

STN	Všeobecný postup na overovanie účinnosti ochranných opatrení pri elektrických zariadeniach po oprave	STN EN 50678 33 1101
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General procedure for verifying the effectiveness of the protective measures of electrical equipment after repair

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

General procedure for verifying the effectiveness of the protective measures of electrical equipment after repair

Procédure générale visant à vérifier l'efficacité des mesures de protection des équipements électriques après réparation

Allgemeines Verfahren zur Überprüfung der Wirksamkeit der Schutzmaßnahmen von Elektrogeräten nach der Reparatur

This European Standard was approved by CENELEC on 2019-12-16. 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.

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 European Standard 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

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EN 50678:2020 (E)

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European foreword

This document (EN 50678:2020) has been prepared by CLC/TC 85X “*Measuring equipment for electrical and electromagnetic quantities*”.

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) 2020-12-16
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2022-12-16

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EN 50678:2020 (E)**Introduction**

This standard intends to provide a general test procedure to verify the effectiveness of the basic protective measures for current-using equipment or appliances after they have been repaired, thus ensuring the safety of people using repaired equipment.

This standard may be considered to support compliance with the European Directive 2009/104/EU concerning the minimum safety and health requirements for the use of work equipment by workers at work.

In general, the test procedure for verification of products after repair is the responsibility of the related product technical committees. This document may be taken into consideration by product technical committees if they need to take into consideration modified or additional tests for verification after repairs for products falling within their scope.

1 Scope

This document specifies requirements for setting a uniform procedure to verify the effectiveness of the protective measures for current-using equipment or appliances after they have been repaired.

This procedure is applicable to current-using equipment or appliances with a rated voltage above 25 V AC and 60 V DC up to 1 000 V AC and 1 500 V DC, and currents up to 63 A, connected to final circuits. They may be either pluggable equipment type A connected or permanently connected.

This document is not intended to replace test covered by safety standards nor product standards, for example type tests, routine tests and acceptance tests.

This document assumes that the current-using equipment or appliances under consideration complies with its related product standard, has been introduced on the market, has been in use, has failed, and has then been repaired.

It intends to verify that operations for repairs have not jeopardized basic protective measures, for example to verify the continuity of the protective conductor, the withstand capability of the insulation or to verify that no metallic part is loose or is inadvertently inserted in the device.

This document does not apply to:

- recurrent tests defined in EN 50699;¹
- devices and equipment that are part of the fixed electrical installations. For these, tests for verification after repair are covered by HD 60364-6;
- audio/video, information and communication technology equipment;
- uninterruptible Power Supply (UPS);
- charging stations for electro-mobility;
- power supplies;
- programmable Logic Controllers (PLC);
- power Drives;
- devices for EX-zones or for mining applications in general;
- products already covered by standards addressing similar topics such as:
 - medical equipment covered by EN 60601-1. For these devices, tests for verification after repair are covered by EN 62353;
 - arc welding equipment covered by EN IEC 60974-1. For these devices, tests for verification after repair are covered by EN 60974-4.
 - machinery covered by EN 60204-1. For these devices, EN 60204-1 applies.

¹ Under preparation. Stage at time of publication: prEN 50699:2019.

EN 50678:2020 (E)**2 Normative references**

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

HD 60364-6, *Low-voltage electrical installations — Part 6: Verification (IEC 60364-4)*

EN 61557 (series), *Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC — Equipment for testing, measuring or monitoring of protective measures (IEC 61557, series)*

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