TRACO POWER

AC/DC Industrial Power Supply

TIB 120-EX Series, 120 Watt

- **UL Hazloc Class I, division 2 approval and ATEX certification**
- **SEMI F47 compliant for voltage sag immunity**
- **Rugged metal case with optional side-mounting**
- **Back power immunity**
- **150% peak current for 4 s**
- **Operating Temp –40°C to +70°C (full load up to 60°C)**
- **Adjustable output voltage**
- **High Reliability: MTBF 1 mill hrs per IEC 61709**
- **Short circuit and overload protection**
- **5-year product warranty**

UL 508 UL 60950-1 IEC 60950-1

The TIB 120-EX family of next generation of 120 Watt din rail power supplies feature high efficiency operation of up to 94% enabling a slim design with alternative side-mounting for flat panels (DC OK Indicator on both front and side panel). These products certified to UL Hazloc Class 1 / Div 2, and ATEX (EN 60079-0, EN 60079-7. EN 600079-15) for operation in hazardous locations. These convection cooled power supplies have a -40°C to +60°C full load operating temperature range. 150% peak power for up to 4 seconds which is ideal for stepper motors, solenoids or actuators. The TIB 120-EX series has an important Back Power Immunity feature that helps protect against shut-down or malfunction with loads such as inductors and decelerating motors that can feed voltage back to the power supply. Outputs are radio-interference-suppressed to impede radiation at long output lines which reduces the common mode current to within limits of telecommunication ports. The series operate with a high power factor of up to 99% which also minimizes inrush current. Additional qualifications include IEC/EN/UL 60950-1, UL 508 and CB Report with EMC compliance to IEC/EN 61000-6-2 and IEC/EN 61000-6-3.

Models

Order Code	Output Power max.	Output Voltage nom. (adjustable)	Output Current max.	Output Current peak	Efficiency typ.
TIB 120-112EX	120 W	12 VDC (11.8 - 15.0 VDC)	10'000 mA	15'000 mA	94 %
TIB 120-124EX		24 VDC (23.5 - 28.0 VDC)	5'000 mA	7'500 mA	94 %
TIB 120-148EX		48 VDC (47.0 - 56.0 VDC)	2'500 mA	3'750 mA	94 %

Input Specifications

Input Voltage		85 - 264 VAC (Full Range)
Input Frequency		45 - 65 Hz
Power Consumption	- at no Load	2'200 mW typ.
Input Inrush Current	- at 230 VAC	30 A max.
	- at 115 VAC	15 A max.
Power Factor	- at 230 VAC	0.8 min. (Active Power Factor Correction)
	- at 115 VAC	0.97 min. (Active Power Factor Correction)

Output Specifications

Output Voltage Adjustment	12 VDC model:	11.8 - 15.0 VDC
	24 VDC model:	23.5 - 28.0 VDC
	48 VDC model:	47.0 - 56.0 VDC
		By trim potentiometer
		Output power must not exceed rated power!
Regulation	- Input Variation (Vmin - Vmax)	0.1% max.
	- Load Variation (10 - 90%)	0.5% max.
Output Current peak		Peak Power: 105 - 150% of Iout max. Peak Operation Time: 4 s max. (switch off) Off Time: 10 s typ. In peak power mode, the unit continuously switches off the output voltage after 4 s and restarts after approx. 10 s.
Ripple and Noise (20 MHz Bandwidth)	12 VDC model:	100 mVp-p max.
	24 VDC model:	100 mVp-p max.
	48 VDC model:	200 mVp-p max.
Capacitive Load		Infinite
Minimum Load		Not required
Temperature Coefficient		±0.02 %/K max.
Hold-up Time	- at 230 VAC	20 ms min.
	- at 115 VAC	20 ms min.
Start-up Time	- at 230 VAC	2'000 ms max.
	- at 115 VAC	2'000 ms max.
Short Circuit Protection		Continuous, Automatic recovery
Overload Protection		Constant Current Mode Switch off after 4 s delay, automatic restart
Output Current Limitation		155% min. of Iout max.
Overvoltage Protection		117 - 158% of Vout nom. (depending on model) 16 - 19 VDC (12 VDC model) 32 - 35 VDC (24 VDC model) 56 - 60 VDC (48 VDC model) (In case of an internal error a second voltage regulation loop keeps the output voltage at a save level, the power supply turnes off and tries to restart after 10 s.)
Transient Response	- Peak Variation	800 mV max. (10% to 90% Load Step)
	- Response Time	2000 µs typ. (10% to 90% Load Step)

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