

## SPECIFICATION & APPROVALS

### **CUSTOMER:**

PowerConnections P/N: PC8338

DESCRIPTION: Euro Converter Plug

DATE: 16 July 2022

Revision: F

Submission Sample Quantity: 10 Pieces

## SUPPLIER SPECIFICATION SUBMISSION

|                     |                     |                   |          |
|---------------------|---------------------|-------------------|----------|
| Date of Application | 16 Jul 2022         | Specification No. | 700-0001 |
| Supplier's Name     | PowerConnections    | Supplier Code     | PC8338   |
| Part Name           | Euro Converter Plug | Part No           | .        |

**Reason for Submission**

**Revision / Change**

**Tick the relevant box “ ☐ ”**

☐ 1. New application

☐ 2. New part(s) is added to accepted specification

☒ 3. Revision of accepted specification  
(Revision requested by ☐ customer Or ☐ supplier)

☐ 1. The specification attached to this sheet does not deviate from the customer specification

☐ 2. Revision(s) within the limits of customer specification is proposed. Revision proposal(s) listed below.

☒ 3. Revision(s) beyond the limits of customer specification is proposed. Revision proposal(s) listed below. However, all other items contained within the specification are identical to the customer specification. Revision(s) shall be marked with a triangle “Δ” in the specification attached.



  

| Revision No. | Date       | Revision Description   | Reason for Revision  |
|--------------|------------|--|--|
| A            | 29-03-07   | First issue  |  |
| B            | 10-05-10   | Marbo Fuse data added  | Conformity with other documents                            |
| C            | 31-08-10   | Revised to BS 1363-5   | New Licence issued   |
| D            | 22-05-12   | Revision of Marking  | New Licence issued   |
| E            | 21-06-2019 | Change fuse details to BetterFuse/AsiaFuse, change to markings | Change of fuse supplier, and RoHS & WEEE regulations Scope |
| F            | 16-07-22   | Base marking changed to include UKCA logo                      | Introduction of UKCA rating, replaces CE marking in the UK |

|                    |                        |                               |  |            |             |
|--------------------|------------------------|-------------------------------|--|------------|-------------|
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| TITLE              | Euro / Australian plug |                               | DRAWN BY   | CHECKED BY | APPROVED BY |
| Part No.<br>PC8338 |                        | SPECIFICATION NO.<br>700-0001 |  |            |             |
| REVISION F         |                        |                               |  |            |             |

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| For ASTA Diamond Mark Validation visit <a href="http://www.astabeab.com/buyers-by-number.asp">http://www.astabeab.com/buyers-by-number.asp</a> |   |                                     |
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**1.0 Application**

This Specification defines the performance for the Fast Fit Converter Plug, which is designed for the Euro Plug (CEE7)

**2.0 Name/Part Number**

Name: Euro Converter Plug

Part Number: PC8338

**3.0 Shape and Dimensions**

See Below (Section 15)

**4.0 Rating**

Voltage: AC 250 V~ 50 Hz

Current: 8 A

Ambient Working Temperature: -5 to +70 °C

Storage Temperature: -40 to +80 °C 90% RH

**5.0 Safety Specifications – Approvals**

Plug: BSI Kitemark Licence No. KM 52467

Fuse: ASTA Diamond Mark Licence No. 500



Standards

Plug: BS1363-5:2016

Fuse: BS1362



For BSI Kite Mark Licence validation visit <https://www.bsigroup.com/en-GB/Product-Directory/>

For ASTA Diamond Mark Validation visit <http://www.astabeab.com/buyers-by-number.asp>

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**6.0 Electrical Strength Test**

