

### Features

- ◆ Rugged power supplies for harsh outdoor environments
- ◆ Die-cast aluminium housing
- ◆ Dust, water (incl. salt water), ice and oil resistant enclosure
- ◆ IP67 and NEMA 4X rated
- ◆ Connection via waterproof I/O plug-connectors
- ◆ Shock & vibration proof construction
- ◆ Operating temp. range  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- ◆ Universal input 85 to 264 VAC
- ◆ Output voltage adjustable
- ◆ DC-OK indicator
- ◆ Low ripple and noise
- ◆ Worldwide safety approvals
- ◆ Class I, zone 2 approval incl. ATEX certification
- ◆ 3-year product warranty



These power supplies have been designed particularly for applications in extreme environments. The rugged die-cast aluminium housing is water, ice, oil and dust resistant in compliance with IP67 and NEMA 4X standards. The metal case works as an efficient heatsink allowing full power operation at up to  $+60^{\circ}\text{C}$  ambient temperature (no fan required). With a shock and vibration proof construction the power supplies can be mounted directly on a machine.

An International safety approval package includes CB scheme as well as ATEX and IECEx certificate of conformity for applications in hazardous locations i.e in chemical or food processing industries. The TEX series offers a cost efficient solution for de-centralized power systems in industrial automation applications with critical environment conditions.

### Models

Order Code	Output Power (max.)	Output Voltage* (nom.)	Output Current (max.)
TEX 120-112	96 W	12 VDC	8.0 A
TEX 120-124	120 W	24 VDC	5.0 A

\* adjustable

### Input Specifications

Input voltage	– nominal – AC range – DC range	100 – 240 VAC 85 – 264 VAC 85 – 375 VDC (power derating tba)
Input frequency		47 – 63 Hz
Harmonic limits		EN 61000-3-2, Class A
Input current at full load (typ.)		1.0 A @ 230 VAC, 2.0 @ 115 VAC
Recommended circuit breaker (characteristic C or slow blow fuse)		5.0 A

### Output Specifications

Output voltage adjustable range	12 VDC model: 24 VDC model:	12 – 15 VDC 24 – 28 VDC
Output regulation (10 to 90% load variation)		2.5 %
Ripple and noise (20MHz bandwidth)		<50 mV pk-pk
Electronic short circuit protection		current limitation at 110 % typ. (automatic recovery)
Output overvoltage protection		<40 V
Hold-up time		>20 ms

