

**FEATURES:**

- Input: 90-528VAC, 47-63Hz or 100-745VDC
- Operating temperature -40°C to +85°C
- Low power consumption  $\leq 0.5W$  at 528VAC
- Continuous short circuit protection
- I/O Isolation 4000VAC
- Compact open frame SIP
- Over current protection
- Class II power supply

**Models**  
**Single output**



| Model           | Input Voltage (VAC/Hz) | Input Voltage (VDC) | Full power temperature range (°C) | Output Voltage (V) | Output Current max (mA) | Maximum capacitive load ( $\mu$ F) | Efficiency (%) |
|-----------------|------------------------|---------------------|-----------------------------------|--------------------|-------------------------|------------------------------------|----------------|
| AMEOF3-3.3SBJZ* | 90-528/47-63           | 100-745             | -20 to +55                        | 3.3                | 500                     | 2200                               | 63             |
| AMEOF3-5SBJZ*   | 90-528/47-63           | 100-745             | -20 to +55                        | 5                  | 500                     | 1100                               | 67             |
| AMEOF3-9SBJZ*   | 90-528/47-63           | 100-745             | -20 to +55                        | 9                  | 333                     | 680                                | 70             |
| AMEOF3-12SBJZ*  | 90-528/47-63           | 100-745             | -20 to +55                        | 12                 | 250                     | 680                                | 76             |
| AMEOF3-15SBJZ*  | 90-528/47-63           | 100-745             | -20 to +55                        | 15                 | 200                     | 560                                | 76             |
| AMEOF3-24SBJZ*  | 90-528/47-63           | 100-745             | -20 to +55                        | 24                 | 125                     | 470                                | 76             |
| AMEOF3-3.3SLBJZ | 90-528/47-63           | 100-745             | -20 to +55                        | 3.3                | 500                     | 2200                               | 63             |
| AMEOF3-5SLBJZ   | 90-528/47-63           | 100-745             | -20 to +55                        | 5                  | 500                     | 1100                               | 67             |
| AMEOF3-9SLBJZ   | 90-528/47-63           | 100-745             | -20 to +55                        | 9                  | 333                     | 680                                | 70             |
| AMEOF3-12SLBJZ  | 90-528/47-63           | 100-745             | -20 to +55                        | 12                 | 250                     | 680                                | 76             |
| AMEOF3-15SLBJZ  | 90-528/47-63           | 100-745             | -20 to +55                        | 15                 | 200                     | 560                                | 76             |
| AMEOF3-24SLBJZ  | 90-528/47-63           | 100-745             | -20 to +55                        | 24                 | 125                     | 470                                | 76             |

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.

**Input Specifications**

| Parameters          | Conditions                 | Typical | Maximum | Units |
|---------------------|----------------------------|---------|---------|-------|
| Current             | 115VAC                     |         | 120     | mA    |
|                     | 230VAC                     |         | 60      | mA    |
|                     | 480VAC                     |         | 40      | mA    |
| Inrush current <2ms | 115VAC                     | 9       |         | A     |
|                     | 230VAC                     | 15      |         | A     |
|                     | 480VAC                     | 27      |         | A     |
| External fuse       | Recommended slow blow type | 2       |         | A     |
| Input dissipation   | No Load, 230VAC            |         | 0.3     | W     |
|                     | No Load, 528VAC            |         | 0.5     |       |
| Leakage current     | 230VAC/50Hz                | 250     |         | mA    |

**Output Specifications**

| Parameters       | Conditions             | Typical   | Maximum | Units  |
|------------------|------------------------|-----------|---------|--------|
| Voltage accuracy | Full load, 3.3V output | $\pm 6$   |         | %      |
|                  | Full load, others      | $\pm 5$   |         |        |
| Line regulation  | Full load, 3.3V output | $\pm 2.5$ |         | %      |
|                  | Full load, others      | $\pm 1.5$ |         |        |
| Load regulation  | 10% - 100% load        | $\pm 2.5$ |         | %      |
| Ripple & Noise   | 20MHz Bandwidth        |           | 180     | mV p-p |
| Hold up time     | 230VAC                 | 40        |         | ms     |

**Isolation Specifications**

| Parameters           | Conditions | Typical | Rated | Units      |
|----------------------|------------|---------|-------|------------|
| Tested I/O voltage   | 60 sec     |         | 4000  | VAC        |
| Isolation Resistance |            | >1000   |       | M $\Omega$ |

