



IEC 62125

Edition 1.0 2019-09

INTERNATIONAL STANDARD



Environmental considerations specific to insulated electrical power and control cables

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 29.060.20

ISBN 978-2-8322-7374-6

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CONTENTS

FOREWORD	4
INTRODUCTION	6
1 Scope	7
2 Normative references	7
3 Terms, definitions and symbols	7
3.1 Terms and definitions	7
3.2 Symbols	9
4 General principles	11
5 Environmental checklist approach	11
5.1 What is the checklist approach?	11
5.2 Checklist	12
6 Life cycle assessment (LCA) of cables	12
6.1 General	12
6.2 Goal and scope	13
6.2.1 LCA study goal	13
6.2.2 Functional unit	13
6.2.3 Reference flow	14
6.2.4 System boundary	14
6.2.5 Cut-off criteria	15
6.2.6 Assumptions and limitations	15
6.3 Life cycle inventory (LCI)	15
6.3.1 General	15
6.3.2 Data collection	15
6.3.3 Data selection	16
6.3.4 Allocation procedure	16
6.4 Life cycle impact assessment (LCIA)	16
6.5 Interpretation	17
6.6 Single environmental indicator approach	17
7 Environmental and energy cost-based conductor size optimization – ECSO	18
7.1 Overview	18
7.2 Basic rules	18
7.3 Factors	20
7.4 CO ₂ evaluation	20
7.4.1 General	20
7.4.2 CO ₂ emissions during manufacturing, transportation, installation and final disposal	20
7.4.3 CO ₂ emissions at the use phase	20
7.5 Calculation method	20
7.5.1 General	20
7.5.2 Calculation of initial cost	20
7.5.3 Calculation of running costs	21
7.5.4 Conductor resistance	21
7.5.5 Optimum current	21
7.5.6 Optimum conductor size	22
7.5.7 Energy reduction related to the use phase of the cable	22
7.6 Example	23

8	Environment-related communication	24
8.1	General.....	24
8.2	General principles	24
8.3	Composition and compliancy to legislation on substances.....	25
8.4	Life cycle assessment.....	25
8.5	End of life	25
	Annex A (informative) Checklist for the checklist approach	26
A.1	Preliminary considerations	26
A.2	Design considerations.....	26
A.3	Production considerations.....	26
A.4	Considerations for use and end of life phase.....	27
	Annex B (informative) Example for ECSO	28
B.1	General.....	28
B.2	Cable data	28
B.3	Calculation condition.....	28
B.4	Initial cost	29
B.4.1	Initial investment	29
B.4.2	Conversion of CO ₂ emissions during material/cable production, removal, transportation and disposal to cost	29
B.4.3	Initial cost (sum)	29
B.4.4	Conductor resistance.....	30
B.5	Calculation of running costs	30
B.5.1	Costs for Joule losses during anticipated life time	30
B.5.2	Costs for CO ₂ emission during anticipated life time	30
B.6	Life cycle cost.....	31
B.7	Optimum current	31
B.8	Efficiency	32
B.8.1	Calculation of energy efficiency	32
B.9	Life cycle cost versus service life	33
	Annex C (informative) Example of environmental communication.....	34
	Bibliography.....	35
	Figure 1 – Life cycle phases	13
	Figure 2 – Life cycle costs for conductor size for a certain current	19
	Figure 3 – Optimum current range for minimizing life cycle cost.....	19
	Table B.1 – Life cycle cost versus service life	33
	Table B.2 – Life cycle cost versus service life, relative to 3C 70 mm ²	33

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INSULATED ELECTRICAL POWER AND CONTROL CABLES****FOREWORD**

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International Standard IEC 62125 has been prepared by IEC technical committee 20: Electric cables.

This first edition cancels and replaces IEC TR 62125, published in 2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC TR 62125:2007:

- a) development of the document from TR to international standard;
- b) inclusion of a methodology for LCA;
- c) inclusion of a methodology for conductor size optimization.

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

FDIS	Report on voting
20/1876/FDIS	20/1881/RVD

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.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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INTRODUCTION

The cable sector has, for many years, considered the impact of electric cables on the environment with respect to their operating conditions. Transmission system operators, distribution system operators, manufacturers, installers/contractors, users and authorities have considerably increased their requirements to take into account the environmental impact of electric cables.

IEC TC 20 regularly reviews its approach to the incorporation of environmental aspects into standards for electric cables and their components. Environmental considerations should be included in both design and redesign work with respect to the raw materials used, energy consumption, emissions and generation of waste during production, end of life recycling or disposal, and in-service performance.

This document supersedes IEC TR 62125 published 2007, which intended to give assistance to writers of standards within IEC Technical Committee 20, to take into account the relevant environmental aspects that are specific to electric cables in normal use.

This document is addressed to writers of standards, manufacturers and users of power cables to provide guidance when evaluating:

- the qualitative environmental impact (checklist approach), or
- the quantitative environmental impact (LCA approach), and
- the environmental and energy cost-based conductor size optimization (ECSO).

ENVIRONMENTAL CONSIDERATIONS SPECIFIC TO INSULATED ELECTRICAL POWER AND CONTROL CABLES

1 Scope

This document provides methodologies addressing environmental evaluation and communication related to cables in normal use.

It includes an environmental checklist for power cables, the method for life cycle assessment (LCA) and a methodology for conductor size optimization.

The results obtained by applying such methodologies can be used for external communication. Environmental communication can also include other topics, such as material declaration.

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.

IEC 60287-3-2:2012, *Electric cables – Calculation of the current rating – Part 3-2: Sections on operating conditions – Economic optimization of power cable size*

ISO 14040:2006, *Environmental management – Life cycle assessment – Principles and framework*

ISO 14044:2006, *Environmental management – Life cycle assessment – Requirements and guidelines*