

# SPECIFICATION & APPROVALS

## **CUSTOMER:**

PowerConnections P/N: SAP3

DESCRIPTION: EURO to AMERICAN

DATE: 23 August 2007

Submission Sample Quantity: 10 Pieces

## SUPPLIER SPECIFICATION SUBMISSION

Date of Application	23 August 2007	Specification No.	700-0003
Supplier's Name	PowerConnections	Supplier Code	
Part Name	Euro to American	Part No.	SAP3

**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)

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

Revision / Change

☐ 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 No.	Date	Revision Description	Reason for Revision
A	23-08-07	First issue	

Revision(s) shall be marked with a triangle “Δ” in the specification attached.

Checked By

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Approved By

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PART NO. SAP3			
SPECIFICATION NO. 700-0003			
REVISION A			

# SPECIFICATION

## 1.0 Application

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

## 2.0 Name / Part Number

Name: Europlug

Part Number: SAP3

## 3.0 Shape and Dimensions

See Attached

## 4.0 Rating

Voltage: AC 125V / 60Hz  
Current: 10A  
Ambient Working Temperature: -5 .+70°C  
Storage Temperature: -40 .+80°C 90%RH

## 5.0 Safety Specification -Approvals

UL 498A

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# SPECIFICATION

## 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	16.2 BS5733 :1995	Pass	A CEE7 Euro Plug is fitted into an SAP3 and the CEE7cord 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	17 BS5733 :1995	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	19.2 BS5733 :1995	Pass	500V DC is applied and after 60s the insulation resistance is checked and must be not less than: a) 5MΩ between parts of opposite polarity, b) 5MΩ between parts of opposite polarity connected together and other insulated parts including the earth.
6.4	Electric Strength	19.3 BS5733 :1995	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.

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# SPECIFICATION

## 7.0 Mechanical Strength Tests

No.	Test	Clause in Standard	Result	Description of test 4 pieces are subjected to this series of test
7.1	Tumble Barrel test	21 .3.3(c) BS5733:1995	Pass	The product is subjected singly to 5000-drop test in the apparatus as shown in the (BS5733:1955) standard Figure 17.
7.2	Fuse insertion test	20.1.2 BS1363:1995 part 1	Pass	A solid stainless steel fuse link is inserted 20 times, to test the strength of the clips.
7.3	Temperature rise test	16 BS1363:1995 part 1	Pass	Current of 2.75 amps is passed for 4 hours at 250 volts or until stable, the temperature rise is then measured
7.3.1	Box Ambient	For each sample		23.4°C, 23.2°C, 22.9°C, 23.1°C
7.3.2	Line Clamp temp rise	For each sample		2.8K, 2.1K, 1.7K max. temp rise permissible 52K
7.3.3	Neutral Clamp temp rise	For each sample		2.6K, 2.1K, 1.5K max. temp rise permissible 52K
7.3.4	Line contact tem rise	For each sample		6.4K, 4.1K, 3.7K max. temp rise permissible 52K
7.3.5	Neutral contact temp rise	For each sample		5.8K, 4.7K, 2.8K max. temp rise permissible 52K
7.3.6	Accessible external surface temp rise	For each sample		2.8K, 2.1K, 1.4K 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	11.1 BS5733:1995	Pass	With the unit assembled as in normal use a probe B to BS3042: 1992 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	11.9 BS5733:1995	Pass	With the parts at $70^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 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	22.1.3 BS1363: 1995 part 1	Pass	With the parts at $70^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 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	22.2 BS1363: 1995 part	Pass	Ball pressure test using the apparatus shown in Figure 24, test temperature at $75^{\circ}\text{C}\pm 5^{\circ}\text{C}$ , 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.

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## SPECIFICATION

### 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 BS1363:1995 part 1	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.

