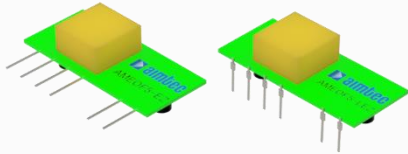


## AMEOF5-EZ

Click to  
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samples



Open Frame SIP

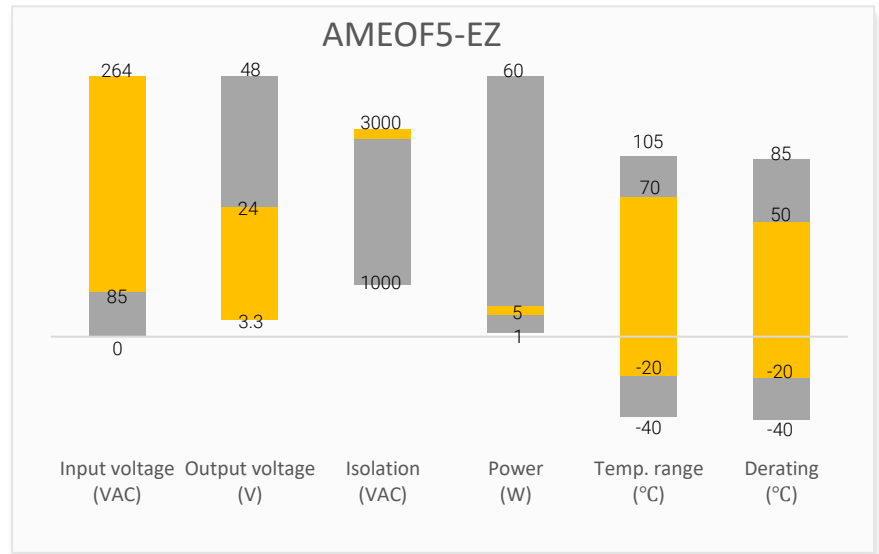
The AMEOF5-EZ is a compact open frame AC/DC converter that offers an input voltage range of 85-264VAC.

Aimtec's AMEOF5-EZ features low power consumption, high efficiency & reliability, and 3000VAC isolation. It is also designed to meet the IEC/UL/EN62368-1 standards, which makes it suitable for many industrial applications such as controls and instrumentation.

## Features

- Input: 85-264VAC, 100-400VDC
- I/O Isolation 3000VAC
- Short circuit protection
- Operating Temp: -20 to +70°C
- Low power consumption  $\leq 0.5W$
- Compact open frame SIP
- Over current protection

## Summary



## Training



Product Training Video  
(click to open)



Press Release

Application Notes

## Applications



Industrial



Automation



Test Equipment

## Models & Specifications

### Single Output Straight Pins

| Model        | Input Voltage (VAC/Hz) | Input Voltage (VDC) | Full power temperature range (°C) | Output Voltage (V) | Output Current max (mA) | Maximum capacitive Load (μF) | Efficiency (%) |
|--------------|------------------------|---------------------|-----------------------------------|--------------------|-------------------------|------------------------------|----------------|
| AMEOF5-3SEZ  | 85-264/47-63           | 100-400             | -20 to +50                        | 3.3                | 1000                    | 2200                         | 67             |
| AMEOF5-5SEZ  | 85-264/47-63           | 100-400             | -20 to +50                        | 5                  | 1000                    | 1500                         | 74             |
| AMEOF5-9SEZ  | 85-264/47-63           | 100-400             | -20 to +50                        | 9                  | 560                     | 680                          | 78             |
| AMEOF5-12SEZ | 85-264/47-63           | 100-400             | -20 to +50                        | 12                 | 420                     | 470                          | 79             |
| AMEOF5-15SEZ | 85-264/47-63           | 100-400             | -20 to +50                        | 15                 | 340                     | 330                          | 80             |
| AMEOF5-24SEZ | 85-264/47-63           | 100-400             | -20 to +50                        | 24                 | 210                     | 100                          | 82             |

