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

GB/T 25839-2010

**Low-voltage reactive power dynamic compensation equipment
with zero transition**

零过渡过程低压动态无功功率补偿装置

(English Translation)

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Foreword

The standard proposed by China Electrical Equipment Industrial Association.

This standard by the National Standardization Technical Committee on Electronic electrodynamic (SAC/TC60) centralized.

This standard was drafted. Power Technology Co., Ltd. Wuhan States would like.

Introduction

At the time of the issuing authority drew attention to a statement of compliance with this standard may involve invention specifically 5.4.1.2 and 5.7.2.6a) employed Lee "Zero transition triggering two three capacitor switching control method and apparatus. ZL97109354.7" use.

The standard release mechanism for the patent authenticity, validity and scope without any position.

The patent holder has the issuing authority to ensure this standard, willing to work with any applicant under reasonable and non-discriminatory terms and conditions on Patent licensing negotiations. The patent holder's statement has been filed in the present standard of the issuing authority. Information is available through the following link Ways.

Patent holder. Wuhan States would like to electricity Technology Co., Ltd.

Address. Industrial Park, East Lake Development Zone Kanto Please note that in addition to the above patents, certain aspects of this standard may still involve patents. The

standard release mechanism does not undertake to identify these special Lee responsibility.

Zero transition process and low voltage dynamic reactive power compensation device

1 Scope

This standard specifies the zero transition process and low voltage dynamic reactive power compensation device (hereinafter referred to as the device) terms and definitions, classifications and models, Technical requirements, test methods, inspection rules and signs, packaging, transport and storage and so on.

This standard is applicable to the exchange rated voltage not exceeding 1000V, rated frequency of 50Hz, using semiconductor switching devices and the transition through zero Process control mode switching dynamic reactive power compensation device capacitors connected in parallel. Rated frequency of 60Hz and 1140V devices and mine to Under reference means may be used.

This standard does not apply to the use of mechanical switches electrical switching shunt capacitor reactive power compensation device.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 191 Packaging - Pictorial signs (GB/T 191-2008, ISO 780:1997, MOD) GB/T 3859.2 Semiconductor converters - Application guide (GB/T 3859.2-1993, eqv IEC 60146-1-2:1991) GB/T 4025 people - the basic safety rules and coding rules machine interface, marking and identification indicator and manipulator (GB/T 4025-2003, IEC 60073:1996, IDT) GB 4208 housing protection (IP Code) (GB 4208-2008, IEC 60529:2001, IDT) GB 7251.1-2005 Low-voltage switchgear and control equipment Part 1. Type - tested and partially type-tested assemblies provided Equipment (IEC 60439-1:1999, IDT) GB 7947 basic safety rules and lead human interface flag logo colors or digital ID (GB 7947-2006, IEC 60446:1999, IDT) GB/T 10233-2005 basic test method for low-voltage switchgear and electronic control equipment GB/T 14549 Power quality utility grid harmonic GB/T 15576-2008 low voltage reactive power compensation device JB/T 10695-2007 low voltage dynamic reactive power compensation device

3 Terms and Definitions

The following terms and definitions apply to this standard.

Zero transition process conditions condition of zero transition when the capacitor bank, a capacitor bank for grid connection point where the non-periodic component of the dynamic current and voltage near zero conditions.

Zero transition process and low voltage dynamic reactive power compensation devices low-voltage reactive power dynamic compensation equipment with zero transition

Microprocessor control unit to the semiconductor switching device based actuator, one or more capacitors code combinations, by Grid voltage, current, and capacitor bank operating conditions in real-time detection and correlation calculation, the system determined by the demand for reactive power compensation Series capacitor switching, zero conditions trigger the transition process of the semiconductor switching device to dynamically control the capacitor switching the required hardware and software Member system configuration.