

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

JJF 1087-2002

**Control of Measurement Processes for Heavy Direct Current
(English Translation)**

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7 Measurement confirmation of DC high current measuring equipment (7)

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DC high current measurement process control the accurate measurement of DC large current plays an important role in the production management of electrochemical and electrometallurgical industries. At ISO , in the IEC and China standards, there is no corresponding technical standard and measurement technology for DC high current measuring equipment.

specification. Since there is no uniform standard, the DC current in the electro-chemical and electro-metallurgical industry cannot be accurately and consistently measured.

The economic indicators related to DC power consumption are not comparable, and the technical conditions of electrolytic production processes cannot be optimized, thus reducing

electricity.

The utilization rate and economic benefits seriously restrict the progress of production management technology.

Due to DC high current measuring equipment (including measurement standards and current measuring devices) only under laboratory conditions Calibration does not guarantee that the measurement results under field conditions are consistent with the results measured in the laboratory. for Solve the problem that the field DC large current value is not comparable with the laboratory value, according to GB/T 19022.2-

2000 Quality assurance requirements for measuring equipment - Part 2. Guide to measurement process control (idt ISO 10012-2:1997) the measurement process concept, that is, the measurement as a complete process, from the scientific basis of the measurement and measurement the traceability of the quasi-quantity and the start of calibration, as well as the determination of the maximum allowable error of the current measuring device, the measurement confirmation, verification or adjustment, the objective data is presented, and the measurement standard and the measurement given by the current measuring device are finally confirmed.

The results meet the expected usage requirements, and at the same time confirm the DC high current magnitude to the laboratory DC the flow ratio reference standard is traceable, and the magnitude of the current is comparable under different conditions. DC high current measurement the process validation and process control are standardized and managed, so that the measurement quality of the current can be effectively controlled.

1 Scope

This specification is applicable to the measurement of DC high current measurement systems of the order of 1kA to 300kA in the electrochemical and electrometallurgical industries.

Quantity process control.

DC high current measuring device supply and demand sides can refer to this specification for product quality requirements when signing an agreement.

2 Citations

GB/T 19022.1-1994 "Quality assurance requirements for measuring equipment" Part 1 "Measurement of measuring equipment" Recognition system GB/T 19022.2-2000 "Quality Assurance Requirements for Measuring Equipment" Part 2 "Guidelines for Measurement Process Control" JJF 1047-1994 "Magnetic Coupling DC Current Measurement Converter Calibration Specification" JJF 1059-1999 "Measurement and Expression of Measurement Uncertainty" JJF 1001-1998 General Terms and Definitions ISO 8258:1991 "Hugh Hart Control Chart" (English version) GB/T 19000-2000 "Quality Management System" GB/T

18293-2001 "Online measurement of operating efficiency of power rectifier equipment" 3 terms

3.1 Measurement process control control of measurement processes