

---

---

**Električne naprave za eksplozivne plinske atmosfere - 0. del: Splošne zahteve  
(IEC 60079-0:2004)**

Electrical apparatus for explosive gas atmospheres - Part 0: General requirements

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 60079-0:2004](https://standards.iteh.ai/catalog/standards/sist/592114bd-9e45-455a-b378-a7bfc57656f7/sist-en-60079-0-2004)

[https://standards.iteh.ai/catalog/standards/sist/592114bd-9e45-455a-b378-  
a7bfc57656f7/sist-en-60079-0-2004](https://standards.iteh.ai/catalog/standards/sist/592114bd-9e45-455a-b378-a7bfc57656f7/sist-en-60079-0-2004)

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 60079-0:2004

<https://standards.iteh.ai/catalog/standards/sist/592114bd-9e45-455a-b378-a7bf57656f7/sist-en-60079-0-2004>

EUROPEAN STANDARD

**EN 60079-0**

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2004

ICS 29.260.20

Supersedes EN 50014:1997 + A1:1999 + A2:1999  
Incorporates Corrigendum April 2004

English version

**Electrical apparatus for explosive gas atmospheres**  
**Part 0: General requirements**  
(IEC 60079-0:2004)

Matériel électrique pour atmosphères  
explosives gazeuses  
Partie 0: Règles générales  
(CEI 60079-0:2004)

Elektrische Betriebsmittel für  
gasexplosionsgefährdete Bereiche  
Teil 0: Allgemeine Anforderungen  
(IEC 60079-0:2004)

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

This European Standard was approved by CENELEC on 2004-03-01. 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**

## Foreword

The text of document 31/474A/FDIS, future edition 4 of IEC 60079-0, prepared by IEC TC 31, Electrical apparatus for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60079-0 on 2004-03-01.

This European Standard supersedes EN 50014:1997 + A1:1999 + A2:1999.

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) 2004-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-03-01

This European Standard was prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and supports the essential requirements of Directive 94/9/EC.

Annex ZA has been added by CENELEC.

The contents of the corrigendum of April 2004 have been included in this copy.

iteh STANDARD PREVIEW  
(standards.iteh.ai)

### Endorsement notice

[https://standards.iteh.ai/catalog/standards/sist/592114bd-9e45-455a-b378-](https://standards.iteh.ai/catalog/standards/sist/592114bd-9e45-455a-b378-37bf57656674/sist-en-60079-0-2004)

The text of the International Standard IEC 60079-0:2004 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

- |              |      |  |
|--------------|------|--|
| IEC 60079-14 | NOTE | Harmonized as EN 60079-14:2003 (not modified). |
| IEC 60079-17 | NOTE | Harmonized as EN 60079-17:2003 (not modified). |

---

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60034-5	- <sup>1)</sup>	Rotating electrical machines Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code) – Classification	EN 60034-5	2001 <sup>2)</sup>
IEC 60079-1	- <sup>1)</sup>	Electrical apparatus for explosive gas atmospheres Part 1: Flameproof enclosures 'd'	EN 60079-1	2004 <sup>2)</sup>
IEC 60079-2	- <sup>1)</sup>	Part 2: Pressurized enclosures "p"	-	-
IEC 60079-4	- <sup>1)</sup>	Part 4: Method of test for ignition temperature	-	-
IEC 60079-5	- <sup>1)</sup>	Part 5: Powder filling "q"	-	-
IEC 60079-6	- <sup>1)</sup>	Part 6: Oil-immersion "o"	-	-
IEC 60079-7	- <sup>1)</sup>	Part 7: Increased safety "e"	EN 60079-7	2003 <sup>2)</sup>
IEC 60079-10	- <sup>1)</sup>	Part 10: Classification of hazardous areas	EN 60079-10	2003 <sup>2)</sup>
IEC 60079-11	- <sup>1)</sup>	Part 11: Intrinsic safety "i"	-	-
IEC 60079-15 (mod)	- <sup>1)</sup>	Part 15: Type of protection "n"	EN 60079-15	2003 <sup>2)</sup>
IEC 60079-18	- <sup>1)</sup>	Part 18: Encapsulation "m"	-	-
IEC 60079-25	- <sup>1)</sup>	Part 25: Intrinsically safe systems	EN 60079-25	2004 <sup>2)</sup>
IEC 60079-26	- <sup>3)</sup>	Part 26: Construction, test and marking of Group II Zone 0 electrical apparatus	-	-
IEC 60086-1	- <sup>1)</sup>	Primary batteries Part 1: General	EN 60086-1	2001 <sup>2)</sup>

1) Undated reference.

