

- 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
- Active power factor correction
- Short circuit and overvoltage protection
- International safety approvals
- 3 year product warranty



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 230-12S	230 W	12 VDC	19.2 A	83 %
TXL 230-24S	230 W	24 VDC	9.6 A	85 %
TXL 230-48S	230 W	48 VDC	4.8 A	86 %

### Input Specifications

Input voltage range	<ul style="list-style-type: none"> <li>– nominal</li> <li>– AC range (universal input)</li> <li>– DC range</li> </ul>	100 – 240 VAC 85 – 264 VAC 120 – 375 VDC (Designed for, no certification)
Input frequency		47 – 63 Hz
Input current at full load	– at 100 VAC	3.2 A max.
Input inrush current	– at 115 VAC / 230 VAC	35 A max. / 70 A max.
Power Factor Correction (PFC)		PF > 0.95
Recommended circuit breaker (characteristic C or slow bow fuse)		10 A

### Output Specifications

Output voltage adjustment range		±10 %
Regulation	<ul style="list-style-type: none"> <li>– Input variation</li> <li>– Load variation (20 - 100%)</li> </ul>	1.0 % max. 1.0 % max.
Minimum load		not required
Temperature coefficient		0.02 %/K
Start-up time		3 s max.
Rise time		20 ms max.
Hold-up time	– at 230 VAC	20 ms min.
Ripple and noise (20Mhz Bandwidth)	12 Vout model: 24 & 48 Vout models: – measured with external capacitors:	120 mVp-p typ. 200 mVp-p typ. 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		<a href="http://www.tracopower.com/products/txl-capload.pdf">www.tracopower.com/products/txl-capload.pdf</a>

### General Specifications

Temperature ranges	<ul style="list-style-type: none"> <li>– Operating</li> <li>– Storage</li> </ul>	–20°C to +70°C (with derating) –40°C to +85°C
Output power derating	<ul style="list-style-type: none"> <li>– Temperature</li> <li>– Low input voltage</li> </ul>	2.5 %/K above +50°C 0.7 %/V below 100 VAC
Cooling		forced airflow cooling with DC fan
Over Temperature Protection		over 90°C thermal shutdown, auto. recovery
Humidity (non condensing)		20 – 90 % rel. H max.
Altitude during operation		2000 m
Isolation voltage (60 sec.)	<ul style="list-style-type: none"> <li>– Input / Output</li> <li>– Input / PE</li> <li>– Output / PE</li> </ul>	3000 VAC 1500 VAC 500 VAC
Isolation resistance (at 500 VDC)		100 MOhm min.
Leakage current (at 264 VAC/60Hz)		1.5 mA max.
Remote Sense		open or connected to the load (RS+, RS–)
Remote on/off	<ul style="list-style-type: none"> <li>– Power On:</li> <li>– Power Off:</li> <li>– Off idle current</li> </ul>	0 – 0.7 VDC 3 – 10 VDC 3 – 10 mA

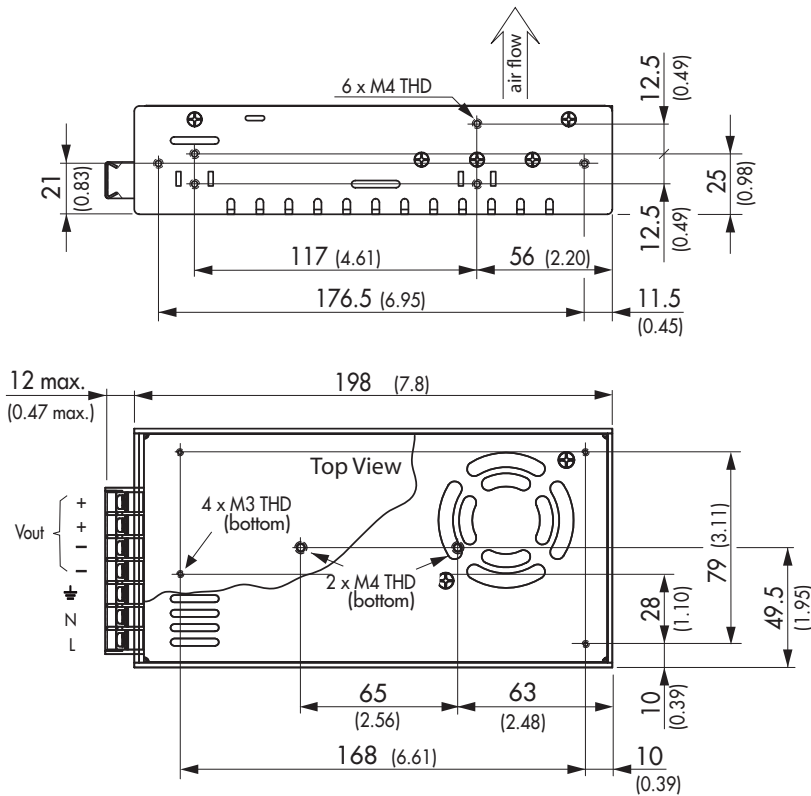
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

