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

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**Cybersecurity aspects of devices used for power metering and
monitoring, power quality monitoring, data collection and
analysis**

用于电量测量和监测、电能质量监测、数据采集和分析的装置的网络安全

(English Translation)

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Foreword

This document is a standard or guiding technical document.

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents". Drafting.

This document is equivalent to IEC TS63383:2022 "Equipment for electrical quantity measurement and monitoring, power quality monitoring, data acquisition and analysis".

The document type of "Network Security" has been changed from an IEC technical specification to a national guiding technical document of my country.

The following minimal editorial changes have been made to this document.

---The header of Table A.4 has been corrected and is now consistent with the main text description;

---To comply with the drafting regulations of Chinese standards, the symbols in Table A.5 have been corrected, and a note has been added to explain the meaning of the symbols.

Introduction

This document is a common cybersecurity document cited in other SAC/TC104 publications, and includes information related to low-voltage applications.

General information on network security measurement devices and related systems.

With measuring devices (such as electrical quantity measuring and monitoring devices as defined in IEC 61557-12), power quality instruments (as defined in IEC 62586-1)

The use of data acquisition, collection, and analysis devices (such as gateways and energy servers as defined in IEC 62974-1) is increasing, and the network... Network security risks are also increasing, especially with the growing use of interconnected devices in electrical installations.

Therefore, facility managers limit risk by maintaining an acceptable level of information

regarding facility and environmental strategies. To maintain maximum innovation... When designing devices, it is best to base them on risk assessment methods to ensure that they can withstand cybersecurity threats throughout their entire lifecycle.

1 Scope

This document pertains to measuring devices intended for installation in restricted areas (PMDs conforming to IEC 61557-12 and those conforming to IEC 62586-1).

Network security related to the required PQI and data acquisition devices (devices conforming to IEC 62974-1).

This document covers cybersecurity aspects of devices used for power measurement and monitoring, power quality monitoring, and data acquisition (e.g., installation of...).

(Enhancing or restoring devices), but does not include the organization's cybersecurity requirements (such as end-user security policies).

Note: An organization's cybersecurity is critical to the reliable operation of its devices.

This document aims to raise awareness among manufacturers and other stakeholders regarding cybersecurity and to provide protection against security threats and vulnerabilities.

To reasonably reduce safety risks, basic guidance is provided.

---This document is consistent with the device/system approach described in relevant standards such as IEC 62443 (all parts) and ISO /IEC 27001.

---This document is based on general system use cases.

This document does not apply to instruments used for trade settlement covered by the IEC 62053-2X series of standards.

2 Normative references

This document has no normative references.

3 Terms, definitions, symbols and abbreviations

The following terms and definitions apply to this document.

The URLs for the terminology databases maintained by ISO and IEC for standardization are as follows.

3.1.1 Assets

An entity to which the component owner assigns value.

[Source: GB/T 18336.1-2015, 3.1.2, with modifications]

3.1.2 Attack

Attempts to damage, disclose, tamper with, disable, steal, or access or use assets without authorization.

[Source: GB/T 29246-2023, 3.2]

3.1.3 Attack vector

An attacker accesses a device to generate attack paths or methods.