IEC 62962

Edition 1.0 2019-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Particular requirements for load-shedding equipment (LSE)

Exigences spécifiques pour les délesteurs (LSE)

IEC 62962:2019-09(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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International Standard IEC 62962 has been prepared by subcommittee 23K: Electrical energy efficiency products, of IEC technical committee 23: Electrical accessories.

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

FDIS	Report on voting
23K/47/FDIS	23K/48/RVD

Full information on the voting for the approval of this document 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.

In this document, the following print types are used:

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INTRODUCTION

The optimization of electrical energy usage can be facilitated by appropriate design and installation considerations. An electrical installation can provide the required level of service and safety for the lowest electrical consumption.

This is considered by designers as a general requirement of their design procedures to establish the best use of electrical energy.

The optimization of the use of electricity is based on energy efficiency management which is based on the price of electricity, electrical consumption and real-time adaptation, as described in Figure 1 according to IEC 60364-8-1:2019.

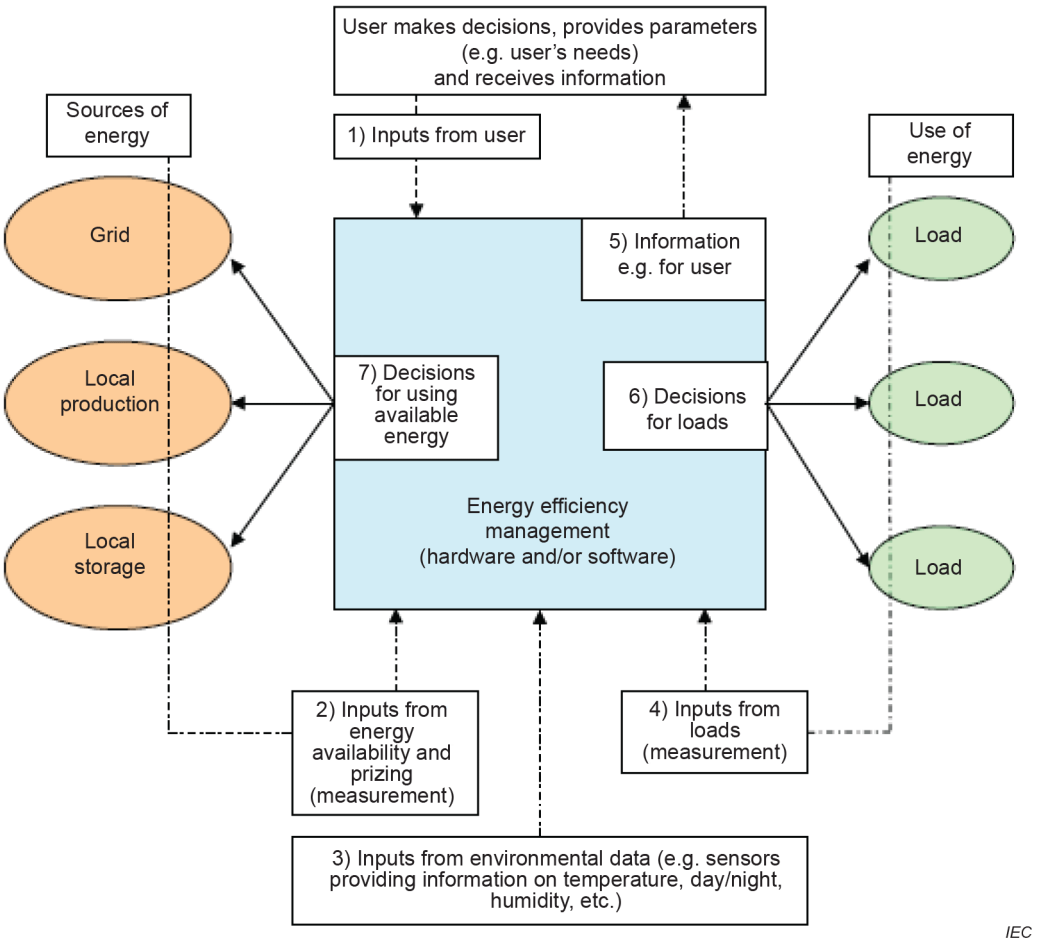

Figure 1 – Energy efficiency management system

This document applies to load-shedding equipment (LSE), for household and similar uses.

The LSE is an equipment able to respond to the monitored current or power, or alternative monitored parameters to switch ON and OFF selected loads when certain conditions are met.

The load-shedding function is used in energy management systems to optimize the overall use of electrical energy including production and storage, and can be used for example for energy efficiency purposes as per IEC 60364-8-1:2019.

PARTICULAR REQUIREMENTS FOR LOAD-SHEDDING EQUIPMENT (LSE)

1 Scope

The purpose of this document is to provide requirements for equipment to be used in energy efficiency systems. This document covers load-shedding equipment (LSE).

Guidelines relating to safety for LSE as given in IEC Guide 110 have been followed.

This document applies to load-shedding equipment for household and similar uses. The load-shedding function is used in energy management systems to optimize the overall use of electrical energy including production and storage. Load-shedding can be used for example for energy efficiency purposes as per IEC 60364-8-1:2019.

This document applies to LSE for operation under normal conditions:

– AC circuits with a rated frequency of 50 Hz, 60 Hz or both, with a rated voltage not exceeding 440 V (between phases), a rated current not exceeding 125 A and a rated short-circuit capacity not exceeding 25 000 A; or

– DC circuits[1].

LSEs are intended to control the energy supplied to one or more load, circuit or mesh when:

– defined conditions of time and current are reached;

– a command or information from an external system is received.

An LSE is intended to serve as:

– a single equipment having all the necessary means able to control the loads (e.g. the electrical energy management function is embedded in such an equipment); or

– a unit integrated into a more complex equipment or an independent equipment being part of an electrical energy management system (EEMS); or

– an assembly of independent equipment forming an LSE (e.g. an LSE with external current sensors); or

– as a combination of the above points.

LSE can have a wireless interface.

LSE is part of the fixed installation.

NOTE 1 This document covers load shedding equipment in the fixed installations including portable appliances connected thereto.

LSE are intended for use in circuits with protection against electrical shock and over-current according to IEC 60364 (all parts).

NOTE 2 For example, fault protection (indirect contact protection) can be covered as follows:

– in TT systems, by an upstream RCBOs or RCCBs according to IEC 61008-1 and IEC 61009-1;

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1 LSE for DC circuits are under consideration.