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

GB 3836.20-2010

**Explosive atmospheres -- Part 20: Equipment with equipment
protection level (EPL) Ga
(English Translation)**

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Table of Contents

1 Scope	1
2 Normative References	1

Foreword

All technical contents of this section is mandatory.

GB 3836 "explosive atmosphere" is divided into several parts.

- Part 1. General requirements for equipment;
- Part 2. a flameproof enclosure "d" protection device;
- Part 3. the increased safety "e" protection device;
- Part 4. Protection by a device intrinsically safe "i";
- Part 5. shell-type pressurized "p";
- Part 6. Oil type "o";
- Part 7. Powder filling "q";
- Part of 8. "n" electrical equipment;
- Part 9. Encapsulation "m";
- Part 11. Determination of the maximum experimental safe gap;
- Part 12. a mixture of gases or vapors according to their maximum experimental safe gaps and minimum ignition current rating;
- Part 13. Electrical Apparatus for Explosive Gas Atmospheres maintenance;
- Section --- 14. Classification of hazardous areas;
- Part 15. Electrical installation hazardous areas (other than mines);
- Part 16. Inspection and maintenance of the electrical device (other than mines);
- part 17. Construction and use of positive pressure rooms or buildings;
- part 18. intrinsically safe system;
- Part 19. Field bus Intrinsically Safe Concept (FISCO);
- Part 20. Equipment Protection Level (EPL) is Ga-level device.

This section GB 3836 Part 20, corresponding to the IEC 60079-26:2006 "Explosive atmospheres Part 26. Equipment Protection Level

Do (EPL) is Ga-level device "(in English).

This portion is equivalent to IEC 60079-26 consistency use, editorial changes are made. GB 3836.1 standard reference repair

Change using IEC 60079-0:2007, and adds "Note. according to GB 3836.1-2010 Chapter 29 corresponding provisions" in 6.1.

Appendix A of this section is an informative annex.

This section was proposed by China Electrical Equipment Industrial Association.

This part of the jurisdiction of the National Standardization Technical Committee explosion-proof electrical equipment (SAC/TC9).

This part was drafted. Nanyang explosion-proof electrical Institute.

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Explosive atmospheres - Part 20. Equipment protection level

(EPL) is Ga-level device

1 Scope

GB This part 3836 specifies the apparatus protection level (EPL) for the special requirements of level Ga, testing and marking of electrical equipment.

Within a predetermined range of operating parameters of the manufacturer, when a device failure or a rare two mutually independent failure, to ensure electrical device having a very High level of protection.

Note 1: The fault may be caused by external influences or damage to electrical equipment parts foreseeable. When two independent faults occur frequently, although not individually produced

Ignition risk, but at the same time was able to produce a potential ignition hazard appears, it should be regarded as a rare failure when two independent faults occur simultaneously.

Note 2: Electrical equipment intended for use in such hazardous locations 0, dangerous place by the air under normal atmospheric conditions - forming gas, vapor or mist mixture

Explosive Gas Atmospheres continuous, long or frequent presence.

This also applies to the mounting portion spanning between the two areas have different requirements on the level of protection of electrical equipment.

For example, a storage vessel containing 0 and its surrounding area is determined as a boundary wall of an equipment area.

This portion is also suitable for installation in spaces requiring a lower level of protection devices, but these devices and apparatus protection level Ga electrical grade

Connection (associated device) on the air.

This section is in addition to general requirements GB 3836.1-2010 and GB 3836 series of special type of protection standards by taking

These standards provide a level of security so as to achieve EPLGa level of protection required.

Note 3: When designing an explosive environment exceeds a predetermined GB 3836.1-2010 equipment atmospheric conditions, this section may be used as a guide. However, we recommend

Additional tests associated with the predetermined use conditions. When a device (GB 3836.2-2010) from the flameproof enclosure "d" and by the intrinsic safety protection

When type "i" devices (GB 3836.4-2010) protection, which is especially important.

Note 4: The definition of hazardous area classification, see GB 3836.14-2000.

NOTE 5: This section does not mention other non-electrical ignition sources may occur (e.g., ultrasound, light or ionizing radiation), which should be considered a source of ignition

(See GB 25285.1-2010).

Note 6: The method of this concept i.e. Ga stage apparatus protection level (EPL), details given in Appendix A.

2 Normative references

Terms of the following documents constitute provisions of this section by reference in this section 3836 of the GB . For dated references,

All subsequent amendments (excluding corrections) or revisions do not apply to this section, however, encouraged to reach an agreement under this section

Whether the parties to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB 3836.1-2010 explosive atmospheres - Part 1. General requirements for equipment (IEC 60079-0:2007, MOD)

GB 3836.2-2010 explosive atmospheres - Part 2. the device by a flameproof enclosure "d" protected (IEC 60079-1.2007,

MOD)

GB 3836.4-2010 explosive atmospheres - Part 4. equipment from the intrinsically safe "i" protection (IEC 60079-11.2006,

MOD)

GB 3836.9-2006 explosive gas atmosphere electrical equipment Part 9. Encapsulation "m" (IEC 60079-18.2004,

IDT)

GB 3836.14-2000 explosive gas atmospheres electrical equipment - Part 14. Classification of hazardous areas (eqvIEC 60079-10.

1996)

GB 3836.15-2000 explosive gas atmospheres electrical equipment - Part 15. Hazardous areas electrical installation (except mine)

(EqvIEC 60079-14.1996)

GB 4208-2008 shell protection (IP code) (IEC 60529.2001, IDT)

GB/T 5169.16-2008 Fire hazard testing for electric and electronic products - Part 16. 50W horizontal and vertical flame test fire

Flame test methods (IEC 60695-11-10.2003, IDT)

GB 25285.1-2010 explosive atmospheres explosion prevention and protection - Part 1. Basic Principles and Methods

3 Terms and Definitions

Except that the outer part of the present terms and definitions given in GB 3836.1-2010 following abbreviations are also used.

Note: Other definitions applicable to explosive atmospheres can be found GB/T 2900.35.

3.1

EPL

equipmentprotectionlevel (equipment protection level) abbreviation, as defined in Appendix A.