

Australian/New Zealand Standard™

Safety of household and similar electrical appliances

Part 2.24: Particular requirements for refrigerating appliances, ice-cream appliances and ice-makers (IEC 60335-2-24:2000, MOD)



AS/NZS 3350.2.24:2001

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-002, Safety of Household and Similar Electrical Appliances and Small Power Transformers. It was approved on behalf of the Council of Standards Australia on 7 February 2001 and on behalf of the Council of Standards New Zealand on 2 February 2001.

This Standard was published on 5 March 2001.

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Australian Electrical and Electronic Manufacturers Association
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This Standard was issued in draft form for comment as DR 00158.

Australian/New Zealand Standard™

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Originated in Australia as C174—1966.
Originated in New Zealand as NZS 6324:1990.
Jointly revised and redesignated AS 3303—1990/NZS 6324:1990.
Second edition AS 3303—1995/NZS 6324:1995.
Jointly revised and redesignated AS/NZS 3350.2.24:1998.
Second edition AS/NZS 3350.2.24:2001.
Reissued incorporating Amendment No. 1 (May 2007).

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Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 4024 3

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002 - Safety of Household and Similar Electrical Appliances and Small Power Transformers, to supersede AS/NZS 3350.2.24:1998 and its amendment 1 (1999) and amendment 2 (2001) on publication.

This Standard incorporates Amendment No. 1 (May 2007). The changes required by the amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected. Where an application date other than immediate is applicable to an amendment the date of application (DOA) is indicated by the marginal bar against the part affected or by a footnote relating to the part affected.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with minimum safety requirements designed to give user protection against hazards that might occur during normal operation and abnormal operation of the appliance and which may be used as the basis for approval for sale or for connection to the electricity supply mains in Australia and New Zealand

This Standard forms the second edition of AS/NZS 3350.2.24 *Safety of household and similar electrical appliances, Part 2.24: Particular requirements for refrigerating appliances, ice-cream appliances and ice-makers*

This Standard is an adoption with national modifications and contains the full text of the fifth edition of IEC 60335-2-24:2000, *Safety of household and similar electrical appliances, Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice-makers* including Corrigendum 1 (2001) and has been varied as indicated to take account of Australian and New Zealand conditions. It is to be used in conjunction with the latest edition of AS/NZS 3350.1, *Safety of household and similar electrical appliances, Part 1: General requirements* and its Amendments. It was established on the basis of AS/NZS 3350.1:2002..

This part 2 supplements or modifies the corresponding clauses of AS/NZS 3350.1 (referred to as part 1 in this part 2) so as to convert it into the Australian/New Zealand Standard: Safety of refrigerating appliances, ice-cream appliances and ice-makers

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

NOTE 1 Subclauses, notes, tables and figures which are additional to those in part 1 are numbered starting from 101. Annexes, which are additional to those in part 1 are lettered AA, BB, etc.

Annex AA forms an integral part of this standard.

Annex BB and ZZ are for information only.

Annex ZA forms an integral part of this standard.

NOTE 2 In this Standard the following print types are used:

- requirements: in arial type;
- test specifications: in italic type;
- notes: in small arial type;

Words in **bold** in the text are defined in clause 2. When a definition of part 1 concerns an adjective, the adjective and the associated noun are also in bold.

⌋ This statement is deleted from the standard 2 years from publication.

The numbering of clauses, subclauses, notes, tables, figures and annexes follows that of IEC 60335-2-24:2000. To allow for the introduction of additional material by the IEC, the numbers 101 to 200 have been reserved. To allow for additional material to be introduced by Australia and New Zealand, the numbers 201 to 300 are used to number further clauses, subclauses, notes, tables and figures in part 1. The numbers 301 to 400 are used to number further clauses, subclauses, notes, tables and figures in this part 2. Additional annexes are lettered ZA, ZB and so on.

