

- Slim profile, for DIN-rail mounting
- Alternative side-mounting for flat panels
- High power factor by active power correction
- Very high efficiency up to 94%
- Back power immunity
- 150% peak current for 4 s
- Operating temperature range: -40°C to +70°C max.
- Adjustable output voltage
- Short circuit and overload protection
- 3-year product warranty



This generation of DIN-rail power supplies combines the most efficient circuit topology with optimized cost/performance ratio for industrial environments and for electrical control cabinets. They have a very high efficiency of up to 94.0% which allows a very slim package design. The output voltage is adjustable from -2% to +17%. The case offers the potentially useful feature to fix the DIN-rail clip to the side wall for the mounting inside flat panels. Over a period of minimum 4 seconds they can operate with a boost power of 150%. The boost power facilitates the activation of stepper motors, solenoids or actuators. The units operate with a high power factor of up to 97% by active power factor correction which also keeps the input inrush current low. The TIB series are also available with other nominal power of 80, 240 or 480 Watt (+50% boost power). They come with the safety standard approvals for IEC/EN 60950-1, UL 60950-1 and UL 508.

Models

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

Safety Specifications

Safety Standards	- IT / Multimedia Equipment	IEC 60950-1 EN 60950-1 UL 60950-1 CSA-C22.2, No 60950-1
	- Industrial Control Equipment	UL 508
	- Certification Documents	www.tracopower.com/overview/tib120

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