

- Very compact metal cased power supplies
- High operating temperature up to 70°C
- Low no load power consumption <0.5W
- 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	85 - 264 VAC (Full Range)
	- DC Range	120 - 375 VDC (Designed for, no certification) (Surge voltage (5 s max): 300 VAC max.)
Input Frequency		47 - 63 Hz
Input Current	- Full Load & Vin = 115 VAC	2'000 mA max.
Power Consumption	- At no load	500 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

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

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

EMS Immunity	<ul style="list-style-type: none"> - Electrostatic Discharge - RF Electromagnetic Field - EFT (Burst) / Surge - Conducted RF Disturbances - PF Magnetic Field - Voltage Dips & Interruptions 	EN 55024 (IT Equipment) Air: EN 61000-4-2, ±8 kV, perf. criteria B Contact: EN 61000-4-2, ±4 kV, perf. criteria B EN 61000-4-3, 3 V/m, perf. criteria A 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 EN 61000-4-6, 3 Vrms, perf. criteria A Continuous: EN 61000-4-8, 1 A/m, perf. criteria A 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
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General Specifications

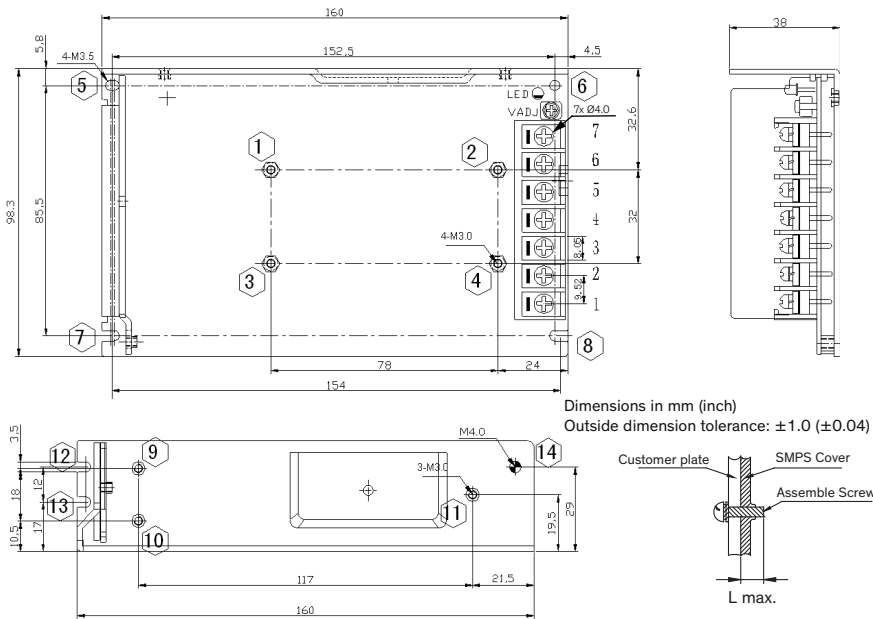
Relative Humidity		90% max. (non condensing)
Temperature Ranges	<ul style="list-style-type: none"> - Operating Temperature - Storage Temperature 	-10°C to +70°C -30°C to +85°C
Power Derating	<ul style="list-style-type: none"> - High Temperature - Low Input Voltage 	1.67 %/K above 40°C (12, 24 VDC models) 1.33 %/K above 40°C (15, 48 VDC models) 0.83 %/V below 115 VAC (48 VDC model) 1.33 %/K below 120VAC (other models)
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		Functional Insulation
Working Voltage (rated)		302 VAC
Isolation Test Voltage	<ul style="list-style-type: none"> - Input to Output, 60 s - Input to Case or PE, 60 s - Output to Case or PE, 60 s 	3'000 VDC 1'500 VAC 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	10 MΩ min.
Leakage Current	<ul style="list-style-type: none"> - Earth Leakage Current - Touch Current 	3500 µA max. 250 µA max.
Reliability	- Calculated MTBF	200'000 h (MIL-HDBK-21 7F, ground benign)
Housing Material		Aluminium
Connection Type		Screw Terminal
Weight		635 g
Environmental Compliance	<ul style="list-style-type: none"> - REACH Declaration - RoHS Declaration 	www.tracopower.com/info/reach-declaration.pdf REACH SVHC list compliant REACH Annex XVII compliant www.tracopower.com/info/rohs-declaration.pdf Exemptions: 7a, 7c-I

Supporting Documents

Overview Link (for additional Documents)	www.tracopower.com/overview/txm150
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Outline Dimensions



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

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