

AC/DC Power Supply

TXLN 500 Series, 500 Watt

- Compact metal case with screw terminal block
- Universal input 85-264 VAC
- High efficiency up to 91%
- Active PFC >0.95
- Compliance to EN 61000-3-2
- Short circuit, overvoltage and overload protection
- IEC/EN/UL 62368-1 safety approvals
- Remote On/Off and Remote Sense
- 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 500-112	500 W	12 VDC (10.8 - 13.2 VDC)	41'700 mA	88 %
TXLN 500-124		24 VDC (21.6 - 26.4 VDC)	21'000 mA	89 %
TXLN 500-148		48 VDC (43.2 - 52.8 VDC)	10'500 mA	91 %

Options	
on demand (backorder with MOQ non stocking item)	- Optional model with 5 VDC and 90'000 mA - Optional model with 36 VDC and 14'000 mA

Input Specifications

Input Voltage	- AC Range	Operational Range: 85 - 264 VAC (Full Range)
	- DC Range	Rated Range: 100 - 240 VAC (Full 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 & $V_{in} = 115 \text{ VAC}$	6'600 mA max.
Input Inrush Current	- At 230 VAC	40 A max.
	- At 115 VAC	20 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 10 A / 250 VAC (Internal Fuse)
Recommended Input Fuse		10'000 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 models)
Regulation	- Input Variation ($V_{min} - V_{max}$)	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:	150 mVp-p max. (w/ 0.1 μF 47 μF)
	12 VDC model:	150 mVp-p max. (w/ 0.1 μF 47 μF)
	24 VDC model:	150 mVp-p max. (w/ 0.1 μF 47 μF)
	36 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:	120'000 μF max.
	24 VDC model:	120'000 μF max.
	36 VDC model:	65'000 μF max.
	48 VDC model:	48'000 μF max.
Minimum Load		Not required
Temperature Coefficient		±0.03 %/K max.
Hold-up Time	- At 230 VAC	18 ms min.
	- At 115 VAC	18 ms min.
Start-up Time	- At 230 VAC	3'000 ms max.
	- At 115 VAC	3'000 ms max.
Short Circuit Protection		Continuous, Automatic recovery
Output Current Limitation		105 - 130% 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/txln500
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) 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 D
	- 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 B
		L to PE: EN 61000-4-5, ± 2 kV, perf. criteria B
	- 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 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	0.7 %/V below 100 VAC
	See application note: www.tracopower.com/overview/txln500	
Over Temperature Protection Switch Off	- Protection Mode	Latch off
Cooling System		Forced air cooling (with internal fan)
Fan Power Source	- Characteristic	Variable fan speed (temperature regulated)
	- Output Voltage	12 VDC
	- Output Current	92 mA max. (8'000 RPM / 10.8 CFM)
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		60 - 80 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 M Ω min.
Isolation Capacitance	- Input to Output, 100 kHz, 1 V	4'700 pF max.
Leakage Current (at 264 VAC / 60Hz)	- Earth Leakage Current	1500 μ A max.
Distance Through Isolation		6 mm
Reliability	- Calculated MTBF	138'700 h (MIL-HDBK-217F, ground benign)
Housing Material		Aluminum
Housing Type		Metal Case
Mounting Type		Chassis Mount

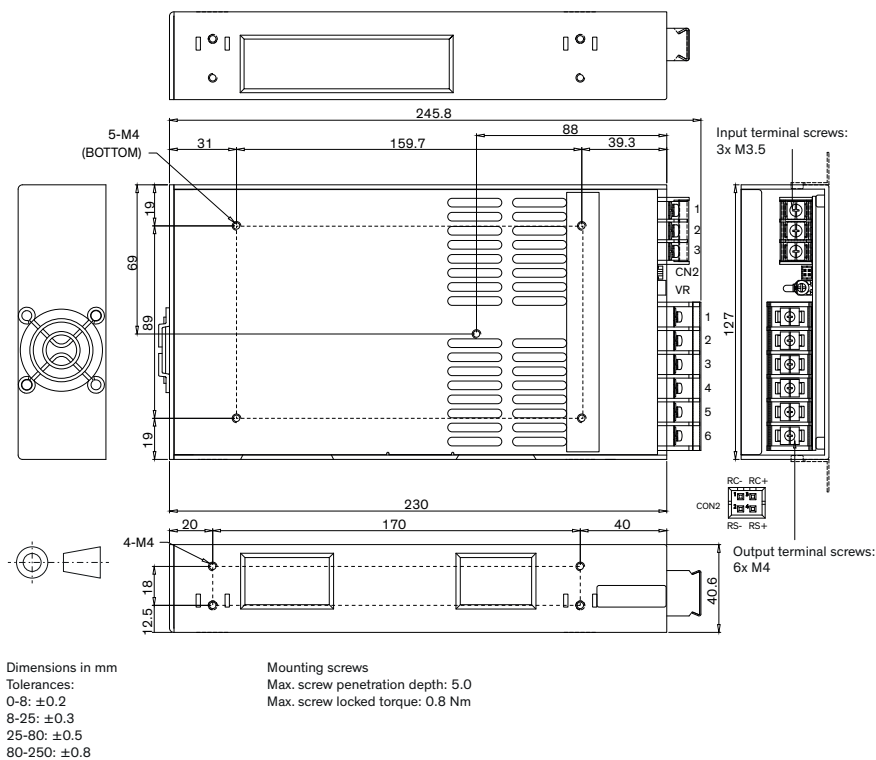
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Connection Type	Screw Terminal
Weight	1'110 g
Status Indicator	Indicated by green LED
Sense Function	(to be done)
Environmental Compliance	- REACH Declaration www.tracopower.com/info/reach-declaration.pdf REACH SVHC list compliant REACH Annex XVII 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).) - RoHS Declaration - SCIP Reference Number 141634dc-8cb5-4d83-b328-ffa4c27351fb

Additional Information

Supporting Documents	www.tracopower.com/overview/txln500
Frequently Asked Questions	www.tracopower.com/glossary-faq
Glossary	www.tracopower.com/info/glossary.pdf

Outline Dimensions



Input	
CN1	
Pin	Function
1	AC (L)
2	AC (N)
3	PE

Output	
CN3	
Pin	Function
1-3	-Vout
4-6	+Vout

CN1:
3 pin, 9.5mm pitch
with PC cover
Max. Terminal screw locked
torque: 0.7 Nm

Auxiliary	
CN2	
Pin	Function
1	-Remote
2	-Sense
3	+Remote
4	+Sense

CN2 Housing Type:
HRS DF11-04DP-2DS

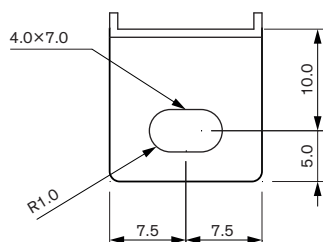
CN2 Mating Housing:
HRS DF11-4DS

CN2 Crimp Contact:
HRS DF11-**SC

CN3:
6 pin, 11 mm pitch
Max. terminal screw locked
torque: 0.7 Nm

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Mounting Bracket (included)



Dimensions in mm

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

