ±10% (By trim potentiometer) Output power must not exceed rated power! |
| Voltage Set Accuracy | | ±2% max. |
| Regulation | - Input Variation (Vmin - Vmax) | 0.5% max. |
| | - Load Variation (0 - 100%) | 1% max. (24 & 48 VDC models) 2% max. (12 & 15 VDC models) |
| Ripple and Noise (20 MHz Bandwidth) | | 100 mVp-p max. (w/ 0.1 µF 10 µF) |
| Minimum Load | | Not required |
| Temperature Coefficient | | ±0.03 %/K max. |
| Hold-up Time | - At 230 VAC | 10 ms min. |
| Start-up Time | - At 230 VAC | 2'000 ms max. |
| | - At 115 VAC | 3'000 ms max. |
| Start-up Overshoot Voltage | | 5% max. |
| Short Circuit Protection | | Continuous, Automatic recovery |
| Output Current Limitation | | 105 - 170% of Iout max. |
| Overvoltage Protection | | 110 - 150% of Vout nom. |
| Transient Response | - Response Deviation | 5% max. (75% to 100% Load Step) |
| | - Response Time | 400 µs typ. (75% to 100% Load Step) |

Safety Specifications

| | | |
|-----------------------|-----------------------------|--|
| Safety Standards | - IT / Multimedia Equipment | EN 60950-1 EN 62368-1 IEC 60950-1 IEC 62368-1 UL 60950-1 UL 62368-1 |
| | - Certification Documents | www.tracopower.com/overview/txm150 |
| Protection Class | | Class I (Prepared): Connection to PE |
| Pollution Degree | | PD 2 |
| Over Voltage Category | | OVC II |

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

EMC Specifications

| | | |
|---------------|----------------------------------|---|
| EMI Emissions | - Conducted Emissions | EN 55032 class B (internal filter) |
| | - Radiated Emissions | EN 55032 class B (internal filter) |
| | - Harmonic Current Emissions | EN 61000-3-2, class D |
| | - Voltage Fluctuations & Flicker | EN 61000-3-3 |
| EMS Immunity | | EN 55024 (IT Equipment) |
| | | EN 55035 (Multimedia) |
| | - Electrostatic Discharge | Air: EN 61000-4-2, ± 8 kV, perf. criteria B Contact: EN 61000-4-2, ± 4 kV, perf. criteria B |
| | - RF Electromagnetic Field | EN 61000-4-3, 3 V/m, perf. criteria A |
| | - EFT (Burst) / Surge | EN 61000-4-4, ± 1 kV, perf. criteria B L to L: EN 61000-4-5, ± 1 kV, perf. criteria B L to PE: EN 61000-4-5, ± 2 kV, perf. criteria B |
| | - Conducted RF Disturbances | EN 61000-4-6, 3 Vrms, perf. criteria A |
| | - PF Magnetic Field | Continuous: EN 61000-4-8, 1 A/m, perf. criteria A |
| | - Voltage Dips & Interruptions | 230 VAC / 50 Hz: EN 61000-4-11 30%, 25 periods, perf. criteria C >95%, 0.5 periods, perf. criteria B >95%, 250 periods, perf. criteria C |

General Specifications

| | | |
|--|------------------------------|--|
| Relative Humidity | | 90% max. (non condensing) |
| Temperature Ranges | - Operating Temperature | -10°C to +70°C |
| | - Storage Temperature | -30°C to +85°C |
| Power Derating | - High Temperature | 1.67 %/K above 40°C (12, 24 VDC models) 1.33 %/K above 40°C (15, 48 VDC models) |
| | - Low Input Voltage | 0.83 %/V below 115 VAC (48 VDC model) 1.33 %/K below 120VAC (other models) |
| | | See application note: www.tracopower.com/overview/txm150 |
| Over Temperature Protection Switch Off | - Protection Mode | 100°C to 110°C (Automatic recovery at 50°C typ.) |
| Cooling System | | Natural convection (20 LFM) |
| Altitude During Operation | | 5'000 m max. |
| Switching Frequency | | 75 - 85 kHz (PWM) |
| Insulation System | | Reinforced Insulation |
| Working Voltage (rated) | | 302 VAC |
| Isolation Test Voltage | - Input to Output, 60 s | 3'000 VDC |
| | - Input to Case or PE, 60 s | 1'500 VAC |
| | - Output to Case or PE, 60 s | 500 VAC |
| Creepage | - Input to Output | 7.1 mm min. |
| Clearance | - Input to Output | 7.1 mm min. |
| Isolation Resistance | - Input to Output, 500 VDC | 100 M Ω min. |
| Leakage Current | - Earth Leakage Current | 3500 μ A max. |
| | - Touch Current | 250 μ A max. |
| Reliability | - Calculated MTBF | 200'000 h (MIL-HDBK-21 7F, ground benign) |
| Housing Material | | Aluminum |
| Housing Type | | Metal Case |
| Mounting Type | | Chassis Mount |
| Connection Type | | Screw Terminal |
| Weight | | 635 g |

