

**FEATURES:**

- Input: 90-528VAC, 47-63Hz or 100-745VDC
- Operating temperature -40°C to +85°C
- Low power consumption  $\leq 0.5W$
- 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             |

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                    |         | 0.5     | W     |
| 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      |                    | 100                |         | 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

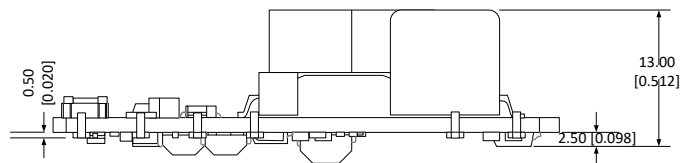
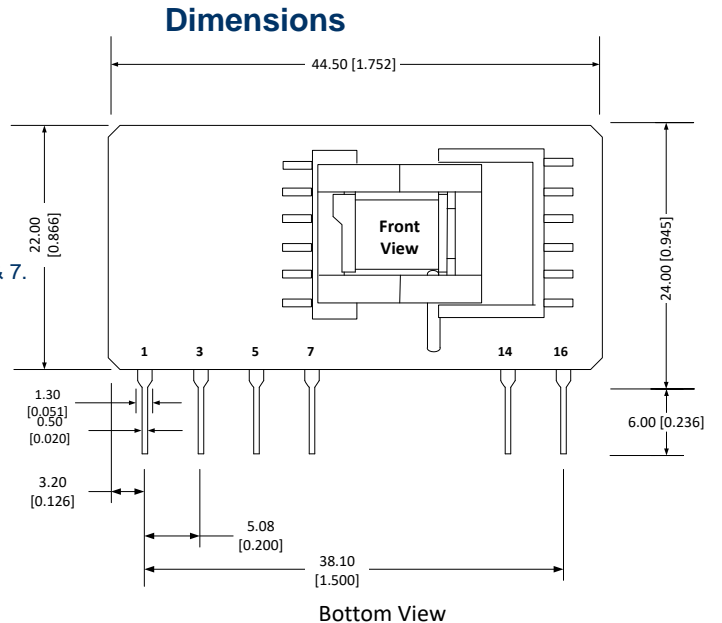
| Parameters |   |
|------------|---|
| Standards  | IEC/EN/UL60950-1 pending approval<br>CISPR22/EN55022/FCC part 15, Class A & B, with external filter circuits, as referenced<br>IEC 61000-4-2, Contact ±4KV, Criteria B<br>IEC 61000-4-3, 10V/m, Criteria A, with Class B external filter, as referenced<br>IEC 61000-4-4, ±2KV/±4KV, Criteria B, with Class A/B external filter referenced<br>IEC 61000-4-5, ±1KV/±2KV, Criteria B, with Class A/B external filter referenced<br>IEC 61000-4-6, 3Vrms, Criteria A, with Class B external filter, as referenced<br>IEC 61000-4-8, 10A/m, Criteria A, with Class B external filter, as referenced<br>IEC 61000-4-11, 0-70%, Criteria B, with Class B external filter, as referenced |

## Pin Out Specifications\*

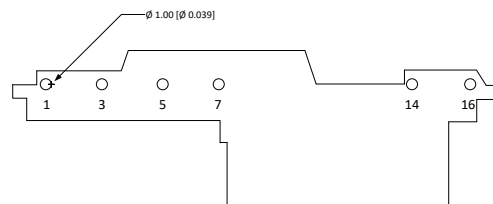
| Pin | Single    |
|-----|-----------|
| 1   | AC N      |
| 3   | AC L      |
| 5   | +V sc     |
| 7   | -V sc     |
| 14  | -V Output |
| 16  | +V Output |

\* Add C1, C2, R1 and R2 between pin 5 & 7.

