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Explosiv atmosfär – Del 19: Reparation, översyn och renovering av utrustning

*Explosive atmospheres –
Part 19: Equipment repair, overhaul and reclamation*

Som svensk standard gäller europastandarden EN 60079-19:2011. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60079-19:2011.

Nationellt förord

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English version

**Explosive atmospheres -
Part 19: Equipment repair, overhaul and reclamation
(IEC 60079-19:2010)**

Atmosphères explosives -
Partie 19: Réparation, révision et remise
en état de l'appareil
(CEI 60079-19:2010)

Explosionsgefährdete Bereiche -
Teil 19: Gerätereparatur, Überholung und
Regenerierung
(IEC 60079-19:2010)

This European Standard was approved by CENELEC on 2011-01-01. 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, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

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Foreword

The text of document 31J/180/FDIS, future edition 3 of IEC 60079-19, prepared by SC 31J, Classification of hazardous areas and installation requirements, of IEC TC 31, Equipment for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60079-19 on 2011-01-01.

This European Standard supersedes EN 60079-19:2007.

The significant technical changes with respect to EN 60079-19:2007 are as follows:

- inclusion of specific Group I requirements;
- inclusion of offshore requirements.

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) | 2011-10-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2014-01-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60079-19:2010 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 series	NOTE	Harmonized in EN 60034 series (partially modified).
IEC 60079-11	NOTE	Harmonized as EN 60079-11.
IEC 60364 series	NOTE	Harmonized as HD 60364 (partially modified).
ISO 9000	NOTE	Harmonized as EN ISO 9000.
ISO 9001	NOTE	Harmonized as EN ISO 9001.

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 60079	series	Explosive atmospheres	EN 60079	series
IEC 60079-0	-	Explosive atmospheres - Part 0: Equipment - General requirements	EN 60079-0	-
IEC 60079-1	-	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"	EN 60079-1	-
IEC 60079-2	-	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"	EN 60079-2	-
IEC 60079-7	-	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"	EN 60079-7	-
IEC 60079-14	-	Explosive atmospheres - Part 14: Electrical installations design, selection and erection	EN 60079-14	-
IEC 60079-15	-	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"	EN 60079-15	-
IEC 60079-19	-	Explosive atmospheres - Part 19: Equipment repair, overhaul and reclamation	EN 60079-19	-
IEC 60079-26	-	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga	EN 60079-26	-
IEC 60085	-	Electrical insulation - Thermal evaluation and designation	EN 60085	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	EN 60529	-
IEC 61241	series	Electrical apparatus for use in the presence of combustible dust	EN 61241	series
IEC 61241-0	-	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements	EN 61241-1	-
IEC 61241-4	-	Electrical apparatus for use in the presence of combustible dust - Part 4: Type of protection 'pD'	EN 61241-4	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 4526	-	Metallic coatings - Electroplated coatings of nickel for engineering purposes	EN ISO 4526	-
ISO 6158	-	Metallic coatings - Electrodeposited coatings of chromium for engineering purposes	EN ISO 6158	-

CONTENTS

INTRODUCTION	9
1 Scope.....	10
2 Normative references.....	10
3 Terms and definitions.....	11
4 General	13
4.1 General principles.....	13
4.2 Statutory requirements for repair facility	14
4.3 Instructions for the user	14
4.3.1 Certificates and documents.....	14
4.3.2 Records and work instructions.....	14
4.3.3 Re-installation of repaired equipment.....	14
4.3.4 Repair facilities	14
4.4 Instructions for the repair facility.....	14
4.4.1 Repair and overhaul	14
4.4.2 Reclamations.....	19
4.4.3 Alterations and modifications.....	21
4.4.4 Temporary repairs.....	21
4.4.5 Rotating machinery	22
4.4.6 Inverters.....	22
5 Additional requirements for the repair and overhaul of equipment with type of protection "d" (flameproof).....	23
5.1 Application	23
5.2 Repair and overhaul	23
5.2.1 Enclosures	23
5.2.2 Cable and conduit entries	24
5.2.3 Terminations.....	24
5.2.4 Insulation	24
5.2.5 Internal connections	24
5.2.6 Windings	24
5.2.7 Auxiliary equipment.....	26
5.2.8 Light-transmitting parts.....	26
5.2.9 Encapsulated parts.....	26
5.2.10 Batteries	26
5.2.11 Lamps.....	26
5.2.12 Lampholders.....	27
5.2.13 Ballasts.....	27
5.2.14 Breathing devices.....	27
5.3 Reclamation	27
5.3.1 General.....	27
5.3.2 Enclosures	27
5.3.3 Sleeving.....	28
5.3.4 Shafts and housings	28
5.3.5 Sleeve bearings	28
5.3.6 Rotors and stators.....	28
5.4 Alterations and modifications.....	29

