



SLOVENSKI STANDARD

SIST HD 607 S1:1997

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Busbar bushings up to 1 kV and from 1,25 kA to 5 kA, for liquid filled transformers

Busbar bushings up to 1 kV and from 1,25 kA to 5 kA, for liquid filled transformers

Schienendurchführungen bis 1 kV und von 1,25 kA bis 5 kA, für flüssigkeitsgefüllte Transformatoren

Traversées passe-barres jusqu'à 1 kV et de 1,25 kA à 5 kA, pour transformateurs à remplissage de liquide

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Ta slovenski standard je istoveten z: **HD 607 S1:1996**

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HARMONIZATION DOCUMENT
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HD 607 S1

February 1996

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Descriptors: Busbar bushing, liquid filled transformer, dimensions

English version

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This Harmonization Document was approved by CENELEC on 1995-11-28. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document 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.

This Harmonization Document exists in three official versions (English, French, 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

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Foreword

This Harmonization Document was prepared by the Technical Committee CENELEC TC 36A, Insulated bushings.

The text of the draft was submitted to the formal vote and was approved by CENELEC as HD 607 S1 on 1995-11-28.

The following dates were fixed:

- latest date by which the existence of the HD has to be announced at national level (doa) 1996-06-01
- latest date by which the HD has to be implemented at national level by publication of a harmonized national standard or by endorsement (dop) 1996-12-01
- latest date by which the national standards conflicting with the HD have to be withdrawn (dow) 1996-12-01

For products which have complied with the relevant national standard before 1996-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2001-12-01.

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Introduction

The object of this standard is to specify the cut-out in the cover or tank wall and details of the insulator and its mounting to ensure interchangeability of busbar insulators for rated voltages up to 1 000 V and rated currents from 1 250 A up to 5 000 A for insulating liquid filled transformers.

1 Scope

This standard is applicable to moulded indoor busbar bushings for rated voltages up to 1 000 V, rated currents from 1 250 A up to 5 000 A and frequencies from 15 Hz up to 60 Hz for insulating liquid filled transformers.

NOTE: These bushings are suitable for operation at 1,1 kV in compliance with HD 428.1 S1.

2 Definitions

For the purposes of this standard, the following definition applies:

2.1 Moulded indoor busbar bushing: A bushing in which the insulation consists of moulded organic material with a single conductor.

3 Requirements

3.1 Application

Busbar bushings covered by this standard shall be suitable for operation under the following conditions:

- with both ends fully immersed in an insulating liquid;
- one end fully or partially immersed in an insulating liquid and with the other end in air (indoor environment);
- both ends in air (indoor environment) for special applications.

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3.2 Standard value of rated voltage (U_r)

The rated voltage U_r is 1 000 V (phase to phase).

3.3 Standard values of rated current (I_r)

The values of I_r shall be chosen from the standard values as given below, in amperes:

