



SLOVENSKI STANDARD

oSIST prEN 50719:2023

01-marec-2023

Povezovalni ploščati priključki za skoznjike od 250 A do 4000 A za transformatorje, polnjene z izolacijsko tekočino

Connecting terminal flags for bushings from 250A to 4 000 A for insulating liquid filled transformers

Durchführungen bis 1 kV und von 250 A bis 5 kA für flüssigkeitsgefüllte Transformatoren

Cosses à drapeau pour traversées de 250 A à 4 000 A pour les transformateurs à remplissage de liquide isolant

Ta slovenski standard je istoveten z: **prEN 50719**

ICS:

29.080.20	Skoznjiki	Bushings
29.180	Transformatorji. Dušilke	Transformers. Reactors

oSIST prEN 50719:2023

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 50719

January 2023

ICS 29.180

English Version

Connective terminal flags for bushings from 250A to 4 000A for insulating liquid filled transformers

Traversées jusqu'à 1 kV et de 250 A à 5 kA, pour
transformateurs à remplissage de liquide

Durchführungen bis 1 kV und von 250 A bis 5 kA für
flüssigkeitsgefüllte Transformatoren

This draft European Standard is submitted to CENELEC members for enquiry.
Deadline for CENELEC: 2023-04-14.

It has been drawn up by CLC/TC 36A.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CENELEC 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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34 European foreword

35 This document (prEN 50719:2023) has been prepared by CLC/TC 36A "Insulated bushings".

36 This document is currently submitted to the Enquiry.

37 The following dates are proposed:

- | | | |
|---|-------|--|
| latest date by which the existence of this document has to be announced at national level | (doa) | dor + 6 months |
| • latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | dor + 12 months |
| • latest date by which the national standards conflicting with this document have to be withdrawn | (dow) | dor + 36 months
(to be confirmed or modified when voting) |

38 This document will supersede EN 50719:2002 and all of its amendments and corrigenda (if any).

39 prEN 50719:2023 includes the following significant technical changes with respect to EN 50719:2002:

40 — ...

<https://standards.iteh.ai/catalog/standards/sist/803fca1c-e343-4c65-88da-a595d3bdf20a/osist-pren-50719-2023>
 oSIST prEN 50719:2023

41 1 Scope

42 This standard is applicable to vertical connecting terminal flags for insulated bushings with rated currents from
43 250 A to 4 000 A and frequencies from 15 Hz to 60 Hz for liquid immersed equipment.

44 2 Normative references

45 The following documents are referred to in the text in such a way that some or all of their content constitutes
46 requirements of this document. For dated references, only the edition cited applies. For undated references,
47 the latest edition of the referenced document (including any amendments) applies.

48 EN 60137:2017, *Insulated bushings for alternating voltages above 1 000V (IEC 60137:2017)*

49 EN 12165:2016, *Copper and copper alloys - Wrought and unwrought forging stock*

50 ISO 2768 (series), *General tolerances - Part 1: Tolerances for linear and angular dimensions without*
51 *individual tolerance indications*