### General Specifications

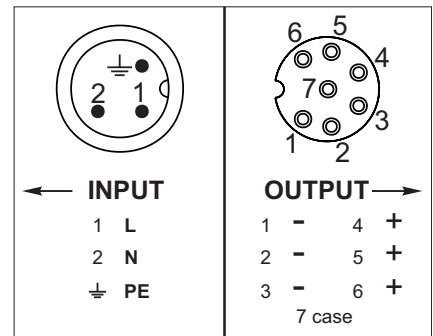
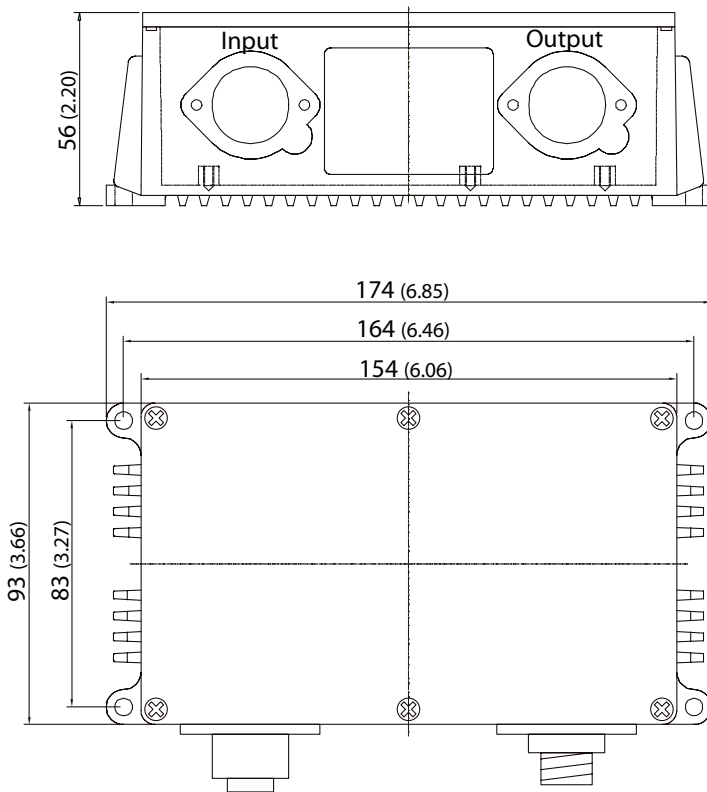
Temperature range	– Operating	–40°C to +85°C max.
Power derating		above +60°C 2.0 %/K
Humidity		up to 100 % rel. H with condensation
Reliability (calculated MTTF according IEC 61709)		>900'000h @ 40°C
Altitude		3000 m max. (10'000 ft)
Safety standards	– Information technology equipment – Control equipment for hazardous location  – Electrical equip. for potentially explosive atmospheres – Industrial control equipment – Electrical equipment for machines – Electronic equipment for power installation – Safety transformers	IEC/EN 60950-1 UL 1604 (Class I, Division 1 & 2, group A, B, C & D, T4) IEC/EN 60079-15 (Class I, Zone 2, EEx nA IIC T4) UL 508 EN 60204-3 EN 50178 EN 61558-2-8
Safety approvals and certifications	– UL 508 – CB report (IEC 60950) – ATEX, IECEx scheme (IEC 60079-15)	<a href="http://www.tracopower.com/products/tex120-ul508.pdf">www.tracopower.com/products/tex120-ul508.pdf</a> <a href="http://www.tracopower.com/products/tex120-cb.pdf">www.tracopower.com/products/tex120-cb.pdf</a> <a href="http://www.tracopower.com/products/tex120-atex.pdf">www.tracopower.com/products/tex120-atex.pdf</a>
Electromagnetic compatibility (EMC), emissions	– Conducted RI suppression on input – Radiated RI suppression	EN 61000-6-3 EN 55022 class B EN 55022 class B
Electromagnetic compatibility (EMC), immunity	– Electrostatic discharge (ESD) – Radiated RF field immunity – Electrical fast transient / burst immunity input – Electrical fast transient / burst immunity output – Surge immunity line – neutral – Surge immunity line – ground – Surge immunity neutral – ground – Surge immunity output – Immunity to conducted RF disturbances – Mains voltage dips and interruptions	EN 61000-6-2 EN 61000-4-2 8 kV / 15 kV EN 61000-4-3 10 V/m EN 61000-4-4 4 kV / EN 61000-4-4 2 kV EN 61000-4-5 4 kV EN 61000-4-5 2 kV EN 61000-4-5 4 kV EN 61000-4-5 0.5 kV EN 61000-4-6 10 V EN 61000-4-11 30 % /10 mS, 60 % /100 mS
Safety class		degree of protection class I

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

**General Specifications**

Case protection	<ul style="list-style-type: none"> <li>- Water intrusion test</li> <li>- Dust test</li> <li>- Icing test</li> <li>- Oil exclusion test</li> <li>- Salt spray test</li> <li>- Gasket aging test</li> <li>- Hosedown test</li> </ul>	IP 67 (IEC 60529), NEMA 4X rated, UL 50 <a href="http://www.tracopower.com/products/tex120-water.pdf">www.tracopower.com/products/tex120-water.pdf</a> <a href="http://www.tracopower.com/products/tex120-dust.pdf">www.tracopower.com/products/tex120-dust.pdf</a> <a href="http://www.tracopower.com/products/tex120-icing.pdf">www.tracopower.com/products/tex120-icing.pdf</a> <a href="http://www.tracopower.com/products/tex120-oil.pdf">www.tracopower.com/products/tex120-oil.pdf</a> <a href="http://www.tracopower.com/products/tex120-salt.pdf">www.tracopower.com/products/tex120-salt.pdf</a> <a href="http://www.tracopower.com/products/tex120-aging.pdf">www.tracopower.com/products/tex120-aging.pdf</a> <a href="http://www.tracopower.com/products/tex120-hose.pdf">www.tracopower.com/products/tex120-hose.pdf</a>
Environment	<ul style="list-style-type: none"> <li>- Vibration</li> <li>- Shock</li> </ul>	IEC 60068-2-6 IEC 60068-2-27
Enclosure material		die-cast aluminium
Weight		1000 g (35.3 oz)
Installation instructions		<a href="http://www.tracopower.com/products/tex120_inst.pdf">www.tracopower.com/products/tex120_inst.pdf</a>

**Case Dimensions**



**Connectors not included in shipment!**  
(Units are supplied with sealing connector caps)

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

**Accessories \***

TEX-P11	AC Input connector: Binder 3-pin female circular plug 99-4222-14-04
TEX-P21	DC Output connector: Binder: 7-pin male circular plug 99-4225-160-07
TEX-C11	Input cable assembly 2m
TEX-C21	Output cable assembly 2m

\* Units delivered before mid 2010 are equipped with Amphenol sockets see: [www.tracopower.com/products/tex120-amphenol.pdf](http://www.tracopower.com/products/tex120-amphenol.pdf)

Specifications can be changed any time without notice.