

AC/DC Power Supply

TXLN 025 Series, 25 Watt

- Compact metal case with screw terminal block
- Universal input 88-264 VAC
- Convection cooled (no-fan)
- High efficiency up to 88%
- 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 025-103	20 W	3.3 VDC (3.0 - 3.6 VDC)	6'000 mA	72 %
TXLN 025-105	25 W	5 VDC (4.5 - 5.5 VDC)	5'000 mA	79 %
TXLN 025-112		12 VDC (10.8 - 13.2 VDC)	2'100 mA	84 %
TXLN 025-115		15 VDC (13.5 - 16.5 VDC)	1'700 mA	85 %
TXLN 025-124	26 W	24 VDC (21.6 - 26.4 VDC)	1'100 mA	86 %
TXLN 025-148	27 W	48 VDC (43.2 - 52.8 VDC)	570 mA	88 %

Options	
on demand (backorder with MOQ non stocking item)	- Optional model with 7.5 VDC and 3'400 mA - Optional model with 30 VDC and 900 mA

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 & $V_{in} = 230$ VAC	300 mW max. (Ready to meet ErP directive)
Input Current	- Full load & $V_{in} = 115$ VAC	650 mA max.
Input Inrush Current	- At 230 VAC	50 A max.
	- At 115 VAC	30 A max.
Input Protection		T 1.6 A / 250 VAC (Internal Fuse)
Recommended Input Fuse		1'600 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 ($V_{min} - V_{max}$)	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 μ F 47 μ F)
	5 VDC model:	70 mVp-p max. (w/ 0.1 μ F 47 μ F)
	7.5 VDC model:	80 mVp-p max. (w/ 0.1 μ F 47 μ F)
	12 VDC model:	120 mVp-p max. (w/ 0.1 μ F 47 μ F)
	15 VDC model:	150 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)
	30 VDC model:	200 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	3.3 VDC model:	108'000 μF max.
	5 VDC model:	108'000 μF max.
	7.5 VDC model:	108'000 μF max.
	12 VDC model:	108'000 μF max.
	15 VDC model:	108'000 μF max.
	24 VDC model:	108'000 μF max.
	30 VDC model:	3'000 μF max.
Minimum Load	48 VDC model:	1'000 μF max.
		Not required
Temperature Coefficient		±0.03 %/K max.
Hold-up Time	- At 230 VAC	60 ms min.
	- At 115 VAC	12 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 - 180% of Iout max.
Overvoltage Protection		115 - 140% of Vout nom.

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

Safety Specifications

Standards	- IT / Multimedia Equipment	EN 62368-1 IEC 62368-1 UL 62368-1
	- Certification Documents	www.tracopower.com/overview/txln025
Protection Class	See application note:	Class I (Prepared): Connection to PE www.tracopower.com/info/protection-class.pdf
Pollution Degree		PD 2
Over Voltage Category		OVC II

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 A
		EN 61000-3-3
		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
	See application note:	www.tracopower.com/overview/txln025
Cooling System		Natural convection (20 LFM)
Altitude During Operation		2'000 m max.
Regulator Topology		Flyback Converter
Switching Frequency		57 - 73 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	- Earth Leakage Current	500 μ A max.
(at 264 VAC)		
Distance Through Isolation		6 mm
Reliability	- Calculated MTBF	450'000 h (MIL-HDBK-217F, ground benign)
Housing Material		Aluminum
Housing Type		Metal Case
Mounting Type		Chassis Mount
Connection Type		Screw Terminal

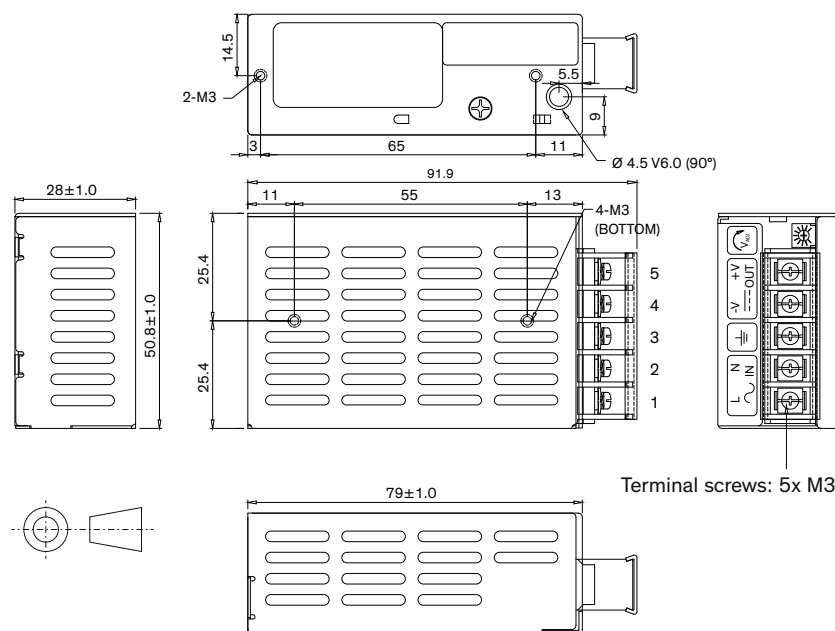
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Weight	180 g
Status Indicator	Indicated by green LED
Environmental Compliance	- REACH Declaration - RoHS Declaration - SCIP Reference Number

Additional Information

Supporting Documents	www.tracopower.com/overview/txln025
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	FG
4	-Vout
5	+Vout

Max. terminal screw locked torque: 0.7 Nm

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: 3.0
Max. screw locked torque: 0.8 Nm

Terminal screws: 5x M3