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Project No. 2019/03588

Responsible committee: PEL/23/1 Circuit breakers and similar equipment for household use

Interested committees:

Title: Draft BS EN 62606 AMD2. General requirements for arc fault detection devices

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

- i) has any issues related to 3rd party IPR, patent or copyright
- ii) affects other national standard(s)
- iii) requires additional national guidance or information

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Responsible Committee Secretary: **Mr Simon Bounds (BSI)**Direct tel: **0208 996 7281**E-mail: **simon.bounds@bsigroup.com**

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



23E/1160/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER:

IEC 62606/AMD2 ED1

DATE OF CIRCULATION:

2019-11-29

CLOSING DATE FOR COMMENTS:

2020-02-21

SUPERSEDES DOCUMENTS:

23E/1158/RR

IEC SC 23E : CIRCUIT-BREAKERS AND SIMILAR EQUIPMENT FOR HOUSEHOLD USE

SECRETARIAT:

Italy

SECRETARY:

Mr Giovanni Cassinelli

OF INTEREST TO THE FOLLOWING COMMITTEES:

SC 121A

PROPOSED HORIZONTAL STANDARD:

☐

Other TC/SCs are requested to indicate their interest, if any, in this CD to the secretary.

FUNCTIONS CONCERNED:

☒ EMC

☐ ENVIRONMENT

☐ QUALITY ASSURANCE

☒ SAFETY

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

TITLE:

Amendment 2 - General requirements for arc fault detection devices

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FOREWORD

This amendment has been prepared by subcommittee 23E: Circuit-breakers and similar equipment for household use, of IEC technical committee 23: Electrical accessories.

The text of this amendment is based on the following documents:

FDIS	Report on voting
23E/XX/FDIS	23E/XX/RVD

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

The committee has decided that the contents of this amendment and the base 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

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

The National Committees are requested to note that for this document the stability date is

THIS TEXT IS INCLUDED FOR THE INFORMATION OF THE NATIONAL COMMITTEES AND WILL BE DELETED AT THE PUBLICATION STAGE.

GENERAL REQUIREMENTS FOR ARC FAULT DETECTION DEVICES

Replace the existing title of this document with the following new title:

GENERAL REQUIREMENTS FOR ARC FAULT DETECTION AND PROTECTION DEVICES

1 Scope

Replace the existing second dash of second paragraph with the following new second dash:

- as a single device, with arc fault detection integrated in or assembled by manufacturer to a protective device; or

Replace the existing second sentence of last paragraph with the following new text:

The requirements of this standard apply for standard conditions of temperature and environment. They are applicable to AFDDs intended for use in an environment with pollution degree 2 and overvoltage category III.

2 Normative references

Replace the following existing normative references with the following new normative references:

IEC 60898-1:2015, *Electrical accessories - Circuit-breakers for overcurrent protection for household and similar installations - Part 1: Circuit-breakers for a.c. operation*
IEC 60898-1:2015/AMD1:2019

IEC 61008-1:2010, *Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part1: General rules*
IEC 61008-1:2010/AMD1:2012
IEC 61008-1:2010/AMD2:2013

IEC 61009-1:2010, *Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) - Part 1: General rules*
IEC 61009-1:2010/AMD1:2012
IEC 61009-1:2010/AMD2:2013

3 Terms and definitions

3.4 arc fault detection unit

Replace the existing Note 1 to entry with the following new Note 1 to entry:

Note 1 to entry The interruption of the current can either be provided by opening means (see 4.1.1) or by a protective device integrating an AFD unit (see 4.1.2.1) or by a protective device assembled with an AFD unit (see 4.1.2.2 or 4.1.3).

4 Classification

4.1 According to the method of construction

Replace the existing subclause 4.1.2 with the following new subclause:

4.1.2 AFDD as one single device, comprising an AFD unit and a protective device.

4.1.2.1 AFD unit integrated in a protective device complying with one of the following standards: IEC 60898-1, IEC 61008-1, IEC 61009-1 or IEC 62423.

4.1.2.2 AFD unit assembled by the manufacturer to a protective device complying with one of the following standards: IEC 60898-1, IEC 61008-1, IEC 61009-1 or IEC 62423.

For this classification, the protective device is unchanged from the existing compliant version except for marking and/or catalogue/serial number.

5 Characteristics of AFDDs

5.4 Standard values of rated impulse withstand voltage (U_{imp})

Replace, after Table 4, the existing paragraph with the following new paragraph:

In case an AFDD is intended to be connected (see 4.1.1) or integrated (see 4.1.2.1) or assembled (see 4.1.2.2 or 4.1.3) with one or several declared protective devices whose standard values of rated impulse withstand voltage are more severe than those mentioned in Table 4, the standard conditions for operation in service and for installation of the most severe protective device standard shall apply.

6 Marking and other product information

7 Standard conditions for operation in service and for installation

7.1 Standard conditions

Replace, after Table 6, the existing paragraph with the following new paragraph:

In case an AFDD is connected (see 4.1.1) or integrated (see 4.1.2.1) or assembled (see 4.1.2.2 or 4.1.3) with one or several associated declared protective devices whose standard conditions for operation in service and for installation are more severe than those mentioned in Table 6, the standard conditions for operation in service and for installation of the most severe protective device standard shall apply.

8 Requirements for construction and operation

8.1 General

Replace the existing tenth and eleventh paragraphs with the following new text:

AFDDs classified according to 4.1.2.1 shall comply with the relevant standard of the protective device with which it is integrated (according to IEC 60898-1, IEC 61008-1, IEC 61009-1, or IEC 62423 as applicable) and additionally to the requirements and tests given in this document.

Where tests included in this document are also included in IEC 60898-1, IEC 61008-1, IEC 61009-1, or IEC 62423, a selection of the most stringent requirements and tests among all applicable standards shall be applied only once.

AFDDs classified according to 4.1.2.2 shall comply with the requirements given in this document which include the verification (according to IEC 60898-1, IEC 61008-1, IEC 61009-1, or IEC 62423 as applicable) of the correct operation of the protective device with which it is assembled.