



FEATURES:

- 4000VAC I/O Isolation
- Operating temperature: -40 to +80°C
- Over load, Over Voltage, Short Circuit Protection
- Universal input: 90-264VAC, 47-440Hz
- RoHS compliant
- Soft start
- Energy Star compliant
- CE, cULus, CB approvals



Models
Single output

| Model | Input Voltage (VAC/Hz) | Input voltage (VDC) | Output Voltage (V) | Output Current max (A) | Maximum capacitive Load (μF) | Efficiency (%) |
|---------------|------------------------|---------------------|--------------------|------------------------|------------------------------|----------------|
| AME15-3.3SMAZ | 90-264/47-440 | 120-370 | 3.3 | 3 | 4700 | 74 |
| AME15-5SMAZ | 90-264/47-440 | 120-370 | 5 | 3 | 2200 | 78 |
| AME15-12SMAZ | 90-264/47-440 | 120-370 | 12 | 1.25 | 1000 | 81 |
| AME15-15SMAZ | 90-264/47-440 | 120-370 | 15 | 1 | 680 | 81 |
| AME15-24SMAZ | 90-264/47-440 | 120-370 | 24 | 0.63 | 470 | 83 |

Models
Dual output

| Model | Input Voltage (VAC/Hz) | Input voltage (VDC) | Output Voltage (V) | Output Current max (A) | Maximum Capacitive Load (μF) | Efficiency (%) |
|--------------|------------------------|---------------------|--------------------|------------------------|------------------------------|----------------|
| AME15-5DMAZ | 90-264/47-440 | 120-370 | ±5 | ±1.5 | ±1000 | 78 |
| AME15-12DMAZ | 90-264/47-440 | 120-370 | ±12 | ±0.63 | ±470 | 80 |
| AME15-15DMAZ | 90-264/47-440 | 120-370 | ±15 | ±0.5 | ±330 | 81 |

Input Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|----------------------------------|----------------|---------|---------|-------|
| Current | 115 VAC | | 350 | mA |
| | 230 VAC | | 180 | mA |
| Inrush current <2ms (Cold Start) | 115 VAC | | 10 | A |
| | 230 VAC | | 20 | A |
| Leakage current | 115 VAC | | 0.1 | mA |
| | 264 VAC | | 0.2 | mA |
| External Fuse (recommend) | slow blow type | 2 | | A |
| Input Dissipation | No Load | <0.5 | | W |
| Under Voltage Protection | | 88 | | VAC |

Output Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|------------------------------|---|---------|---------|-----------|
| Voltage accuracy | | ±2 | | % |
| Line regulation | LL-HL | ±0.5 | | % |
| Load regulation (single) | 0-100% | ±0.5 | | % |
| Cross regulation (dual) | 25% load - 1 st out, 100% load – 2 nd out | ±5 | | % |
| Transient Recovery Time | | 200 | | μs |
| Transient Response Deviation | 25% load step | ±2 | | % of Vout |
| Ripple & Noise* | 20MHz bandwidth | 100 | | mVp-p |
| Hold-up time | min | 20 | | ms |

*Ripple & Noise measured with 1μF M/C and 47μF E/C

Isolation Specifications

| Parameters | Conditions | Typical | Rated | Units |
|----------------------|------------|---------|-------|-------|
| Tested I/O voltage | 3sec | | 4000 | VAC |
| Isolation resistance | | >1000 | | MΩ |

