

### 50 Watts

- Energy Efficiency Level VI
- European CoC Tier 2
- <0.15 W Standby Power
- Single Output 12 to 48 V
- 0 °C to 65 °C Operation
- Universal Input
- 3 Year Warranty



#### Dimensions:

##### AEJ50:

4.72 x 2.05 x 1.22" (120.0 x 52.0 x 31.0 mm)

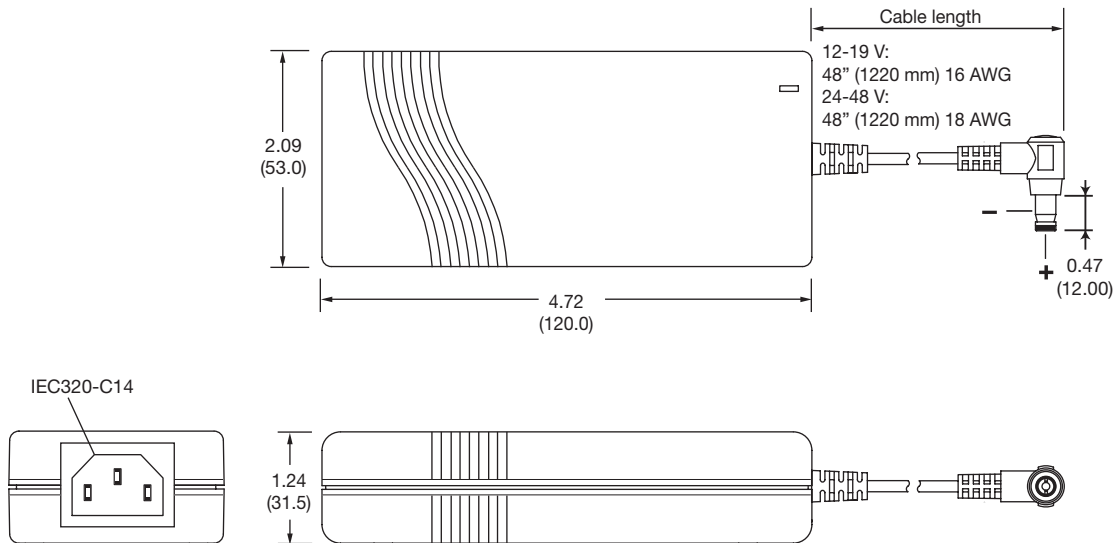
### Models & Ratings

| Output Power | Output Voltage | Output Current | Total Regulation | Efficiency <sup>(1)</sup> | Model Number |
|--------------|----------------|----------------|------------------|---------------------------|--------------|
| 50 W         | 12.0V          | 4.20 A         | ±5%              | 89%                       | AEJ50US12    |
|              | 15.0V          | 3.36 A         |                  | 89%                       | AEJ50US15    |
|              | 19.0V          | 2.65 A         |                  | 89%                       | AEJ50US19    |
|              | 24.0V          | 2.10 A         |                  | 89%                       | AEJ50US24    |
|              | 28.0V          | 1.80 A         |                  | 89%                       | AEJ50US28    |
|              | 36.0V          | 1.40 A         |                  | 89%                       | AEJ50US36    |
|              | 48.0V          | 1.05 A         |                  | 89%                       | AEJ50US48    |

### Notes

1. Typical average of efficiencies measured at 25%, 50%, 75% and 100% load and 230 VAC input.

### Mechanical Details



### Notes

1. All dimensions shown in inches (mm).
2. Weight: 0.60 lbs (300 g) approx.
3. Tolerance is ±0.02 (±0.5) maximum, except output cable length which is ±2" (±50 mm)
4. Output connector is 5.5 mm dia. outer barrel, inner dia. is 2.5 mm with a center + and outer shell - polarity.

