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Low resistance measurements - Methods and guidance

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

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EUROPEAN STANDARD

EN IEC 62812

NORME EUROPÉENNE

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July 2019

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English Version

**Low resistance measurements - Methods and guidance
(IEC 62812:2019)**Mesures de faibles résistances - Méthodes et
recommandations
(IEC 62812:2019)Messung niederohmiger Widerstände - Verfahren und
Leitfaden
(IEC 62812:2019)

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EN IEC 62812:2019 (E)**European foreword**

The text of document 40/2665/FDIS, future edition 1 of IEC 62812, prepared by IEC/TC 40 "Capacitors and resistors for electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62812:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-03-06
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-06-06

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IEC 60115-2	NOTE	Harmonized as EN 60115-2
IEC 60115-8	NOTE	Harmonized as EN 60115-8
IEC 60301	NOTE	Harmonized as EN 60301
IEC 61249-5-1	NOTE	Harmonized as EN 61249-5-1

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-1	-	Environmental testing - Part 1: General and guidance	EN 60068-1	-
IEC 60115-1 (mod)	2008	Fixed resistors for use in electronic equipment - Part 1: Generic specification	EN 60115-1	2011
-	-		+ A11	2015
IEC 60294	-	Measurement of the dimensions of a cylindrical component with axial terminations	EN 60294	-



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Low resistance measurements – Methods and guidance

Mesures de faibles résistances – Méthodes et recommandations





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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Low resistance measurements – Methods and guidance

Mesures de faibles résistances – Méthodes et recommandations

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**LOW RESISTANCE MEASUREMENTS –
METHODS AND GUIDANCE**
FOREWORD

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FDIS	Report on voting
40/2665/FDIS	40/2671/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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LOW RESISTANCE MEASUREMENTS – METHODS AND GUIDANCE

1 Scope

Resistance measurements are typically compromised by a variety of phenomena, for example serial resistance in the measurement path, self-heating or non-ohmic properties. Whether the effect of such phenomena on a resistance measurement is acceptable or not depends on the magnitude of each effect in comparison to the resistance and to the required accuracy. Hence, the risk of erroneous resistance measurements increases with decreasing resistance and with a tightening of the permissible tolerance.

This document specifies methods of measurement and associated test conditions that eliminate or reduce the influence of adverse phenomena in order to improve the attainable accuracy of low-resistance measurements.

The methods described in this document are applicable for the individual measurements of the resistance of individual resistors, and also for resistance measurements as part of a test sequence. They are applied if prescribed by a relevant component specification, or if agreed between a customer and a manufacturer.

2 Normative references

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