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## 18W USB Type-C with Power Delivery Adapter











#### **Features**

- USB-C PD 3.0 Certified
- DOE Level VI
- COC Version 5 Tier 2

- Small Form Factor/High Power Density
- Class B EMI

## **Applications**

- Mobile Phone
- Tablet

- Networking Devices
- Monitor

### **Safety Approvals**

- UL/cUL 60950-1<sup>1</sup>
- UL/cUL 62368-1<sup>1</sup>
- $\bullet$  CE<sup>2</sup>

- IEC 60950-1<sup>2</sup>
- IEC 62368-1<sup>2</sup>

#### **Mechanical Characteristics – US Versions**

- Length: 52mm (2.05in)
- Width: 40mm (1.57in)

- Height: 23.3mm (0.92in)
- Weight: 55g (1.94oz) Reference

#### **Mechanical Characteristics – EU Versions**

- Length: 58mm (2.28in)
- Width: 41mm (1.61in)

- Height: 24.3mm (0.96in)
- Weight: 55g (1.94oz) Reference

## **Mechanical Characteristics – UK Versions**

- Length: 61.8mm (2.43in)
- Width: 40mm (1.57in)

- Height: 23.3mm (0.92in)
- Weight: 55g (1.94oz) Reference

## **Output Specifications**

Model	Prong Style		Load		Ripple <sup>3</sup>	Regulation
			Min.	Max.	P-P (max.)	Line & Load
AQ18A-59A-H <sup>4</sup>	US	5V/9V	0A	3A/2A	200mV	±5%
AQ18E-59A-H <sup>4</sup>	EU	5V/9V	0A	3A/2A	200mV	±5%
AQ18K-59A-H <sup>4</sup>	UK	5V/9V	0A	3A/2A	200mV	±5%
AQ18A-59CFA-H	US	5V/9V/12V/15V	0A	3A/2A/1.5A/1.2A	200mV	±5%
AQ18E-59CFA-H	EU	5V/9V/12V/15V	0A	3A/2A/1.5A/1.2A	200mV	±5%
AQ18K-59CFA-H <sup>4</sup>	UK	5V/9V/12V/15V	0A	3A/2A/1.5A/1.2A	200mV	±5%

#### Notes:

- 1. US Models only
- 2. EU and UK Models only
- 3. Measurement made with an oscilloscope with 20MHz Bandwidth. Output bypassed at connector with a 0.1uF ceramic capacitor and a 10uF electrolytic capacitor (Low ESR)
- 4. Special order items. Minimum order quantity applies.

#### AQ18 Series Characteristics<sup>1</sup>

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#### **Input:**

**AC Input Voltage Rating** 

100 to 240V AC

**AC Input Voltage Range** 

90 to 264V AC

**AC Input Current** 

0.5A(RMS) max at 100V AC input

Leakage Current

100uA max

Input Power Saving<sup>2</sup>

≤75mW at no load at 230VAC/50Hz

**Output:** 

**Efficiency** 

DOE Level VI

COC Version 5 Tier 2

**Hold-up Time** 

3mS min at 115VAC/60Hz

**Environmental:** 

**Temperature** 

Operation  $0^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ Non-operation  $-30^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ 

Relative Humidity 10 to 90%

**Emissions** 

FCC Class B

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. >100M ohm at 500VDC

**FEATURES:** 

**Over-Voltage Protection** 

6.25V max for 5V; 11.25V max for 9V; 15V max

for 12V; 18.75V max for 15V

**Over-Current Protection** 

Auto-recovery. 4.05A max for 5Vdc; 2.7A max for 9Vdc; 2.025A max for 12Vdc; 1.62A max

for 15Vdc

**Over-Temperature Protection** 

Latch off function. Case temperature shall not

exceed 95°C

**Short-Circuit Protection** 

Auto-recovery

**DC Output Connector** 

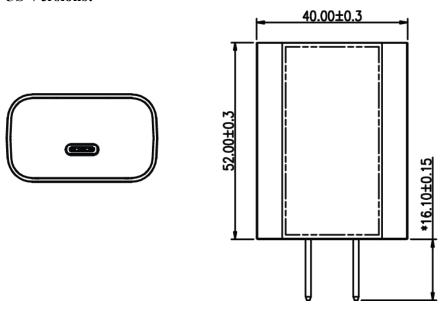
USB Type-C receptacle

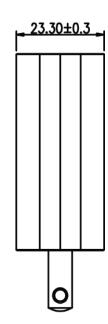
#### Notes:

- 1. The characteristics defined are at ambient temperature of 25°C unless otherwise specified
- 2. After 15 minutes warm-up

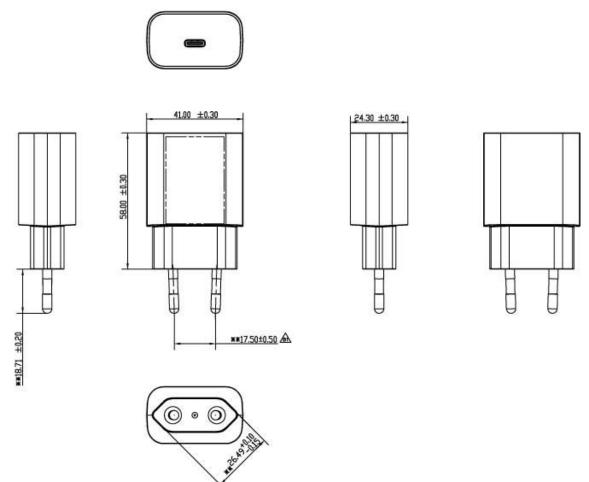
## **Dimension Diagram Unit: mm**

### **US Versions:**



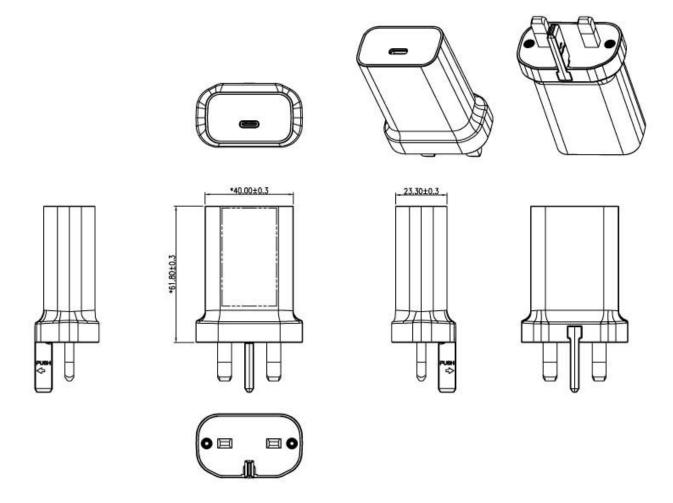


## **EU Versions:**



# **Dimension Diagram Unit: mm**

## **UK Versions:**



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

AQ18A-59A-H AQ18A-59CFA-H

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NOTE: This model has/The models in this products 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.