### Input

| Characteristic        | Minimum                             | Typical | Maximum | Units | Notes & Conditions           |
|-----------------------|-------------------------------------|---------|---------|-------|------------------------------|
| Input Voltage         | 90                                  |         | 264     | VAC   |                              |
| Input Frequency       | 47                                  |         | 63      | Hz    |                              |
| Input Current         |                                     | 1.20    |         | A     | Measured at 100VAC           |
| Inrush Current        |                                     |         | 50      | A     | 230 VAC, cold start at 25 °C |
| Earth Leakage Current |                                     |         | 350     | µA    | 264 VAC, 60 Hz               |
| No Load Input Power   |                                     |         | 0.15    | W     |                              |
| Input Protection      | T2.0A/250 VAC internal fuse in line |         |         |       |                              |

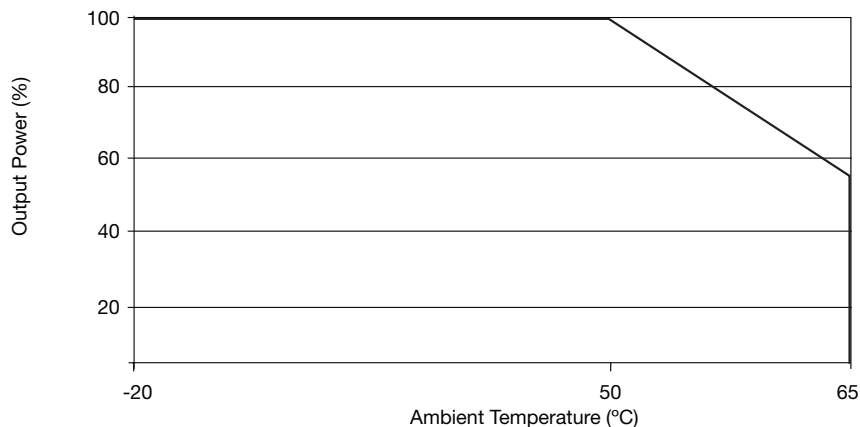
### Output

| Characteristic           | Min.                                      | Typ. | Max. | Units   | Notes & Conditions   |
|--------------------------|---|------|------|---------|--|
| Output Voltage           | 12  |      | 48   | VDC     | See Models and Ratings table   |
| Initial Set Accuracy     |   |      | ±2   | %       | At 60% load  |
| Minimum Load             |   |      |      |         | No minimum load required   |
| Start Up Delay           |   |      | 3    | s       |  |
| Start Up Rise Time       |   |      | 20   | ms      |  |
| Hold Up Time             |   | 8    |      | ms      | Full load and 115 VAC  |
| Line Regulation          |   |      | ±1   | %       |  |
| Total Regulation         |   |      | ±4   | %       |  |
| Transient Response       |   |      | 5    | %       | Maximum deviation, recovering to less than 1% within 500 µs for 25% step load                    |
| Ripple and Noise         |   |      | 1    | % pk-pk | Measured with 20 MHz Bandwidth and 10 µF electrolytic in parallel with 0.1 µF ceramic capacitor. |
| Overshoot                |   |      | 10   | %       | At turn on / turn off  |
| Overload Protection      | 115                                       |      | 250  | %       |  |
| Overvoltage Protection   | 112                                       |      | 140  | %       |  |
| Short Circuit Protection | Trip and restart (hiccup), auto resetting |      |      |         |  |
| Temperature Coefficient  |   | 0.05 |      | %/°C    |  |

### Environmental

| Characteristic        | Minimum   | Typical | Maximum | Units | Notes & Conditions                                  |
|-----------------------|---|---------|---------|-------|---|
| Operating Temperature | -20   |         | +65     | °C    | Derate from 100% load at 50 °C to 58% load at 65 °C |
| Cooling               | Natural convection  |         |         |       |   |
| Operating Humidity    | 5   |         | 90      | %RH   | Non-condensing                                      |
| Storage Temperature   | -40   |         | +85     | °C    |   |
| Operating Altitude    |   |         | 5000    | m     |   |
| Shock                 | IEC68-2-27, 30 g, 11 ms half sine, 3 times in each of 6 axes        |         |         |       |   |
| Vibration             | IEC68-2-6, 10-500 Hz, 2 g 10 mins/sweep, 60 mins for each of 3 axes |         |         |       |   |

