

AC/DC Power Supply

TXLN 080 Series, 80 Watt

- Compact metal case with screw terminal block
- Universal input 88-264 VAC
- Convection cooled (no-fan)
- High efficiency up to 82%
- 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	Output 1		Output 2		Output 3		Efficiency typ.
		Vnom	I _{max}	Vnom	I _{max}	Vnom	I _{max}	
TXLN 080-212	80 W	+5 VDC	9'000 mA	+12 VDC	4'000 mA			79 %
TXLN 080-215		+5 VDC	9'000 mA	+24 VDC	2'000 mA			80 %
TXLN 080-312M2		+5 VDC	8'000 mA	+12 VDC	4'000 mA	-12 VDC	1'000 mA	79 %
TXLN 080-313M3		+5 VDC	8'000 mA	+15 VDC	3'500 mA	-15 VDC	1'000 mA	80 %
TXLN 080-3125		+5 VDC	8'000 mA	+12 VDC	3'500 mA	+24 VDC	1'500 mA	82 %

Note - Total output power must not exceed rated power

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 & $V_{in} = 115$ VAC	2'500 mA max.
Input Inrush Current	- At 230 VAC	70 A max.
	- At 115 VAC	35 A max.
Input Protection		T 4 A / 250 VAC (Internal Fuse)
Recommended Input Fuse		4'000 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. (Output 1) ±5% max. (Output 2, dual output models) ±6% max. (Output 2, triple output models) ±5% max. (Output 3)
Regulation	- Input Variation ($V_{min} - V_{max}$)	dual output models: 1.5% max. (Output 1) 2.5% max. (Output 2)
		triple output models: 1.5% max. (Output 1) 3.0% max. (Output 2) 2.5% max. (Output 3)
	- Load Variation (0 - 100%)	dual output models: 3% max. (Output 1) 5% max. (Output 2)
		triple output models: 3% max. (Output 1) 6% max. (Output 2) 5% max. (Output 3)
Ripple and Noise (20 MHz Bandwidth)	- dual output	5 / 12 VDC model: 80 / 120 mVp-p max. (w/ 0.1 $\parallel$ 47 μ F)
		5 / 24 VDC model: 80 / 200 mVp-p max. (w/ 0.1 $\parallel$ 47 μ F)
	- triple output	5 / 12 / -12 VDC model: 80 / 120 / 150 mVp-p max. (w/ 0.1 $\parallel$ 47 μ F)
		5 / 15 / -15 VDC model: 80 / 150 / 200 mVp-p max. (w/ 0.1 $\parallel$ 47 μ F)
		5 / 12 / 24 VDC model: 80 / 120 / 240 mVp-p max. (w/ 0.1 $\parallel$ 47 μ F)
Capacitive Load	- dual output	5 / 12 VDC model: 120'000 / 90'500 μF max.
		5 / 24 VDC model: 120'000 / 26'000 μF max.
	- triple output	5 / 12 / -12 VDC model: 120'000 / 90'100 / 95'000 μF max.
		5 / 15 / -15 VDC model: 120'000 / 74'000 / 76'000 μF max.
		5 / 12 / 24 VDC model: 120'000 / 120'000 / 50'000 μF max.
Minimum Load	- dual output	5 / 12 VDC model: 5.6 % of I_{out} max.
		5 / 24 VDC model: 5.6 % of I_{out} max.
	- triple output	5 / 12 / -12 VDC model: 6.3 % of I_{out} max.
		5 / 15 / -15 VDC model: 6.3 % of I_{out} max.
		5 / 12 / 24 VDC model: 6.3 % of I_{out} max. (minimum load is required only on Output 1)
Temperature Coefficient		±0.03 %/K max.
Hold-up Time	- At 230 VAC	50 ms min.
	- At 115 VAC	10 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 I_{out} max.
Overvoltage Protection		115 - 140% of V_{out} nom. (only Output 1)

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/txln080
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
	- Electrostatic Discharge	EN 55024 (IT Equipment)
		EN 55035 (Multimedia)
	- RF Electromagnetic Field	Air: EN 61000-4-2, ± 8 kV, perf. criteria A
	- EFT (Burst) / Surge	Contact: EN 61000-4-2, ± 4 kV, perf. criteria A
		EN 61000-4-3, 3 V/m, perf. criteria A
		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/txln080
Cooling System		Natural convection (20 LFM)
Altitude During Operation		3'000 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 M Ω min.
Isolation Capacitance	- Input to Output, 100 kHz, 1 V	20'000 pF max.
Leakage Current (at 264 VAC)	- Earth Leakage Current	1000 μ A max.
Distance Through Isolation		6 mm
Reliability	- Calculated MTBF	275'000 h (dual output models)
		232'000 h (triple output models)
		(MIL-HDBK-217F, ground benign)

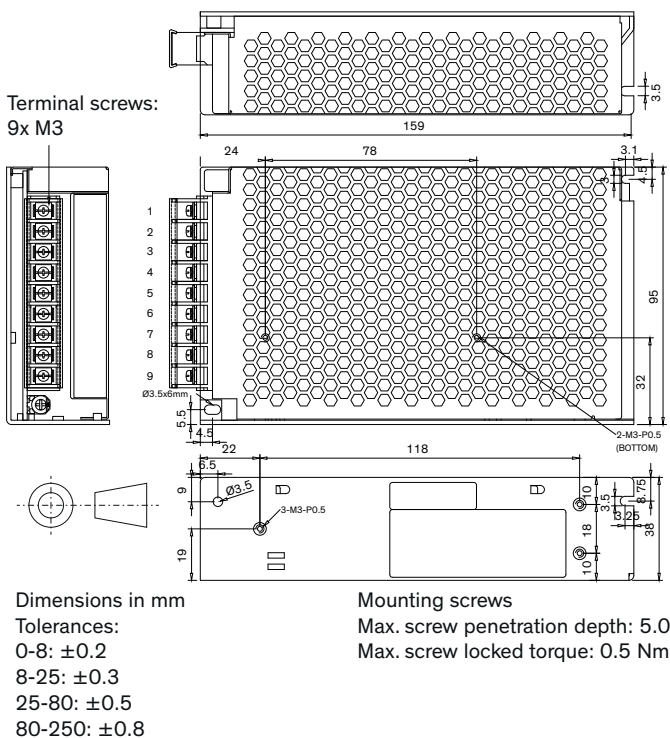
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Housing Material	Aluminum
Housing Type	Metal Case
Mounting Type	Chassis Mount
Connection Type	Screw Terminal
Weight	550 g
Status Indicator	Indicated by green LED
Environmental Compliance	- REACH Declaration www.tracopower.com/info/reach-declaration.pdf REACH SVHC list compliant REACH Annex XVII compliant 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

Additional Information

Supporting Documents	www.tracopower.com/overview/txln080
Frequently Asked Questions	www.tracopower.com/glossary-faq
Glossary	www.tracopower.com/info/glossary.pdf

Outline Dimensions



Screw Terminal			
Pin	Dual	Triple	
		TXLN 080-31xMx	TXLN 080-3125
1		AC (L)	
2		AC (N)	
3		PE	
4	NC	+Vout3	-Vout3
5	NC	-Vout3	+Vout3
6	-Vout1	-Vout1	
7	+Vout1	+Vout1	
8	-Vout2	-Vout2	
9	+Vout2	+Vout2	

NC: Not connected

Outputs are isolated to each other.

Max. terminal screw locked torque: 0.7 Nm