

- Compact metal case with screw terminal block
- Universal input 90-264 VAC
- I/O reinforced isolation 3000 VAC
- Active power factor correction >0.9
- Internal EN 55032 class B filter
- High efficiency up to 92%
- Operating temperature range -30°C to +70°C
- Short circuit, overvoltage, overtemperature and overload protection
- IEC/EN/UL 62368-1 safety approvals
- Remote on-off and load share function
- 3-year product warranty



The TXN 1000 is a cost efficient, metal enclosed AC/DC power supplies series designed for industrial applications. With a low-profile metal case and screw terminal block connection, they are easy to install in any equipment. Active PFC (>0.9), internal EMC filter, high IO-isolation and wide temperature range qualify them for numerous industrial applications. All models within the TXN 1000 series have universal input (90-264 VAC) and comply with the latest industrial standard IEC/EN/UL 62368-1, European EMC standards and the Low Voltage Directive (LVD).

Models

Order Code	Output Power max.	Output Voltage nom. (adjustable)	Output Current max.	Efficiency typ.
TXN 1000-112	960 W	12 VDC (10.8 - 13.2 VDC)	80'000 mA	89 %
TXN 1000-115		15 VDC (13.5 - 16.5 VDC)	64'000 mA	89 %
TXN 1000-124	1000 W	24 VDC (21.6 - 26.4 VDC)	41'600 mA	91 %
TXN 1000-148		48 VDC (45.6 - 50.4 VDC)	21'000 mA	92 %

Options

TXN1000-AUX1	- Optional Cable: www.tracopower.com/overview/txn1000-aux1
TXN1000-AUX2	- Optional Cable: www.tracopower.com/overview/txn1000-aux2
on demand (backorder with MOQ non stocking item)	- Optional model with 36 VDC and 28'000 mA

Input Specifications

Input Voltage	- AC Range	Operational Range: 90 - 264 VAC (Full Range) Rated Range: 100 - 240 VAC (Full Range)
	- DC Range	Operational Range: 140 - 340 VDC (Designed for, no certification) Polarity: +DC: L / -DC: N
Input Frequency		Operational Range: 47 - 63 Hz Certified: 50/60 Hz
Input Current	- Full load & Vin = 230 VAC	6 A max.
	- Full load & Vin = 115 VAC	12 A max.
Power Factor	- At 230 VAC	0.9 min. (Active Power Factor Correction)
Input Protection		T 15 A / 250 VAC (Internal Fuse in L)
Recommended Input Fuse		(The need of an external fuse has to be assessed in the final application.)

Output Specifications

Output Voltage Adjustment		-10% to +5% (36 Vout model) ±5% (48 Vout model) ±10% (other models) (By trim potentiometer) Output power must not exceed rated power!
Voltage Set Accuracy		±2% max.
Regulation	- Input Variation (Vmin - Vmax)	0.5% max.
	- Load Variation	2% max.
Ripple and Noise (20 MHz Bandwidth)	12 VDC model:	200 mVp-p typ. (w/ 0.1 µF 47 µF)
	15 VDC model:	200 mVp-p typ. (w/ 0.1 µF 47 µF)
	24 VDC model:	200 mVp-p typ. (w/ 0.1 µF 47 µF)
	36 VDC model:	200 mVp-p typ. (w/ 0.1 µF 47 µF)
	48 VDC model:	300 mVp-p typ. (w/ 0.1 µF 47 µF)
Capacitive Load	12 VDC model:	62'100 µF max.
	15 VDC model:	62'100 µF max.
	24 VDC model:	62'100 µF max.
	36 VDC model:	35'200 µF max.
	48 VDC model:	22'000 µF max.
Minimum Load		Not required
Temperature Coefficient		±0.03 %/K max.
Hold-up Time	- At 230 VAC	10 ms min.
Start-up Time	- At 230 VAC	3 s max.
Short Circuit Protection		Continuous, Automatic recovery 110 - 150% of Iout nom.
Overvoltage Protection		110 - 140% of Vout nom.
Load Share Function	- Refer to application note	www.tracopower.com/overview/txn1000
Load Share Accuracy		5%

Safety Specifications

Standards	- IT / Multimedia Equipment	EN 62368-1 IEC 62368-1 UL 62368-1
	- Certification Documents	www.tracopower.com/overview/txn1000
Protection Class		Class I (Prepared): Connection to PE See application note: www.tracopower.com/info/protection-class.pdf
Pollution Degree		PD 2
Over Voltage Category		OVC II

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

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 55035 (Multimedia)
	- Electrostatic Discharge	Air: EN 61000-4-2, ± 8 kV, perf. criteria B
		Contact: EN 61000-4-2, ± 4 kV, perf. criteria B
		EN 61000-4-3, 10 V/m, perf. criteria B
		EN 61000-4-4, ± 2 kV, perf. criteria B
	- RF Electromagnetic Field	L to L: EN 61000-4-5, ± 2 kV, perf. criteria B
		L to PE: EN 61000-4-5, ± 4 kV, perf. criteria B
		EN 61000-4-6, 10 Vrms, perf. criteria B
		230 VAC / 50 Hz: EN 61000-4-11
	- Conducted RF Disturbances	30%, 25 periods, perf. criteria C
		>95%, 0.5 periods, perf. criteria B
		>95%, 250 periods, perf. criteria C
	- Voltage Dips & Interruptions	
EMC / Environmental	- Certification Documents	www.tracopower.com/overview/txn1000

