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TRACO POWER

AC/DC Power Supply

TXLN 500 Series, 500 Watt

- **Compact metal case with screw terminal block**
- **Universal input 85-264 VAC**
- **High efficiency up to 91%**
- **Active PFC >0.95**
- **Compliance to EN 61000-3-2**
- **Short circuit, overvoltage and overload protection**
- **IEC/EN/UL 62368-1 safety approvals**
- **Remote On/Off and Remote Sense**
- **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 500-112	500 W	12 VDC (10.8 - 13.2 VDC)	41'700 mA	88 %
TXLN 500-124		24 VDC (21.6 - 26.4 VDC)	21'000 mA	89 %
TXLN 500-148		48 VDC (43.2 - 52.8 VDC)	10'500 mA	91 %

Options

on demand (backorder with MOQ non stocking item)	- Optional model with 5 VDC / 90'000 mA - Optional model with 36 VDC / 14'000 mA

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Input Specifications

Input Voltage	- AC Range	Operational Range:	85 - 264 VAC (Full Range)
		Rated Range:	100 - 240 VAC (Full Range)
	- DC Range	Operational Range:	120 - 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		6'600 mA max.
Input Inrush Current	- At 230 VAC		40 A max.
	- At 115 VAC		20 A max.
Power Factor	- At 230 VAC		0.95 min. (Active Power Factor Correction)
	- At 115 VAC		0.95 min. (Active Power Factor Correction)
Input Protection			T 10 A / 250 VAC (Internal Fuse)
Recommended Input Fuse			10'000 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			±2% max. (5 Vout model) ±1% max. (other models)
Regulation	- Input Variation (Vmin - Vmax)		1% max. (5 Vout model) 0.5% max. (other models)
	- Load Variation (0 - 100%)		2% max. (5 Vout model) 1% max. (other models)
Ripple and Noise (20 MHz Bandwidth)		5 VDC model:	150 mVp-p max. (w/ 0.1 µF || 47 µF)
		12 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)
		36 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		18 ms min.
	- At 115 VAC		18 ms min.
Start-up Time	- At 230 VAC		3'000 ms max.
	- At 115 VAC		3'000 ms max.
Short Circuit Protection			Continuous, Automatic recovery
Output Current Limitation			105 - 130% 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/txln500
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 D
	- 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 B
		L to PE:	EN 61000-4-5, ±2 kV, perf. criteria B
	- 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 B

General Specifications

Relative Humidity			90% max. (non condensing)
Temperature Ranges	- Operating Temperature		–30°C to +70°C
	- Storage Temperature		–40°C to +85°C
Power Derating	- High Temperature		2.5 %/K above 50°C
	- Low Input Voltage		0.7 %/V below 100 VAC
		See application note:	www.tracopower.com/overview/txln500
Over Temperature Protection Switch Off	- Protection Mode		Latch off
Cooling System			Forced air cooling (with internal fan)
Fan Power Source	- Characteristic		Variable fan speed (temperature regulated)
	- Output Voltage		12 VDC
	- Output Current		92 mA max.
Remote Control	- Voltage Controlled Remote		On: 0 to 0.8 VDC Off: 4 to 10 VDC Refers to '+Remote' and '-Remote' Pin
Altitude During Operation			5'000 m max. (The max. ambient temperature decreases by 5 K / 1000 m when operated above 2000 m)
Switching Frequency			60 - 80 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		4'700 pF max.
Leakage Current (at 264 VAC / 60Hz)	- Earth Leakage Current		1500 µA max.
Distance Through Isolation			6 mm
Reliability	- Calculated MTBF		138'700 h (MIL-HDBK-217F, ground benign)
Housing Material			Aluminum
Housing Type			Metal Case
Mounting Type			Chassis Mount
Connection Type			Screw Terminal
Weight			1'110 g
Status Indicator			Indicated by green LED

