Raspberry Pi Build HAT Power Supply

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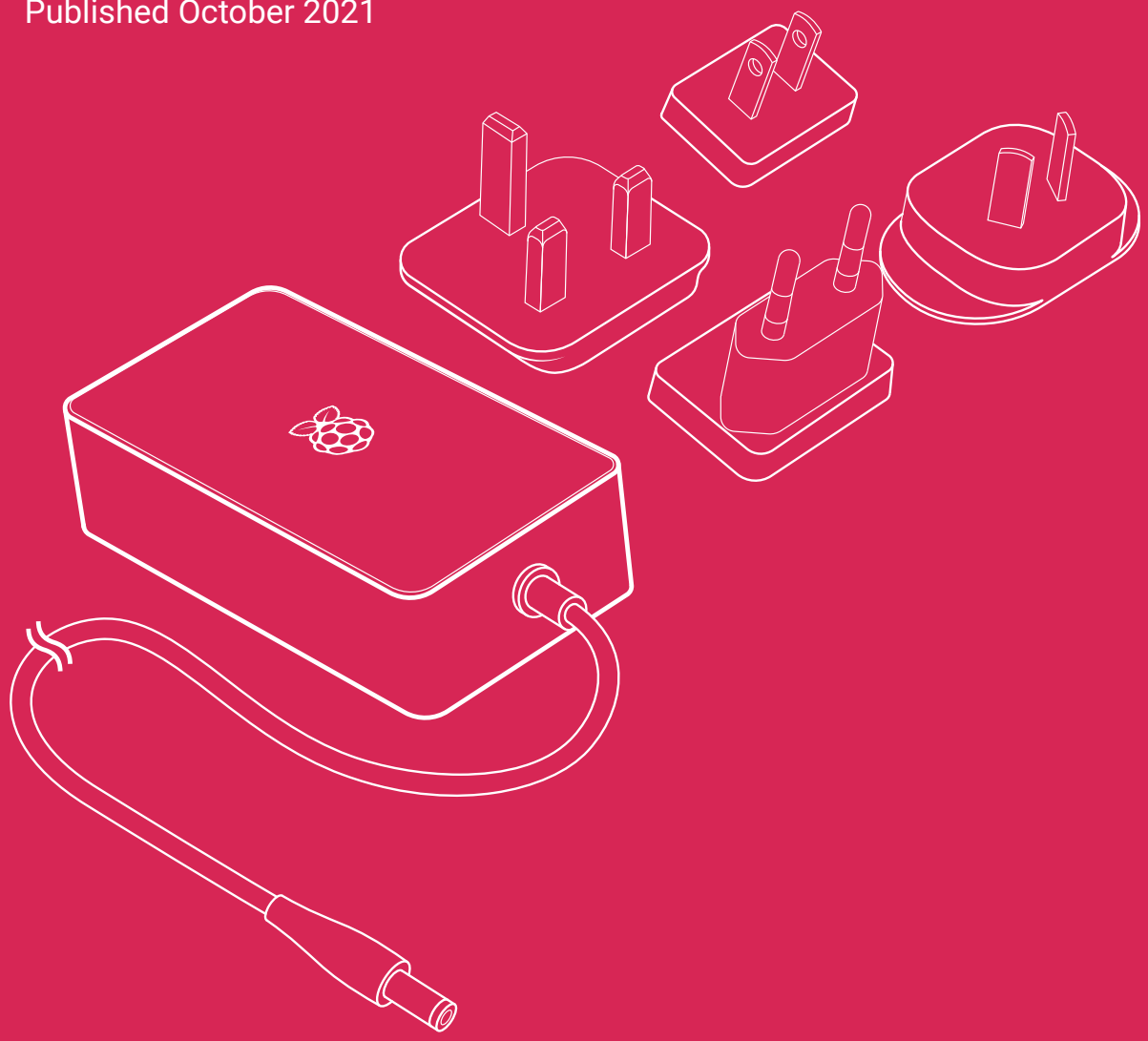
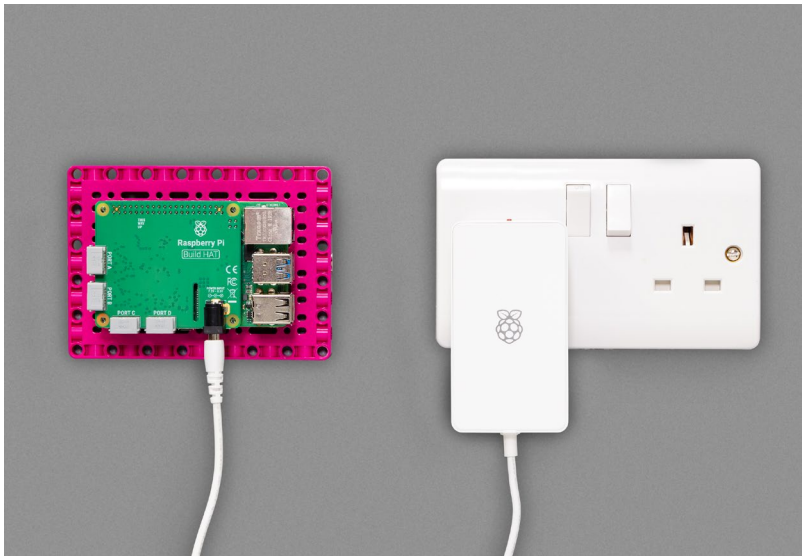


