

# HARMONIZATION AND DESIGNATION STATUS OF SELECTED ELECTRICAL AND NON-ELECTRICAL EX STANDARDS – JANUARY 2021

This list is derived from the consolidated list of harmonized standards published by the European Commission on 26 February 2020, along with the consolidated list of designated standards published by the UK Government on 1 January 2021. Where permitted by the context, the term “Harmonised Standard” should be taken to include “Designated Standard”.

Harmonised standards give a presumption of conformity with the Essential Health and Safety Requirements (EHSRs) of the ATEX Directive 2014/34/EU. Designated standards give a presumption of conformity with the EHSRs of UK Statutory Instrument UKSI 2016:1107 (as amended).

As initially published on 1 January 2021, the two lists are identical, but it has to be accepted that, over time, the lists may diverge as, on leaving the EU, BSI is no longer required to publish a BS version of any EN standard where they have recorded a negative vote. However, BSI does remain a full member of Cenelec and CEN, so such divergence is likely to be small.

By agreement within the UK group of Accepted Certification Bodies for Ex Equipment, from 1 January 2021, the descriptor “UKEX” will replace “ATEX” within the certification number of certificates supporting the UK legislation. In this document UKEX is used to indicate UK as opposed to EU requirements. (Note that, in the context of this document, EU requirements continue to apply in Northern Ireland.)

PROTECTION CONCEPT	STANDARD	HARMONIZATION STATUS	USE FOR ATEX	USE FOR UKEX	USE FOR IECE <sub>x</sub>
Gas/Vapour General Requirements	EN 50014:1997 (inc. amendments 1 & 2)	Withdrawn: harmonization expired in April 2008	No	No	No
	EN 60079-0:2004 (IEC 60079-0:2004 Edition 4)	Never harmonized	No	No	No
	EN 60079-0:2006 (IEC 60079-0:2004 Edition 4 modified)	Contains non-technical amendments to fit the IEC standard for ATEX purposes, particularly relating to marking and instructions. Harmonization expired in 2012	No	No	No
Gas/Vapour and Dusts General Requirements	EN 60079-0:2009 (IEC 60079-0:2007 Edition 5)	Harmonization expired in April 2015	No	No	No
	IEC 60079-0:2011 Edition 6 EN 60079-0:2012 (Minor corrigendum issued June 13)	The EN version omits the clauses on fans (where there is a separate harmonized standard EN 14986:2007). Harmonization has been delayed because of issues on the status (Normative or Informative) for some of the text in Annex ZY and information in Annex ZZ. For most purposes, it can be used as if it is harmonized. Harmonization expected to expire July 2021	No (see below)	No (see below)	Possible
	EN 60079-0:2012 and A11:2013	Harmonized version of IEC 60079-0:2011 Edition 6 with all the ATEX aspects now agreed. Note that the OJ lists the 2012 edition and the 2013 amendment separately but the intention is that only the version incorporating the amendment should be regarded as harmonized. Harmonization expected to expire July 2021	Possible (except in relation to fans)	Possible (except in relation to fans)	Possible
	IEC 60079-0:2017 Edition 7 EN IEC 60079-0:2018	Harmonized	Yes (except in relation to fans)	Yes (except in relation to fans)	Yes

