



SLOVENSKI STANDARD
SIST HD 516 S1:1998/A5:1998
01-februar-1998

Guide to use of low voltage harmonized cables - Amendment A5

Guide to use of low-voltage harmonised cables

Anwendungsrichtlinie für harmonisierte Niederspannungsleitungen

Guide d'emploi des câbles harmonisés basse tension

Ta slovenski standard je istoveten z: HD 516 S1:1990/A5:1993

[SIST HD 516 S1:1998/A5:1998](https://standards.iteh.ai/catalog/standards/sist/1067c38a-7476-4dbb-af4f-a85d203a239b/sist-hd-516-s1-1998-a5-1998)

<https://standards.iteh.ai/catalog/standards/sist/1067c38a-7476-4dbb-af4f-a85d203a239b/sist-hd-516-s1-1998-a5-1998>

ICS:

29.060.20 Kabli Cables

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HARMONIZATION DOCUMENT

HD 516 S1/A5

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

January 1993

UDC 621.315.3:620.1:614.8

Descriptors: Electric cable, low voltage, guide to use



REPUBLIKA SLOVENIJA
 MINISTRSTVO ZA ZNANOST IN TEHNOLOGIJO
 Urad RS za standardizacijo in meroslovje
 LJUBLJANA

SIST..... HD 516 S1/A5
 PREVZET PO METODI RAZGLASITVE

ENGLISH VERSION

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-02- 1998

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SIST HD 516 S1:1998/A5:1998

This amendment A5 modifies the Harmonization Document HD 516 S1:1990. It was approved by CENELEC on 1992-09-15. 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 national implementation may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French and German).

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

CENELEC

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

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

FOREWORD

At the request of the CENELEC Technical Committee ^{CLC} TC 20, Electric cables, a draft for an amendment to HD 516 S1:1990 was submitted to the CENELEC Unique Acceptance Procedure (UAP) in January 1992.

The text of the draft was approved by CENELEC as amendment A5 to HD 516 S1 on 15 September 1992.

The following dates were fixed:

- latest date of announcement
of the amendment at national level (doa) 1993-06-01
- latest date of publication of
a harmonized national standard (dop) 1993-12-01
- latest date of withdrawal of
conflicting national standards (dow) 1993-12-01

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Sub-clause 3.1.1

Delete existing sub-clause and replace as follows:

'Safety of a cable means that the product does not present an unacceptable risk of danger to life or property whilst being used in its intended manner.'

Sub-clause 4.4.2

Delete existing sub-clause and replace as follows:

The internal radius of every bend in a cable should be such as not to cause damage to the cable.

The internal bending radii for different types of cable are given in Table 6 of this HD. Any decision to use lower values than those specified must be taken in consultation with the manufacturer of the cable.

Care must be taken when stripping the insulation to ensure that no damage occurs to the conductor since this will severely affect the bending radii.

The bending radii specified are for ambient temperatures of $20^{\circ} \pm 10^{\circ}\text{C}$. For temperatures outside these limits, the cable manufacturers recommendation should be obtained.

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For flexible cables and cords, particularly at terminations and at the point of entry of moveable appliances it may be necessary to use a device which ensures that the cable is not bent to an internal bend radius less than that specified in Table 6.

<https://standards.iteh.ai/catalog/standards/sist/1067c38a-7476-4d8b-a44f-a85d203a239b/sist-hd-516-s1-1998-a5-1998>

Cables which are installed vertically, without intermediate support, which are inaccessible and unlikely to be disturbed should be supported at the top of the run such that the internal radius of the resultant bend is not less than the appropriate value in Table 6. The unsupported vertical length of such runs should not exceed 5m.

Table 2

Under heading 9 'OUTDOOR USE' amend as follows:

- (a) In line 9.1, 'Intermittant or Temporary' amend the '+' to '-' for HD21.8, H05V-F type.
- (b) In line 9.2, 'Permanent' amend the '-' to '+' following types:
 - HD22.4, H05RN-F type
 - HD22.8, H05RN-F type (both flat and circular)

In addition insert '(3)' after the word 'Permanent' and add an additional footnote to Table 2 as follows:

- (3) Only for the relevant duty classification given in Line 1 'DUTY'

Table 6

Delete existing Table 6 and insert the revised version as shown.

TABLE 6

MINIMUM PERMISSIBLE BENDING RADII AT CABLE TEMPERATURES OF $20 \pm 10^\circ\text{C}$

(D is the overall diameter of round cables or the smaller dimension of flat cable)

See Clause 4.4.2 for further guidance.

1. Cables for Fixed Installations (HD21/HD22)

	For Cable Diameter (mm)			
	≤ 8	$> 8 \leq 12$	$> 12 \leq 20$	> 20
Normal use	4D	5D	6D	6D
Careful Bending at termination	2D	3D	4D	4D

2. Flexible Cables (HD21)

	For Cable Diameter (mm)			
	≤ 8	$> 8 \leq 12$	$> 12 \leq 20$	> 20
Fixed Installation	3D	3D	4D	4D
Free Movement	5D	5D	6D	6D
At inlet of portable appliance or mobile equip. no mechanical load on cable	5D	5D	6D	6D
Under mechanical load (1)	9D	9D	9D	10D
Festooned as in gantry cranes	10D	10D	11D	12D
Repeated Reeling (1)	7D	7D	8D	8D
Deflected by Pulleys (1)	10D	10D	10D	10D

3. Flexible Cables (HD22)

	For Cable Diameter (mm)			
	≤ 8	$> 8 \leq 12$	$12 \leq 20$	> 20
Fixed Installation	3D	3D	4D	4D
Free Movement	4D	4D	5D	6D
At inlet of portable appliance or mobile equip. no mechanical load on cable	4D	4D	5D	6D
Under mechanical load (1)	6D	6D	6D	8D
Festooned as in gantry cranes	6D	6D	6D	8D
Repeated Reeling (1)	6D	6D	6D	8D
Deflected by Pulleys (1)	8D	8D	8D	8D

NOTE: (1) See clause 4.4.1 of this HD in regard to dynamic stress