General Specifications

Relative Humidity		95% max. (non condensing)
Temperature Ranges	- Operating Temperature	-30°C to +70°C
	- Storage Temperature	-40°C to +85°C
Power Derating	- High Temperature	2 %/K above 50°C
	- Low Input Voltage	1 %/V below 110 VAC
	See application note: www.tracopower.com/overview/txn1000	
Over Temperature Protection Switch Off	- Protection Mode	70°C to 78°C (Automatic recovery at 65°C typ.)
	- Measurement Point	Case
Cooling System		Forced air cooling (with internal fan)
Remote Control	- Voltage Controlled Remote (passive = on)	On: < 0.6 VDC or open circuit or short circuit
		Off: 1 to 10 VDC
		Refers to '+Remote' and '-Remote' Pin
Altitude During Operation		2'000 m max.
Regulator Topology		LLC Converter
Switching Frequency		85 - 350 kHz (PFM)
Insulation System		Reinforced Insulation
Isolation Test Voltage	- Input to Output, 60 s	3'000 VAC
	- Input to Case or PE, 60 s	2'500 VDC
	- Output to Case or PE, 60 s	750 VDC
Isolation Resistance	- Input to Output, 500 VDC	100 M Ω min.
Reliability	- Calculated MTBF	100'300 h (MIL-HDBK-217F, ground benign)
Housing Material		Aluminum
Housing Type		Metal Case
Mounting Type		Chassis Mount
Connection Type		Screw Terminal
Weight		1'200 g
Sense Function		(0.2 V max.)

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

Environmental Compliance - REACH Declaration

www.tracopower.com/info/reach-declaration.pdf

REACH SVHC list compliant

REACH Annex XVII compliant

www.tracopower.com/info/rohs-declaration.pdf

Exemptions: 7(a), 7(c)-I

(RoHS exemptions refer to the component concentration only, not to the overall concentration in the product (O5A rule).)

- RoHS Declaration

- SCIP Reference Number

86cc94e7-6f67-42a5-b22b-e507610cf84

Additional Information

Supporting Documents

www.tracopower.com/overview/txn1000

Frequently Asked Questions

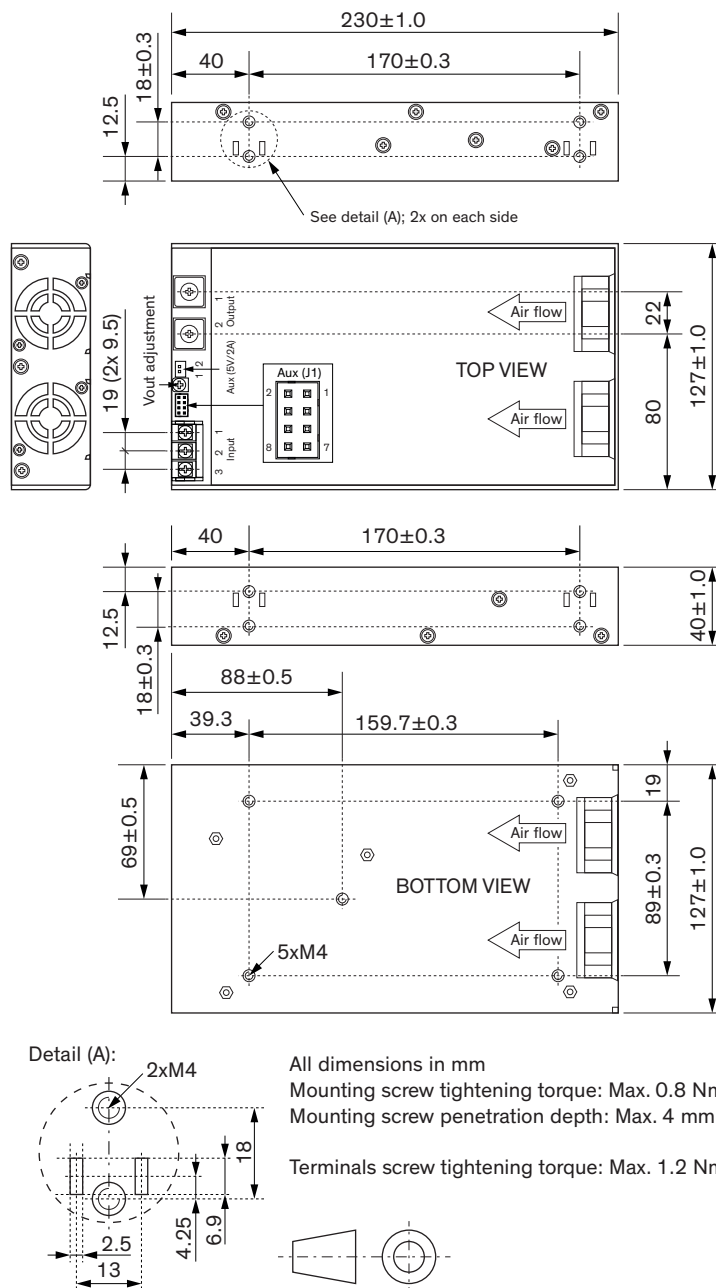
www.tracopower.com/glossary-faq

Glossary

www.tracopower.com/info/glossary.pdf

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

Outline Dimensions



Pin connectors

Input		Output	
Pin	Function	Pin	Function
1	PE	1	+Vout
2	AC (N)	2	-Vout
3	AC (L)	Aux (J1)	
Aux (5V/2A)		Pin	Function
1	+5V/2A	1	Load Share
2	GND	2	Power Good
3		3	+Remote
4		4	-Remote
5		5	NC
6		6	GND
7		7	+Sense
8		8	-Sense

Input: Screw terminal, M4×7
Wire gauge range: 22-12 AWG ($\pm 0.32-3.3\text{mm}^2$)

Output: Screw terminal, M4×7
Wire gauge range: 22-12 AWG ($\pm 0.32-3.3\text{mm}^2$)