General Specifications

| Parameters | Conditions | Typical | Maximum | Units |
|--------------------------|--|-------------|---------|--------|
| Switching frequency | | 132 | | KHz |
| Start up time | | 900 | | mS |
| Over load protection | Auto recovery, hiccup mode | >131 | | % |
| Over voltage protection | Zener diode clamp | | | |
| Short Circuit protection | Continuous | | | |
| Short Circuit restart | Auto recovery | | | |
| Operating temperature | With derating over 55 °C | -40 to +80 | | °C |
| Storage temperature | | -40 to +100 | | °C |
| Max Case temperature | | | 100 | °C |
| Temperature coefficient | | ±0.02 | | % / °C |
| Cooling | Free air convection | | | |
| Humidity | | | 95 | % RH |
| Weight | | 100 | | g |
| Dimensions (L x W x H) | 2.56 x 1.83 x 0.79 inches 65.0 x 46.5 x 20.1 mm , ±0.5mm | | | |
| MTBF | > 400 000hrs (MIL-HDBK -217F, t=+25°C) | | | |
| Case material | Plastic resin + Fiberglass (flammability to UL 94V-0) | | | |

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

Environment Approval

| Parameters | Conditions |
|------------|--|
| Shock | Wave form: Half sine wave |
| | Acceleration amplitude: 5gn |
| | Bump duration: 30 ms |
| | Number of bumps: 18 (3 in each direction for every axis) |
| | Converter operation before and after test, body mounted (on chassis) |
| Vibrations | Test mode: Sweep sine |
| | 10-100Hz, speed 0.05Hz/s |
| | Displacement: 1mm |
| | Acceleration: 3g |
| | 3 loops 30min one cycle, 3h total, every axis tested |
| | Converter operation before and after test, body mounted (on chassis) |

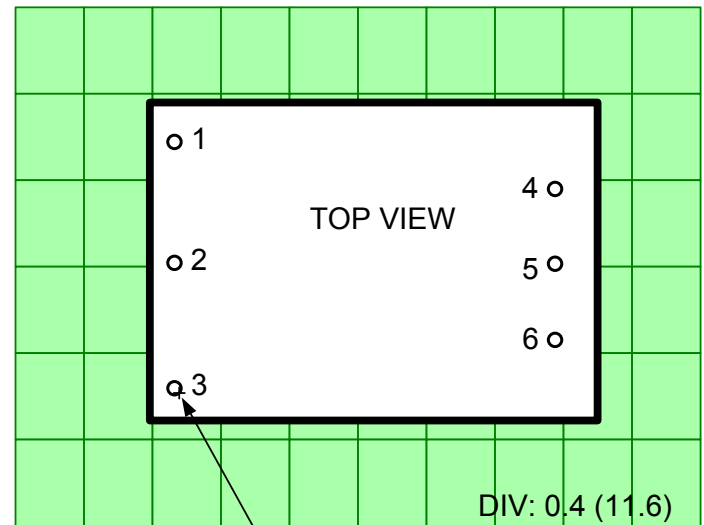
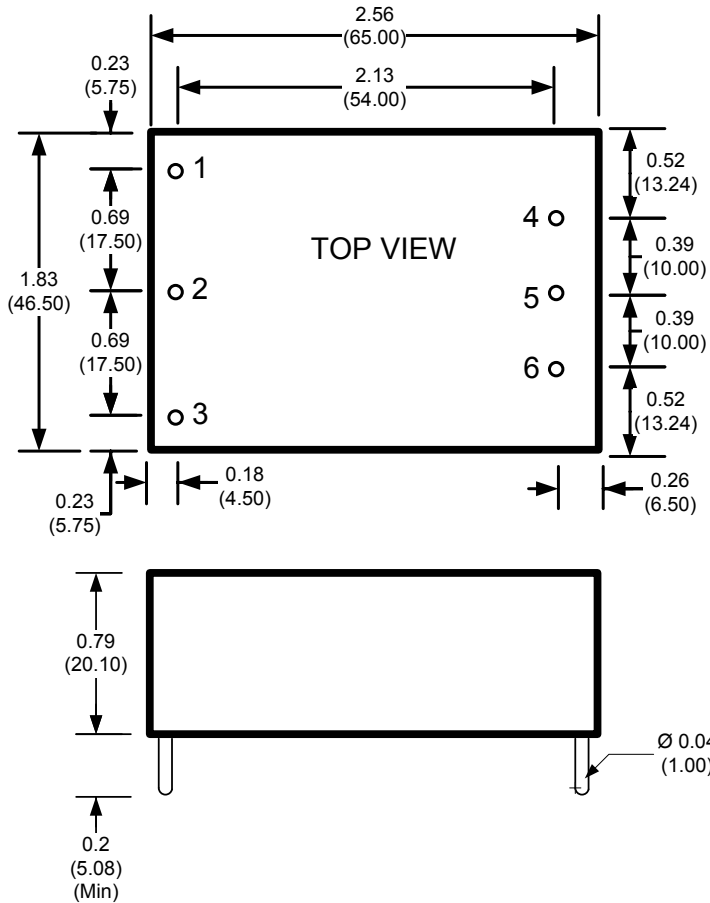
Safety & EMC Specifications

