TRACO POWER

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**

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	Output 1		Output 2		Output 3		Efficiency
		Vnom	Imax	Vnom	Imax	Vnom	Imax	typ.
TXLN 080-212		+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	80 W	+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 & Vin = 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

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 (Vmin - Vmax)	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 || 47 µF)
		5 / 24 VDC model:	80 / 200 mVp-p max. (w/ 0.1 || 47 µF)
	- triple output	5 / 12 / -12 VDC model:	80 / 120 / 150 mVp-p max. (w/ 0.1 || 47 µF)
		5 / 15 / -15 VDC model:	80 / 150 / 200 mVp-p max. (w/ 0.1 || 47 µF)
		5 / 12 / 24 VDC model:	80 / 120 / 240 mVp-p max. (w/ 0.1 || 47 µF)
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 Iout max.
		5 / 24 VDC model:	5.6 % of Iout max.
	- triple output	5 / 12 / -12 VDC model:	6.3 % of Iout max.
		5 / 15 / -15 VDC model:	6.3 % of Iout max.
		5 / 12 / 24 VDC model:	6.3 % of Iout 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 Iout max.
Overvoltage Protection			115 - 140% of Vout 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		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 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/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 MΩ min.
Isolation Capacitance	- Input to Output, 100 kHz, 1 V		20'000 pF max.
Leakage Current (at 264 VAC)	- Earth Leakage Current		1000 µA 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
Connection Type			Screw Terminal

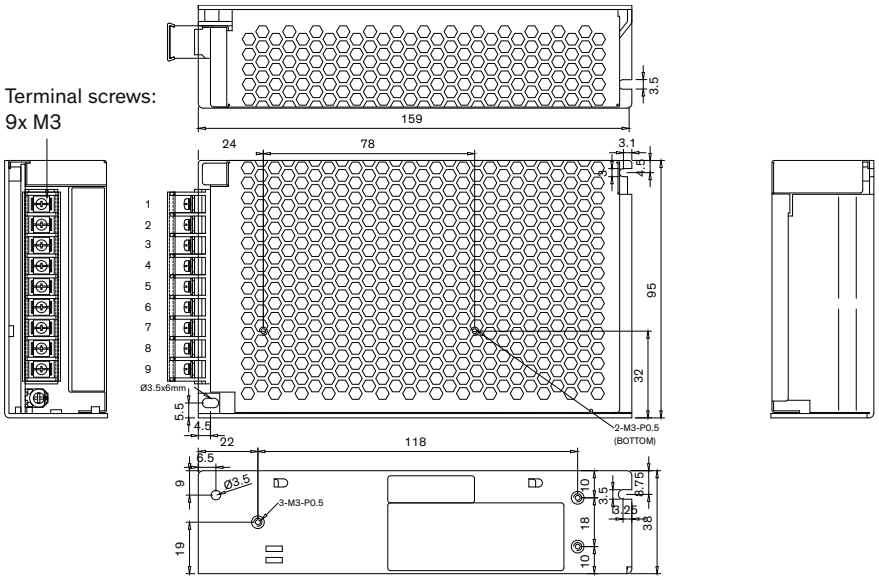
All specifications valid at 230 VAC, resistive full load and +25°C after warm-up time, unless otherwise stated.

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
	- 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).)
	- SCIP Reference Number	376c20ea-cdba-4c03-9c12-c8a11f1f23b5

Supporting Documents

Overview Link (for additional Documents)	www.tracopower.com/overview/txln080

Outline Dimensions



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: 5.0
Max. screw locked torque: 0.5 Nm

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