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Energikällor för anordningar för trådlös kommunikation – Del 1: Allmänna fordringar på energimoduler

*Power sources for a wireless communication device –
Part 1: General requirements of power modules*

Som svensk standard gäller europastandarden EN 62952-1:2016. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62952-1:2016.

Nationellt förord

Europastandarden EN 62952-1:2016

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 62952-1, First edition, 2016 - Power sources for a wireless communication device - Part 1: General requirements of power modules**

utarbetad inom International Electrotechnical Commission, IEC.

ICS 29.220.10; 33.040.40

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Postadress: Box 1284, 164 29 KISTA
Telefon: 08 - 444 14 00.
E-post: sek@elstandard.se. Internet: www.elstandard.se

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Box 1284
164 29 Kista
Tel 08-444 14 00
www.elstandard.se

ICS 29.220.10; 33.040.40

English Version

**Power sources for a wireless communication device - Part 1:
General requirements of power modules
(IEC 62952-1:2016)**

Sources d'énergie pour un appareil de communication sans
fil - Partie 1: Exigences générales relatives aux modules
d'alimentation
(IEC 62952-1:2016)

Energiequellen für ein Funkkommunikationsgerät - Teil 1:
Allgemeine Anforderungen an Energiemodule
(IEC 62952-1:2016)

This European Standard was approved by CENELEC on 2016-11-09. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 65B/1053/FDIS, future edition 1 of IEC 62952-1, prepared by SC 65B "Measurement and control devices" of IEC/TC 65 "Industrial process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62952-1:2016.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2017-08-09
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-11-09

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62952-1:2016 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60086-2

NOTE Harmonized as EN 60086-2.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60079-0 (mod)	2011	Explosive atmospheres -- Part 0: Equipment - General requirements	EN 60079-0	2012
-	-		+ A11	2013
IEC 60079-11	2011	Explosive atmospheres -- Part 11: Equipment protection by intrinsic safety "i"	EN 60079-11	2012
IEC 60086-1	-	Primary batteries - Part 1: General	EN 60086-1	-
IEC 60654-3	-	Operating conditions for industrial-process measurement and control equipment -- Part 3: Mechanical influences	EN 60654-3	-
IEC 60721-3-4	1995	Classification of environmental conditions - - Part 3: Classification of groups of environmental parameters and their severities -- Section 4: Stationary use at non-weatherprotected locations	EN 60721-3-4	1995
IEC 61326	series	Electrical equipment for measurement, control and laboratory use - EMC requirements	-	series
IEC 62952-2	2016	Power sources for a wireless communication device - Part 2: profile for power modules with batteries	-	-
IEC 62952-3	-	Power sources for a wireless communication device - Part 3: Energy harvesting specification	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

POWER SOURCES FOR A WIRELESS COMMUNICATION DEVICE –**Part 1: General requirements of power modules**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62952-1 has been prepared by subcommittee 65B: Measurement and control devices, of IEC technical committee 65: Industrial-process measurement, control and automation.

This International Standard is based on VDI/VDE 2185 Blatt 3.

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

FDIS	Report on voting
65B/1053/FDIS	65B/1056/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.

A list of all parts of the IEC 62952 series, published under the general title *Power source for a wireless communication device*, can be found on the IEC website.

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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

Industrial wireless communication network devices like a pressure transmitter or a valve positioner are mostly using non-copper-cable power sources. These devices are using a power module for their power source that can contain a battery and / or an energy harvesting element. In order to increase usability, power source of wireless sensors and actuators require a standardized interface and harmonized requirements.

This part of IEC 62952 specifies interface and specification of power source of wireless devices and does not specify the mechanical interface within a wireless communication device and the power source. Additionally, energy harvesting is a key technology for power source of wireless devices. This document also specifies interface and specification of energy harvesting devices.

This document addresses the general requirements of power sources for wireless communication devices.

POWER SOURCES FOR A WIRELESS COMMUNICATION DEVICE –

Part 1: General requirements of power modules

1 Scope

This part of IEC 62952 specifies the general requirements of power modules for wireless communication devices (WCD). This document includes additional optional specifications to permit use in explosive atmospheres and harsh environments.

This document specifies the usability over the life-cycle of a power module including replacing in explosive atmosphere. Unreplaceable batteries such as memory backup are out of the scope of this standard.

Secondary batteries or power modules are covered by this document, but method of its power charging is out of scope.

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 60079-0:2011, *Explosive atmospheres – Part 0: Equipment – General requirements*

IEC 60079-11:2011, *Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"*

IEC 60086-1, *Primary batteries – Part 1: General*

IEC 60654-3, *Operating conditions for industrial-process measurement and control equipment – Part 3: Mechanical influences*

IEC 60721-3-4:1995, *Classification of environmental conditions – Part 3: Classification of groups of environmental parameters and their severities – Section 4: Stationary use at non-weatherprotected locations*

IEC 61326 (all parts), *Electrical equipment for measurement, control and laboratory use – EMC requirements*

IEC 62952-2:2016, *Power sources for a wireless communication device – Part-2: Profile for power modules with batteries*

IEC 62952-3: —1, *Power sources for a wireless communication device – Part-3: Generic energy harvesting adapter module*

¹ Under preparation. Stage at the time of publication: IEC/CDV:2016.