



FEATURES:

- RoHS compliant
- Full SMD technology
- Wide 2:1 input range
- High efficiency up to 86%
- Pin compatible with multiple manufacturers
- Operating temperature -40°C to + 85°C
- Input/Output Isolation 1500VDC
- Continuous short circuit protection
- Low profile metal package

Models Single output

| Model | Input Voltage (V) | Output Voltage (V) | Output Current max (A) | Capacitance load, max (µF) | Efficiency (%) |
|--------------|-------------------|--------------------|------------------------|----------------------------|----------------|
| AM10E-1203SZ | 9-18 | 3.3 | 2 | 6800 | 78 |
| AM10E-1205SZ | 9-18 | 5 | 2 | 6800 | 83 |
| AM10E-1207SZ | 9-18 | 7.2 | 1.38 | 1000 | 82 |
| AM10E-1209SZ | 9-18 | 9 | 1.111 | 1000 | 84 |
| AM10E-1212SZ | 9-18 | 12 | 0.833 | 1000 | 85 |
| AM10E-1215SZ | 9-18 | 15 | 0.666 | 1000 | 84 |
| AM10E-1218SZ | 9-18 | 18 | 0.55 | 470 | 84 |
| AM10E-1224SZ | 9-18 | 24 | 0.416 | 470 | 85 |
| AM10E-2403SZ | 18-36 | 3.3 | 2 | 6800 | 78 |
| AM10E-2405SZ | 18-36 | 5 | 2 | 6800 | 83 |
| AM10E-2407SZ | 18-36 | 7.2 | 1.38 | 1000 | 83 |
| AM10E-2409SZ | 18-36 | 9 | 1.111 | 1000 | 83 |
| AM10E-2412SZ | 18-36 | 12 | 0.833 | 1000 | 85 |
| AM10E-2415SZ | 18-36 | 15 | 0.666 | 1000 | 86 |
| AM10E-2418SZ | 18-36 | 18 | 0.55 | 470 | 86 |
| AM10E-2424SZ | 18-36 | 24 | 0.416 | 470 | 86 |
| AM10E-4803SZ | 36-72 | 3.3 | 2 | 6800 | 78 |
| AM10E-4805SZ | 36-72 | 5 | 2 | 6800 | 84 |
| AM10E-4807SZ | 36-72 | 7.2 | 1.38 | 1000 | 84 |
| AM10E-4809SZ | 36-72 | 9 | 1.111 | 1000 | 84 |
| AM10E-4812SZ | 36-72 | 12 | 0.833 | 1000 | 86 |
| AM10E-4815SZ | 36-72 | 15 | 0.666 | 1000 | 85 |
| AM10E-4818SZ | 36-72 | 18 | 0.55 | 470 | 85 |
| AM10E-4824SZ | 36-72 | 24 | 0.416 | 470 | 85 |

Models Dual output

| Model | Input Voltage (V) | Output Voltage (V) | Output Current max (A) | Capacitance load, max (µF) | Efficiency (%) |
|--------------|-------------------|--------------------|------------------------|----------------------------|----------------|
| AM10E-1203DZ | 9-18 | ±3.3 | ±1 | ±3300 | 78 |
| AM10E-1205DZ | 9-18 | ±5 | ±1 | ±3300 | 83 |
| AM10E-1207DZ | 9-18 | ±7.2 | ±0.69 | ±680 | 80 |
| AM10E-1209DZ | 9-18 | ±9 | ±0.555 | ±680 | 80 |
| AM10E-1212DZ | 9-18 | ±12 | ±0.416 | ±680 | 85 |
| AM10E-1215DZ | 9-18 | ±15 | ±0.333 | ±330 | 85 |
| AM10E-1218DZ | 9-18 | ±18 | ±0.27 | ±220 | 80 |
| AM10E-1224DZ | 9-18 | ±24 | ±0.208 | ±220 | 85 |
| AM10E-2403DZ | 18-36 | ±3.3 | ±1 | ±3300 | 78 |
| AM10E-2405DZ | 18-36 | ±5 | ±1 | ±3300 | 84 |

