

© Copyright SEK Svensk Elstandard. Reproduction in any form without permission is prohibited.

## Industriell processtyrning – Profiler – Del 5-3: Installation av fältbussar – Installationsprofiler för CPF 3 (Profibus & Profinet)

*Industrial communication networks –  
Profiles –  
Part 5-3: Installation of fieldbuses –  
Installation profiles for CPF 3*

Som svensk standard gäller europastandarden EN IEC 61784-5-3:2018. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 61784-5-3:2018.

### Nationellt förord

Europastandarden EN IEC 61784-5-3:2018

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61784-5-3, Fourth edition, 2018 - Industrial communication networks - Profiles - Part 5-3: Installation of fieldbuses - Installation profiles for CPF 3**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden ska användas tillsammans med SS-EN IEC 61918, utgåva 3, 2018.

Tidigare fastställd svensk standard SS-EN 61784-5-3, utgåva 3, 2014, gäller ej fr o m 2021-10-04.

---

ICS 25.040.40; 35.100.40

---

Denna standard är fastställd av SEK Svensk Elstandard, som också kan lämna upplysningar om **sakinnehållet** i standarden.  
Postadress: Box 1284, 164 29 KISTA  
Telefon: 08 - 444 14 00.  
E-post: sek@elstandard.se. Internet: www.elstandard.se

---

### *Standarder underlättar utvecklingen och höjer elsäkerheten*

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

### *SEK är Sveriges röst i standardiseringsarbetet inom elområdet*

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

### *Stora delar av arbetet sker internationellt*

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

### *Var med och påverka!*

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

### **SEK Svensk Elstandard**

Box 1284  
164 29 Kista  
Tel 08-444 14 00  
[www.elstandard.se](http://www.elstandard.se)

ICS 25.040.40; 35.100.40

English Version

**Industrial communication networks - Profiles - Part 5-3:  
Installation of fieldbuses - Installation profiles for CPF 3  
(IEC 61784-5-3:2018)**

Réseaux de communication industriels - Profils - Partie 5-3:  
Installation des bus de terrain - Profils d'installation pour  
CPF 3  
(IEC 61784-5-3:2018)

Industrielle Kommunikationsnetze - Profile - Teil 5-3:  
Feldbusinstallation - Installationsprofile für die  
Kommunikationsprofilfamilie 3  
(IEC 61784-5-3:2018)

This European Standard was approved by CENELEC on 2018-10-04. 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, Serbia, 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: Rue de la Science 23, B-1040 Brussels**

## **European foreword**

The text of document 65C/924/FDIS, future edition 4 of IEC 61784-5-3, prepared by SC 65C "Industrial networks" of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61784-5-3:2018.

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) 2019-07-04
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-10-04

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

## **Endorsement notice**

The text of the International Standard IEC 61784-5-3:2018 was approved by CENELEC as a European Standard without any modification.

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61918	2018	Industrial communication networks - Installation of communication networks in industrial premises	EN IEC 61918	2018

## CONTENTS

FOREWORD.....	7
INTRODUCTION.....	9
1 Scope.....	10
2 Normative references .....	10
3 Terms, definitions and abbreviated terms .....	10
4 CPF 3: Overview of installation profiles .....	10
5 Installation profile conventions .....	11
6 Conformance to installation profiles.....	11
Annex A (normative) CP 3/1 (PROFIBUS) specific installation profile.....	13
A.1 Installation profile scope.....	13
A.2 Normative references .....	13
A.3 Installation profile terms, definitions, and abbreviated terms.....	13
A.3.1 Terms and definitions.....	13
A.3.2 Abbreviated terms.....	14
A.3.3 Conventions for installation profiles .....	14
A.4 Installation planning .....	14
A.4.1 General.....	14
A.4.2 Planning requirements .....	14
A.4.3 Network capabilities.....	16
A.4.4 Selection and use of cabling components .....	18
A.4.5 Cabling planning documentation .....	28
A.4.6 Verification of cabling planning specification .....	28
A.5 Installation implementation .....	28
A.5.1 General requirements .....	28
A.5.2 Cable installation .....	28
A.5.3 Connector installation .....	30
A.5.4 Terminator installation .....	34
A.5.5 Device installation.....	34
A.5.6 Coding and labelling .....	34
A.5.7 Earthing and bonding of equipment and device and shielded cabling .....	35
A.5.8 As-implemented cabling documentation .....	36
A.6 Installation verification and installation acceptance test.....	36
A.6.1 General.....	36
A.6.2 Installation verification .....	36
A.6.3 Installation acceptance test.....	38
A.7 Installation administration.....	43
A.8 Installation maintenance and installation troubleshooting.....	43
Annex B (normative) CP 3/2 (PROFIBUS) specific installation profile.....	44
B.1 Installation profile scope.....	44
B.2 Normative references .....	44
B.3 Installation profile terms, definitions, and abbreviated terms.....	44
B.3.1 Terms and definitions.....	44
B.3.2 Abbreviated terms.....	45
B.3.3 Conventions for installation profiles .....	45

