



SLOVENSKI STANDARD
SIST EN 50180-3:2016/A1:2018
01-februar-2018

Skoznjiki za napetosti nad 1 kV do 52 kV in toke od 250 A do 3,15 kA za transformatorje, polnjene s tekočinami - 3. del: Zahteve za pritrditev skoznjikov

Bushings above 1 kV up to 52 kV and from 250 A to 3,15 kA for liquid filled transformers
- Part 3: Requirements for bushing fixations

Durchführungen über 1 kV bis 52 kV und von 250 A bis 3,15 kA für flüssigkeitsgefüllte Transformatoren - Teil 3 Anforderungen an Einzelteile der Befestigung

Traversées de tensions supérieures à 1 kV jusqu'à 52 kV et de 250 A à 3,15 kA pour transformateurs immergés dans un liquide - Partie 3 : Exigences relatives aux fixations de traversée

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Ta slovenski standard je istoveten z: EN 50180-3:2015/A1:2017

ICS:

| | | |
|-----------|--------------------------|------------------------|
| 29.080.20 | Skoznjiki | Bushings |
| 29.180 | Transformatorji. Dušilke | Transformers. Reactors |

SIST EN 50180-3:2016/A1:2018 **en,fr,de**

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EUROPEAN STANDARD

EN 50180-3:2015/A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2017

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English Version

Bushings above 1 kV up to 52 kV and from 250 A to 3,15 kA for liquid filled transformers - Part 3: Requirements for bushing fixations

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This amendment A1 modifies the European Standard EN 50180-3:2015; it was approved by CENELEC on 2017-05-10. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document [EN 50180-3:2015/A1:2017] has been prepared by CLC/TC 36A "Insulated bushings".

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) 2018-05-10
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2020-05-10

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EN 50180-3:2015/A1:2017

1 Modification to Clause 1, Scope

Delete the last two paragraphs:

"For a better understanding of additional information some dimension from EN 50180-1 are repeated in this European Standard.

This European Standard was extended for fastenings of bushings for a highest voltage of 52 kV."

2 Modifications to 4.1, Fixation for bushings

Add the following paragraph after Figure 1 and before Table 1:

"The following Table 1 shows the type of fixation to be used for bushings with a voltage from 12 kV to 52 kV."

Replace the whole Table 1 with the following one:

"

Table 1 — Dimensions for fixation components, 12 kV to 52 kV

| d_1 | d_2 | d_5 | l_1 | Flange ring designation | Clamping paw | | Bushing 12 kV-36 kV | Bushing 52 kV |
|-----------------|-----------------|-------|-------|-------------------------|--------------|--------|------------------------|----------------------------|
| | | | | | Type | Number | | |
| 111_{-7}^0 | 123_{-1}^{+1} | M10 | 55 | A | E | 4 | 250 A | |
| 128_{-8}^0 | 140_{-1}^{+1} | M10 | 55 | B | E | 6 | 630 A | |
| 165_{-10}^0 | 180_{-2}^{+2} | M12 | 65 | C1 | F | 6 | 1 250A | |
| | C2 | | | | | | | |
| 185_{-11}^0 a | 200_{-2}^{+2} | M12 | 65 | D1 | F | 6 | 2 000 A | 250 A - 3 150 A |
| 183_{-7}^0 b | 205_{-2}^{+2} | | | D2 | | | 3 150 A | |

a Tolerances for porcelains of bushings U_m 12 kV to 36 kV.
b Tolerances for porcelains of bushings U_m 52 kV.
Remark: Diameter d_2 may deviate from EN 50180-1:2015 (Figures 4 and 5) for bushings 1 250 A to 3 150 A and U_m 12 kV to 36 kV and for bushings U_m 52 kV. To enable interchangeability the required diameter shall be agreed between purchaser and manufacturer.

"

3 Modifications to 4.2, Details for fixations

Replace the Designation text above Figure 3 with:

"

Designation: **Flange ring B**

Flange ring C1 and C2

Flange ring D1 and D2".

Replace the title of Figure 3 with:

"

**Figure 3 — Flange ring B for bushing 630 A, 12 kV – 36 kV
Flange ring C1 and C2 for bushing 1 250 A, 12 kV – 36 kV
Flange ring D1 and D2 for bushing 2 000 A - 3 150 A, 12 kV – 36 kV and for bushings 250 A – 3 150 A,
52 kV**
(Note: different shapes are allowed)

"

Replace the whole Table 2 with the following one:

"

| Flange ring | d_2^a | d_3 | d_4 | d_6^a | f | h | s | r_1 | r_2 | r_3 |
|-------------|---------|-------|-------|---------|-----|------|-----|-------|-------|-------|
| B | 140 | 150 | 173 | 130 | 5° | 10,5 | 1,5 | 15 | 10 | 5,5 |
| C1 | 180 | 194 | 222 | 166 | 9° | 13 | 3 | 18 | 15 | 7 |
| C2 | 185 | | | 170 | | | | | | |
| D1 | 200 | 214 | 242 | 186 | 9° | 13 | 3 | 18 | 15 | 7 |
| D2 | 205 | | | 190 | | | | | | |

^a Diameter d_2 and d_6 may deviates from EN 50180-1:2015 (Figure 4 and 5) for bushings 1 250 A to 3 150 A and U_m 12 kV to 36 kV. To enable interchangeability the required diameter shall be agreed between purchaser and manufacturer.

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