PROTECTION CONCEPT	STANDARD	HARMONIZATION STATUS	USE FOR ATEX	USE FOR UKEX	USE FOR IECEX
Ex d	EN 50018:2000 (inc. amendment 1)	Harmonization expired in March 2007	No	No	No
	EN 60079-1:2004 (IEC 60079-1:2003 Edition 5)	Harmonization expired in July 2010	No	No	No
	EN 60079-1:2007 (IEC 60079-1:2007 Edition 6)	Harmonization expired in August 2017	No	No	Possible
	EN 60079-1:2014 (IEC 60079-1:2014 Edition 7)	Harmonized	Yes	Yes	Yes
Ex p	EN 50016:2002	Never harmonized	No	No	No
	EN 60079-2:2004 (IEC 60079-2:2001 Edition 4)	Harmonization expired in November 2010	No	No	No
	EN 60079-2:2007 (IEC 60079-2:2007 Edition 5)	Harmonization expired in August 2017	No	No	Possible
	EN 60079-2:2014 (IEC 60079-2:2014 Edition 6)	Harmonized	Yes	Yes	Yes
Ex q	EN 50017:1998	Harmonization expired in November 2010	No	No	No
	IEC 60079-5:1997 +Amd 1 (Edition 2.1)		No	No	No
	EN 60079-5:2007 (IEC 60079-5:2007 Edition 3)	Harmonization expired in March 2018	No	No	Possible
	EN 60079-5:2015 (IEC 60079-5:2015 Edition 4)	Harmonized	Yes	Yes	Yes
Ex o	EN 50015:1998	Harmonization expired in May 2010	No	No	No
	IEC 60079-6:1995 Edition 2		No	No	No
	EN 60079-6:2007 (IEC 60079-6:2006 Edition 3)	Harmonization expired in March 2018	No	No	Possible
	EN 60079-6:2015 (IEC 60079-6:2015 Edition 4)	Harmonized	Yes	Yes	Yes
Ex e	EN 50019:2000	Harmonization expired in October 2009	No	No	No
	EN 60079-7:2003 (IEC 60079-7:2001 Edition 3)	Harmonization expired in October 2009	No	No	No
	EN 60079-7:2007 (IEC 60079-7:2006 Edition 4)	Harmonization expired July 2018	No	No	Possible
	EN 60079-7:2015 (IEC 60079-7:2015 Edition 5)	Harmonization expired January 2021	No	No	Possible
	EN IEC 60079-7:2015/A1:2018	Harmonized	Yes	Yes	Yes

PROTECTION CONCEPT	STANDARD	HARMONIZATION STATUS	USE FOR ATEX	USE FOR UKEX	USE FOR IECE <sub>x</sub>
Ex i	EN 50020:2002	Harmonization expired in October 2009	No	No	No
	IEC 60079-11:1999 Edition 4		No	No	No
	EN 60079-11:2007 (IEC 60079-11:2006 Edition 5)	Harmonization expired in August 2014	No	No	Possible
	EN 60079-11:2012 (IEC 60079-11:2011 Edition 6)	Harmonized	Yes	Yes	Yes
Ex n	EN 50021:1999	Harmonization expired in June 2006	No	No	No
	EN 60079-15:2003 (IEC 60079-15:2001 Edition 2)	Harmonization expired in June 2008	No	No	No
	EN 60079-15:2005 (IEC 60079-15:2005 Edition 3)	Harmonization expired in May 2013	No	No	No
	EN 60079-15:2010 (IEC 60079-15:2010 Edition 4)	Harmonized, but parts of the standard are now moved to 60079-1 (Ex dc), 60079-7 (Ex ec), 60079-11 (Ex ic) and 60079-18 (Ex mc). These standards should be used in preference. (Although not yet officially stated by the EU Commission, it is likely that harmonization will cease in July 2022)	Possible	Possible	Possible, particularly for Ex nA
	IEC 60079-15:2017 Edition 6 EN IEC 60079-15:2019	Awaiting harmonization (expected 2021 Q2)	Yes	Yes	Yes
Ex m	EN 50028:1987	Never harmonized	No	No	No
	EN 60079-18:2004 (IEC 60079-18:2004 Edition 2)	(inc. Corrigendum 2006) – harmonization expired in October 2012	No	No	No
	EN 60079-18:2009 (IEC 60079-18:2009 Edition 3)	Harmonization expired in January 2018	No	No	Possible
	EN 60079-18:2015 (IEC 60079-18:2014 Edition 4)	Harmonisation expired September 2020	No	No	Possible
	EN 60079-18:2015/ A1:2017 (IEC 60079-18:2015/ A1:2017)	Harmonized	Yes	Yes	Yes
Ex i Systems	EN 50039:1980	Never harmonized	No	No	No
	EN 60079-25:2004 (IEC 60079-25:2003 Edition 1)	Harmonization expired in October 2013	No	No	Possible
	EN 60079-25:2010 (IEC 60079-25:2010 Edition 2)	Harmonized	Possible	Possible	Possible
	IEC 60079-25:2020 (Edition 3)	EN text awaited	Yes	Yes	Yes