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

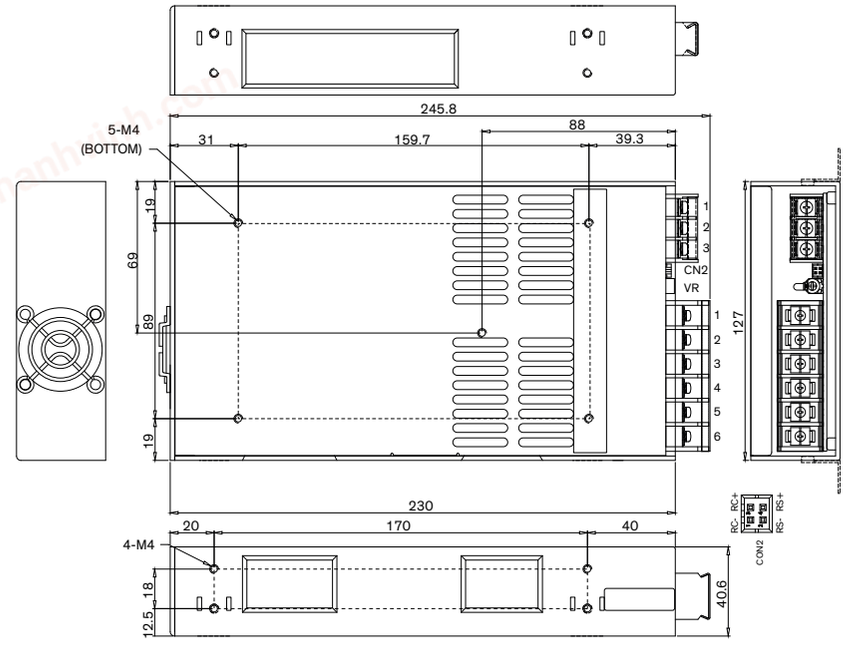
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Sense Function		(to be done)
Environmental Compliance	- REACH Declaration	www.tracopower.com/info/reach-declaration.pdf REACH SVHC list compliant REACH Annex XVII compliant
	- RoHS Declaration	www.tracopower.com/info/rohs-declaration.pdf Exemptions: 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.)

Supporting Documents

Overview Link (for additional Documents)	www.tracopower.com/overview/txln500

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: 0.8 Nm

Input	
CN1	
Pin	Function
1	AC (L)
2	AC (N)
3	PE

Auxiliary	
CN2	
Pin	Function
1	–Remote
2	–Sense
3	+Remote
4	+Sense

Output	
CN3	
Pin	Function
1-3	–Vout
4-6	+Vout

CN1:
3 pin, 9.5mm pitch
with PC cover

CN3:
6 pin, 11 mm pitch

CN2 Housing Type:
HRS DF11-04DP-2DS

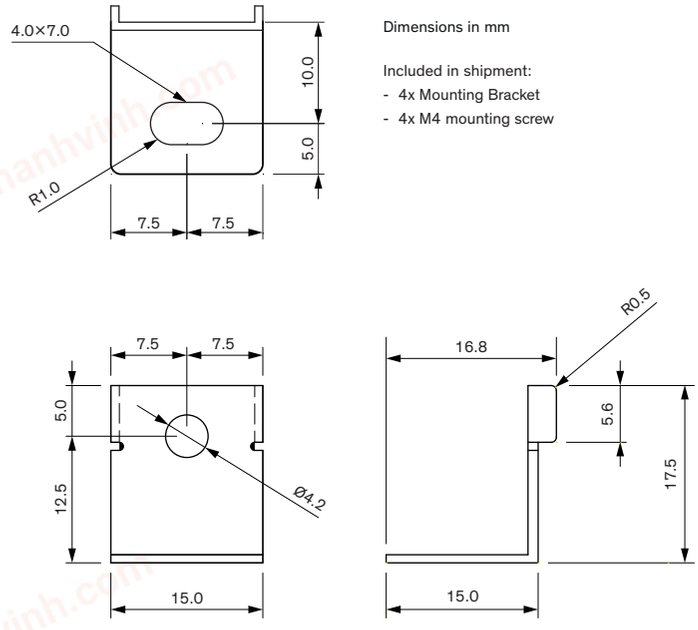
CN2 Mating Housing:
HRS DF11-4DS

CN2 Crimp Contact:
HRS DF11-**SC

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Mounting Bracket (included)



Dimensions in mm

Included in shipment:
- 4x Mounting Bracket
- 4x M4 mounting screw

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