

- Compact metal case with screw terminal block
- Universal input 90-264 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 960-112	960 W	12 VDC (10.8 - 13.2 VDC)	80'000 mA	87 %
TXLN 960-115		15 VDC (13.5 - 16.5 VDC)	64'000 mA	88 %
TXLN 960-124		24 VDC (21.6 - 26.4 VDC)	40'000 mA	88 %
TXLN 960-148		48 VDC (43.2 - 52.8 VDC)	20'000 mA	89 %

Input Specifications

Input Voltage	- AC Range	90 - 264 VAC (Full Range)
	- DC Range	127 - 375 VDC (Designed for, no certification)
Input Frequency		47 - 63 Hz
Input Current	- Full Load & Vin = 230 VAC	6'500 mA max.
	- Full Load & Vin = 115 VAC	10'500 mA max.
Input Inrush Current	- At 230 VAC	90 A max.
	- At 115 VAC	50 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 12 A / 250 VAC (Internal Fuse)
Recommended Input Fuse		12'000 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		±1% max.
Regulation	- Input Variation (Vmin - Vmax)	0.5% max.
	- Load Variation (0 - 100%)	1% max.
Ripple and Noise (20 MHz Bandwidth)	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:	250 mVp-p max. (w/ 0.1 µF // 47 µF)
Minimum Load		Not required
Temperature Coefficient		±0.03 %/K max.
Hold-up Time	- At 230 VAC	14 ms min.
	- At 115 VAC	14 ms min.
Start-up Time	- At 230 VAC	2'000 ms max.
Short Circuit Protection		Continuous, Automatic recovery
Output Current Limitation		105 - 135% of Iout max.
Overvoltage Protection		115 - 140% of Vout nom.
Load Share Function	- Refer to application note	www.tracopower.com/overview/txln960
Load Share Accuracy		10%

Safety Specifications

Safety Standards	- IT / Multimedia Equipment	EN 62368-1 IEC 62368-1 UL 62368-1
	- Certification Documents	www.tracopower.com/overview/txln960
Protection Class		Class I (Prepared): Connection to PE
Pollution Degree		PD 2
Over Voltage Category		OVC II

EMC Specifications

EMI Emissions	- Conducted Emissions	EN 55032 class B (internal filter)
	- Radiated Emissions	EN 55032 class B (internal filter)
	- Harmonic Current Emissions	EN 61000-3-2, class D
	- Voltage Fluctuations & Flicker	EN 61000-3-3

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

EMS Immunity	<ul style="list-style-type: none"> - Electrostatic Discharge - RF Electromagnetic Field - EFT (Burst) / Surge - Conducted RF Disturbances - PF Magnetic Field - Voltage Dips & Interruptions 	EN 55024 (IT Equipment) Air: EN 61000-4-2, ± 8 kV, perf. criteria A Contact: EN 61000-4-2, ± 4 kV, perf. criteria A EN 61000-4-3, 10 V/m, perf. criteria A EN 61000-4-4, ± 2 kV, perf. criteria A L to L: EN 61000-4-5, ± 2 kV, perf. criteria B L to PE: EN 61000-4-5, ± 4 kV, perf. criteria B EN 61000-4-6, 10 Vrms, perf. criteria A Continuous: EN 61000-4-8, 30 A/m, perf. criteria A 1 s: EN 61000-4-8, 300 A/m, perf. criteria A 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
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General Specifications		
Relative Humidity		90% max. (non condensing)
Temperature Ranges	<ul style="list-style-type: none"> - Operating Temperature - Storage Temperature 	-20°C to +70°C -40°C to +85°C
Power Derating	<ul style="list-style-type: none"> - High Temperature - Low Input Voltage 	2.5 %/K above 50°C See application note: www.tracopower.com/overview/txln960
Over Temperature Protection Switch Off	- Protection Mode	90°C min. / 95°C typ. / 100°C max. (Automatic recovery)
Cooling System		Forced air cooling (with internal fan)
Fan Power Source	<ul style="list-style-type: none"> - Characteristic - Output Voltage - Output Current 	Constant fan speed (continuous) 12 VDC 480 mA max.
Standby Power Source	<ul style="list-style-type: none"> - Output Voltage - Output Current 	12 VDC 300 mA max.
Remote Control	- Voltage Controlled Remote	See application note: www.tracopower.com/overview/txln960
Altitude During Operation		4'000 m max. (The max. ambient temperature decreases by 5 K / 1000 m when operated above 2000 m)
Switching Frequency		55 - 65 kHz (PWM)
Insulation System		Reinforced Insulation
Isolation Test Voltage	<ul style="list-style-type: none"> - 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 M Ω min.
Isolation Capacitance	- Input to Output, 100 kHz, 1 V	20'000 pF max.
Leakage Current (at 264 VAC / 60Hz)	- Earth Leakage Current	1500 μ A max.
Reliability	- Calculated MTBF	84'100 h (MIL-HDBK-217F, ground benign)
Housing Material		Aluminium
Connection Type		Screw Terminal
Weight		2500 g
Power OK Signal	<ul style="list-style-type: none"> - Power OK - Power Off 	Voltage source output High level Low level (Refers to 'PG' and 'GND' Pin)
Status Indicator		Indicated by green LED
Sense Function		(to be done)

