

SLOVENSKI STANDARD SIST HD 621 S1:1998/A1:2002

01-april-2002

Medium voltage impregnated paper insulated distribution cables

Medium voltage impregnated paper insulated distribution cables

Energieverteilungskabel mit getränkter Papierisolierung für Mittelspannung

Câbles de distribution moyenne tension isolés au papier imprégné

Ta slovenski standard je istoveten z: HD 621 S1:1996/A1:2001

SIST HD 621 S1:1998/A1:2002

https://standards.iteh.ai/catalog/standards/sist/b68da224-7e76-4c61-b971-7b9b64c053cb/sist-hd-621-s1-1998-a1-2002

ICS:

29.035.10 Papirni in kartonski izolacijski Paper and board insulating

materials materials

29.060.20 Kabli Cables

SIST HD 621 S1:1998/A1:2002 en

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HARMONIZATION DOCUMENT

HD 621 S1/A1

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

July 2001

ICS 29.040.20; 29.060.20

English version

Medium voltage impregnated paper insulated distribution cables

Câbles de distribution moyenne tension isolés au papier imprégné

Energieverteilungskabel mit getränkter Papierisolierung für Mittelspannung

This amendment A1 modifies the Harmonization Document HD 621 S1:1996; it was approved by CENELEC on 2000-12-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this amendment on a national level.

Up-to-date lists and bibliographical references concerning such national implementation may be obtained on application to the Central Secretariat or to any CENELEC member.

SIST HD 621 S1:1998/A1:2002
This amendment exists in two official versions (English French) e76-4c61-b971-

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELFC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Foreword

This amendment to HD 621 S1:1996 has been prepared by WG9 of CENELEC TC 20 "Electric Cables". CENELEC TC 20 confirmed at its Stresa meeting (April 1999) that the amendment should go to the Unique Acceptance Procedure.

A list of additions and amendments to the particular sections of Parts 3 to 4 is given in this Part 0.

NOTE During the preparation of this amendment, IEC 60502 (4th edition) has been replaced by IEC 60502-1 and -2 and HD 405.1 has been superseded by EN 50265. In general the updating of these references has not been included in this amendment unless a complete section has been introduced or replaced. Users should refer to these new editions for the most up-to-date information.

The test of the draft was submitted to the Unique Acceptance Procedure and as approved by CENELEC as amendment A1 to HD 621 S1:1996 on 2000-12-01.

The following dates were fixed:

- latest date by which the existence of the amendment has to be announced at national level (doa) 2001-07-01
- latest date by which the amendment has to be implemented at national level by publication of a harmonized national standard or by endorsement.
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2004-01-01

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Part	2 ⁽¹⁾	Additional test methods
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	3-A	Single core draining or non-draining paper insulated cable - unarmoured; with or without thermoplastic sheath (Type 3A)
	3-B 3-C ⁽¹⁾ 3-E 3-F	Single core cables with paper insulation, non-draining Impregnated paper insulated cables - single core cables Single core cables 12/20 kV and 18/30 kV Single core cables, also pre-assembled
	3-G ⁽¹⁾	Cables with paper insulation - draining - unarmoured - PVC or PE sheathed - single core Cables with PE sheath
	3-J-1	Single core and SL type paper insulated cables with lead sheath (up to and including 12,7/22 kV)
	3-J-2	Single core and SL type paper insulated cables with lead sheath (19/33 kV)
Part	4	Impregnated paper insulated cables - three core
	4-A	Multicore draining or non-draining paper insulated cable - belted or screened cores - one or three metallic sheaths - armoured or unarmoured -
	4 D	thermoplastic sheath or not 1:1998/A1:2002
	4-B	Multicore cables with paper insulation; 2non draining: 971-
	4-C 4-D	Impregnated paper insulated cable belted and SL type cables. Belted multicore cables with polypropylene yarn serving, or PVC or polyethylene sheath.
	4-E	Armoured three-core cables with lead sheaths 12/20 kV and 18/30 kV and three-core cables 12/15 kV non-radial field
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	4-G-1 ⁽¹⁾	Impregnated paper insulated cable - three core draining paper insulated cable - screened cores, one metallic sheath - armoured or unarmoured
	4-G-2 ⁽¹⁾	serving, PE or PVC sheath Impregnated paper insulated cable - three core draining paper insulated cable - belted, one metallic sheath - armoured or unarmoured serving, PE or PVC sheath
	4-H-1	Three-core belted and screened cables, with lead sheath and steel tape armour
	4-H-2 4-I	Three-core SL steel armoured cables Cables with one lead sheath (Type 4I-1) and with three lead sheaths (Type 4I-2) and with sheaths of PE
	4-J-1 4-J-2	Three core cables with lead sheath (19/33 kV) Three core cables with lead sheath, up to and including 12,7/22 kV
	4-J-3	Three core cables with aluminium sheath
	4-K	Armoured three core cables with lead sheaths and a rated voltage 23/40 kV

