

**FEATURES:**

- RoHS compliant
- Efficiency up to 85%
- Wide 4:1 input range
- Continuous Short Circuit Protection
- Low ripple and noise
- Remote on/off control
- Input/Output Isolation 1500VDC
- Operating temperature -40°C to + 85°C

### Models

#### Single output



| Model         | Input Voltage (V) | Output Voltage (V) | Output Current max (A) | Capacitive load max (μF) | Efficiency (%) |
|---------------|-------------------|--------------------|------------------------|--------------------------|----------------|
| AM10EW-2403SZ | 9-36              | 3.3                | 2                      | 3300                     | 80             |
| AM10EW-2405SZ | 9-36              | 5                  | 2                      | 3300                     | 82             |
| AM10EW-2412SZ | 9-36              | 12                 | 0.83                   | 680                      | 85             |
| AM10EW-2415SZ | 9-36              | 15                 | 0.67                   | 470                      | 85             |
| AM10EW-4803SZ | 18-72             | 3.3                | 2                      | 3300                     | 79             |
| AM10EW-4805SZ | 18-72             | 5                  | 2                      | 3300                     | 82             |
| AM10EW-4812SZ | 18-72             | 12                 | 0.83                   | 680                      | 85             |
| AM10EW-4815SZ | 18-72             | 15                 | 0.67                   | 470                      | 85             |

### Models

#### Dual output

| Model         | Input Voltage (V) | Output Voltage (V) | Output Current max (A) | Capacitive load (μF) | Efficiency (%) |
|---------------|-------------------|--------------------|------------------------|----------------------|----------------|
| AM10EW-2405DZ | 9-36              | ±5                 | ±1                     | ±2200                | 82             |
| AM10EW-2412DZ | 9-36              | ±12                | ±0.416                 | ±470                 | 85             |
| AM10EW-2415DZ | 9-36              | ±15                | ±0.333                 | ±330                 | 85             |
| AM10EW-4805DZ | 18-72             | ±5                 | ±1                     | ±2200                | 82             |
| AM10EW-4812DZ | 18-72             | ±12                | ±0.416                 | ±470                 | 85             |
| AM10EW-4815DZ | 18-72             | ±15                | ±0.333                 | ±330                 | 85             |

### Input Specifications

| Parameters                     | Nominal            | Typical                                  | Maximum | Units |
|--------------------------------|--------------------|------------------------------------------|---------|-------|
| Voltage range                  | 24                 | 9-36                                     |         | VDC   |
|                                | 48                 | 18-72                                    |         |       |
| Filter                         | $\pi$ (Pi) Network |                                          |         |       |
| Remote ON/OFF Control          | ON                 | 2.5~5.5 or open circuit                  |         | VDC   |
|                                | OFF                | -0.7~ 0.8 or short circuit b/n pin 2 & 1 |         |       |
| Turn on Transient process time |                    |                                          | 350     | ms    |
| Start up time                  |                    | 20                                       |         | ms    |
| Absolute Maximum Rating        | 24 Vin             | -0.7-40                                  |         | VDC   |
|                                | 48 Vin             | -0.7-80                                  |         |       |
| Peak Input Voltage time        |                    |                                          | 100     | ms    |

### Isolation Specifications

| Parameters           | Conditions | Typical | Rated | Units |
|----------------------|------------|---------|-------|-------|
| Tested I/O voltage   | 3 sec      |         | 1500  | VDC   |
| Case/ Input & Output |            | 1000    |       | VDC   |
| Resistance           |            | > 1000  |       | MOhm  |
| Capacitance          |            | 1200    |       | pF    |

### Output Specifications

| Parameters                    | Conditions      | Typical | Maximum | Units         |
|-------------------------------|-----------------|---------|---------|---------------|
| Voltage accuracy              |                 | ±1      |         | %             |
| Voltage balance (Dual output) | Balance Load    | ±1      |         | %             |
| Short Circuit protection      | Continuous      |         |         |               |
| Short Circuit restart         | Auto Recovery   |         |         |               |
| Current limiting              |                 |         | 140     | % of Iout max |
| Line voltage regulation       | HL-LL           | ±0.5    |         | %             |
| Load voltage regulation       | 10-100% load    | ±1.0    |         | %             |
| Temperature coefficient       |                 | ±0.02   |         | %/°C          |
| Ripple & Noise                | 20Mhz bandwidth | 75      |         | mV p-p        |
| Rising time                   |                 | 10      |         | ms            |

### General Specifications

| Parameters             | Conditions       | Typical                                                 | Maximum | Units |
|------------------------|------------------|---------------------------------------------------------|---------|-------|
| Switching frequency    | 100% load        | 300                                                     |         | KHz   |
| Operating temperature  | No derating      | -40 to +85                                              |         | °C    |
| Storage temperature    |                  | -40 to +125                                             |         | °C    |
| Max case temperature   |                  |                                                         | 100     | °C    |
| Cooling                |                  | Free air convection                                     |         |       |
| Humidity               |                  |                                                         | 95      | %     |
| Case material          |                  | Nickel coated copper                                    |         |       |
| Weight                 |                  | 31                                                      |         | g     |
| Dimensions (L x W x H) | Tolerance ±0.5mm | 2.00 x 1.00 x 0.40 inches 50.80 x 25.00 x 10.16 mm      |         |       |
| MTBF                   |                  | >1 121 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C) |         |       |

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.

