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CCS K35

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 7958-2014

Replacing GB 7958-2000

Capacitor discharge type exploders for coal mines

煤矿用电容式发爆器

Issued on: December 22, 2014 **Implemented on: November 1, 2015**

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Standardization Administration of China

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Foreword

All the technical contents of this standard is mandatory. This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB 7958-2000 "coal mine capacitive Exploder." This standard compared with GB 7958-2000, the main technical content differences are as follows:

--- Detonated action "such as the use of electronic switches should be connected to the output instruction detonation impulse reliably detonate energy output, non-occurrence Unexpected power phenomenon. "To" such as the use of electronic switches shall ensure continuous and reliable charging process, unexpected power failure now prohibited Like; it should be connected to the output instruction detonation impulse reliably detonate energy output, power accident occurred phenomenon is strictly prohibited. "(See 5.5, 2000 edition 5.5); Number of trials

--- life test made changes and increases in Table 3 (see 516, 2000 edition 6.12.);

--- Increasing the minimum ignition impulse and specifies the maximum ignition impulse test

methods (see 65, 2000 version 6.5.);

--- Ignited impulse, the minimum allowed resistance by GB 8031-2005 have been revised, and synchronizes revised Table 1 (see

5.9 and Table 1, 2000 In version

5.10 and Table 1);

--- Remove the "FCC-3" Exploder parameter tester model (see Table 3 of the 2000 edition);

--- Load resistance "rated load" to "maximum permissible load" (see 58, 59, 2000 edition of 5.9,5.10.);

--- To increase and refine the proof requirements (see 5.7). Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents. This standard is proposed and managed by the China Coal Industry Association. This standard by the Institute of Shenyang Coal Group Co., Ltd., Heilongjiang coal Vocational and Technical College, Beijing Science and Technology Development Co., Lung Tak Division Dashiqiao explosion Factory, Shandong Longtai Mining Equipment Co., Shuangyashan Kinder Industry Co., Ltd., Weinan coal mine equipment Plant responsible for drafting. The main drafters of this standard. Fu Shuling, Zhang Xu, Li's, Li Xiaojie, Wang Tao, Wu Peking, Maoyun De, Kang Liying, Liying Yun, Li Zhen West, Zhang Yan, too LEE, Pan Yanan, Li Warburg like. This standard replaces the standards previously issued as follows:

--- GB 7958-1987.

Mine capacitive Exploder is one of the mining, tunneling and other engineering electric detonators detonated work necessary tools. Since 2000 Revised Order GB 7958 coal mine capacitive Exploder standard has been implemented ten years, to ensure the quality and safety of the product blasting It played an important role. GB main technical requirements in 7958-2000 and about the explosion safety requirements are fully justified and necessary Of this revision work in 7958-2000 on the basis of GB , increase the safety provisions of the content explosion, and explosion-proof security provisions were revised Order, classification and refinement. High-voltage terminals capacitive Exploder exposed, clearances and creepage distances are impossible to comply with GB 3836.1-2010 and GB 3836.3-2010, and it should belong to the "special type", taking into account the many years followed the habit of this amendment remains in GB 7958-2000 About capacitive Exploder made of flameproof requirements formulation. Mine capacitive Exploder

1 Scope

GB 7958-2014 is the Chinese national standard on capacitor discharge type exploders for coal mines, in the field of electrical engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to

meet it to be lawfully made, sold or carried out in China. It was issued on 22 December 2014 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 November 2015. Classification: ICS 29.260.20, CCS K35. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the terms and definitions for use in mines capacitive Exploder, model name and preparation methods, technical requirements, test methods, inspection Rules, marking, packaging, transportation, storage and so on. Mine capacitive Exploder applicable to the coal mine methane and coal dust explosive gas mixtures. This standard applies to coal with capacitive Exploder (hereinafter referred to as the detonator).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 191 Packaging - Pictorial signs

GB/T 2423.1-2008 Environmental testing for electric and electronic products Part 2. Test methods Test A. Cold

GB/T 2423.2-2008 Environmental testing for electric and electronic products Part 2. Test methods Test B. Dry heat

GB/T 2423.4-2008 Environmental testing for electric and electronic products Part 2. Test methods - Test Db alternating hot and humid (12h 12h cycle)

GB/T 2423.8-1995 Environmental testing for electric and electronic products Part 2. Test methods Test Ed. Free fall

GB/T 2423.10-2008 Environmental testing for electric and electronic products Part 2. Test methods Test Fc. Vibration (sinusoidal)

GB 3836.1-2010 explosive atmospheres - Part 1. General requirements for equipment

GB 3836.2-2010 explosive atmospheres - Part 2. the flameproof enclosure "d" protection equipment

GB 3836.4-2010 Explosive atmospheres - Part 4. the intrinsically safe "i" protection equipment

GB 4208 housing protection (IP Code)

GB/T 6388 standard transport package shipping

GB/T 10111 random number generation and its application in product quality sampling in AQ1043 mining product safety signs logo

2.5 Ji

4 Megohmmeter 1000V or 2500V 5 stopwatch division value of not more than 0.2s 6 precision resistance box 0 ~ 1.5kOmega,

0.1 Ji 7 pressure tester 5000V

Note 1. The safe power supply time, igniting impulse and peak output voltage can also be used Exploder parameter tester measurement;

Note 2. As with the power supply instead of the battery, the battery should be connected to the equivalent resistance; power short-circuit current of 3A.

6.2 Performance and operating voltage indication means inspection

5.6 according to the requirements of the inspection and the actual operation of the senses.

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Safe power supply time safelysupplyelectricitytime To prevent the electric detonators, electric blasting network pulled off or re-lap spark caused the explosion of methane and air mixture allowed Exploder maximum operating time and minimum power supply time.

3.2 Ignition impulse expenditureenergyofelectricdetonatorignite When energized electric detonators detonated, nickel-chromium wire bridge resistance unit of energy obtained. Multiply its value is equal to the square and passing a current through the power-on time Product, units of A2 · ms.

4 Type designation and preparation method

4.1 Type designation and preparation method as follows: Product Type. detonator First feature. Capacitive Main parameters. Rated detonated retransmission number Supplementary features code. indicates additional functions Design Number. A, B, C Rated

4.2 retransmission number parameter to detonate the main nickel-chromium wire bridge industrial electric detonator, is preferably 10,25,50,100,150 and 200 series.

4.3 Supplementary features of the code used to indicate additional features.

5 Technical requirements