



**FEATURES:**

- AC-DC Constant Current LED Driver
- Universal Input: 90-264VAC, 47-63Hz
- Short circuit protection
- RoHS compliant
- Waterproof IP67
- Over current protection
- Over voltage protection
- Power Factor Correction



**Models**  
**Single output**

| Model             | Max Output Power (W) * | Output Voltage Range (VDC) | Output Current (mA) | Input Voltage (VAC/Hz) | Efficiency (%) |
|-------------------|------------------------|----------------------------|---------------------|------------------------|----------------|
| AMER48-48100KZ-C1 | 50.4                   | 30-48                      | 1000 ± 50           | 90-264/ 47-63          | 85             |

\* Exceeding the maximum output power will permanently damage the converter

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 |
|---------------------|------------|---------|-----------|-------|
| Voltage range       |            | 90-264  |           | VAC   |
| Inrush current <2ms | 115V       | 20      |           | A     |
|                     | 230V       | 30      |           |       |
| Leakage current     | 230V       | 0.25    |           | mA    |
| AC current          | 115V       | 0.50    |           | A     |
|                     | 230V       | 0.35    |           |       |
| No-load consumption |            | 2.5     |           | W     |
| External fuse       |            |         | 250V/1.5A |       |
| Power Factor        |            | 0.95    |           |       |

**Output Specifications**

| Parameters         | Conditions      | Typical | Maximum | Units  |
|--------------------|-----------------|---------|---------|--------|
| Current accuracy   |                 | ±10     |         | %      |
| Line regulation    | LL-HL           | ±5      |         | %      |
| Load regulation    | 0% to 100%      | ±10     |         | %      |
| Ripple & Noise     | 20MHz Bandwidth | 150     |         | mV p-p |
| Hold-up time (min) | 100% load       | 4       | 8       | ms     |

**Isolation Specifications**

| Parameters           | Conditions | Typical | Maximum | Units |
|----------------------|------------|---------|---------|-------|
| Tested I/O voltage   | 2mA/60Sec  | 3000    |         | VAC   |
| Input FG             |            | 1500    |         | VAC   |
| Isolation resistance |            | >50     |         | MΩ    |

**General Specifications**

| Parameters               | Conditions | Typical           | Maximum | Units |
|--------------------------|------------|-------------------|---------|-------|
| Switching frequency      | 100% Load  | 100               |         | KHz   |
| Over current protection  |            | 115               |         | %     |
| Over voltage protection  |            | Zener Diode clamp |         | %     |
| Short circuit protection |            | Continuous        |         |       |
| Short Circuit restart    |            | Auto recovery     |         |       |
| Operating temperature *  |            | -30 to +55        |         | °C    |
| Maximum case temperature |            |                   | 90      | °C    |
| Storage temperature      |            | -40 to +80        |         | °C    |

