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INTERNATIONAL STANDARD

Plugs, socket-outlets and couplers with arcuate contacts

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

FOREWORD.....	6
INTRODUCTION.....	8
1 Scope.....	9
2 Normative references	9
3 Terms and definitions	10
4 General	16
4.1 General requirements	16
4.2 General notes on tests.....	16
5 Standard ratings	17
6 Classification.....	18
6.1 According to purpose.....	18
6.2 According to the method of connecting the cable	18
7 Marking	18
8 Dimensions.....	20
9 Protection against electric shock	21
10 Provisions for earthing.....	21
11 Terminals and terminations.....	22
11.1 Common requirements for terminals and terminations.....	22
11.2 Screw type terminals.....	24
11.3 Mechanical tests on terminals	26
12 Resistance to ageing of rubber and thermoplastic material	28
13 General construction	29
14 Construction of socket-outlets	29
15 Construction of plugs and connectors	30
16 Construction of appliance inlets	31
17 Degrees of protection	31
18 Insulation resistance and dielectric strength	32
19 Breaking capacity	33
20 Normal operation	36
21 Temperature rise	37
22 Flexible cables and their connection.....	38
22.1 Cable anchorages.....	38
22.2 Requirements for plugs and connectors	38
22.2.1 Non-rewirable plugs and connectors	38
22.2.2 Rewirable plugs and connectors	38
22.3 Pull test	39
23 Mechanical strength	41
23.1 General.....	41
23.2 Impact test apparatus	42
23.3 Normal use	42
23.4 Test description	43
23.5 Socket-outlets and appliance inlets.....	44
23.6 Rewirable plugs and connectors	44
23.7 Non-rewirable plugs and connectors	45

23.8	Accessories with screwed glands	46
23.9	Plugs	46
23.9.1	General	46
23.9.2	Perpendicular stress test	47
23.9.3	Axial stress test	47
23.9.4	Tensile strength test	48
23.9.5	Blade retention (compression) test	48
24	Screws, current-carrying parts and connections	48
25	Creepage distances, clearances and distances through sealing compound	50
26	Resistance to heat	51
27	Resistance to fire and to tracking	52
28	Corrosion and resistance to rusting	54
29	Conditional short-circuit current withstand test	55
29.1	Short-circuit current	55
29.2	Ratings and test conditions	55
29.3	Test circuit	55
29.4	Calibration	58
29.5	Test procedure	58
29.6	Behaviour of the equipment under test	58
29.7	Acceptance conditions	59
30	Electromagnetic compatibility	59
30.1	Immunity	59
30.2	Emission	59
	STANDARD SHEETS	60
	STANDARD SHEET L5-20 125 V, 20 A, two-pole three-wire	62
	STANDARD SHEET L5-30 125 V, 30 A, two-pole three-wire	63
	STANDARD SHEET L25-30 240 V, 30 A, two-pole three-wire	64
	STANDARD SHEET L6-20 250 V, 20 A, two-pole three-wire	65
	STANDARD SHEET L6-30 250 V, 30 A, two-pole three-wire	66
	STANDARD SHEET L7-20 277 V, 20 A, two-pole three-wire	67
	STANDARD SHEET L7-30 277 V, 30 A, two-pole three-wire	68
	STANDARD SHEET L24-20 347 V, 20 A, two-pole three-wire	69
	STANDARD SHEET L8-20 480 V, 20 A, two-pole three-wire	70
	STANDARD SHEET L8-30 480 V, 30 A, two-pole three-wire	71
	STANDARD SHEET L9-20 600 V, 20 A, two-pole three-wire	72
	STANDARD SHEET L9-30 600 V, 30 A, two-pole three-wire	73
	STANDARD SHEET L14-20 125/250 V, 20 A, three-pole four-wire	74
	STANDARD SHEET L14-30 125/250 V, 30 A, three-pole four-wire	75
	STANDARD SHEET L15-20 250 V, 20 A, three-pole four-wire	76
	STANDARD SHEET L15-30 250 V, 30 A, three-pole four-wire	77
	STANDARD SHEET L16-20 480 V, 20 A, three-pole four-wire	78
	STANDARD SHEET L16-30 480 V, 30 A, three-pole four-wire	79
	STANDARD SHEET L17-30 600 V, 30 A, three-pole four-wire	80
	STANDARD SHEET L21-20 120/208 V, 20 A, four-pole five-wire	81
	STANDARD SHEET L21-30 120/208 V, 30 A, four-pole five-wire	82

