2023-02-21 Markup
Doug Edwards
Chair IEEE PES Switchgear Committee

IEEE PC37.86 Working Group Minutes
15:00 PM – 17:00 PM (UTC+8), July, 18, 2022

Online

Meeting Minutes Recorded by:

Chair: Jianmin Xue

Vice Chair: Shuai Zhang

Secretary: Jingjing Huang

1. **Call to Order**

The meeting was called to order at 14:00 pm(UTC+8) by the Working Group Chair, Jianmin Xue.

2. **Roll call and Declaration of Affiliation**

Introduction of Members and Observers.

Attendees introduced themselves and stated their affiliations.

- 8 of 9 voting-members present
- 7 Participants

3. **Quorum verification**

Yes – Quorum was met.

4. **Approval of Meeting Agenda**

Motion by Shuai Zhang to approve meeting agenda.

2nd by Lifan Yang.

Approved by consent.

5. **Call for patents, copyright issues**

IEEE Patent and IEEE Copyright slides shown.

No issues reported.

6. **IEEE Entity Participation Behavior**

The entity participation behavior was presented. There were no questions or concerns.

7. **Discussion of draft framework**

First ,Yong Wei made a brief introduction of the draft framework.

Then carry out a technical discussion. The discussion results are as follows:

1. Add a chapter which include architecture and scope of application before chapter 4. Structure and Appearance.

2. Determine the architecture and scope of application first.
3. Define the upper, lower, and horizontal interfaces of the terminal.
4. Describe the hardware and software architecture in the architecture section.
5. Optimize chapter title and sequence.
6. Each chapter is leaded by one entity, multiple entities are involved.
7. Standards can be written by referring to IEC Industrial Internet of Things as an example.
8. The function of relay protection put in extended chapter.
9. Communication protocol, appointment interactive mode, do not require the implement method.
10. Clear the communication interface upper to cloud adopts the common IoT protocol.
11. The Chapter 9.Information Security Requirements, clearly define data ownership and whether it can be provided to manufacturers. Reflect the protection of data privacy, comply with the law.
12. Add sustainability, environmental protection and carbon footprint requirements for materials.

According to the discussion results, modify the draft framework, then continue the discussion in next meeting.

8. Future Working Group Meetings

The next meeting will be schedule in September 2022.

9. Adjourn

Adjourn at 17:00 pm (UTC+8).

IEEE PC37.86 Working Group Minutes
15:00 PM – 17:00 PM (UTC+8), July, 18, 2022

Online

Meeting Minutes Recorded by:

Chair: Jianmin Xue

Vice Chair: Shuai Zhang

Secretary: Jingjing Huang

Attendees

Name (Last, First)	**Employer**	**07/18/2022**
Jianmin Xue	XJ Group Corporation	M
Yong Wei	XJ Group Corporation	P
Jiefeng Pang	XJ Group Corporation	P
Duo Qiu	XJ Group Corporation	P
Mingchao Yong	XJ Group Corporation	P
Hongxin Ju	XJ Group Corporation	P
Hairong Yu	XJ Group Corporation	P
Shuai Zhang	China Southern Power Grid	M
Jingjing Huang	Xi'an Jiaotong University	M
Dege Li	State Grid Corporation of China (SGCC)	M
Chao Wang	State Grid Corporation of China (SGCC)	P
Longtian Wang	Siemens	M
Panke Hou	ABB Ltd	M
Lifan Yang	Schneider Electric	M
Wei Lv	Tianjin University	M

Guide for Internet of Things (IoT) Switchgear Terminals (52 kV and below)

directory

Guide for Internet of Things (IoT) Switchgear Terminals (52 kV and below)

1 Scope of application

structure and appearance requirements, operating environment requirements, interface requirements, functional requirements, performance requirements and test methods of power switchgear (ring main unit) IoT terminal equipment of 52kV and below. The following IoT-type medium-voltage power switchgear (ring main unit) provides the basis for the design, manufacture, testing and operation.

2 Normative Reference Documents

3 Terms and Definitions

3.1 Switch cabinet IoT terminal
3.2 Function App
3.3 Micro application
3.4 Software Defined Terminal
3.5 Terminal edge computing
3.6 ...

4 Structure and Appearance

4.1 Structural Requirements
4.2 Appearance requirements
4.3 Installation method
4.4 Connector
4.5 weight
4.6 Shell and material
    4.6.1 Shell material
    4.6.2 Shell spray
    4.6.3 grounding method

5 Environmental conditions

5.1 Reference temperature and humidity
5.2 Ambient Thermometer Humidity
5.3 Altitude

6 Physical interface

6.1 Power interface
6.2 Perception interface
    6.2.1 Number and type of interfaces
    6.2.2 real-time sampling interface
    6.2.3 serial port
    6.2.4 network port
    6.2.5 wireless interface

12 Appendix