PROTECTION CONCEPT	STANDARD	HARMONIZATION STATUS	USE FOR ATEX	USE FOR UKEX	USE FOR IECEX
Category 1G / Zone 0 Equipment / EPL Ga	EN 50284:1999	Harmonization expired in October 2009	No	No	No
	IEC 60079-26:2004 Edition 1		No	No	No
	EN 60079-26:2007 (IEC 60079-26:2006 Edition 2 modified)	Harmonization expired in December 2017	No	No	Possible
	EN 60079-26:2015 (IEC 60079-26:2014)	Harmonized	Yes	Yes	Yes
Fieldbus (FISCO and FNICO)	EN 60079-27:2006 (IEC 60079-27:2005)	Harmonization expired in April 2011	No	No	No
Fieldbus (FISCO)	EN 60079-27:2008 (IEC 60079-27:2008)	Harmonization expired. Equipment requirements superseded by 60079-11:2012. System requirements remain valid	No	No	For the system requirements only
Optical Radiation	EN 60079-28:2007 (IEC 60079-28:2006)	Harmonization expired July 2018	Yes	Yes	Possible
	EN 60079-28:2015 (IEC 60079-28:2015)	Harmonized	Yes	Yes	Yes
Gas Detection Performance	EN 60079-29-1:2007 (IEC 60079-29- 1:2007 Edition 1 Modified)	Harmonization expired December 2019; replaces all the EN 61779 series standards that expired in November 2010	No	No	Possible
	EN 60079-29-1:2016 (IEC 60079-29- 1:2016 Edition 2)	Harmonized	Yes	Yes	Yes
Open Path Gas Detector Performance	EN 60079-29-4:2010 (IEC 60079-29- 4:2009 Edition 1 Modified)	Harmonized replaces EN 50241-1:1999 – harmonization expired in April 2013	Yes	Yes	Yes
Trace Heating	EN 60079-30-1:2007 (IEC 60079-30- 1:2007 Edition 1)	Harmonized requirements previously in EN 60079-7:2003.  Harmonization expired March 2020	No	No	Possible
	EN 60079-30-1:2017 (IEC 60079-30- 1:2015)	Harmonized  The IEC/IEEE text contains additional information relating to Division systems for North America that is missing from the EN version	Yes	Yes	Yes
Dust Protection by Enclosure	EN 50281-1-1:1998	Harmonization expired in October 2008. Superseded by EN 61241-0 plus EN 61241-1	No	No	No
	IEC 61421-1-1:1999 Edition 1	Superseded by IEC 61241-0 plus IEC 61241-1 Never published as an EN	No	No	No
	EN 60079-31:2009 (IEC 60079-31:2008 Edition 1)	Harmonized with 60079-0 replaces 61241-1 and 61241-0. Harmonization expired in January 2017	No	No	Possible
	IEC 60079-31:2013 EN 60079-31:2014	Harmonized	Yes	Yes	Yes
Dust General Requirements	EN 61241-0:2006 (IEC 61241-0:2004 Edition 1 modified)	EN version has both technical and non-technical amendment to the IEC text. Harmonization expired in June 2012. Superseded by latest edition of 60079-0 that combines gas and dust requirements	No	No	No
tD	EN 61241-1:2004 (IEC 61241-1:2004 Edition 1)	Harmonization expired in October 2012. Superseded by 60079-31	No	No	No

