

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Installation couplers intended for permanent connection in fixed installations

Coupleurs d'installation pour connexions permanentes dans les installations fixes



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Installation couplers intended for permanent connection in fixed installations

Coupleurs d'installation pour connexions permanentes dans les installations fixes

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 requirements	12
5 Conditions for tests.....	13
5.1 General.....	13
5.2 Test conditions	13
5.3 Tests on non-rewirable installation couplers.....	13
5.4 Order of tests.....	13
5.5 Specification of tests.....	13
5.6 Compliance requirements	13
5.7 Routine tests for non-rewirable installation couplers	14
6 Ratings.....	14
6.1 Rated voltage	14
6.2 Rated current.....	14
6.3 Rated connecting capacity	15
6.4 Tests	15
7 Classification.....	15
8 Marking and documentation.....	16
8.1 General.....	16
8.2 Use of symbols or letters	16
8.3 Markings.....	16
8.4 Documentation.....	17
9 Dangerous compatibility	18
9.1 Unintended or improper connection.....	18
9.2 Engagement	18
9.3 Compatibility of different installation coupler systems	18
9.4 Compatibility with standard systems	18
10 Protection against electric shock	19
10.1 Degree of protection against ingress of solid foreign objects.....	19
10.2 Access to live parts.....	19
10.3 External parts	19
11 Terminals, terminations and connectable conductors.....	19
11.1 Terminals and terminations	19
11.1.1 General	19
11.1.2 Terminals of rewirable installation couplers	20
11.1.3 Terminations of non-rewirable installation couplers.....	20
11.2 Connectable conductors.....	20
12 Construction.....	21
12.1 Connection between earthing contacts.....	21
12.2 Locking against rotation	21
12.3 Mechanical strength of contacts.....	21
12.4 Housing of rewirable installation couplers	21

12.5	Housing of non-rewirable installation couplers	22
12.6	Dismantling and opening of rewirable installation couplers	22
12.7	Earthing contact and earthing terminal	22
12.8	Loose conductor strands	22
12.8.1	General	22
12.8.2	Strand test for rewirable installation couplers	23
12.8.3	Strand test for non-rewirable non-moulded-on installation couplers	23
12.8.4	Strand test for non-rewirable moulded-on installation couplers	23
12.9	Incorporation of electrical devices	23
12.10	Retaining means	24
12.11	Distribution blocks	24
12.12	Shrouds	24
12.13	Factory wiring	24
12.14	Stress test	24
12.14.1	General	24
12.14.2	Stress test of rewirable installation couplers	24
12.14.3	Stress test of non-rewirable installation couplers	25
12.15	Separation of non-rewirable installation couplers	25
13	Protection against harmful ingress of solid foreign objects and against harmful ingress of water	25
13.1	General	25
13.2	Protection against harmful ingress of solid foreign objects	25
13.3	Protection against harmful ingress of water	25
14	Insulation resistance and electric strength	26
14.1	General	26
14.2	Insulation resistance	26
14.3	Electric strength	26
15	Construction of contacts	27
15.1	Resiliency	27
15.2	Resistance of connections	27
15.3	Contact pressure	28
16	Temperature rise	28
17	Breaking capacity	29
18	Forces necessary to disengage the parts of the installation coupler	30
19	Cables and their connection	30
19.1	Capability of being fitted	30
19.2	Relief from pull, thrust and torsion	30
19.3	Cable anchorage	30
19.4	Capability to connect cables with different cross-sectional area	31
19.5	Sharp edges	33
20	Mechanical strength	33
21	Resistance to heat and ageing	34
21.1	Resistance to heat	34
21.2	Dry heat storage	34
21.3	Ball pressure test	34
21.4	Ageing of elastomeric and thermoplastic material	35
21.5	Current cycling test	35
22	Screws, current-carrying parts and connections	36

22.1	Screws and nuts	36
22.2	Screws and insulating material.....	37
22.3	Screws and rivets for electrical and mechanical connections.....	38
22.4	Metals of current-carrying parts	38
23	Clearances, creepage distances and distances through solid insulation.....	38
24	Resistance to abnormal heat and to tracking	42
24.1	Resistance to abnormal heat.....	42
24.2	Resistance to tracking.....	44
25	Resistance to rusting	44
	Annex A (normative) Routine protective earth continuity tests	46
	Annex B (normative) Test circuits for temperature rise test	46
	Annex C (normative) Number of sets of test samples used for the tests and sequence of tests for each set	50
	Annex D (informative) Guide to use	51
D.1	General.....	51
D.2	Applications	51
D.3	Examples of use of installation couplers	51
	Annex E (normative) Warning symbol used in DC applications.....	54
	Annex F (informative) Additional tests and requirements for installation couplers intended to be used in ambient air temperature below –5 °C down to and including –45 °C	55
F.1	General.....	55
F.2	General requirements on tests	55
F.3	Additional marking and documentation.....	55
F.3.1	Additional marking	55
F.3.2	Additional documentation.....	55
F.4	Mechanical strength at lower ambient air temperatures.....	55
	Bibliography.....	57
	Figure 1 – Apparatus for testing of cable anchorage	32
	Figure 2 – Apparatus for measuring the distortion (example)	33
	Figure 3 – Ball-pressure apparatus	35
	Figure 4 – Explanation of "small part"	44
	Figure B.1 – 1P + N + PE installation couplers, including N	47
	Figure B.2 – 1P + N + PE installation couplers, including PE	47
	Figure B.3 – 3P + N + PE installation couplers, 3 phases loaded	47
	Figure B.4 – 3P + N + PE installation couplers, N and PE loaded.....	47
	Figure B.5 – 1P + N + PE distribution block, phase and N loaded	48
	Figure B.6 – 1P + N + PE distribution block, phase and PE loaded	48
	Figure B.7 – 3P + N + PE to 1P + N + PE distribution block, 3 phases loaded.....	49
	Figure B.8 – 3P + N + PE to 1P + N + PE distribution block, N and PE loaded	49
	Figure D.1 – Examples of use of installation couplers	52
	Figure D.2 – Magnified area of Figure D.1 to show installation couplers.....	53
	Figure E.1 – Symbol "DO NOT CONNECT OR DISCONNECT UNDER LOAD"	54
	Table 1 – Voltage rating for installation couplers in AC application	14

