

AC/DC Power Supply

TXLN 150 Series, 150 Watt

- Compact metal case with screw terminal block
- Universal input 85-264 VAC
- Convection cooled (no fan)
- High efficiency up to 90%
- 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 150-105	150 W	5 VDC (4.5 - 5.5 VDC)	30'000 mA	86 %
TXLN 150-112		12 VDC (10.8 - 13.2 VDC)	12'500 mA	88 %
TXLN 150-124		24 VDC (21.6 - 26.4 VDC)	6'300 mA	89 %
TXLN 150-148		48 VDC (43.2 - 52.8 VDC)	3'200 mA	90 %

Input Specifications

Input Voltage	- AC Range	Operational Range: 85 - 264 VAC (Full Range) Rated Range: 100 - 240 VAC (Full Range)
	- DC Range	Operational Range: 120 - 375 VDC (Designed for, no certification) Polarity: irrelevant
Input Frequency		Operational Range: 47 - 63 Hz Certified: 50/60 Hz
Input Current	- Full load & $V_{in} = 115$ VAC	2'200 mA max.
Input Inrush Current	- At 230 VAC	45 A max.
	- At 115 VAC	25 A max.
Power Factor	- At 230 VAC	0.95 min. (Active Power Factor Correction)
	- At 115 VAC	0.95 min. (Active Power Factor Correction)
Input Protection		T 3.15 A / 250 VAC (Internal Fuse)
Recommended Input Fuse		3'150 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 models)
Regulation	- Input Variation ($V_{min} - V_{max}$)	2% max. (5 Vout model) 1% 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 μ F 47 μ F)
	12 VDC model:	100 mVp-p max. (w/ 0.1 μ F 47 μ F)
	24 VDC model:	150 mVp-p max. (w/ 0.1 μ F 47 μ F)
	48 VDC model:	200 mVp-p max. (w/ 0.1 μ F 47 μ F)
Capacitive Load		108'000 μF max.
Minimum Load		Not required
Temperature Coefficient		±0.03 %/K max.
Hold-up Time	- At 230 VAC	16 ms min.
	- At 115 VAC	16 ms min.
Start-up Time	- At 230 VAC	2'500 ms max.
	- At 115 VAC	2'500 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/overview/txln150
Protection Class		Class I (Prepared): Connection to PE See application note: www.tracopower.com/info/protection-class.pdf
Pollution Degree		PD 2
Over Voltage Category		OVC II

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

EMC Specifications

EMI (Emissions)	- Conducted Emissions	EN 55032 class A (internal filter)
	- Radiated Emissions	EN 55032 class B (internal filter)
	- Harmonic Current Emissions	EN 55032 class A (internal filter)
	- Voltage Fluctuations & Flicker	EN 55032 class B (internal filter)
EMS (Immunity)		EN 61000-3-2, class D
		EN 61000-3-3
	- Electrostatic Discharge	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
	- 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	EN 61000-4-8, 3 A/m, perf. criteria A
	- Voltage Dips & Interruptions	Continuous: EN 61000-4-11
		230 VAC / 50 Hz: 30%, 25 periods, perf. criteria A
		>95%, 0.5 periods, perf. criteria A
		>95%, 250 periods, perf. criteria B

General Specifications

Relative Humidity		90% max. (non condensing)
Temperature Ranges	- Operating Temperature	-30°C to +70°C
	- Storage Temperature	-40°C to +85°C
Power Derating	- High Temperature	2.5 %/K above 50°C
	- Low Input Voltage	0.66 %/V below 100 VAC
	See application note: www.tracopower.com/overview/txln150	
Over Temperature Protection Switch Off	- Protection Mode	Automatic recovery
Cooling System		Natural convection (20 LFM)
Remote Control	- Voltage Controlled Remote (passive = on)	On: 0 to 0.8 VDC or open circuit
		Off: 4 to 10 VDC or short circuit
		Refers to '+Remote' and '-Remote' Pin
Altitude During Operation		5'000 m max.
Regulator Topology		Flyback Converter
Switching Frequency		61 - 69 kHz (PWM)
Insulation System		Reinforced Insulation
Isolation Test Voltage	- Input to Output, 60 s	3'000 VAC
	- Input to Case or PE, 60 s	1'800 VAC
	- Output to Case or PE, 60 s	500 VAC
Isolation Resistance	- Input to Output, 500 VDC	100 MΩ min.
Isolation Capacitance	- Input to Output, 100 kHz, 1 V	4'700 pF max.
Leakage Current (at 264 VAC / 60Hz)	- Earth Leakage Current	1500 μA max.
Distance Through Isolation		6 mm
Reliability	- Calculated MTBF	162'800 h (MIL-HDBK-217F, ground benign)
Housing Material		Aluminum
Housing Type		Metal Case
Mounting Type		Chassis Mount
Connection Type		Screw Terminal
Weight		560 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

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

- RoHS Declaration

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).)

- SCIP Reference Number

2cb93a6f-36c4-44b1-a10a-7f8551bc007a

Additional Information

Supporting Documents

www.tracopower.com/overview/txln150

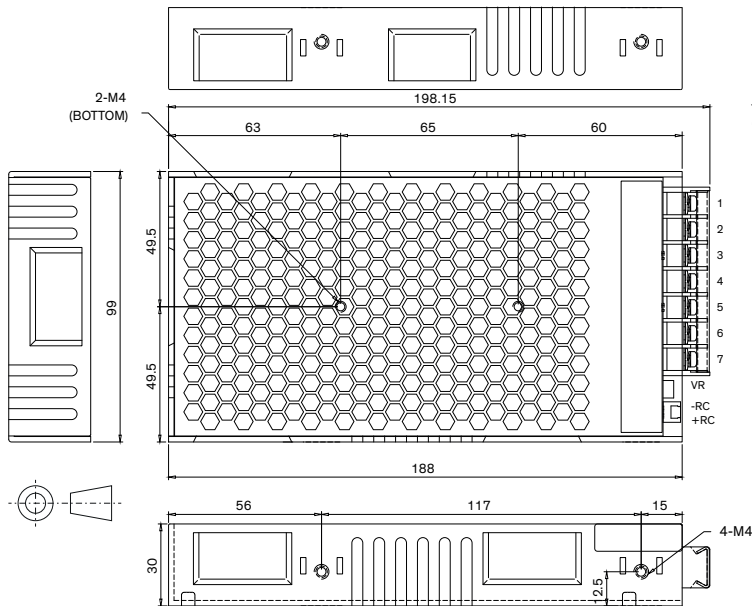
Frequently Asked Questions

www.tracopower.com/glossary-faq

Glossary

www.tracopower.com/info/glossary.pdf

Outline Dimensions



Screw Terminal

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

Max. Terminal screw locked torque: 0.7 Nm

JTS Connector

Pin	Function
1	+Remote
2	-Remote

JST Housing Type:
JST B-XH

JST Mating Housing:
JST XHP

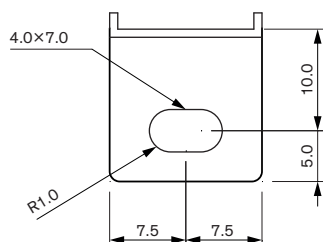
JST Crimp Contact:
JST SXH-001T

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

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

Mounting Bracket (included)



Dimensions in mm

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