B.4	Installation planning .....	46
B.4.1	General.....	46
B.4.2	Planning requirements .....	47
B.4.3	Network capabilities.....	54
B.4.4	Selection and use of cabling components .....	60
B.4.5	Cabling planning documentation .....	75
B.4.6	Verification of cabling planning specification .....	75
B.5	Installation implementation .....	75
B.5.1	General requirements .....	75
B.5.2	Cable installation .....	75
B.5.3	Connector installation .....	76
B.5.4	Terminator installation .....	77
B.5.5	Device installation.....	77
B.5.6	Coding and labelling .....	77
B.5.7	Earthing and bonding of equipment and device and shielded cabling .....	77
B.5.8	As-implemented cabling documentation .....	77
B.6	Installation verification and installation acceptance test.....	77
B.6.1	General.....	77
B.6.2	Installation verification .....	78
B.6.3	Installation acceptance test.....	78
B.7	Installation administration.....	79
B.8	Installation maintenance and installation troubleshooting.....	79
Annex C (normative)	CP 3/3, CP 3/4, CP 3/5, CP 3/6 (PROFINET) specific installation profile .....	80
C.1	Installation profile scope .....	80
C.2	Normative references .....	80
C.3	Installation profile terms, definitions, and abbreviated terms .....	80
C.3.1	Terms and definitions.....	80
C.3.2	Abbreviated terms.....	80
C.3.3	Conventions for installation profiles .....	80
C.4	Installation planning .....	81
C.4.1	General.....	81
C.4.2	Planning requirements .....	81
C.4.3	Network capabilities.....	81
C.4.4	Selection and use of cabling components .....	84
C.4.5	Cabling planning documentation .....	106
C.4.6	Verification of cabling planning specification .....	106
C.5	Installation implementation .....	106
C.5.1	General requirements .....	106
C.5.2	Cable installation .....	106
C.5.3	Connector installation .....	108
C.5.4	Terminator installation .....	110
C.5.5	Device installation.....	110
C.5.6	Coding and labelling .....	110
C.5.7	Earthing and bonding of equipment and device and shielded cabling .....	111
C.5.8	As-implemented cabling documentation .....	112
C.6	Installation verification and installation acceptance test.....	112
C.6.1	General.....	112

C.6.2	Installation verification .....	112
C.6.3	Installation acceptance test.....	113
C.7	Installation administration.....	114
C.8	Installation maintenance and installation troubleshooting.....	114
	Bibliography.....	115
Figure 1	– Standards relationships.....	9
Figure A.1	– Recommended combination of shielding and earthing for CP 3/1 networks with RS 485-IS.....	26
Figure A.2	– Sub-D connector pin numberings (front view).....	31
Figure A.3	– 5-pin M12 female socket.....	32
Figure A.4	– 5-pin M12 male plug for CP 3/1.....	33
Figure A.5	– Test circuit A – Resistance measurement of data line B and shield.....	39
Figure A.6	– Test circuit B – Resistance measurement of data line A and shield.....	39
Figure A.7	– Test circuit C – Resistance measurement of data line A, data line B, and shield.....	39
Figure A.8	– Test circuit D – Resistance measurement between data line A and B.....	40
Figure A.9	– Resistance measurement without 9-pin Sub-D plug .....	40
Figure A.10	– Loop core resistance (cable type A) .....	41
Figure A.11	– Action and resolution tree for measurement 1 (RS 485 and RS 485-IS) .....	41
Figure A.12	– Action and resolution tree for measurement 2 (RS 485 and RS 485-IS) .....	42
Figure A.13	– Action and resolution tree for measurement 3 (RS 485 and RS 485-IS) .....	42
Figure B.1	– Connection of CP 3/1 networks.....	47
Figure B.2	– Typical fieldbus architecture .....	50
Figure B.3	– Fieldbus with stations supplied by auxiliary power sources .....	50
Figure B.4	– Fieldbus model .....	53
Figure B.5	– Current modulation (Manchester II code) .....	53
Figure B.6	– Tree topology .....	55
Figure B.7	– Bus topology.....	55
Figure B.8	– Combination of the tree topology and the bus topology.....	56
Figure B.9	– Fieldbus extension.....	56
Figure B.10	– Recommended combination of shielding and earthing.....	70
Figure B.11	– Ideal combination of shielding and earthing .....	71
Figure B.12	– Capacitive earthing .....	72
Figure B.13	– Galvanic isolated field device.....	73
Figure B.14	– Pin assignment of the male and female connectors IEC 60947-5-2 (A-coding) .....	77
Figure C.1	– Definition of End-to-end link.....	101
Figure C.2	– End-to-end link without interconnections.....	101
Figure C.3	– Assembled End-to-end link .....	101
Figure C.4	– Connectionless optical fibre link .....	102
Figure C.5	– Assembled optical fibre link .....	102
Figure C.6	– Shielded connectors for CP 3/3, CP 3/4, CP 3/5 and CP 3/6 fieldbus networks.....	108
Figure C.7	– Pin-assignment for a straight cable.....	109



