

ICS 17.220.20

CCS N 22



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

GB/T 17215.941-2012

**Electricity metering equipment -- Dependability -- Part 41:
Reliability prediction**

电测量设备 可信性 第41部分：可靠性预测

(English Translation)

Issued on: December 31, 2012

Implemented on: June 1, 2013

Issued by: Standardization Administration of China

Table of Contents

Preface
Introduction
1 Scope
2 Normative references
3 Terms and definitions
4 General Information
5 5 Reliability Analysis Method

Foreword

GB/T 17215 series of standards is made up of several parts of the GB/T 17215 "electronic measuring equipment credibility" to be covered by the following Components.

--- Part 11. General concepts (IEC/TR62059-11);

--- Part 21. Field data collection instruments credibility (IEC/TR62059-21);

The first part --- 31-1. temperature and humidity accelerated reliability test (IEC 62059-31-1);

--- Part 32-1. accelerated endurance test (IEC 62059-32-1);

--- Part 41. Reliability prediction (IEC 62059-41);

--- Part 51. Software dependability (IEC 62059-51).

This part is Part 41 GB/T 17215 in.

Rules in this section in accordance with GB/T 1.1-2009 given draft.

This section uses the translation method is equivalent to using IEC/TR62059-41:2006 "credibility electrical measuring equipment Part 41. Reliability Pre Test "(in English).

For ease of use, this section made the following editorial changes.

a) instead of as a decimal by decimal comma "., ". ";;

b) "IEC 62059 this section," the word changed to "this part of GB/T 17215 of";

c) Remove the IEC/TR62059-41:2006 Foreword.

Please note that some of the content of this document may involve patent issuing authority of this document does not assume responsibility for the identification of these patents.

This part is proposed by China Machinery Industry Federation.

This part of the National Electrical Instrument Standardization Technical Committee (SAC/TC104) centralized.

This section is drafted. Harbin Electrical Instrument Research Institute, Chongqing Electric Power Test & Research Institute, North China Electric Power Research Institute, Jiangsu Province Institute of Metrology, Shanghai EF Electronics Technology Co., Ltd., Shenzhen Clou Electronics Technology Co., Ltd. Holley Metering Unit Parts Limited, Hangzhou PAX Electronic Technology Co., Ltd., Xi'an flags Electronics Co., Ltd. Wei Sheng Group Co., Ltd., Chint Instrument has Limited liability company, Ningbo Sanxing Electric Co., Ltd., Jiangsu Caio million Hong Electronics Co., Ltd., Heilongjiang Province electrical instrumentation engineering technology Art Research Center Co., Ltd., Shenzhen Aerospace Electronics Co., Terry, Czech Republic.

Introduction

This section contains GB/T 17215 series of standards related to electrical measuring devices credibility part of the problem. Its main purpose is to provide a About a reliability analysis and prediction methods overview, select and standardize the measuring device is used to calculate the predicted failure rate of component count.

When the failure rate of the basic parameters of the forecast to know if the behavior of the instrument also know that the maintenance operator, the metering function metering end users Availability of energy can determine it.

GB/T 17215.941-2012/IEC 62059-41:2006 Electrical measuring equipment credibility Part 41. Reliability prediction

1 Scope

This section GB/T 17215 requirements regarding reliability analysis and prediction methods applicable to electricity used in the IEC/TC13 range all types of measurement and load control static electricity measuring device.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated edition applies to this article Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 2900.13-2008 Electrotechnical terminology credibility and quality of service (IEC 60050 (191).1990, Amend.1.1999 AndAmend.2.2002, IDT) GB/T 17215.911-2011 credibility electrical measuring equipment - Part 11. General concepts (IEC/TR62059-11:2002, IDT) GB/T 17215.921-2012 Part 21 credibility electrical measuring

equipment. the credibility of the data collection field instrument (IEC 62059-21:2002, IDT)
IEC 61709:1996 reference conditions Electronic Component reliability failure rate and
stress models (Electronic
components-Reliability-Referenceconditionsforfailureratesandstressmodelsforconversion)

3 Terms and Definitions

The following terms and definitions apply to this section.

For ease of use, the following list is repeated in GB/T 2900.13-2008 some terms and definitions.

Note: This is only a list of GB/T 17215.911 but not included with this topic-related terms.

Accelerated test to shorten the observation period required for product stress response to stress response or enlarge the given time period, is applied over the reference conditions specified in the the stress level of a test.

NOTE: For the validity of the results of accelerated tests do not change the basic failure modes and failure mechanisms, or primary and secondary relative relationship between them.

[IEV-191-14-07]

Management delay (for calibration service) administrativedelay (forcorrectivemaintenance)
Because of management without the implementation of the cumulative time correction
service behavior of a defective product.

[IEV-191-08-09]

Aging failure, loss failure ageingfailure, wearoutfailure the probability of failure increases
with time, it is the result of processes inherent in the product.

[IEV-191-04-09]

GB/T 17215.941-2012/IEC 62059-41:2006