2) Valid edition at date of issue.

3) To be published.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60095-1 (mod)	- <sup>1)</sup>	Lead-acid starter batteries Part 1: General requirements and methods of test	EN 60095-1	1993 <sup>2)</sup>
IEC 60192	- <sup>1)</sup>	Low pressure sodium vapour lamps - Performance specifications	EN 60192	2001 <sup>2)</sup>
IEC 60216-1	- <sup>1)</sup>	Electrical insulating materials - Properties of thermal endurance Part 1: Ageing procedures and evaluation of test results	EN 60216-1	2001 <sup>2)</sup>
IEC 60216-2	- <sup>1)</sup>	Part 2: Choice of test criteria	HD 611.2 S1	1992 <sup>2)</sup>
IEC 60423 (mod)	- <sup>1)</sup>	Conduits for electrical purposes - Outside diameters of conduits for electrical installations and threads for conduits and fittings	EN 60423	1994 <sup>2)</sup>
IEC 60529	- <sup>1)</sup>	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991 <sup>2)</sup>
IEC 60622	- <sup>1)</sup>	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Sealed nickel-cadmium prismatic rechargeable single cells	EN 60622	2003 <sup>2)</sup>
IEC 60623	- <sup>1)</sup>	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Vented nickel-cadmium prismatic rechargeable single cells	EN 60623	2001 <sup>2)</sup>
IEC 60662	- <sup>1)</sup>	High-pressure sodium vapour lamps	EN 60662	1993 <sup>2)</sup>
IEC 60947-1 (mod)	- <sup>1)</sup>	Low-voltage switchgear and controlgear Part 1: General rules	EN 60947-1	1999 <sup>2)</sup>
IEC 61056-1	- <sup>1)</sup>	General purpose lead-acid batteries (valve regulated types) Part 1: General requirements, functional characteristics - Methods of test	EN 61056-1	2003 <sup>2)</sup>
IEC 61150	- <sup>1)</sup>	Alkaline secondary cells and batteries - Sealed nickel-cadmium rechargeable monobloc batteries in button cell design	EN 61150	1993 <sup>2)</sup>
IEC 61436	- <sup>1)</sup>	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Sealed nickel-metal hydride rechargeable single cells	EN 61436	1998 <sup>2)</sup>
IEC 61951-1	- <sup>1)</sup>	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Portable sealed rechargeable single cells Part 1: Nickel-cadmium	EN 61951-1	2003 <sup>2)</sup>

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62013-1 (mod)	- <sup>1)</sup>	Caplights for use in mines susceptible to firedamp Part 1: General requirements - Construction and testing in relation to the risk of explosion	EN 62013-1	2002 <sup>2)</sup>
IEC 62086-1	- <sup>1)</sup>	Electrical apparatus for explosive gas atmospheres - Electrical resistance trace heating - Part 1: General and testing requirements	-	-
ISO 48	- <sup>1)</sup>	Rubber, vulcanized or thermoplastic Determination of hardness (hardness between 10 IRHD and 100 IRHD)	-	-
ISO 178	- <sup>1)</sup>	Plastics - Determination of flexural properties	EN ISO 178	1996 <sup>2)</sup>
ISO 179	- <sup>1)</sup>	Plastics - Determination of Charpy impact strength	EN ISO 179	1996 <sup>2)</sup>
ISO 262	- <sup>1)</sup>	ISO general-purpose metric screw threads Selected sizes for screws, bolts and nuts	-	-
ISO 273	- <sup>1)</sup>	Fasteners - Clearance holes for bolts and screws	EN 20273	1991 <sup>2)</sup>
ISO 286-2	- <sup>1)</sup>	ISO system of limits and fits Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts	EN 20286	1993 <sup>2)</sup>
ISO 527-2	- <sup>1)</sup>	Plastics - Determination of tensile properties Part 2: Test conditions for moulding and extrusion plastics	EN ISO 527-2	1996 <sup>2)</sup>
ISO 965-1	- <sup>1)</sup>	ISO general-purpose metric screw threads - Tolerances Part 1: Principles and basic data	-	-
ISO 965-3	- <sup>1)</sup>	ISO general purpose metric screw threads - Tolerances - Part 3: Deviations for constructional threads	-	-
ISO 1817	- <sup>1)</sup>	Rubber, vulcanized - Determination of the effect of liquids	-	-
ISO 4014	- <sup>1)</sup>	Hexagon head bolts - Product grades A and B	EN ISO 4014	2000 <sup>2)</sup>
ISO 4017	- <sup>1)</sup>	Hexagon head screws - Product grades A and B	EN ISO 4017	2000 <sup>2)</sup>
ISO 4026	- <sup>1)</sup>	Hexagon socket set screws with flat point	EN ISO 4026	2003 <sup>2)</sup>