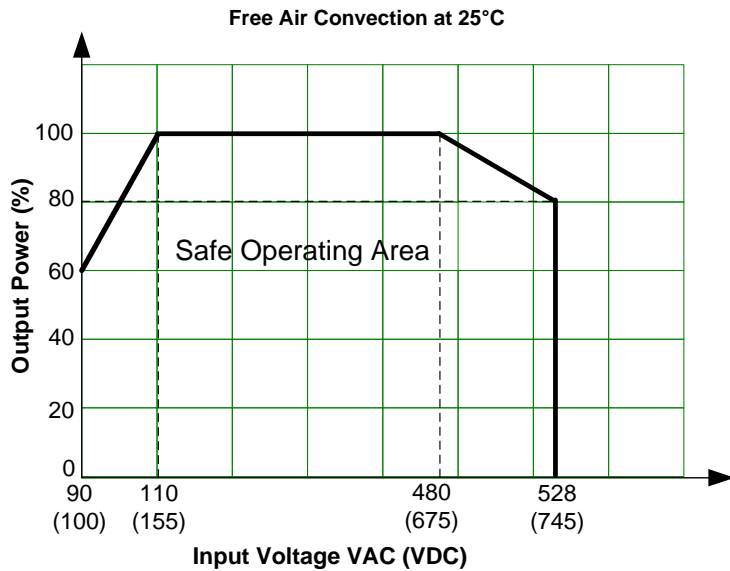
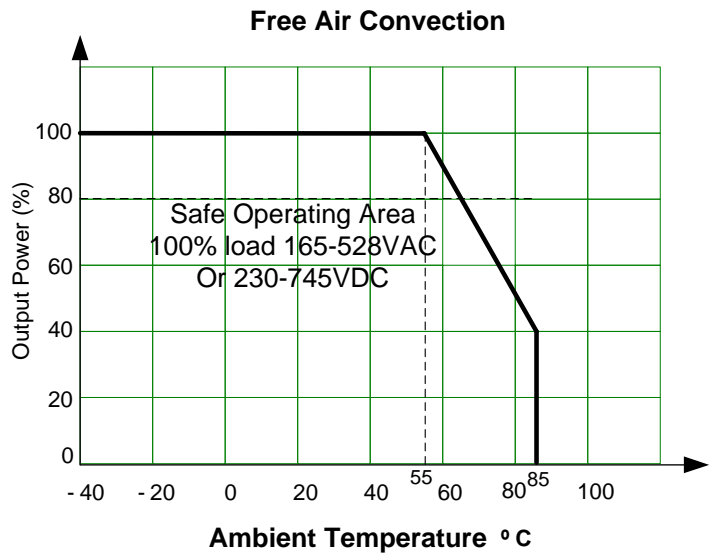
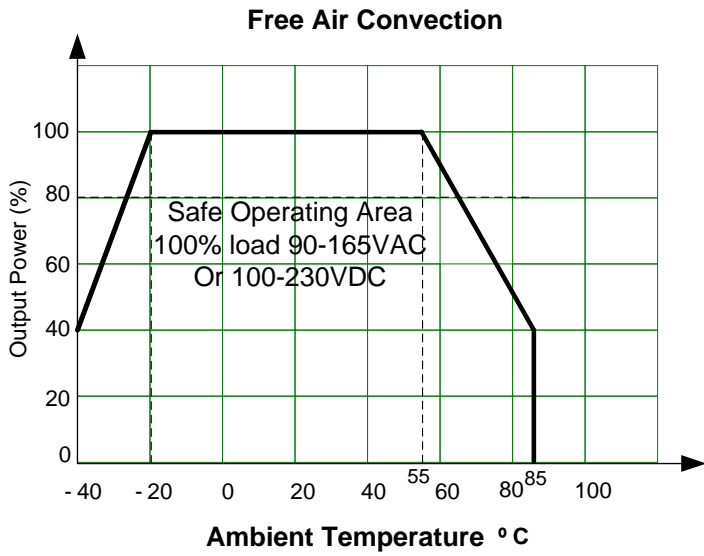
\*\*Add pi-filter to the output as suggested in the Application circuit below.