Table A.1 – Excerpt of MICE definition.....	16
Table A.2 – Basic network characteristics for balanced cabling not based on Ethernet (ISO/IEC 8802-3).....	17
Table A.3 – Network characteristics for optical fibre cabling.....	18
Table A.4 – Information relevant to copper cable: fixed cables.....	19
Table A.5 – Information relevant to optical fibre cables.....	20
Table A.6 – Connectors for copper cabling CPs not based on Ethernet.....	21
Table A.7 – Optical fibre connecting hardware.....	21
Table A.8 – Relationship between FOC and fibre types (CP 3/1).....	21
Table A.9 – Parameters for balanced cables.....	29
Table A.10 – Parameters for silica optical fibre cables.....	29
Table A.11 – Parameters for POF optical fibre cables.....	29
Table A.12 – Parameters for hard clad silica optical fibre cables.....	30
Table A.13 – Use of 9 pin Sub-D connector pins (RS 485).....	31
Table A.14 – Use of 9 pin Sub-D connector pins (RS 485-IS).....	32
Table A.15 – Use of M12 connector pins (RS 485).....	33
Table A.16 – Use of M12 connector pins (RS 485-IS).....	34
Table A.17 – Maximum fibre channel attenuation for CP 3/1 (PROFIBUS).....	43
Table B.1 – Valid parameter range of the FISCO model for use as EEx ib IIC / IIB.....	51
Table B.2 – Valid parameter range of the FISCO model for use as EEx ia IIC.....	52
Table B.3 – Power supply (operational values).....	58
Table B.4 – Line lengths which can be achieved.....	58
Table B.5 – Limit values for distortion, reflection and signal delay.....	59
Table B.6 – Recommended maximum cable lengths including spurs.....	59
Table B.7 – Recommended length of the spurs.....	60
Table B.8 – Maximum length of the splices.....	60
Table B.9 – Information relevant to copper cable: fixed cables.....	61
Table B.10 – Safety limit values for the fieldbus cable.....	62
Table B.11 – Connectors for copper cabling CPs not based on Ethernet.....	63
Table B.12 – Mixing devices from different categories.....	65
Table B.13 – Electrical characteristics of fieldbus interfaces.....	66
Table B.14 – Recommended data sheet specifications for CP 3/2 devices.....	67
Table B.15 – Parameters for balanced cables.....	75
Table B.16 – Contact assignments for the external connector for harsh industrial environments.....	76
Table C.1 – General transmission media selection information.....	82
Table C.2 – Network characteristics for balanced cabling based on Ethernet (ISO/IEC 8802-3).....	83
Table C.3 – Network characteristics for optical fibre cabling.....	83
Table C.4 – Information relevant to copper cable: CP 3/3, CP 3/4, CP 3/5 and CP 3/6 type A fixed cables.....	85
Table C.5 – Information relevant to copper cable: CP 3/3, CP 3/4, CP 3/5 and CP 3/6 type B flexible cables.....	86

