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Electrical energy storage (EES) systems – Part 3-3: Planning and performance assessment of electrical energy storage systems – Additional requirements for energy intensive and backup power applications

(IEC TS 62933-3-3:2022)

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TECHNICAL SPECIFICATION



**Electrical energy storage (EES) systems –
Part 3-3: Planning and performance assessment of electrical energy storage
systems – Additional requirements for energy intensive and backup power
applications**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
1 Scope.....	8
2 Normative references	8
3 Terms, definitions, abbreviated terms and symbols.....	8
3.1 Terms and definitions.....	8
3.2 Abbreviated terms and symbols	10
3.2.1 Abbreviated terms	10
3.2.2 Symbols	11
4 General planning and performance assessment considerations for EES systems	11
5 Peak shaving and load levelling.....	11
5.1 Application of EES system	11
5.1.1 Functional purpose	11
5.1.2 Applications related requirements	11
5.2 Conditions and requirements for connection to the grid.....	11
5.3 Design of the EES systems	12
5.3.1 Structure of the EES systems	12
5.3.2 Subsystem specification and requirements	12
5.3.3 Grid integration of the EES systems	12
5.3.4 Operation and control	12
5.3.5 Monitoring	15
5.3.6 Maintenance	15
5.3.7 Communication interface	15
5.4 Sizing and resulting parameters of the EES system	16
5.4.1 Sizing	16
5.4.2 Characteristics and restrictions of the EES system	17
5.5 Service life of the EES system	17
5.5.1 Installation.....	17
5.5.2 Performance assessment	17
5.5.3 Operation and control	18
5.5.4 Monitoring	21
5.5.5 Maintenance	21
6 Islanded grid application.....	21
6.1 Application of the EES system	21
6.1.1 Functional purpose	21
6.1.2 Applications related requirements	21
6.2 Conditions and requirements for connection to the grid.....	21
6.2.1 Grid parameters at the intended POC	21
6.2.2 Service conditions	21
6.2.3 Requirements and restrictions of the grid or system operator.....	21
6.2.4 Standards and local regulations.....	21
6.3 Design of the EES system.....	22
6.3.1 Structure of the EES system.....	22
6.3.2 Subsystem specifications.....	23
6.3.3 Grid integration of the EES system	23
6.3.4 Operation and control	23

6.3.5	Monitoring	24
6.3.6	Maintenance	24
6.3.7	Communication interface	24
6.4	Sizing and resulting parameters of the EES system	24
6.4.1	Sizing	24
6.4.2	Characteristics and restrictions of the EES system	26
6.5	Service life of the EES system	26
6.5.1	Installation	26
6.5.2	Performance assessment	26
6.5.3	Operation and control	26
6.5.4	Monitoring	27
6.5.5	Maintenance	27
7	Backup power supply and emergency support	28
7.1	Applications of the EES system	28
7.1.1	Functional purpose of the EES system	28
7.1.2	Applications related requirements	28
7.2	Conditions and requirements for connection to the grid	28
7.3	Design of the EES system	28
7.3.1	Structure of the EES systems	28
7.3.2	Subsystem specifications and requirements	28
7.3.3	Grid integration of the EES system	28
7.3.4	Operation and control	32
7.3.5	Monitoring	32
7.3.6	Maintenance	32
7.3.7	Communication interface	32
7.4	Sizing and resulting parameters of the EES system	33
7.4.1	Sizing	33
7.4.2	Characteristics and restrictions of the EES system	34
7.5	Service life of the EES system	34
7.5.1	Installation	34
7.5.2	Performance assessment	35
7.5.3	Operation and control	35
7.5.4	Monitoring	39
7.5.5	Maintenance	39
Annex A (informative) Technology dependent requirements for grid interconnection scheme		40
Annex B (informative) Specific requirements for battery-based EES systems		44
Bibliography		46

Figure 1 – An example of peak shaving and fluctuation reduction of consumption consisting of charge and discharge events	13
Figure 2 – One charge and one discharge duty cycle for peak shaving application	14
Figure 3 – Two charges and two discharges duty cycle for peak shaving application	15
Figure 4 – Use case for information exchange between grid and EES system	16
Figure 5 – Process to determine the sizing and planning of the EES system applied in peak shaving and fluctuation reduction of consumption applications	17
Figure 6 – Sequence of charging events in peak shaving application	19
Figure 7 – Sequence of discharging events in peak shaving application	20