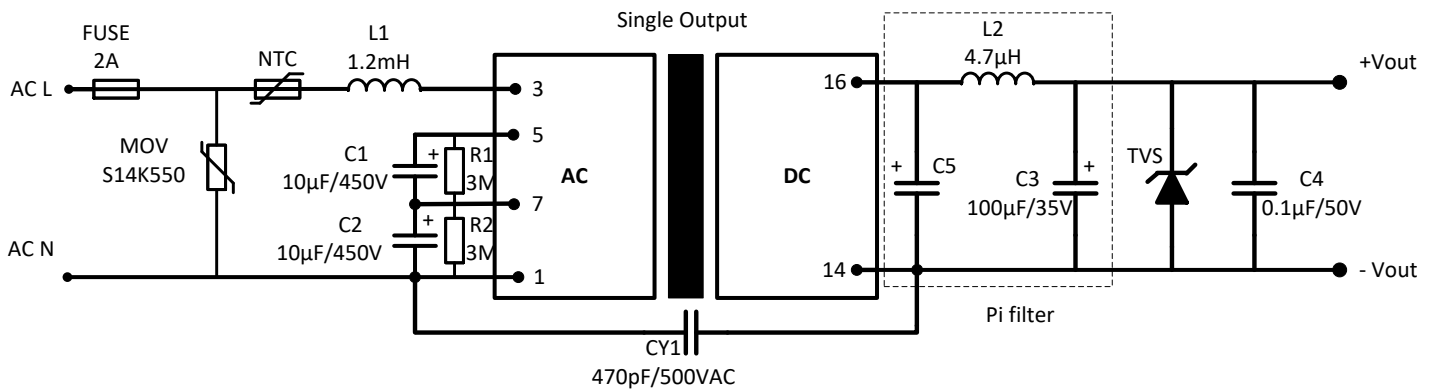
Note:  
 Unit: mm [inch]  
 Pin section tolerances: ± 0.10 [± 0.004]  
 General tolerances: ± 0.50 [± 0.020]



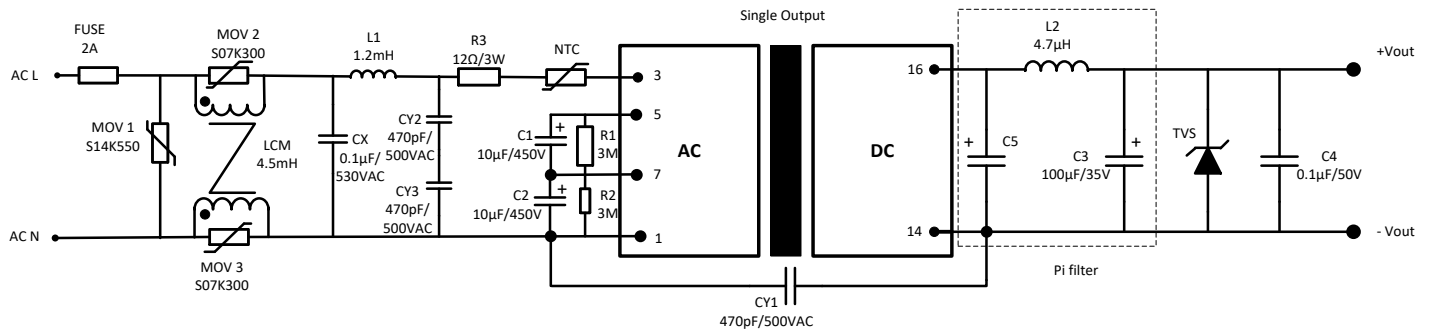
**Derating\***



**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   | 270µF/16V | 20V |
| 12 Vout  | 680µF/25V | 20V |
| 15 Vout  | 220µF/35V | 30V |

**Note:** 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.

**NOTE:** 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to [www.aimtec.com](http://www.aimtec.com) for the most current product specifications. 2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. 3. Mechanical drawings and specifications are for reference only. 4. All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified. 5. Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. 6. This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at [www.aimtec.com](http://www.aimtec.com).