Table C.6 – Information relevant to copper cable: CP 3/3, CP 3/4, CP 3/5 and CP 3/6 type C special cables .....	87
Table C.7 – Information relevant to copper cable: CP 3/3, CP 3/4, CP 3/5 and CP 3/6 of cabinet cord sets .....	88
Table C.8 – Requirement data cable inside and outside cabinet: CP 3/3, CP 3/4, CP 3/5 and CP 3/6 type B flexible cables .....	89
Table C.9 – Requirement to copper cable inside and outside cabinet: CP 3/3, CP 3/4, CP 3/5 and CP 3/6 type B flexible cables .....	90
Table C.10 – Information relevant to optical fibre cables .....	91
Table C.11 – Requirements for plastic and hard clad silica optical fibre cables .....	91
Table C.12 – Requirements for glass multimode optical fibre cables .....	93
Table C.13 – Requirements for glass singlemode optical fibre cables .....	94
Table C.14 – Requirements of industrial FO-cord sets .....	95
Table C.15 – Standard of test of industrial FO-cord sets .....	96
Table C.16 – Information relevant to hybrid cables (application type B) .....	96
Table C.17 – Information relevant to hybrid cables (application type C) .....	97
Table C.18 – Connectors for balanced cabling CPs based on Ethernet .....	99
Table C.19 – Connectors for balanced cabling CPs not based on Ethernet .....	99
Table C.20 – Connectors for balanced cabling CPs based on Ethernet .....	99
Table C.21 – Optical fibre connecting hardware .....	100
Table C.22 – Relationship between FOC and fibre types (CP 3/3, CP 3/4, CP 3/5, CP3/6) .....	100
Table C.23 – Typical fibre channels common for industrial applications. ....	103
Table C.24 – Parameters for balanced cables.....	107
Table C.25 – Parameters for silica optical fibre cables.....	107
Table C.26 – Parameters for POF optical fibre cables.....	107
Table C.27 – Parameters for hard clad silica optical fibre cables .....	108
Table C.28 – Colour coding of 2 pair cabling for CP 3/3, CP 3/4, CP 3/5 and CP 3/6 connectors.....	109
Table C.29 – Colour coding of 4 pair cabling for CP 3/3, CP 3/4, CP 3/5 and CP 3/6 connectors.....	109
Table C.30 – Contact arrangement M12 2 pair to M12 4 pair for CP 3/3, CP 3/4, CP 3/5 and CP 3/6 connectors .....	110
Table C.31 – Maximum fibre channel attenuation for CP 3/3, CP 3/4, CP 3/5 and CP 3/6 (PROFINET).....	114

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

---

**INDUSTRIAL COMMUNICATION NETWORKS –  
PROFILES –****Part 5-3: Installation of fieldbuses –  
Installation profiles for CPF 3****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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61784-5-3 has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial-process measurement, control and automation.

This fourth edition cancels and replaces the third edition published in 2013. This edition constitutes a technical revision.

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

- a) an addition of 4-pair cabling (see C.4.4.1.2.1 and C.5.3.2);
- b) an addition of the connector M12 X-Coding (see C.4.4.2.2);
- c) an addition of the definition of End-to-end links (see C.4.4.3.1);

- d) a revision of Table C.17 (see C.5.2.1);
- e) a formula for the NEXT limits of End-to-end links (see C.6.3.2.1.2).

This standard is to be used in conjunction with IEC 61918:2018

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

FDIS	Report on voting
65C/924/FDIS	65C/925/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.

A list of all parts of IEC 61784-5 series, under the general title *Industrial communication networks – Profiles – Installation of fieldbuses*, 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 web site 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.

A bilingual version of this publication may be issued at a later date.

**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

This International Standard is one of a series produced to facilitate the use of communication networks in industrial control systems.

IEC 61918:2018 provides the common requirements for the installation of communication networks in industrial control systems. This installation profile standard provides the installation profiles of the communication profiles (CP) of a specific communication profile family (CPF) by stating which requirements of IEC 61918 fully apply and, where necessary, by supplementing, modifying, or replacing the other requirements (see Figure 1).

For general background on fieldbuses, their profiles, and relationship between the installation profiles specified in this document, see IEC 61158-1.

Each CP installation profile is specified in a separate annex of this document. Each annex is structured exactly as the reference standard IEC 61918 for the benefit of the persons representing the roles in the fieldbus installation process as defined in IEC 61918 (planner, installer, verification personnel, validation personnel, maintenance personnel, administration personnel). By reading the installation profile in conjunction with IEC 61918, these persons immediately know which requirements are common for the installation of all CPs and which are modified or replaced. The conventions used to draft this document are defined in Clause 5.