**General Specifications (continued)**

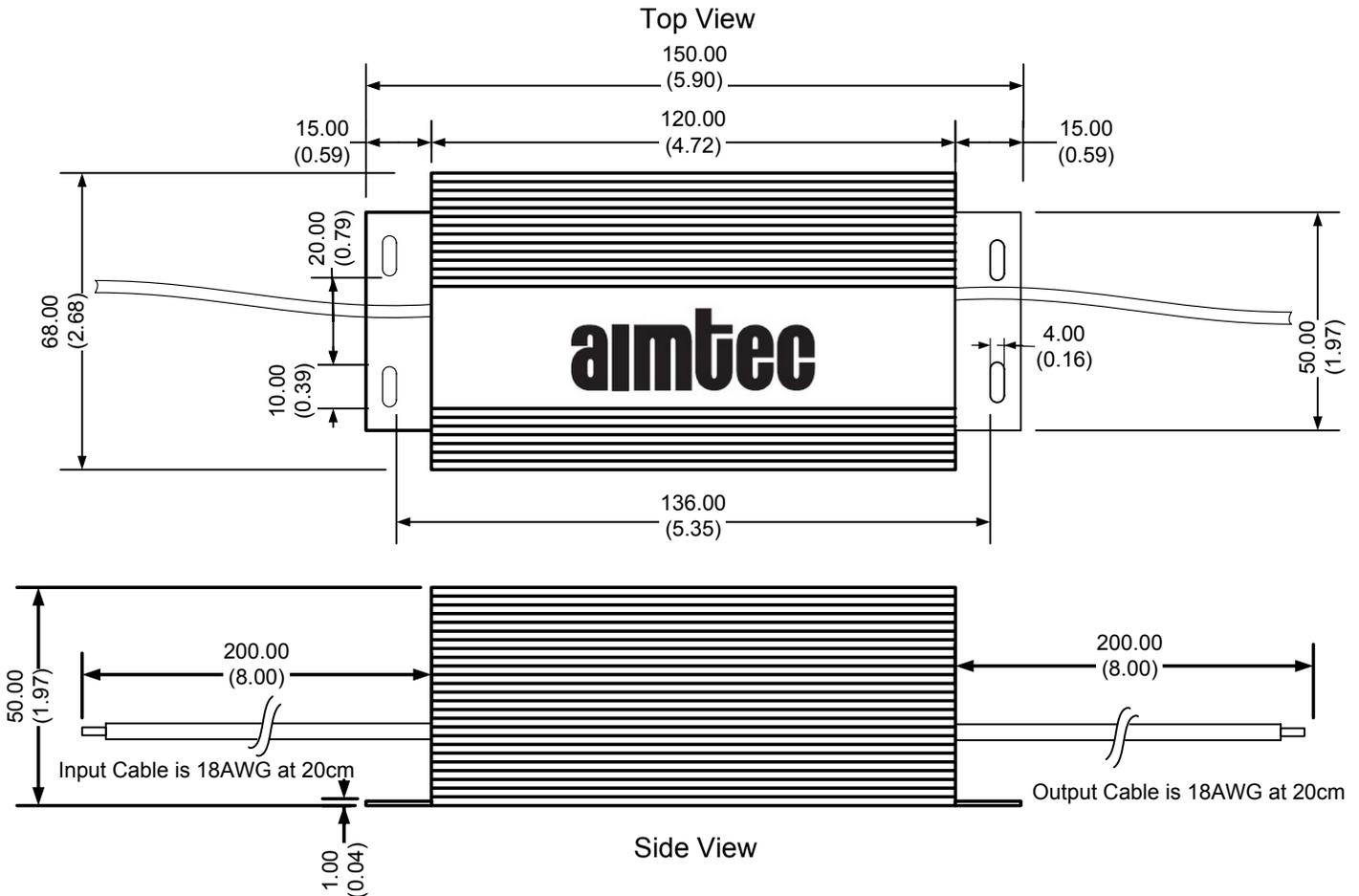
| Parameters              | Conditions  | Typical | Maximum | Units  |
|-------------------------|---|---------|---------|--------|
| Temperature coefficient |   | 0.05    |         | % / °C |
| Cooling                 | Free Air Convection                                 |         |         |        |
| Humidity                |   |         | 95      | % RH   |
| Case material           | Aluminum  |         |         |        |
| Weight                  |   | 750     |         | g      |
| Dimensions (L X H X W)  | 5.90 x 2.68 x 1.97 inches 150.00 x 68.00 x 50.00 mm |         |         |        |
| MTBF                    | > 50,000 hrs (MIL-HDBK-217 F at +25 °C)             |         |         |        |

\*NOTE: Converters do not have Over Temperature Protection and will be damaged if their maximum case temperature is exceeded.

**Safety Specifications**

| Parameters       |  |
|------------------|--|
| Agency approvals | CE   |
| Standards        | GB195110.1-2004/IEC61347-1:2003, EN55015, EN61000, EN61547 |

**Dimensions**



**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. 5. 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.