BS EN 60079-15:2010
Incorporating corrigendum November 2016

BSI Standards Publication

Explosive atmospheres

Part 15: Equipment protection by type of protection "n" (IEC 60079-15:2010)

bsi.

National foreword

This British Standard is the UK implementation of EN 60079-15:2010. It is identical to IEC 60079-15:2010. It supersedes BS EN 60079-15:2005 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee EXL/31, Equipment for explosive atmospheres.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2010.

Amendments/corrigenda issued since publication

Date	Text affected
30 November 2016	Implementation of IEC Interpretation Sheet 1 September 2016 in National Annex NA

INTERNATIONAL ELECTROTECHNICAL COMMISSION

National Annex NA
(informative)

IEC 60079-15
Edition 4.0 2010-01

EXPLOSIVE ATMOSPHERES –

Part 15: Equipment protection by type of protection "n"

INTERPRETATION SHEET 1

This interpretation sheet has been prepared by IEC technical committee 31: Equipment for explosive atmospheres.

The text of this interpretation sheet is based on the following documents:

ISH	Report on voting
31/1259/ISH	31/1273/RVD

Full information on the voting for the approval of this interpretation sheet can be found in the report on voting indicated in the above table.

IEC 60079-15:2010 Edition 4.0, *Explosive atmospheres – Part 15: Equipment protection by type of protection "n"*

Question:

Do the requirements given in 8.3 prohibit the use of a terminal box opened to the interior of a motor rated 1 kV or greater, provided the interior of the machine has an ingress protection of IP54 or greater?

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8.3 Terminal boxes

Terminal boxes attached to machines operating at voltages up to 1 kV, may be opened to the interior of the machine, only when the IP rating of the machine is IP44 or higher. The external IP protection of the box shall be not less than IP54, as determined in accordance with IEC 60079-0.

IEC 60079-15:2010-01/ISH1:2016-09(en-fr)

ICS 29.260.20

Answer:

No. As long as the interior of the machine has an ingress protection of IP54 or greater, determined in accordance with IEC 60079-0, there is no limitation to less than 1 kV. If the interior of the machine has an ingress rating of IP44 or lower, the use of a terminal box open to the interior of a motor rated 1 kV or greater is not permitted.

NOTE Many manufacturers opt to declare IP44 for the machine for certification purposes, whilst claiming a rating of IP54 or higher, by assessment, for contractual purposes in order to avoid the difficult testing required for certification of the IP of larger machines. As such, this additional IP rating need only comply with IEC 60529 or IEC 60034-5 as applicable, and not with any of the testing detailed in IEC 60079-0.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60079-15

May 2010

ICS 29.260.20

Supersedes EN 60079-15:2005

English version

Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

(IEC 60079-15:2010)

Atmosphères explosives -
Partie 15: Protection du matériel
par mode de protection "n"
(CEI 60079-15:2010)

Explosionsfähige Atmosphäre -
Teil 15: Geräteschutz
durch Zündschutzart "n"
(IEC 60079-15:2010)

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 60079-15:2010 E

Foreword

The text of document 31/833/FDIS, future edition 4 of IEC 60079-15, prepared by IEC TC 31, Equipment for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60079-15 on 2010-05-01.

This European Standard supersedes EN 60079-15:2005.

The significant technical changes with respect to EN 60079-15:2005 are as follows:

– addition of equipment protection levels;

– removal of the requirements for energy-limited “nL” and associated energy limited apparatus “[nL]”;

– removal of the requirements for encapsulated Devices “nC”;

– requirements for electrical connections expanded and clarified;

– requirements for luminaire ballasts expanded and clarified;

– requirements for evaluation and testing of motor rotors clarified;

– 15 kV limit for equipment protection by type of protection "n" added;

– spacing requirement for voltages above 10 kV modified;

– requirements for restricted breathing enclosures modified;

– modification to requirements for motor rotors and stators;

– addition of Annex A (informative);

– undated references to IEC 60079-0 included.

This standard is to be used in conjunction with EN 60079-0.

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

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)	2011-02-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2013-05-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 94/9/EC. See Annex ZZ.