This scheme has been introduced to reduce the likelihood of the IEC and Australia and New Zealand using the same identifier for different purposes.

The use of the word VOID indicates that the IEC text is not used in Australia or New Zealand. The use of this word also avoids the need to renumber, clauses, notes, tables and figure if an earlier clause, note, table or figure is not used.

Annex A has been reformatted to indicate the Australia/New Zealand standard that is equivalent to the IEC standard or ISO standard to which normative reference is made.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown on the cover and title page only.
- (b) In the source text "this International Standard" should read "this Australian/New Zealand Standard".

A full point substitutes for a comma when referring to a decimal marker.

Variations to IEC 60335-2-24:2000 are indicated at the appropriate places throughout this standard. Strikethrough (~~example~~) identifies IEC tables, figures and passages of text which, for the purposes of this Australian/New Zealand standard are deleted. Where Australian/New Zealand tables, figures or passages of text are added, each is set in its proper place and identified by shading (~~example~~). Added figures are not themselves shaded, but are identified by a shaded border.

Variations made to IEC 60335-2-24:2000 form the Australian variations for the purposes of the IECEE scheme for recognition of testing to standards for safety of electrical equipment (the CB scheme). These variations have been incorporated in the body of the standard. They are listed in Annex ZZ for easy reference.

CONTENTS

Clause	Page
1 Scope	6
2 Definitions	7
3 General requirement	9
4 General conditions for the tests	9
5 Void	11
6 Classification	11
7 Marking and instructions	11
8 Protection against access to live parts	14
9 Starting of motor-operated appliances	14
10 Power input and current	14
11 Heating	15
12 Void	18
13 Leakage current and electric strength at operating temperature	18
14 Void	19
15 Moisture resistance	19
16 Leakage current and electric strength	20
17 Overload protection of transformers and associated circuits	20
18 Endurance	20
19 Abnormal operation	21
20 Stability and mechanical hazards	23
21 Mechanical strength	25
22 Construction	25
23 Internal wiring	33
24 Components	33
25 Supply connection and external flexible cords	34
26 Terminals for external conductors	35
27 Provision for earthing	35
28 Screws and connections	35
29 Creepage distances, clearances and distances through insulation	36
30 Resistance to heat, fire and tracking	36
31 Resistance to rusting	37
32 Radiation, toxicity and similar hazards	37

Figures

Figure 101 – Apparatus for spillage test	38
Figure 102 – Detail of scratching tool tip.....	39
Figure AA.1 – Supply circuit for locked-rotor test of a single-phase fan motor.....	43
Figure BB.1 – Diagram of apparatus for water evaporation for accumulation of frost.....	45
Figure BB.2 – Apparatus for water evaporation and for accumulation of frost	46

Annexes

Annex A (normative) Normative references.....	40
Annex C (normative) Ageing test on motors.....	41
Annex D (normative) Alternative requirements for protected motor units.....	41
Annex AA (normative) Locked-rotor test of fan motors	42
Annex BB (informative) Method for accumulation of frost	44
Annex ZA (normative) Stability and mechanical hazards	47
Annex ZZ (informative) Variations to IEC 60335-2-24:2000 for application in Australia and New Zealand	48

Tables

Table 101 – Maximum temperatures for motor-compressors	17
Table 102 – Refrigerant flammability parameters	31

AUSTRALIA/NEW ZEALAND STANDARD

SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –

Part 2.24: Particular requirements for refrigerating appliances, ice-cream appliances and ice-makers (IEC 60335-2-24:2000 MOD)

Any IEC table, figure or passage of text that is struckthrough is not part of this standard. Any Australian/New Zealand table, figure or passage of text is added (and identified by shading) is part of this standard.

1 Scope

This clause of part 1 is replaced by:

This standard deals with the safety of the following appliances, their **rated voltage** being not more than 250 V for single-phase appliances, 480 V for other appliances and 24 V d.c. for appliances when battery operated.