The provision of the installation profiles in one standard for each CPF (for example IEC 61784-5-3 for CPF 3), allows readers to work with standards of a convenient size.

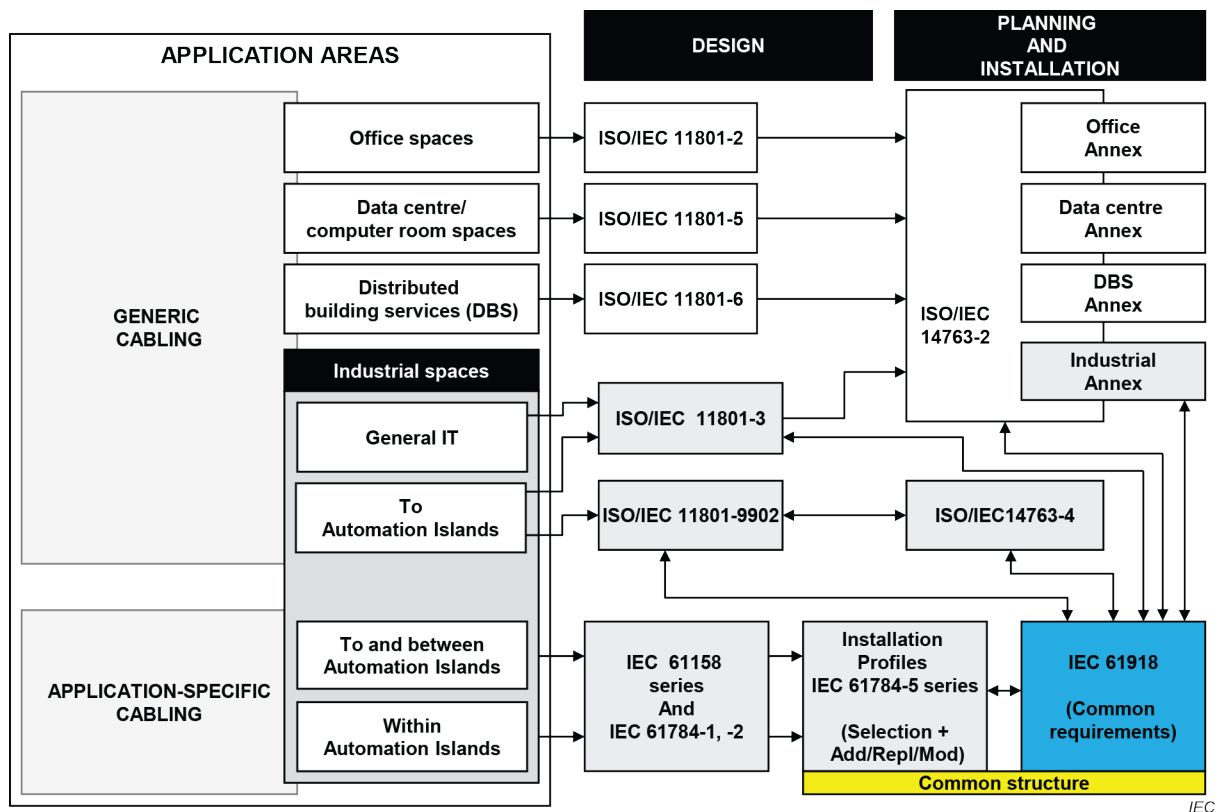


Figure 1 – Standards relationships

## INDUSTRIAL COMMUNICATION NETWORKS – PROFILES –

### Part 5-3: Installation of fieldbuses – Installation profiles for CPF 3

#### 1 Scope

This part of IEC 61784-5 specifies the installation profiles for CPF 3 (PROFIBUS/PROFINET)<sup>1</sup>.

The installation profiles are specified in the annexes. These annexes are read in conjunction with IEC 61918:2018.

#### 2 Normative references

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.

IEC 61918:2018, *Industrial communication networks – Installation of communication networks in industrial premises*

The normative references of IEC 61918:2018, Clause 2, apply.

NOTE For profile specific normative references, see Clause(s) A.2, B.2 and C.2.

---

<sup>1</sup> PROFIBUS and PROFINET are trade names of the non-profit organization PROFIBUS Nutzerorganisation e.V. (PNO). This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the trade names holder or any of its products. Compliance to this profile does not require use of the trade names. Use of the trade names PROFIBUS and PROFINET requires permission of the trade name holder.