

SPECIFICATION & APPROVALS

CUSTOMER:

PowerConnections P/N: SCP

DESCRIPTION: Shuko Converter Plug

DATE: 10 May 2022

Revision: L

Submission Sample Quantity: 10 Pieces

UNCONTROLLED IF PRINTED OR COPIED

SUPPLIER SPECIFICATION SUBMISSION

Date of Application	10 May 2022	Specification No.	700-0002
Supplier's Name	PowerConnections	Supplier Code	SCP
Part Name	Shuko Converter Plug	Part No	

Tick the relevant box " "

Reason for Submission

1. New application

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

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

Revision / Change

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	01-07-04	First issue	
B	15-05-17	Revision of power rating	Correction of typing error
C	09-07-04	Revision of Sketches, test report	New details available
D	14-12-04	New test report added	Long style report available
E	22-06-05	New BSi Certificate	New Issue
F	20-01-06	New BSi Certificate	New Issue
G	10-07-06	Revised to BS 1363-5	Change of applicable Standard
H	10-05-10	Change marking	Revision of Co Marking
H-U	31-08-10	Undix version	Change part #
H-Ua	23-02-11	Change marking	Marking updated
I	11-05-11	Change marking	Marking updated
la	30-07-18	Change fuse details to BetterFuse/AsiaFuse Change rating on report from 10A to 13A, added Kitemark to footer	Plugs are tested at 13Amp and requested by customer
lb	31-07-18	Test description of 6.3 changed to Electric Strength from Insulation Resistance, and washer removed.	Correction of error, and washer no longer used
lc	31-07-18	Insulation resistance test added to section 6.3	Missing from report
ld	05-09-18	Reference to 10A changed to 13A rating voltage changed to 250V	Error Correction
J	10-01-18	Changed Marking, and changed product code back to SCP	RoHS and BS1363 marking changes
K	21-06-19	Changed Marking	WEEE Scope change
L	10-5-22	Base marking changed to include UKCA logo	Introduction of UKCA rating, replaces CE marking in the UK

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Part No. SCP	SPECIFICATION NO. 700-0002			
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Table of Contents

Section	Description	Page
1.0	Application	4
2.0	Name/Part Number	4
3.0	Shape and Dimensions	4
4.0	Rating	4
5.0	Safety Specifications – Approvals	4
6.0	Electrical Strength Test	5
7.0	Mechanical Strength Test	6
8.0	Construction Tests	7
9.0	Glow Wire Tests	7
10.0	Construction Tests	8
11.0	Component Name	9
12.0	Fuse Specification	10
13.0	Installation Procedure	11
14.0	Packing Method	12
15.0	Dimensional Drawing and Markings	13

PowerConnections		THIS DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETRY TO POWERCONNECTIONS AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
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REVISION L				

1.0 Application

This Specification defines the performance for the Schuko Converter Plug, which is designed for the Schuko Plug (IEC 83:1975 Standard C 1B).

2.0 Name/Part Number

Name: Schuko Converter Plug

Part Number: SCP-BK-R-13A

3.0 Shape and Dimensions

See Below (Section 15)

4.0 Rating

Voltage: AC 250V ~ 50Hz

Current: 13A

Ambient Working Temperature: -5 + 70°C

Storage Temperature: -40 + 80°C 90%RH

5.0 Safety Specifications – Approvals

Plug: BSI Kitemark Licence No. KM 23223

Fuse: ASTA Diamond Mark Licence No. 974


Standards

Plug: BS1363-5:2016

Fuse: BS1362:1973 + Amendment 1 & 2


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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Part No. SCP		SPECIFICATION NO. 700-0002			
REVISION L					


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 BS1363-5	Pass	An IEC 83:1975 STANDARD C 1B Schuko Plug is fitted into an SCP-BK-R-13A and the IEC 83:1975 STANDARD C 1B 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 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	Electric Strength	15.2 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: a) between live parts of opposite polarity b) between live parts of opposite polarity connected together and other insulated parts including the earth.
6.4	Insulation Resistance	15.1	Pass	Insulation resistance (500V dc for 60 seconds): a) between line and neutral >5MOhm b) Between line and neutral pins connected together and: 1. Test description of 6.3 changed to Electric Strength from Insulation Resistance 2. Test description of 6.3 changed to Electric Strength from Insulation Resistance

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Part No. SCP	SPECIFICATION NO. 700-0002			
REVISION L				

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 BS1363-5	Pass	The product is subjected singly to 1000-drop test in the apparatus as shown in the (BS1363-5) standard Figure 17.
7.2	Fuse insertion test	20.3.1 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 BS1363-5	Pass	Current of 14.4 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		22.0°C, 22.2°C, 221°C
7.3.2	Line Pin Spacer temp rise	For each sample		28.5K, 21.4K, 17.6K max. temp rise permissible 37K
7.3.3	Neutral Pin Spacer temp rise	For each sample		26.9K, 21.6K, 15.5K max. temp rise permissible 37K
7.3.4	Accessible external surface temp rise	For each sample		16.2K, 14.5K, 15.7K max. temp rise permissible 52K

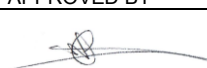
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Part No. SCP		SPECIFICATION NO. 700-0002			
REVISION L					

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 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 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	Resistant to Heat	22.2 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	Resistant to Heat	22.3 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 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.