- **refrigerating appliances** for household and similar use;
- **ice-makers** incorporating a motor-compressor and **ice-makers** intended to be incorporated in frozen food storage compartments;
- **refrigerating appliances** and **ice-makers** for use in camping, touring caravans and boats for leisure purposes.

These appliances may be operated from the mains, from a separate battery or operated either from the mains or from a separate battery.

This standard also deals with the safety of **ice-cream appliances** intended for household use, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

It also deals with **compression-type appliances** for household and similar use, which use **flammable refrigerants**.

This standard does not cover features of the construction and operation of those **refrigerating appliances** which are dealt with in ISO standards.

Appliances not intended for normal household use but which nevertheless may be a source of danger to the public, such as appliances intended to be used by laymen in shops, in light industry and on farms, are within the scope of this standard.

As far as is practicable, this standard deals with the common hazards presented by appliances which are encountered by all persons in and around the home.

This standard does not in general take into account

- the use of appliances by young children or infirm persons without supervision;
- playing with the appliance by young children.

NOTE 1 Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;
- in many countries additional requirements are specified by national health authorities, the national authorities responsible for the protection of labour and the national authorities responsible for transportation.

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NOTE 2 This standard does not apply to

- appliances intended to be used in the open air;
- appliances designed exclusively for industrial purposes;
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas);
- appliances incorporating a battery intended as a power supply for the refrigerating function;
- appliances assembled on site by the installer;
- appliances with remote motor-compressors;
- motor-compressors (IEC 60335-2-34);
- commercial dispensing appliances and vending appliances (IEC 60335-2-75);
- commercial ice-cream appliances.

2 Definitions

This clause of part 1 is applicable except as follows:

2.2.9 *Replacement:*

normal operation

operation of the appliance under the following conditions:

2.2.9.1

normal operation of a refrigerating appliance

operation at an ambient temperature according to 4.7, empty, with the doors and lids closed. User-adjustable temperature control devices which control the operation of the motor-compressor in **compression-type appliances**, are short-circuited or otherwise rendered inoperative

2.2.9.2

normal operation of an ice-maker

operation at an ambient temperature according to 4.7, with the supply water at a temperature of $15\text{ °C} \pm 2\text{ °C}$

2.2.9.3

normal operation of an incorporated ice-maker

operation at the normal temperature of the frozen food storage compartment, with the supply water at a temperature of $15\text{ °C} \pm 2\text{ °C}$

2.2.9.4

normal operation of an ice-cream appliance

operation of the appliance using the maximum quantity of the mixture of ingredients indicated in the instructions; the mixture used being that which gives the most unfavourable results, the mixture being at an initial temperature of $23\text{ °C} \pm 2\text{ °C}$

2.101

refrigerating appliance

enclosed thermally insulated appliance of suitable volume for household use, cooled by an incorporated device and having one or more compartments intended for the preservation of foodstuffs

2.102

compression-type appliance

appliance in which refrigeration is effected by the vaporization at low pressure in a heat exchanger (**evaporator**) of a liquid refrigerant, the vapour thus formed being restored to the liquid state by mechanical compression at a higher pressure and subsequent cooling in another heat exchanger (**condenser**)

2.103**ice-maker**

appliance in which ice is made by freezing water by a device consuming electrical energy and having a compartment for storing the ice

2.104**incorporated ice-maker**

ice-maker specially designed to be incorporated into a frozen food storage compartment and without independent means for freezing water

2.105**heating system**

heating element with associated components such as timers, switches, **thermostats** and other controls

2.106**absorption-type appliance**

appliance in which refrigeration is effected by the evaporation in a heat exchanger (**evaporator**) of a liquid refrigerant, in the liquid state, the resulting vapour being then absorbed by an absorbent medium from which it is subsequently expelled at a higher partial vapour pressure by heating and liquefied by cooling in another heat exchanger (**condenser**)

2.107**condenser**

heat exchanger in which, after compression, vaporized refrigerant is liquefied by losing heat to an external cooling medium

2.108**evaporator**

heat exchanger in which, after pressure reduction, the liquid refrigerant is vaporized by absorbing heat from the medium to be refrigerated

2.109**flammable refrigerant**

refrigerant with a flammability classification of group 2 or 3 according to ISO 5149

NOTE For refrigerant blends which have more than one flammability classification, the most unfavourable classification is taken for the purposes of this definition.