### Derating Curve

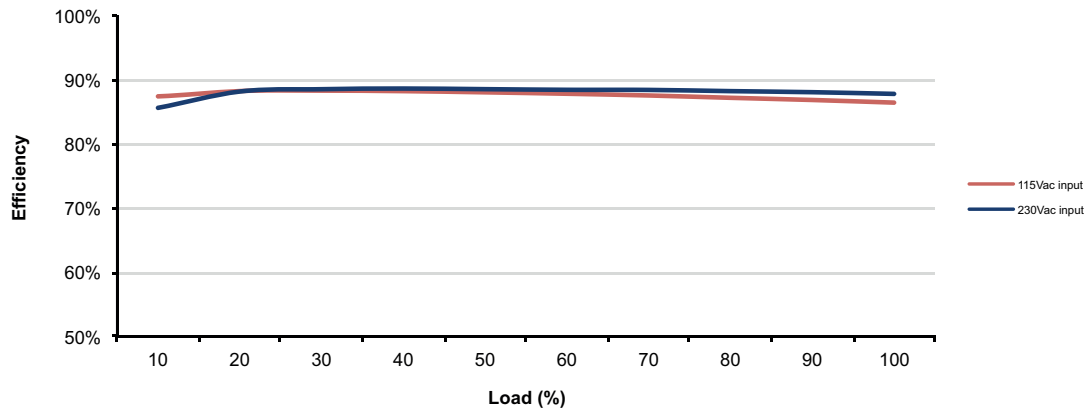


### General

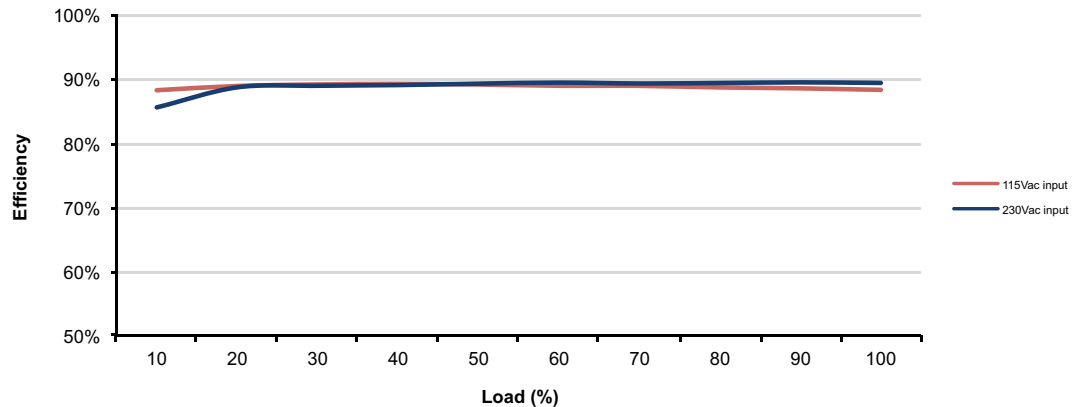
| Characteristic  | Minimum | Typical    | Maximum | Units             | Notes & Conditions                         |
|---|---------|------------|---------|-------------------|--|
| Efficiency  |         | 89         |         | %                 | See Models and Ratings table and curves.   |
| Isolation: Input to Output<br>Input to Ground<br>Output to Ground | 3000    |            |         | VAC               |  |
|   | 1500    |            |         | VAC               |  |
|   |         |            |         |                   | Negative output is connected to ground     |
| Switching Frequency   |         | 65         |         | kHz               |  |
| Power Density   |         |            | 4.23    | W/in <sup>3</sup> |  |
| Mean Time Between Failure   | 285     |            |         | kHrs              | MIL-HDBK-217F at 25 °C GB for 24 V version |
| Weight  |         | 0.60 (300) |         | lb (g)            |  |

