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Irish Standard
I.S. EN 60255-127:2014

Measuring relays and protection equipment -- Part 127: Functional requirements for over/under voltage protection

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NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60255-127

January 2014

ICS 29.120.70

Supersedes EN 60255-3:1998 + corr. Jan.1998

English version

Measuring relays and protection equipment - Part 127: Functional requirements for over/under voltage protection

(IEC 60255-127:2010)

Relais de mesure et dispositifs de protection - Partie 127: Exigences fonctionnelles pour les protections à minimum et maximum de tension (CEI 60255-127:2010)

Messrelais und Schutzeinrichtungen - Teil 127: Funktionsnorm für Über-/Unterspannungsschutz (IEC 60255-127:2010)

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Ref. No. EN 60255-127:2014 E

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Foreword

The text of document 95/254/CDV, future edition 1 of IEC 60255-127, prepared by IEC/TC 95 "Measuring relays and protection equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60255-127:2014.

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)	2014-07-10
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IEC 61850	NOTE	Harmonized in EN 61850 series.
IEC 61850-7-4	NOTE	Harmonized as EN 61850-7-4.
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(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60044	series	Instrument transformers	EN 60044	series
IEC 60255-1	-	Measuring relays and protection equipment Part 1: Common requirements	EN 60255-1	-

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IEC 60255-127

Edition 1.0 2010-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Measuring relays and protection equipment – Part 127: Functional requirements for over/under voltage protection

Relais de mesure et dispositifs de protection – Partie 127: Exigences fonctionnelles pour les protections à minimum et maximum de tension

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Measuring relays and protection equipment – Part 127: Functional requirements for over/under voltage protection

Relais de mesure et dispositifs de protection – Partie 127: Exigences fonctionnelles pour les protections à minimum et maximum de tension

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MEASURING RELAYS AND PROTECTION EQUIPMENT –

Part 127: Functional requirements for over/under voltage protection

FOREWORD

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International Standard IEC 60255-127 has been prepared by IEC technical committee 95: Measuring relays and protection equipment.

The text of this standard is based on the following documents:

CDV	Report on voting
95/254/CDV	95/261/RVC

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

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

A list of all parts of the IEC 60255 series can be found, under the general title *Measuring relays and protection equipment*, on the IEC website.

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The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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- withdrawn,
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MEASURING RELAYS AND PROTECTION EQUIPMENT –

Part 127: Functional requirements for over/under voltage protection

1 Scope

This part of IEC 60255 specifies minimum requirements for over/under voltage relays. The standard includes specification of the protection function, measurement characteristics and time delay characteristics.

This standard defines the influencing factors that affect the accuracy under steady state conditions and performance characteristics during dynamic conditions. The test methodologies for verifying performance characteristics and accuracy are also included in this standard.

The over/under voltage functions covered by this standard are as follows:

	IEEE/ANSI C37.2 Function numbers	IEC 61850-7-4 Logical nodes
Phase undervoltage protection	27	PTUV
Positive sequence undervoltage protection	27D	PTUV
Phase overvoltage protection	59	PTOV
Residual/zero-sequence overvoltage protection	59N/59G	PTOV
Negative sequence/ unbalance overvoltage protection	47	PTOV

The general requirements for measuring relays and protection equipment are specified in IEC 60255-1.

2 Normative references

The following referenced documents are indispensable for the application 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.

IEC 60044 (all parts), *Instrument transformers*

IEC 60255-1, *Measuring relays and protection equipment – Part 1: Common requirements*

3 Terms and definitions

For the purposes of this document, the following terms and definition apply

3.1
theoretical curve of time versus characteristic quantity
curve which represents the relationship between the theoretical specified operate time and the characteristic quantity

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