Raspberry Pi (Trading) Ltd

Overview



Power your Raspberry Pi Build HAT projects with the Raspberry Pi Build HAT Power Supply. This 48W power supply will power the Build HAT and connected LEGO® Technic™ motors, as well as your Raspberry Pi computer.

Compatible with LEGO Technic motors and sensors included in the LEGO® Education SPIKE™ Portfolio, the Build HAT combines the power of Raspberry Pi computing with easy building opportunities to help you make creative and robust projects.

Specification

Output

Output voltage:	+8.0V DC
Minimum load current:	0.01A
Nominal load current:	6.0A
Maximum power:	48.0W
Load regulation:	±5%
Line regulation:	±5%
Ripple & noise:	200mVp-p
Rise time:	100ms maximum to regulation limits for DC outputs
Turn-on delay:	3000ms maximum at nominal input AC voltage and full load
Protection:	Short circuit protection Overcurrent protection Overvoltage protection
Efficiency:	87.77% minimum (output current from 100%, 75%, 50%, 25%)
Output cable:	1.5m 16AWG
Output connector:	Barrel connector 5.5mm × 2.1mm × 11mm Centre positive

Input

Voltage range:	100-240Vac (rated) 96-264Vac (operating)
Frequency:	50/60Hz ±3Hz
Current:	1.2A maximum
Power consumption (no load):	0.1W maximum
Inrush current:	No damage shall occur and the input fuse shall not blow

Plug styles

Part number	Product number	Colour	Plug Style	Plug Type
KSA-48E-080600D5	SC0747	White	US	Type A
KSA-48E-080600D5	SC0748	White	Europe, India	Type C
KSA-48E-080600D5	SC0746	White	UK	Type G
KSA-48E-080600D5	SC0749	White	Australia New Zealand China	Type I

