

- 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 <sub>max</sub>	Vnom	I <sub>max</sub>	Vnom	I <sub>max</sub>	
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: <b>88 - 264 VAC</b> (Full Range) Rated Range: <b>100 - 240 VAC</b> (Full Range)
	- DC Range	Operational Range: <b>125 - 375 VDC</b> (Designed for, no certification) Polarity: <b>irrelevant</b>
Input Frequency		Operational Range: <b>47 - 63 Hz</b> Certified: <b>50/60 Hz</b>
Input Current	- Full load & Vin = 115 VAC	<b>2'500 mA max.</b>
Input Inrush Current	- At 230 VAC	<b>70 A max.</b>
	- At 115 VAC	<b>35 A max.</b>
Input Protection		<b>T 4 A / 250 VAC</b> (Internal Fuse)
Recommended Input Fuse		<b>4'000 mA</b> (slow blow) (The need of an external fuse has to be assessed in the final application.)

### Output Specifications

Output Voltage Adjustment		<b>±10%</b> (By trim potentiometer) Output power must not exceed rated power!	
Voltage Set Accuracy		<b>±3% max.</b> (Output 1)	
		<b>±5% max.</b> (Output 2, dual output models)	
		<b>±6% max.</b> (Output 2, triple output models)	
		<b>±5% max.</b> (Output 3)	
Regulation	- Input Variation (Vmin - Vmax)	dual output models: <b>1.5% max.</b> (Output 1) <b>2.5% max.</b> (Output 2)	
		triple output models: <b>1.5% max.</b> (Output 1) <b>3.0% max.</b> (Output 2) <b>2.5% max.</b> (Output 3)	
		- Load Variation (0 - 100%)	dual output models: <b>3% max.</b> (Output 1) <b>5% max.</b> (Output 2)
		triple output models: <b>3% max.</b> (Output 1) <b>6% max.</b> (Output 2) <b>5% max.</b> (Output 3)	
	Ripple and Noise (20 MHz Bandwidth)	- dual output	5 / 12 VDC model: <b>80 / 120 mVp-p max.</b> (w/ 0.1    47 µF)
			5 / 24 VDC model: <b>80 / 200 mVp-p max.</b> (w/ 0.1    47 µF)
- triple output		5 / 12 / -12 VDC model: <b>80 / 120 / 150 mVp-p max.</b> (w/ 0.1    47 µF)	
		5 / 15 / -15 VDC model: <b>80 / 150 / 200 mVp-p max.</b> (w/ 0.1    47 µF)	
		5 / 12 / 24 VDC model: <b>80 / 120 / 240 mVp-p max.</b> (w/ 0.1    47 µF)	
Capacitive Load	- dual output	5 / 12 VDC model: <b>120'000 / 90'500 µF max.</b>	
		5 / 24 VDC model: <b>120'000 / 26'000 µF max.</b>	
	- triple output	5 / 12 / -12 VDC model: <b>120'000 / 90'100 / 95'000 µF max.</b>	
		5 / 15 / -15 VDC model: <b>120'000 / 74'000 / 76'000 µF max.</b>	
		5 / 12 / 24 VDC model: <b>120'000 / 120'000 / 50'000 µF max.</b>	
Minimum Load	- dual output	5 / 12 VDC model: <b>5.6 % of Iout max.</b>	
		5 / 24 VDC model: <b>5.6 % of Iout max.</b>	
	- triple output	5 / 12 / -12 VDC model: <b>6.3 % of Iout max.</b>	
		5 / 15 / -15 VDC model: <b>6.3 % of Iout max.</b>	
		5 / 12 / 24 VDC model: <b>6.3 % of Iout max.</b> (minimum load is required only on Output 1)	
Temperature Coefficient		<b>±0.03 %/K max.</b>	
Hold-up Time	- At 230 VAC	<b>50 ms min.</b>	
	- At 115 VAC	<b>10 ms min.</b>	
Start-up Time	- At 230 VAC	<b>1'000 ms max.</b>	
	- At 115 VAC	<b>1'000 ms max.</b>	
Short Circuit Protection		<b>Continuous, Automatic recovery</b>	
Output Current Limitation		<b>105 - 150% of Iout max.</b>	
Overvoltage Protection		<b>115 - 140% of Vout nom.</b> (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	<a href="http://www.tracopower.com/overview/txln080">www.tracopower.com/overview/txln080</a>
Protection Class		Class I (Prepared): Connection to PE
Pollution Degree		PD 2
Over Voltage Category		OVC II