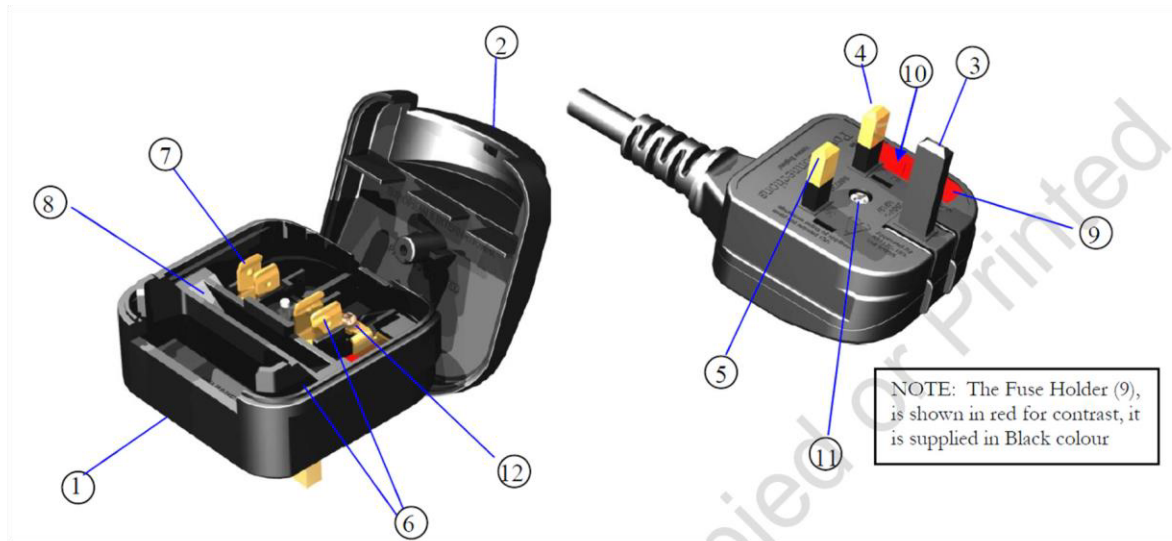
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TITLE	Shuko Converter Plug	DRAWN BY	CHECKED BY	APPROVED BY
Part No. SCP	SPECIFICATION NO. 700-0002			
REVISION L				

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 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 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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TITLE	Shuko Converter Plug	DRAWN BY	CHECKED BY	APPROVED BY	
Part No. SCP	SPECIFICATION NO. 700-0002				
REVISION L					

11.0 Component Name



No.	Test	Material
1	Base	Polypropylene Cheng Yu Plastic PP222
2	Cover	Polypropylene Cheng Yu Plastic PP222
3	Earth Pin	Nylon 66 30% Glass Filled Toray CM3004G30
4	Live Pin	Brass (Universal) with Nylon 66 Sleeve JGP Perrite Vitamide AF11BK
5	Neutral Pin	Brass (Universal) with Nylon 66 Sleeve JGP Perrite Vitamide AF11BK
6	Live Clip, Fuse clip	Brass (Universal)
7	Neutral Clip	Brass (Universal)
8	Insert	Nylon 66 Sleeve JGP Perrite Vitamide AF11BK
9	Fuse Holder	Nylon 66 Sleeve JGP Perrite Vitamide AF11BK
10	Fuse	AsiaFuse 3A, 5A, 10A, 13A (ASTA Diamond Mark 974)
11	Screw	Plain or Tamperproof Steel Screw with Zinc and Clear Pacification – Golden Metal
12	Screw	Steel Screw with Zinc and Clear Pacification – Gold Metal

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Part No. SCP	SPECIFICATION NO. 700-0002			
REVISION L				

12.0 Fuse Specification

BETTER FUSE/ASIA FUSEΔ

Brand Name: AsiaFuse

Product code:
 3 A = AF63B-3A
 5 A = AF63B-5A
 10 A = AF63C-10A
 13 A = AF63-13A

Standard: BS1362

AsiaFuse internal code

CCC China Compulsory Certificate Mark

ASTA Diamond Mark

Dimensions (units: mm)