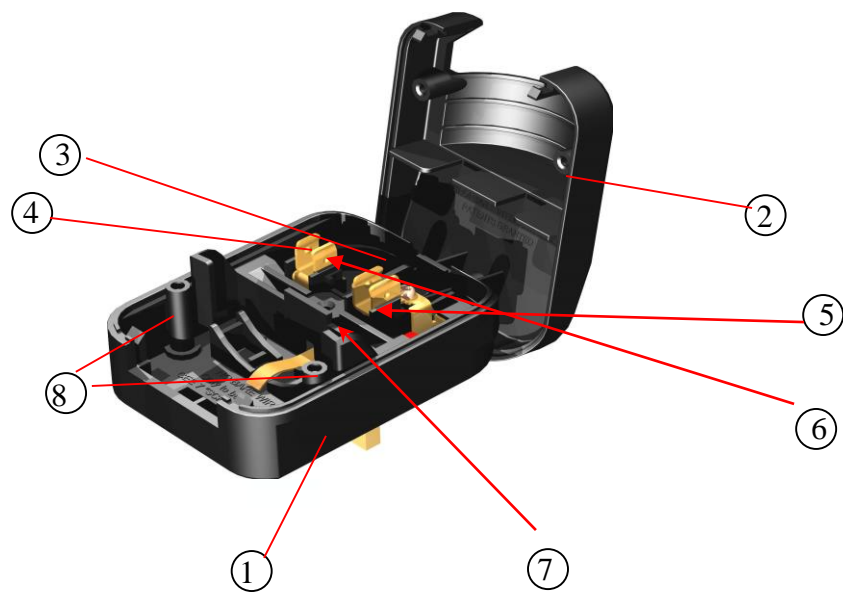
### 10.0 Material Strength Tests

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: 1995 part 1	Pass	Critical dimensions of the plug must not exceed the dimensions given in Figure 4. Compliance checked using the gauge as shown in Figure 5.
10.2	Flexibility of pins	12.12 BS1363: 1995 part 1	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 between 1°30' and 3°30'. After this test the parts are again checked again checked using the Figure 5 gauge.

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11.0    Component Name    SPECIFICATION

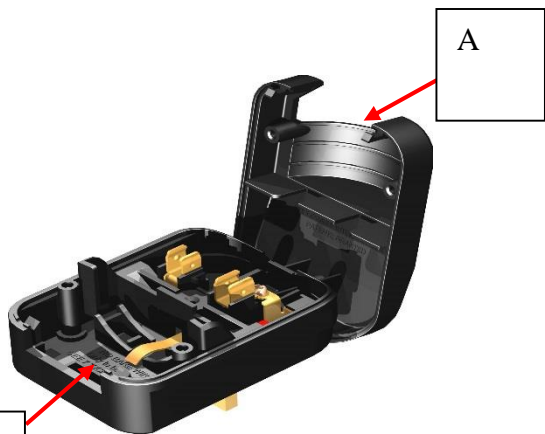


No.	Test	Material
1	Base	Polypropylene
2	Cover	Polypropylene
3	Live Pin	Brass with Nylon 66 Sleeve
4	Neutral Pin	Brass with Nylon 66 Sleeve
5	Live Clip	Phosphor Bronze
6	Neutral Clip	Phosphor Bronze
7	Insert	Polypropylene
8	Screw	Plain or Tamperproof Steel Screw with Zinc and Clear Pacification

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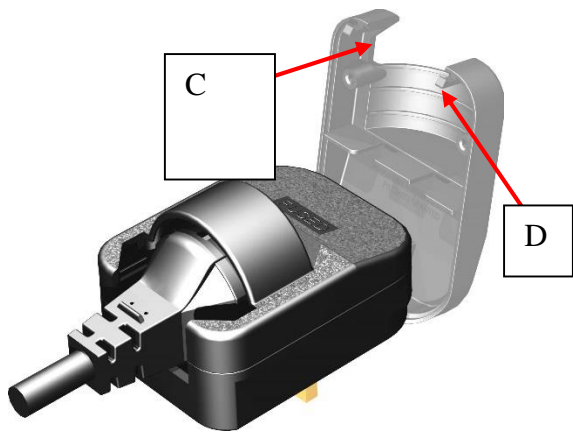
13.0 Installation Procedure



**Diagram 1**  
Product received closed  
Insert thumbs at “A” and “B” and pull open lid.  
Product now ready to use, see diagram 2



