



MALAYSIAN STANDARD

**MS IEC 60079-14:2008
(CONFIRMED:2013)**

Explosive atmospheres - Part 14: Electrical installations design, selection and erection (First revision) (IEC 60079-14:2007, IDT)

IEC 60079-14:2007 is endorsed as Malaysian Standard with the reference number MS IEC 60079-14:2008.

ICS: 29.260.20

Descriptors: explosive atmospheres, electrical installations design, selection, erection"

NOTE. This MS has been reviewed by the responsible committee and confirmed that its contents are current

© Copyright 2013

DEPARTMENT OF STANDARDS MALAYSIA

DEVELOPMENT OF MALAYSIAN STANDARDS

The **Department of Standards Malaysia (STANDARDS MALAYSIA)** is the national standards and accreditation body of Malaysia.

The main function of STANDARDS MALAYSIA is to foster and promote standards, standardisation and accreditation as a means of advancing the national economy, promoting industrial efficiency and development, benefiting the health and safety of the public, protecting the consumers, facilitating domestic and international trade and furthering international cooperation in relation to standards and standardisation.

Malaysian Standards (MS) are developed through consensus by committees which comprise balanced representation of producers, users, consumers and others with relevant interests, as may be appropriate to the subject at hand. To the greatest extent possible, Malaysian Standards are aligned to or are adoption of international standards. Approval of a standard as a Malaysian Standard is governed by the Standards of Malaysia Act 1996 [Act 549]. Malaysian Standards are reviewed periodically. The use of Malaysian Standards is voluntary except in so far as they are made mandatory by regulatory authorities by means of regulations, local by-laws or any other similar ways.

For the purposes of Malaysian Standards, the following definitions apply:

Revision: A process where existing Malaysian Standard is reviewed and updated which resulted in the publication of a new edition of the Malaysian Standard.

Confirmed MS: A Malaysian Standard that has been reviewed by the responsible committee and confirmed that its contents are current.

Amendment: A process where a provision(s) of existing Malaysian Standard is altered. The changes are indicated in an amendment page which is incorporated into the existing Malaysian Standard. Amendments can be of technical and/or editorial nature.

Technical corrigendum: A corrected reprint of the current edition which is issued to correct either a technical error or ambiguity in a Malaysian Standard inadvertently introduced either in drafting or in printing and which could lead to incorrect or unsafe application of the publication.

NOTE: Technical corrigenda are not to correct errors which can be assumed to have no consequences in the application of the MS, for example minor printing errors.

STANDARDS MALAYSIA has appointed **SIRIM Berhad** as the agent to develop, distribute and sell Malaysian Standards.

For further information on Malaysian Standards, please contact:

Department of Standards Malaysia
Ministry of Science, Technology and Innovation
Level 1 & 2, Block 2300, Century Square
Jalan Usahawan
63000 Cyberjaya
Selangor Darul Ehsan
MALAYSIA

Tel: 60 3 8318 0002
Fax: 60 3 8319 3131
<http://www.jsm.gov.my>
E-mail: central@jsm.gov.my

OR **SIRIM Berhad**
(Company No. 367474 - V)
1, Persiaran Dato' Menteri
Section 2, P. O. Box 7035
40700 Shah Alam
Selangor Darul Ehsan
MALAYSIA

Tel: 60 3 5544 6000
Fax: 60 3 5510 8095
<http://www.sirim.my>
E-mail: msonline@sirim.my

Committee representation

The Industry Standards Committee on Electrotechnical - 2 (ISC S) under whose authority this Malaysian Standard was adopted, comprises representatives from the following organisations:

Department of Standards Malaysia
Federation of Malaysian Consumers Associations
Federation of Malaysian Manufacturers
Jabatan Kerja Raya Malaysia
Malaysia Energy Centre
Malaysian Cable Manufacturers Association
Malaysian Communications and Multimedia Commission
Malaysian Electrical Appliances and Distribution Association
Ministry of Domestic Trade and Consumer Affairs
Ministry of International Trade and Industry
SIRIM QAS International Sdn Bhd
Suruhanjaya Tenaga
Tenaga Nasional Berhad
The Electrical and Electronics Association of Malaysia
TNB Distribution Sdn Bhd
Universiti Multimedia
Universiti Tenaga Nasional