| No. | Test                           | Clause in Standard | Result | Description of test 6 pieces are subjected to this series of test  |
|-----|--------------------------------|--------------------|--------|--|
| 6.1 | Provision for cables and Cords | 19.1<br>BS1363-5   | Pass   | A CEE7 Euro Plug is fitted into a PC8338 and the CEE7 cord is subjected to 25 pulls lasting is with a force of 30N, no more than 2mm of displacement is allowed. The cord is then subjected to the pulling force and at 3750v to ensure no breakdown in connection.                |
| 6.2 | Resistance to ageing           | 14.2<br>BS1363-5   | Pass   | Samples to be kept in a cabinet for 7 days (168 hours) at 70°C±2°C, then tested for stickiness or greasiness by with dry rough cloth wrapped around a fore-finger, force 5N.   |
| 6.3 | Insulation Resistance          | 15.1<br>BS1363-5   | Pass   | 500V DC is applied and after 60s the insulation resistance is checked and must be not less than:<br>a) 5MΩ between parts of opposite polarity,<br>b) 5MΩ between parts of opposite polarity connected together and other insulated parts including the earth.                      |
| 6.4 | Electric Strength              | 15.2<br>BS1363-5   | Pass   | 2000V AC 50Hz is applied and after 60s the Voltage drop is checked and must be within 3% RMS of the applied Voltage:<br>a) between live parts of opposite polarity<br>b) between live parts of opposite polarity connected together and other insulated parts including the earth. |

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**7.0 Mechanical Strength Test**

| No.   | Test                                  | Clause in Standard | Result | Description of test 4 pieces are subjected to this series of test  |
|-------|---------------------------------------|--------------------|--------|--|
| 7.1   | Tumble Barrel test                    | 20.2<br>BS1363-5   | Pass   | The product is subjected singly to 1000-drop test in the apparatus as shown in the (BS 1363-5) standard Figure 17.                                       |
| 7.2   | Temperature rise test                 | 20.3.1<br>BS1363-5 | Pass   | A solid stainless steel fuse link is inserted 20 times, to test the strength of the clips.   |
| 7.3   | Temperature rise test                 | 16<br>BS1363-5     | Pass   | Current of 8.8 amps is passed for not less than 4 hours and not greater than 8 hours at 250 volts or until stable, the temperature rise is then measured |
| 7.3.1 | Box Ambient                           | For each sample    |        | 21.8°C, 22.1°C, 22.1°C   |
| 7.3.2 | Line Pin Spacer temp rise             | For each sample    |        | 16.0K, 15.9K, 15.6K max. temp rise permissible 37K   |
| 7.3.3 | Neutral Pin Spacer temp rise          | For each sample    |        | 13.5K, 12.8K, 12.7K max. temp rise permissible 37K   |
| 7.3.4 | Accessible external surface temp rise | For each sample    |        | 10.2K, 9.7K, 12.0K max. temp rise permissible 52K  |



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**8.0 Construction Tests**

| No. | Test                        | Clause in Standard | Result | Description of test 3 pieces are subjected to this series of test   |
|-----|-----------------------------|--------------------|--------|---|
| 8.1 | Accessibility to live parts | 9.1<br>BS1363-5    | Pass   | With the unit assembled as in normal use a probe 12 to BS EN 61032:1998 is supplied with a force of 5N whilst a voltage of 45V is supplied to the live parts via an electrical indicator. No access permissible..   |
| 8.2 | Lid to Base security        | 12.5<br>BS1363-5   | Pass   | With the parts at 70°C±5° C a force of 60N is applied to the cover fixing screw, no damage or impairment of function to have occurred.  |
| 8.3 | Resistance to Heat          | 22.2<br>BS1363-5   | Pass   | With the parts at 70°C±5° C a force of 20N is applied to the plug in the jaws of the apparatus shown in Figure 23, no damage or impairment of function to have occurred, shown by re-testing insulation resistance and electric strength, and must fit the Figure 5 gauge.  |
| 8.4 | Resistance to Heat          | 22.3<br>BS1363-5   | Pass   | Ball pressure test using the apparatus shown in Figure 24, test temperature at 75°C±5° C, the force of 20N is applied for 60 mins after an initial period of 10 mins. The sample is then cooled by immersion in water at room temp and the indentation caused by the ball measured, this must be less than 2mm in diameter. |



