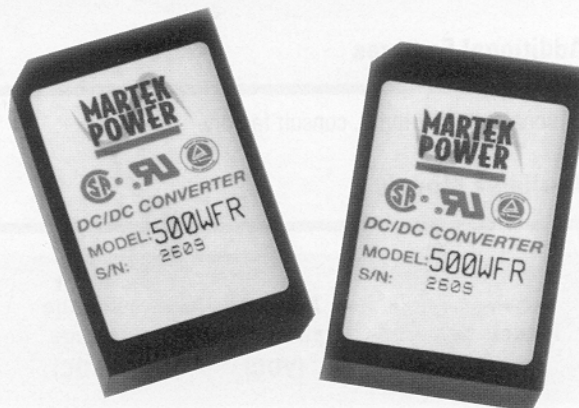


500WFR series

3 to 5 watts



Key Features:

- **Single & Dual Output Models**
- **2:1 Input Voltage range**
- **Low Profile, 24 pin DIP package**
- **Industry Standard Pinout**

Ideally Suited For:

- **Telecom equipment**
- **Mixed analog/digital subsystems**
- **Data Communications**

Input Characteristics

| | |
|------------------------|----------------------------|
| Input Voltage Range: | 9-18, 18-36, 36-72 VDC |
| Input Filtering: | Pi Filter |
| Efficiency: | See Available Models Chart |
| No Load Input Current: | See Available Models Chart |

Output Characteristics

| | |
|----------------------------|--|
| Output Voltage Accuracy: | +/-2% Max. |
| Output Voltage Balance: | +/-1% Max, Dual Output Models (Equal loads) |
| Minimum Load Requirements: | 10% Min Load |
| Line Regulation: | +/-0.5%, Max (Singles & Duals) |
| Load Regulation: | Singles: +/-0.5%, Max (10% to FL) Duals: +/-1% Max. (25% to FL) |
| Ripple and Noise: | 100mV or 1% pk-pk Max., 20MHz Bandwidth |
| Temperature Coefficient: | +/-0.05%/°C |
| Short Circuit Protection: | Continuous; Auto-recovery |

Environmental Characteristics

| | |
|--------------------------------------|---|
| Operating Temperature Range: | -25°C to +85°C, derate 3.5%/°C above 71°C |
| Storage Temperature Range: | -40°C to +125°C |
| Maximum Case Temperature: | 95°C |
| Humidity: | Up to 95%, Non-condensing |
| Cooling: | Free-air Convection |
| Reliability (MTBF per Mil-HDBK-217): | >900,000 hours, +25°C, Ground Benign |

General Characteristics

| | |
|--------------------------------------|---|
| Switching Frequency: | 100kHz, Min. |
| Isolation Voltage (Input to Output): | 500VDC, (1 minute); <i>(Consult factory for 1500VDC option)</i> |
| Isolation Resistance: | 10 ⁹ Ohms |
| Isolation Capacitance: | 150pF, Max. |
| Weight: | 0.50 oz (14g) |
| Case Material: | Non-conductive black plastic |
| Flammability: | UL 94-V0 (Materials) |

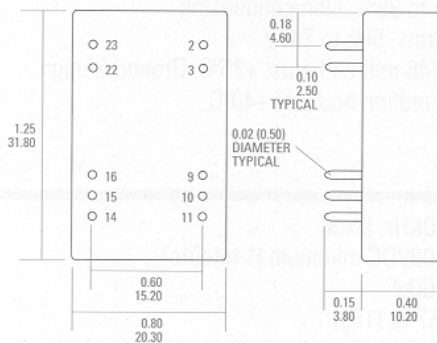
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Available Models

| Model | Nominal Input Voltage (VDC) | Input Voltage Range (VDC) | Output Voltage (VDC) | Max. Output Current (mA) | Efficiency @ Full-Load (%) | Input Current No-Load (mA) typ. |
|-----------|-----------------------------|---------------------------|----------------------|--------------------------|----------------------------|---------------------------------|
| 503S12WFR | 12 | 9-18 | 3.3 | 1000 | 70 | 7.5 |
| 505S12WFR | 12 | 9-18 | 5.0 | 1000 | 76 | 7.5 |
| 512S12WFR | 12 | 9-18 | 12.0 | 470 | 80 | 7.5 |
| 515S12WFR | 12 | 9-18 | 15.0 | 400 | 80 | 7.5 |
| 505D12WFR | 12 | 9-18 | +/-5.0 | +/-500 | 70 | 12 |
| 512D12WFR | 12 | 9-18 | +/-12.0 | +/-230 | 80 | 12 |
| 515D12WFR | 12 | 9-18 | +/-15.0 | +/-190 | 80 | 12 |
| 503S24WFR | 24 | 18-36 | 3.3 | 1000 | 70 | 7.5 |
| 505S24WFR | 24 | 18-36 | 5.0 | 1000 | 78 | 5 |
| 512S24WFR | 24 | 18-36 | 12.0 | 470 | 82 | 5 |
| 515S24WFR | 24 | 18-36 | 15.0 | 400 | 82 | 5 |
| 505D24WFR | 24 | 18-36 | +/-5.0 | +/-500 | 78 | 12 |
| 512D24WFR | 24 | 18-36 | +/-12.0 | +/-230 | 81 | 7.5 |
| 515D24WFR | 24 | 18-36 | +/-15.0 | +/-190 | 81 | 7.5 |
| 503S48WFR | 48 | 36-72 | 3.3 | 1000 | 70 | 7.5 |
| 505S48WFR | 48 | 36-72 | 5.0 | 1000 | 78 | 2 |
| 512S48WFR | 48 | 36-72 | 12.0 | 470 | 81 | 2 |
| 515S48WFR | 48 | 36-72 | 15.0 | 400 | 81 | 2 |
| 505D48WFR | 48 | 36-72 | +/-5.0 | +/-500 | 78 | 7.5 |
| 512D48WFR | 48 | 36-72 | +/-12.0 | +/-230 | 81 | 3 |
| 515D48WFR | 48 | 36-72 | +/-15.0 | +/-190 | 81 | 3 |

Outline Drawing



Pinout Chart

| Pin | Single | Dual |
|-----|--------|--------|
| 2 | -Vin | -Vin |
| 3 | -Vin | -Vin |
| 9 | NC | Common |
| 10 | NC | NC |
| 11 | NC | - Vout |
| 14 | +Vout | +Vout |
| 15 | NC | NC |
| 16 | -Vout | Common |
| 22 | +Vin | +Vin |
| 23 | +Vin | +Vin |

NC : No Connection with Pin

All specifications are typical at 25 degrees C with nominal input voltage and full output unless otherwise noted. Specifications are subject to change without notice. All dimensions are typical.