



BSI Standards Publication

Direct current (DC) plugs and socket-outlets for information and communication technology (ICT) equipment installed in data centres and telecom central offices

Part 1: Plug and socket-outlet system for 2,6 kW

National foreword

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A list of organizations represented on this committee can be obtained on request to its secretary.

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TECHNICAL SPECIFICATION



**Direct current (DC) plugs and socket-outlets for information and communication technology (ICT) equipment installed in data centres and telecom central offices
Part 1: Plug and socket-outlet system for 2.6 A W**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**DIRECT CURRENT (DC) PLUGS AND SOCKET-OUTLETS FOR
INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) EQUIPMENT
INSTALLED IN DATA CENTRES AND TELECOM CENTRAL OFFICES**

Part 1: Plug and socket-outlet system for 2,6 kW

FOREWORD

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Technical Specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 62735-1, which is a Technical Specification, has been prepared by IEC technical committee 23: Electrical accessories.

In this standard, the following print types are used:

- compliance statements: in *italic* type

The text of this Technical Specification is based on the following documents:

Enquiry draft	Report on voting
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Full information on the voting for the approval of this Technical Specification can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62735 series, published under the general title *Direct current (DC) plugs and socket-outlets for information and communication technology (ICT) equipment installed in data centres and telecom central offices*, can be found on the IEC website.

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

- transformed into an International Standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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DIRECT CURRENT (DC) PLUGS AND SOCKET-OUTLETS FOR INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) EQUIPMENT INSTALLED IN DATA CENTRES AND TELECOM CENTRAL OFFICES

Part 1: Plug and socket-outlet system for 2,6 kW

1 Scope

This part of IEC 62735, which is a Technical Specification, applies to plugs and fixed socket-outlets for class I equipment with two active contacts plus an earthing contact, a rated power of 2,6 kW and a rated voltage range from 294 V to 400 V d.c. They are intended to power d.c. information and communication technology equipment only, products according to IEC 60950.

The accessories according to this part of IEC 62735 are intended to be used by ordinary persons in data centres only where the value of the d.c. voltage distribution system is defined as follows:

- 380 V with a tolerance of ± 20 V for installations with no backup battery or with a voltage regulation system;
- 380 V with a voltage range of 294 V to 400 V for installations with a backup battery where voltage regulation is not guaranteed;
- the voltage value between each live conductor and earth does not exceed 200 V d.c. during normal operation;
- there are two abnormal voltage ranges (duration below 10 min):
 - 260 V up to 294 V, and
 - above 400 V to 410 V.

The maximum current of the plug and the socket-outlet is

- 6,5 A when the voltage between live contacts is 400 V d.c.,
- 8,8 A when the voltage between live contacts is 294 V d.c.

and can rise up to 10 A when the voltage between live contacts decreases to 260 V d.c. for 10 min maximum.

The voltage between live conductors can fall down to 260 V d.c. when the voltage discharge value of the battery reaches the disconnecting level. The consequence is that the current increases accordingly.

The accessories according to this part of IEC 62735 do not require maintenance.

Plugs and socket-outlets covered by this part of IEC 62735 are intended for use in circuits where

- basic protection,
- an overcurrent protection (of 8,8 A or less for each socket-outlet or multiple socket-outlet),
- the fault protection (indirect contact protection), and
- additional protection

are already assured.