**9.0 Glow Wire Tests**

| No. | Test                        | Clause in Standard | Result | Description of test 3 pieces are subjected to this series of test  |
|-----|-----------------------------|--------------------|--------|--|
| 9.1 | Resistance to Abnormal Heat | 23.2<br>BS1363-5   | Pass   | A glow wire of 750°C is applied to all the insulating surfaces there must be no visible flames or glowing or these must extinguish within 30s of removal of the glow wire. |

|   |                        |                               |  |            |   |
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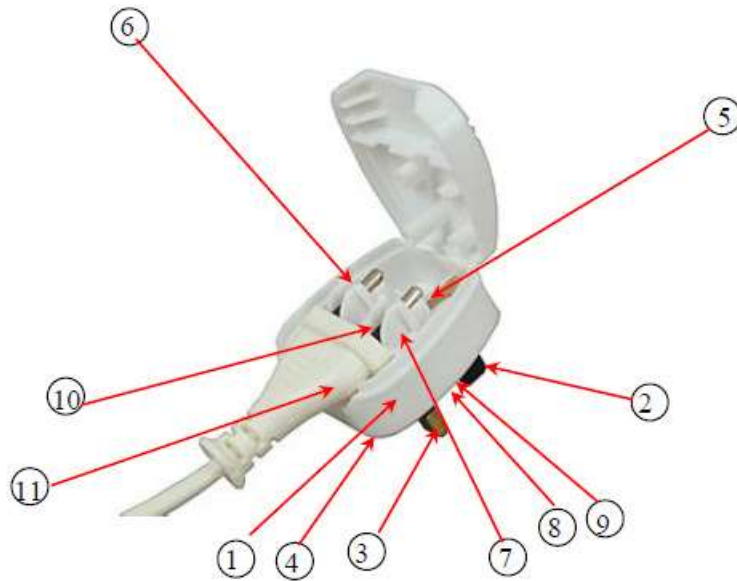
**10.0 Construction Tests**

| No.  | Test                 | Clause in Standard  | Result | Description of test 3 pieces are subjected to this series of test   |
|------|----------------------|---------------------|--------|---|
| 10.1 | Construction of plug | 12.2<br>BS1363-5    | Pass   | Critical dimensions of the plug must not exceed the dimensions given in Figure 4a. Compliance check using the gauge as shown in Figure 5.   |
| 10.2 | Flexibility of pins  | 12.8.11<br>BS1363-5 | Pass   | Using the apparatus as shown in Figure 8 pins are tested with force of 4.2 to 4.4N applied 25mm from the engagement face, the pins must not deflect by more than 3°30'. The results on the pins were <1°. After this test the parts are again checked again checked using the Figure 5 gauge. |

|   |                        |                               |  |            |   |
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## 11.0 Installation Procedure



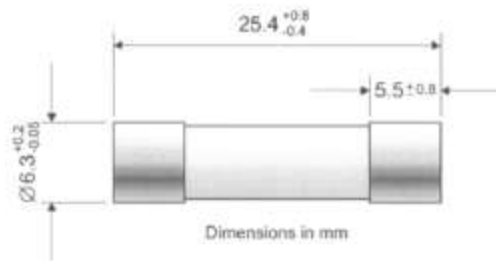
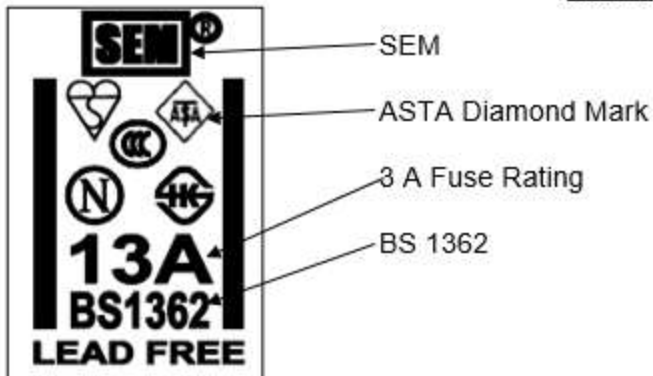
| No. | Test                   | Material   |
|-----|------------------------|--|
| 1   | Base+Cover (one piece) | Polypropylene LG Lupol GP1007 FC   |
| 2   | Cover                  | Polypropylene Cheng Yu Plastic PP222   |
| 3   | Earth Pin              | Nylon 66 30% Glass Filled – Rhodia A30H2V25                                  |
| 4   | Live Pin               | Hard Brass (Luen Hop) with Nylon 66 Sleeve Dow 21SPC                         |
| 5   | Neutral Pin            | Hard Brass (Luen Hop) with Nylon 66 Sleeve Dow 21SPC                         |
| 6   | Live Clip, Fuse Clip   | Hard Brass (Luen Hop)  |
| 7   | Neutral Clip           | Hard Brass (Luen Hop)  |
| 8   | Fuse Holder            | Nylon 66, Dow 21SPC  |
| 9   | Fuse                   | Fuse 3A, 5A, 10A, 13A SEM (Group Talents Ltd)                                |
| 10  | Fuse Clip              | Phosphor Bronze Taiwan VPN170-190  |
| 11  | Example CEE7 Plug      | Plain or Tamperproof Steel Screw with Zinc and Clear Pacification - Luen Tai |

