TRACO POWER

AC/DC Enclosed Power Supply

TXL 035 Series, 35 Watt

- **Compact metal case with screw terminal block**
- **Dual output models with isolated outputs**
- **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**



IEC 60950-1 UL 60950-1
IEC 62368-1 UL 62368-1

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	Output voltage		Output current max.		Efficiency
	max.	Vout 1	Vout 2	Vout 1	Vout 2	typ.
TXL 035-3.3S	30 W	3.3 VDC		9.0 A		74 %
TXL 035-05S	35 W	5 VDC		7.0 A		79 %
TXL 035-12S	36 W	12 VDC		3.0 A		82 %
TXL 035-15S	36 W	15 VDC		2.4 A		84 %
TXL 035-24S	36 W	24 VDC		1.5 A		85 %
TXL 035-48S	38 W	48 VDC		0.8 A		86 %
TXL 035-0512D [1]	35 W	+5 VDC	+12 VDC	4.0 A	2.5 A	79 %
TXL 035-0524D [1]	35 W	+5 VDC	+24 VDC	4.0 A	1.3 A	79 %
TXL 035-1212D [1]	36 W	+12 VDC	−12 VDC	3.0 A	1.5 A	83 %
TXL 035-1515D [1]	36 W	+15 VDC	−15 VDC	2.4 A	1.5 A	84 %

[1] Total power should not exceed max. output power

Input Specifications

Input voltage range	– nominal		100 – 240 VAC
	– AC range (universal input)		88 – 264 VAC
	– DC range		125 – 375 VDC (Designed for, no certification)
Input frequency			47 – 63 Hz
Input current at full load	– at 100 VAC		1.0 A max.
Input inrush current	– at 115 VAC / 230 VAC		30 A max. / 50 A max.
Zero load power consumption		only single output models:	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 % (only Vout 1)
Regulation	– Input variation		1.0 % max.
	– Load variation (20 - 100%)	main output:	2.0 % max.
		Vout 2:	5.0 % max.
Minimum load		single output models:	not required
		dual output models:	Vout 1 requires 0.3 A
Temperature coefficient			0.02 %/K
Start-up time			1 s max.
Rise time		single output models:	20 ms max.
		dual output models:	30 ms max.
Hold-up time		single output models:	40 ms min.
		dual output models:	60 ms min.
Ripple and noise	– measured with external capacitors:		0.1 µF and 47 µF parallel capacitor
(20Mhz Bandwidth)	– Vout 1	3.3 & 5 Vout models:	70 mVp-p typ.
		12 Vout model:	120 mVp-p typ.
		15 & 24 Vout models:	150 mVp-p typ.
		48 Vout model:	200 mVp-p typ.
	– Vout 2	(-)12 VDC models:	120 mVp-p typ.
		15 VDC models:	150 mVp-p typ.
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 (only Vout 1)
Capacitive load			www.tracopower.com/products/txl-capload.pdf

General Specifications

Temperature ranges	– Operating	–20°C to +70°C (with derating)
	– Storage	–40°C to +85°C
Output power derating	– Temperature	2.5 %/K above +50°C
	– Low input voltage	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	4'000 VDC
	– Input / PE	2'636 VAC
	– Output / PE	500 VDC
Isolation resistance (at 500 VDC)		100 MOhm min.
Leakage current (at 264 VAC/60Hz)		1 mA max.

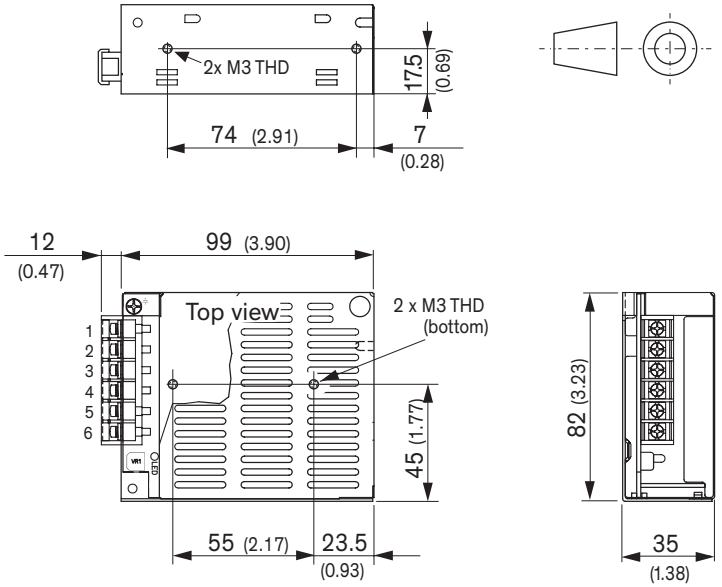
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

General Specifications (continued)

Switching frequency		65 kHz typ. (pulse width modulation)
Reliability (calculated MTBF)	single output models: dual output models:	> 400‘000 h > 340‘000 h
Electromagnetic compatibility (EMC), emissions		
– Conducted input RI suppression		EN 55032 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 & EN 55035
– 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 UL 62368-1, IEC/EN 62368-1
Safety approvals	– UL/cUL – CB report	www.ul.com → certifications → File: e188913 www.tracopower.com/overview/txl
Environmental compliance	– Reach – RoHS	www.tracopower.com/products/reach-declaration.pdf RoHS directive 2011/65/EU
Connection	single output models: dual output models:	5 pole terminal pitch (9.5mm with plastic cover) 6 pole terminal pitch (8.25mm with plastic cover)
Casing material		nickel plated steel (chassis and cover)
Weight	single output models: dual output models:	0.34 kg 0.35 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**	**Dual**
1	AC L	AC L
2	AC N	AC N
3	PE	PE
4	– Vout	Common
5	+ Vout	Vout 1
6	No pin	Vout 2

Max. terminal screw locked torque: 0.7 Nm
Max. mounting screw locked torque: 0.8 Nm

Max. mounting screw penetration depth: 4.5 (0.177)

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

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