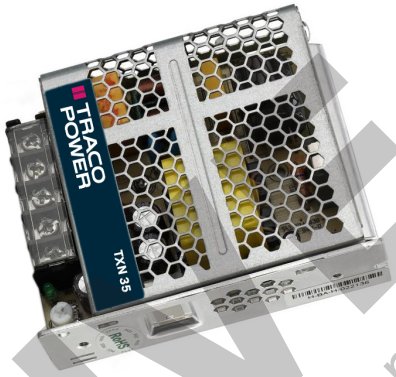
TRACO POWER

AC/DC Industrial Power Supply

TXN 35 Series, 35 Watt

- **3-year product warranty**



UL 62368-1 IEC 62368-1

Models

Order Code	Output Power max.	Output Voltage nom. (adjustable)	Output Current max.	Efficiency typ.
TXN 35-103	23 W	3.3 VDC (3.0 - 3.6 VDC)	7 A	81 %
TXN 35-105	35 W	5 VDC (4.5 - 5.5 VDC)	7 A	82 %
TXN 35-112		12 VDC (10.8 - 13.2 VDC)	3 A	84 %
TXN 35-115		15 VDC (13.5 - 16.5 VDC)	2.4 A	85 %
TXN 35-124		24 VDC (21.6 - 26.4 VDC)	1.5 A	85 %
TXN 35-148	38 W	48 VDC (44.0 - 52.0 VDC)	750 mA	86 %

Options

on demand (backorder with MOQ non stocking item)	- Optional model with 36 VDC and 1 A

Input Specifications

Input Voltage		Operational Range:	90 - 264 VAC (Full Range)
		Rated Range:	100 - 240 VAC (Full Range)
	- DC Range	Certified Range:	140 - 340 VDC
		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		500 mA max.
	- Full load & Vin = 115 VAC		700 mA max.
Input Inrush Current	- At 230 VAC		60 A max.
	- At 115 VAC		30 A max.
Input Protection			T 3.15 A / 250 VAC (Internal Fuse in TODO)
Recommended Input Fuse			(The need of an external fuse has to be assessed in the final application.)

Output Specifications

Output Voltage Adjustment			±10% (By trim potentiometer) Output power must not exceed rated power!
Voltage Set Accuracy			±1% max.
Regulation	- Input Variation (Vmin - Vmax)		0.5% max.
	- Load Variation (10 - 90%)		2% max. (3.3 & 5 Vout models) 1% max. (other models)
Ripple and Noise (20 MHz Bandwidth)		3.3 VDC model:	100 mVp-p max. (w/ 0.1 µF || 47 µF)
		5 VDC model:	100 mVp-p max. (w/ 0.1 µF || 47 µF)
		12 VDC model:	120 mVp-p max. (w/ 0.1 µF || 47 µF)
		15 VDC model:	150 mVp-p max. (w/ 0.1 µF || 47 µF)
		24 VDC model:	150 mVp-p max. (w/ 0.1 µF || 47 µF)
		36 VDC model:	200 mVp-p max. (w/ 0.1 µF || 47 µF)
		48 VDC model:	200 mVp-p max. (w/ 0.1 µF || 47 µF)
Minimum Load			Not required
Temperature Coefficient			±0.03 %/K max.
Hold-up Time	- At 230 VAC		20 ms min.
	- At 115 VAC		22 ms min.
Start-up Time	- At 230 VAC		2.5 s max.
	- At 115 VAC		862 ms max.
Start-up Overshoot Voltage			2500% max.
Short Circuit Protection			Continuous, Automatic recovery
Output Current Limitation			110 - 160% of Iout max.
Overvoltage Protection			110 - 135% of Vout nom.

Safety Specifications

Standards	- IT / Multimedia Equipment	EN 62368-1 IEC 62368-1 UL 62368-1
Protection Class		Class I (Prepared): Connection to PE
Pollution Degree		PD 2
Over Voltage Category		OVC III

All specifications valid at nominal voltage, 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) FCC 47 Part 15 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
	- 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:	EN 61000-4-11

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 (average)
	- Low Input Voltage		2 %/V below 100 VAC
		See application note:	www.tracopower.com/overview/txn35
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			Basic Insulation
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		6.1 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		1'000 pF typ.
Leakage Current (at 240 VAC / 60 Hz)	- Earth Leakage Current		3.5 mA max.
Reliability	- Calculated MTBF		(tbd)
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
Case Ingress Protection			IP 20 (acc. IEC 60529)
Housing Material			Aluminum (Chassis)
Housing Type			Metal Case
Mounting Type			Chassis Mount
Connection Type			Screw Terminal
Weight			200 g
Status Indicator			Indicated by green LED

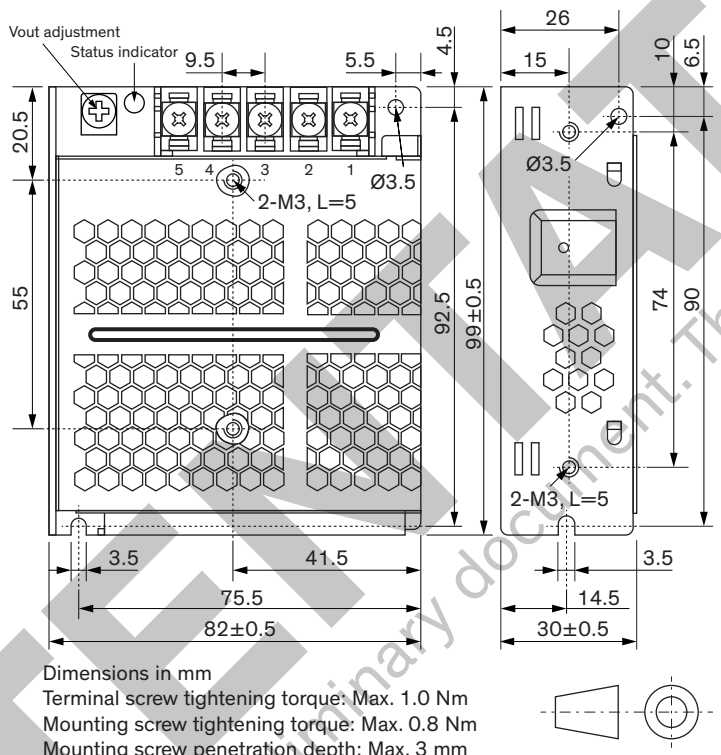
All specifications valid at nominal voltage, resistive full load and +25°C after warm-up time, unless otherwise stated.

Environmental Compliance	- REACH Declaration	www.tracopower.com/info/reach-declaration.pdf REACH SVHC list compliant REACH Annex XVII compliant
	- RoHS Declaration	www.tracopower.com/info/rohs-declaration.pdf Exemptions: 7a, 7c-I (RoHS exemptions refer to the component concentration only, not to the overall concentration in the product (O5A rule).)
	- SCIP Reference Number	dedc2f3a-63a6-4a0f-a205-369ffca0c1ab

Supporting Documents

Overview Link (for additional Documents)	www.tracopower.com/overview/txn35

Outline Dimensions



Dimensions in mm
Terminal screw tightening torque: Max. 1.0 Nm
Mounting screw tightening torque: Max. 0.8 Nm
Mounting screw penetration depth: Max. 3 mm
Mounting screw lenght: Max. 5 mm

Pinout

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

Wiring: Conductor cross section 0.5 .. 3 mm²

 Specifications can be changed without notice.