PROTECTION CONCEPT	STANDARD	HARMONIZATION STATUS	USE FOR ATEX	USE FOR UKEX	USE FOR IECEX
pD	EN 61241-4:2006 (IEC 61241-4:2001 Edition 1)	Harmonization expired. Superseded by the latest edition of 60079-2	No	No	No
iD	EN 61241-11:2006 (IEC 61241-11:2005 Edition 1)	Harmonization expired in August 2014. Superseded by latest edition of 60079-11 combining gas and dust requirements	No	No	Possible
mD	EN 61241-18:2004 (IEC 61241-18:2004 Edition 1)	Harmonization expired in October 2012. Superseded by the latest edition of 60079-18 combining gas and dust requirements	No	No	Possible
Miners' Caplights	EN 62013-1:2006 (IEC 62013-1:2005)	Harmonization expired in June 2014. Superseded 2002 edition – harmonization expired in February 2009	No	No	Possible
	EN 60079-35-1:2011 (IEC 60079-35-1:2011)	Harmonized	Yes	Yes	Yes
Ex s Special Protection	IEC 60079-33:2012	The intention of this international standard is to allow certification of equipment that cannot comply with any of the standardized forms of protection but can yet be judged to be equally safe. It is not used for ATEX as there is the potential to comply directly with the EHSRs	No	No	Yes
Non-Electrical Equipment – General Requirements and Ignition Hazard Assessment	EN ISO 80079-36:2016	Harmonized. This is the first publication of an international standard for non-electrical equipment and supersedes EN 13463-1:2009 that remains harmonized until October 2019 but cannot be used for IECEX	Yes	Yes	Yes
Non-Electrical Equipment – Protection Methods: "c", "b" and "k"	EN ISO 80079-37:2016	Harmonized. This is the first publication of an international standard giving protection concepts for non-electrical equipment. It supersedes the following three European standards whose harmonization status ceased in October 2019 and cannot be used for IECEX: EN 13463-5:2011 "c", EN 13463-6:2005 "b" and EN 13463-8:2003 "k"	Yes	Yes	Yes
Equipment and components in explosive atmospheres in underground mines	EN ISO/IEC 80079-38: 2016 + A1:2018	Harmonized, but the nature of the text makes it difficult to use for certification purposes so it has not been accepted for use within the IECEX scheme	Possible	Possible	No
QA aspects for Ex Equipment	ISO/IEC 80079-34:2011 EN ISO/IEC 80079-34:2011	Harmonized, but should not be used as it has a multitude of references to the no longer available edition of ISO 9001	No	No	No
	ISO/IEC 80079-34:2018	The IEC version is short of some of the information in the EN version	No	No	Yes
	EN ISO/IEC 80079-34:2020	Awaiting Harmonization, but the EU Notified Bodies have agreed that it should be used in preference to the harmonized edition	Yes	Yes	Yes

The following standards, published only by Cenelec, are also currently harmonized or have recently ceased to be harmonized:

EN 50050 Parts 1-3:2013	Electrostatic Spraying – hand held – (EN 50050:2006 harmonization expired in October 2016)
EN 50104:2010	Performance of Oxygen Detectors – (EN 50104:2002 plus A1 harmonization expired in June 2013)
EN 50176:2009	Electrostatic Spraying – Stationary – Liquids
EN 50177:2009 plus A1 2012	Electrostatic Spraying – Stationary – Powders
EN 50223:2015	Electrostatic Spraying – Stationary – Flock materials
EN 50271:2018	Detection of gasses – requirements for software and digital technologies
EN 50303:2000	Category M1 Equipment (note that much of the material from here is now in the 60079 series standards but not yet all. A slimmed down revised version is anticipated for 2021)
EN 50381:2004 plus corrig.	Transportable ventilated rooms
EN 50495:2010	Safety devices required for safe functioning of equipment with respect to explosion risks

Where certification is required for both ATEX, UKEX and IECEx, it is usually desirable to use the latest published edition of a standard, even if it is not yet harmonized. Use of the IEC or ISO version ahead of publication of the EN version, where the text is expected to be technically identical, is justified according to the “state of the art” objectives given in the preamble to the Essential Health and Safety Requirements in Annex II of the ATEX Directive 2014/34/EU and in Schedule 1 of UKSI 2016:1107 (as amended).

The rules of the IECEx Scheme allow for certification to the current published edition of a standard or the immediately preceding edition. This is intended to allow for certification to continue on products that had already been designed to the previous edition when the latest edition was published. In all cases, certification to the latest edition is encouraged.

The table above includes all relevant standards in the 60079 series and 80079 series, and their related IEC, ISO, Cenelec and CEN previous versions, together with other standards published by or directly derived from standards published by IEC and ISO.

There are a few other electrical standards not in common usage and many non-electrical standards that are not included above.

The complete list of harmonised and designated standards is available at:

<https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/>

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