# **PAKISTAN STANDARD**

# PLUGS AND SOCKET-OUTLETS FOR HOUSEHOLD AND SIMILAR PURPOSES –

#### PART 2-1: PARTICULAR REQUIREMENTS FOR FUSED PLUGS



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PAKISTAN STANDARDS AND QUALITY CONTROL AUTHORITY, STANDARDS DEVELOPMENT CENTRE, PSQCA Complex Street 7 A Block -3 Scheme -36 Gulistan -e- johar Karachi

# PLUGS AND SOCKET-OUTLETS FOR HOUSEHOLD AND SIMILAR PURPOSES - PART 2-1: PARTICULAR REQUIREMENTS FOR FUSED PLUGS

#### 0. **FOREWORD**

- 0.1 This Pakistan Standard was adopted by the authority of the Board of Directors for Pakistan Standards and Quality Control Authority after approval by the Technical Committee for "Plugs and socket-outlets for household and similar purposes Part 1: Particular requirements for fused plugs" had been approved and endorsed by the Electrotechnical National Standards Committee on \_\_\_\_\_\_.
- National Standards Committee on \_\_\_\_\_\_.

  0.2 This Pakistan Standard was adopted on the basis of IEC: 60884-2-1 since IEC Standard have been established in 2006, hence it in deemed necessary to adopt the International standard to keep abreast with the latest technology and as per with IEC standard.
- 0.3 This Pakistan Standard is an adoption of IEC: 60884-2-1 "Plugs and socket-outlets for household and similar purposes Part 2-1: Particular requirements for fused plugs" and its use hereby acknowledged with thanks.
- 0.4 This standard is subject to periodical review in order to keep pace with the development in industry. Any suggestions for improvement shall be recorded and placed before the revising committee in due course.
- 0.5 This standard is intended chiefly to cover the technical provisions relating to this standard and it does not include all the necessary provisions of a Contract.

## **CONTENTS**

FOREWORD	
1	Scope
2	Normative references
3	Definitions
4	General requirements
5	General notes on tests
6	Ratings
7	Classification
8	Marking
9	Marking Checking of dimensions Protection against electric shock Provision for earthing Terminals and terminations Construction of fixed socket-outlets Construction of plugs and portable socket-outlets Interlocked socket-outlets
10	Protection against electric shock
11	Provision for earthing
12	Terminals and terminations
13	Construction of fixed socket-outlets
14	Construction of plugs and portable socket-outlets.
15	Interlocked socket-outlets
16	Resistance to ageing, protection provided by enclosures and resistance to humidity
17	Insulation resistance and efficie strength
18	Operation of earthing contacts
19	Temperature rise
20	Breaking-capacity
21	Normal operation
22	Force necessary to withdraw the plug
23	Flexible cables and cords and their connection
24	Mechanical strength
25	Resistance to heat
26	Screws, current-carrying parts and connections
27	Creepage distances, clearances and distances through sealing compound
28	Resistance of insulating material to abnormal heat, to fire and to tracking
29	Resistance to rusting
30	Additional tests on pins provided with insulating sleeves

#### PLUGS AND SOCKET-OUTLETS FOR HOUSEHOLD AND SIMILAR PURPOSES -

#### Part 2-1: Particular requirements for fused plugs

### Scope

This clause of Part 1 is applicable except as follows.

Addition:

This part of IEC 60884 applies to fused plugs, where the fuses are primarily protect the flexible cable or cord.

These fuses are not intended to protect appliances or parts of them against overload. This clause of Part 1 is applicable except as follows.

Addition:

IEC 60260

IEC 60269-1:1998, Low voltage fuses - Part 1: General requirements

IEC 60269-3:1987, Low voltage fuses – Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)

Modification:

IEC 60417, Graphical symbols for use on equipment

#### **Definitions**

This clause of Part 1 is applicable except as follows.

Addition:

3.101

fused plug

plug incorporating one or more replaceable fuse-link(s)

#### **General requirements**

This clause of Part 1 is applicable.

