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Technical requirements for ground electric field monitoring

地面电场监测技术要求

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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Technical requirements for ground electric field monitoring

1 Scope

This document specifies the technical requirements for content, instruments, sites, data, networking, maintenance and calibration of near-ground atmospheric electric field monitoring.

This document is applicable to operational applications of near-surface atmospheric electric field monitoring.

2 Normative references

This document has no normative references.

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4 Monitoring content

The ground electric field monitoring (hereinafter referred to as "monitoring") includes the minute intensity average, minute intensity maximum, minute intensity minimum and electric field intensity.

Field polarity, rate of change, and corresponding time.

5.1 Instrument selection

The monitoring instrument should be a ground electric field meter.

5.2 Operating conditions

5.2.1 Power supply conditions When using AC power supply, the voltage and frequency should be 220V±44V, 50Hz±5Hz respectively; when using DC power supply The voltage should be 12V±0.6V.

5.2.2 The operating environment should meet the following conditions.

a) Temperature. -40°C~60°C;

b) Relative humidity. 5%~95%;

c) Atmospheric pressure. 500hPa~1100hPa.

5.3 Performance

The main performance of the monitoring instrument should meet the requirements of Table 1.

Table 1 Main performance requirements of monitoring instruments Technical index performance requirements Measuring range. -100kV/m~100kV/m Resolution <=10V/m