

- Compact metal case with screw terminal block
- Universal input 85-264 VAC
- High efficiency up to 89%
- Active PFC >0.95
- Compliance to EN 61000-3-2
- Short circuit, overvoltage and overload protection
- IEC/EN/UL 62368-1 safety approvals
- 3-year product warranty



The TXLN series is a family of encased power supplies designed for a wide range of cost critical applications. With a low profile metal case and screw terminal block connection, they 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

Order Code	Output Power max.	Output Voltage nom. (adjustable)	Output Current max.	Efficiency typ.
TXLN 320-112	320 W	12 VDC (10.8 - 13.2 VDC)	26'700 mA	86 %
TXLN 320-124		24 VDC (21.6 - 26.4 VDC)	13'400 mA	88 %
TXLN 320-148		48 VDC (43.2 - 52.8 VDC)	6'700 mA	89 %

### Options

<b>on demand</b> (backorder with MOQ non stocking item)	- Optional model with 5 VDC and 60'000 mA - Optional model with 36 VDC and 8'900 mA
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### 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>
Input Frequency		Operational Range: <b>47 - 63 Hz</b> Certified: <b>50/60 Hz</b>
Input Current	- Full load & $V_{in} = 115$ VAC	<b>4'300 mA max.</b>
Input Inrush Current	- At 230 VAC	<b>50 A max.</b>
	- At 115 VAC	<b>25 A max.</b>
Power Factor	- At 230 VAC	<b>0.95 min.</b> (Active Power Factor Correction)
	- At 115 VAC	<b>0.95 min.</b> (Active Power Factor Correction)
Input Protection		<b>T 6.3 A / 250 VAC</b> (Internal Fuse)
Recommended Input Fuse		<b>6'300 mA</b> (slow blow) (The need of an external fuse has to be assessed in the final application.)

### Output Specifications

Output Voltage Adjustment		<b>±10%</b> (By trim potentiometer) Output power must not exceed rated power!
Voltage Set Accuracy		<b>±2% max.</b> (5 Vout model)
		<b>±1% max.</b> (other models)
Regulation	- Input Variation ( $V_{min} - V_{max}$ )	<b>1% max.</b> (5 Vout model)
		<b>0.5% max.</b> (other models)
	- Load Variation (0 - 100%)	<b>2% max.</b> (5 Vout model)
		<b>1% max.</b> (other models)
Ripple and Noise (20 MHz Bandwidth)	5 VDC model:	<b>150 mVp-p max.</b> (w/ 0.1 $\mu$ F    47 $\mu$ F)
	12 VDC model:	<b>150 mVp-p max.</b> (w/ 0.1 $\mu$ F    47 $\mu$ F)
	24 VDC model:	<b>150 mVp-p max.</b> (w/ 0.1 $\mu$ F    47 $\mu$ F)
	36 VDC model:	<b>220 mVp-p max.</b> (w/ 0.1 $\mu$ F    47 $\mu$ F)
	48 VDC model:	<b>240 mVp-p max.</b> (w/ 0.1 $\mu$ F    47 $\mu$ F)
Capacitive Load	5 VDC model:	<b>120'000 <math>\mu</math>F max.</b>
	12 VDC model:	<b>120'000 <math>\mu</math>F max.</b>
	24 VDC model:	<b>100'000 <math>\mu</math>F max.</b>
	36 VDC model:	<b>51'000 <math>\mu</math>F max.</b>
	48 VDC model:	<b>31'000 <math>\mu</math>F max.</b>
Minimum Load		<b>Not required</b>
Temperature Coefficient		<b>±0.03 %/K max.</b>
Hold-up Time	- At 230 VAC	<b>8 ms min.</b>
Start-up Time	- At 230 VAC	<b>1'500 ms max.</b>
	- At 115 VAC	<b>3'000 ms max.</b>
Short Circuit Protection		<b>Continuous, Automatic recovery</b>
Output Current Limitation		<b>105 - 135% of Iout max.</b>
Oversvoltage Protection		<b>115 - 140% of Vout nom.</b>

### Safety Specifications

Standards	- IT / Multimedia Equipment	<b>EN 62368-1</b> <b>IEC 62368-1</b> <b>UL 62368-1</b>
	- Certification Documents	<a href="http://www.tracopower.com/overview/txln320">www.tracopower.com/overview/txln320</a>
Protection Class		<b>Class I</b> (Prepared): <b>Connection to PE</b>
Pollution Degree		<b>PD 2</b>
Over Voltage Category		<b>OVC II</b>

All specifications valid at 230 VAC, resistive full load and +25°C after warm-up time, unless otherwise stated.