2.110**ice-cream appliance**

compression-type appliance which is used to make ice-cream

2.111**free space**

space with a volume exceeding 60 l where a child can be entrapped and which is accessible after opening any door, lid or drawer and removing any **detachable internal part**, including shelves, containers or removable drawers which are themselves only accessible after opening any door or lid. In calculating the volume, a space with any single dimension not exceeding 150 mm or any two orthogonal dimensions, each of which do not exceed 200 mm, is ignored

3 General requirement

This clause of part 1 is applicable except as follows:

Addition:

NOTE 101 The use of **flammable refrigerants** involves additional hazards which are not associated with appliances using non-flammable refrigerants.

This standard addresses the hazards due to ignition of leaked **flammable refrigerant** by potential ignition sources associated with the appliance.

The hazard due to ignition of leaked **flammable refrigerant** by an external potential ignition source associated with the environment in which the appliance is installed is compensated by the low probability of ignition.

4 General conditions for the tests

This clause of part 1 is applicable except as follows:

4.2 Addition:

At least one additional specially prepared sample is required for the tests of 22.107.

NOTE 1 Separate samples of the motor compressors may be needed for the tests of 19.1.

NOTE 2 The test of 22.7 may be carried out on separate samples.

NOTE 3 Due to the potentially hazardous nature of the tests of 22.107, 22.108 and 22.109, special precautions may need to be taken when carrying out the tests.

4.3 Addition:

Before starting the tests

- **ice-cream appliances** are operated empty at **rated voltage** for 1 h or the maximum setting of an incorporated timer, whichever is shorter;
- other **compression-type appliances** shall be operated at **rated voltage** for at least 24 h, then switched off and left to stand for at least 12 h.

The test of 11.102 is carried out immediately after the tests of clause 13.

The test of 15.105 is carried out immediately after the test of 11.102.

The tests of 15.102, 15.103 and 15.104 are carried out immediately after the test of 15.2.

4.4 Replacement:

Tests are carried out using each source of energy (electricity, gas or other fuel) in turn. Gas appliances are supplied at the appropriate rated pressure.

Tests are additionally carried out with all combinations of energy sources supplied simultaneously unless this is prevented by interlocking devices.

4.7 Addition:

*For **ice-cream appliances**, tests specified in clauses 10, 11 and 13 are carried out at an ambient temperature of $23\text{ °C} \pm 2\text{ °C}$.*

For other appliances, tests specified in clauses 10, 11, 13 and subclause 19.103 are carried out at an ambient temperature of

32 °C ± 1 °C on appliances of extended temperate (SN) and temperate (N) classes;

38 °C ± 1 °C on appliances of subtropical (ST) class;

43 °C ± 1 °C on appliances of tropical (T) class.

Before starting these tests, the appliance with the doors or lids open is brought to within 2 K of the ambient temperature specified.

Appliances classified for several climatic classes are tested at the ambient temperature relevant to the highest climatic class.

Other tests are carried out at an ambient temperature of 20 °C ± 5 °C.

NOTE Steady conditions are considered to be established when three successive readings of the temperature, taken at approximately 60 min intervals, at the same point of any operating cycle, do not differ by more than 1 K.

4.8.1 Addition:

Appliances which can be battery operated are tested at the more unfavourable polarity when the supply terminals or terminations for the connection of the battery have no indication for polarity.

