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

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**General technical requirements for electrical fire warning and
monitoring systems**

电气火灾监控综合处置平台通用技术条件

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5.1 General Rules

5.1.1 When the data acquisition device is integrated into the electrical fire monitoring detector, the connection line to the external network should not be open-circuited, short-circuited, or have network functionality issues. In the event of failure, the alarm

function of the electrical fire monitoring detector should not be affected.

5.1.2 When the data acquisition device is integrated into the electrical fire monitoring detector, the electrical fire monitoring detector shall meet the following requirements.

- a) Stand-alone residual current type electrical fire monitoring detectors shall comply with the requirements of GB 14287.2;
- b) Standalone temperature-measuring electrical fire monitoring detectors shall comply with the requirements of GB 14287.3;
- c) Stand-alone fault arc detectors shall comply with the requirements of GB 14287.4.

5.1.3 The platform should have time synchronization functionality.

5.1.4 Dedicated data acquisition devices should be set up separately for monitoring electric bicycles, electric vehicles, and distributed energy storage devices.

5.1.5 The networking of stand-alone data acquisition devices shall meet the requirements of GB/T 45839.

5.1.6 Data acquisition devices with wireless communication capabilities can select the networking method and network type according to usage requirements.

5.2 Appearance The surfaces of all equipment in the system should be free from corrosion, coating peeling, and blistering, and should be free from obvious scratches, cracks, burrs, and other mechanical damage. There are no loose fasteners on the equipment.

5.3 Platform General Performance

5.3.1 It should have Chinese information display function and meet the following display and recording requirements.

- a) Operational statistics. Total number of devices, number of devices currently online, number of devices currently under alarm, number of devices currently experiencing a fault;
- b) User information. information on the protected unit and area, equipment information, and contact information for the fire safety officer;
- c) Current alarm indication. When the device is in alarm state, it should issue an audible and visual alarm signal and maintain it until reset, while simultaneously indicating and recording the alarm status. Information on electrical fire alarm type, location, time, alarm cause, and handling result is recorded and is unaffected by reset.
- d) Fault indication. When the equipment is in a faulty state, it should issue a light alarm signal, and simultaneously indicate and record the fault type, location, and time. The information and records are unaffected by resetting;
- e) Equipment address annotation information. should display the on-site equipment

installation address, location, room, and specific installation position;

f) Operation and maintenance monitoring. The platform should have the functions of monitoring wireless network signal quality and server CPU/memory/network resource utilization.

5.3.2 It should have data storage functionality.

5.3.3 It should have the function of distinguishing between various information under debugging, testing, maintenance and other states and various information under normal operation.

5.3.4 It should be able to review registered users and assign appropriate permissions to different users.

5.3.5 It should support the function of synchronous push (notification) via mobile application software, SMS or voice call.

5.3.6 Each connected device shall have a unique identification code, and the encoding method shall comply with the provisions of Appendix A.

5.3.7 It should have an application programming interface (API) using the Hypertext Transfer Security Protocol (HTTPS), and the data transmission format should conform to Appendix B. Require.

5.3.8 It should have confidentiality protection mechanisms and virus protection functions, and the network data transmission of the platform should have encryption measures.

5.4 Field Platform

5.4.1 The response time from the data acquisition device to the field platform for reception and display should not exceed 60 seconds.

5.4.2 It should have an operation log recording function and record all operations.

5.4.3 When the platform has video monitoring capabilities, the on-site platform should be able to obtain relevant monitoring footage if an alarm is triggered.

5.4.4 It should have the function of exchanging information with a remote management platform, and should be able to directly or indirectly send relevant information to the owner or necessary personnel. The relevant responsible persons should have the ability to receive and verify information at the scene of alarm events, and after confirmation, should be able to automatically notify relevant personnel according to the emergency plan. Push alarm information.

5.4.5 It should be able to receive alarm signals from all connected data acquisition devices and issue an alarm signal within 10 seconds, indicating the location of the alarm, and providing... This should be maintained until the field platform is manually reset. The alarm

audible signal should be manually extinguishable, and should be able to be silenced again when an alarm signal is input again. start up.

5.4.6 It should be able to receive no fewer than 20 independent alarm signals within 60 seconds.

5.4.7 When the following faults occur, the field platform should issue a fault audible and visual signal that is clearly distinguishable from the alarm signal within 100 seconds, and Display the location of the fault. The audible fault signal should be manually queueable, and the system should restart upon receiving another fault signal; the visual fault signal should remain active until... troubleshooting.

- a) A malfunction in the main body of the data acquisition device;
- b) Communication failure between the main body of the data acquisition device and the wireless transmission section;
- c) Communication failure between the data acquisition device, transceiver device and the field platform.

5.4.8 The information transmission time between the remote management platform and the remote management platform should be less than 10 seconds.

5.4.9 All fault information should be able to be displayed. If all fault information cannot be displayed at the same time, the fault information that is not displayed should be manually searchable.

5.4.10 Any equipment failure under management should not affect the normal operation of non-faulty parts.

5.5 Producer Remote Management Platform

5.5.1 In addition to meeting the requirements of 5.3, the information logging function should also be able to record the following information. equipment manufacturing date, alarm processing progress, alarm... The operators involved in the troubleshooting process, the progress of the troubleshooting process, the results of the troubleshooting process, and the operators involved in the troubleshooting process.

5.5.2 It should support the classification statistics, regional statistics and specified types of statistics for various types of information.

5.5.3 The producer's remote management platform should support information exchange and sharing with upper and lower level platforms via HTTPS API, and the data transmission format should be... It should comply with the requirements of Appendix B.

5.5.4 The notification information shall include at least alarm information, fault alarm information, alarm cancellation information, fault recovery information, and equipment scrapping information. The information should include the information type, reporting time,