### General Specifications

| Parameters               | Conditions         | Typical   | Maximum           | Units      |
|--------------------------|--------------------|---|-------------------|------------|
| Switching frequency      |                    | 70  |                   | KHz        |
| Over current protection  | Auto-recovery      | 150-300   |                   | % of I out |
| Short circuit protection |                    | Hiccup, Continuous                                      |                   |            |
| Short circuit restart    |                    | Auto-recovery   |                   |            |
| Operating temperature    | See derating curve | -40 to +85  |                   | °C         |
| Storage temperature      |                    | -40 to +105   |                   | °C         |
| Temperature coefficient  |                    | ±0.15   |                   | % / °C     |
| Cooling                  |                    | Free air convection                                     |                   |            |
| Humidity                 |                    |   | 85                | % RH       |
| Weight                   |                    | 8   |                   | g          |
| Dimensions (L x H x W)   |                    | 1.75 x 0.94 x 0.51 inches                               | 44.5 x 24 x 13 mm |            |
| MTBF                     |                    | >300,000 hours (MIL-HDBK -217F, Ground Benign, t=+25°C) |                   |            |

### Safety Specifications

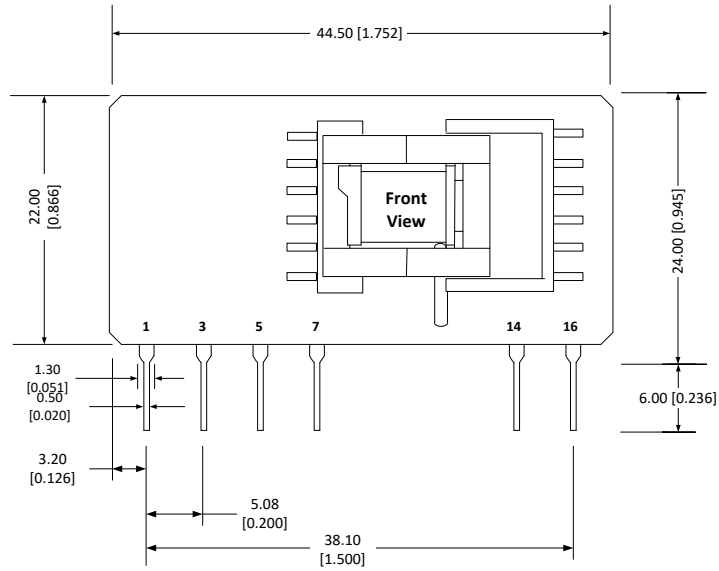
| Parameters       |  |  |
|------------------|--|--|
| Agency approvals | cULus                                      |  |
| Standards        | Information technology Equipment           | UL 60950-1 (models marked with * only)   |
|                  | EMI – Conducted and Radiated Emission      | CISPR22/EN55022/FCC part 15, Class A & B, with external filter circuits, as referenced |
|                  | Electrostatic Discharge Immunity           | IEC 61000-4-2, Contact ±4KV, Criteria B  |
|                  | RF, Electromagnetic Field Immunity         | IEC 61000-4-3, 10V/m, Criteria A, with Class B external filter, as referenced          |
|                  | Electrical Fast Transient / Burst Immunity | IEC 61000-4-4, ±2KV/±4KV, Criteria B, with Class A/B external filter referenced        |
|                  | Surge Immunity                             | IEC 61000-4-5, ±1KV/±2KV, Criteria B, with Class A/B external filter referenced        |
|                  | RF, Conducted Disturbance Immunity         | IEC 61000-4-6, 3Vrms, Criteria A, with Class B external filter, as referenced          |
|                  | Voltage dips, Short Interruptions Immunity | IEC 61000-4-11, 0-70%, Criteria B, with Class B external filter, as referenced         |

**Pin Out Specifications\***

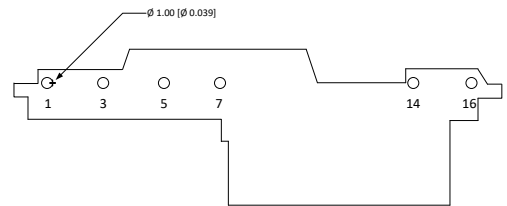
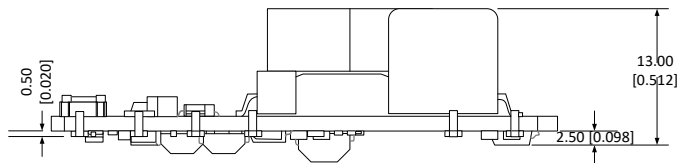
| Pin | Single    |
|-----|-----------|
| 1   | AC N      |
| 3   | AC L      |
| 5   | +V sc     |
| 7   | -V sc     |
| 14  | -V Output |
| 16  | +V Output |

\* Add C1, C2, R1 and R2 between pin 5 & 7.  
\*\*Add pi-filter to the output as suggested in the Application circuit below.