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Environmental Compliance - REACH Declaration

- RoHS Declaration

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

REACH SVHC list compliant

REACH Annex XVII compliant

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

Exemptions: 6a, 6b, 6c, 7a, 7c-I, 7c-II

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

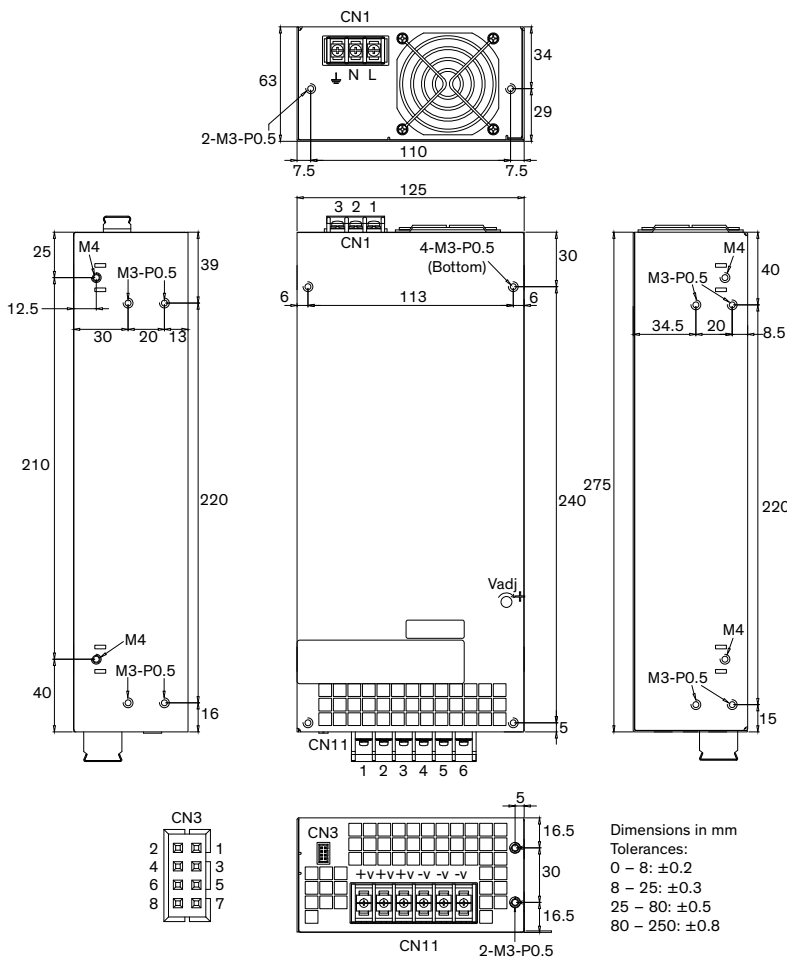
The SCIP number is provided on request.)

Supporting Documents

Overview Link (for additional Documents)

www.tracopower.com/overview/txln960

Outline Dimensions



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

Output	
CN11	
Pin	Function
1-3	+Vout
4-6	-Vout

Auxiliary	
CN3	
Pin	Function
1	LS
2	PG
3	+Sense
4	-Sense
5	-Remote
6	+Remote
7	Standby
8	GND

CN1:
3 pin, 10mm pitch
with PC cover

CN11:
6 pin, 11 mm pitch

CN3:
HRS DF11-8DP-2DSA