Environment

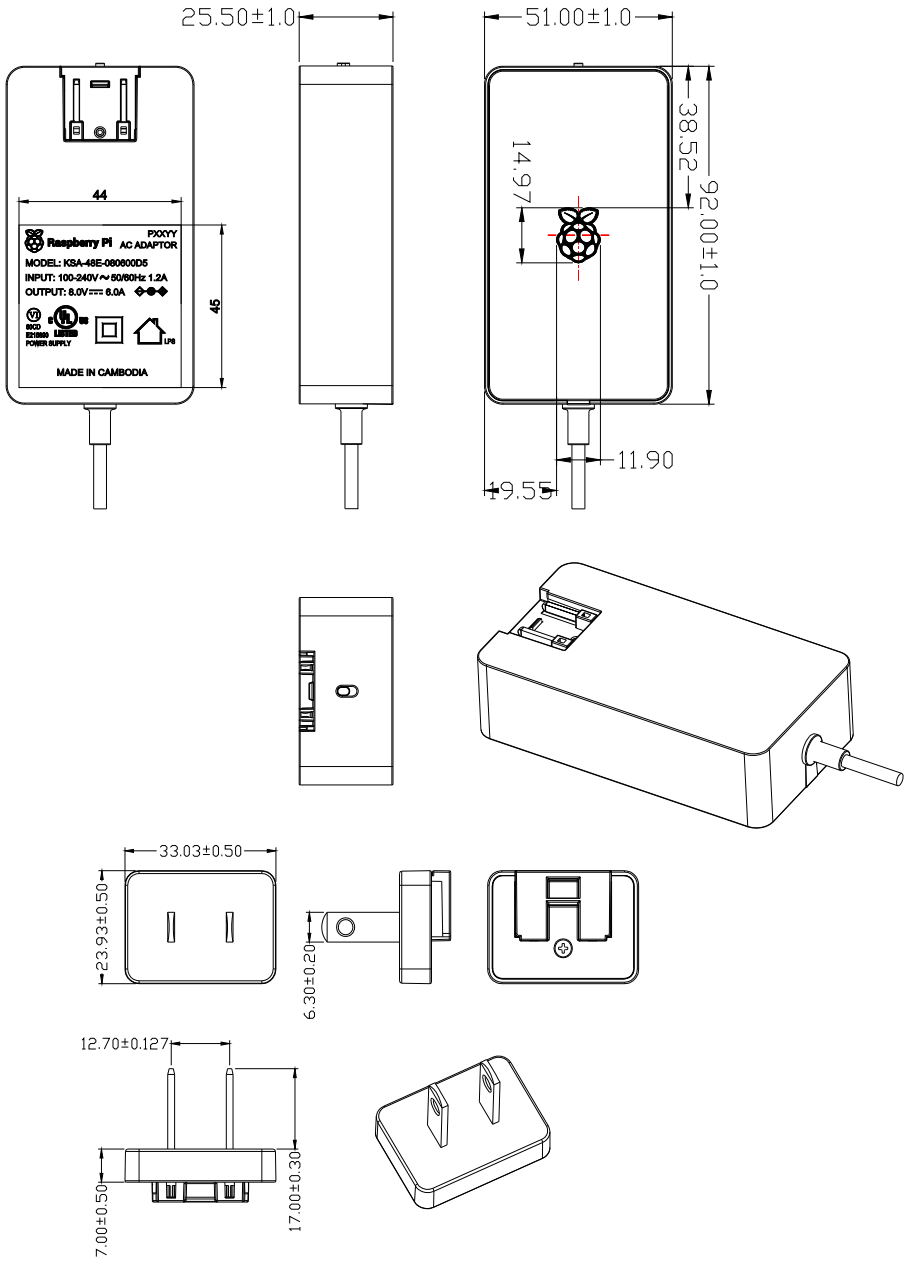
Operating ambient temperature 0–40°C

Compliance

For a full list of local and regional product approvals, please visit pip.raspberrypi.com

