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

GB/T 7329-2008

Replacing GB/T 7329-1998

Coupling devices for power line carrier systems

电力线载波结合设备

(English Translation)

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Foreword

This standard corresponds to International Standard IEC 60481. 1974 "combining power line carrier equipment", with its non-equivalent.

This standard and IEC 60481. 1974 comparison, the main differences are as follows.

- 1) The standard format used in the provisions of GB/T 1.1-2000, therefore, the provisions of the IEC 60481 different number, but contains all of its technical provisions.
- 2) increase the coupling capacitor low voltage terminal stray capacitance, stray conductance major performance impact on the binding device content.
- 3) increase the distortion and intermodulation specific test methods.

The standard characterization of product performance and quality levels fairly and slightly higher than international standards.

This standard replaces GB/T 7329-1998 "combination of power line carrier equipment." this standard and GB/T 7329-1998 the more significant changes.

- 1) increase the "protection requirements for high-frequency channel when" (5.4.6);
- 2) A "test-frequency current-carrying capacity" (6.8b));

Details on standard text and graphs also made some changes to make the standard more realistic and easier to use.

The standard proposed by China Electricity Council.

This standard by the National Standardization Technical Committee on Power System

Management and Information Exchange (SAC/TC82) centralized.

This standard is responsible for drafting the Beijing Power Equipment Plant, Northwest Electric Power Design Institute, Nanjing Automation Research Institute of State Grid, Guangdong Power Grid Corporation Participated in the drafting.

1 Scope

This standard specifies the combination of power line carrier equipment terminology, requirements, test methods, inspection rules, packaging and transportation.

This standard applies to power line carrier combination manufacture and use of the equipment.

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 191-2000, eqv ISO 780:1997) JB/T 6479-1992 Line traps for ac power systems Used series gap metal oxide surge arresters

3 Terms and Definitions

The following terms and definitions apply to this standard.

Together, the cable between the power line and high-frequency carrier signal transmission apparatus and a coupling capacitor.

Binding device includes the following basic elements.

- a) grounding switch. the combination of the primary terminal devices directly and effectively grounded to accommodate repairs and other needs, to ensure that equipment and personal Safety;
- b) arrester. limit transient over-voltage from the power line;
- c) drainage coil. Workers from the coupling capacitor frequency current to ground;
- d) tuning elements (including matching variable device). composition together with the coupling capacitor high pass, band pass filter, or other network, in order to improve the carrier Wave signal transmission efficiency;
- e) the balance is variable. in-phase coupling, the two will combine with a secondary device to transfer to the terminal device composed of two phases combined Replaced with a

combination of a secondary device terminals.

By integrating one or more phases after the wire coupling capacitor coupling with the power lines. Coupling phase, the phase-coupling is the most common coupling the way.

Combined with a coupling device via a coupling capacitor between the power line and a phase conductor achieved (Figure 1).

Combined with a coupling device via a coupling capacitor between the phase conductors of the power line and the other phase conductors to achieve. These two lines may belong to phase on the same circuit power line may or may not belong to the same circuit.

Phase coupling may be by a combination of equipment constituting phase (Fig. 2a)), can also be combined with the device constituted by two (Figure 2b)). general Often using two-phase binding device composed manner. In this way more convenient installation, operation is relatively safe.