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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 28184-2011

Power supply monitoring system for fire protection equipments

消防设备电源监控系统

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Foreword

The standard Chapter 4, Chapter 6, Chapter 7 content mandatory, the rest are recommended. This standard was drafted in accordance with GB/T 1.1-2009 given rules. 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 by the National Standardization Technical Committee on Fire fire detection and alarm Technical Committee (SAC/TC113/SC6) centralized. This standard is drafted by: Ministry of Public Security Shenyang Fire Research Institute. It participated in the drafting of this standard. Sunny Beijing Century Technology Co., Ltd., Beijing original electronic limited liability company. The main drafters of this standard. Ding Hongjun, Liu Cheng, Liu Ziwei, Lihui Jing, Yang Bo, Dingwan Jun, Zhang Xuejun, Guo Shulin, Heng Su, Li Donghai. This standard is the first release. Fire fighting equipment power monitoring system

1 Scope

GB 28184-2011 is the Chinese national standard on power supply monitoring system for fire protection equipments, in the field of environment and health protection, safety. 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 30 December 2011 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 August 2012. Classification: ICS 13.220.20, CCS C81. 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 firefighting equipment power monitoring system, requirements, test methods, inspection rules, signs and the use of said Manual. This standard applies to the installation of fire fighting equipment power monitoring system for use in general industrial and civil buildings, installed in other environments extinction Security Equipment power monitoring system can also refer to this standard.

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 156 standard voltage

GB/T 9969 General Instructions industrial products

GB 12978 fire electronic products inspection rules

GB 16838 fire electronic products environment test methods and severities

GB/T 17626.2 Electromagnetic compatibility Testing and measurement techniques - Electrostatic discharge immunity test

GB/T 17626.3 electromagnetic compatibility test and measurement technology RFEMS test

GB/T 17626.4 Electromagnetic compatibility Testing and measurement techniques - Electrical fast transient burst immunity test

GB/T 17626.5 electromagnetic compatibility test and measurement technology surge (impact) immunity test

GB/T 17626.6 Electromagnetic compatibility Testing and measurement techniques Immunity to conducted disturbances induced field

GB/T 17626.11 Electromagnetic compatibility Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests

GB 23757 fire protection requirements for electronic products

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Fire Equipment Power powersupplyforfireprotectionequipments For the various types of fire equipment supply AC or DC power, including the main and backup power supply.

3.2 Fire fighting equipment used to monitor the work of state power, occurs in the power supply overvoltage, undervoltage, overcurrent, when the lack of equal fault monitor alarm signal can be issued Control system, the part of the fire equipment power status monitor, voltage sensor, current sensor, voltage/current sensors or all of the equipment composition.

4 Requirements

4.1 General Fire fighting equipment power monitoring system should first comply with the requirements of

4.2 to 4.3, then the provisions of Chapter 5, test, test results should meet Together with the relevant requirements of Chapter 4.

4.2.1 Fire Equipment Power Status Monitor

4.2.1.1 fire fighting equipment power status monitor (hereinafter referred to as the monitor) should be able to supply components for its connection DC operating voltage should be consistent GB/T 156 provides priority DC 24V.

4.2.1.2 Monitor should have Chinese features marked with Chinese characters should be used to display information.

4.2.1.3 Monitor the power should be set the main power and backup power. Main power should be 220V, 50Hz AC power and set the overcurrent protection Measures the power input terminals should be located. When the AC mains supply voltage fluctuation range of the rated voltage of 220V at 85% to 110% range When the inner circle, the frequency deviation of less than standard frequency of 50Hz ± 1%, the monitor should be able to work properly. Power supply section

4.2.1.4 Monitor should have the main power supply and backup power conversion function, and should be the main and backup power supply status indicator. when When the main power fails, can automatically switch to the backup power supply; when the mains power returns, can be automatically converted to the main power supply; main and backup power conversion should Movies Sound working properly monitor. Monitor backup power charged in discharge to the termination voltage condition obtained 24h capacity should be able to provide Monitor in the normal monitoring state for at least 8h.

Note. The normal monitoring state ie monitor under normal power supply conditions, no failure alarm, working state when the self-test operation.

4.2.1.5 monitor should be able to receive and display real-time job status information to monitor the main power supply for all its fire-fighting equipment and standby power.

4.2.1.6 Monitor under the following conditions shall be issued within 100s failure sound and light signals, display and record the fault location, type and time.

a) fire fighting equipment being monitored power interruption;

b) the grounding between the monitor and the outer connecting cable open circuit, short circuit and system functionality;

c) Monitor and its split between the ground power cable open circuit, short circuit and affect the function;

d) monitor the supply voltage is greater than 110% of the rated voltage or less than 85% of rated voltage (applies only to monitor with this feature Controller);

e) be monitored power supply phase is missing, wrong phase and overload power