**Dimensions**

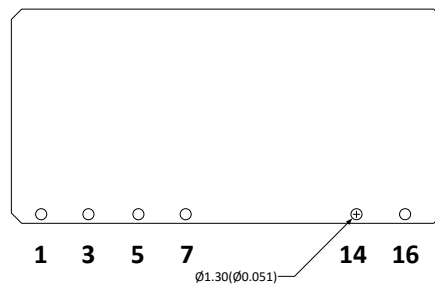
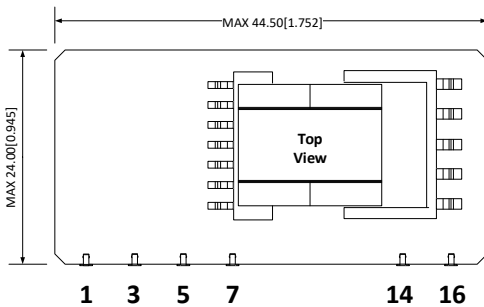


**Bottom View**

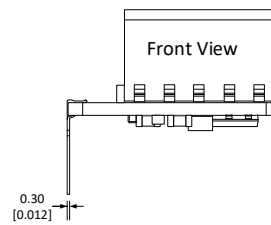
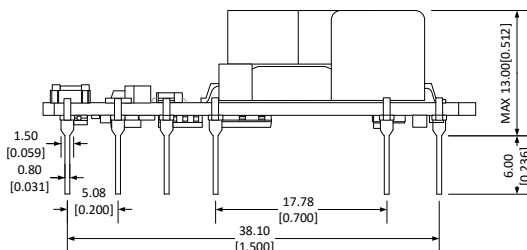


Note:  
Unit: mm [inch]  
Pin section tolerances:  $\pm 0.10 [\pm 0.004]$   
General tolerances:  $\pm 0.50 [\pm 0.020]$

**L Models Dimension**

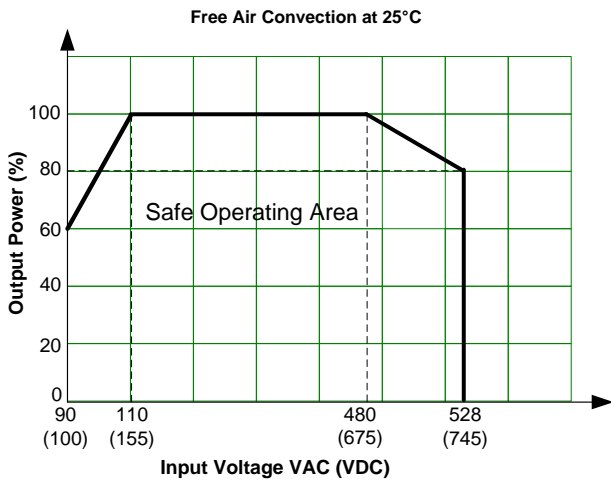
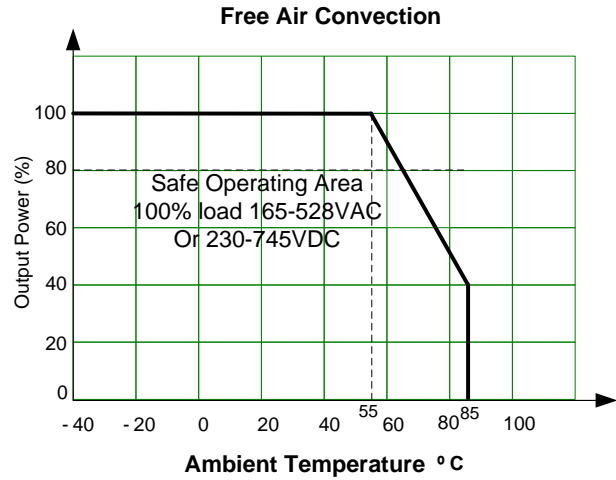
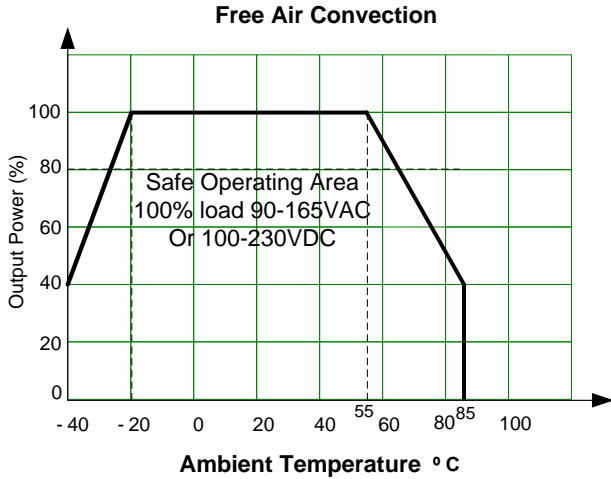