52 3 Terms and definitions

53 For the purposes of this document, the following terms and definitions apply.

54 ISO and IEC maintain terminological databases for use in standardization at the following addresses:

55 — ISO Online browsing platform: available at <https://www.iso.org/obp>

56 — IEC Electropedia: available at <https://www.electropedia.org/>

57 3.1

58 vertical connecting flag

59 flag with the connecting plate parallel to the bushing axis

60 4 Requirements

61 4.1 Manufacturing process

62 Forging process is preferable compared to casting process.

63 4.2 Material

64 Flag body material shall be brass (CUZn40Pb2) CW617N in accordance with EN12165:2016.

65 Locking screws and washers shall be stainless steel material type A4, upon customer agreement A2 may be
66 supplied.

67 4.3 General requirements

68 Flags shall be unplated unless by agreement where they may be tin plated or silver plated.

69 All sharp edges shall be rounded.

70 To ensure correct clamping of the flag, the body shall be provided with a cut (see Figures below).

71 Un-dimensioned features of flags may be changed at the discretion of the manufacturer.

72 Therefore, the shape shown in the drawings is not compulsory.

73 The most relevant part is the connecting plate and threads.

74 The roughness of the connecting plate shall be less than 3.2 micron.

75 **4.4 Standard values of rated current (I_r)**

76 The value of the flags shall be chosen from the standard values given below, in amperes:

77 250 – 630 – 1 250 – 2 000 – 3 150 – 4 000

78 **4.5 Compliance**

79 Flags are suitable for all bushings which meet the requirements of EN 60137.

80 **5 Flag common dimensions**

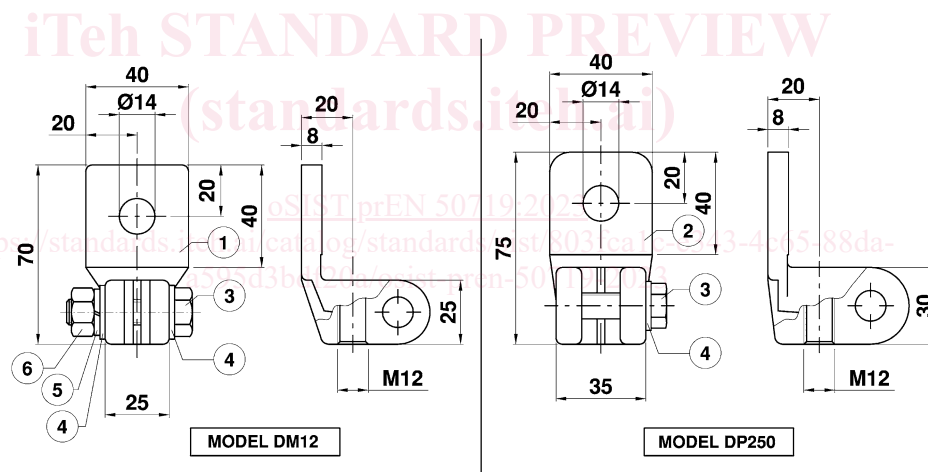
81 **5.1 General**

82 The dimension necessary for interchangeability of the flags shall be as specified below.

83 All dimension in the drawings are in millimetres.

84 Tolerances shall be according to ISO 2768 (series), (Tolerance Class Medium) unless otherwise stated in the
85 drawings.

86 **5.2 Type 250 A**



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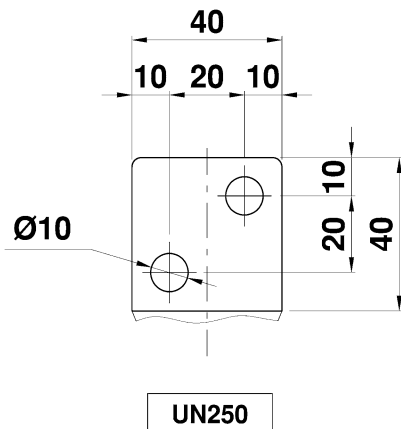
Transformer side

Cable box side

- 1 Flag body
- 2 Screws (M10 x 40)
- 3 Washer
- 4 Nut M12
- 5 Spring washer

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Figure 1 — Type 250 A



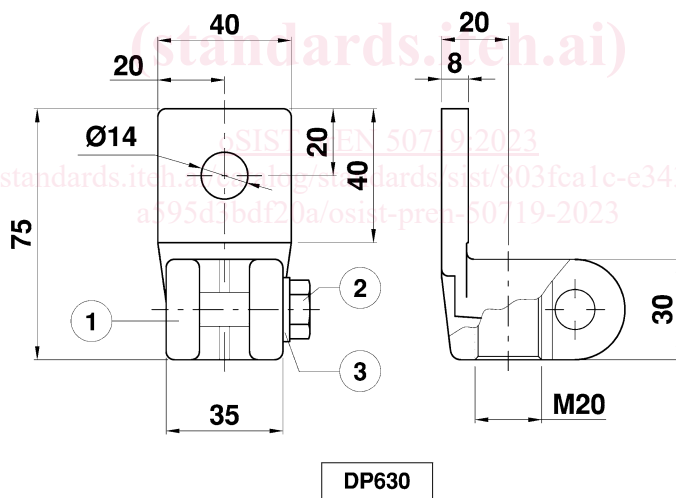
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Figure 2 — Type 250 A alternative flag on demand

91 **5.3 Type 630 A**

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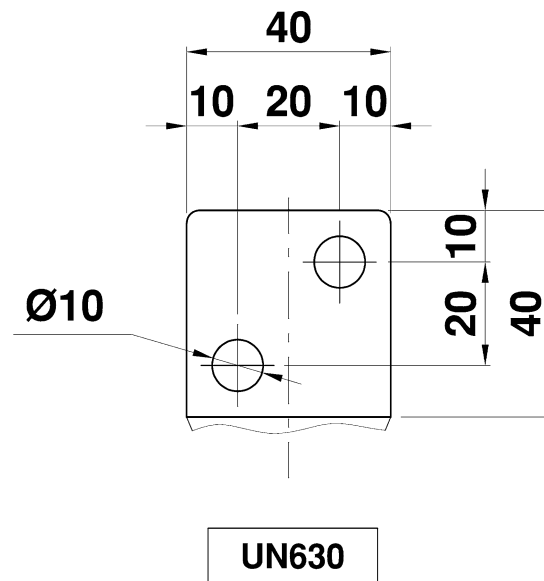