**Diagram 2**  
Get plug and install in to clips,  
and close lid aligning clips, see diagram 3.

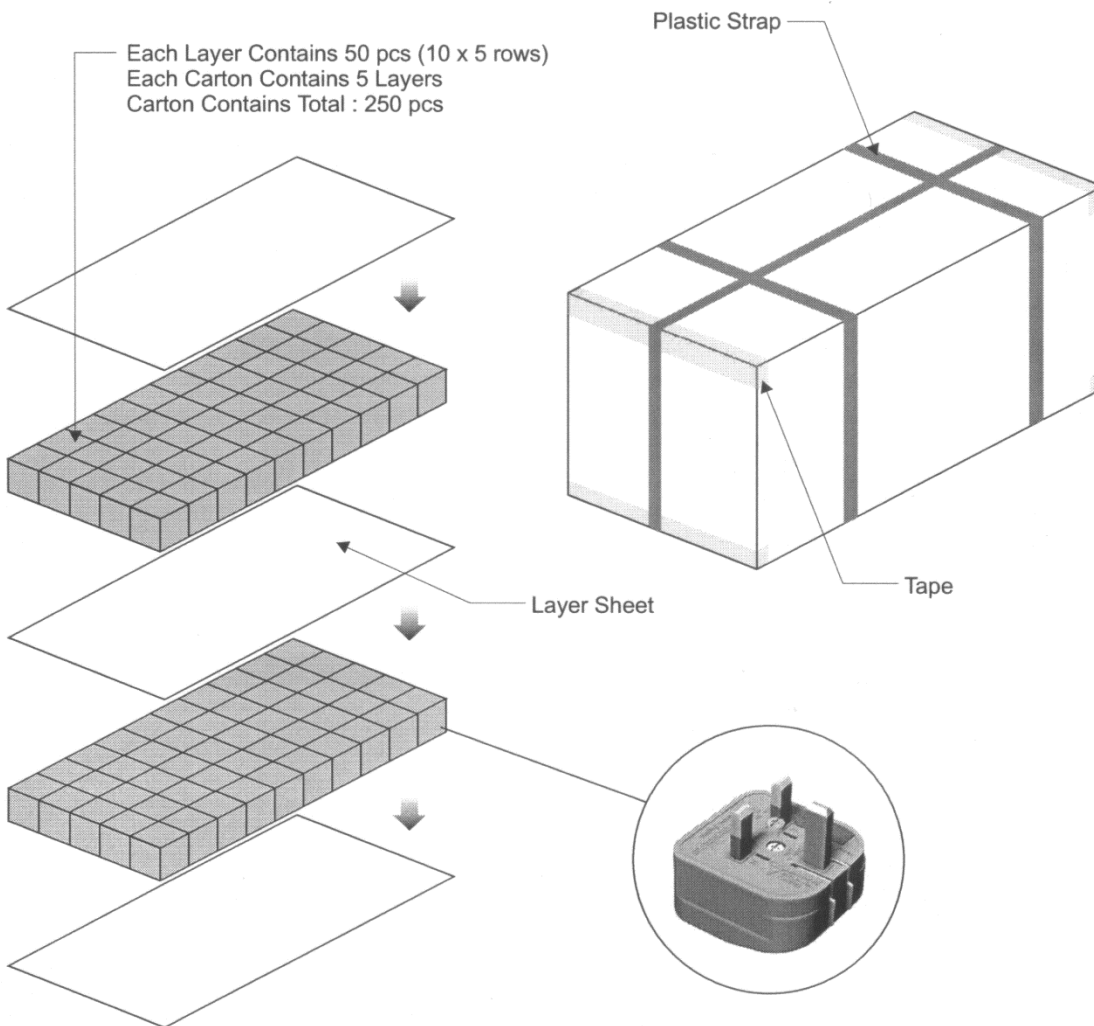


**Diagram 3**  
Close lid  
Ensure clips “C” and “D” align and click home  
Lid now secured by clips, and ready to screwed  
up by the 2 screws in the base, tighten screws  
to a torque of 0.4 Nm (Maximum)  
Fitting complete

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### 14.0 Packing Method



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Iksan Plant / EP Technical team  
599, Yongjei-dong, Iksan-City,  
Chunbuk-do, Korea  
Tel : 82-63-830-4100  
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## Hazardous substance Certification

Material :  
LUPOL GP1007FC-KA02, WL04

File No.

Issued date

2004-07-20

Revised Date

-

Revised Item

-

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### 1. Product and Manufacturer's Information

- ① Purpose : Electric & Electronic, automobile parts
- ② General Property : Pellet type resin
- ③ Information of Manufacturer : LG Twin Tower/ East Wing, 20, Yoido-dong, Youngdungpo-gu  
Seoul 150- 721, Korea ☎ 02-3773-3412
- ④ Information of Supplier : LG Twin Tower/ East Wing, 20, Yoido-dong, Youngdungpo-gu  
Seoul 150- 721, Korea ☎ 02-3773-3412

### 2. Regulation substance Check Result

• Product Name : LUPOL GP1007FC-KA02, WL04

Substance	Contents(%)
1. Lead and its compounds	Not Detected
2. Cadmium and its compounds	Not Detected
3. Mercury and its compounds	Not Detected
4. Hexavalent chromium and its compounds	Not Detected
5. PBBs, PBBEs and PBDEs	Not Detected

S. S. Lee.

Approved S.S.LEE  
EPC Technical Manager



**LG Chemical Ltd.**

LG Chemical Ltd.

**LG Chem.**

**28. 10. 2004**

**EPC Technical Team**

**K.Y Woo**

**To Whom it may Concern**

**RoHS Directive 2002/92/EC**

In the manufacture of our current range of plastic materials mentioned below heavy metal such as Cadmium, Chromium-VI-, lead and mercury of their compounds, polybrominated biphenyls (PPB) and Polybrominated diphenylethers (PBDE), mentioned in the EU Directive 2002/95/EC on restriction of the use of certain hazardous substances in electrical and electronic equipment ("RoHS" directive) are not use as additives or ingredients.

◆ **LUPOL ;**

- LUPOL GP1007FC-KA02

- LUPOL GP1007FC-WL04

- LUPOL GP1000FC-NP

◆ **LUPOY ;**

- LUPOY GN5008HF-NP

- LUPOY GN5008HF-IG45

**WEEE directive (2002/96/EC)**

The EU Directive 2002/96/EC ("WEEE directive") defines the recovery of waste electrical and electronic equipment. Therefore we as raw material supplier cannot provide a statement of compliance, because this is dependent on the final article.

Yours Sincerely



LG Chemical Ltd.

KS/KS Product safety and Regulatory Affairs

*S. S. Lee*

The data indicated above are the results of our investigations and correspond to the state-of-the art.

The data refer to the state of the laws at the date of issue.

This confirmation expires after 12 months or in case of regulatory changes.

Please ask for a new confirmation if needed.

It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.