**ITC STANDARD PREVIEW**  
 (standards.itech.nl)  
 SIST EN 60079-0:2004  
<https://standards.itech.nl/catalog/standards/sist/592114bd-9e45-455a-b378-a7bc57656f7/sist-en-60079-0-2004>

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 4027	- <sup>1)</sup>	Hexagon socket set screws with cone point	EN ISO 4027	2003 <sup>2)</sup>
ISO 4028	- <sup>1)</sup>	Hexagon socket set screws with dog point	EN ISO 4028	2003 <sup>2)</sup>
ISO 4029	- <sup>1)</sup>	Hexagon socket set screws with cup point	EN ISO 4029	2003 <sup>2)</sup>
ISO 4032	- <sup>1)</sup>	Hexagon nuts, style 1 - Product grades A and B	EN ISO 4032	2000 <sup>2)</sup>
ISO 4762	- <sup>1)</sup>	Hexagon socket head cap screws - Product grade A	EN ISO 4762	1997 <sup>2)</sup>
ISO 4892-1	- <sup>1)</sup>	Plastics - Methods of exposure to laboratory light sources Part 1: General guidance	EN ISO 4892-1	2000 <sup>2)</sup>
ANSI/UL 746B	- <sup>1)</sup>	Polymeric Materials - Long-Term Property Evaluations	-	-

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 60079-0:2004](https://standards.iteh.ai/catalog/standards/sist/592114bd-9e45-455a-b378-a7bf57656f7/sist-en-60079-0-2004)

<https://standards.iteh.ai/catalog/standards/sist/592114bd-9e45-455a-b378-a7bf57656f7/sist-en-60079-0-2004>



# INTERNATIONAL STANDARD

# IEC 60079-0

Fourth edition  
2004-01

---

---

## Electrical apparatus for explosive gas atmospheres –

### Part 0: General requirements

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 60079-0:2004

<https://standards.iteh.ai/catalog/standards/sist/592114bd-9e45-455a-b378-a7bf57656f7/sist-en-60079-0-2004>

© IEC 2004 Copyright - all rights reserved

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland  
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: [inmail@iec.ch](mailto:inmail@iec.ch) Web: [www.iec.ch](http://www.iec.ch)



Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

PRICE CODE **XB**

*For price, see current catalogue*

## CONTENTS

FOREWORD.....	11
INTRODUCTION.....	17
1 Scope.....	19
2 Normative references.....	21
3 Terms and definitions.....	27
4 Apparatus grouping and temperature classification.....	39
4.1 Apparatus grouping.....	39
4.2 Group II.....	39
5 Temperatures.....	39
5.1 Environmental influences.....	39
5.2 Service temperature.....	41
5.3 Maximum surface temperature.....	41
5.4 Surface temperature and ignition temperature.....	43
5.5 Small components.....	43
6 Requirements for all electrical apparatus.....	45
6.1 General.....	45
6.2 Mechanical strength of apparatus.....	45
6.3 Opening times.....	45
6.4 Circulating currents.....	47
6.5 Gasket retention.....	47
7 Non-metallic enclosures and non-metallic parts of enclosures.....	47
7.1 General.....	47
7.2 Thermal endurance.....	49
7.3 Electrostatic charges on external non-metallic materials of enclosures.....	49
7.4 Threaded holes.....	51
8 Enclosures containing light metals.....	53
8.1 Material composition.....	53
8.2 Threaded holes.....	53
Fasteners.....	53
9.1 General.....	53
9.2 Special fasteners.....	55
9.3 Holes for special fasteners.....	55
10 Interlocking devices.....	59
11 Bushings.....	59
12 Materials used for cementing.....	59
13 Ex components.....	59
13.1 General.....	59
13.2 Mounting internal to apparatus.....	59
13.3 Mounting external to apparatus.....	61
14 Connection facilities and terminal compartments.....	61
14.1 General.....	61
14.2 Connection space.....	61
14.3 Type of protection.....	61
14.4 Creepage and clearance.....	61

