

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Low-voltage electrical installations –
Part 8-1: Functional aspects – Energy efficiency**

**Installations électriques à basse tension –
Partie 8-1: Aspects fonctionnels – Efficacité énergétique**



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CONTENTS

FOREWORD.....	6
INTRODUCTION.....	8
1 Scope.....	9
2 Normative references	9
3 Terms, definitions and abbreviated terms	10
3.1 General.....	10
3.2 Electrical energy management.....	11
3.3 Energy measurement.....	12
3.4 Sectors of activities.....	13
3.5 Abbreviated terms.....	13
4 General	14
4.1 Fundamental principles	14
4.1.1 Safety of the electrical installation	14
4.1.2 Availability of electrical energy and user decision	14
4.1.3 Design principles	14
4.2 Energy efficiency assessment for electrical installations	15
4.2.1 General	15
4.2.2 Action plan following an assessment according to Annex B	15
5 Sectors of activities	15
6 Design requirements and recommendations	15
6.1 General.....	15
6.2 Determination of load energy profile.....	16
6.3 Determination of the transformer and switchboard location with the barycentre method.....	16
6.4 HV/LV substation	16
6.4.1 General	16
6.4.2 Optimum number and location of HV/LV substations.....	16
6.4.3 Working point of the transformer.....	17
6.4.4 Efficiency of the transformer	17
6.5 Efficiency of local production and local storage.....	17
6.6 Losses in the wiring	17
6.6.1 Voltage drop.....	17
6.6.2 Cross-sectional areas of conductors	17
6.6.3 Power factor correction.....	18
6.6.4 Reduction of the effects of harmonic currents	18
7 Determination of the zones, usages and meshes	18
7.1 Determining the zones	18
7.2 Determining the usages within the identified zones	19
7.3 Demand response.....	19
7.4 Determining the meshes	19
7.4.1 General	19
7.4.2 Meshes.....	20
7.4.3 Criteria for considering meshes	20
7.5 Driving parameters.....	21
7.5.1 General	21
7.5.2 Occupancy	22

7.5.3	Operating time	22
7.5.4	Environmental conditions	22
7.5.5	Cost of electricity	22
7.6	Impacts on the design of an electrical installation	22
8	Energy efficiency and load management system	22
8.1	General	22
8.2	User specification	23
8.2.1	General	23
8.2.2	Requirements on the loads	23
8.2.3	Requirements on the supplies	23
8.3	Inputs from loads, sensors and forecasts	24
8.3.1	General	24
8.3.2	Communication	28
8.3.3	Data logging	29
8.3.4	Loads	29
8.3.5	Forecasts	31
8.4	Inputs from the supplies: energy availability and pricing	31
8.5	Monitoring the performance of the electrical installation	31
8.6	Management of loads through meshes	31
8.6.1	General	31
8.6.2	Electrical energy management system (EEMS)	31
8.7	Multi-supply source management: grid, local electricity production and storage	32
9	Maintenance and enhancement of the performance of the installation	32
9.1	Methodology	32
9.2	Installation life cycle methodology	34
9.3	Energy efficiency life cycle	34
9.3.1	General	34
9.3.2	Performance maintenance programme	34
9.3.3	Verification	35
9.4	Data management	35
9.5	Maintenance	35
10	Parameters for implementation of efficiency measures	35
10.1	General	35
10.2	Efficiency measures	35
10.2.1	Current-using-equipment	35
10.2.2	Electrical installation	37
10.2.3	Implementation of management systems	38
10.2.4	Local power supply	40
11	Energy efficiency actions	41
Annex A (informative) Determination of transformer and switchboard location using the barycentre method		42
A.1	Barycentre method	42
A.2	Total load barycentre	45
A.2.1	General	45
A.2.2	Sub-distribution board locations	46
A.2.3	Iterative process	46
A.3	Method of average route length	46