|                    |                        |                               |  |            |             |
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## 12.0 Fuse Specification

SEM (Group Talents Ltd)

### Marking



### Designation:

- 1 A - SEM 11-01A
- 2 A - SEM 11-02A
- 3 A - SEM 11-03A & SEM 12-03A
- 5 A - SEM 11-05A & SEM 12-05A
- 7 A - SEM 11-07A
- 10 A - SEM 11-10A & SEM 12-10A
- 13 A - SEM 11-13A & SEM 12-13A

### Rating

240 V.a.c. 50 Hz, 1, 2, 3, 5, 7, 10, 13 Amperes

### Breaking Capacity

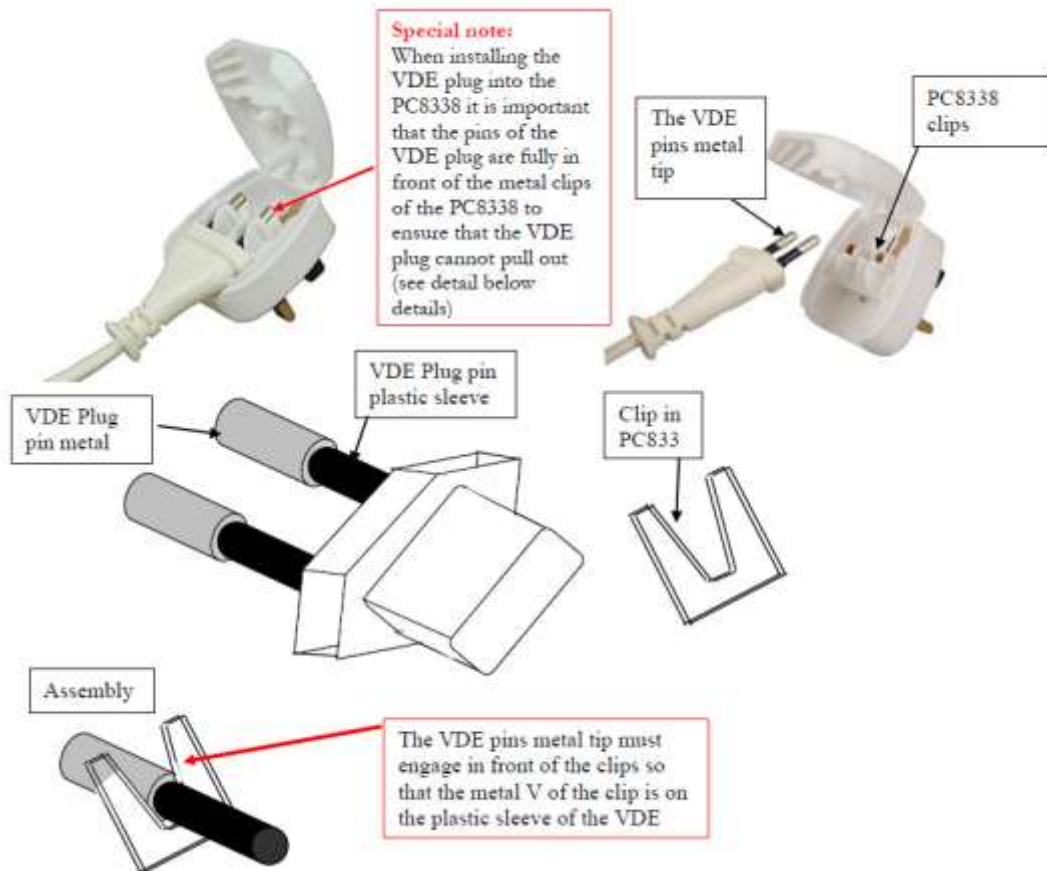
6 kA r.m.s

### Rated Power loss

Less than 1 Watt

|                         |                        |                               |  |            |             |
|-------------------------|------------------------|-------------------------------|--|------------|-------------|
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### 13.0 Installation Procedure



