

- Slim profile, for DIN-rail mounting
- Alternative side-mounting for flat panels
- High power factor by active power correction
- Very high efficiency up to 95%
- 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 95.0% 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 98% 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, 120 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 240-124 | 240 W | 24 VDC (23.5 - 28.0 VDC) | 10'000 mA | 15'000 mA | 95 % |
| TIB 240-148 | | 48 VDC (47.0 - 56.0 VDC) | 5'000 mA | 7'500 mA | 95 % |

Input Specifications

| | | |
|----------------------|--------------|--|
| Input Voltage | | 85 - 264 VAC (Full Range) |
| Input Frequency | | 45 - 65 Hz |
| Power Consumption | - at no Load | 2'300 mW typ. |
| Input Inrush Current | - at 230 VAC | 30 A max. |
| | - at 115 VAC | 15 A max. |
| Power Factor | - at 230 VAC | 0.92 min. (Active Power Factor Correction) |
| | - at 115 VAC | 0.98 min. (Active Power Factor Correction) |

Output Specifications

| | | |
|--|---------------------------------|--|
| Output Voltage Adjustment | | 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) | | 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 - 146% of Vout nom. (depending on 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 | 600 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/tib240 |
| | | Class I Prepared: Connection to PE |
| Protection Class | | Class I Prepared: Connection to PE |

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