



## 27W USB Type-C with Power Delivery 3.0 Adapter Series



### Features

- USB-C PD 3.0 Certified
- DOE Level VI
- COC Version 5 Tier 2
- Programmable Power Source<sup>1</sup>
- Small Form Factor/High Power Density
- Class B EMI

### Applications

- Mobile Phone
- Tablet
- Networking Devices
- Monitor

### Safety Approvals

- UL/cUL 60950-1<sup>2</sup>
- UL/cUL 62368-1<sup>2</sup>
- CE
- IEC 60950-1<sup>3</sup>
- IEC 62368-1<sup>3</sup>

### Mechanical Characteristics – AQ27A

- Length: 54mm (2.13in)
- Width: 46mm (1.81in)
- Height: 23mm (0.91in)

### Mechanical Characteristics – AQ27E

- Length: 72mm (2.83in)
- Width: 46mm (1.81in)
- Height: 23mm (0.91in)

### Mechanical Characteristics – AQ27K

- Length: 65.5mm (2.58in)
- Width: 50.3mm (1.98in)
- Height: 31mm (1.22in)

### Output Specifications

Model	Prong Style	DC Output Voltage	Load		Ripple <sup>4</sup> P-P(max.)	Regulation Line & Load
			Min.	Max.		
AQ27A-59A-H	US	5V/9V	0A	3A/3A	200mV	±5%
AQ27E-59A-H	EU	5V/9V	0A	3A/3A	200mV	±5%
AQ27K-59A-H <sup>5</sup>	UK	5V/9V	0A	3A/3A	200mV	±5%
AQ27A-59CFA-H	US	5V/9V/12V/15V	0A	3A/3A/2.25A/1.8A	200mV	±5%
AQ27E-59CFA-H	EU	5V/9V/12V/15V	0A	3A/3A/2.25A/1.8A	200mV	±5%
AQ27K-59CFA-H <sup>5</sup>	UK	5V/9V/12V/15V	0A	3A/3A/2.25A/1.8A	200mV	±5%

**Input:****AC Input Voltage Rating**

100 to 240V AC

**AC Input Voltage Range**

90 to 264V AC

**AC Input Current**

0.8A(RMS) max at 100V AC input

**Leakage Current**

65uA max at 250V AC/50Hz

**Input Power Saving**

&lt;75mW at no load at 230VAC

**Output:****Efficiency<sup>7</sup>**

DOE Level VI

COC Version 5 Tier 2

**Hold-up Time**

8.3mS min at 120VAC/60Hz

**Environmental:****Temperature**

Operation 0°C to +40°C

Non-operation -30°C to +85°C

Relative Humidity 10 to 90%

**Emissions**

Complies with FCC part 15, Class B

Complies with EN55032, Class B

**Immunity**

ESD: EN61000-4-2

RS: EN61000-4-3

EFT: EN61000-4-4

Surge: EN61000-4-5

CS : EN61000-4-6

MS : EN61000-4-8

Dip: EN61000-4-11

**Dielectric Withstand (Hi-pot) Test**

Pri. to Sec. 3000VAC 3mA for 1 Minute

**Insulation Resistance**

Pri to Sec. &gt;100M ohm at 500VDC

**FEATURES:****Over-Voltage Protection**

Auto-recovery. 130% max

**Over-Current Protection**Auto-recovery. Trip point is less than 130% of I<sub>o</sub>**Over-Temperature Protection**

Latch off function.

**Short-Circuit Protection**

Auto-recovery, the output can be shorted permanently without damage.

