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TRACO POWER

AC/DC Power Supply

TXLN 060 Series, 60 Watt

- **Compact metal case with screw terminal block**
- **Universal input 88-264 VAC**
- **Convection cooled (no-fan)**
- **High efficiency up to 86%**
- **Compliance to EN 61000-3-2**
- **Short circuit, overvoltage and overload protection**
- **IEC/EN/UL 62368-1 safety approvals**
- **3 year product warranty**



UL 62368-1 IEC 62368-1

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 060-103	40 W	3.3 VDC (3.0 - 3.6 VDC)	12'000 mA	72 %
TXLN 060-105	50 W	5 VDC (4.5 - 5.5 VDC)	10'000 mA	78 %
TXLN 060-112	60 W	12 VDC (10.8 - 13.2 VDC)	5'000 mA	81 %
TXLN 060-115		15 VDC (13.5 - 16.5 VDC)	4'000 mA	83 %
TXLN 060-124		24 VDC (21.6 - 26.4 VDC)	2'500 mA	84 %
TXLN 060-148	62 W	48 VDC (43.2 - 52.8 VDC)	1'300 mA	86 %

Options

on demand (backorder with MOQ non stocking item)	- Optional model with 7.5 VDC / 7'000 mA - Optional model with 30 VDC / 2'000 mA

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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
Input Current	- Full Load & Vin = 115 VAC		1'600 mA max.
Power Consumption	- No load & Vin = 230 VAC		500 mW max.
Input Inrush Current	- At 230 VAC		50 A max.
	- At 115 VAC		30 A max.
Input Protection			T 2 A / 250 VAC (Internal Fuse)
Recommended Input Fuse			2'000 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			±3% max. (3.3 Vout model) ±2% max. (5 Vout model) ±1% max. (other models)
Regulation	- Input Variation (Vmin - Vmax)		1.5% max. (3.3 Vout model) 1% max. (5 Vout model) 0.5% max. (other models)
	- Load Variation (0 - 100%)		3% max. (3.3 Vout model) 2% max. (5 Vout model) 1% max. (other models)
Ripple and Noise (20 MHz Bandwidth)		3.3 VDC model:	70 mVp-p max. (w/ 0.1 µF || 47 µF)
		5 VDC model:	70 mVp-p max. (w/ 0.1 µF || 47 µF)
		7.5 VDC model:	80 mVp-p max. (w/ 0.1 µF || 47 µF)
		12 VDC model:	120 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:	150 mVp-p max. (w/ 0.1 µF || 47 µF)
		30 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)
Minimum Load			Not required
Temperature Coefficient			±0.03 %/K max.
Hold-up Time	- At 230 VAC		60 ms min.
	- At 115 VAC		16 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

Safety Standards	- IT / Multimedia Equipment	EN 62368-1 IEC 62368-1 UL 62368-1
	- Certification Documents	www.tracopower.com/overview/txln060
Protection Class		Class I (Prepared): Connection to PE
Pollution Degree		PD 2
Over Voltage Category		OVC II

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

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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 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		–20°C to +70°C
	- Storage Temperature		–40°C to +85°C
Power Derating	- High Temperature		2.5 %/K above 50°C
	- Low Input Voltage		0.83 %/V below 100 VAC
		See application note:	www.tracopower.com/overview/txln060
Cooling System			Natural convection (20 LFM)
Altitude During Operation			2'000 m max.
Switching Frequency			58 - 72 kHz (PWM)
Insulation System			Reinforced Insulation
Working Voltage (rated)			357 VAC
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		20'000 pF max.
Leakage Current (at 264 VAC)	- Earth Leakage Current		750 µA max.
Distance Through Isolation			6 mm
Reliability	- Calculated MTBF		335'000 h (MIL-HDBK-217F, ground benign)
Housing Material			Aluminum
Housing Type			Metal Case
Mounting Type			Chassis Mount
Connection Type			Screw Terminal
Weight			340 g
Status Indicator			Indicated by green LED
Environmental Compliance	- REACH Declaration		www.tracopower.com/info/reach-declaration.pdf REACH SVHC list compliant REACH Annex XVII compliant
	- RoHS Declaration		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). The SCIP number is provided on request.)

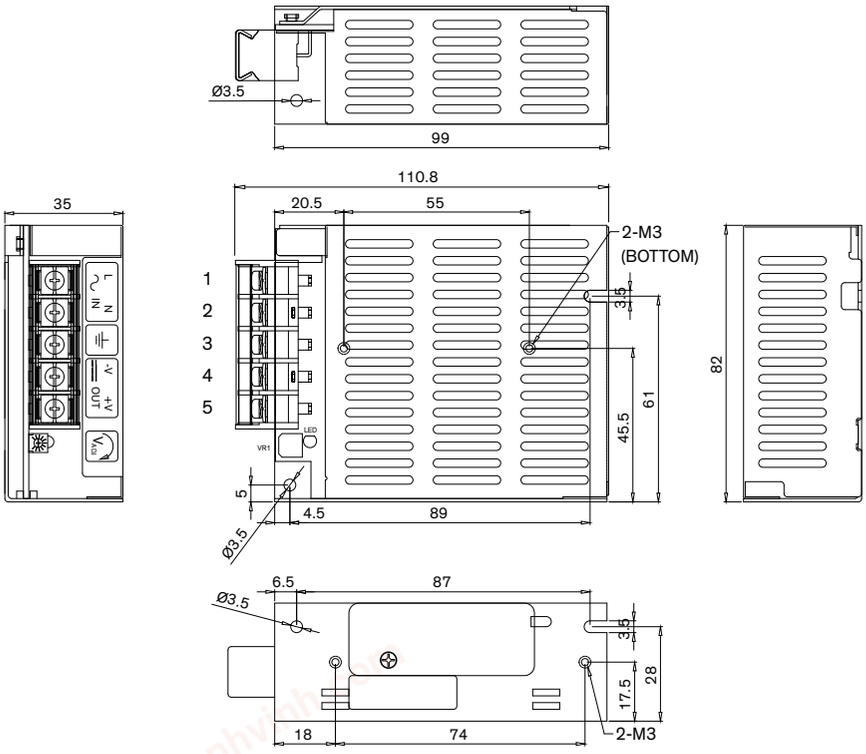
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Supporting Documents

Overview Link (for additional Documents) www.tracopower.com/overview/txln060

Outline Dimensions



Screw Terminal	
Pin	**Function**
1	AC (L)
2	AC (N)
3	PE
4	–Vout
5	+Vout

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: 4.5
Max. screw locked torque: 0.8 Nm

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