## EMC Specifications

<b>EMI (Emissions)</b>	- 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 D EN 61000-3-3
<b>EMS (Immunity)</b>	- Electrostatic Discharge  - RF Electromagnetic Field - EFT (Burst) / Surge  - Conducted RF Disturbances - PF Magnetic Field - Voltage Dips & Interruptions	EN 55024 (IT Equipment) EN 55035 (Multimedia) Air: EN 61000-4-2, ±8 kV, perf. criteria A Contact: EN 61000-4-2, ±4 kV, perf. criteria A EN 61000-4-3, 3 V/m, perf. criteria A EN 61000-4-4, ±1 kV, perf. criteria A 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, 3 A/m, perf. criteria A 230 VAC / 50 Hz: EN 61000-4-11 30%, 25 periods, perf. criteria A >95%, 0.5 periods, perf. criteria A >95%, 250 periods, perf. criteria B

## General Specifications

<b>Relative Humidity</b>		90% max. (non condensing)
<b>Temperature Ranges</b>	- Operating Temperature - Storage Temperature	-30°C to +70°C -40°C to +85°C
<b>Power Derating</b>	- High Temperature - Low Input Voltage	2.5 %/K above 50°C 0.66 %/V below 100 VAC
		See application note: <a href="http://www.tracopower.com/overview/txln320">www.tracopower.com/overview/txln320</a>
<b>Over Temperature Protection Switch Off</b>	- Protection Mode	Latch off
<b>Cooling System</b>		Forced air cooling (with internal fan)
<b>Fan Power Source</b>	- Characteristic - Output Voltage - Output Current	Variable fan speed (temperature regulated) 12 VDC 125 mA max. (4'000 RPM / 16.3 CFM)
<b>Altitude During Operation</b>		5'000 m max.
<b>Regulator Topology</b>		Flyback Converter
<b>Switching Frequency</b>		90 - 110 kHz (PWM)
<b>Insulation System</b>		Reinforced Insulation
<b>Isolation Test Voltage</b>	- Input to Output, 60 s - Input to Case or PE, 60 s - Output to Case or PE, 60 s	3'000 VAC 1'800 VAC 500 VAC
<b>Isolation Resistance</b>	- Input to Output, 500 VDC	100 MΩ min.
<b>Isolation Capacitance</b>	- Input to Output, 100 kHz, 1 V	20'000 pF max.
<b>Leakage Current</b> (at 264 VAC / 60Hz)	- Earth Leakage Current	1500 μA max.
<b>Distance Through Isolation</b>		6 mm
<b>Reliability</b>	- Calculated MTBF	175'900 h (MIL-HDBK-217F, ground benign)
<b>Housing Material</b>		Aluminum
<b>Housing Type</b>		Metal Case
<b>Mounting Type</b>		Chassis Mount
<b>Connection Type</b>		Screw Terminal
<b>Weight</b>		850 g
<b>Status Indicator</b>		Indicated by green LED

All specifications valid at 230 VAC, resistive full load and +25°C after warm-up time, unless otherwise stated.

Environmental Compliance - REACH Declaration

[www.tracopower.com/info/reach-declaration.pdf](http://www.tracopower.com/info/reach-declaration.pdf)

- RoHS Declaration

REACH SVHC list compliant

REACH Annex XVII compliant

[www.tracopower.com/info/rohs-declaration.pdf](http://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

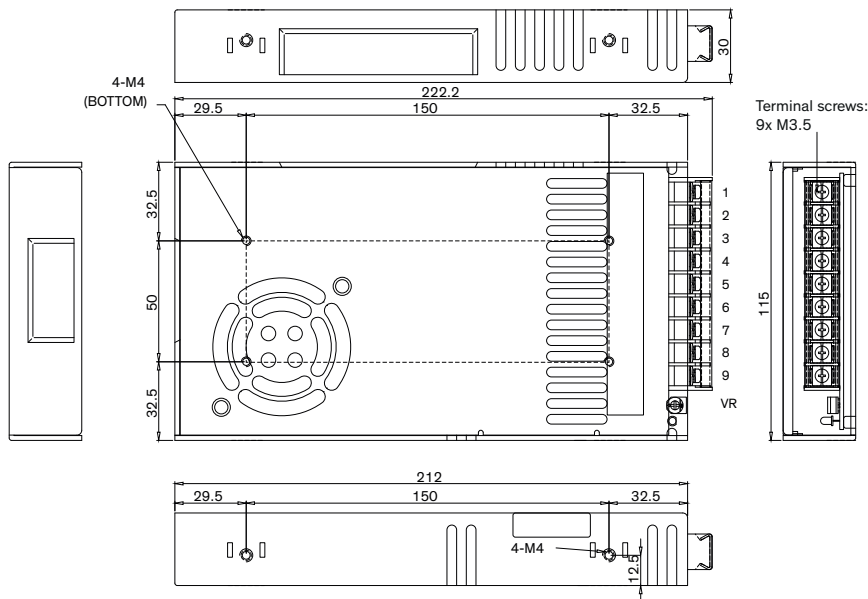
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## Supporting Documents

Overview Link (for additional Documents)

[www.tracopower.com/overview/txln320](http://www.tracopower.com/overview/txln320)

## Outline Dimensions



Screw Terminal	
Pin	Function
1	AC (L)
2	AC (N)
3	PE
4-6	-Vout
7-9	+Vout

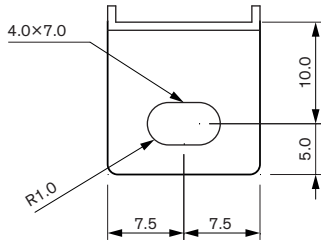
Max. terminal screw locked torque: 0.7 Nm

Dimensions in mm  
Tolerances:  
0-8: ±0.2  
8-25: ±0.3  
25-80: ±0.5  
80-250: ±0.8

Mounting screws  
Max. screw penetration depth: 4.0  
Max. screw locked torque: 0.8 Nm

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### Mounting Bracket (included)



Dimensions in mm

- Included in shipment:
- 4x Mounting Bracket
  - 4x M4 mounting screw