**DC Output Connector**

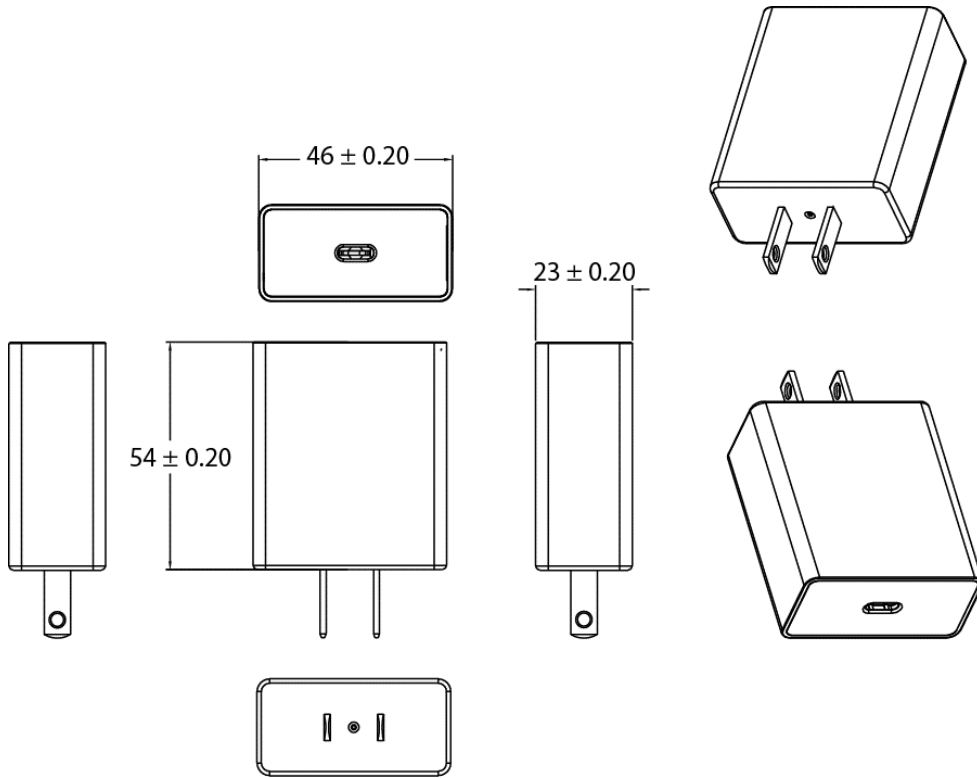
USB Type-C receptacle

**Notes:**

1. Only models AQ27A-59A-H, AQ27E-59A-H and AQ27K-59A-H
2. Applies to US models only
3. Applies to EU and UK models only
4. Measures at the end of 100m ohm cable. Measurements shall be made with an oscilloscope with 20MHz Bandwidth. Outputs should be bypassed at a connector with a 0.1uF ceramic capacitor and a 10uF electrolytic capacitor (Low ESR).
5. Special order MOQ
6. The characteristics defined are at ambient temperature of 25°C unless otherwise specified
7. Efficiency is measured after 30 minutes burn-in

