# **II TRACO POWER**

#### **AC/DC Industrial Power Supply**

### TXN 75 Series, 75 Watt

- Compact metal case with screw terminal block
- Universal input 90-264 VAC
- High efficiency up to 86%
- Compliance to EN 61000-3-2
- Short circuit, overvoltage and overload protection
- IEC/EN/UL 62368-1 safety approvals
- 3-year product warranty





UL 62368-1 IEC 62368-1

The new TXN line comprises a series of cost efficient, metal enclosed AC/DC power supplies and is designed for industrial applications. With a low-profile metal case and screw terminal block connection, they are easy to install in any equipment. The TXN power supplies are completely convection cooled. Internal EMC filter, high IO-isolation and wide temperature range qualify them for numerous industrial applications. These power supplies have universal input 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	Output Voltage	Output Current	Efficiency
	max.	nom. (adjustable)	max.	typ.
TXN 75-105	60 W	<b>5 VDC</b> (4.5 - 5.5 VDC)	12'000 mA	83 %
TXN 75-112	72 W	<b>12 VDC</b> (10.8 - 13.2 VDC)	6'000 mA	85 %
TXN 75-115		<b>15 VDC</b> (13.5 - 16.5 VDC)	5'000 mA	85 %
TXN 75-124	75 W	<b>24 VDC</b> (21.6 - 26.4 VDC)	3'100 mA	85 %
TXN 75-148		<b>48 VDC</b> (44.16 - 51.84 VDC)	1'600 mA	86 %

Options	
on demand (backorder with MOQ non stocking item)	- Optional model with 36 VDC and 2'100 mA



Input Voltage	- AC Range	Operational Range:	<b>90 - 264 VAC</b> (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
Power Consumption	- No load & Vin = 230 VAC		1 W max.
	- No load & $Vin = 115 VAC$		1 W max.
Input Current	- Full load & Vin = 230 VAC		850 mA max.
	- Full load & Vin = 115 VAC		1'400 mA max.
Input Inrush Current	- At 230 VAC		70 A max.
	- At 115 VAC		35 A max.
Input Protection			T 3.15 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 Specificatio	ons		
Output Voltage Adjustment			<b>±8%</b> (36 & 48 Vout output models)
			±10% (other output models)
			(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)		0.5% max.
	- Load Variation (0 - 100%)		2% max. (5 Vout model) 1% max. (other models)
Ripple and Noise		5 VDC models	100 mVp-p max. (w/ 0.1 μF    47 μF)
(20 MHz Bandwidth)			<b>120 mVp-p max.</b> (w/ 0.1 μF    47 μF)
(20 Mile Barrawiatri)			<b>120 mVp-p max.</b> (w/ 0.1 μF    47 μF)
			150 mVp-p max. (w/ 0.1 μF    47 μF)
			200 mVp-p max. (w/ 0.1 μF    47 μF)
			200 mVp-p max. (w/ 0.1 μF    47 μF)
Capacitive Load			19'800 μF max.
			6'100 μF max.
			6'100 μF max.
			2'000 µF max.
			1'100 µF max.
		48 VDC model:	·
Minimum Load			Not required
Temperature Coefficient			±0.03 %/K max.
Hold-up Time	- At 230 VAC		20 ms min.
	- At 115 VAC		35 ms min.
Start-up Time	- At 230 VAC		2.5 s max.
	- At 115 VAC		700 ms max.
Start-up Overshoot Voltage			5% max.
Short Circuit Protection			Continuous, Automatic recovery
Output Current Limitation			110 - 165% of lout max.
Overvoltage Protection			110 - 130% of Vout nom.
Safety Specification	ns		
Standards	- IT / Multimedia Equipment		EN 62368-1
			IEC 62368-1

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

- Certification Documents

UL 62368-1

www.tracopower.com/overview/txn75



Protection Class	Class I (Prepared): Connection to PE
Pollution Degree	PD 2
Over Voltage Category	OVC II