4.9 Addition:

*Appliances incorporating an **ice-maker** are tested with the **ice-maker** operating to give the most unfavourable results.*

4.10 Addition

For the tests of 22.107, 22.108 and 22.109, the appliance is empty and installed as outlined below:

Built-in appliances are installed in accordance with the instructions for installation.

Other appliances are placed in a test enclosure, the walls enclosing the appliance as near to all its sides and the top of the appliance as possible, unless the manufacturer indicates in the instructions for installation that a free distance shall be observed from the walls or the ceiling, in which case this distance is observed during the test.

NOTE Commonly available fixing hardware, such as screws and bolts, need not be delivered with a fixed appliance.

4.101 *Appliances which are constructed so that an **ice-maker** may be incorporated are tested with the intended **ice-maker**.*

4.102 ***Compression-type appliances with heating systems** and Peltier-type appliances are tested as **combined appliances**.*

4.103 ***Compression-type appliances** which use **flammable refrigerants** and which, according to the instructions, may be used with other electrical appliances inside a food storage compartment are tested with such recommended appliances incorporated and being operated as in normal use.*

NOTE Examples of such electrical appliances are ice-cream makers and deodorizers.

5 Void

6 Classification

This clause of part 1 is applicable except as follows:

~~6.101 Appliances, other than ice-cream appliances, shall be of one or more of the following climatic classes:-~~

- ~~— appliances of extended temperate class (SN);~~
- ~~— appliances of temperate class (N);~~
- ~~— appliances of subtropical class (ST);~~
- ~~— appliances of tropical class (T).~~

6.101 Appliances shall be classified as at least appliances for tropical climates.

Compliance is checked by inspection.

NOTE The climatic classes are specified in ISO standards.

7 Marking and instructions

This clause of part 1 is applicable except as follows:

7.1 Addition:

Appliances shall also be marked with

- the power input, in watts, of **heating systems**, if greater than 100 W;
- the defrosting input, in watts, if greater than the input corresponding to the **rated power input**;
- **rated power input** in watts or **rated current** in amperes, except that **compression-type appliances**, other than **ice-cream appliances**, shall be marked only with the **rated current** in amperes;
- the letters SN, N, ST or T indicating the climatic class of the appliance;
- the maximum rated wattage of lamps, in watts;
- the total mass of the refrigerant;

NOTE 101 For **absorption-type appliances** using ammonia, the total mass of the refrigerant is considered to be the mass of ammonia used.

- for a single component refrigerant, at least one of the following:
 - the chemical name,
 - the chemical formula,
 - the refrigerant number;
- for a blended refrigerant, at least one of the following:
 - the chemical name and nominal proportion of each of the components,
 - the chemical formula and nominal proportion of each of the components,
 - the refrigerant number and nominal proportion of each of the components,
 - the refrigerant number of the refrigerant blend.
- the chemical name or refrigerant number of the principal component of the insulation blowing gas.

NOTE 102 Refrigerant numbers are given in ISO 817.

For **compression-type appliances**, the defrosting power input in watts shall be marked separately if the current corresponding to the defrosting power input is greater than the **rated current** of the appliance.

Appliances which can be mains and battery operated shall be marked with the battery voltage.

Appliances which can be battery operated shall be marked with the type of battery, distinguishing between rechargeable and non-rechargeable batteries, if necessary, unless the type is irrelevant for the operation of the appliance.

The means provided for connection of any additional electrical supply shall be marked with the voltage and nature of the supply.

Appliances designed for incorporating an **ice-maker** shall be marked with the maximum power input for an **incorporated ice-maker**, if greater than 100 W.

Ice-makers without automatic water level control shall be marked with the maximum permissible water level.

Appliances shall be marked with details of the source of supply other than electrical, if any.

For **compression-type refrigerating systems**, the appliance shall also be marked with the mass of the refrigerant for each separate refrigerant circuit.

Compression-type appliances which use **flammable refrigerants** shall be marked with warning sign B.3.2 from ISO 3864.

