

- 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
- Withstand 300 VAC surge input for 5 s
- Adjustable output voltage
- 3-year product warranty



The TXM 015 series of 15 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 five models of single output voltages from 3.3 VDC to 24 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 015-103	13.2 W	3.3 VDC (3.1 - 3.5 VDC)	4'000 mA	70 %
TXM 015-105	15 W	5 VDC (4.75 - 5.25 VDC)	3'000 mA	76 %
TXM 015-112	15.6 W	12 VDC (11.4 - 12.6 VDC)	1'300 mA	80 %
TXM 015-115	15 W	15 VDC (14.25 - 15.75 VDC)	1'000 mA	81 %
TXM 015-124	16.8 W	24 VDC (22.8 - 25.2 VDC)	700 mA	83 %

Input Specifications

Input Voltage	- AC Range - DC Range	85 - 264 VAC (Full 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	700 mA max.
Power Consumption	- At no load	500 mW max.
Input Inrush Current	- At 230 VAC - At 115 VAC	40 A max. 20 A max.
Recommended Input Fuse		(The need of an external fuse has to be assessed in the final application.)

Output Specifications

Output Voltage Adjustment		-5% to +10% (By trim potentiometer) Output power must not exceed rated power!
Voltage Set Accuracy		±3% max.
Regulation	- Input Variation (Vmin - Vmax) - Load Variation (0 - 100%)	1% max. 2% max.
Ripple and Noise (20 MHz Bandwidth)		3.3 VDC model: 50 mVp-p max. (w/ 0.1 µF // 10 µF) 5 VDC model: 50 mVp-p max. (w/ 0.1 µF // 10 µF) 12 VDC model: 120 mVp-p max. (w/ 0.1 µF // 10 µF) 15 VDC model: 120 mVp-p max. (w/ 0.1 µF // 10 µF) 24 VDC model: 120 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 - At 115 VAC	20 ms min. 10 ms min.
Start-up Time	- At 230 VAC - At 115 VAC	1'000 ms max. 2'000 ms max.
Start-up Overshoot Voltage		5% max.
Short Circuit Protection		Continuous, Automatic recovery
Output Current Limitation		105 - 150% of Iout max.
Overvoltage Protection		105 - 150% of Vout nom.
Transient Response	- Response Deviation - Response Time	4% max. (75% to 100% Load Step) 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/txm015
Protection Class		Class I (Prepared): Connection to PE
Pollution Degree		PD 2
Over Voltage Category		OVC II

EMC Specifications

EMI Emissions	- Conducted Emissions - Radiated Emissions - Harmonic Current Emissions - Voltage Fluctuations & Flicker	EN 55032 class B (internal filter) EN 55032 class B (internal filter) EN 61000-3-2, class A EN 61000-3-3
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All specifications valid at nominal voltage, full load and +25°C after warm-up time unless otherwise stated.

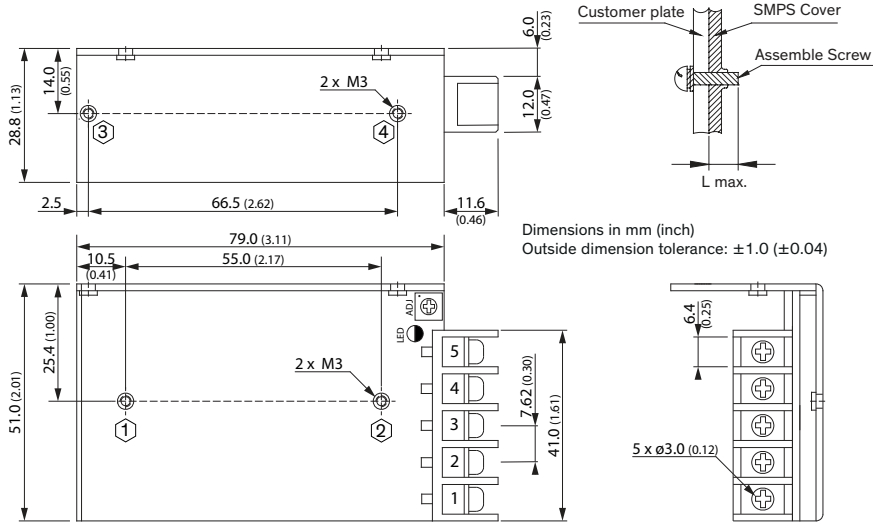
EMS Immunity	<ul style="list-style-type: none"> - Electrostatic Discharge - RF Electromagnetic Field - EFT (Burst) / Surge - Conducted RF Disturbances - PF Magnetic Field - Voltage Dips & Interruptions 	EN 55024 (IT Equipment) Air: EN 61000-4-2, ±8 kV, perf. criteria B Contact: EN 61000-4-2, ±4 kV, perf. 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 	-25°C to +70°C -40°C to +85°C
Power Derating	- High Temperature	0.67 %/K above 50°C (3.3 VDC model) 1 %/K above 50°C (other models)
Cooling System		Natural convection (20 LFM)
Altitude During Operation		2'000 m max.
Switching Frequency		65 kHz typ. (PWM)
Insulation System		Reinforced Insulation
Working Voltage (rated)		264 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	5.6 mm min.
Clearance	- Input to Output	5.6 mm min.
Isolation Resistance	- Input to Output, 500 VDC	100 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-217F, ground benign)
Housing Material		Aluminium
Connection Type		Screw Terminal
Weight		180 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/txm015

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Outline Dimensions



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

Screw Definition				
Installation Method	Position No.	Screw Size	L max.	Torque max.
Bottom Installation	1-2	M3	3 (0.12)	6.5 kgfcm
Side Installation	3-4	M3	3 (0.12)	6.5 kgfcm