



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

④ JIS C 9607 : 1999

Household electric refrigerators, refrigerator-freezer and freezers

ICS 97.040.30

Descriptors : refrigerators, freezers, kitchen storage vessels, electrical household appliances, household equipment, electrically-operated devices

Reference number : JIS C 9607 : 1999 (E)

C 9607 : 1999

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS C 9607 : 1993** is replaced with **JIS C 9607 : 1999**.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

Date of Establishment: 1955-04-14

Date of Revision: 1999-03-20

Date of Public Notice in Official Gazette: 1999-03-23

Investigated by: Japanese Industrial Standards Committee
Divisional Council on Electricity

JIS C 9607:1999, First English edition published in 2000-01

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2000

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

Contents

	Page
Introduction	1
1 Scope	1
2 Normative references	1
3 Definitions	2
4 Classification	4
5 Rated voltage and rated frequency	4
6 Running performances	4
6.1 Refrigerant leakage	4
6.2 Cooling performance	4
6.3 Cooling rate	5
6.4 Freezing capability	5
6.5 Defrosting performance	6
6.6 Thermal insulation	6
6.7 Power consumption	6
6.8 Electrical energy consumption	6
6.9 Door opening force	6
6.10 Freezer compartment door retaining force	6
6.11 Noise	7
7 Safety performances	7
7.1 Temperature	7
7.2 Insulation resistance	8
7.3 Dielectric withstand voltage	8
7.4 Voltage fluctuation characteristics	8
7.5 Starting characteristics of compressor	8
7.6 Leakage current	8
7.7 Construction	8
7.7.1 Construction in general	8
7.7.2 Control device	13

C 9607 : 1999

7.7.3	Live parts	14
7.7.4	Grounding terminal and grounding lead	17
7.7.5	Power supply cord	18
7.7.6	Wiring	18
7.8	Materials	19
8	Performance tests	20
8.1	Standard test conditions	20
8.1.1	Test room	20
8.1.2	Test load	23
8.1.3	Operating conditions of electric refrigerators	23
8.1.4	Instrumentation device and method	24
8.1.5	Fresh food compartment temperature	24
8.1.6	Freezer load temperature	27
8.1.7	Freezer compartment temperature	27
8.2	Test methods	29
8.2.1	Refrigerant leakage test	29
8.2.2	Cooling performance test	29
8.2.3	Cooling rate test	29
8.2.4	Freezing capability test	29
8.2.5	Defrosting performance test	31
8.2.6	Thermal insulation test	31
8.2.7	Power consumption test	32
8.2.8	Electrical energy consumption test	32
8.2.9	Door opening force test	32
8.2.10	Freezer compartment door retaining force test	32
8.2.11	Noise test	33
9	Safety tests	33
9.1	Temperature test	33
9.2	Insulation resistance test	33
9.3	Dielectric withstand voltage test	34
9.4	Voltage fluctuation characteristics test	34
9.5	Starting characteristics test of compressor	34

9.6	Leakage current test	34
9.7	Construction test	34
10	Inspection	34
10.1	Type inspection	34
10.2	Product inspection	35
11	Designation	36
12	Marking	36
12.1	Marking on products	36
12.2	Marking on package	36
12.3	Symbol of freezer compartment	36
13	Instructions for use	38
14	Matters to be taken into account for recycling of materials	38
Attached Fig. 1	Impact-test apparatus	39
Attached Fig. 2	Test finger	39
Annex 1 (normative)	Electric refrigerators and freezers (type B)	41
Annex 2 (normative)	Noise test	45

Household electric refrigerators, refrigerator-freezer and freezers

Introduction This Japanese Industrial Standard has been prepared by adopting the requirements for safety performances stated in **JIS C 9607** issued in 1993 as the type A requirements to form the main part (text), and the requirements stated in **JIS C 9335-2-24** prepared based on the corresponding International Standard as the type B requirements to form the Annex.

1 Scope This Japanese Industrial Standard specifies household electric refrigerators of storage volume 800 L or less, and household vertical electric freezers of storage volume 400 L or less, with a compression type refrigerating machine and storage cabinet integrated in one body (hereafter household electric refrigerators, refrigerator-freezers and freezers are generically called “electric refrigerators”).

Remarks 1 In Annex 1, the requirements for safety performances of electrical refrigerators to which **JIS C 9335-2-24** is applicable (type B) are specified.

2 The text (type A) and Annex 1 (type B) shall be applied individually.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions (including amendments) of the standards indicated below shall be applied.

JIS C 0602 *General rules of colour identification for protective conductor and neutral conductor and terminal marking for apparatus*

JIS C 0702 *General rules for insulation construction of class II electrical appliances*

JIS C 1102 *Direct acting indicating analogue electrical measuring instruments and their accessories*

JIS C 1211 *Alternating-current watt-hour meters (for direct connection)*

JIS C 1302 *Insulation resistance testers*

JIS C 1502 *Sound level meters*

JIS C 3306 *Polyvinyl chloride insulated flexible cords*

JIS C 3312 *600 V Grade polyvinyl chloride insulated and sheathed portable power cables*

JIS C 8303 *Plugs and receptacles for domestic and similar general use*

JIS C 8367 *Electromechanical pressure type thermostats for household appliances*

JIS C 9335-2-24 *Safety of household and similar electrical appliances—Part 2 : Particular requirements for refrigerating appliances and ice-makers*

Remarks : This is Japanese Industrial Standard prepared based on **IEC 60335-2-24** (*Safety of household and similar electrical appliances—Part 2 Particular requirements for refrigerating appliances and ice-makers*) issued in 1996 as the third edition by taking special circumstances in Japan into account for some portions.