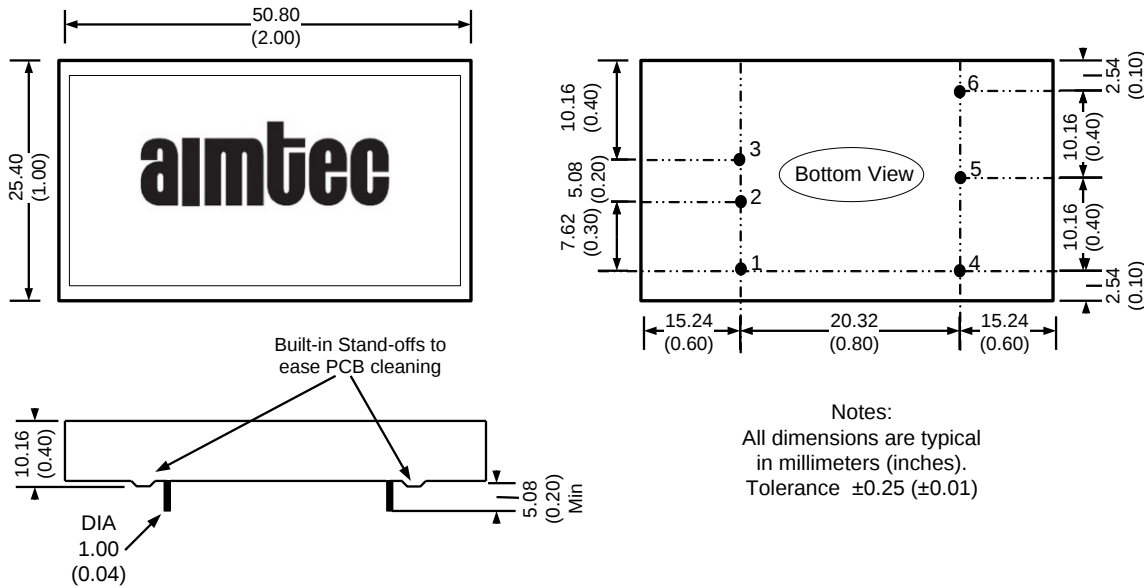
### Safety Specifications

| Parameters       |                                |
|------------------|--------------------------------|
| Agency Approvals | CE, cULus                      |
| Standards        | IEC/UL/EN/62368-1              |
|                  | EN55032 Class A                |
|                  | IEC61000-4-2, Perf. Criteria B |
|                  | IEC61000-4-3, Perf. Criteria A |
|                  | IEC61000-4-4, Perf. Criteria B |
|                  | IEC61000-4-6, Perf. Criteria A |
|                  | IEC61000-4-8, Perf. Criteria A |

### Pin Out Specifications

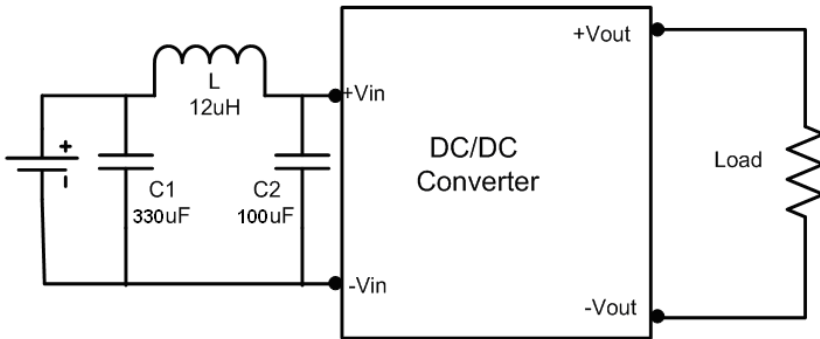
| Pin | Single         | Dual           |
|-----|----------------|----------------|
| 1   | On/Off Control | On/Off Control |
| 2   | -V Input       | -V Input       |
| 3   | +V Input       | +V Input       |
| 4   | -V Output      | -V Output      |
| 5   | No Pin         | Common         |
| 6   | +V Output      | +V Output      |

## Dimensions



## Test Circuit

### Conducted Emissions



**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 than 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).