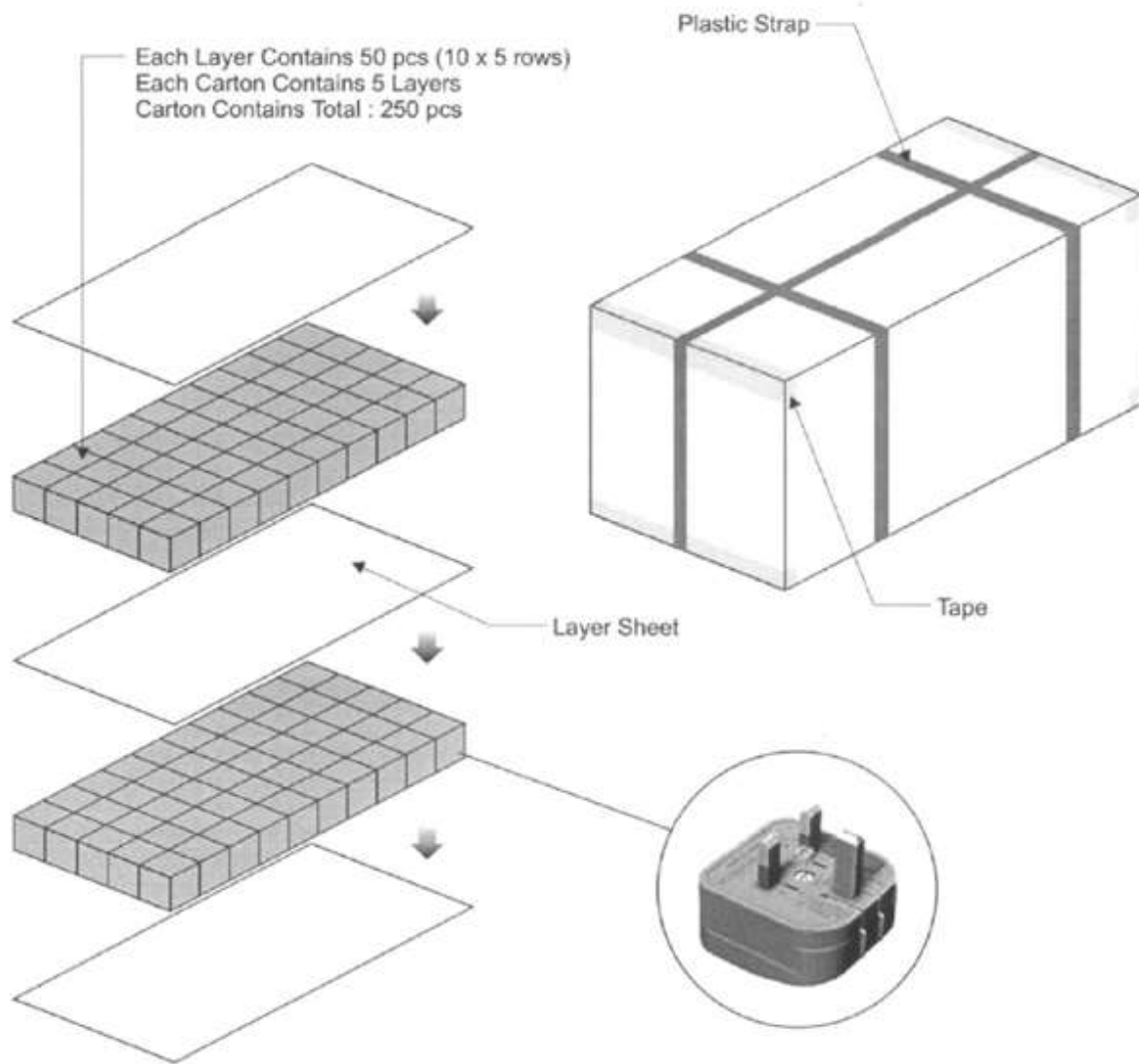
Once the VDE plug is correctly fitted close the cover and tighten the screw