### Single Output Bent Pins

| Model         | Input Voltage (VAC/Hz) | Input Voltage (VDC) | Full power temperature range (°C) | Output Voltage (V) | Output Current max (mA) | Maximum capacitive Load (μF) | Efficiency (%) |
|---------------|------------------------|---------------------|-----------------------------------|--------------------|-------------------------|------------------------------|----------------|
| AMEOF5-3SLEZ  | 85-264/47-63           | 100-400             | -20 to +50                        | 3.3                | 1000                    | 2200                         | 67             |
| AMEOF5-5SLEZ  | 85-264/47-63           | 100-400             | -20 to +50                        | 5                  | 1000                    | 1500                         | 74             |
| AMEOF5-9SLEZ  | 85-264/47-63           | 100-400             | -20 to +50                        | 9                  | 560                     | 680                          | 78             |
| AMEOF5-12SLEZ | 85-264/47-63           | 100-400             | -20 to +50                        | 12                 | 420                     | 470                          | 79             |
| AMEOF5-15SLEZ | 85-264/47-63           | 100-400             | -20 to +50                        | 15                 | 340                     | 330                          | 80             |
| AMEOF5-24SLEZ | 85-264/47-63           | 100-400             | -20 to +50                        | 24                 | 210                     | 100                          | 82             |

### Input Specification

| Parameters        | Conditions | Typical | Maximum | Units |
|-------------------|------------|---------|---------|-------|
| Input current     | 115VAC     |         | 150     | mA    |
|                   | 230VAC     |         | 100     | mA    |
| Inrush current    | 115VAC     | 5       |         | A     |
|                   | 230VAC     | 10      |         | A     |
| Input dissipation | No Load    |         | 0.5     | W     |

### Output Specification

| Parameters       | Conditions                  | Typical | Maximum | Units  |
|------------------|-----------------------------|---------|---------|--------|
| Voltage accuracy | 3.3V Output                 | ±2      | ±3      | %      |
|                  | 5~24V Output                | ±1      | ±2      | %      |
| Line regulation  | Full load, main input range | ±0.1    | ±0.5    | %      |
| Load regulation  | 5-100% load                 | ±1      | ±1.5    | %      |
| Minimum load     |                             | 0       |         | A      |
| Ripple & Noise*  | 3.3~5V Output               | 50      | 150     | mV p-p |
|                  | 9~24V Output                | 80      | 150     | mV p-p |

\* 20MHz bandwidth with a 0.1μF CC and a 10μF EC

### Isolation Specifications

| Parameters           | Conditions   | Typical | Rated | Units |
|----------------------|--------------|---------|-------|-------|
| Tested I/O voltage   | 5 sec / 5 mA |         | 3000  | VAC   |
| Isolation Resistance | 500VDC       | >100    |       | MΩ    |

### General Specifications

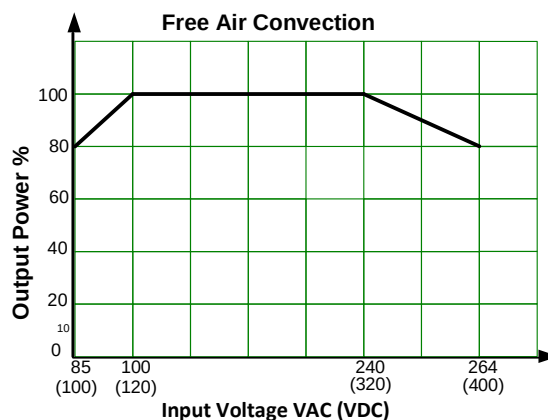
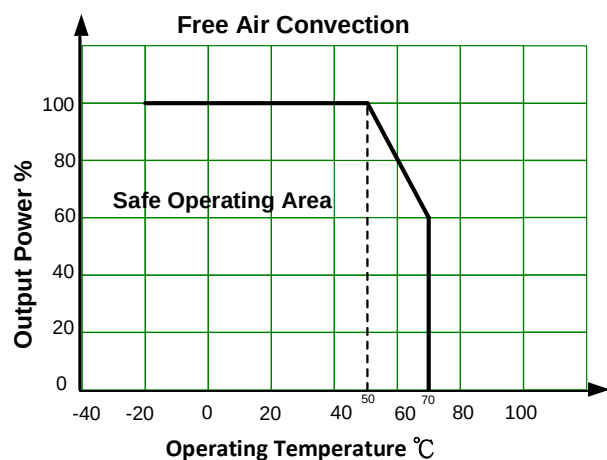
| Parameters               | Conditions                                       | Typical     | Maximum | Units      |
|--------------------------|--------------------------------------------------|-------------|---------|------------|
| Switching frequency      |                                                  | 100         |         | KHz        |
| Over current protection  | Auto-recovery                                    | >110        |         | % of I out |
| Short circuit protection | Auto-recovery                                    |             |         |            |
| Operating temperature    | See derating curve                               | -20 to +70  |         | °C         |
| Storage temperature      |                                                  | -40 to +105 |         | °C         |
| Cooling                  | Free air convection                              |             |         |            |
| Humidity                 |                                                  |             | 85      | % RH       |
| Weight                   |                                                  | 6.5         |         | g          |
| Dimensions (L x W x H)   | 1.65 x 0.79 x 0.54 inches 42.0 x 20.0 x 13.65 mm |             |         |            |