The Technical Committee on Equipment for Explosive Atmospheres which recommended the adoption of the IEC Standard consists of representatives from the following organisations:

Ampmech Industries Sdn Bhd
Association of Consulting Engineers Malaysia
Association of Malaysian Oil and Gas Engineering Consultants
Federation of Malaysian Manufacturers
Malaysian Gas Association
Petroleum Nasional Berhad
Petronas Carigali Sdn Bhd
Petronas Penapisan Melaka Sdn Bhd
Saff-Tass Sdn Bhd
Sarawak Shell Berhad
SIRIM Berhad (Secretariat)
SIRIM QAS International Sdn Bhd
Suruhanjaya Tenaga
Tenaga Nasional Berhad
The Electrical and Electronics Association of Malaysia
The Institution of Engineers, Malaysia
Universiti Teknologi Malaysia

NATIONAL FOREWORD

The adoption of the IEC Standard as a Malaysian Standard was recommended by the Technical Committee on Equipment for Explosive Atmospheres under the authority of the Industry Standards Committee on Electrotechnical - 2.

This Malaysian Standard is the first revision of MS IEC 60079-14, *Electrical apparatus for explosive gas atmospheres - Part 14: Electrical installations in hazardous areas (other than mines)*.

This Malaysian Standard is identical with IEC 60079-14:2007, *Explosive atmospheres - Part 14: Electrical installations design, selection and erection*, published by the International Electrotechnical Commission (IEC). However, for the purposes of this Malaysian Standard, the following apply:

- a) in the source text, "this International Standard" should read "this Malaysian Standard";
- b) the comma which is used as a decimal sign (if any), to read as a point;
- c) reference to International Standards should be replaced by equivalent Malaysian Standards as follows:

Referenced International Standards

Corresponding Malaysian Standards

IEC 60034-1, *Rotating electrical machines - Part 1: Rating and performance*

MS IEC 60034-1, *Rotating electrical machines - Part 1: Rating and performance*

IEC 60034-5, *Rotating electrical machines - Part 5: Degrees of protection provided by the integral design of rotating machines (IP code) - Classification*

MS IEC 60034-5, *Rotating electrical machines - Part 5: Degrees of protection provided by the integral design of rotating machines (IP code) - Classification*

IEC 60079-0, *Electrical apparatus for explosive gas atmospheres - Part 0: General requirements*

MS IEC 60079-0, *Electrical apparatus for explosive gas atmospheres - Part 0: General requirements*

IEC 60079-1, *Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures*

MS IEC 60079-1, *Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures*

IEC 60079-2, *Explosive atmospheres - Part 2: Equipment protection by pressurized enclosures "p"*

MS IEC 60079-2, *Explosive atmospheres - Part 2: Equipment protection by pressurized enclosures "p"*

IEC 60079-5, *Explosive atmospheres - Part 5: Equipment protection by powder filling "q"*

MS IEC 60079-5, *Explosive atmospheres - Part 5: Equipment protection by powder filling "q"*

NATIONAL FOREWORD (continued)

IEC 60079-6, *Explosive atmospheres - Part 6: Equipment protection by oil immersion "o"*

MS IEC 60079-6, *Explosive atmospheres - Part 6: Equipment protection by oil immersion "o"*

IEC 60079-7, *Explosive atmospheres - Part 7: Equipment protection by increased safety "e"*

MS IEC 60079-7, *Explosive atmospheres - Part 7: Equipment protection by increased safety "e"*

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

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

IEC/TR 60079-13, *Electrical apparatus for explosive gas atmospheres - Part 13: Construction and use of rooms or buildings protected by pressurization*

MS 1713, *Electrical apparatus for explosive gas atmospheres - Construction and use of rooms or buildings protected by pressurization*