Annex B (normative) Method to assess the energy efficiency of an electrical installation	49
B.1 General.....	49
B.2 Electrical installation efficiency classes.....	49
B.3 Determination of the electrical installation efficiency class	49
B.3.1 General	49
B.3.2 Industrial, commercial buildings and infrastructures.....	50
B.3.3 Residential	64
Annex C (informative) List of notes concerning certain countries	70
Bibliography.....	71
Figure 1 – Energy efficiency and load management system overview	23
Figure 2 – Electrical distribution scheme.....	26
Figure 3 – Example of measurement equipment selection in an installation	28
Figure 4 – Iterative process for electrical energy efficiency management	33
Figure A.1 – Example 1: floor plan of production plant with the planned loads and calculated barycentre.....	44
Figure A.2 – Example 2: barycentre calculated	45
Figure A.3 – Example of location of the barycentre in an industrial building	46
Figure A.4 – Example of location of the barycentre using the average route length method	48
Figure B.1 – Level of efficiency of the electrical installation efficiency classes	49
Table 1 – Measurement applications.....	25
Table 2 – Overview of the needs for power metering and monitoring.....	26
Table 3 – Process for electrical energy efficiency management and responsibilities.....	33
Table A.1 – Cable length for supply of DB.....	47
Table B.1 – Electrical installation efficiency classes.....	50
Table B.2 – Energy efficiency measures	51
Table B.3 – Determination of energy consumption: coverage	52
Table B.4 – Main substation: consumption	52
Table B.5 – Main substation: location.....	53
Table B.6 – Voltage drop	53
Table B.7 – Efficiency of transformer	54
Table B.8 – Efficiency of fixed installed current using equipment	55
Table B.9 – Zones	55
Table B.10 – Usages	56
Table B.11 – Demand response: coverage.....	56
Table B.12 – Demand response: duration	56
Table B.13 – Meshes	57
Table B.14 – Measurement by usages	58
Table B.15 – Occupancy coverage.....	58
Table B.16 – Occupancy measurement.....	58
Table B.17 – Energy management system (EEMS)	59
Table B.18 – HVAC control	59

Table B.19 – Lighting control 60

Table B.20 – Performance maintenance process 60

Table B.21 – Frequency of the performance verification process..... 60

Table B.22 – Data management..... 61

Table B.23 – Working point of transformer 61

Table B.24 – Presence of continuous monitoring for large energy using systems 62

Table B.25 – Power factor..... 62

Table B.26 – THD_U 63

Table B.27 – THD_I 63

Table B.28 – Renewable energy 64

Table B.29 – Electrical energy storage..... 64

Table B.30 – Energy efficiency measures parameters 65

Table B.31 – Determination of energy consumption 65

Table B.32 – Zones..... 66

Table B.33 – Demand response coverage..... 66

Table B.34 – Meshes 67

Table B.35 – HVAC control 67

Table B.36 – Lighting control 68

Table B.37 – Measurement by usage 68

Table B.38 – Renewable energy 69

Table B.39 – Electrical energy storage..... 69

Table C.1 – Notes concerning certain countries 70

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 8-1: Functional aspects – Energy efficiency

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International Standard IEC 60364-8-1 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock.

This second edition cancels and replaces the first edition published in 2014. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) revision of Annex B;
- b) revision of 4.2: Energy efficiency assessment for electrical installations;
- c) update of 8.3: Input from loads, sensors and forecasts;
- d) introduction of new definitions.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
64/2353/FDIS	64/2360/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.

It has the status of a group energy efficiency publication in accordance with IEC Guide 118 and IEC Guide 119.

The reader's attention is drawn to the fact that Annex C lists all of the "in-some-country" clauses on differing practices of a less permanent nature relating to the subject of this document.

A list of all parts in the IEC 60364 series, published under the general title *Low-voltage electrical installations*, can be found on the IEC website.

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

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

The contents of the corrigendum of May 2019 have been included in this copy.

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LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 8-1: Functional aspects – Energy efficiency

1 Scope

This part of IEC 60364 provides additional requirements, measures and recommendations for the design, erection, operation and verification of all types of low voltage electrical installation including local production and storage of energy for optimizing the overall efficient use of electricity.

It introduces requirements, recommendations and methods for the design and the energy efficiency (EE) assessment of an electrical installation within the framework of an energy efficiency management approach in order to get the best permanent functionally equivalent service for the lowest electrical energy consumption and the most acceptable energy availability and economic balance.

These requirements, recommendations and methods apply, within the scope of IEC 60364 (all parts), for new installations and modification of existing installations.

This document is applicable to the electrical installation of a building or system and does not apply to products. The energy efficiency of products and their operational requirements are covered by the relevant product standards.

Where another standard provides specific requirements for a particular system or installation application (e.g. manufacturing system covered by ISO 20140 (all parts)), those requirements may supersede this document.

This document does not specifically address building automation systems.

This group energy efficiency publication is primarily intended to be used as an energy efficiency standard for the low voltage electrical installations mentioned in Clause 1, but is also intended to be used by technical committees in the preparation of standards, in accordance with the principles laid down in IEC Guide 119 and IEC Guide 118.

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 61557-12, *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 – Part 12: Power metering and monitoring devices (PMD)*

IEC 61869-2, *Instrument transformers – Part 2: Additional requirements for current transformers*

IEC 62053-21, *Electricity metering equipment (a.c.) – Particular requirements – Part 21: Static meters for active energy (classes 1 and 2)*