| Parameters | | |
|------------------|--|--|
| Agency approvals | cULus, CE, CB | |
| Standards | Medical Electrical Equipment | IEC\EN\UL 60601-1, CSA-C22.2 No. 601.1-M90 |
| | Information technology Equipment | EN 60950-1:2006+A11:2009 |
| | EMI - Conducted and radiated emission | EN55011, class B |
| | Harmonic Current Emissions | IEC/EN 61000-3-2, (EN60555-2) |
| | Voltage fluctuations and flicker | IEC/EN 61000-3-3, (EN60555-3) |
| | Electrostatic Discharge Immunity | IEC 61000-4-2 |
| | RF, Electromagnetic Field Immunity | IEC 61000-4-3 |
| | Electrical Fast Transient/Burst Immunity | IEC 61000-4-4 |
| | Surge Immunity | IEC 61000-4-5 |
| | RF, Conducted Disturbance Immunity | IEC 61000-4-6 |
| | Power frequency Magnetic Field Immunity | IEC 61000-4-8 |
| | Voltage dips, Short Interruptions Immunity | IEC 61000-4-11 |

Pin Out Specifications

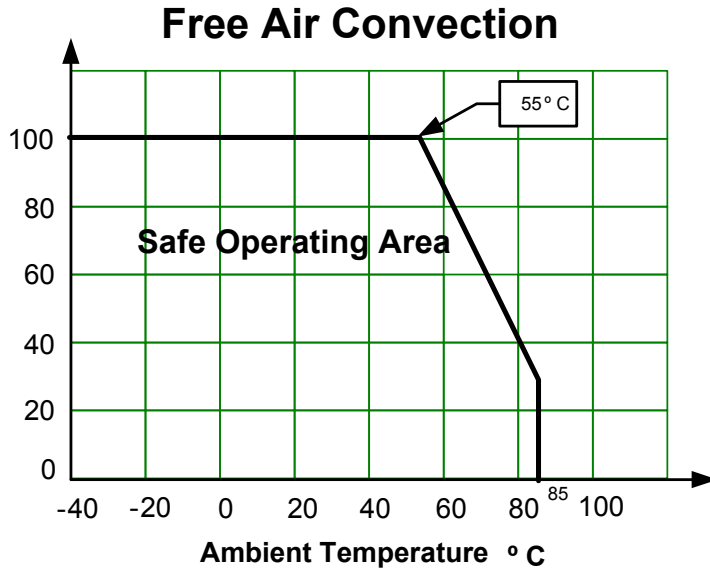
| Pin | Single | Dual |
|-----|--------------|--------------|
| 1 | No pin | No pin |
| 2 | AC Input (N) | AC Input (N) |
| 3 | AC Input (L) | AC Input (L) |
| 4 | -V Output | -V Output |
| 5 | No pin | Common |
| 6 | +V Output | +V Output |

Dimensions (Top View)



Dimensions: inch (mm)
Case Tolerance: ± 0.1 (2.54)
Pin Pitch Tolerance: ± 0.012 (0.30)

Derating



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