

Analoog- ja digitaalkommunikatsioonis ja -juhtimises kasutatavad mitmeelemendilised metallkaablid. Osa 6-1: Varjestamata, sagedusega kuni 250 MHz iseloomustatavate kaablite liigitus. Horisontaalsed ja ehitiste katuseharjakaablid

Multi-element metallic cables used in analogue and digital communication and control - Part 6-1: Sectional specification for unscreened cables characterised up to 250 MHz - Horizontal and building backbone cables

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 50288-6-1:2013 sisaldab Euroopa standardi EN 50288-6-1:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 50288-6-1:2013 consists of the English text of the European standard EN 50288-6-1:2013.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 24.05.2013.	Date of Availability of the European standard is 24.05.2013.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 33.120.20

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

Multi-element metallic cables used in analogue and digital communication and control -

Part 6-1: Sectional specification for unscreened cables characterised up to 250 MHz -

Horizontal and building backbone cables

Câbles métalliques à éléments multiples utilisés pour les transmissions et les commandes analogiques et numériques -
Partie 6-1: Spécification intermédiaire pour les câbles non blindés pour applications jusqu'à 250 MHz -
Câbles horizontaux et verticaux de bâtiment

Mehradrige metallische Daten- und Kontrollkabel für analoge und digitale Übertragung -
Teil 6-1: Rahmenspezifikation für ungeschirmte Kabel bis 250 MHz -
Kabel für den Horizontal- und Steigbereich

This European Standard was approved by CENELEC on 2013-03-18. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Contents

	Page
Foreword.....	3
1 Scope	4
2 Normative references.....	4
3 Terms, definitions, symbols and abbreviations.....	4
3.1 Terms and definitions.....	4
4 Cable construction	5
4.1 Conductor	5
4.2 Insulation	5
4.3 Cabling elements	5
4.4 Identification of cabling elements	5
4.5 Screening of cabling elements	5
4.6 Cable make-up.....	5
4.7 Filling compound.....	5
4.8 Interstitial fillers	5
4.9 Screening of the cable core	5
4.10 Moisture barriers	5
4.11 Wrapping layers	5
4.12 Sheath	5
5 Tests and requirements for completed cables.....	6
5.1 Electrical tests.....	6
5.2 Mechanical tests requirements.....	8
5.3 Environmental tests	9
5.4 Fire performance tests	9
Annex A (Informative) Maximum voltage, current and temperature rating for cables used for POE applications.....	10
Annex B (Informative) Blank Detail Specification	11

Foreword

This document EN 50288-6-1:2013 has been prepared by CLC/SC 46XC "Multicore, Multipair and Quad Data communication cables," of CLC/TC 46X, "Communication cables".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-03-18
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2016-03-18

This document supersedes EN 50288-6-1:2003.

EN 50288-6-1:2013 includes the following significant technical changes with respect to EN 50288-6-1:2003:

- the addition of the Blank Detail Specification Annex;
- a number minor corrections and updating of references;
- the re-classification of 'ELFEXT' to 'ACR-F'.

This Part 6-1 is to be read in conjunction to EN 50288-1.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

1 Scope

EN 50288-6-1 is a sectional specification for unscreened cables, characterised from 1 MHz up to 250 MHz, to be used in horizontal and building backbone wiring as defined in EN 50173.

This sectional specification contains the electrical, mechanical, transmission and environmental performance characteristics of the cables, when tested in accordance with the referenced test methods.

This sectional specification is to be read in conjunction with EN 50288-1 that contains the essential provisions for its application.

The cables covered in this sectional specification are intended to operate with voltages and currents normally encountered in communication systems. These cables are not intended to be used in conjunction with low impedance sources, for example, the electric power supplies of public utility mains.

2 Normative references

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

EN 50173	series	<i>Information technology — Generic cabling systems</i>
EN 50288-1		<i>Multi-element metallic cables used in analogue and digital communication and control — Part 1: Generic specification</i>
EN 50289	series	<i>Communication cables — Specifications for test methods</i>
EN 50290	series	<i>Communication cables</i>
EN 60811	series	<i>Electric and optical fibre cables - Test methods for non-metallic materials (IEC 60811 series)</i>
IEC 60189-2		<i>Low-frequency cables and wires with PVC insulation and PVC sheath — Part 2: Cables in pairs, triples, quads and quintuples for inside installations</i>

3 Terms, definitions, symbols and abbreviations

3.1 Terms and definitions

For the purposes of this document the terms and definitions given in EN 50288-1 apply.

3.2 Symbols and abbreviations

For the purposes of this document, the following abbreviations apply.

EX	Exogenous (derived or originating externally)
POE	Power Over Ethernet