**General Specifications (continued)**

Switching frequency	65 kHz typ. (pulse width modulation)
Reliability (calculated MTBF)	> 215'000 h
<b>Electromagnetic compatibility (EMC), emissions</b> <ul style="list-style-type: none"> <li>– Conducted input RI suppression</li> <li>– Harmonic current emissions</li> <li>– Voltage flicker</li> </ul>	EN 55022 class B, FCC Part 15 level B IEC / EN 61000-3-2, class D IEC / EN 61000-3-3
<b>Electromagnets compatibility (EMC), immunity</b> <ul style="list-style-type: none"> <li>– Electrostatic discharge ESD</li> <li>– RF field immunity</li> <li>– Electrical fast transients/burst immunity</li> <li>– Surge</li> <li>– Conducted RF</li> <li>– Magnetic field</li> <li>– Voltage dip</li> </ul>	according EN 55024 IEC / EN 61000-4-2, 4kV/8kV, perf. criteria A IEC / EN 61000-4-3, 20V/m, perf. criteria A IEC / EN 61000-4-4, ±2kV, perf. criteria A IEC / EN 61000-4-5, 1kV/2kV, perf. criteria A IEC / EN 61000-4-6, 3 Vrms perf. criteria A IEC / EN 61000-4-8, 3 A/m perf. criteria A IEC / EN 61000-4-11
Safety standards	UL 60950-1, IEC/EN 60950-1
Safety approvals <ul style="list-style-type: none"> <li>– UL/cUL</li> <li>– CB report</li> </ul>	<a href="http://www.ul.com">www.ul.com</a> → certifications → File: e188913 <a href="http://www.tracopower.com/overview/txl">www.tracopower.com/overview/txl</a>
Environmental compliance <ul style="list-style-type: none"> <li>– Reach</li> <li>– RoHS</li> </ul>	<a href="http://www.tracopower.com/products/reach-declaration.pdf">www.tracopower.com/products/reach-declaration.pdf</a> RoHS directive 2011/65/EU
Casing material	aluminium (chassis and cover)
Weight	0.88 kg

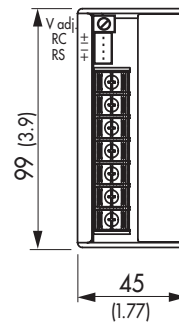
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### Outline Dimensions



4x TXL-CMB chassis mount brackets included in shipment

Dimensions in [mm], ( ) = Inch  
Tolerances  $\pm 0.5$  ( $\pm 0.02$ )



Chassis Mount Brackets	
<b>Order Code</b>	TXL-CMB
<b>Package</b>	contains 4 pcs brackets and screws

Remote Connector	
<b>RC</b>	Remote Control On/Off: RC+/RC- On = 0 - 0.7 VDC, Off = 3 - 10 VDC
<b>RS</b>	Remote Sense: RS+/RS- Can be open or connected to the load under regard of polarity.
Connector type: JS-1001R-XX	