Physical specification

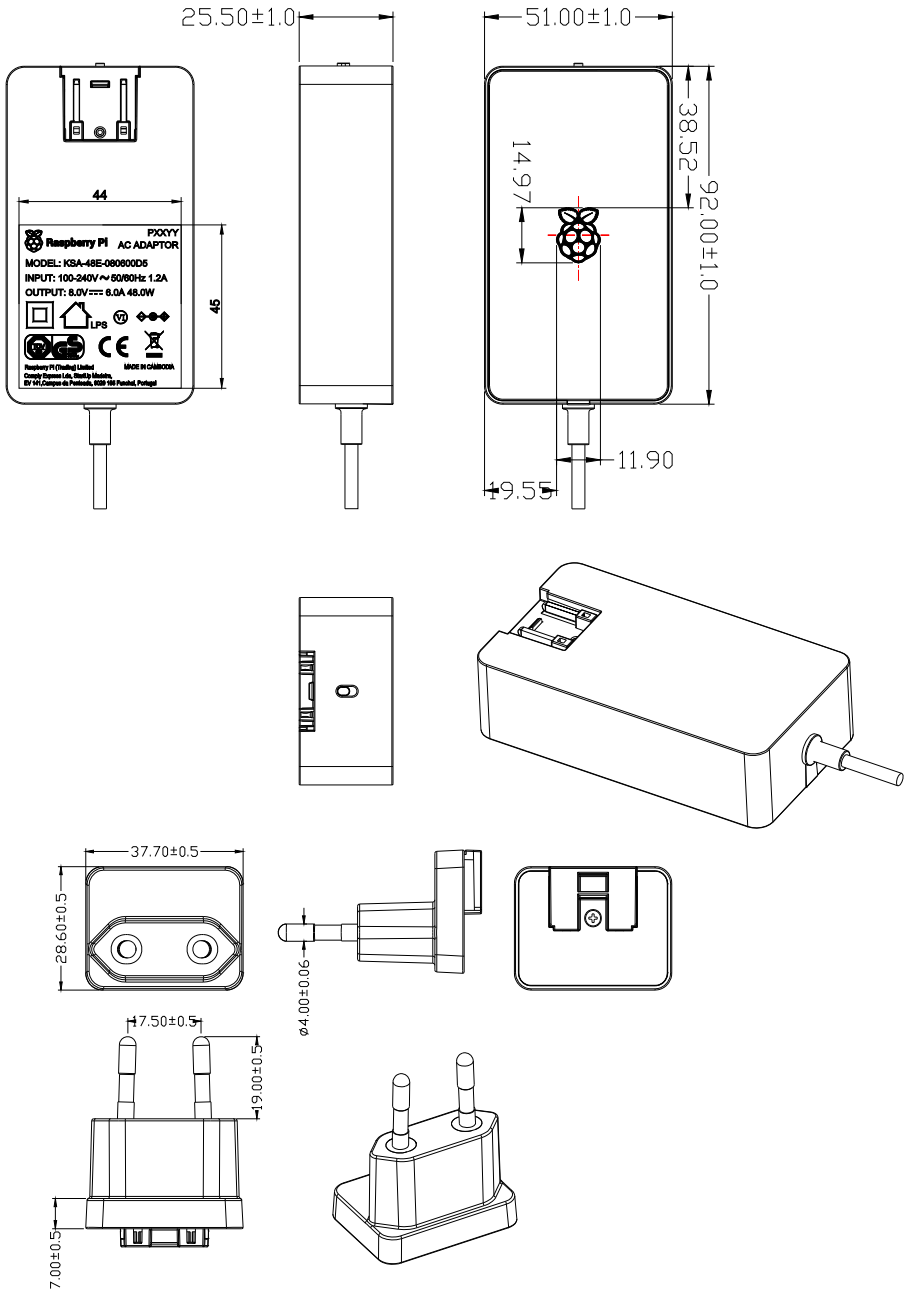
KSA-48E-080600D5 KS210573



note: all dimensions in mm

Physical specification

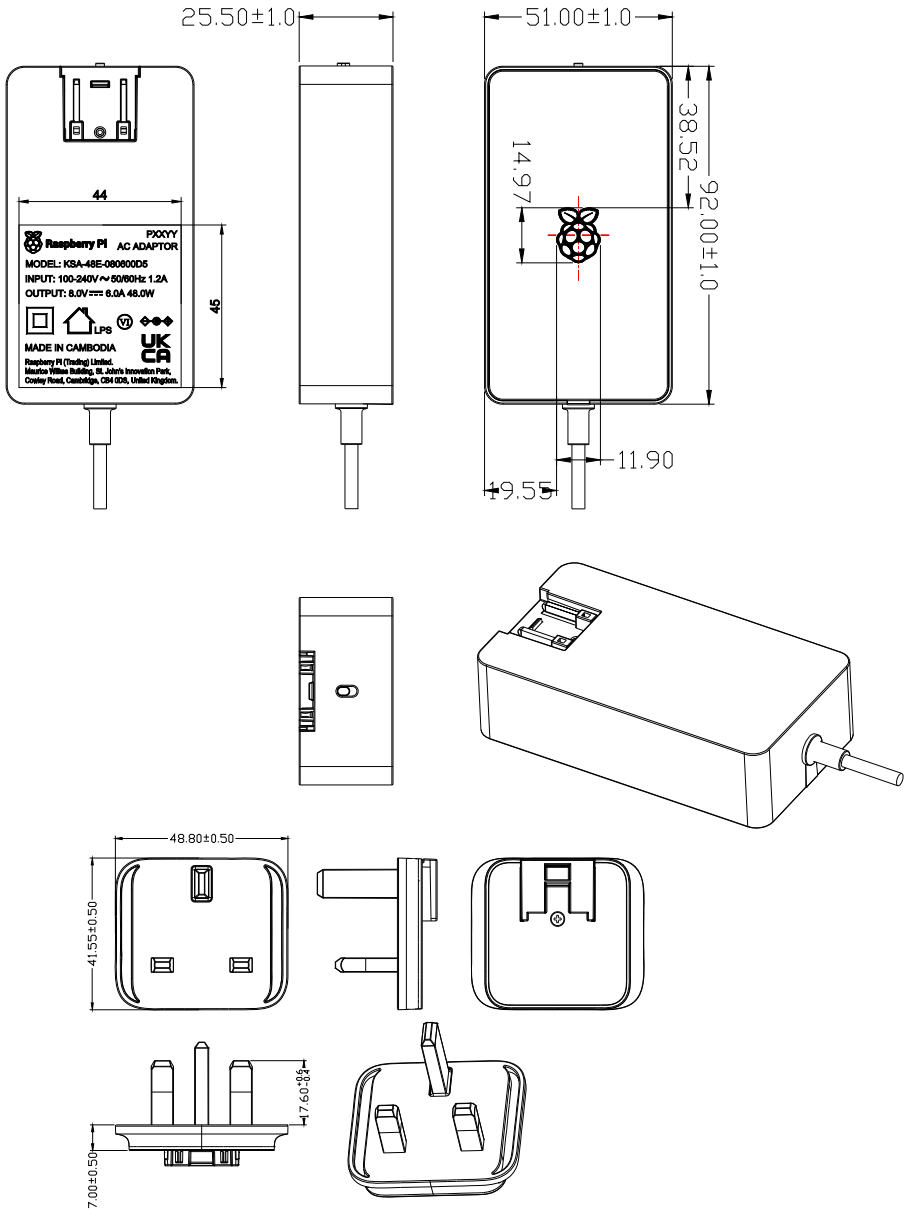
KSA-48E-080600D5 KS210574



note: all dimensions in mm

Physical specification

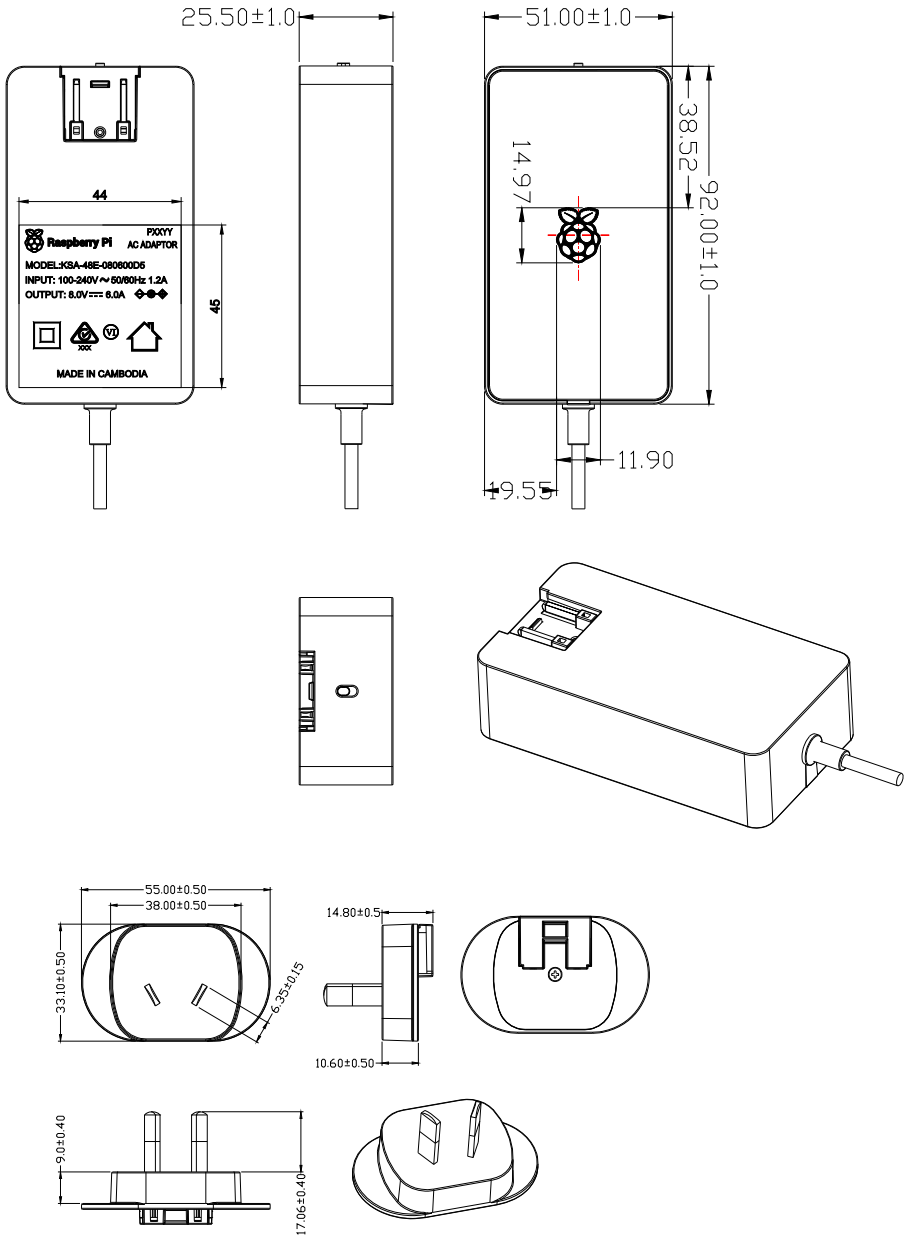
KSA-48E-080600D5 KS210575



note: all dimensions in mm

Physical specification

KSA-48E-080600D5 KS210576



