IEC 60320-2-4

Edition 2.0 2018-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Appliance couplers for household and similar general purposes – Part 2-4: Couplers dependent on appliance weight for engagement

Connecteurs pour usages domestiques et usages généraux analogues – Partie 2-4: Connecteurs à connexion par gravité

IEC 60320-2-4:2018-06(en-fr)

IEC Central Office
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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APPLIANCE COUPLERS FOR HOUSEHOLD AND SIMILAR GENERAL PURPOSES –

Part 2-4: Couplers dependent on appliance weight for engagement

FOREWORD

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International Standard IEC 60320-2-4 has been prepared by subcommittee 23G: Appliance couplers, of IEC technical committee 23: Electrical accessories.

This second edition cancels and replaces the first edition published in 2005 and Amendment 1:2009. This edition constitutes a technical revision.

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

a) IEC 60320-2-4 is aligned with IEC 60320-1:2015.
b) IEC 60320-2-4 is aligned with IEC 60335-1 and IEC 60335-2-15. IEC 60320-2-4 appliance couplers are incorporated into appliances designed and manufactured to these standards. To this end, particular attention is drawn to 14.2 and Clause 20.
c) It also now proposes that appliance couplers with auxiliary contacts be considered.

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

FDIS	Report on voting
23G/402/FDIS	23G/404/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.

This Part 2-4 is to be used in conjunction with IEC 60320-1: *Appliance couplers for household and similar general purposes – Part 1: General requirements.* It was established on the basis of the third edition of that standard (2015).

The clauses of this standard supplement or modify the corresponding clauses of IEC 60320-1. When a particular subclause or annex of Part 1 is not mentioned in this Part 2-4, the subclause or annex of IEC 60320-1 applies without modification as far as is reasonable. Where this standard states “addition”, “modification” or “replacement”, the relevant requirement, test specification or explanatory matter in IEC 60320-1 should be adapted accordingly.

Subclauses, figures or tables which are additional to those in Part 1 are numbered starting from 101. Additional annexes are lettered AA, BB, etc.

In this particular standard the following print types are used:

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

A list of all parts in the IEC 60320 series, published under the general title *Appliance couplers for household and similar general purposes*, can be found on the IEC website.

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.

APPLIANCE COUPLERS FOR HOUSEHOLD AND SIMILAR GENERAL PURPOSES –

Part 2-4: Couplers dependent on appliance weight for engagement

1 Scope

This clause of IEC 60320-1 is replaced as follows:

This part of IEC 60320 is applicable to two-pole appliance couplers for alternating current only, with or without earthing contact, with a rated voltage not exceeding 250 V and a rated current not exceeding 16 A, for household and similar general purposes and intended for incorporation or integration within electric appliances or other electric equipment of multi-part construction for 50 Hz or 60 Hz supply which depend on the weight of the appliance to ensure correct engagement.

This document is also applicable to appliance couplers with auxiliary contacts rated for alternating current, direct current or both, with a total rated current not exceeding 16 A.

This document is also valid for appliance inlets/appliance outlets integrated or incorporated in appliances.

NOTE 1 Appliance couplers complying with this document are suitable for use in appliances which are used in an ambient temperature not normally exceeding 25 °C but occasionally reaching 35 °C. However the ambient temperature surrounding the appliance coupler can exceed these figures and can be declared by the manufacturer. It is possible that the maximum working ambient temperature for the appliance inlet and for the connector can be different.

NOTE 2 Appliance couplers dependent on appliance weight for engagement can be subject to spillage of liquid in normal use. They are classified according to whether protection against liquid spillage is provided, when installed in accordance with the manufacturer's installation instructions.

NOTE 3 If appliance inlets according to this document are used with appliances or other equipment which can be subject to spillage of liquid affecting the appliance inlet when the functioning part of the appliance or equipment is seated on its power base, then protection against moisture is provided by the equipment.

NOTE 4 References to standard sheets within IEC 60320-1 do not apply to appliance couplers dependent on appliance weight for engagement.

NOTE 5 Special constructions can be required:

- in locations where special conditions can prevail, for example, in ships, vehicles and the like;
- in hazardous locations, for example, where explosions are likely to occur.

NOTE 6 Additional auxiliary contacts can be used as part of the appliance coupler. An example of an auxiliary contact is a contact used to supply a low power device or used to transmit signals for sensors and to/from a microprocessor.

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.

This clause of IEC 60320-1 applies with the following additions:

IEC TR 60083, *Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC*

IEC 60320-1:2015, *Appliance couplers for household and similar general purposes – Part 1: General requirements*

IEC 60335-1:2010, *Household and similar electrical appliances – Safety – Part 1: General requirements*
IEC 60335-1:2010/AMD1:2013
IEC 60335-1:2010/AMD2:2016

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*

IEC 60695-11-5:2016, *Fire hazard testing – Part 11-5: Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance*

IEC 60695-11-10, *Fire hazard testing – Part 11-10: Test flames – 50 W horizontal and vertical flame test methods*

IEC 60730-(all parts), *Automatic electrical controls*

ISO 9772, *Cellular plastics – Determination of horizontal burning characteristics of small specimens subjected to a small flame*

3 Terms and definitions

This clause of IEC 60320-1 applies with the following additions:

3.101
weight-engaged coupler
coupler that relies on the weight of the functioning part of the appliance, in which it is incorporated or integrated, to ensure correct engagement

Note 1 to entry: The weight-engaged coupler is used in an appliance which is in two parts, in order to supply the part that performs the function of the appliance (the functioning part) from the power base which is connected to the power supply.

3.102
weight-engaged connector
component part of the weight-engaged coupler which carries the power connections, and engages with the corresponding appliance inlet

3.103
weight-engaged appliance inlet
component part of a weight-engaged coupler intended for integration or incorporation in the functioning part of the appliance

3.104
rewirable weight-engaged connector
weight-engaged connector so constructed that the supply cord can be replaced

Note 1 to entry: The method of attachment of the supply cord, when installed in accordance with the manufacturer's installation instructions, is classified according to type X or type Y attachment requirements of the appliance standards.