### Efficiency Curves

#### AEJ50US12



#### AEJ50US24



### EMC: Emissions

| Phenomenon       | Standard    | Test Level | Notes & Conditions   |
|------------------|-------------|------------|----------------------|
| Emissions        | EN55032     | Level B    | Conducted & Radiated |
| Harmonic Current | EN61000-3-2 | Class A    |                      |
| Voltage Flicker  | EN61000-3-3 |            |                      |

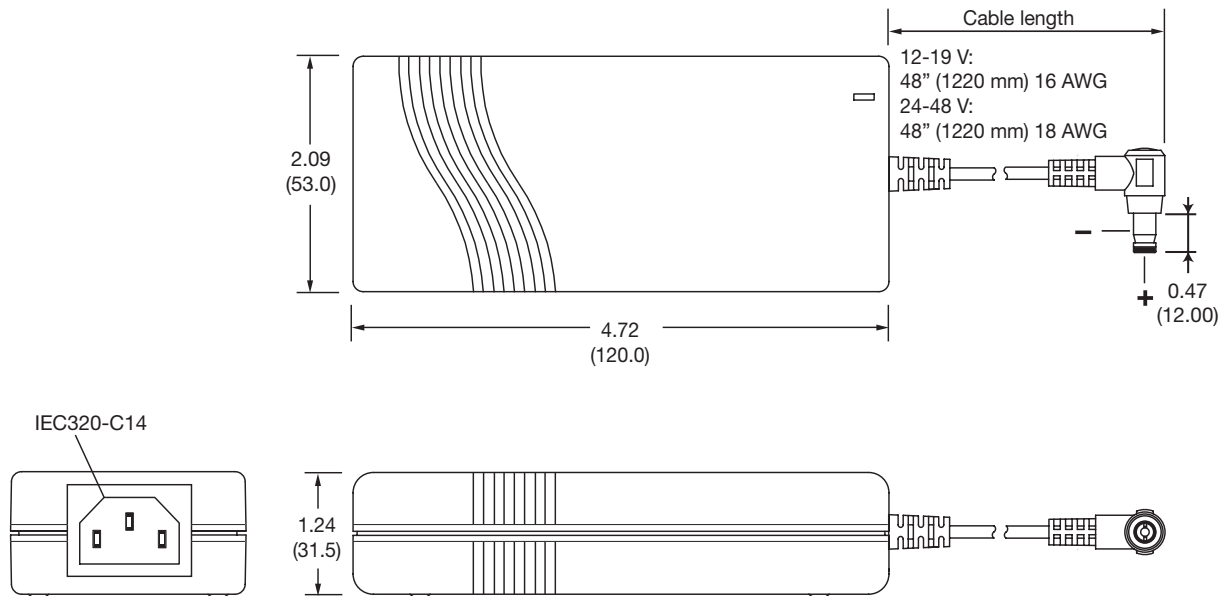
### EMC: Immunity

| Phenomenon             | Standard     | Test Level               | Criteria | Notes & Conditions |
|------------------------|--------------|--------------------------|----------|--------------------|
| ESD                    | EN61000-4-2  | ±8 kV Air, ±6 kV contact | A        |                    |
| Radiated               | EN61000-4-3  | 3 V/m                    | A        |                    |
| EFT/Burst              | EN61000-4-4  | 2                        | A        |                    |
| Surge                  | EN61000-4-5  | Installation Class 3     | A        |                    |
| Conducted              | EN61000-4-6  | 3 V                      | A        |                    |
| Magnetic Fields        | EN61000-4-8  | 3 A/m                    | A        |                    |
| Dips and Interruptions | EN61000-4-11 | Dip: 30% 500 ms          | A/B      | High Line/Low Line |
|                        |              | Dip: 60% 100 ms          | A/B      | High Line/Low Line |
|                        |              | Int: 100% 5000 ms        | B        |                    |
|                        |              | Int: 100% 10 ms          | A        |                    |

### Safety Approvals

| Safety Agency | Safety Standard | Notes & Conditions |
|---------------|-----------------|--------------------|
| UL            | UL60950-1       |                    |
| TUV           | EN60950-1       |                    |
| CB            | IEC60950-1      |                    |
| AU/NZ         | AU/NZ 60950.1   |                    |

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