STANDARD SHEET L26-30 240/415 V, 30 A, four-pole five-wire	83
STANDARD SHEET L22-20 277/480 V, 20 A, four-pole five-wire	84
STANDARD SHEET L22-30 277/480 V, 30 A, four-pole five-wire	85
STANDARD SHEET L23-20 347/600 V, 20 A, four-pole five-wire	86
STANDARD SHEET L23-30 347/600 V, 30 A, four-pole five-wire	87
Bibliography.....	88
Figure 1 – Diagram showing the uses of the accessories	11
Figure 2 – Pillar terminals	14
Figure 3 – Screw terminals	14
Figure 4 – Stud terminals	14
Figure 5 – Saddle terminals	15
Figure 6 – Mantle terminals.....	15
Figure 7 – Gauges for testing insertability of round unprepared conductors having the maximum specified cross-section.....	25
Figure 8 – Flexing test arrangement.....	27
Figure 9 – Circuit diagrams for breaking capacity and normal operation tests	35
Figure 10 – Apparatus for testing the cable anchorage	40
Figure 11 – Impact test apparatus – Pendulum assembly.....	43
Figure 12 – Arrangement for mechanical strength test for plugs and connectors	45
Figure 13 – Apparatus for flexing test	46
Figure 14 – Arrangement for contact blade strength tests for plugs	47
Figure 15 – Ball-pressure apparatus	52
Figure 16 – Arrangement and dimensions of the electrodes for the tracking test	54
Figure 17 – Diagram of the test circuit for the verification of short-circuit current withstand of a two-pole equipment on a single-phase AC.....	56
Figure 18 – Diagram of the test circuit for the verification of short-circuit current withstand of a three-pole equipment	57
Figure 19 – Diagram of the test circuit for the verification of short-circuit current withstand of a four-pole equipment	58
Table 1 – Standard ratings.....	17
Table 2 – Voltage colour code.....	20
Table 3 – Size for connectable conductors.....	22
Table 4 – Flexing under mechanical load testing for copper conductors	27
Table 5 – Pulling force	28
Table 6 – Voltage for dielectric strength test	33
Table 7 – Breaking capacity.....	35
Table 8 – Normal operation.....	37
Table 9 – Test current and nominal cross-sectional area.....	37
Table 10 – Cable type	38
Table 11 – Metric cables	40
Table 12 – AWG cables	41
Table 13 – Pulling force and torque test values.....	41

Table 14 – Impact force	45
Table 15 – Test force for glands	46
Table 16 – Torque values for terminal screws	49
Table 17 – Distances through sealing compound	51
Table 18 – Standard sheets	60

INTERNATIONAL ELECTROTECHNICAL COMMISSION

PLUGS, SOCKET-OUTLETS AND COUPLERS WITH ARCUATE CONTACTS

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International Standard IEC 62986 has been prepared by subcommittee 23H: Plugs, socket-outlets and couplers for industrial and similar applications, and for electric vehicles, of IEC technical committee 23: Electrical accessories.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
23H/386/FDIS	23H/387/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

In this standard, the following print types are used:

- requirements: in roman type;
- *conformity statements: in italic type;*
- notes: in small roman type.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

The object of this document is to provide for a safe, compact and practical IEC system of standardized plugs and socket-outlets with arcuate contacts. It contains performance and dimensional requirements taking into account essential differences in the infrastructures and installation rules throughout the world.

PLUGS, SOCKET-OUTLETS AND COUPLERS WITH ARCUATE CONTACTS

1 Scope

This document sets the general and dimensional interchangeability requirements for plugs, socket-outlets, connectors and appliance inlets with arcuate contacts of standardized configurations (hereinafter referred to as accessories), with a rated operating voltage not exceeding 600 V AC at a frequency of 50 Hz and 60 Hz and with rated currents of 20 A and 30 A, primarily intended for commercial use indoors, in conditions where the presence of water is negligible.

This document applies to accessories for use when the ambient temperature is normally within the range of –25 °C to +40 °C. These accessories are intended to be connected to cables of copper or copper alloy only.

Interchangeability requirements are defined for IP20 accessories.

NOTE The conditions of use indoors are based on the limitations given by IEC 60364-5-51:2005, Table 51A, AD1.

Socket-outlets or appliance inlets incorporated in or fixed to electrical equipment are within the scope of this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60227 (all parts), *Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V*

IEC 60228:2004, *Conductors of insulated cables*

IEC 60245-4, *Rubber insulated cables – Rated voltages up to and including 450/750 V – Part 4: Cords and flexible cables*

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

IEC 60269-2, *Low-voltage fuses – Part 2: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application) – Examples of standardized systems of fuses A to K*

IEC 60309-1:1999, *Plugs, socket-outlets and couplers for industrial purposes – Part 1: General requirements*

IEC 60309-1:1999/AMD1:2005

IEC 60309-1:1999/AMD2:2012

IEC 60417, *Graphical symbols for use on equipment* (available at <http://www.graphical-symbols.info/equipment>)

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 60664-1:2007, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

ISO 1456, *Metallic and other inorganic coatings – Electrodeposited coatings of nickel, nickel plus chromium, copper plus nickel and of copper plus nickel plus chromium*

ISO 2081, *Metallic and other inorganic coatings – Electroplated coatings of zinc with supplementary treatments on iron or steel*

ISO 2093, *Electroplated coatings of tin – Specification and test methods*

NMX-J-436-ANCE-2014/CSA C22.2 No.49-14/ANSI/UL 62, *Flexible Cords and Cables*

UL 1581, *Reference Standard for Electrical Wires, Cables and Flexible Cords*