

AC/DC Power Supply

TXLN 110 Series, 110 Watt

Not recommended for new designs

- Compact metal case with screw terminal block
- Universal input 88-264 VAC
- Convection cooled (no-fan)
- High efficiency up to 87%
- 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 110-105 *	100 W	5 VDC (4.5 - 5.5 VDC)	20'000 mA	83 %
TXLN 110-112 *	110 W	12 VDC (10.8 - 13.2 VDC)	9'000 mA	85 %
TXLN 110-115 *		15 VDC (13.5 - 16.5 VDC)	7'300 mA	86 %
TXLN 110-124 *		24 VDC (21.6 - 26.4 VDC)	4'600 mA	86 %
TXLN 110-148 *		48 VDC (43.2 - 52.8 VDC)	2'300 mA	87 %

Note * Not recommended for new designs

Input Specifications

Input Voltage	- AC Range	Operational Range: 88 - 264 VAC (Full Range) Rated Range: 100 - 240 VAC (Full Range)
	- DC Range	Operational Range: 125 - 375 VDC (Designed for, no certification) Polarity: irrelevant
Input Frequency		Operational Range: 47 - 63 Hz Certified: 50/60 Hz
Power Consumption	- No load & Vin = 230 VAC	1'000 mW max.
Input Current	- Full load & Vin = 115 VAC	2'800 mA max.
Input Inrush Current	- At 230 VAC	70 A max.
	- At 115 VAC	35 A max.
Input Protection		T 4 A / 250 VAC (Internal Fuse)
Recommended Input Fuse		4'000 mA (slow blow) (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. (5 Vout model) ±1% max. (other model)
Regulation	- Input Variation (Vmin - Vmax)	1% max. (5 Vout model) 0.5% max. (other models)
	- Load Variation (0 - 100%)	2% max. (5 Vout model) 1% max. (other models)
Ripple and Noise (20 MHz Bandwidth)	5 VDC model:	100 mVp-p max. (w/ 0.1 µF 47 µF)
	12 VDC model:	150 mVp-p max. (w/ 0.1 µF 47 µF)
	15 VDC model:	150 mVp-p max. (w/ 0.1 µF 47 µF)
	24 VDC model:	200 mVp-p max. (w/ 0.1 µF 47 µF)
	48 VDC model:	200 mVp-p max. (w/ 0.1 µF 47 µF)
Capacitive Load	5 VDC model:	120'000 µF max.
	12 VDC model:	104'400 µF max.
	15 VDC model:	74'000 µF max.
	24 VDC model:	31'100 µF max.
	48 VDC model:	7'000 µF max.
Minimum Load		Not required
Temperature Coefficient		±0.03 %/K max.
Hold-up Time	- At 230 VAC	50 ms min.
	- At 115 VAC	10 ms min.
Start-up Time	- At 230 VAC	1'000 ms max.
	- At 115 VAC	1'000 ms max.
Short Circuit Protection		Continuous, Automatic recovery
Output Current Limitation		105 - 150% of Iout max.
Overvoltage Protection		115 - 140% of Vout nom.

Safety Specifications

Standards	- IT / Multimedia Equipment	EN 62368-1 IEC 62368-1 UL 62368-1
	- Certification Documents	www.tracopower.com/txln110-safety-cert/
Protection Class		Class I (Prepared): Connection to PE
	See application note:	www.tracopower.com/info/protection-class.pdf
Energy Source	- Output, acc. to 62368-1	ES1
Power Source	- Output, acc. to 62368-1	PS3

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

Pollution Degree	PD 2
Over Voltage Category	OVC II

EMC Specifications

EMI (Emissions)	- Conducted Emissions	EN 55032 class A (internal filter) EN 55032 class B (internal filter)
	- Radiated Emissions	EN 55032 class A (internal filter) EN 55032 class B (internal filter)
	- Harmonic Current Emissions	EN 61000-3-2, class A
	- 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 A Contact: EN 61000-4-2, ± 4 kV, perf. criteria A
	- RF Electromagnetic Field	EN 61000-4-3, 3 V/m, perf. criteria A
	- EFT (Burst) / Surge	EN 61000-4-4, ± 1 kV, perf. criteria A
		L to L: EN 61000-4-5, ± 1 kV, perf. criteria A
		L to PE: EN 61000-4-5, ± 2 kV, perf. criteria A
	- Conducted RF Disturbances	EN 61000-4-6, 3 Vrms, perf. criteria A
	- PF Magnetic Field	Continuous: EN 61000-4-8, 3 A/m, perf. criteria A
	- Voltage Dips & Interruptions	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 C

