

- 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 035 series of 35 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 5 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 035-105	30 W	5 VDC (4.75 - 5.5 VDC)	6'000 mA	80 %
TXM 035-112		12 VDC (11.4 - 13.2 VDC)	3'000 mA	84 %
TXM 035-115		15 VDC (14.25 - 16.5 VDC)	2'400 mA	86 %
TXM 035-124		24 VDC (22.8 - 26.4 VDC)	1'500 mA	87 %
TXM 035-148		48 VDC (45.6 - 52.8 VDC)	750 mA	88 %

### Input Specifications

Input Voltage	- AC Range	Operational Range: <b>85 - 264 VAC</b> (Full Range) Rated Range: <b>100 - 240 VAC</b> (Full Range)
	- DC Range	Operational Range: <b>120 - 375 VDC</b> (Designed for, no certification) Polarity: <b>irrelevant</b> (Surge voltage (5 s max.): 300 VAC max.)
Input Frequency		Operational Range: <b>47 - 63 Hz</b> Certified: <b>50/60 Hz</b>
Input Current	- Full Load & Vin = 115 VAC	<b>1'000 mA max.</b>
Power Consumption	- No load & Vin = 230 VAC	<b>500 mW max.</b>
	- No load & Vin = 115 VAC	<b>500 mW max.</b>
Input Inrush Current	- At 230 VAC	<b>50 A max.</b>
Recommended Input Fuse		(The need of an external fuse has to be assessed in the final application.)

### Output Specifications

Output Voltage Adjustment		<b>-5% to +10%</b> (By trim potentiometer) Output power must not exceed rated power!
Voltage Set Accuracy		<b>±3% max.</b>
Regulation	- Input Variation (Vmin - Vmax)	<b>0.5% max.</b>
	- Load Variation (0 - 100%)	<b>1% max.</b>
Ripple and Noise (20 MHz Bandwidth)	5 VDC model:	<b>50 mVp-p max.</b> (w/ 0.1 µF    10 µF)
	12 VDC model:	<b>80 mVp-p max.</b> (w/ 0.1 µF    10 µF)
	15 VDC model:	<b>120 mVp-p max.</b> (w/ 0.1 µF    10 µF)
	24 VDC model:	<b>120 mVp-p max.</b> (w/ 0.1 µF    10 µF)
	48 VDC model:	<b>180 mVp-p max.</b> (w/ 0.1 µF    10 µF)
Minimum Load		<b>Not required</b>
Temperature Coefficient		<b>±0.03 %/K max.</b>
Hold-up Time	- At 230 VAC	<b>20 ms min.</b>
	- At 115 VAC	<b>10 ms min.</b>
Start-up Time	- At 230 VAC	<b>1'000 ms max.</b>
Start-up Overshoot Voltage		<b>5% max.</b>
Short Circuit Protection		<b>Continuous, Automatic recovery</b>
Output Current Limitation		<b>105 - 150% of Iout max.</b>
Oversvoltage Protection		<b>110 - 150% of Vout nom.</b>
Transient Response	- Response Deviation	<b>9% max.</b> (75% to 100% Load Step)
	- Response Time	<b>400 µs typ.</b> (75% to 100% Load Step)

### Safety Specifications

Standards	- IT / Multimedia Equipment	EN 60950-1 EN 62368-1 IEC 60950-1 IEC 62368-1 UL 60950-1 UL 62368-1
	- Certification Documents	<a href="http://www.tracopower.com/overview/txm035">www.tracopower.com/overview/txm035</a>
Protection Class		<b>Class I (Prepared): Connection to PE</b>
Pollution Degree		<b>PD 2</b>
Over Voltage Category		<b>OVC II</b>

### EMC Specifications

EMI Emissions	- Conducted Emissions	<b>EN 55032 class B</b> (internal filter)
	- Radiated Emissions	<b>EN 55032 class B</b> (internal filter)
	- Harmonic Current Emissions	<b>EN 61000-3-2, class A</b>
	- Voltage Fluctuations & Flicker	<b>EN 61000-3-3</b>