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

Environmental Compliance - REACH Declaration

www.tracopower.com/info/reach-declaration.pdf

- RoHS Declaration

REACH SVHC list compliant

REACH Annex XVII compliant

www.tracopower.com/info/rohs-declaration.pdf

Exemptions: 7a, 7c-I

(RoHS exemptions refer to the component concentration only, not to the overall concentration in the product (O5A rule))

- SCIP Reference Number

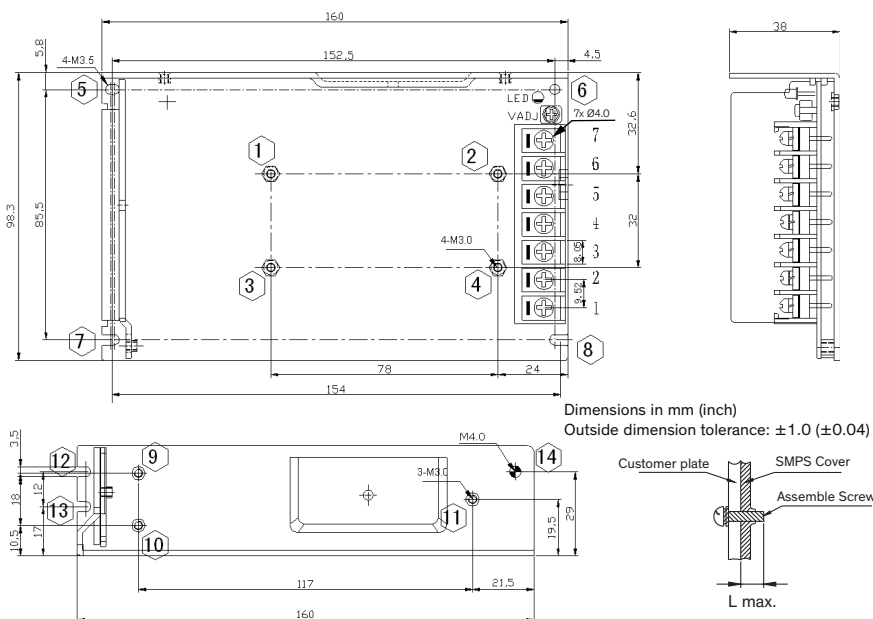
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Supporting Documents

[Overview Link](#) (for additional Documents)

www.tracopower.com/overview/txm150

Outline Dimensions



| Pin-Out | |
|---------|----------|
| Pin | Function |
| 1 | AC (L) |
| 2 | AC (N) |
| 3 | PE |
| 4 | - Vout |
| 5 | - Vout |
| 6 | + Vout |
| 7 | + Vout |

Screw locked torque:
12.0 kgfcm (1.18 Nm) max.

| Screw Definition | | | | |
|---------------------|--------------|------------|----------|-------------|
| Installation Method | Position No. | Screw Size | L max. | Torque max. |
| Bottom Installation | 1-4 | M3 | 4 (0.16) | 12.0 kgfcm |
| | 5-8 | M3 | - | 10.0 kgfcm |
| Side Installation | 9-11 | M3 | 4 (0.16) | 6.5 kgfcm |
| | 12-14 | M3 | - | 10.0 kgfcm |