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.

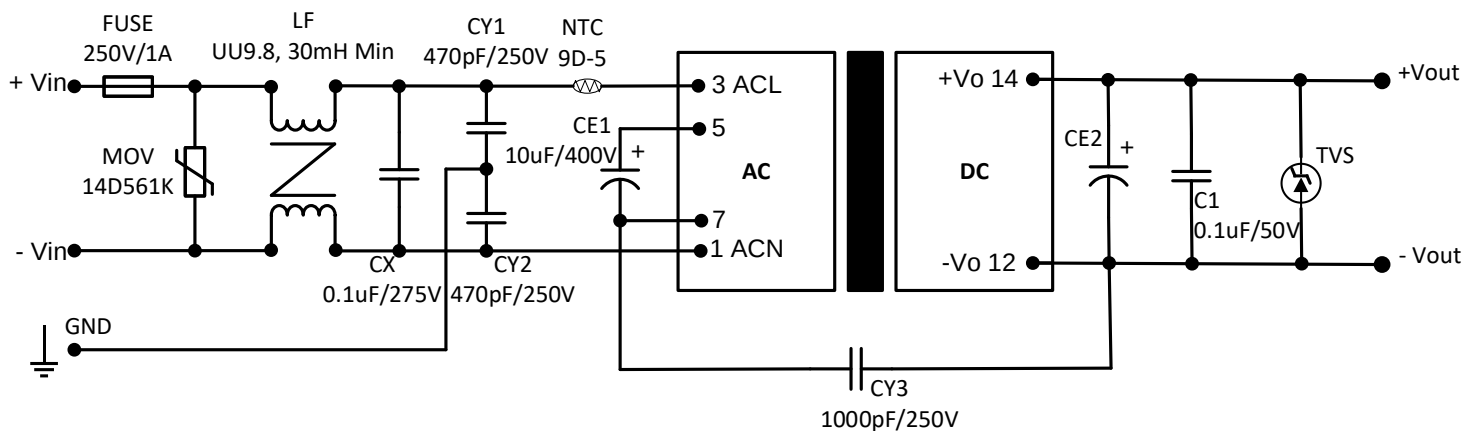
### Safety Specifications

| Parameters |                                       |                                               |
|------------|---------------------------------------|-----------------------------------------------|
| Standards  | Information technology Equipment      | Design to meet UL62368-1, IEC62368-1          |
|            | EMC - Conducted and radiated emission | EN55032, CLASS B, See EMC Recommended Circuit |
|            | EMS Immunity                          | IEC 61000, See EMC Recommended Circuit        |

