

# 15W Fixed Blade USB Charger With USB Type-C



#### **Features**

- USB Type-C
- Fixed Blade
- Ecodesign/ErP Lot 7 (EU) 2019/1782 Compliance
- CoC Version 5 Tier 2 Compliance
- Voltage Drop Compensation
- Complies with USB Battery Charging 1.2
- Limited Power Source (LPS)
- Class B EMI
- OVP and short circuit protection

#### **Applications**

- Mobile Phone
- Networking Devices
- Tablet



Energy Verified Rendement

(UL)





# AQ15X Specifications<sup>1</sup>

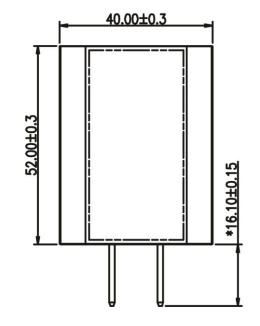
| DC Output Voltage 5.0V  |   |  |
|---|---|--|
|   |   |  |
| Max Current 3.0A  | 3.0A  |  |
| Output Output Power 15.0W   | 15.0W   |  |
| Regulation ± 5%   | ± 5%  |  |
| Ripple & Noise P-P(max) <sup>3</sup> 150mV                            | 150mV   |  |
| AC Input Voltage Range 90 to 264VAC                                   | 90 to 264VAC  |  |
| AC Input Frequency 47 to 63Hz   | 47 to 63Hz  |  |
| Input Current 0.5A (RMS) max at 10                                    | 0.5A (RMS) max at 100VAC  |  |
| Inrush Current 60A max at 240VAC, Co                                  | 60A max at 240VAC, Cold Start   |  |
| No Load Power Consumption 0.02W                                       | 0.02W   |  |
| Input No Load Power Consumption<br>at 230VAC Input 0.038W             | 0.038W  |  |
| 115VAC Average Efficiency⁴83.07%                                      | 83.07%  |  |
| <b>230VAC Average Efficiency</b> <sup>4</sup> 83.80%                  | 83.80%  |  |
| <b>230VAC 10% Load Efficiency</b> <sup>4</sup> 77.00%                 | 77.00%  |  |
| Leakage Current         20uA max                                      | 20uA max  |  |
| Protections Over-Voltage 9.0V max                                     | 9.0V max  |  |
| Short Circuit Auto recover  | Auto recover  |  |
| Operating Temperature 0°C to +40°C                                    | 0°C to +40°C  |  |
| Environmental         Non-Operating Temperature         -40° to +85°C | -40° to +85°C   |  |
| Operating Humidity         90% RH max                                 | 90% RH max  |  |
| Dielectric Withstand (HI-POT) Primary to Secondary: 3000VA            | Primary to Secondary: 3000VAC for 1min, 3mA   |  |
| Insulation Resistance Primary to Secondary: >30M of                   | Primary to Secondary: >30M ohm for 500VDC   |  |
| Standards cULus 62368-1   | cULus 62368-1   |  |
| Calcity   | EN 55032/CISPR 32 Class B Conducted and Radiated  |  |
| Approvals and EMC IEC 61000-3-2                                       | IEC 61000-3-2   |  |
| Voltage Fluctuations & Flicker IEC 61000-3-3                          | IEC 61000-3-3   |  |
| Immunity (Contact: ±8KV, Air: ±15KV), IEC 6100                        | EN 55035/CISPR 35: IEC 61000-4-2<br>(Contact: ±8KV, Air: ±15KV), IEC 61000-4-3, IEC 61000-4-4,<br>IEC 61000-4-5 (± 1kV), IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11 |  |
| Dimensions (L x W x H) 52.0mm (2.05in) x 40.0mm (1.57in)              | 52.0mm (2.05in) x 40.0mm (1.57in) x 23.3mm (0.92in)   |  |
| Mechanical DC Output Connector USB-C                                  | USB-C   |  |
| Case Color Black  | White   |  |

