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Technical Specification 09-6

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Auxiliary multicore and multipair cables

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PUBLISHING AND COPYRIGHT INFORMATION

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Amendments since publication

Issue	Date	Amendment
Issue 8	February, 2012	Minor revision of Issue 7. Clause 5.4.3 Impedance: Criteria for acceptance of test results added. Annex D.2: Paragraph added relating to prevention of water ingress in Polyethylene Insulated Multipair Cables.
Issue 9	December, 2017	Minor revision of Issue 8 to bring the document up to date and to provide an editorial refresh. This issue includes the following principal technical changes. Clause 3: Terms and definitions added. Definitions of polyethylene and polyvinyl chloride included. Table E.3(c): Entries updated to match values in BS 7670-8.4, Table 2. Details of all other technical, general and editorial amendments are included in the associated Document Amendment Summary for this Issue (available on request from the Operations Directorate of ENA).

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Foreword

This Technical Specification (TS) is published by the Energy Networks Association (ENA) and comes into effect from the date of publication. It has been prepared under the authority of the ENA Engineering Policy and Standards Manager and has been approved for publication by the ENA Electricity Networks and Futures Group (ENFG). The approved abbreviated title of this engineering document is “ENA TS 09-06”.

This document replaces and supersedes ENA TS 09-6 Issue 8.

Auxiliary multicore and multipair cables covered by this specification are generally to BS 7870-8 (implementation of part of CENELEC Standard HD 627 (Multicore and Multipair Cable for Installation Above and Below Ground)). This TS provides details of requirements that are additional to the British Standard and gives other technical information which may be helpful to the user.

Cables to this TS are intended for general use in the ground, or in and around buildings, but are not necessarily suitable for aerial use.

Annex A and Annex B of this TS include “Self Certification Conformance Declaration” and “Type Test Conformance Declaration” sheets to enable manufacturers to declare conformance or otherwise, clause by clause, with relevant parts of this document.

NOTE: Use of Annex A and Annex B is not a requirement of this specification.

Where the term “shall” or “must” is used in this document it means the requirement is mandatory. The term “should” is used to express a recommendation. The term “may” is used to express permission.

NOTE: Commentary, explanation and general informative material is presented in smaller type, and does not constitute a normative element.

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1 Scope

This Technical Specification (TS) relates to:

- PVC insulated multicore cables to BS 7870-8.1;
- Polyethylene insulated multipair cables to BS 7870-8.2;
- PVC insulated multipair light current control cables to BS 7870-8.4.

2 Normative references

The following referenced documents, in whole or part, are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Standards publications

BS 7870-8.1, *LV and MV polymeric insulated cables for use by distribution and generation utilities – Part 8: Specification for multicore and multipair cables for installation above and below ground – Section 8.1: Single wire armoured and PVC sheathed multicore cable with copper conductors*

BS 7870-8.2, *LV and MV polymeric insulated cables for use by distribution and generation utilities – Part 8: Specification for multicore and multipair cables for installation above and below ground – Section 8.2: Single wire armoured and PVC sheathed multipair cable with copper conductors*

BS 7870-8.4, *LV and MV polymeric insulated cables for use by distribution and generation utilities – Part 8: Specification for multicore and multipair cables for installation above and below ground – Section 8.4: Single wire or double steel tape armoured and PVC sheathed multipair cable with copper conductors, having reduced fire propagation performanc3*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
Polyethylene (PE)
thermoplastic material comprising a combination of material of which the characteristic constituent is polyethylene and/or one of its copolymers

3.2
Polyvinyl chloride (PVC)
thermoplastic material comprising a combination of material of which the characteristic constituent is polyvinyl chloride and/or one of its copolymers

4 General requirements

Information on the conditions of operation is given in Annex C.

Technical notes on the use of the cables covered by this TS are given in Annex D.

5 PVC insulated multicore cables

5.1 General

PVC insulated multicore cables shall be to BS 7870-8.1. Cable construction details are given for information in Table E.1.