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- 1 Flag body
- 2 Screws (M10 x 40)
- 3 Washer

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Figure 3 — Type 630 A



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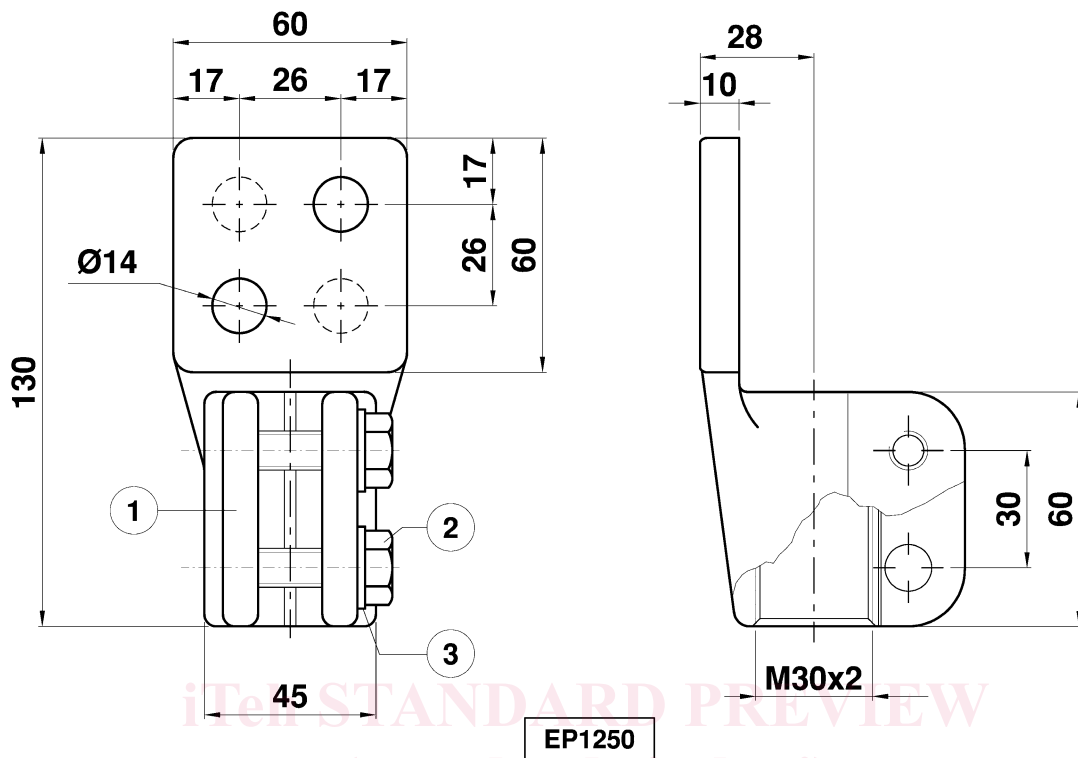
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Figure 4 — Type 630 A alternative on demand

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<https://standards.iteh.ai/catalog/standards/sist/803fca1c-e343-4c65-88da-a595d3bdf20a/osist-pren-50719-2023>

96 5.4 Type 1 250 A

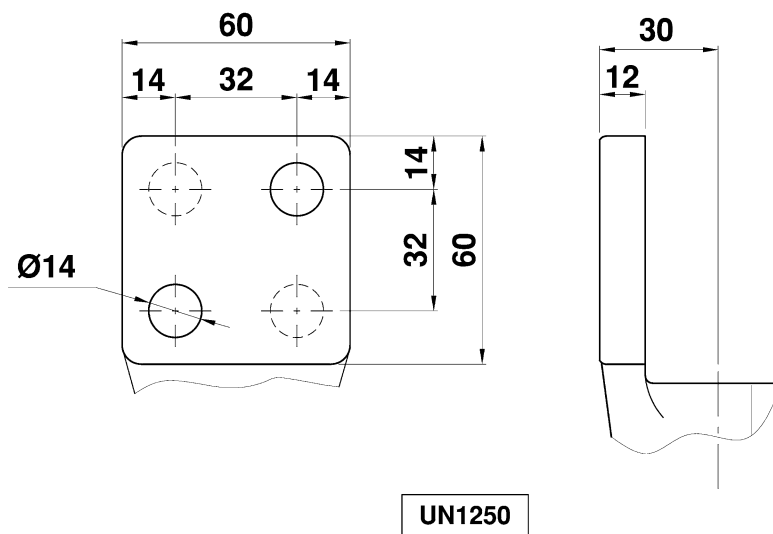


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- 1 Flag body
- 2 Screws (M10 x 40)
- 3 Washer

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Figure 5 — Type 1 250 A



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Figure 6 — Type 1 250 A alternative flag on demand