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

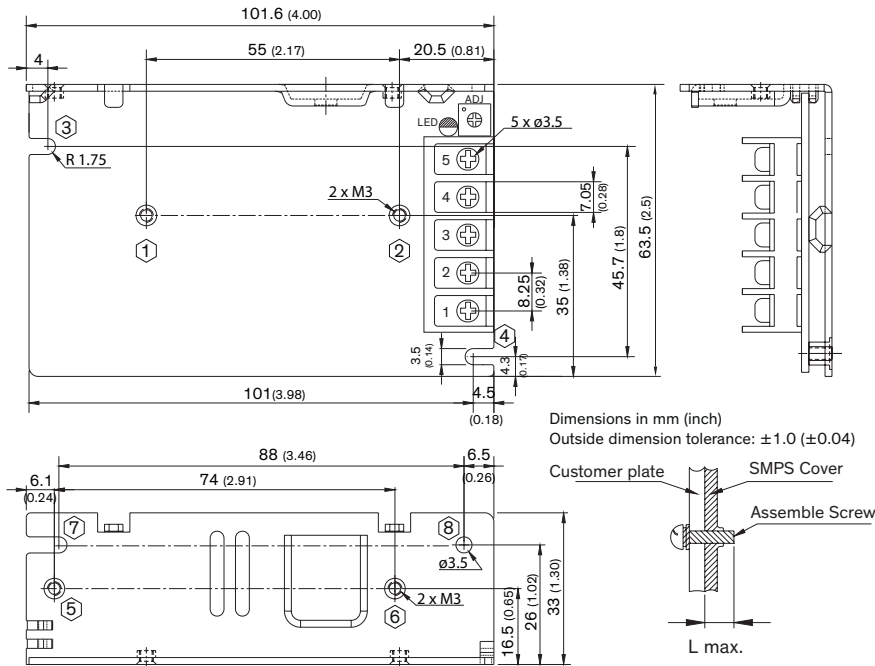
<b>EMS Immunity</b>		EN 55024 (IT Equipment) EN 55035 (Multimedia)
- Electrostatic Discharge	Air:	EN 61000-4-2, ±8 kV, perf. criteria B
	Contact:	EN 61000-4-2, ±4 kV, perf. criteria B EN 61000-4-3, 3 V/m, perf. criteria A EN 61000-4-4, ±1 kV, perf. criteria B
- RF Electromagnetic Field	L to L:	EN 61000-4-5, ±1 kV, perf. criteria B
- EFT (Burst) / Surge	L to PE:	EN 61000-4-5, ±2 kV, perf. criteria B EN 61000-4-6, 3 Vrms, perf. criteria A
- Conducted RF Disturbances	Continuous:	EN 61000-4-8, 1 A/m, perf. criteria A
- PF Magnetic Field	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
- Voltage Dips & Interruptions		

<b>General Specifications</b>		
Relative Humidity		90% max. (non condensing)
Temperature Ranges	- Operating Temperature	-25°C to +70°C
	- Storage Temperature	-40°C to +85°C
Power Derating	- High Temperature	2 %/K above 50°C
Cooling System		Natural convection (20 LFM)
Altitude During Operation		5'000 m max.
Regulator Topology		Flyback Converter
Switching Frequency		65 kHz typ. (PWM)
Insulation System		Reinforced Insulation
Working Voltage (rated)		282 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	6.1 mm min.
Clearance	- Input to Output	6.1 mm min.
Isolation Resistance	- Input to Output, 500 VDC	100 MΩ min.
Leakage Current	- Earth Leakage Current	3500 μA max.
	- Touch Current	250 μA max.
Reliability	- Calculated MTBF	200'000 h (MIL-HDBK-217F, ground benign)
Housing Material		Aluminum
Housing Type		Metal Case
Mounting Type		Chassis Mount
Connection Type		Screw Terminal
Weight		205 g
Environmental Compliance	- REACH Declaration	<a href="http://www.tracopower.com/info/reach-declaration.pdf">www.tracopower.com/info/reach-declaration.pdf</a> REACH SVHC list compliant REACH Annex XVII compliant
	- RoHS Declaration	<a href="http://www.tracopower.com/info/rohs-declaration.pdf">www.tracopower.com/info/rohs-declaration.pdf</a> 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	d6b4b48a-92bd-42d7-a7e6-08dac2490823

<b>Supporting Documents</b>	
Overview Link (for additional Documents)	<a href="http://www.tracopower.com/overview/txm035">www.tracopower.com/overview/txm035</a>

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**Outline Dimensions**



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

Screw locked torque:  
8.2 kgfcm (0.80 Nm) max.

Screw Definition				
Installation Method	Position No.	Screw Size	L max.	Torque max.
Bottom Installation	1-2	M3	4 (1.6)	6.5 kgfcm
	3-4	M3	4 (1.6)	6.5 kgfcm
Side Installation	5-6	M3	4 (1.6)	6.5 kgfcm
	7-8	M3	4 (1.6)	6.5 kgfcm