Table 2 – Voltage rating for installation couplers in DC application	14
Table 3 – Classification of installation couplers	15
Table 4 – Test currents for installation couplers	29
Table 5 – Forces to be applied to cable anchorages	31
Table 6 – Torque applied for the tightening and loosening test.....	37
Table 7 – Installation couplers intended for use in supply systems with a maximum voltage to earth of 150 V AC, rated impulse voltage 2,5 kV	38
Table 8 – Installation couplers intended for use in supply systems with a maximum voltage to earth of 300 V AC, rated impulse voltage 4,0 kV	39
Table 9 – Installation couplers intended for use in single-phase two-wire systems 50 V DC and single-phase three-wire systems 60 V DC, rated impulse voltage 0,8 kV	40
Table 10 – Installation couplers intended for use in single-phase two-wire systems 120 V DC and single-phase three-wire systems 240 V DC, rated impulse voltage 2,5 kV	41
Table 11 – Installation couplers intended for use in single-phase two-wire systems 220 V DC and single-phase three-wire systems 440 V DC, rated impulse voltage 4,0 kV	42
Table C.1 – Sets of samples	50

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**INSTALLATION COUPLERS INTENDED FOR PERMANENT
CONNECTION IN FIXED INSTALLATIONS**

FOREWORD

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IEC 61535 has been prepared by IEC technical committee 23: Electrical accessories. It is an International Standard.

This third edition cancels and replaces the second edition published in 2019. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) inclusion of a definition for "live part" based on IEC 61140;
- b) additional optional cross medial documentation, e.g. marking with QR-Code;
- c) corrections on the consistent use of the expressions "earth", "earthing contact", "earthing circuit" and "protective earth(ing)" throughout the document;
- d) addition of missing compliance provisions to 13.3;
- e) update of Figure D.1 of Annex D;
- f) inclusion of new Annex F for cold climate requirements.

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

Draft	Report on voting
23/1062/FDIS	23/1066/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

In this standard, the following print types are used:

- requirements proper: in roman type;
- *test specifications: in italic type;*
- explanatory matter: in smaller roman type.

This document was drafted in accordance with ISO/IEC Directives, Part 2 and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under 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.

INTRODUCTION

AC and DC installation couplers according to this document may be used, for example, in prefabricated buildings, commercial showrooms, installation cavities, such as suspended floors and ceilings, in partition walls and in any similar applications, or cable tray systems, cable ladder systems, cable ducting systems and cable trunking systems or in furniture complying with IEC 60364-7-713.

This document may be used as a guide for installation couplers with additional contacts for voltages other than mains voltages.

Particular requirements for installation couplers, for example, for use at higher or lower ambient temperatures, with higher mechanical durability (e.g. metal housings), with higher fire resistance and for use in control circuits (e.g. SELV), are under consideration.

National rules can have requirements concerning the accessibility of installation couplers.

National rules can specify who is allowed to carry out the connection and disconnection of installation couplers.

National rules can have requirements concerning installation couplers with metal conduits.

INSTALLATION COUPLERS INTENDED FOR PERMANENT CONNECTION IN FIXED INSTALLATIONS

1 Scope

This document applies to two-wire, up to five-wire installation couplers, with or without earthing contact, if provided, with a rated voltage up to and including 500 V AC or 500 V DC and a rated connecting capacity up to and including 10 mm² and a rated current not exceeding 32 A for permanent connection in electrical installations. Installation couplers with additional contacts for voltages other than mains voltages are outside the scope of this document.

An installation coupler consists of an installation female connector and an installation male connector for permanent connection not intended to be engaged or disengaged under load nor to be engaged or disengaged other than during first installation or during reconfiguration or maintenance of the wiring system in which installation couplers have been installed. This means that installation couplers are intended for infrequent use only.

Installation couplers are not suitable for use in place of socket-outlet systems. Installation couplers are not suitable for use in place of devices for connecting luminaires (DCLs) according to IEC 61995 (all parts) or in place of luminaire supporting couplers (LSCs).

Installation couplers complying with this document are suitable for use at ambient temperatures not normally exceeding +40 °C, but their average over a period of 24 h does not exceed +35 °C, with a lower limit of the ambient air temperature of –5 °C, either for indoor or outdoor use.

NOTE 1 Additional tests for use in cold climates are shown in Annex F, which is normative in following countries: FI. Necessary information can be given in the manufacturer's installation instructions.

NOTE 2 For other temperatures, necessary information can be given in the manufacturer's installation instructions.

In locations where special conditions prevail, as in ships, vehicles and the like and in hazardous locations, for example where explosions are liable to occur, special constructions can be required.

NOTE 3 Installation couplers are intended to be installed by instructed or skilled persons.

NOTE 4 As a guide to using installation coupler systems, see Annex D.

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 60068-2-31:2008, *Environmental testing – Part 2-31: Tests – Test Ec: Rough handling shocks, primarily for equipment-type specimens*

IEC 60112, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*
IEC 60529:1989/AMD1:1999
IEC 60529:1989/AMD2:2013