## Derating

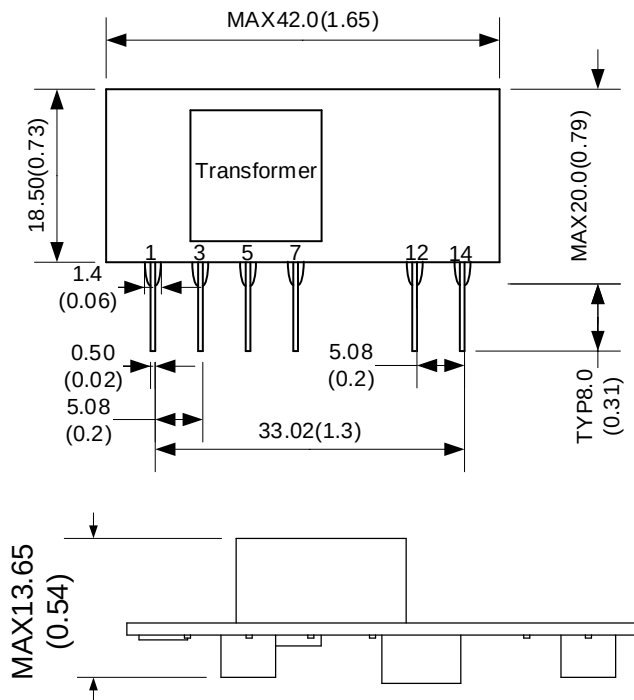


## EMC Recommended Circuit



| Model    | CE2       | TVS      |
|----------|-----------|----------|
| 3.3 Vout | 220uF/35V | SMBJ7.0A |
| 5 Vout   | 220uF/35V | SMBJ7.0A |
| 9 Vout   | 220uF/35V | SMBJ12A  |
| 12 Vout  | 150uF/35V | SMBJ20A  |
| 15 Vout  | 150uF/35V | SMBJ20A  |
| 24 Vout  | 150uF/35V | SMBJ30A  |

## Dimensions

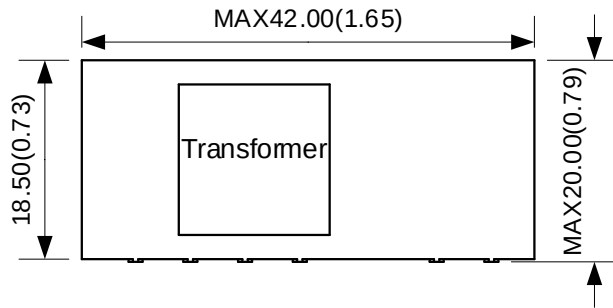


Pin Out Specifications

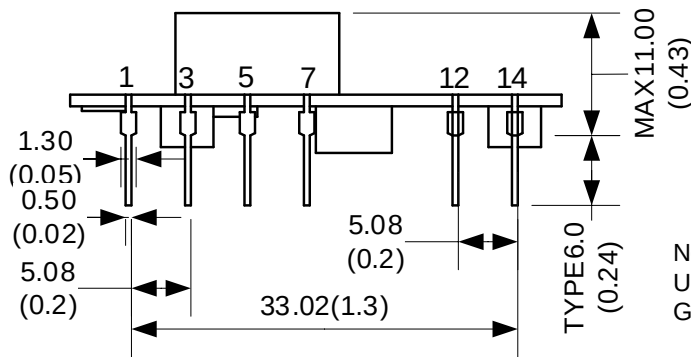
| Pin | Single    |
|-----|-----------|
| 1   | ACN       |
| 3   | ACL       |
| 5   | +V (cap)  |
| 7   | -V (cap)  |
| 12  | -V Output |
| 14  | +V Output |

Note:  
Unit: mm(inch)  
General tolerances:  $\pm 0.5(\pm 0.02)$

## L Model Dimensions



| Pin Out Specifications |           |
|------------------------|-----------|
| Pin                    | Single    |
| 1                      | ACN       |
| 3                      | ACL       |
| 5                      | +V (cap)  |
| 7                      | -V (cap)  |
| 12                     | -V Output |
| 14                     | +V Output |



Note:  
Unit: mm(inch)  
General tolerances:  $\pm 0.5(\pm 0.02)$

**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).