Annexes ZA, ZY and ZZ have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60079-15:2010 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 60034-5	NOTE	Harmonized as EN 60034-5.
IEC/TS 60034-17	NOTE	Harmonized as CLC/TS 60034-17.
IEC 60068-2-6	NOTE	Harmonized as EN 60068-2-6.
IEC 60079-7:2006	NOTE	Harmonized as EN 60079-7:2007 (not modified).
IEC 60079-17	NOTE	Harmonized as EN 60079-17.
IEC 60079-18	NOTE	Harmonized as EN 60079-18.
IEC 60079-29-2	NOTE	Harmonized as EN 60079-29-2.
IEC 60297 series	NOTE	Harmonized in EN 60297 series (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.

Publication	Year	Title	EN/HD	Year
IEC 60034	Series	Rotating electrical machines	EN 60034	Series
IEC 60034-1	-	Rotating electrical machines - Part 1: Rating and performance	EN 60034-1	-
IEC/TS 60034-25	-	Rotating electrical machines - Part 25: Guidance for the design and performance of a.c. motors specifically designed for converter supply	CLC/TS 60034-25	-
IEC 60061	Series	Lamp caps and holders together with gauges for the control of interchangeability and safety	-	-
IEC 60061-1	-	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1: Lamp caps	EN 60061-1	-
IEC 60068-2-27	2008	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	EN 60068-2-27	2009
IEC 60079-0	2007	Explosive atmospheres - Part 0: Equipment - General requirements	EN 60079-0	2009
IEC 60079-1	-	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"	EN 60079-1	-
IEC 60079-11	-	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	EN 60079-11	-
IEC 60112	-	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	EN 60112	-
IEC 60155	-	Glow-starters for fluorescent lamps	EN 60155	-
IEC 60228	-	Conductors of insulated cables	EN 60228	-
IEC 60238	-	Edison screw lampholders	EN 60238	-
IEC 60269-3	-	Low-voltage fuses - Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household or similar applications) - Examples of standardized systems of fuses A to F	HD 60269-3	-
IEC 60400	-	Lampholders for tubular fluorescent lamps and starterholders	EN 60400	-

Publication	Year	Title	EN/HD	Year
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	EN 60529	-
IEC 60598	Series	Luminaires	EN 60598	Series
IEC 60598-1 (mod) -	2008 -	Luminaires - Part 1: General requirements and tests	EN 60598-1 + A11	2008 2009
IEC 60598-2	Series	Luminaires - Part 2: Particular requirements	EN 60598-2	Series
IEC 60664-1	-	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	-
IEC 60927	-	Auxiliaries for lamps - Starting devices (other than glow starters) - Performance requirements	EN 60927	-
IEC 60947-7-1	-	Low-voltage switchgear and controlgear - Part 7-1: Ancillary equipment - Terminal blocks for copper conductors	EN 60947-7-1	-
IEC 60947-7-2	-	Low-voltage switchgear and controlgear - Part 7-2: Ancillary equipment - Protective conductor terminal blocks for copper conductors	EN 60947-7-2	-
IEC 60998-2-4	-	Connecting devices for low voltage circuits for household and similar purposes - Part 2-4: Particular requirements for twist-on connecting devices	EN 60998-2-4	-
IEC 60999-1	-	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm² up to 35 mm² (included)	EN 60999-1	-
IEC 60999-2	-	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 2: Particular requirements for clamping units for conductors above 35 mm² up to 300 mm² (included)	EN 60999-2	-
IEC 61048	-	Auxiliaries for lamps - Capacitors for use in tubular fluorescent and other discharge lamp circuits - General and safety requirements	EN 61048	-
IEC 61184	-	Bayonet lampholders	EN 61184	-
IEC 61195	-	Double-capped fluorescent lamps - Safety specifications	EN 61195	-
IEC 61347-1 (mod)	2007	Lamp controlgear - Part 1: General and safety requirements	EN 61347-1	2008
IEC 61347-2-1	-	Lamp controlgear - Part 2-1: Particular requirements for starting devices (other than glow starters)	EN 61347-2-1	-
IEC 61347-2-2	-	Lamp controlgear - Part 2-2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps	EN 61347-2-2	-
IEC 61347-2-3	-	Lamp controlgear - Part 2-3: Particular requirements for a.c. supplied electronic ballasts for fluorescent lamps	EN 61347-2-3	-