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

GB/T 12669-2012

Replacing GB 12669-1990

**General specification for cascade speed control assembly with
semiconductor converter**

半导体变流串级调速装置总技术条件

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Foreword

Rules of the criteria based on GB/T 1.1-2009 given draft. This standard replaces GB/T 12669-1990 "semiconductor converter cascade speed regulation system overall technical conditions." This standard and GB/T 12669-1990 compared to the main technical changes are as follows:

- Increase in the scope of a chapter, "within the mixed-fed pole brushless AC motor, mixed pole brushless doubly-fed AC motor" (see Chapter 1);
- Added "chopper", "inverter subversion" Definition of Terms (see
- Increase the "adaptation of the motor rated power, rated voltage" content (see 4.1.1 - 4.1.2);
- Increase "technical features chopper unit" content (see 4.3.7);
- Increased "over-temperature protection, lack of protection, the protection of the inverter subversive" content (see 4.3.9);
- The "interference and immunity test" to "EMC test" (see 4.3.13,1990 Version 4.3.16);
- Increased "should have the means of input and output signals" and "device configuration and dimensions" content (see 4.3.16 - 4.3.17);

--- Increased "over-temperature protection test", "lack of protection test", "inverter protection test subversive" content (see 5.3.10.5 ~ 5.3.10.7);

--- Increasing the "EMC test" content (see 5.3.12);

--- Under the "high and low temperature cycle test", "high-temperature storage test", "vibration test", "drop test" into the "environmental testing" Project (See 5.3.15). The standard proposed by China Electrical Equipment Industrial Association. This standard by the National Standardization Technical Committee on Electronic electrodynamic (SAC/TC60) centralized. Drafting of this standard. Guangdong China to take the Oriental Energy Co., Ltd. Tianjin Electric Drive Design Institute. The main drafters. Zhang Miao, Donggui Min, Su Yonghua, Juan. This standard replaces the standards previously issued as follows:

--- GB/T 12669-1990. Semiconductor converter cascade speed regulation system overall technical condition

1 Scope

GB/T 12669-2012 is the Chinese national standard on general specification for cascade speed control assembly with semiconductor converter, in the field of electrical engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 29 June 2012 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 November 2012. Classification: ICS 29.160.30, CCS K62. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the terms and definitions semiconductor converter cascade control devices, technical requirements, testing, marking, packaging, transportation and storage. This standard applies to the use of semiconductor power converter to adjust the AC wound rotor induction motor, the feed mix within brushless AC motors and pole Mixed-pole brushless doubly-fed AC motor speed cascade control unit (hereinafter referred to as the 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 2900.1-2008 Electrotechnical Basic terminology

GB/T 2900.33-2004 Electrotechnical terminology - Power Electronics

GB/T 3047.1 height of 20mm hex panels, rack and cabinets Series of basic dimensions

GB/T 3797-2005 Electric Control Equipment

GB/T 3859.1-1993 semiconductor converters of basic requirements

GB 4208-2008 enclosure protection (IP code)

GB/T 4588.1 metal-free single hole double sided printed specification

GB/T 4588.2 metallized hole single and double sided printed specification

GB/T 17626.2-2006 electromagnetic compatibility test and measurement techniques -
Electrostatic discharge immunity test

GB/T 17626.3-2006 electromagnetic compatibility test and measurement technology
RFEMS test

GB/T 17626.4-2008 Electromagnetic compatibility Testing and measurement techniques -
Electrical fast transient burst immunity test

GB/T 17626.5-2008 electromagnetic compatibility test and measurement technology surge
(impact) immunity test

JB/T9664-1999 solderless electrical control equipment - General requirements and test
methods for wound access connection

3 Terms and Definitions

GB/T 2900.1-2008, GB/T 2900.33-2004 defined and the following terms and definitions
apply to this document.

3.1 Semiconductor converter cascade speed regulation system

cascadespeedcontrolassemblywithsemiconductorconverter In wound rotor induction motor
rotor circuit to alter the back EMF generated by the inverter size adjustment speed by
inverter Will slip back into the AC power grid or cascade control devices absorb energy from
the AC grid.

3.2 Low - Synchronous Cascade speeder low-synchronouscascadespeedcontrolassembly

Controlled motor rotor only to the AC grid power output to achieve less than the
synchronous speed running cascade control devices.

3.3 Super-synchronous cascade control means

supersynchronouscascadespeedcontrolassembly Controlled motor rotor can absorb energy
from the AC grid, but also to the AC grid energy output when the rotor absorb energy from
the AC grid