15	Connection facilities for earthing or bonding conductors .....	61
15.1	Internal.....	61
15.2	External.....	61
15.3	Apparatus not requiring earthing .....	63
15.4	Size of conductor connection.....	63
15.5	Protection against corrosion .....	63
15.6	Secureness .....	63
16	Entries into enclosures .....	65
16.1	General .....	65
16.2	Identification of entries .....	65
16.3	Cable glands .....	65
16.4	Blanking elements .....	65
16.5	Conductor temperature.....	65
17	Supplementary requirements for rotating electrical machines .....	67
17.1	Fans and fan hoods.....	67
17.2	Ventilation openings for external fans.....	67
17.3	Construction and mounting of the ventilating systems .....	69
17.4	Clearances for the ventilating system .....	69
17.5	Materials for external fans and fan hoods .....	69
17.6	Equipotential bonding conductors.....	69
18	Supplementary requirements for switchgear .....	69
18.1	Flammable dielectric .....	69
18.2	Disconnectors .....	71
18.3	Group I – Provisions for locking .....	71
18.4	Doors and covers .....	71
19	Supplementary requirements for fuses .....	73
20	Supplementary requirements for plugs and sockets .....	73
20.1	Interlocking .....	73
20.2	Energized plugs .....	73
21	Supplementary requirements for luminaires .....	73
21.1	General .....	73
21.2	Covers .....	75
21.3	Special lamps.....	75
22	Supplementary requirements for caplights and handlights .....	75
22.1	Group I caplights and handlights .....	75
22.2	Group II caplights and handlights .....	75
23	Apparatus incorporating cells and batteries .....	77
23.1	Batteries.....	77
23.2	Cell types .....	77
23.3	Cells in a battery .....	79
23.4	Ratings of batteries .....	79
23.5	Mixture of cells .....	79
23.6	Interchangeability .....	79
23.7	Charging of primary batteries .....	79
23.8	Leakage .....	79

23.9	Connections .....	81
23.10	Orientation.....	81
23.11	Replacement of cells or batteries.....	81
24	Documentation .....	81
25	Compliance of prototype or sample with documents .....	81
26	Type tests .....	81
26.1	General .....	81
26.2	Test configuration.....	81
26.3	Tests in explosive test mixtures .....	81
26.4	Tests of enclosures .....	83
26.5	Thermal tests.....	91
26.6	Torque test for bushings .....	93
26.7	Non-metallic enclosures or non-metallic parts of enclosures .....	95
26.8	Thermal endurance to heat.....	95
26.9	Thermal endurance to cold .....	97
26.10	Resistance to light.....	97
26.11	Resistance to chemical agents for Group I electrical apparatus .....	99
26.12	Earth continuity .....	99
26.13	Surface resistance test of parts of enclosures of non-metallic materials.....	101
26.14	Charging tests.....	103
26.15	Measurement of capacitance .....	111
27	Routine verifications and tests.....	111
28	Manufacturer's responsibility .....	111
28.1	Certificate.....	111
28.2	Responsibility for marking.....	111
29	Marking.....	111
29.1	Location .....	113
29.2	General .....	113
29.3	Different types of protection.....	115
29.4	Order of marking.....	117
29.5	Ex components.....	117
29.6	Small apparatus and Ex components .....	117
29.7	Extremely small apparatus and Ex components .....	117
29.8	Warning markings.....	117
29.9	Cells and batteries.....	119
29.10	Examples of marking .....	119
30	Instructions.....	121
30.1	General .....	121
30.2	Cells and batteries.....	123
	Annex A (normative) Ex cable glands.....	125
	Annex B (normative) Requirements for Ex components.....	139
	Annex C (informative) Example of rig for resistance to impact test.....	143
	Bibliography.....	145