#### General notes on tests

This clause of Part 1 is applicable.

#### **Ratings**

This clause of Part 1 is applicable except as follows.

Addition:

6.101 Fused plugs shall have a minimum current rating higher than or equal to the rating of the fuse intended to be fitted in accordance with the marking.

This clause of Part 1 is applicable except as follows.

8.1 Addition:

Fused plugs shall be marked to may be in the form of o Fused plugs shall be marked to within the plug; this marking

Rewirable fused plugs shall be permanently marked to indicate the maximum current rating of the fuse which may be fitted to the plug. This marking may be on the plug or on a permanently attached label

Non-rewirable fused plugs shall be permanently marked to indicate the rated current of the fuse appropriate to the attached flexible cable or cord and to the associated appliances as declared by the manufacturer.

Compliance is checked by inspection.

#### 8.2 Addition:

Fuse (IEC 60417-5016 (DB:2002-10))

#### Checking of dimensions

This clause of Part 1 is applicable.

#### 10 Protection against electric shock

This clause of Part 1 is applicable except as follows.

Addition:

10.101 It shall not be possible to remove or replace the fuse-links in a fused plug unless the plug is completely withdrawn from the socket-outlet.

Compliance is checked by inspection.

#### 11 Provision for earthing

This clause of Part 1 is applicable.

#### 12 Terminals and terminations

This clause of Part 1 is applicable.

# ets www. Psoca.com. Pk 13 Construction of fixed socket-outlets

This clause of Part 1 is not applicable.

## 14 Construction of plugs more portable socket-outlets

This clause of Part is applicable except as follows.

Addition:

14.101 Fuse-links shall be replaceable.

Provision shall be made within the body of a fused plug for a suitable fuse-link complying with IEC 60269-1 and IEC 60269-3 as far as they reasonably apply (see 14.22).

A fuse-link shall not be fitted in the earthing circuit.

For plugs to be used in a non polarized system, fuse-links shall be fitted in all current-carrying poles (line and neutral).

For plugs to be used in a polarized system, a fuse-link shall only be fitted in each line pole.

Fuse-links shall be mounted between contacts fitted to the terminal or termination of the conductor of the flexible cable or cord and to the corresponding plug pin.

The design of plugs shall be such that adequate contact with fuse-links is maintained when the plug is assembled.

A fused plug in a polarized system shall be so designed that when inserted in a socket-outlet installed in a polarized wiring installation, the correct relationship between the neutral and the line pole or poles is maintained.

Compliance is checked by inspection.

#### 15 Interlocked socket-outlets

This clause of Part 1 is not applicable.

# 16 Resistance to ageing, protection provided by enclosures and resistance to humidity

This clause of Part 1 is applicable.

#### 17 Insulation resistance and electric strength

This clause of Part 1 is applicable.

#### 18 Operation of earthing contacts

This clause of Part 1 is applicable.

#### 19 Temperature rise

This clause of Part tisapplicable except as follows.

Replacement of the last paragraph:

The temperature rise of the terminals shall not exceed 52 K.

#### 20 Breaking capacity

This clause of Part 1 is applicable.

#### 21 Normal operation

This clause of Part 1 is applicable.

#### 22 Force necessary to withdraw the plug

This clause of Part 1 is applicable.

#### 23 Flexible cables and cords and their connection

This clause of Part 1 is applicable.

and electric strength

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#### 24 Mechanical strength

This clause of Part 1 is applicable.

#### 25 Resistance to heat

This clause of Part 1 is applicable.

#### 26 Screws, current-carrying parts and connections

This clause of Part 1 is applicable.

27 Creepage distances, clearances and distances through sealing compound

This clause of Part 1 is applicable.

28 Resistance of insulating material to abnormal heat, to fire and to tracking

This clause of Part 1 is applicable.

29 Resistance to rusting

This clause of Part 1 is applicable.

30 Additional tests on pins provided with insulating sleeves

This clause of Part 1 is applicable.