**Side View**

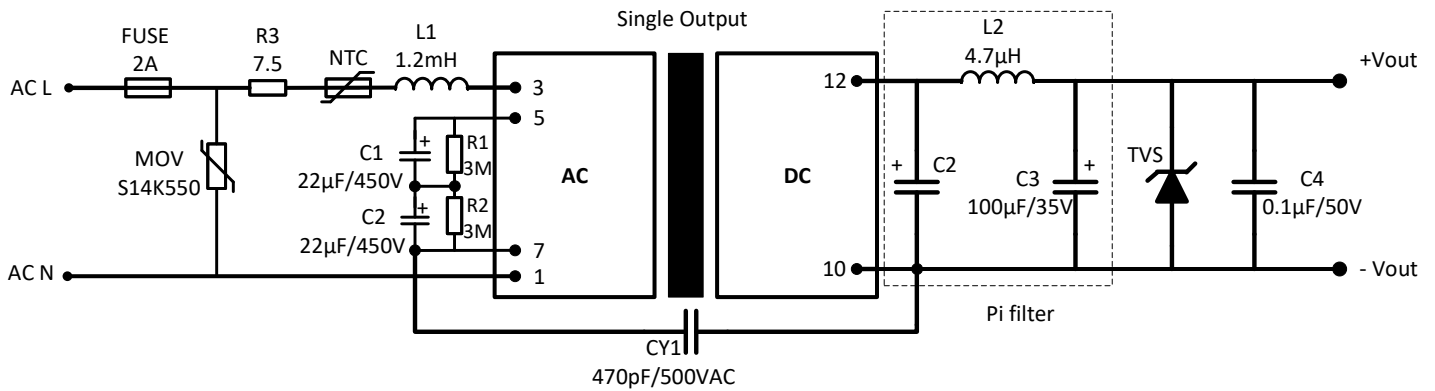


Note:  
Unit: mm [inch]  
Pin section tolerances:  $\pm 0.10 [\pm 0.004]$   
General tolerances:  $\pm 0.50 [\pm 0.020]$

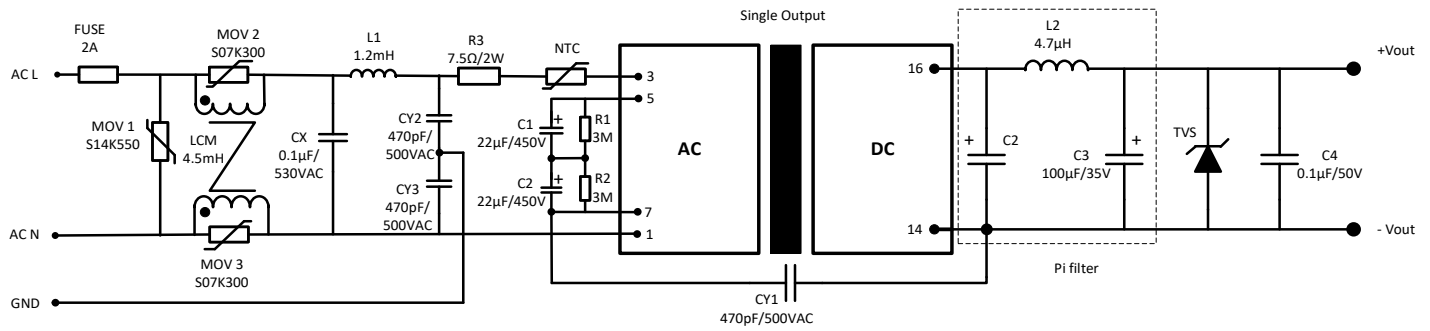
**Derating\***



**Recommended EMC class A external circuit:**



**Recommended EMC class B external circuit:**



| Model    | C5        | TVS |
|----------|-----------|-----|
| 3.3 Vout | 270µF/16V | 7V  |
| 5 Vout   |           | 12V |
| 9 Vout   |           | 20V |
| 12 Vout  | 470µF/35V | 30V |
| 15 Vout  | 220µF/35V |     |
| 24 Vout  |           |     |

- Notes:**
- ① For Safety compliance, we recommend minimum PCB trace distance of 3mm, minimum distance between PCB traces of 6mm, primary to secondary circuit traces distance between minimum of 6.4mm.
  - ② Operation voltage of the balancing resistors R1 and R2 should be over 450V.
  - ③ At cold temperature full load operations from -40 to -20°C some of the external components need different values to meet the EMC levels:  
**C1 & C2: 33µF/450V instead of 22µF/450V;**  
**R1 & R2: 1MΩ instead of 3MΩ;**  
**R3: 12Ω instead of 7.5Ω.**

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