Figure 8 – Example configuration for applying an EES system to an islanded grid containing distributed energy resources	23
Figure 9 – Example process to determine the sizing and planning of EES system applied in islanded grid application	25
Figure 10 – Example use case for backup power using a diesel generator	29
Figure 11 – Simple replacement of diesel generator with EES system for backup power support	30
Figure 12 – EES system use case for both backup power and EES’s own functions	31
Figure 13 – EES system use case for communication with distribution panel	32
Figure 14 – Example process to determine the sizing and planning of the EES system applied to the backup power supply and emergency support application	33
Figure 15 – Example operation flow for backup power support during grid outage	36
Figure 16 – Example operation flow for backup power support when grid is recovered	36
Figure 17 – Example of configuration for low voltage connection	38
Figure 18 – Example of configuration for high voltage connection	39
Figure A.1 – Grounded Y- Δ (GY- Δ) interconnection between grid and EES system	40
Figure A.2 – Grounded Y-grounded Y (GY-GY) interconnection between grid and EES system	41
Figure A.3 – Δ -grounded Y (Δ -GY) interconnection between grid and EES system	42
Figure A.4 – Non-transformer direct interconnection between grid and EES system	43
Table 1 – Operation modes of EES system for peak shaving and fluctuation reduction of consumption	12
Table 2 – Conditions for charging/discharging limitation	21
Table 3 – Example of the operation time for emergency load facilities	34
Table A.1 – Pros and cons of grounded Y- Δ (GY- Δ) interconnection scheme	41
Table A.2 – Pros and cons of grounded Y-grounded Y (GY-GY) interconnection scheme	42
Table A.3 – Pros and cons of Δ -grounded Y (Δ -GY) interconnection scheme	43
Table A.4 – Pros and cons of non-transformer direct interconnection scheme	43
Table B.1 – BMS data monitored by PMS	45
Table B.2 – PCS data monitored by PMS	45
Table B.3 – PCS controls sent by PMS	45

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL ENERGY STORAGE (EES) SYSTEMS –**Part 3-3: Planning and performance assessment of electrical energy storage systems – Additional requirements for energy intensive and backup power applications**

FOREWORD

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IEC TS 62933-3-3 has been prepared by IEC technical committee 120: Electrical Energy Storage (EES) Systems. It is a Technical Specification.

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Draft	Report on voting
120/262/DTS	120/275/RVDTS

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

The language used for the development of this Technical Specification is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 62933 series, published under the general title *Electrical energy storage (EES) systems*, 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 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.

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INTRODUCTION

Electrical energy storage (EES) systems can provide solutions to multiple energy storage scenarios. The objective of this document is to provide requirements, guidelines and references when EES systems are designed, controlled and operated for energy intensive, islanded grid and backup power supply applications.

ELECTRICAL ENERGY STORAGE (EES) SYSTEMS –

Part 3-3: Planning and performance assessment of electrical energy storage systems – Additional requirements for energy intensive and backup power applications

1 Scope

This part of IEC 62933 provides requirements, guidelines and references when EES systems are designed, controlled and operated for energy intensive, islanded grid and backup power supply applications. In energy intensive applications, the EES system provides long charge and discharge phases at variable powers to the supported grid or user equipment. In islanded operation, the EES system provides energy to the islanded grid and coordinates other power generation systems in the islanded grid. In backup power supply and emergency support, the EES system provides energy to the internal grid or a set of emergency loads when the main grid power supply is not available.

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 61850-7-420, *Communication networks and systems for power utility automation – Part 7-420: Basic communication structure – Distributed energy resources and distribution automation logical nodes*

IEC TR 61850-90-9, *Communication networks and systems for power utility automation – Part 90-9: Use of IEC 61850 for Electrical Energy Storage Systems*

IEC 62933-1:2018, *Electrical energy storage (EES) systems – Part 1: Vocabulary*

IEC 62933-2-1, *Electrical energy storage (EES) systems – Part 2-1: Unit parameters and testing methods – General specification*

IEC TS 62933-2-2, *Electrical energy storage (EES) systems – Part 2-2: Unit parameters and testing methods – Application and performance testing*

IEC TS 62933-3-1:2018, *Electrical energy storage (EES) systems – Part 3-1: Planning and performance assessment of electrical energy storage systems – General specification*

IEC TS 62933-3-2:2022, *Electrical energy storage (EES) systems – Part 3-2: Planning and performance assessment of electrical energy storage systems – Additional requirements for power intensive and renewable energy sources integration related applications*