Models

Dual output (continued)

| Model | Input Voltage (V) | Output Voltage (V) | Output Current max (A) | Capacitance load, max (μF) | Efficiency (%) |
|--------------|-------------------|--------------------|------------------------|----------------------------|----------------|
| AM10E-2407DZ | 18-36 | ±7.2 | ±0.69 | ±680 | 80 |
| AM10E-2409DZ | 18-36 | ±9 | ±0.555 | ±680 | 80 |
| AM10E-2412DZ | 18-36 | ±12 | ±0.416 | ±680 | 85 |
| AM10E-2415DZ | 18-36 | ±15 | ±0.333 | ±330 | 86 |
| AM10E-2418DZ | 18-36 | ±18 | ±0.27 | ±220 | 80 |
| AM10E-2424DZ | 18-36 | ±24 | ±0.208 | ±220 | 85 |
| AM10E-4803DZ | 36-72 | ±3.3 | ±1 | ±3300 | 78 |
| AM10E-4805DZ | 36-72 | ±5 | ±1 | ±3300 | 85 |
| AM10E-4807DZ | 36-72 | ±7.2 | ±0.69 | ±680 | 80 |
| AM10E-4809DZ | 36-72 | ±9 | ±0.555 | ±680 | 80 |
| AM10E-4812DZ | 36-72 | ±12 | ±0.416 | ±680 | 86 |
| AM10E-4815DZ | 36-72 | ±15 | ±0.333 | ±330 | 86 |
| AM10E-4818DZ | 36-72 | ±18 | ±0.27 | ±220 | 80 |
| AM10E-4824DZ | 36-72 | ±24 | ±0.208 | ±220 | 85 |

Input Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|---------------|------------|-----------|---------|-------|
| Voltage range | 12 | 9-18 | | VDC |
| | 24 | 18-36 | | |
| | 48 | 36-72 | | |
| Filter | | Capacitor | | |

Isolation Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|---------------|------------|---------|---------|-------|
| Rated voltage | 60 sec | 1500 | | VDC |
| Resistance | | > 1000 | | MOhm |
| Capacitance | | 500 | | pF |

Output Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|----------------------------------|--------------------|---------|---------|-------|
| Voltage accuracy | | | ±1 | % |
| Voltage balance | Dual output | ±1 | | % |
| Short Circuit protection | Continuous | | | |
| Short circuit restart | Automatic | | | |
| Over load protection | | 130 | | % |
| Line voltage regulation (Single) | HL-LL | | ±0.5 | % |
| Line voltage regulation (Dual) | HL-LL | | ±0.5 | % |
| Load voltage regulation (Single) | 10-100% | | ±0.5 | % |
| Load voltage regulation (Dual) | 10-100% | | ±0.5 | % |
| Temperature coefficient | | ±0.02 | | % °C |
| Ripple & Noise | At 20MHz Bandwidth | 100 | | mVp-p |

General Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|-----------------------|----------------|----------------------|---------|-------|
| Switching frequency | 100% load | 200 | | KHz |
| Operating temperature | | -40 to +85 | | °C |
| Storage temperature | | -55 to +125 | | °C |
| Case temperature | | | 100 | °C |
| Derating | | Non-Required | | |
| Cooling | | Free air convection | | |
| Humidity | Non condensing | | 95 | % |
| Case material | | Nickel coated copper | | |

General Specifications (continued)

| Parameters | Conditions | Typical | Maximum | Units |
|------------|------------------------------|---|------------------------|-------|
| Weight | | 30 | | g |
| Dimensions | Tolerance $\pm 0.5\text{mm}$ | 2.00 x 1.00 x 0.4 inches | 50.8 x 25.4 x 10.16 mm | |
| MTBF | | $> 1\,121\,000$ hrs (MIL-HDBK -217F, Ground Benign, $t=+25^{\circ}\text{C}$) | | |

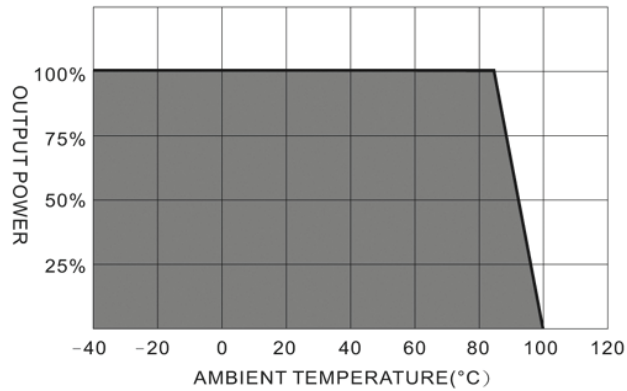
Safety Specifications

| Standards | |
|------------------|--|
| Safety | IEC60950-1:2001; EN 55022 – Class A; EN 55024 – Class A; IEC61000-4-2 ; IEC61000-4-3 |
| Agency approvals | CE |

Pin Out Specifications

| Pin | Single | Dual |
|-----|-----------|-----------|
| 1 | +V Input | +V Input |
| 2 | -V Input | -V Input |
| 3 | +V Output | +V Output |
| 4 | No Pin. | Common. |
| 5 | -V Output | -V Output |

Temperature Derating Graph



Dimensions (Bottom view)