Operating Temperature: -55°C to 125°C

Storage Conditions:
 +10°C to +60°C
 Relative humidity: ≤ 75% yearly average without dew; maximum 30 days at 95%

Vibration Resistance:
 24 cycles at 15 min. each (60000-6)
 10-60Hz at 0.75mm amplitude
 60-2000Hz at 10g acceleration

Electrical characteristics

Electrical Characteristics									
Amp Code	Rated Current	Max. Voltage	Breaking Capacity	Nominal Melting Pt(A ² sec)	Max. Power Dissipation	Color	Approvals		
							CCC	PSB	ASTA
1100	1A	264V AC	6kA@ 264V AC 50Hz P.f.0.3-0.4	1.44	1W	black	●	○	○
1200	2A			8.73		black	○	○	○
1300	3A			29.16		red	●	●	●
1500	5A			144		black	●	●	●
1700	7A			146.4		black	○	○	●
2100	10A			324		black	●	●	●
2130	13A			961		brown	●	●	●

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REVISION L					

13.0 Installation Procedure



Fig 1

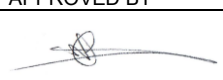


Fig 2

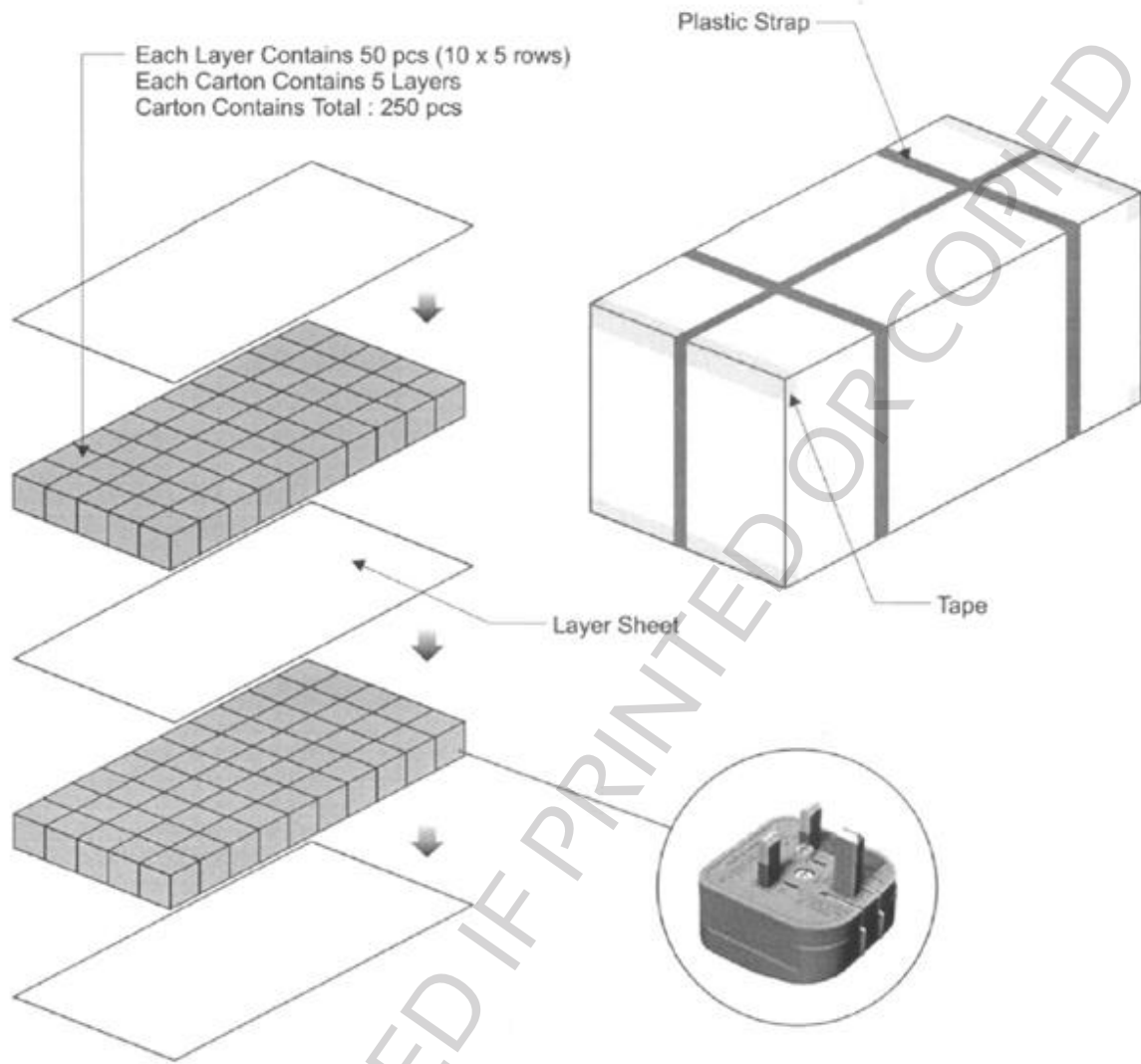


Fig 3

Insert the Schuko Plug as shown and tighten the screw on the base to 0.5NM.
Ensure lid is fully closed.
Now ready for use.

