

- 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



The TIB 240-EX family of next generation of 240 Watt din rail power supplies feature high efficiency operation of up to 95% 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 60079-15) 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 240-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 240-124EX | 240 W             | 24 VDC (23.5 - 28.0 VDC)         | 10'000 mA           | 15'000 mA           | 95 %            |
| TIB 240-148EX |                   | 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<br>48 VDC model: 47.0 - 56.0 VDC<br>By trim potentiometer<br>Output power must not exceed rated power!                                                                                                                                                 |
| Regulation                             | - Input Variation (Vmin - Vmax)<br>- Load Variation (10 - 90%) | 0.1% max.<br>0.5% max.                                                                                                                                                                                                                                                               |
| Output Current peak                    |                                                                | Peak Power: 105 - 150% of Iout max.<br>Peak Operation Time: 4 s max. (switch off)<br>Off Time: 10 s typ.<br>In peak power mode, the unit continuously switches off the output voltage after 4 s and restarts after approx. 10 s.                                                     |
| Ripple and Noise<br>(20 MHz Bandwidth) |                                                                | 24 VDC model: 100 mVp-p max.<br>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<br>- at 115 VAC                                   | 20 ms min.<br>20 ms min.                                                                                                                                                                                                                                                             |
| Start-up Time                          | - at 230 VAC<br>- at 115 VAC                                   | 2'000 ms max.<br>2'000 ms max.                                                                                                                                                                                                                                                       |
| Short Circuit Protection               |                                                                | Continuous, Automatic recovery                                                                                                                                                                                                                                                       |
| Overload Protection                    |                                                                | Constant Current Mode<br>Switch off after 4 s delay, automatic restart                                                                                                                                                                                                               |
| Output Current Limitation              |                                                                | 155% min. of Iout max.                                                                                                                                                                                                                                                               |
| Overvoltage Protection                 |                                                                | 117 - 146% of Vout nom.<br>(depending on model)<br>32 - 35 VDC (24 VDC model)<br>56 - 60 VDC (48 VDC model)<br>(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<br>- Response Time                            | 600 mV max. (10% to 90% Load Step)<br>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.