Form 577 It

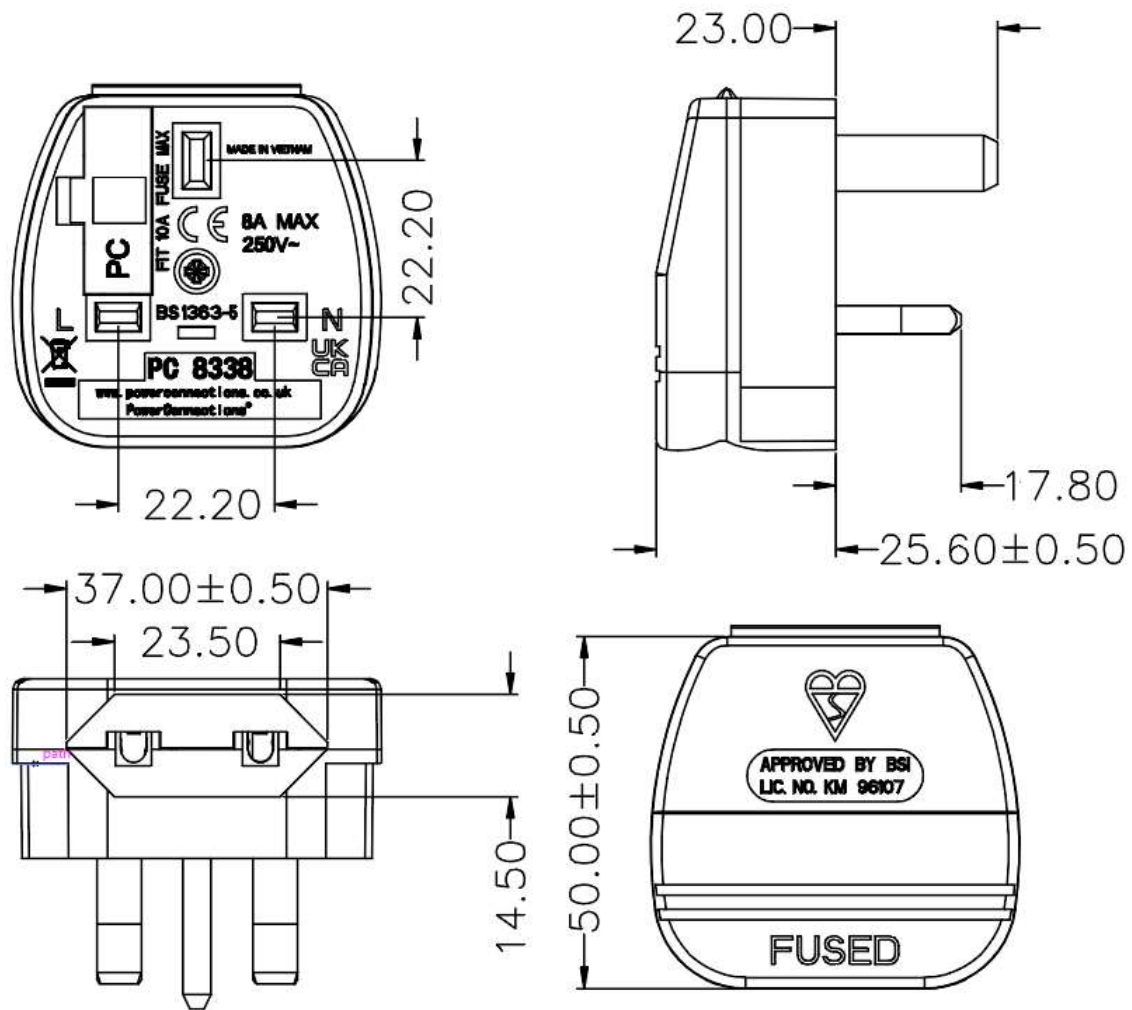
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## 14.0 Packing Method



|                         |                        |                               |  |            |             |
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## 15.0 Dimensional Drawing and Markings



DO NOT SCALE FROM DRAWING  
Unless otherwise stated, dimensions are mm

|                         |                        |                               |  |            |             |
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