note: all dimensions in mm

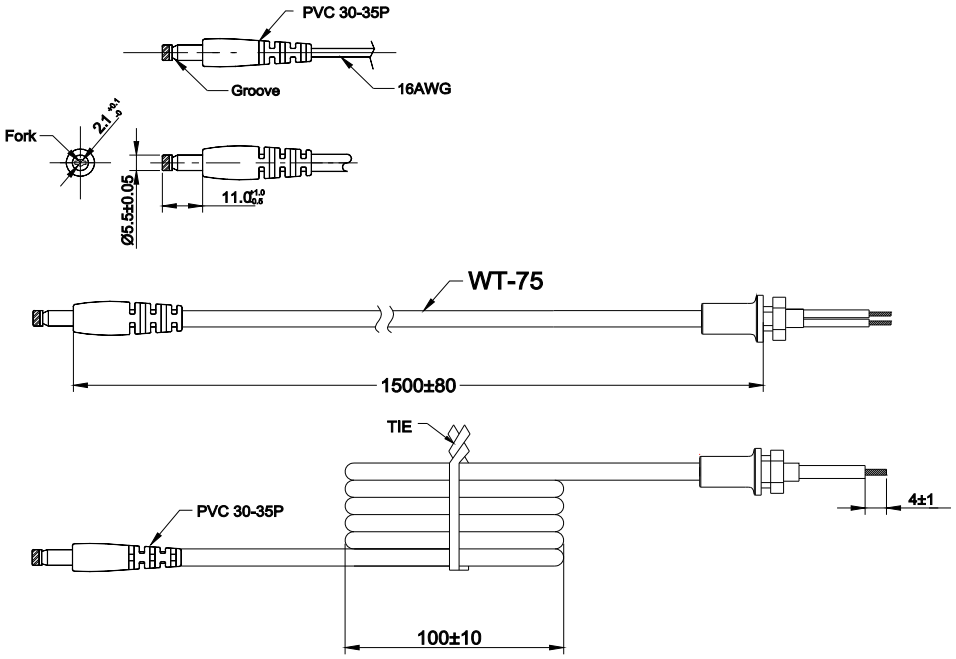
Case material

UL94V-0

AC pin material

Brass (NI plated)

DC cord & output plug



WARNINGS

- This product should be operated in a well-ventilated environment.
- The connection of incompatible devices to this power supply may affect compliance, result in damage to the unit and invalidate the warranty.

SAFETY INSTRUCTIONS

To avoid malfunction or damage to this product please observe the following:

- Do not expose to water or moisture, or place on a conductive surface whilst in operation.
- Do not expose to heat from any source; this is designed for reliable operation at normal ambient room temperatures.
- Do not attempt to open or remove the power supply case.

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