5.4.1	Enclosures	29
5.4.2	Cable or conduit entries	29
5.4.3	Terminations.....	29
5.4.4	Windings	29
5.4.5	Auxiliary equipment.....	29
6	Additional requirements for the repair and overhaul of equipment with type of protection "i" (intrinsic safety)	29
6.1	Application	29
6.2	Repair and overhaul	30
6.2.1	Enclosures	30
6.2.2	Cable glands	30
6.2.3	Terminations.....	30
6.2.4	Soldered connections	30
6.2.5	Fuses	31
6.2.6	Relays	31
6.2.7	Shunt diode safety barriers and galvanic isolators	31
6.2.8	Printed circuit boards.....	31
6.2.9	Optocouplers and piezoelectric components	31
6.2.10	Electrical components.....	32
6.2.11	Batteries	32
6.2.12	Internal wiring.....	32
6.2.13	Transformers	32
6.2.14	Encapsulated components	32
6.2.15	Non-electrical parts	33
6.2.16	Testing.....	33
6.3	Reclamation	33
6.4	Modifications	33
7	Additional requirements for the repair and overhaul of equipment with type of protection "p" (pressurized)	33
7.1	Application	33
7.2	Repair and overhaul	33
7.2.1	Enclosures	33
7.2.2	Cable and conduit entries	34
7.2.3	Terminations.....	34
7.2.4	Insulation	34
7.2.5	Internal connections	34
7.2.6	Windings	34
7.2.7	Auxiliary devices.....	36
7.2.8	Light-transmitting parts.....	36
7.2.9	Encapsulated parts.....	36
7.2.10	Batteries	36
7.2.11	Lamps.....	36
7.2.12	Lampholders.....	36
7.2.13	Ballasts.....	37
7.3	Reclamation	37
7.3.1	General.....	37
7.3.2	Enclosures	37
7.3.3	Shafts and housings.....	37
7.3.4	Sleeve bearings	37

7.3.5	Rotors and stators.....	37
7.4	Alterations and modifications.....	38
7.4.1	Enclosures	38
7.4.2	Cable and conduit entries	38
7.4.3	Terminations.....	38
7.4.4	Windings.....	38
7.4.5	Auxiliary equipment.....	38
8	Additional requirements for the repair and overhaul of equipment with type of protection "e" (increased safety)	38
8.1	Application	38
8.2	Repair and overhaul.....	39
8.2.1	Enclosures	39
8.2.2	Cable or conduit entries.....	39
8.2.3	Terminations.....	39
8.2.4	Insulation	39
8.2.5	Internal connections	39
8.2.6	Windings	40
8.2.7	Light-transmitting parts.....	42
8.2.8	Encapsulated parts.....	42
8.2.9	Batteries	43
8.2.10	Lamps.....	43
8.2.11	Lampholders.....	43
8.2.12	Ballasts.....	43
8.2.13	Breathing devices.....	43
8.3	Reclamation	43
8.3.1	Enclosures	43
8.3.2	Sleeve bearings	44
8.3.3	Rotors and stators.....	44
8.4	Modifications	44
8.4.1	Enclosures	44
8.4.2	Cable and conduit entries	44
8.4.3	Terminations.....	44
8.4.4	Windings.....	44
8.4.5	Auxiliary equipment.....	45
9	Additional requirements for the repair and overhaul of equipment with type of protection "n"	45
9.1	Application	45
9.2	Repair and overhaul.....	45
9.2.1	Enclosures	45
9.2.2	Cable and conduit entries	45
9.2.3	Terminations.....	45
9.2.4	Insulation	46
9.2.5	Internal connections	46
9.2.6	Windings.....	46
9.2.7	Light-transmitting parts.....	48
9.2.8	Encapsulated parts.....	48
9.2.9	Batteries	48
9.2.10	Lamps.....	49
9.2.11	Lamp holders.....	49

9.2.12	Ballasts.....	49
9.2.13	Enclosed break devices	49
9.2.14	Breathing devices.....	49
9.3	Reclamation	49
9.3.1	General.....	49
9.3.2	Enclosures	49
9.3.3	Joints.....	49
9.3.4	Shafts and housings.....	50
9.3.5	Sleeve bearings	50
9.3.6	Rotors and stators.....	50
9.4	Alterations and modifications.....	50
9.4.1	Enclosures	50
9.4.2	Cable and conduit entries	50
9.4.3	Terminations.....	50
9.4.4	Windings	50
9.4.5	Auxiliary equipment.....	50
10	Additional requirements for the repair and overhaul of equipment covered by IEC 60079-26.....	51
11	Additional requirements for the repair and overhaul of equipment with type of protection Group III ‘t’ (formerly known as ‘tD’ or DIP).....	51
11.1	Application	51
11.2	Repair and overhaul.....	51
11.2.1	Enclosures	51
11.2.2	Cable and conduit entries	52
11.2.3	Terminations	52
11.2.4	Insulation	52
11.2.5	Internal connections.....	52
11.2.6	Windings.....	52
11.2.7	Light-transmitting parts.....	54
11.2.8	Batteries	54
11.2.9	Lamps.....	54
11.2.10	Lamp holders.....	54
11.2.11	Ballasts.....	55
11.2.12	Breathing devices	55
11.3	Reclamation	55
11.3.1	Enclosures	55
11.3.2	Joints.....	55
11.3.3	Shafts and housings.....	55
11.3.4	Sleeve bearings	55
11.3.5	Rotors and stators.....	55
11.4	Alterations and modifications.....	56
11.4.1	Enclosures	56
11.4.2	Cable and conduit entries	56
11.4.3	Windings.....	56
11.4.4	Auxiliary equipment.....	56
12	Additional requirements for the repair and overhaul of equipment with type of protection pressurization ‘pD’.....	56
12.1	Application	56
12.2	Repair and overhaul	56