7.6 Addition:

The perpendicular height of the triangle containing the warning sign B.3.2 from ISO 3864 shall be at least 15 mm.

7.10 Addition:

NOTE 101 As an alternative, temperature values in degrees Celsius may be indicated on a control scale.

7.12 Addition:

The instructions for **refrigerating appliances** and **ice-makers** for camping or similar use shall include the substance of the following:

- suitable for camping use;
 - the appliance may be connected to more than one source of energy;
- NOTE 101 This item is not applicable to appliances which are intended to be supplied by electricity only.
- the appliance shall not be exposed to rain

NOTE 102 This item is not applicable to appliances with a degree of protection against harmful ingress of water of at least IPX4.

The instructions for **ice-makers** not intended to be connected to the water supply shall state the substance of the following warning:

WARNING – fill with potable water only.

For **compression-type appliances** which use **flammable refrigerants**, the instructions shall include information pertaining to the installation, handling, servicing and disposal of the appliance.

The instructions shall also include the substance of the warnings listed below:

WARNING – keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction.

WARNING – do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.

WARNING – do not damage the refrigerant circuit.

NOTE 103 This warning is only applicable to appliances with refrigerating circuits which are accessible to the user.

WARNING – do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer.

For appliances which use flammable insulation blowing gases, the instructions shall include information regarding disposal of the appliance.

The instructions for **ice-cream appliances** shall include the ingredients and maximum quantity of mixtures that can be used in the appliance.

7.12.1 Addition:

Instructions shall include the method for replacing illuminating lamps.

For appliances designed for incorporating **ice-makers**, the instructions shall include the types of **ice-makers** which can be incorporated.

The instructions shall include information on the installation of **incorporated ice-makers** which are available as optional accessories and intended to be installed by the user. If it is intended that **incorporated ice-makers** are to be installed only by the manufacturer or its service agent, this shall be stated.

The instructions for **ice-makers** intended to be connected to the water supply shall state

- the maximum permissible inlet water pressure, in pascals or bars;
- the minimum permissible inlet water pressure, in pascals or bars, if this is necessary for the correct operation of the appliance;
- the substance of the following warning:

WARNING – connect to potable water supply only.

‡The instructions for **fixed appliances** shall include the substance of the following warning:

WARNING – to avoid a hazard due to instability of the appliance, it must be fixed according to the instructions.

‡ This requirement forms part of the standard 1 year from the date of publication.

7.12.4 *Modification:*

† This subclause is also applicable to **fixed appliances**.

7.15 *Addition:*

The marking of the maximum rated wattage of illuminating lamps shall be easily discernible while the lamp is being replaced.

For **compression-type appliances** the marking of the type of **flammable refrigerant** and of the flammable insulation blowing gas, as well as the warning sign B.3.2 from ISO 3864, shall be visible when gaining access to the motor-compressors.

For other appliances the marking of the type of flammable insulation blowing gas shall be on the external enclosure.

7.101 For appliances which can be battery operated the supply terminals or terminations for connections to the battery shall be clearly indicated by the symbol "+" or the colour red for the positive polarity, and by the symbol "-" or the colour black for the negative polarity, unless the polarity is irrelevant.

Compliance is checked by inspection.

8 Protection against access to live parts

This clause of part 1 is applicable except as follows:

8.1.1 *Modification:*

Replace the second paragraph of the test specification by the following:

*Lamps are not removed, provided that the appliance can be isolated from the supply by means of a plug or an all-pole switch. However, during the insertion or removal of lamps, protection against contact with **live parts** of the lamp cap shall be ensured.*

9 Starting of motor-operated appliances

This clause of part 1 is not applicable.

10 Power input and current

This clause of part 1 is applicable except as follows:

10.1 *Modification:*

Replace the third dashed item of the first paragraph of the test specification by the following:

- *the appliance being operated under **normal operation** except that user adjustable temperature controls are set to give the lowest temperature.*

† This requirement forms part of the standard 1 year from the date of publication.