## EMC Specifications

EMI (Emissions)	- Conducted Emissions - Radiated Emissions - Harmonic Current Emissions - Voltage Fluctuations & Flicker	EN 55032 class B (internal filter) EN 55032 class B (internal filter) EN 61000-3-2, class A EN 61000-3-3
EMS (Immunity)	- Electrostatic Discharge  - RF Electromagnetic Field - EFT (Burst) / Surge  - Conducted RF Disturbances - PF Magnetic Field - Voltage Dips & Interruptions	EN 55024 (IT Equipment) EN 55035 (Multimedia) Air: EN 61000-4-2, $\pm 8$ kV, perf. criteria A Contact: EN 61000-4-2, $\pm 4$ kV, perf. criteria A EN 61000-4-3, 3 V/m, perf. criteria A EN 61000-4-4, $\pm 1$ kV, perf. criteria A L to L: EN 61000-4-5, $\pm 1$ kV, perf. criteria A L to PE: EN 61000-4-5, $\pm 2$ kV, perf. criteria A EN 61000-4-6, 3 Vrms, perf. criteria A Continuous: EN 61000-4-8, 3 A/m, perf. criteria A 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 - Storage Temperature	-20°C to +70°C -40°C to +85°C
Power Derating	- High Temperature - Low Input Voltage	2.5 %/K above 50°C 0.83 %/V below 100 VAC
		See application note: <a href="http://www.tracopower.com/overview/txln080">www.tracopower.com/overview/txln080</a>
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 - 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 $\Omega$ min.
Isolation Capacitance	- Input to Output, 100 kHz, 1 V	20'000 pF max.
Leakage Current (at 264 VAC)	- Earth Leakage Current	1000 $\mu$ 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)
Housing Material		Aluminum
Housing Type		Metal Case
Mounting Type		Chassis Mount

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

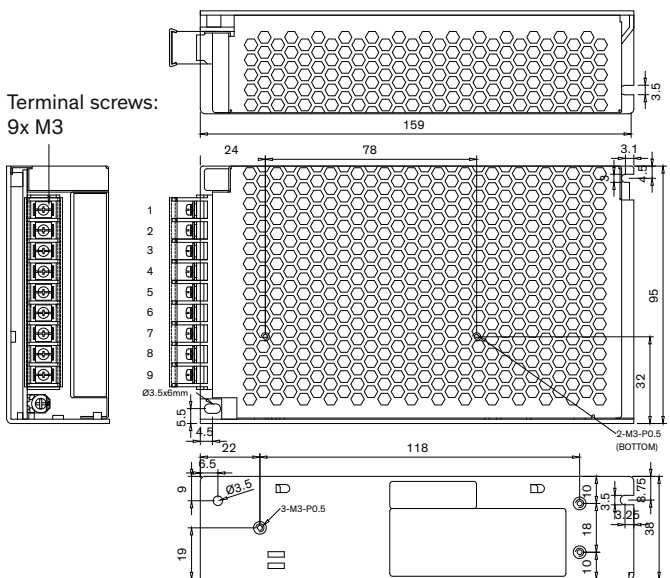
Connection Type	Screw Terminal
Weight	550 g
Status Indicator	Indicated by green LED
Environmental Compliance	- REACH Declaration <a href="http://www.tracopower.com/info/reach-declaration.pdf">www.tracopower.com/info/reach-declaration.pdf</a> REACH SVHC list compliant REACH Annex XVII compliant <a href="http://www.tracopower.com/info/rohs-declaration.pdf">www.tracopower.com/info/rohs-declaration.pdf</a> Exemptions: 7a, 7c-l (RoHS exemptions refer to the component concentration only, not to the overall concentration in the product (O5A rule.)) 376c20ea-cdba-4c03-9c12-c8a11f1f23b5
	- RoHS Declaration
	- SCIP Reference Number

### Supporting Documents

Overview Link (for additional Documents)

[www.tracopower.com/overview/txln080](http://www.tracopower.com/overview/txln080)

### Outline Dimensions



Dimensions in mm  
Tolerances:  
0-8:  $\pm 0.2$   
8-25:  $\pm 0.3$   
25-80:  $\pm 0.5$   
80-250:  $\pm 0.8$

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