General Specifications

Relative Humidity		90% max. (non condensing)
Temperature Ranges	- Operating Temperature - Storage Temperature	-20°C to +70°C -40°C to +85°C
Power Derating	- High Temperature - Low Input Voltage	2.5 %/K above 50°C 0.83 %/V below 100 VAC
See application note: www.tracopower.com/txln110-cc/		
Cooling System		Natural convection (20 LFM)
Altitude During Operation		3'000 m max.
Regulator Topology		Flyback Converter
Switching Frequency		61 - 69 kHz (PWM)
Insulation System		Reinforced Insulation
Isolation Test Voltage	- 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
Isolation Resistance	- Input to Output, 500 VDC	100 MΩ min.
Isolation Capacitance	- Input to Output, 100 kHz, 1 V	20'000 pF max.
Leakage Current (at 264 VAC / 60Hz)	- Earth Leakage Current	1000 μA max.
Distance Through Isolation		6 mm
Reliability	- Calculated MTBF	284'000 h (MIL-HDBK-217F, ground benign)
Housing Material		Aluminum
Housing Type		Metal Case
Mounting Type		Chassis Mount
Connection Type		Screw Terminal
Weight		550 g
Status Indicator		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

- RoHS Declaration

- SCIP Reference Number

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

REACH SVHC list compliant

REACH Annex XVII compliant

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

Exemptions: 7(a), 7(c)-I

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

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Additional Information

Supporting Documents

www.tracopower.com/overview/txln110

Frequently Asked Questions

www.tracopower.com/glossary-faq

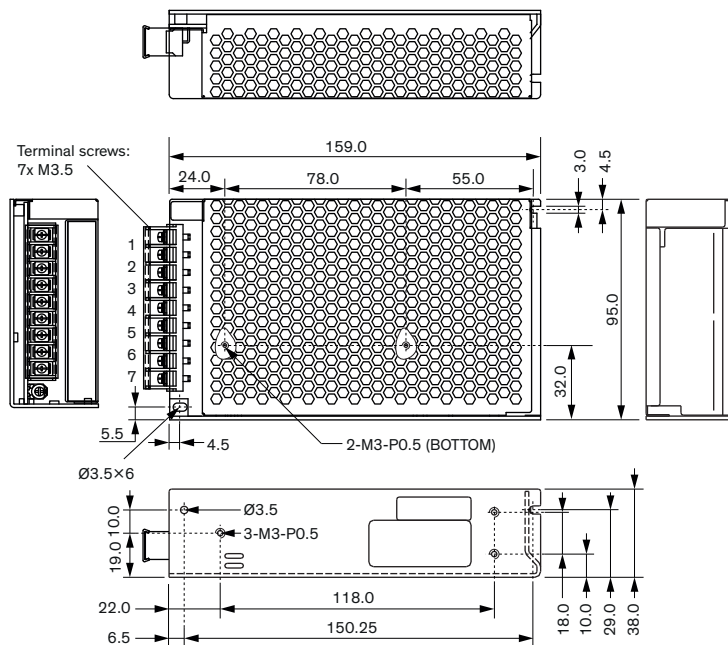
Glossary

www.tracopower.com/info/glossary.pdf

Service Portal

www.tracoserviceportal.com

Outline Dimensions



Dimensions in mm

Tolerances:

0-8: ± 0.2

8-25: ± 0.3

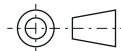
25-80: ± 0.5

80-250: ± 0.8

Mounting screws

Max. screw penetration depth: 5.0

Max. screw locked torque: 0.5 Nm



Screw Terminal

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

Max. terminal screw locked torque: 0.7 Nm