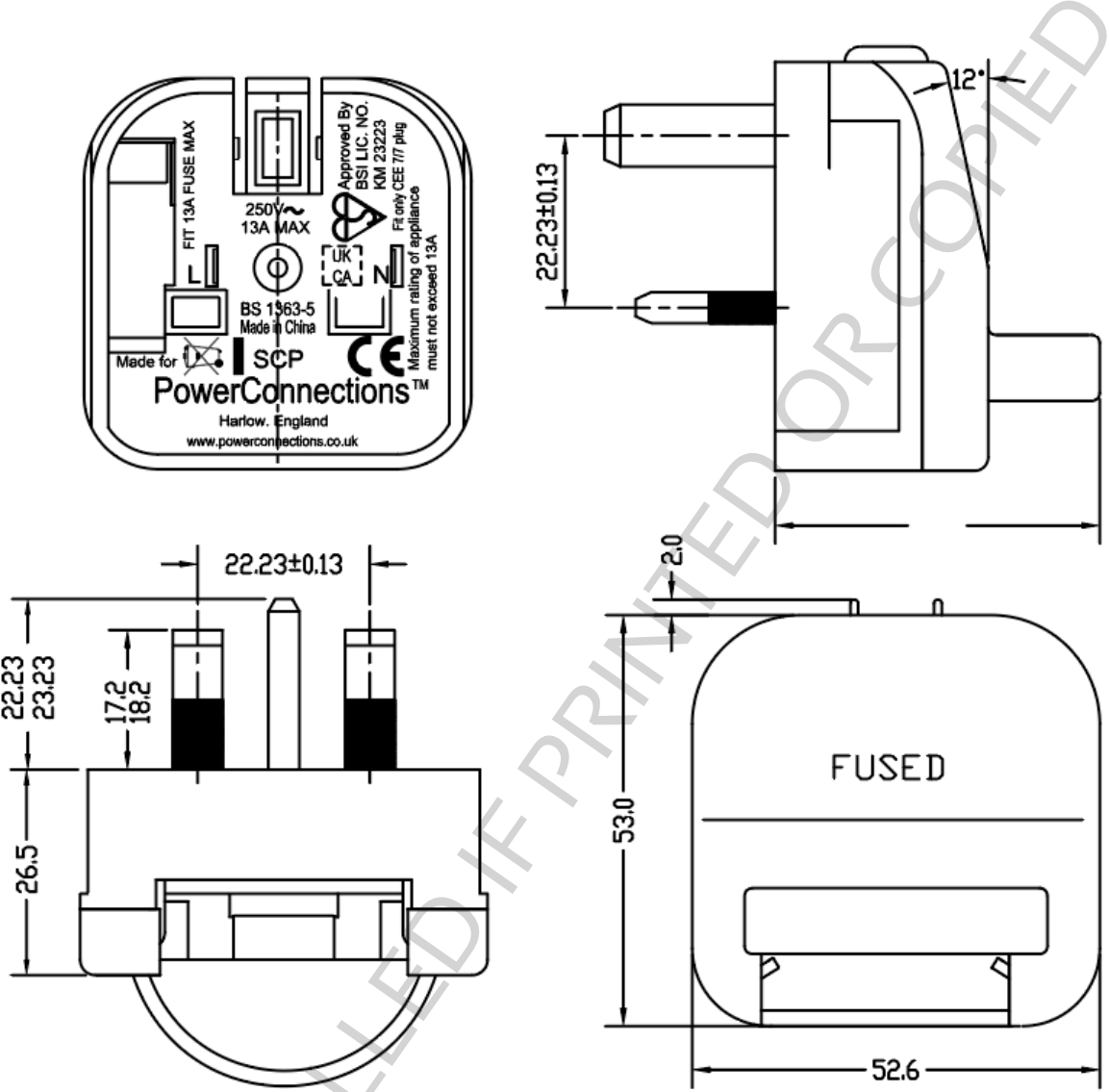
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Part No. SCP	SPECIFICATION NO. 700-0002			
REVISION L				

14.0 Packing Method



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REVISION L				

15.0 Dimensional Drawing and Markings



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

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REVISION L				