EMC Specification	ns	
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, ±6 kV, perf. criteria B
	- RF Electromagnetic Field	EN 61000-4-3, 10 V/m, perf. criteria B
	- EFT (Burst) / Surge	EN 61000-4-4, ±2 kV, perf. criteria B
		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, 10 Vrms, perf. criteria A
	- PF Magnetic Field	Continuous: EN 61000-4-8, 30 A/m, perf. criteria A
	- Voltage Dips & Interruptions	230 VAC / 50 Hz: <b>EN 61000-4-11</b>
		30%, 25 periods, perf. criteria B
		>95%, 0.5 periods, perf. criteria C
		>95%, 250 periods, perf. criteria B
EMC / Environmental	- Certification Documents	www.tracopower.com/overview/txn75

Relative Humidity			95% max. (non condensing)
Temperature Ranges	- Operating Temperature		-30°C to +70°C
, ,	- Storage Temperature		-30°C to +80°C
Power Derating	- High Temperature		2 %/K above 50°C (High Temperature)
· ·			2.0 %/K below -25°C (Low Temperature)
	- Low Input Voltage		2 %/V below 100 VAC
		See application note:	www.tracopower.com/overview/txn75
Cooling System			Natural convection (20 LFM)
Altitude During Operation			5'000 m max.
Regulator Topology			Flyback Converter
Switching Frequency			65 kHz typ. (PWM)
Insulation System			Reinforced Insulation
Working Voltage (rated)			624 VAC
Isolation Test Voltage	- Input to Output, 60 s		3'000 VAC
	- Input to Case or PE, 60 s		1'500 VAC
	- Output to Case or PE, 60 s		500 VAC
Creepage	- Input to Output		7.3 mm min.
	- Input to Case or PE		3.2 mm min.
	- Output to Case or PE		2 mm min.
Clearance	- Input to Output		7.3 mm min.
	- Input to Case or PE		3.2 mm min.
	- Output to Case or PE		2 mm min.
Isolation Resistance	- Input to Output, 500 VDC		100 MΩ min.
Isolation Capacitance	- Input to Output, 100 kHz, 1 V		2'200 pF typ.
Leakage Current	- Earth Leakage Current		1 mA max.
(at 240 VAC / 60 Hz)	_		
Reliability	- Calculated MTBF		393'000 h (MIL-HDBK-217F, ground benign)
Washing Process			Not allowed
Environment	- Vibration		2 g, 3 axis, 60 min, 10-500 Hz, 10 min/cycle
	- Mechanical Shock		20 g, 3 axis, 3 shocks

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

# **III TRACO POWER**

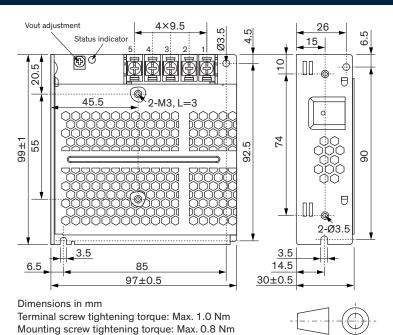
Housing Material	Aluminum (Chassis)
Housing Type	Metal Case
Mounting Type	Chassis Mount
Connection Type	Screw Terminal
Weight	250 g
Status Indicator	Indicated by green LED
Environmental Compliance - REACH Declaration	www.tracopower.com/info/reach-declaration.pdf
	REACH SVHC list compliant
	REACH Annex XVII compliant
- RoHS Declaration	www.tracopower.com/info/rohs-declaration.pdf
	Exemptions: 7(a), 7(c)-I
	(RoHS exemptions refer to the component
	concentration only, not to the overall
	concentration in the product (O5A rule).)
- SCIP Reference Number	2c542e8e-39f1-4f8d-85cf-544fd7bf1515

## **Supporting Documents**

Overview Link (for additional Documents)

www.tracopower.com/overview/txn75

#### **Outline Dimensions**



	Pinout
Pin	Function
1	AC (L)
2	AC (N)
3	PE
4	-Vout
5	+Vout

 $\textbf{Wiring:} \ \text{Conductor cross section 0.5 .. 3 } \ \text{mm}^{2}$ 

Mounting screw penetration depth: Max. 3 mm

Mounting screw lenght: Max. 5 mm