SVENSK STANDARD SS-EN 61968-3

Fastställd	Utgåva	Sida	Ansvarig kommitté
2010-04-26	1	1 (1+36)	SEK TK 57

Integrering av tillämpningar för elförsörjning – Systemgränssnitt för distributionssystemstyrning – Del 3: Gränssnitt för nätdrift

Application integration at electric utilities –
System interfaces for distribution management –
Part 3: Interface for network operations

Som svensk standard gäller europastandarden EN 61968-3:2004. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61968-3:2004.

Nationellt förord

Europastandarden EN 61968-3:2004

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 61968-3, First edition, 2004 - Application integration at electric utilities - System interfaces for distribution management - Part 3: Interface for network operations**

utarbetad inom International Electrotechnical Commission, IEC.

ICS 33.200

Denna standard är fastställd av SEK Svensk Elstandard,
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EUROPEAN STANDARD **EN 61968-3**

NORME EUROPÉENNE

EUROPÄISCHE NORM June 2004

ICS 33.200

English version

Application integration at electric utilities – System interfaces for distribution management Part 3: Interface for network operations

(IEC 61968-3:2004)

Intégration des applications
dans les entreprises de distribution
électrique –
Système d'interfaces pour la gestion
de la distribution
Partie 3: Interface pour l'exploitation
du réseau
(CEI 61968-3:2004)

Integration von Anwendungen in Anlagen
der Elektrizitätsversorgung -
Systemschnittstellen für Netzführung
Teil 3: Schnittstelle für Netzbetriebsarten
(IEC 61968-3:2004)

This European Standard was approved by CENELEC on 2004-05-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC
European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Ref. No. EN 61968-3:2004 E

SEK Svensk Elstandard

Foreword

The text of document 57/694/FDIS, future edition 1 of IEC 61968-3, prepared by IEC TC 57, Power systems management and associated information exchange, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61968-3 on 2004-05-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2005-02-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-05-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 61968-3:2004 was approved by CENELEC as a European Standard without any modification.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

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

Publication	Year	Title	EN/HD	Year
IEC 61850-7-4	2003	Communication networks and systems in substations Part 7-4: Basic communication structure for substation and feeder equipment - Compatible logical node classes and data classes	EN 61850-7-4	2003
IEC 61968-1	- [1)]	Application integration at electric utilities - System interfaces for distribution management Part 1: Interface architecture and general requirements	EN 61968-1	2004 [2)]

[1)] Undated reference.

[2)] Valid edition at date of issue.

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INTRODUCTION

The IEC 61968 series of standards is intended to facilitate *inter-application integration* as opposed to *intra-application integration*. Intra-application integration is aimed at programs in the same application system, usually communicating with each other using middleware that is embedded in their underlying runtime environment, and tends to be optimised for close, real-time, synchronous connections and interactive request/reply or conversation communication models. IEC 61968, in contrast, is intended to support the inter-application integration of a utility enterprise that needs to connect disparate applications that are already built or new (legacy or purchased applications), each supported by dissimilar runtime environments. Therefore, these interface standards are relevant to loosely coupled applications with more heterogeneity in languages, operating systems, protocols and management tools. This series of standards is intended to support applications that need to exchange data every few seconds, minutes, or hours rather than waiting for a nightly batch run. This series of standards, which are intended to be implemented with middleware services that exchange messages among applications, will complement, but not replace utility data warehouses, database gateways, and operational stores.

As used in IEC 61968, a Distribution Management System (DMS) consists of various distributed application components for the utility to manage electrical distribution networks. These capabilities include monitoring and control of equipment for power delivery, management processes to ensure system reliability, voltage management, demand-side management, outage management, work management, automated mapping and facilities management. Standard interfaces are defined for each class of applications identified in the Interface Reference Model (IRM), which is described in IEC 61968-1.

This Part of IEC 61968 contains the Clauses shown in Table 1.

Table 1 – Document overview for IEC 61968-3

Clause	Title	Purpose
1	Scope	The scope and purpose of the document are described.
2	Normative references	Documents that contain provisions which, through reference in this text, constitute provisions of this International Standard.
3	Reference and information models	Description of the relevant parts of the interface reference model, static information model and message type naming convention.
4	Message types – general	Requirements common to all message types described in Clause 5.
5	Network operations message types	Message types related to the exchange of information for operational documents namely operation restrictions, outage, safety and switching schedule.
Annex A	Message type verbs	Description of the verbs that are used for the message types.

APPLICATION INTEGRATION AT ELECTRIC UTILITIES – SYSTEM INTERFACES FOR DISTRIBUTION MANAGEMENT –

Part 3: Interface for network operations

1 Scope

The IEC 61968 series, taken as a whole, defines interfaces for the major elements of an interface architecture for Distribution Management Systems (DMS). IEC 61968-1 identifies and establishes requirements for standard interfaces based on an Interface Reference Model (IRM). Parts 3 to 10 of the IEC 61968 series define interfaces relevant to each of the major business functions described by the Interface Reference Model.

As used in the IEC 61968 series, a DMS consists of various distributed application components for the utility to manage electrical distribution networks. These capabilities include monitoring and control of equipment for power delivery, management processes to ensure system reliability, voltage management, demand-side management, outage management, work management, automated mapping and facilities management.

The IEC 61968 series is limited to the definition of interfaces and is implementation independent. It provides for interoperability among different computer systems, platforms, and languages. Methods and technologies used to implement a functionality conforming to these interfaces are considered outside of the scope of the IEC 61968 series; only the interface itself is specified in these standards.

This part specifies the information content of a set of message types that can be used to support many of the business functions related to network operations. Typical uses of the message types defined in this part include data acquisition by external systems, fault isolation, fault restoration, trouble management, maintenance of the plant, and the commissioning of the plant.

An additional part of IEC 61968 will document integration scenarios or use cases, which are informative examples showing typical ways of using the message types defined in this document as well as message types to be defined in other parts of the IEC 61968 series.

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 61850-7-4:2003, *Communication networks and systems in substations – Part 7-4: Basic communication structure for substation and feeder equipment – Compatible logical node classes and data classes*

IEC 61968-1, *System interfaces for distribution management – Part 1: Interface architecture and general requirements*