

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

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Draft Indian Standard

**Household and similar electrical appliances – Safety – Part 2-24:
Particular requirements for refrigerating appliances, ice-cream
appliances and ice-makers
(First Revision of IS 302-2-24: 1994)**

Electrical Appliances Sectional Committee
Sectional Committee, ETD 32

Last date of receipt of
comments: **13/06/2023**

NATIONAL FOREWORD

This Indian Standard which is identical with IEC 60335-2-24 “Household and similar electrical appliances – Safety – Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice-makers” issued by the International Electrotechnical Commission (IEC) will be adopted by the Bureau of Indian Standards on the recommendation of the Electrical Appliances Sectional Committee.

This standard was first published in 1994. This revision has been undertaken to harmonize with the latest version of IEC 60335-2-24: 2020.

This standard covers the safety requirements of refrigerating appliances, ice-cream appliances and ice-makers. This standard covers general and safety requirements of refrigerators, food-freezers and ice-makers to ensure personal safety against electric shock, safety against the effects of excessive temperature and fire. This standard does not cover the performance requirement which are covered under separate Indian Standards.

This part 2 is to be used in conjunction with IS 302-1: 2023, Safety of Household and Similar Electrical Appliances Part 1 General Requirements (Seventh Revision) [Doc: ETD 32 (22184)WC (*Under preparation*)].

NOTE 1: When "Part 1" is mentioned in this standard, it refers to IS 302-1.

This part 2 supplements or modifies the corresponding clauses in IS 302-1, so as to convert that publication into the Indian standard: Safety requirements for refrigerating appliances, ice-cream appliances and ice-makers.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

NOTE 2— The following numbering system is used:

- a) subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- b) unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- c) additional annexes are lettered AA, BB, etc.

NOTE 3— The following print types are used:

- a) requirements: in roman type;
- b) test specifications: in italic type;
- c) notes: in small roman type.

The text of IEC Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain terminologies and conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker, while in Indian Standards the current practice is to use a point (.) as the decimal marker.

In this standard, reference appears to International Standards for which Indian Standards also exists. The corresponding Indian Standards, which are to be substituted, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
IEC 60335-1, Household and similar electrical appliances – Safety – Part 1: General requirements	[Doc: ETD 32 (22184)WC <i>Under preparation</i>] IS 302-1: 2023, Safety of Household and Similar Electrical Appliances Part 1 General Requirements (Seventh Revision)	Identical with IEC 60335-1 : 2020
IEC 60079-1:2014, Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d"	IS/IEC 60079-1 : 2014 Explosive Atmospheres - Part 1 : Equipment Protection by Flameproof Enclosures "d"	Identical
IEC 60079-7:2015, Explosive atmospheres – Part 7: Equipment protection by increased safety "e"	IS/IEC 60079-7 : 2015 Explosive atmospheres: Part 7 equipment protection by increased safety "E" (First Revision)	Identical
IEC 60079-15:2017, Explosive atmospheres – Part 15: Equipment protection by type of protection "n"	IS/IEC 60079 : 2017 Explosive Atmospheres Part 15 Equipment Protection By Type of Protection n	Identical
IEC 60335-2-34:2021, Household and similar electrical appliances – Safety – Part 2-34: Particular requirements for motor-compressors	IS 60335 (Part 2/Sec 34) : 2021 Household and similar electrical appliances Safety Part 2-34: Particular requirements for motor-compressors Adoption of IEC 60335-2-34: 2021	Identical with IEC 60335-2-34 : 2021

IEC 60598-1, Luminaires – Part 1: General requirements and tests	IS 10322 (Part 1): 2014, Luminaires: Part 1 general requirements and tests (First Revision)	Modified/Technically Equivalent with IEC 60598-1: 2003
IEC 60851-4:2016, Winding wires – Test methods – Part 4: Chemical properties	IS 13778 (Part 4) : 2018 Winding wires - Test methods: Part 4 chemical properties (Second Revision)	Identical with IEC 60851-4 : 2016
ISO 817:2014, Refrigerants – Designation and safety classification	IS 16656 : 2017 Refrigerants - Designation and safety classification	Identical with ISO 817 : 2014
ISO 5149-1:2014, Refrigerating systems and heat pumps – Safety and environmental requirements – Part 1: Definitions, classification and selection criteria	IS 16678 (Part 1) : 2018 Refrigerating Systems and Heat Pumps “ Safety and Environmental Requirements Part 1 Definitions, Classification and Selection Criteria	Identical with ISO 5149-1 : 2014
ISO 7010:2019, Graphical symbols – Safety colours and safety signs – Registered safety signs	IS 16451 : 2018 Graphical Symbols- Safety Colours and Safety Signs- Registered Safety Signs	Identical with ISO 7010: 2011

The technical committee has reviewed the provisions of the following international standards referred in this adopted standard and decided that they are acceptable for use in conjunction with this standard.

<i>International Standard</i>	<i>Title</i>
<i>IEC 60068-2-11:1981</i>	<i>Basic environmental testing procedures – Part 2-11: Tests – Test Ka: Salt mist</i>
<i>IEC 60252-1:2010</i>	<i>AC motor capacitors – Part 1: General – Performance, testing and rating – Safety requirements – Guidance for installation and operation</i>
<i>IEC 60695-11-3:2012</i>	<i>Fire hazard testing – Part 11-3: Test flames – 500 W flames – Apparatus and confirmational test methods</i>
<i>IEC 60695-11-20:2015</i>	<i>Fire hazard testing – Part 11-20: Test flames – 500 W flame test method</i>
<i>IEC 60730-2-6:2015</i>	<i>Automatic electrical controls – Particular requirements for automatic electrical pressure sensing controls including mechanical requirements</i>
<i>ISO 209:2007</i>	<i>Aluminium and aluminium alloys – Chemical composition</i>
<i>ISO 4126-2:2018</i>	<i>Safety devices for protection against excessive pressure – Part 2: Bursting disc safety devices</i>

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Only the English language text has been retained while adopting it in this Indian Standard, and as such, the page numbers given here are not the same as in the IEC Publication.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated expressing the result of a test or analysis shall be rounded off in accordance with IS 2: 2022 'Rules for rounding of numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Please send your comments to our department email, in case you missed the deadline mentioned in the National Foreword. Comments received before the upcoming Sectional Committee meeting of ETD 32 Electrical Appliances will be considered for discussion.

Note: The technical content of the document is not available on website. For details, please refer the corresponding of IEC 60335-2-24: 2020 or kindly contact:

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