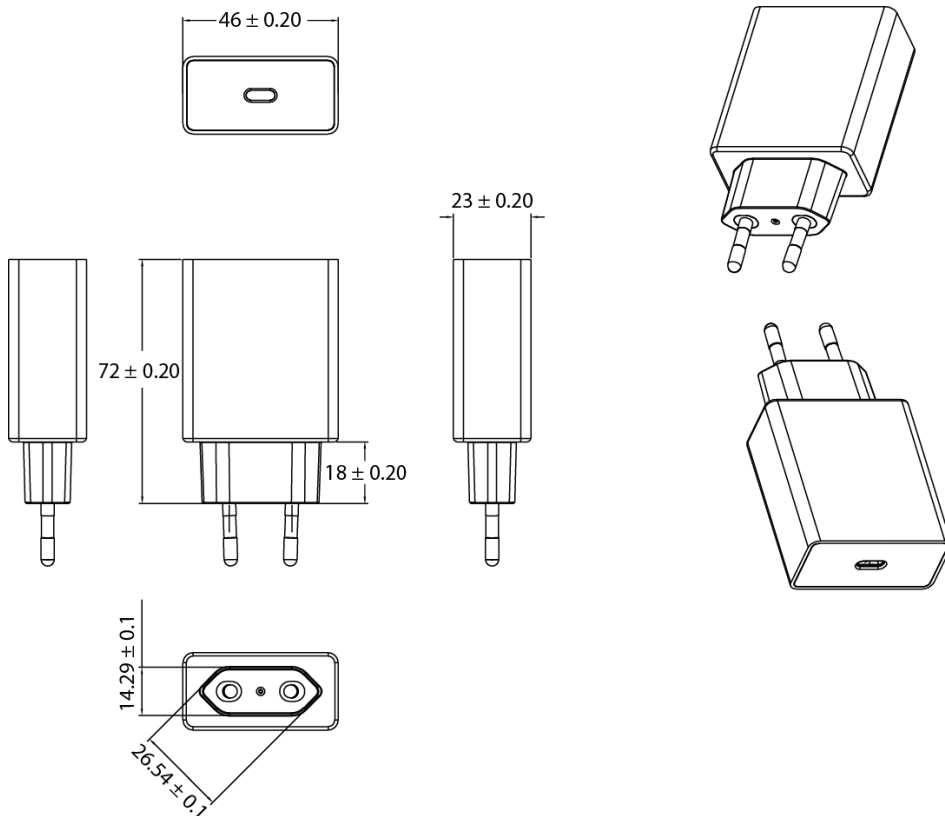
Dimension Diagram Unit: mm

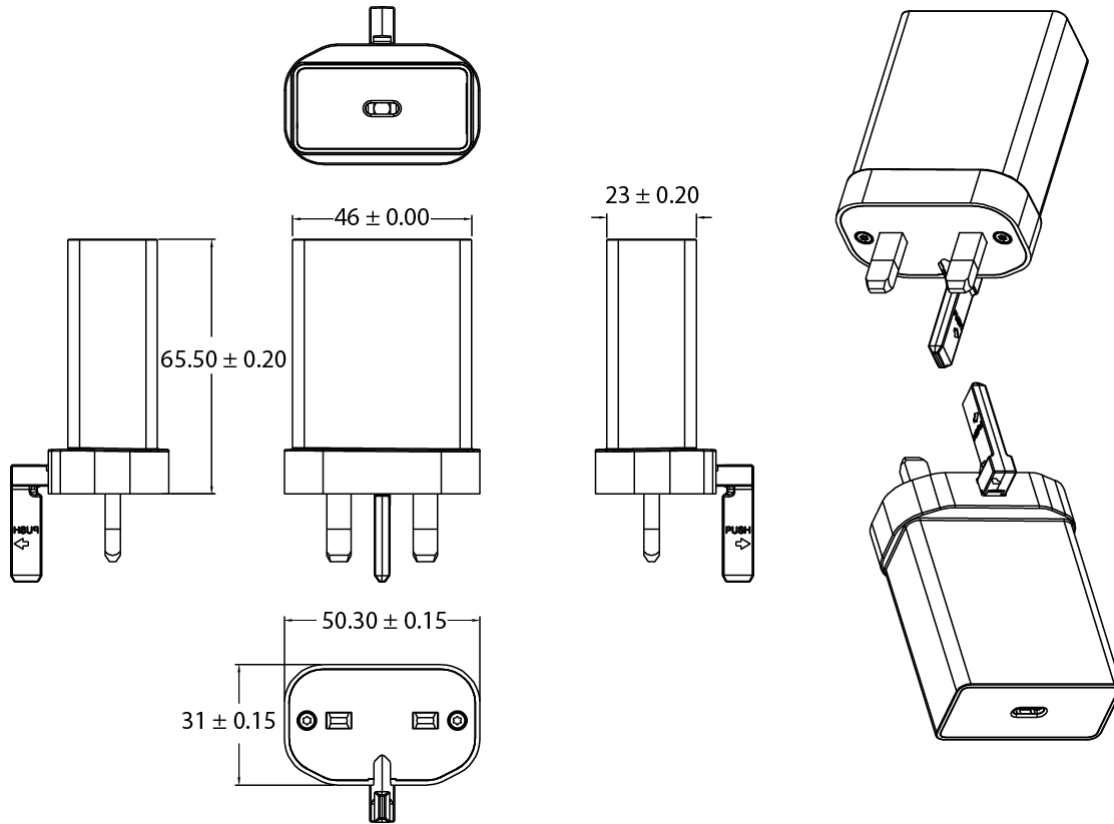
US Versions



Dimension Diagram Unit: mm

EU Versions





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

**AQ27A-59A-H  
AQ27A-59CFA-H**

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NOTE: This model has/The models in this product series have been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to equipment not expressly approved by PHIHONG could void the user's authority to operate the equipment.