Figure 1 – Tolerances and clearance for threaded fasteners .....	57
Figure 2 – Contact surface under head of fastener with a reduced shank .....	57
Figure 3 – Illustration of entry points and branching points .....	67
Figure 4 – Assembly of test sample for earth-continuity test.....	101
Figure 5 – Test piece with painted electrodes .....	103
Figure 6 – Rubbing with a pure nylon cloth .....	107
Figure 7 – Discharging of a container with a probe connected to earth via a 0,1 $\mu$ F capacitor.....	109
Figure 8 – Charging by influence with a d.c. voltage power supply.....	109
Figure A.1 – Illustration of the terms used for cable glands .....	125
Figure A.2 – Rounded edge of the point of entry of the flexible cable .....	129
Figure C.1 – Example of rig for resistance to impact test .....	143
Table 1 – Ambient temperatures in service and additional marking .....	41
Table 2 – Classification of maximum surface temperatures for Group II electrical apparatus .....	43
Table 3 – Assessment for T4 classification according to component size and ambient temperature .....	43
Table 4 – Limitations of areas .....	51
Table 5 – Minimum cross-sectional area of protective conductors .....	63
Table 6 – Primary cells .....	77
Table 7 – Secondary cells.....	79
Table 8 – Tests for resistance to impact.....	87
Table 9 – Torque to be applied to the stem of bushing used for connection facilities.....	95
Table 10 – Text of warning markings .....	119
Table B.1 – Clauses with which Ex components shall comply .....	139

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRICAL APPARATUS FOR EXPLOSIVE  
GAS ATMOSPHERES –****Part 0: General requirements**

## 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 provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 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 60079-0 has been prepared by technical committee 31: Electrical apparatus for explosive atmospheres.

This fourth edition cancels and replaces the third edition, published in 1998, and constitutes a full technical revision.

The significant changes with respect to the previous edition are listed below:

- Standard atmospheric conditions re-introduced
- All requirements for third-party certification removed
- New type of protection "n" introduced
- New apparatus standards for caplights, intrinsically safe systems, Zone 0 apparatus, and trace heating introduced
- Clarification of the status of symbol "s"
- Definitions for symbols "U" and "X" revised to align with current usage

- Definition for Ex component transferred from IEC 60079-18
- New definitions drafted for “energy limited” parameters to allow common usage by types of protection “i” and “n”
- New definitions for batteries transferred from IEC 60079-7
- Definition added for ambient temperature
- Definition added for continuous operating temperature (COT)
- Definition for certificate transferred from IEC 60079-15 and revised based on ISO/IEC 17000
- Definition added for cable gland
- Clause 5 for temperature re-written to address the influences of ambient temperature, internal sources of heat, and external sources of heating or cooling
- Small component ignition test transferred from IEC 60079-11 and IEC 60079-15
- Requirements for bonding transferred from IEC 60079-7 and IEC 60079-15
- Requirements for gasket retention transferred from IEC 60079-15 for wider applicability
- Relative thermal index (RTI) added as an alternative to thermal index (TI)
- Electrostatic requirements transferred and rationalized from IEC 60079-15 and IEC 60079-26 to apply to all of Group I and Group II
- Introduction of two additional test methods to evaluate the use of non-metallic materials with respect to the storage of electrostatic charges
- Light metal requirements transferred and rationalized from IEC 60079-15 and IEC 60079-26 to apply to all of Group I and Group II
- Introduction of an existing test to evaluate the use of a non-metallic enclosure wall in an earth bonding connection
- Clause 16 rewritten to align with industry usage of the terms *cable gland* and *conduit entry*.
- Equipotential bonding requirements for machines transferred from IEC 60079-7 and IEC 60079-15
- Requirement for disconnectors in switchgear and luminaires revised to provide IP20 protection for live parts and include additional marking
- General requirements for cells and batteries transferred from IEC 60079-7 and IEC 60079-15
- Impact test revised to specify drop height in lieu of energy
- Clarification of application of 5 °C and 10 °C temperature margins to type-tested samples
- Clarification of order of tests for metallic materials
- Clarification of number of samples and order of tests for non-metallic materials
- Clarification of order of marking
- Clarification of marking details for associated apparatus
- Clarification of marking of specific gases
- Clarification of marking of temperature class
- Clarification of usage of compulsory certificate number