12.3 Reclamation	57
12.4 Modifications	57
Annex A (normative) Identification of repaired equipment by marking.....	58
Annex B (normative) Knowledge, skills and competencies of “responsible persons” and “operatives”	60
Annex C (normative) Requirements for measurements in flameproof equipment during overhaul, repair and reclamation (including guidance on tolerances).....	62
Bibliography.....	65
Figure C.1 – Determination of maximum gap of reclaimed parts	64
Table C.1 – Determination of maximum gap of reclaimed parts	62

INTRODUCTION

When electrical equipment is installed in areas where dangerous concentrations and quantities of flammable gases, vapours, mists or dusts may be present in the atmosphere, protective measures are to be applied to reduce the likelihood of explosion due to ignition by arcs, sparks or hot surfaces produced either in normal operation or under specified fault conditions.

This part of IEC 60079 is supplementary to other relevant IEC standards, for example IEC 60364 series, as regards installation requirements, and also refers to IEC 60079 series and its appropriate parts for the design requirements of suitable electrical equipment.

Clause 4 of this part of IEC 60079 contains general requirements for the repair and overhaul of equipment and should be read in conjunction with the other relevant clauses of this standard dealing with the detailed requirements for individual types of protection.

In cases where protected equipment incorporates more than one type of protection, reference should be made to all clauses involved.

This part not only gives guidance on the practical means of maintaining the electrical safety and performance requirements of repaired equipment, but also defines procedures for maintaining, after repair, overhaul or reclamation, compliance of the equipment with the provisions of the certificate of conformity or with the provisions of the appropriate explosion protection standard where a certificate is not available.

The nature of the explosion protection offered by each type of protection varies according to its unique features. Reference should be made to the appropriate standard(s) for details.

Users will utilize the most appropriate repair facilities for any particular item of equipment, whether they be the facilities of the manufacturer or a suitably competent and equipped repairer (see Note).

This part recognizes the necessity of a required level of competence for the repair, overhaul and reclamation of the equipment. Some manufacturers may recommend that the equipment be repaired only by them.

In the case of the repair, overhaul or reclamation of equipment which has been the subject of design certification, it may be necessary to clarify the position of the continued conformity of the equipment with the certificate.

NOTE Whilst some manufacturers recommend that certain equipment be returned to them for repair or reclamation, there are also competent independent repair organizations who have the facilities to carry out repair work on equipment employing some or all of the types of protection covered by IEC 60079 series. For repaired equipment to retain the integrity of the type(s) of protection employed in its design and construction, detailed knowledge of the original manufacturer's design (which may only be obtainable from design and manufacturing drawings) and any certificate documentation may be necessary. Where equipment is not being returned to the original manufacturer for repair or reclamation, the use of repair organizations that are recommended by the original manufacturer should be considered.

EXPLOSIVE ATMOSPHERES –

Part 19: Equipment repair, overhaul and reclamation

1 Scope

This part of IEC 60079

- gives instructions, principally of a technical nature, on the repair, overhaul, reclamation and modification of equipment designed for use in explosive atmospheres;
- is not applicable to maintenance, other than when repair and overhaul cannot be disassociated from maintenance, neither does it give advice on cable entry systems which may require a renewal when the equipment is re-installed;
- is not applicable to type of protection “m”, “o” and “q”;
- assumes that good engineering practices are adopted throughout.

NOTE Much of the content of this standard is concerned with the repair and overhaul of electrical machines. This is not because they are the most important items of explosion-protected equipment, but rather because they are often major items of repairable capital equipment in which, whatever type of protection is involved, sufficient commonality of construction exists as to make possible more detailed instructions for their repair, overhaul, reclamation or modification.

2 Normative references

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.

IEC 60079 (all parts), *Explosive atmospheres*

IEC 60079-0, *Explosive atmospheres – Part 0: Equipment – General requirements*

IEC 60079-1, *Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures “d”*

IEC 60079-2, *Explosive atmospheres – Part 2: Equipment protection by pressurized enclosure «p»*

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

IEC 60079-14, *Explosive atmospheres – Part 14: Electrical installations design, selection and erection*

IEC 60079-15, *Explosive atmospheres – Part 15: Equipment protection by type of protection “n”*

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

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

IEC 60085, *Electrical insulation – Thermal evaluation and designation*

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

IEC 61241 (all parts), *Electrical apparatus for use in the presence of combustible dust*

IEC 61241-0, *Electrical apparatus for use in the presence of combustible dust – Part 0: General requirements*

IEC 61241-4, *Electrical apparatus for use in the presence of combustible dust – Part 4: Type of protection “pD”*

ISO 4526, *Metallic coatings – Electroplated coatings of nickel for engineering purposes*

ISO 6158, *Metallic coatings – Electrodeposited coatings of chromium for engineering purposes*