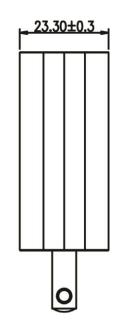
|                                | Model  | AQ15E-050A-H  | AQ15E-050AW-H <sup>2</sup> |
|--------------------------------|--|---|----------------------------|
|                                | DC Output Voltage  | 5.0V  |                            |
| Output                         | Max Current  | 3.0A  |                            |
|                                | Output Power   | 15.0W   |                            |
|                                | Regulation   | ± 5%  |                            |
|                                | Ripple & Noise P-P(max) <sup>3</sup>   | 150mV   |                            |
| Input                          | AC Input Voltage Range   | 90 to 264VAC  |                            |
|                                | AC Input Frequency   | 47 to 63Hz  |                            |
|                                | Input Current  | 0.5A (RMS) max at 100VAC  |                            |
|                                | Inrush Current   | 60A max at 240VAC, Cold Start   |                            |
|                                | No Load Power Consumption<br>at 115VAC Input   | 0.02W   |                            |
|                                | No Load Power Consumption<br>at 230VAC Input   | 0.038W  |                            |
|                                | 115VAC Average Efficiency <sup>4</sup>   | 83.07%  |                            |
|                                | 230VAC Average Efficiency <sup>4</sup>   | 83.80%  |                            |
|                                | 230VAC 10% Load Efficiency <sup>4</sup>  | 77.00%  |                            |
|                                | Leakage Current  | 20uA max  |                            |
| Protections                    | Over-Voltage   | 9.0V max  |                            |
|                                | Short Circuit  | Auto recover  |                            |
| Environmental                  | Operating Temperature  | 0°C to +40°C  |                            |
|                                | Non-Operating Temperature  | -40° to +85°C   |                            |
|                                | Operating Humidity   | 90% RH max  |                            |
| Safety<br>Approvals and<br>EMC | Dielectric Withstand (HI-POT)  | Primary to Secondary: 3000VAC for 1min, 3mA   |                            |
|                                | Insulation Resistance  | Primary to Secondary: >30M ohm for 500VDC   |                            |
|                                | Standards  | IEC 62368-1   |                            |
|                                | EMI Emissions  | EN 55032/CISPR 32 Class B Conducted and Radiated  |                            |
|                                | Harmonic Current Emissions   | IEC 61000-3-2   |                            |
|                                | Voltage Fluctuations & Flicker   | IEC 61000-3-3   |                            |
|                                | Immunity   | EN 55035/CISPR 35: IEC 61000-4-2<br>(Contact: ±8KV, Air: ±15KV), IEC 61000-4-3, IEC 61000-4-4,<br>IEC 61000-4-5 (± 1kV), IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11 |                            |
| Mechanical                     | Dimensions (L x W x H)   | 58.0mm (2.28in) x 40.0mm (1.57in) x 23.3mm (0.92in)   |                            |
|                                | DC Output Connector  | USB-C   |                            |
|                                | Case Color   | Black   | White                      |
| Notes                          | <ol> <li>The specifications defined are at ambient temperature of 25°C, unless otherwise specified.</li> <li>Special order MOQ</li> <li>20MHz bandwidth frequency oscilloscope, add a 0.1μF multilayer Cap. and Low ESR Electrolytic Cap. (10μF) at output connector terminals (nominal line voltage, full load).</li> <li>Efficiency is measured after 30 minutes burn-in.</li> </ol> |   |                            |



**AQ15A Outline Drawing** 



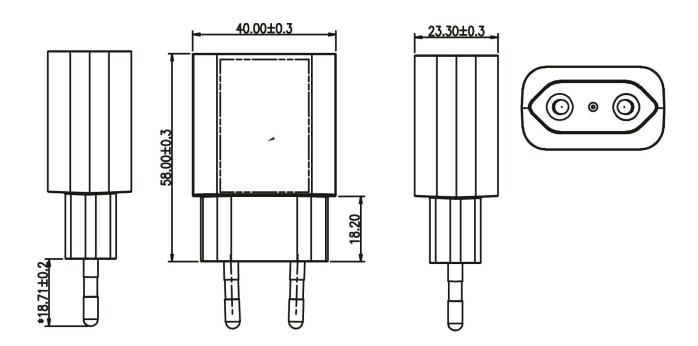




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# **AQ15E** Outline Drawing





### Supplier's Declaration of Conformity 47 CFR § 2.1077 Compliance Information

#### AQ15A-050A-H/AQ15A-050AW-H

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This device complies with/The devices in this product series comply with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



## USB Cables – Sold Separately Unit: mm

