

Delta Electronics MEB-750A24B AAA

Delta Electronics MEB-750A24B AAA 24V 750W Enclosed Power Supply User Manual

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the Delta Electronics MEB-750A24B AAA 24V 750W Enclosed Power Supply. Please read this manual thoroughly before using the product.

1.1 Safety Information

- **Qualified Personnel Only:** Installation and servicing must be performed by qualified personnel familiar with electrical safety procedures.
- **Electrical Shock Hazard:** This unit contains hazardous voltages. Do not open the enclosure. Disconnect all power before installation or servicing.
- **Proper Grounding:** Ensure the unit is properly grounded to prevent electrical shock.
- **Ventilation:** Maintain adequate airflow around the unit to prevent overheating. Do not block ventilation openings.
- **Environmental Conditions:** Operate the power supply within the specified temperature and humidity ranges.

2. PRODUCT DESCRIPTION

The Delta Electronics MEB-750A24B AAA is a high-efficiency, enclosed 24V DC power supply designed for demanding industrial and medical applications. It delivers up to 750W of power with a wide universal AC input range.

2.1 Key Features

- **High Efficiency:** Up to 94% efficiency reduces energy consumption and heat generation.
- **Wide Input Voltage:** Accepts 85-264 VAC input, suitable for global deployment.
- **Compact Design:** Measures 7.00" x 4.00" x 1.57" for easy integration into various chassis.
- **Advanced Functionality:** Includes PMBus interface, load sharing capability, remote sensing, and a standby output.

- **Robust Operation:** Operates reliably from -20°C to 70°C with derating, featuring 4kV isolation.
- **Enhanced Protection:** Conformal coating protects against environmental factors.
- **Power Factor Correction (PFC):** Ensures clean power delivery.
- **Certifications:** CE and UKCA certified to relevant safety standards, including IEC 60601-1 for medical applications.

3. SETUP AND INSTALLATION

Follow these steps for proper installation of the MEB-750A24B AAA power supply.

3.1 Mounting

- Mount the power supply securely within a chassis using appropriate fasteners.
- Ensure adequate clearance around the unit for proper airflow and heat dissipation. Refer to the product datasheet for recommended clearances.

3.2 Input Connections

Connect the AC input according to the terminal markings:

- **L:** Live AC input
- **N:** Neutral AC input
- **FG:** Frame Ground (Protective Earth)

Use appropriate gauge wiring for the input current and ensure all connections are tight and secure. Connect the frame ground to a reliable earth ground.

3.3 Output Connections

Connect the DC output to your load:

- **+V:** Positive DC output (24V)
- **-V:** Negative DC output (Common)

Ensure correct polarity and use wiring capable of handling the maximum output current (26.04A).

3.4 Control Connections (Optional)

The MEB-750A24B AAA offers various control and monitoring interfaces:

- **PMBus Interface:** For digital communication, monitoring, and control. Refer to the PMBus specification and product datasheet for pin assignments and communication protocols.
- **Remote Sensing:** Connect sense lines to the load to compensate for voltage drops in output cables.
- **Remote On/Off:** Allows external control of the power supply's output.
- **Load Sharing:** For parallel operation with multiple units to increase total output current.

4. OPERATION

Once properly installed, the power supply is ready for operation.

4.1 Power On/Off

- Apply AC input voltage to the L and N terminals. The unit will power on and provide 24V DC output.
- To power off, disconnect the AC input voltage.
- If using the remote on/off function, refer to the product datasheet for specific control signal requirements.

4.2 Output Adjustment

The output voltage can be adjusted within a specified range. Refer to the product datasheet for details on adjustment methods, which may include an external potentiometer or PMBus commands.

4.3 Load Sharing

When operating multiple MEB-750A24B AAA units in parallel for increased power, ensure the load sharing pins are correctly connected as per the product datasheet. This ensures balanced current distribution among the units.

4.4 Monitoring

The PMBus interface allows for real-time monitoring of various parameters such as output voltage, current, temperature, and status flags. Utilize compatible software or hardware to access this data.

5. MAINTENANCE

The MEB-750A24B AAA power supply is designed for reliable operation with minimal maintenance.

- **Cleaning:** Periodically inspect the unit for dust accumulation, especially around ventilation openings. Clean with a soft, dry cloth. Do not use liquid cleaners.
- **Connection Check:** Ensure all input and output connections remain secure. Loose connections can lead to poor performance or safety hazards.
- **No User-Serviceable Parts:** This unit contains no user-serviceable parts. Do not attempt to open or repair the power supply. Refer all servicing to qualified Delta Electronics service personnel.

6. TROUBLESHOOTING

If you encounter issues with your power supply, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No output voltage	No AC input power Input fuse blown Remote On/Off activated (off state)	Check AC input connections and power source Replace fuse (by qualified personnel) Deactivate Remote On/Off or check control signal
Output voltage unstable or low	Overload condition Loose output connections Remote sensing issues	Reduce load or use a higher power unit Check and secure output wiring Verify remote sensing connections and functionality
Unit shuts down unexpectedly	Over-temperature protection Over-voltage/current protection	Ensure adequate ventilation, reduce ambient temperature Reduce load, check for short circuits

Problem	Possible Cause	Solution
PMBus communication failure	Incorrect wiring Incorrect address setting Software configuration issue	Verify PMBus wiring connections Check PMBus address settings Consult PMBus software documentation

If the problem persists after attempting these solutions, contact Delta Electronics technical support.

7. SPECIFICATIONS

Key technical specifications for the Delta Electronics MEB-750A24B AAA power supply:

- **Model Number:** MEB-750A24B AAA
- **Input Voltage Range:** 85-264 VAC
- **Output Voltage:** 24V DC
- **Output Current:** 26.04A
- **Output Power:** 750W (with derating)
- **Efficiency:** 94% (typical)
- **Dimensions (L x W x H):** 7.00" x 4.00" x 1.57" (177.8 x 101.6 x 39.88 mm)
- **Operating Temperature:** -20°C to 70°C (with derating above 50°C)
- **Isolation:** 4kV
- **Form Factor:** Enclosed
- **Material:** Metal
- **Features:** PMBus, Load Sharing, Remote Sensing, PFC, Conformal Coating, Standby Output
- **Certifications:** CE, UKCA, IEC 60601-1

8. WARRANTY AND SUPPORT

8.1 Warranty Information

Please note that specific warranty details for the MEB-750A24B AAA are not provided in this document. For warranty terms and conditions, please refer to your purchase agreement or contact your vendor directly.

8.2 Technical Support

For technical assistance, product inquiries, or service requests, please contact Delta Electronics customer support or your authorized distributor. Have your product model number (MEB-750A24B AAA) and any relevant purchase information ready when contacting support.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question

and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question