TRACO POWER

AC/DC Enclosed Power Supply

TXL 050/060 Series, 50/60 Watt

- **Compact metal case with screw terminal block**
- **Universal input 85 - 264 Vac**
- **EMI/EMC compliance with EN 61000-6-3 and EN 61000-6-1**
- **Compliance to EN 61000-3-2**
- **Short circuit and overvoltage protection**
- **International safety approvals**
- **3 year product warranty**



ErP ready CE CB Scheme cULus UL 60950-1

The TRACOPOWER TXL 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	Power max.	Output voltage nom.	Output current max.	Efficiency typ.
TXL 050-05S	50 W	5 VDC	10.0 A	78 %
TXL 060-12S	60 W	12 VDC	5.0 A	81 %
TXL 060-15S	60 W	15 VDC	4.0 A	83 %
TXL 060-24S	60 W	24 VDC	2.5 A	84 %

Input Specifications

Input voltage range	– nominal – AC range (universal input) – DC range		100 – 240 VAC 88 – 264 VAC 125 – 375 VDC
Input frequency			47 – 63 Hz
Input current at full load	– at 100 VAC		1.6 A max.
Input inrush current	– at 115 VAC / 230 VAC		30 A max. / 50 A max.
Zero load power consumption			0.5 W max. (green mode function)
Recommended circuit breaker (characteristic C or slow bow fuse)			5 A

Output Specifications

Output voltage adjustment range			±10 %
Regulation	– Input variation – Load variation (20 - 100%)		1.0 % max. 1.0 % max.
Minimum load			not required
Temperature coefficient			0.02 %/K
Start-up time			1 s max.
Rise time			30 ms max.
Hold-up time	– at 230 VAC		60 ms min.
Ripple and noise (20Mhz Bandwidth)		5 Vout model: 12 Vout model: 15 & 24 Vout models:	70 mVp-p typ. 120 mVp-p typ. 150 mVp-p typ.
	– measured with external capacitors:		0.1 µF and 47 µF parallel capacitor
Overload protection by current limitation			105 – 150 % of Iout max.
Short circuit protection			hiccup mode (automatic recovery)
Overvoltage protection (Latch off, recovery after restart)			115 – 140 % of nominal Vout
Capacitive load			www.tracopower.com/products/txl-capload.pdf

General Specifications

Temperature ranges	– Operating – Storage	–20°C to +70°C (with derating) –40°C to +85°C
Output power derating	– Temperature – Low input voltage	2.5 %/K above +50°C 0.8 %/V below 100 VAC
Cooling		natural convection (20 lfm), no internal fan
Humidity (non condensing)		20 – 90 % rel. H max.
Altitude during operation		2000 m
Isolation voltage (60 sec.)	– Input / Output – Input / PE – Output / PE	3000 VAC 1500 VAC 500 VAC
Isolation resistance (at 500 VDC)		100 MOhm min.
Leakage current (at 264 VAC/60Hz)		0.75 mA max.

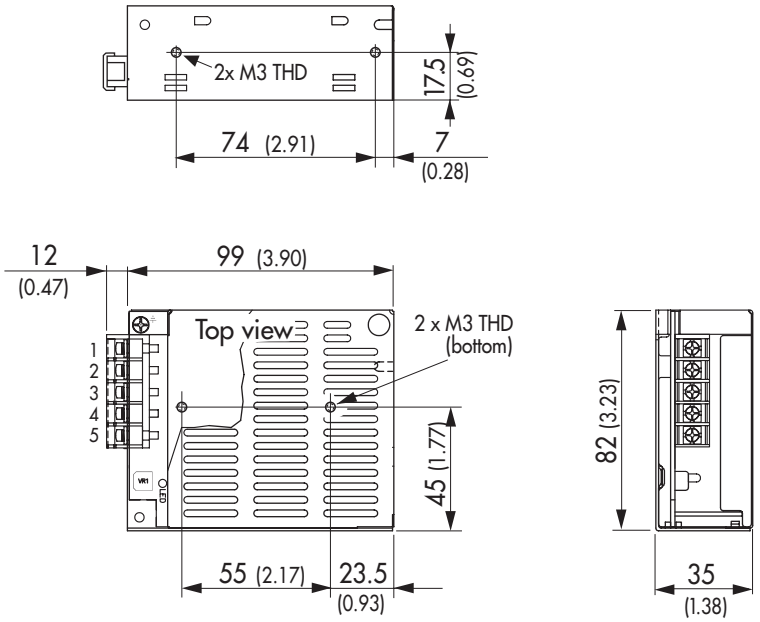
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

General Specifications (continued)

Switching frequency		65 kHz typ. (pulse width modulation)
Reliability (calculated MTBF)		> 335‘000 h
Electromagnetic compatibility (EMC), emissions		
	– Conducted input RI suppression	EN 55022 class B, FCC Part 15 level B
	– Harmonic current emissions	IEC/EN 61000-3-2, class A
	– Voltage flicker	IEC/EN 61000-3-3
Electromagnets compatibility (EMC), immunity		according EN 55024
	– Electrostatic discharge ESD	IEC/EN 61000-4-2, 4 kV / 8 kV, perf. criteria A
	– RF field immunity	IEC/EN 61000-4-3, 3 V/m, perf. criteria A
	– Electrical fast transients/burst immunity	IEC/EN 61000-4-4, ±2 kV, perf. criteria A
	– Surge	IEC/EN 61000-4-5, 1 kV / 2 kV, perf. criteria A
	– Conducted RF	IEC/EN 61000-4-6, 3 Vrms perf. criteria A
	– Magnetic field	IEC/EN 61000-4-8, 3 A/m perf. criteria A
	– Voltage dip	IEC/EN 61000-4-11 >95 %, perf. criteria A, 0.5 periods 30 %, perf. criteria A, 25 periods >95 % perf. criteria B, 250 periods
Safety standards		UL 60950-1, IEC/EN 60950-1
Safety approvals	– UL/cUL	www.ul.com → certifications → File: e188913
	– CB report	www.tracopower.com/overview/txl
Environmental compliance	– Reach	www.tracopower.com/products/reach-declaration.pdf
	– RoHS	RoHS directive 2011/65/EU
Connection		5 pole terminal pitch (9.5mm with plastic cover)
Casing material		nickel plated steel (cover), aluminium (chassis)
Weight		0.34 kg

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

Outline Dimensions



Screw Terminal	
Pin	**Single**
1	AC L
2	AC N
3	PE
4	– Vout
5	+ Vout

Dimensions in [mm], () = Inch
Tolerances ±0.5 (±0.02)

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