

Specification for

Electrically-heated food conveyors and carriers

Co-operating organizations

The Electrical Industry Standards Committee under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

Admiralty	Electrical Contractors' Association of Scotland
Air Ministry	Electricity Council, The Generating Board and the Area Boards in England and Wales
Associated Offices' Technical Committee	Electronic Engineering Association
Association of Consulting Engineers (Incorporated)	Engineering Equipment Users' Association
Association of Mining Electrical and Mechanical Engineers	Independent Cable Makers' Association
Association of Supervising Electrical Engineers	Institution of Electrical Engineers*
British Electrical and Allied Industries Research Association	Ministry of Aviation
British Electrical and Allied Manufacturers' Association*	Ministry of Labour (Factory Inspectorate)*
British Electrical Development Association*	Ministry of Power
British Railways, The British Transport Commission	Ministry of Public Buildings and Works
Cable Makers' Association	Municipal Passenger Transport Association (Incorporated)
Crown Agents for Oversea Governments and Administrations	National Inspection Council for Electrical Installation Contracting
Electric Lamp Industry Council	National Physical Laboratory (D.S.I.R.)
Electric Light Fittings Association	Oil Companies Materials Association
Electrical Contractors' Association (Incorporated)	Post Office
	Public Transport Association (Incorporated)
	South of Scotland Electricity Board
	War Office

The Government department and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this standard:

Association of Supervising Electrical Engineers	Industrial Catering Association
Association of Supervisory Staffs Executives and Technicians	Institution of Hospital Engineers
Caterers Association of Great Britain	Institutional Management Association
Catering Equipment Manufacturers Association	London County Council
County Councils Association	Ministry of Agriculture, Fisheries and Food
Engineering Industries Association	Ministry of Education
Hospital Caterers Association	Ministry of Health
	National Association of Restaurant Engineers
	Tea Bureau

This British Standard, having been approved by the Electrical Industry Standards Committee and endorsed by the Chairman of the Engineering Divisional Council, was published under the authority of the General Council on 28 September 1962

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Foreword

This standard makes reference to the following British Standards:

BS 7, *Rubber-insulated cables and flexible cords for electric power and lighting (for working voltages up to and including 11 kV).*

BS 816, *Requirements for electrical appliances and accessories.*

BS 2004, *PVC-insulated cables and flexible cords for electric power and lighting.*

BS 2754, *Memorandum on double-insulated and all-insulated electrical equipment.*

BS 3042, *Standard test finger (for checking protection against electric shock).*

BS 3283, *Non-reversible connectors and appliance inlets for portable electrical appliances (for circuits up to 250 volts and 13 amperes).*

This British Standard has been prepared under the authority of the Electrical Industry Standards Committee. It is intended to secure a satisfactory standard of mechanical and electrical safety, and construction for electrically-heated food conveyors and carriers of the type used in hospitals, commercial and public catering.

NOTE 1 Where metric equivalents are stated the figures in British units are to be regarded as the standard. The metric units are approximate. More accurate conversions should be based on the tables in BS 350, "Conversion factors and tables".

NOTE 2 In place of the customary, but incorrect, use of the pound and kilogramme as units of force, the units called pound-force (abbreviation lbf) and kilogramme-force (abbreviation kgf) have been used in this standard. These are the forces which, when acting on a body of mass of one pound or one kilogramme respectively, give it an acceleration equal to that of standard gravity.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 9 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Section 1. General

1 Scope

This British Standard specifies requirements for electrically-heated and insulated food conveyors, which can be either wheeled assemblies or hand-carried boxes. Wheeled assemblies are designed to carry food in heated containers, with additional hot cupboard accommodation; unheated compartments may also be included in such an arrangement. Food boxes of limited capacity are designed for portability, and can be either carried by hand or placed on an appropriate chassis. The chassis can also incorporate unheated accommodation.

The appliances are for operation at voltages up to 250 volts a.c., r.m.s. or d.c. and having a loading not exceeding 3 kW.

2 Definitions

For the purposes of this British Standard the following definitions apply. The terms voltage and current imply the r.m.s. values, unless otherwise specified:

rated voltage, current or input

the voltage, current or input, assigned to the appliance by the maker and marked on it. The rated input refers to the input in watts or kilowatts at normal operating temperature

functional insulation

the insulation necessary for the proper functioning of the equipment and for basic protection against electric shock

functionally-insulated parts

metal parts that are separated from live parts by functional insulation only

bain-marie

an arrangement for the storage of food in containers, designed to keep food hot during service

heated food conveyor

a mobile appliance which is heated to a given temperature for accommodating food whilst in transit and at the service point

heated food carrier

a portable appliance which is heated to a given interior temperature for accommodating food whilst in transit and at the service point

hot cupboard

a hot compartment which may be internally divided by shelves into two or more sections designed for food and plate storage

Section 2. Design and construction

3 General

Food conveyors and carriers shall be made of good quality impermeable material, and the construction shall be robust and workmanlike throughout, and shall be so designed and constructed that in normal use it is reliable and without danger to the user and surroundings.

Materials shall be non-corrodible or have a service finish which adequately protects against corrosion at the temperature, and in the humidity conditions to which they will normally be subjected. Any finishes on the surface of the equipment shall be non-ignitable and shall not cause food contamination. Highly flammable finishes shall not be used.

The conveyors and carriers shall be capable of complying with the tests specified in Clauses 21 to 34.

4 Classification

¹⁾Electrically-heated food conveyors and carriers shall be designed as Class I appliances, i.e. appliances having some functionally-insulated parts which can be touched and are required to be earthed.

5 Supply connection

a) The supply connection shall be by one of the following methods:

- i) *Conveyors*. Fixed terminals complying with the requirements of Clause 7, or a 3-pin appliance inlet and connector having a rating of 13 amperes and complying with BS 3283²⁾.
- ii) *Carriers*. A 3-pin appliance inlet and connector having a rating of 13 amperes and complying with BS 3283²⁾.

b) Appliances with non-detachable flexible cords shall be provided with a cord-grip such that the ends of the conductors connected to the terminals are relieved from strain including twisting, and the outer surface of the cord is not damaged. The method by which this is effected shall be clearly seen.

¹⁾ BS 2754, "Memorandum on double-insulated and all-insulated electrical equipment."

²⁾ BS 3283, "Non-reversible connectors and appliance inlets for portable electrical appliances (for circuits up to 250 volts and 13 amperes)".