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PEOPLE'S REPUBLIC OF CHINA**

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**Power quality measurement in power supply systems - Part 1:
Power quality instruments(PQI)**

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Foreword

GB/T 39853 "Power Quality Measurement in Power Supply System" is divided into the following two parts.

---Part 1. Power Quality Monitoring Equipment (PQI);

---Part 2. Functional test and uncertainty requirements.

This part is Part 1 of GB/T 39853.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

The translation method used in this part is equivalent to IEC 62586-1.2017 ``Power Quality Measurement in Power Supply System Part 1.Power Quality

Monitoring equipment (PQI)".

The Chinese documents that have a consistent correspondence with the international documents cited in this section are as follows.

---GB/T 2421.1-2008 Overview and Guidelines for Environmental Testing of Electrical and Electronic Products (IEC 60068-1.1988, IDT)

---GB/T 2423.1-2008 Environmental testing of electric and electronic products Part 2.Test method Test A. Low temperature

(IEC 60068-2-1.2007, IDT)

---GB/T 2423.2-2008 Environmental testing of electric and electronic products Part 2.Test method Test B. High temperature

(IEC 60068-2-2.2007, IDT)

---GB/T 2423.3-2016 Environmental Test Part 2.Test Method Test Cab. Constant Humidity Test (IEC 60068-2-78.

2012, IDT)

---GB/T 2423.5-2019 Environmental Test Part 2.Test Method Test Ea and Guideline. Impact (IEC 60068-2-27.

2008, IDT)

---GB/T 2423.7-2018 Environmental test Part 2.Test method Test Ec. Impact caused by rough operation (main

For equipment type samples) (IEC 60068-2-31.2008, IDT)

---GB/T 2423.10-2019 Environmental Test Part 2.Test Method Test Fc. Vibration (Sine) (IEC 60068-2-6.2007,

IDT)

---GB/T 2423.18-2012 environmental test part 2.test method test Kb. salt spray, alternating (sodium chloride solution)

(IEC 60068-2-52.1996, IDT)

---GB/T 2423.22-2012 Environmental Test Part 2.Test Method Test N. Temperature Change (IEC 60068-2-14.

2009, IDT)

---GB/T 2423.48-2018 Environmental Test Part 2. Test Method Test Ff. Vibration Time History and Sinusoidal Beat

Frequency method (IEC 60068-2-57.2013, IDT)

---GB/T 4208-2017 Enclosure protection class (IP code) (IEC 60529.2013, IDT)

---GB 4793.1-2007 Safety requirements for electrical equipment for measurement, control and laboratory use Part 1. General requirements

(IEC 61010-1.2001, IDT)

---GB/T 4798.1-2019 Environmental condition classification, environmental parameter group classification and its severity classification Part 1. Storage

(IEC 60721-3-1.2018, IDT)

---GB/T 4798.2-2008 Environmental conditions for the application of electrical and electronic products Part 2. Transportation (IEC 60721-3-2..1997,

MOD)

---GB/T 4798.3-2007 Environmental conditions for the application of electrical and electronic products Part 3. Stationary use in places with climate protection

(IEC 60721-3-3.2002, MOD)

---GB/T 17214.1-1998 Working conditions of industrial process measurement and control equipment Part 1. Climatic conditions (IEC 60654-1.

1993, IDT)

---GB/T 17626.7-2017 Electromagnetic compatibility test and measurement technology Power supply system and the measurement of harmonics and inter-harmonics of connected equipment

Guidelines for Quantity and Measuring Instruments (IEC 61000-4-7.2009, IDT)

---GB/T 17626.15-2011 electromagnetic compatibility test and measurement technology scintillator function and design specification (IEC 61000-4-15.

2003, IDT)

---GB/T 17626.30-2012 Electromagnetic compatibility test and measurement technology Power quality measurement method (IEC 61000-4-30.

2008, IDT)

---GB /Z 17799.6-2017 EMC General Standards Immunity in the environment of power plants and substations

(IEC /T S61000-6-5.2001, NEQ)