

DC-DC Converter

DMB Series

The Magellan Power DMB Series Switch-Mode Converter accepts DC voltage from a 24V, 48V, 110V or 220V battery bank and produces regulated, ripple free and highly reliable DC power for many industrial applications. Featuring hot plug capability, excellent load and line regulation and a compact, light weight design that facilitates fast installation, the DMB series offers an ideal DC conversion solution for many applications including, SCADA, PLC, generator control, automation, marine power supplies and telecommunications.

Product Features

- Hot Plug Capability
- High Reliability
- High Efficiency
- Excellent Load and Line Regulation
- Low Noise
- Wide DC Input Range
- Wide Output Range
- Microprocessor Control
- Fast Installation
- Compact and Lightweight
- Easily Expandable
- Load Sharing

Typical Applications

- SCADA
- PLC
- Generator Control
- Automation
- Marine Power Supplies
- Telecommunications



Technical Specifications

| Item | 24/48,10A | 48/24,20A | 110/24,10A | 110/24,20A | 110/24,30A | 110/48,10A | 110/48,20A |
|------------------------|-----------|-----------|------------|------------|------------|------------|------------|
| Output Voltage | 48 | 24 | | | | 48 | |
| Output Current | 11 | 21 | 11 | 21 | 31 | 11 | 21 |
| Input DC Voltage Range | 20-30 | 40-60 | 90-150 | | | | |
| Efficiency | 86% | 88% | | | | | |

| Item | 220/24,10A | 220/24,20A | 220/24,30A | 220/48,10A | 220/48,20A | 220/48,30A |
|------------------------|------------|------------|------------|------------|------------|------------|
| Output Voltage | 24 | | | 48 | | |
| Output Current | 11 | 21 | 31 | 11 | 21 | 31 |
| Input DC Voltage Range | 180-300 | | | | | |
| Efficiency | 88% | | | | | |

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|--------------------------------------|---|
| Load Regulation | ±0.2 |
| Line Regulation | ±0.05 |
| Operating Temperature | -10 to +45° |
| Temp. Coefficient | ±0.2 |
| Dynamic Response Time | 500µs for 10% -100% load |
| Output Overshoot | 5% for 10% - 100% load |
| Load Share Accuracy | ±5% |
| Insulation | 500Vac (Input to Output, Input to Shell, Output to Shell) |
| Insulation Resistance | 10MΩ (Input to Output/500Vdc, Input to Shell/500Vdc, Output to Shell/500Vdc) |
| Psophometric Noise 300Hz - 3400Hz | 2mV max |
| Peak-Peak Noise 0 - 20MHz | 200mV max |
| Wide Band Noise | 50mV max (3.4KHz to 150KHz) 20mV max (0.15MHz to 30MHz) |
| Discrete Noise | 5mV max (3.4KHz to 150KHz) 3mV max (150KHz to 200KHz) 2mV max (200KHz to 500KHz) 1mV max (0.5MHz to 30MHz) |

