INSTRUCTIONS FOR USING

Anti-Harmonic Detuned Reactor

⚠ Be sure to read the manual and follow all safety precautions before using the product.

⚠ This manual should be given to the person who will actually use the product and be responsible for its maintenance.

The **Series BRH3 Reactors** are manufactured in compliance with the **IEC/EN60076-6** standard, ensuring high-quality design and performance for electrical systems. This standard specifically covers the requirements for reactors, including their thermal and electrical behavior, safety, and operational reliability in various applications.

1. Introduction

Reactors are devices used in combination with capacitors to protect capacitors, switching devices, and compensation relays. This combination enhances the electrical quality of the system. Reactors play a particularly crucial role when the system's voltage or current is distorted.

2. Technical Information

Basic Characteristics:

- The inductance ratio of the reactor must be selected based on the advice of specialists or measurements taken with specialized equipment to avoid LC circuit resonance.
- Capacitors used with the reactor must match the specifications indicated on the reactor's nameplate to avoid overloading or incorrect inductance ratios.
- The inductance is accurate only when paired with capacitors of the same rated power and voltage.
- Reactors are installed indoors.
- Materials: Aluminum coil, iron core, and terminals compatible with copper lugs.

3. Installation

3.1 Preparation

- Inspect the reactor's appearance and structure before installation.
- Prepare tools: electrical isolators and necessary equipment.
- Determine the installation location: ensure good ventilation and avoid damp conditions.
- Reactors generate significant heat, so they should be installed above the capacitor, which should be positioned lower.

3.2 Installation Process

- Install a sturdy support frame that meets safety standards.
- Connect the terminals securely to the wiring system.
- The reactor's input terminals can be installed either at the top or the bottom, depending on what is more convenient.
- Connecting the reactor’s thermal sensor terminals (s1, s2) in series with the contactor coil is essential to prevent damage or fire hazards.

4. Operation

- Operate the system within the allowed voltage and reactor capacity range.
- Monitor the temperature to detect abnormal conditions.
- The maximum operating temperature of the reactor is 120°C.
- The thermal sensor will open at 130°C and close again when the temperature drops to 90°C.

5. Maintenance

- Inspect connections and enclosures.
- Clean external dust and debris.
- Measure current and temperature to identify abnormalities and prevent LC circuit resonance.

6. Safety Warnings

- Strictly adhere to electrical safety procedures.
- Avoid improper installation or operation.
- Disconnect power and discharge the capacitors before performing maintenance.

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