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Amendment 1

**Household and similar electrical appliances –  
Safety –**

**Part 2-34:  
Particular requirements for motor-compressors**

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## FOREWORD

This amendment has been prepared by subcommittee 61C: Household appliances for refrigeration, of IEC technical committee 61: Safety of household and similar electrical appliances.

The text of this amendment is based on the following documents:

FDIS	Report on voting
61C/283A/FDIS	61C/298/RVD

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

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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- withdrawn,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

## 19 Abnormal operation

### 19.101

*Replace the second paragraph (beginning "Motor-compressors with a manually reset ...") with the following:*

For **motor-compressors** with a **non-self-resetting thermal motor-compressor protection system**, the **motor-compressor** is operated until a sufficient number of operations have been made to ensure that continuous automatic recycling does not occur. The number of operations should, however, not be less than three and should be performed as rapidly as possible with a minimum delay of 6 s.

A longer off time is permitted if a delay feature longer than 6 s is part of the **protection system** or **control system**.

All electromechanical components of the **protection system** shall be tested individually for 50 operations in total with the **motor-compressor** or with a load corresponding to the actual **motor-compressor** or a higher load.

*Insert, after the third paragraph, the following new paragraph:*

**Motor-compressors** without a **motor-compressor protection system** and only protected by the impedance of the windings, are connected in the circuit shown in Figure 101 and supplied with rated voltage. If a **motor-compressor** is designed for more than one rated voltage it is tested at the highest voltage.

*Insert, at the end of subclause 19.101, after Note 4, the following new paragraphs:*

For **motor-compressors** where the design of the **protection system** or **control system** is such that the windings are de-energized permanently, the **motor-compressor** and **motor-compressor protection system** (if any), together with all their associated components which operate under locked-rotor conditions, are re-energized. This procedure is repeated as rapidly as possible until 10 operations have been performed, with a minimum off time of 6 s. A longer off time is permitted if a delay feature longer than 6 s is part of the **protection system** or **control system**.

If the **motor-compressor** is designed for more than one rated voltage the test is performed at all rated voltages.

If the **motor-compressor** is designed for a voltage range the test is performed at the upper and lower voltage limit.

**Motor-compressors** without a **motor-compressor protection system** are left energized as described above for 15 days. The housing temperature is recorded on the 12<sup>th</sup> and 15<sup>th</sup> days. If, during these three days the temperature has not increased by more than 5 K the test can be terminated.

#### 19.102

*In the first paragraph, on the first line, replace "manual reset" with "non-self resetting"*

#### 19.103

*In the first paragraph, second dash item, replace "manual reset" with "non-self resetting"*

*Add at the end of the first paragraph the following 3<sup>d</sup> indent:*

- for **motor-compressors** without a **motor-compressor protection system** for 3 h.

#### 19.105

*In the fourth paragraph, second dash item, replace "manually reset" with "non-self resetting"*

## 22 Construction

### Table 101 – High side test pressures

In the column "Refrigerant", on the third row, *replace the formula "CHCl<sub>2</sub>F<sub>2</sub>", for R-22, with "CHClF<sub>2</sub>*

## Table 102 – Low side test pressures

In the column “Refrigerant”, on the third row, *replace the formula "CHCl<sub>2</sub>F<sub>2</sub>", for R-22, with "CHClF<sub>2</sub>"*

## 29 Clearances, creepage distances and solid insulation

### Sub clause 29.1

Line 1

*Replace: "in 29.1.1 and 29.1.2" with "in 29.1.1 and 29.1.4"*

#### Subclause 29.1.1

*Replace the addition with the following:*

Clearances inside the compressor housing shall not be less than 1,0 mm for a rated impulse voltage of 1 500 V.

#### Subclause 29.1.2

*Replace the first sentence in the addition with the following:*

Clearances inside the compressor housing shall not be less than 1,0 mm for a rated impulse voltage of 1 500 V.

*After making the above change, replace "29.1.2 Addition" with "29.1.4 Addition"*

### Sub clause 29.2.2 Modification

*Replace with "29.2.4 Modification"*

## Annex AA – Running overload tests for motor-compressors classified as tested with Annex AA

### Clause AA.2

*In the third paragraph (beginning with “During the test”), in the second dash item, add “if any” after “motor-compressor protection system”.*

### Clause AA.3

*In the third paragraph, first line, before the term “motor-compressor, replace “the” with “a”.*



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