IEC 60079-15, *Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marking of type of protection "n" electrical apparatus*

MS IEC 60079-15, *Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marking of type of protection "n" electrical apparatus*

IEC 60079-16, *Electrical apparatus for explosive gas atmospheres - Part 16: Artificial ventilation for the protection of analyzer(s) houses*

MS 1591, *Electrical apparatus for explosive gas atmospheres - Artificial ventilation for the protection of analyzer(s) houses*

IEC 60079-18, *Electrical apparatus for explosive gas atmospheres - Part 18: Construction, test and marking of type of protection encapsulation "m" electrical apparatus*

MS IEC 60079-18, *Electrical apparatus for explosive gas atmospheres - Part 18: Construction, test and marking of type of protection encapsulation "m" electrical apparatus*

IEC 60079-19, *Explosive atmospheres - Part 19: Equipment repair, overhaul and reclamation*

MS IEC 60079-19, *Explosive atmospheres - Part 19: Equipment repair, overhaul and reclamation*

IEC 60079-25, *Electrical apparatus for explosive gas atmospheres - Part 25: Intrinsically safe systems*

MS IEC 60079-25, *Electrical apparatus for explosive gas atmospheres - Part 25: Intrinsically safe systems*

IEC 60079-26, *Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga*

MS IEC 60079-26, *Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga*

NATIONAL FOREWORD (continued)

IEC 60079-27, *Electrical apparatus for explosive gas atmospheres - Part 27: Fieldbus intrinsically safe concept (FISCO) and Fieldbus non-incendive concept (FNICO)*

MS IEC 60079-27, *Electrical apparatus for explosive gas atmospheres - Part 27: Fieldbus intrinsically safe concept (FISCO) and Fieldbus non-incendive concept (FNICO)*

IEC 60079-28, *Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation*

MS IEC 60079-28, *Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation*

IEC 60364-4-41, *Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock*

MS IEC 60364-4-41, *Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock*

IEC 60529, *Degrees of protection provided by enclosures (IP code)*

MS IEC 60529, *Degrees of protection provided by enclosures (IP code)*

IEC 61558-2-6, *Safety of power transformers, power supply units and similar - Part 2-6: Particular requirements for safety isolating transformers for general use*

MS IEC 61558-2-6, *Safety of power transformers, power supply units and similar - Part 2-6: Particular requirements for safety isolating transformers for general use*

IEC 62305-3, *Protection against lightning - Part 3: Physical damage to structures and life hazard*

MS IEC 62305-3, *Protection against lightning - Part 3: Physical damage to structures and life hazard*

- d) references to International Standards in bibliography should be replaced by equivalent Malaysian Standards as follows:

Referenced International Standards

Corresponding Malaysian Standards

IEC 60050(426), *International Electrotechnical Vocabulary - Chapter 426: Electrical apparatus for explosive atmospheres*

MS IEC 60050(426), *International Electrotechnical Vocabulary - Chapter 426: Electrical apparatus for explosive atmospheres*

IEC 61008-1, *Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part 1: General rules*

MS IEC 61008-1, *Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) - Part 1: General rules*

NATIONAL FOREWORD *(concluded)*

IEC 61024-1, *Protection of structures against lightning - Part 1: General principles*

MS IEC 61024-1, *Protection of structures against lightning - Part 1: General principles*

This Malaysian Standard cancels and replaces MS IEC 60079-14:2003.

Compliance with a Malaysian Standard does not of itself confer immunity from legal obligations.

NOTE. IDT on the front cover indicates an identical standard i.e. a standard where the technical content, structure, wording (or is and identical translation) of a Malaysian Standard is exactly the same as in an International Standard or is identical in technical content and structure although it may contain the minimal editorial changes specified in clause 4.2 of ISO/IEC Guide 21-1.

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Explosive atmospheres –
Part 14: Electrical installations design, selection and erection**

**Atmosphères explosives –
Partie 14: Conception, sélection et construction des installations électriques**