



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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Explosive atmospheres - Part 34: Equipment assemblies

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Foreword

This document is drafted in accordance with GB/T 1.1-2020 "Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents".

This document is Part 34 of GB/T 3836 "Explosive atmospheres". GB/T 3836 has issued the following parts:

- Part 1: Equipment - General requirements;
- Part 2: Equipment protection by flameproof enclosures "d";
- Part 3: Equipment protection by increased safety "e";
- Part 4: Equipment protection by intrinsic safety "i";
- Part 5: Equipment protection by pressurized enclosure "p";
- Part 6: Equipment protection by liquid immersion "o";
- Part 7: Equipment protection by powder filling "q";
- Part 8: Equipment protection by type of protection "n";
- Part 9: Equipment protection by encapsulation "m";
- Part 11: Material characteristics for gas and vapour classification - Test methods and data;

- Part 12: Material characteristics for combustible dusts - Test methods;
- Part 13: Equipment repair, overhaul, reclamation and modification;
- Part 14: Classification of areas - Explosive gas atmosphere;
- Part 15: Electrical installations design, selection and erection;
- Part 16: Electrical installations inspection and maintenance;
- Part 17: Equipment protection by pressurized room "p" and artificially ventilated room "v";
- Part 18: Intrinsically safe electrical systems;
- Part 20: Equipment with equipment protection level (EPL) Ga;
- Part 21: Application of quality systems for equipment manufacture;
- Part 22: Protection of equipment and transmission system using optical radiation;
- Part 23: Group I, category EPL equipment intended to remain functional in atmospheres endangered by firedamp and/or coal dust;
- Part 24: Equipment protection by special protection "s";
- Part 25: Requirements for process sealing between flammable process fluids and electrical systems;
- Part 26: Electrostatic hazards - Guidance;
- Part 27: Electrostatic hazards - Test;
- Part 28: Non-electrical equipment for explosive atmospheres - Basic method and requirements;
- Part 29: Non-electrical equipment for explosive atmospheres - Constructional safety "c", control of ignition source "b", liquid immersion "k";
- Part 30: Equipment and components in explosive atmospheres in underground mines;
- Part 31: Equipment dust ignition protection by enclosure "t";
- Part 32: Intrinsically safe systems with electronically controlled spark duration limitation;
- Part 33: Equipment in adverse service conditions;

- Part 34: Equipment assemblies;
- Part 35: Classification of areas for explosive dust atmospheres.

This document uses the redraft law to modify and adopt IEC TS 60079-46:2017

"Explosive atmospheres - Part 46: Equipment assemblies".

The technical differences between this document and IEC TS 60079-46:2017 and their reasons are as follows:

- As for the normative references, this document has made adjustments with technical differences, to adapt to the technical conditions of China. The adjustments are mainly reflected in Clause 2 "Normative references". The specific adjustments are as follows:

? Replace IEC 60079-0 with GB/T 3836.1 which modifies and adopts the international standard (see Clause 1, etc.);

? Replace IEC 60079-10-1 with GB 3836.14 which is identical to the international standard (see 4.3.2);

? Replace IEC 60079-14 with GB/T 3836.15 which modifies and adopts the international standard (see Clause 3, etc.);

? Replace ISO/IEC 80079-34 with GB/T 3836.21 which modifies and adopts the international standard (see 4.4);

? Replace ISO 80079-36 with GB/T 3836.28 which modifies and adopts the international standard (see Clause 1, etc.);

? Replace IEC 60079-10-2 with GB/T 3836.35 which modifies and adopts the international standard (see 4.3.2);

? Replace IEC 60079 (all parts) and ISO 80079 (all parts) with GB/T 3836 (all parts). See Annex A for the degree of consistency between parts;

? Delete IEC 60079-25 and move the corresponding GB/T 3836.18 to

Bibliography.

The following editorial changes have been made to this document:

- In order to be consistent with the existing standard series, change the name of this

document to "Explosive atmospheres - Part 34: Equipment assemblies";

- Add Note 3 about the equipment assembly used in underground coal mines (see Clause 1);
- Add a note on 3.1 "Equipment assembly";
- Delete the note on 3.2 "Assembly certificate";
- Add a note about GB/T 2900.35 (see Clause 3);
- Add the Bibliography.

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

This document was proposed by China Electrical Equipment Industry Association.

This document shall be under the jurisdiction of National Technical Committee 9 on Explosion Protected Electrical Apparatus of Standardization Administration of China (SAC/TC 9).

Drafting organizations of this document: Nanyang Explosion Protected Electrical
Explosive atmospheres - Part 34: Equipment assemblies

1 Scope

This document specifies requirements for the design, construction, assembly, testing, inspection, marking, documenting and assessment of equipment assemblies for use in explosive atmospheres under the responsibility of the manufacturer of the equipment assembly.

The requirements of this document apply to individual items according to GB/T 3836 (all parts) that comprise the assembly and that have individual certificates. These individual items are then integrated as part of the equipment assembly. Also included are requirements to address aspects for the assembly which may be beyond the certificates of the individual items forming the assembly.

The scope of this document includes assessment of the additional requirements for assemblies for hazardous areas and does not include requirements for non-hazardous