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Commercial refrigerated cabinets — Methods of test — Part VI : Electrical energy consumption test

Meubles frigorifiques commerciaux — Méthodes d'essai — Partie VI : Essai de consommation d'énergie électrique

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1992/VI (originally draft International Standard ISO/DIS 2642) was drawn up by Technical Committee ISO/TC 86, *Refrigeration*, and circulated to the Member Bodies in February 1972.

It has been approved by the Member Bodies of the following countries :

Australia	Hungary	Spain
Austria	Ireland	Sweden
Belgium	Israel	Switzerland
Czechoslovakia	Japan	Thailand
Denmark	New Zealand	Turkey
Egypt, Arab Rep. of	Poland	United Kingdom
France	Romania	U.S.S.R.
Germany	South Africa, Rep. of	

The Member Body of the following country expressed disapproval of the document on technical grounds :

Netherlands

Other parts in this series under the general title, *Commercial refrigerated cabinets — Methods of test*, are as follows :

- Part I : *Calculation of linear dimensions, areas and volumes.*
- Part II : *General test conditions.*
- Part III : *Temperature test.*
- Part IV : *Defrosting test.*
- Part V : *Water vapour condensation test.*
- Part VII : *Test for odour of material.*

(Part VII is at present at the stage of draft.)

Printed in Switzerland

Commercial refrigerated cabinets — Methods of test — Part VI : Electrical energy consumption test

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the method of measuring the consumption of electrical energy for commercial refrigerated cabinets intended for the sale and/or display of food products.

2 TEST CONDITIONS

2.1 The electrical energy consumption test shall be made in accordance with part II and at ambient conditions corresponding to the climate class(es) for which the cabinet is intended.

2.2 The electrical energy consumption test can be concurrent with the product temperature test (see part III).

2.3 For cabinets supplied without night-covers, any built-in cabinet lighting shall be on continuously during the test.

2.4 If night-covers are supplied, the night-covers and cabinet lighting shall be manipulated as follows :

— first test : night-covers removed and cabinet lighting on continuously;

— second test : night-covers removed and cabinet lighting switched on for a period of 10 h followed by a period of 14 h with the night-covers on and the cabinet lighting switched off.

3 MEASUREMENTS

3.1 In the case of cabinets fitted with integral refrigerating units the electrical energy consumption shall be measured.

3.2 In the case of cabinets where the condensing unit is remote, the electrical energy consumption of the cabinet only (that is to say all permanently located electrical power-using components required for normal use) shall be measured.

3.3 If night-covers are supplied, two tests shall be made; one without night-covers and the other with night-covers.

4 PROCEDURE

4.1 After stable operating conditions have been reached (see part II), the cabinet shall be run for a further period of at least 24 h.

4.2 The total electrical energy consumption shall be recorded for a period beginning and ending at corresponding points of the time/temperature cycle. This period of time shall be not less than 24 h in duration.

4.3 The total energy consumption recorded for each test shall be the summation of all electrical energy consumed by the refrigerated cabinet during the test period.

5 TEST REPORT

The test report for each test shall include the following information :

a) the class (or classes) of climate for which the cabinet is intended and for which the tests have been made;

b) a statement indicating whether the test was made with or without night-covers;

c) the total electrical energy consumption of the refrigerated cabinet during the test, expressed in kilowatt hours per 24 h.

1) The expression "electrical energy consumption" corresponding to normal usage has been retained although not technically correct.