(1) Amendment No. 1 introduces some changes to the text

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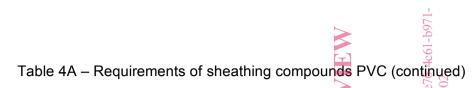
Page 1-0 HD 621 S1:1996/A1:2001 Part 1

Part 1: General requirements

Replace pages 1-15 and 1-19 by the following:

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1	2	3	20 4	21	22
COMPOUND NO TYPE MAXIMUM OPERATING TEMPERATURE OF THE CONDUCTOR	Test Method	Unit °C	DMV 44000 PVC sheath 990	DMV 45 PVC sheath	DMV 46 PVC sheath 70
Mechanical properties			8/8/2517-831	. •	.,
before ageing on sample minimum tensile strength minimum elongation at break		Mpa %	2,5 2,5 125 125 125 125	12,5 125	12,5 125
- after ageing on sample			1		
temperature duration T1		°C h		80 168	80 168
minimum tensile strength maximum variation T1/T0		Mpa %	STAI (Stain 525 525 525 SISTH itehai/catal	12,5 ± 20	12,5 ± 20
minimum elongation at break maximum variation T1/T0		% %	125 S 125 S 1664	125 ± 20	125 ± 20
- after ageing on complete cable (non contamination test)			of 1		
temperature		°C	4 80 4	80	60
duration T1 duration T2		h h	80 168 12,5 ± 20 Https://standards	168	168
minimum tensile strength		Мра	12,5	12,5	
maximum variation T2/T0 maximum variation T2/T0		% %	± 20	± 20	± 25
minimum elongation at break		%	125	125	
maximum variation T2/T0 maximum variation T2/T1		%	± 20	± 20	± 25
Physical and chemical properties Shrinkage test					
duration		h			
temperature maximum shrinkage		°C %			
maximum siiiinkaye		/0			

Note: 1Mpa = 1N/mm²
Remark: The tolerance on temperature values is given in HD 605 subclause 1.5.2 but may be varied if specified in the particular sections

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Table 4B - Requirements of sheathing compounds: PE (continued)

1	2	3	10	11	12	13
COMPOUND NO.	TEST	UNIT	DMP 12	DMP 21	DMP 22	DMP 23
TYPE	METHOD		PE sheath	PE sheath	PE sheath	PE sheath
MAXIMUM OPERATING TEMPERATURE OF		°C	90	90	90	90
THE CONDUCTOR						
Mechanical properties						
- before ageing on sample						
minimum tensile strength		MPa	10	10	ļ	12,5
minimum elongation at break		%	300	300	350	300
- after ageing on sample					ļ	
temperature		°C	100	100	100	110
duration T1		h	240	240	48	336
minimum tensile strength		MPa		10		
maximum variation T1/T0		%				
minimum elongation at break		%	300	300		300
maximum variation T1/T0		%			± 25	
- after ageing on complete cable						
(non contamination test)						
temperature		°C	100			60
duration T1		h	400			400
duration T2		h	168			168
minimum tensile strength		MPa				
maximum variation T2/T0	TANID	%				
maximum variation 12/T0	IAND	ARD	PREV			200
minimum elongation at break			300			300
maximum variation T2/T0 maximum variation T2/T1	standa	ra3.11	en.ai)			
maximum variation T2/T1		%	/			

Note: 1MPa = 1N/mm² SIST HD 621 S1:1998/A1:2002

Remark: The tolerance on temperature values is given in HD 605 subclause 15.2-but may be varied if specified in the particular sections 7b9b64c053cb/sist-hd-621-s1-1998-a1-2002

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Part 2: Additional test methods

Replace pages 2-3 and 2-24 by the following:

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	3.3	Sheatl	h voltage test					
		3.3.1	D.C. voltage test on oversheath	28				