Addition:

The power input is considered to be stabilized when steady conditions are established or when any incorporated timer operates, whichever occurs first.

*A representative period is one between the making and the breaking of the temperature control, or between the highest and lowest values of power input measured, excluding starting power input but including the power input of the **incorporated ice-maker**, if any.*

NOTE 101 The power input of a defrosting system which is separately marked on the appliance is not taken into consideration during the test.

10.2 Modification:

Replace the third dashed item of the first paragraph of the test specification by the following:

- *the appliance being operated under **normal operation** except that user adjustable temperature controls are set to give the lowest temperature.*

Addition:

The appliance is operated for a period of 1 h or the maximum setting of an incorporated timer whichever is shorter. Excluding starting current, the maximum value of the current averaged over any 5 min period is obtained. The interval between current measurements shall not exceed 30 s.

NOTE 101 Starting current is considered to be excluded if the first current measurement is made approximately 1 min after starting.

10.101 The power input of the defrosting system shall not deviate from the defrosting power input marked on the appliance by more than the deviation shown in table 1.

*Compliance is checked by operating the appliance at **rated voltage** and measuring the power input of the defrosting system after the power input has stabilized.*

10.102 The power input of any **heating system** shall not deviate from the power input of these systems marked on the appliance by more than the deviation shown in table 1.

*Compliance is checked by operating the appliance at **rated voltage** and measuring the power input of the **heating system** after the power input has stabilized.*

11 Heating

This clause of part 1 is applicable except as follows:

11.1 Modification:

Compliance is checked by determining the temperature rise of the various parts under the conditions specified in 11.2 to 11.7.

If the winding temperatures of motor-compressors exceed the values given in table 101, compliance is checked by the test of 11.101.

The winding temperatures of motor-compressors complying with IEC 60335-2-34 including its annex AA are not measured.

11.2 Replacement:

Built-in appliances are installed in accordance with the instructions for installation

Ice-cream appliances are placed as near to the walls of the test corner as possible, unless the manufacturer indicates in the instructions for use that a free distance shall be observed from the walls, in which case, this distance is observed during the test. If means of ventilation are supplied by the manufacturer, they are mounted as intended.

Other appliances are placed in a test enclosure. The walls enclose the appliance as near to all its sides and above as possible, unless the manufacturer indicates in the instructions for installation that a free distance shall be observed from the walls or the ceiling, in which case this distance is observed during the test.

Dull black painted plywood approximately 20 mm thick is used for the test corner, supports and installation of **built-in appliances** and for the test enclosure for other appliances.

11.7 Replacement:

The appliance is operated until steady conditions are established.

11.8 Modification:

Replace the text above table 3 by the following:

During the test, **protective devices** other than self-resetting thermal motor-protectors for motor-compressors shall not operate. When steady conditions are established, self-resetting thermal motor-protectors for motor-compressors shall not operate.

During the test, sealing compound, if any, shall not flow out.

During the test, temperature rises are monitored continuously.

For appliances of extended temperate (SN) or temperate (N) class, the temperature rises shall not exceed the values given in table 3.

For appliances of subtropical (ST) or tropical (T) class, the temperature rises shall not exceed the values given in table 3 reduced by 7 K.

Addition:

The entry in table 3 relating to the temperature rise of the external enclosure of **motor-operated appliances** is applicable to all appliances covered by this standard. However it is not applicable to those parts of the external enclosure which are:

- for **built-in appliances**, not **accessible parts** after installation in accordance with the instructions for installation;
- for other appliances, on that part of the appliance which according to the instructions for installation, is intended to be placed against a wall with a free distance not exceeding 75 mm.

Temperatures of

- enclosures of motor-compressors other than those with an enclosure for which the temperature rise is specified in table 3;
- windings of motor-compressors;

shall not exceed the values given in table 101.