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TECHNICAL SPECIFICATION

Direct current (DC) appliance couplers for information and communication technology (ICT) equipment installed in data centres and telecom central offices – Part 2: 5,2 kW system

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DIRECT CURRENT (DC) APPLIANCE COUPLERS FOR INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) EQUIPMENT INSTALLED IN DATA CENTRES AND TELECOM CENTRAL OFFICES –

Part 2: 5,2 kW system

FOREWORD

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IEC TS 63236-2 has been prepared by IEC technical committee 23: Electrical accessories. It is a Technical Specification.

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

DTS	Report on voting
23/916/DTS	23/958A/RVDTS

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

The language used for the development of this Technical Specification is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

This Part 2 is to be used in conjunction with IEC TS 63236-1:2021.

The clauses of this document supplement or modify the corresponding clauses in IEC 63236-1. When a particular subclause or annex of Part 1 is not mentioned in this Part 2, the subclause or annex of IEC 63236-1 applies as far as is reasonable. Where this document states “addition”, “amendment” or “replacement”, the relevant requirement, test specification or explanatory matter in IEC 63236-1 is to be adapted accordingly.

Clauses or subclauses which are additional to those in Part 1 are numbered starting from 101.

A list of all parts in the IEC 63236 series, published under the general title *Direct current (DC) appliance couplers 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 document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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- withdrawn,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

DIRECT CURRENT (DC) APPLIANCE COUPLERS FOR INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) EQUIPMENT INSTALLED IN DATA CENTRES AND TELECOM CENTRAL OFFICES –

Part 2: 5,2 kW system

1 Scope

This part of IEC 63236, which is a Technical Specification, applies to DC appliance couplers for class I equipment with two active contacts plus an earthing contact, a rated power of 5,2 kW and a rated voltage range from 294 V to 400 V DC. They are intended to power DC information and communication technology equipment only, as specified in IEC 62368-1.

The accessories according to this document are intended to be used by ordinary persons in data centres only where the value of the DC 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 DC 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 appliance couplers is

- 13 A when the voltage between live contacts is 400 V DC,
- 17,6 A when the voltage between live contacts is 294 V DC,

and can rise up to 20 A when the voltage between live contacts decreases to 260 V DC for 10 min maximum.

The voltage between live conductors can fall down to 260 V DC 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 document do not require maintenance.

The accessories according to this document are intended for use in circuits where

- basic protection,
- an overcurrent protection (of 17,6 A or less for each socket-outlet or multiple socket-outlet),
- the fault protection (indirect contact protection), and
- additional protection

are already assured.

Appliance couplers complying with this document are suitable for normal use at ambient air temperatures not normally exceeding +60 °C, with a lower limit of the ambient air temperature of -5 °C.

Appliance couplers are not suitable for use in place of plug and socket-outlet systems according to the IEC TS 62735 series

The 2,6 kW system complying with IEC TS 63236-1 is not compatible with the system complying with IEC TS 63236-2 as it is impossible to mate the 2,6 kW connector in the 5,2 kW appliance inlet and it is also impossible to mate the 5,2 kW connector into the 2,6 kW appliance inlet.

2 Normative references

This clause of IEC TS 63236-1:2021 applies.