1 250 - 1 600 - 2 000 - 2 500 - 3 150 - 4 000 - 5 000

3.4 Minimum nominal creepage distance

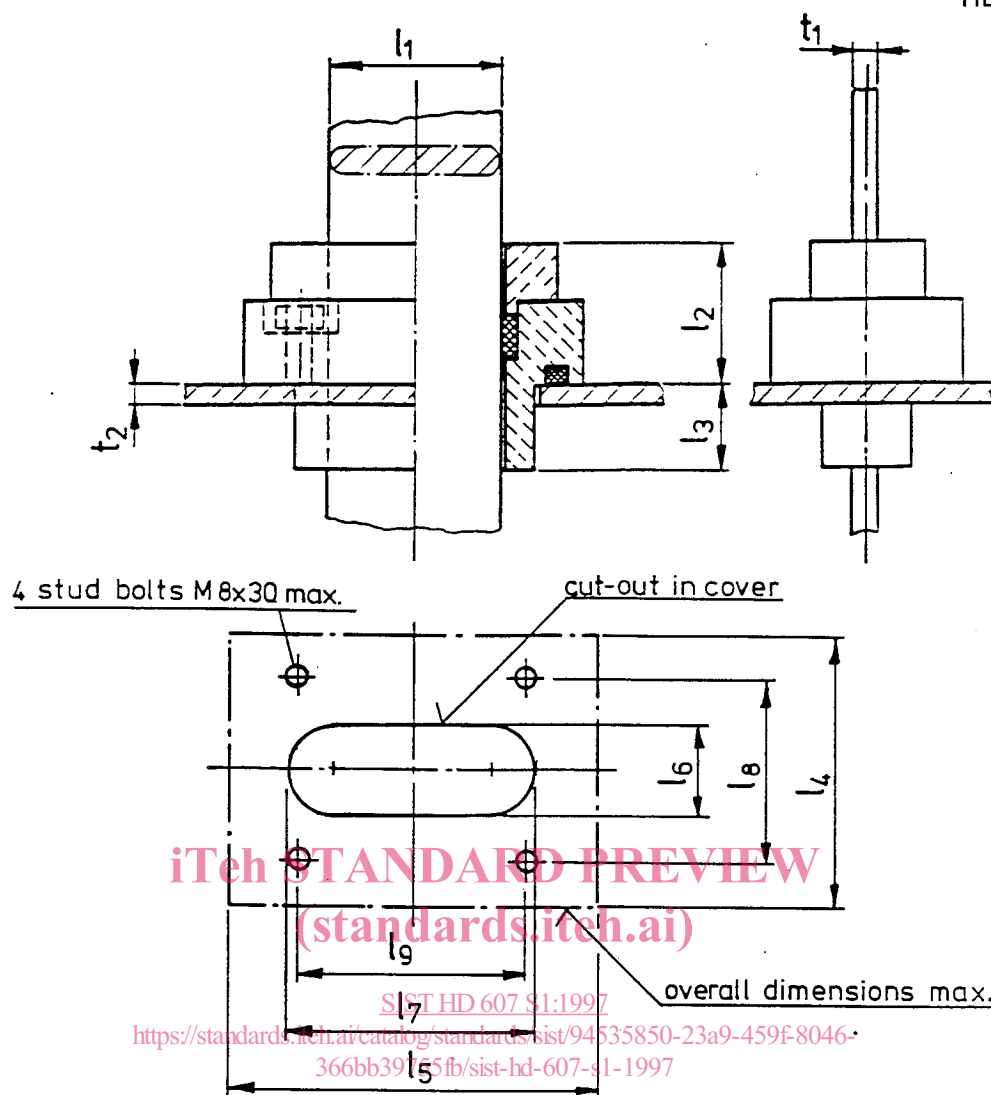
The minimum nominal creepage distance for bushing ends intended for use in air is 55 mm.

3.5 Dielectric characteristics

Power-frequency withstand voltage (60 s):	dry 10 kV
Lightning impulse withstand voltage (1,2/50 μ s):	20 kV

3.6 Dimensions

The dimensions shall be as specified in Figure 1 and Table 1.
The lengths of busbars and terminations are not covered by this standard.



The busbar shall be made of copper unless otherwise agreed between the purchaser and the manufacturer, in which case the value of the rated current I_r shall be amended.

Figure 1: Moulded indoor busbar bushing

Table 1: Standard dimensions

I_r (A)	Busbar cross-section		l_2 min. (mm)	l_3 min. (mm)	t_2 max. (mm)	l_4 (mm)	l_5 (mm)	l_6 (mm)	l_7 (mm)	l_8 (mm)	l_9 (mm)
	$l_1 (\pm 0,05)$ (mm)	$t_1 (\pm 0,25)$ (mm)									
1 250	63	12	45	22	8	102	120	38	89	75	80
1 600	63	12	45	22	8	102	120	38	89	75	80
2 000	63	20	45	22	8	102	120	56	89	75	80
2 500	100	12	45	22	10	102	164	38	126	75	80
2 500*)	63	35	45	22	10	102	120	61	89	75	80
3 150	120	12	45	32	10	145	190	58	158	110	110
4 000	120	20	45	32	10	145	190	58	158	110	110
5 000	120	20	45	32	10	145	190	58	158	110	110

*) Alternative type