

CONFIRMED
DECEMBER 2007

Code of practice for

Installation and inspection of pre-insulated compression terminals and connectors for cables with copper conductors up to 6 mm²

ICS 29.120.20

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Association of Manufacturers of Domestic Electrical Appliances
BECCAMA (BEAMA Electrical Cable Connector and Accessories Manufacturers' Association)
British Approvals Service for Cables
British Cable Makers' Confederation
British Plastics Federation
British Steel Industry
Department of Trade and Industry (Consumer Safety Unit, CA Division)
Electricity Association
Engineering Equipment and Materials Users' Association
Institution of Electrical Engineers
London Regional Transport

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

Electrical Contractors' Association
Electrical Installation Equipment Manufacturers' Association (BEAMA Ltd.)
ERA Technology Ltd.
Institution of Lighting Engineers
London Underground Ltd.
Transmission and Distribution Association (BEAMA Ltd.)

This British Standard, having been prepared under the direction of the Cables and Insulation Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 May 1994

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The following BSI references relate to the work on this standard:
Committee reference CIL/20
Draft for comment 93/207110 DC

ISBN 0 580 22809 6

Amendments issued since publication

Amd. No.	Date	Comments
16445	29 September 2006	See foreword. Also deletion of AWG values from title and Clause 1

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Foreword

This British Standard has been prepared under the direction of the Cables and Insulation Standards Policy Committee.

BS 7727 is intended to give guidance to manufacturers and contractors who use compression terminals and connectors of the pre-insulated type to enable cables to be terminated using good engineering practice and to provide quality control guidance for the compression tooling.

A similar code of practice for uninsulated connectors is  BS 7609 .

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover 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.

1 Scope

This British Standard recommends methods and procedures applicable to installation and inspection of pre-insulated terminals and connectors for use on copper conductors of insulated cables conforming to **BS EN 60228:2005**, up to 6 mm² cross-sectional area **A1**, using hand application tooling.

This standard does not apply to installations which are required to comply with BS 5G 178-1:1993 and BS 4G 178-2:1986.

2 References

2.1 Normative references

This British Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are made at the appropriate places in the text and the cited publications are listed on the inside back cover. For dated references, only the edition cited applies; any subsequent amendments to or revisions of the cited publication apply to this standard only when incorporated in the reference by amendment or revision. For undated references, the latest edition of the cited publication applies, together with any amendments.

2.2 Informative references

This British Standard refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover, but reference should be made to the latest editions.

3 Definitions

For the purposes of this British Standard, the following definitions apply.

3.1

pre-insulated compression joint

an electrical connection made by compressively forming the insulated barrel of a terminal or connector around one or more conductors

3.2

terminal lug

a connector comprising a palm and a barrel, for connecting a conductor to an equipment terminal

3.3

splice

a device used to permanently connect conductors to each other

NOTE This is also known as a through connector or a closed end connector (see **A.2**)

3.4

disconnect connector

a device used to connect a conductor to another conductor or equipment terminal fitted with a similar connector having mating parts of opposite gender. Such connection or disconnection may only be suitable for a limited number of operations

3.5

barrel

part of a connector designed to accommodate the conductor

3.6

palm

part of a terminal lug formed flat to make a bolted connection to an equipment terminal

3.7

insulation sleeve

cylindrical insulation sleeve surrounding the compression barrel and through which the compressed connection is made. The insulation may be extended to protect the mating part of a connector

3.8

insulation grip sleeve

an optional metal sleeve interposed between the compression barrel and insulation for the purpose of providing a positive retention of the wire insulation within the insulation compression area

3.9

compression sleeve

a metal sleeve often used to improve compression properties of the spring material when using mating disconnect devices

NOTE Such a sleeve may also be extended to provide retention of wire insulation.

4 Marking

Each compression connector and its packaging should be clearly marked with the supplier's identification (Figure 1). Reference should be made to the manufacturer's literature in order to establish wire size ranges which are identified by insulation colour and sometimes also by marking upon the palm.