

250 Series DIN Rail and Wall Mounted - Synchro - Check (Paralleling)

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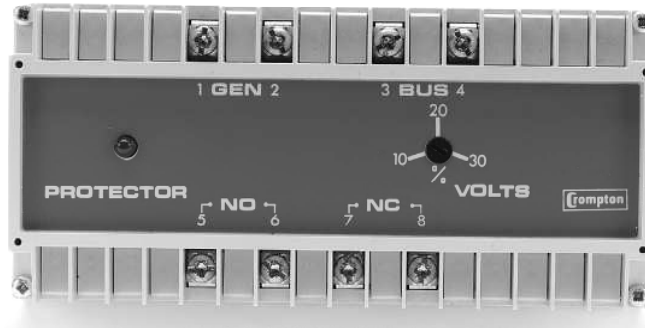
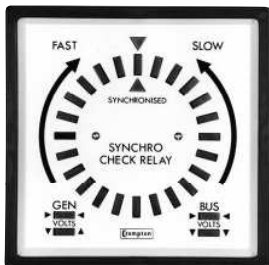
Protection ensures

- » Frequency matching
- » Voltage matching
- » Phase angle matching

Application

- » Co-generation
- » Generator sets
- » Gen-Bus synchronising
- » Bus-Bus synchronising
- » Assists in manual synchronising
- » Monitors auto synchronising systems

We also manufacture front of panel mounting electro-mechanical or electronic synchrosopes, and synchro check relays



The Crompton Synchro check relay can be used to assist in the semi-automatic paralleling of two ac power systems.

The volt-free relay contacts change state when the voltage level, phase relationship and frequency are within the selected synchronising limits.

Introduction

As part of a manual control system, the operator will make adjustments the Voltage (excitation) and frequency (engine speed) using a synchroscope or lamps, and will then attempt to manually close the breaker. This synch check protector will qualify that the two systems are closely matched before permitting the breaker to close.

ensure the two systems are suitably matched before the breaker can close.

Connecting two electrical systems that are not closely matched can cause expensive damage and disturbance to the electrical system. Using this relay will ensure that damage will not occur.

As part of an automatic synchronising arrangement, this relay can be used as an independent backup or checking device to

Product Function - 256-PLL

The relay continuously monitors the Voltage, phase displacement and frequency of two supplies. A single setpoint adjustment permits selection of suitable matching, and a red LED illuminates when the relay is energized, indicating that the two supplies are well matched - OK to close the breaker.

The relay contacts can be used in the main breaker circuit to disable a close command until both gensets are within acceptable limits.

Operating power is taken from the generator supply.

Additional Feature - 256-PLD

This version operates as explained above, but includes a dead bus detection function.

generator can be connected without synchronizing, to ensure continuity of supply. The absence of bus voltage will cause the relay to energize.

If there is a requirement for a continuous supply or emergency power, then the



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Specification

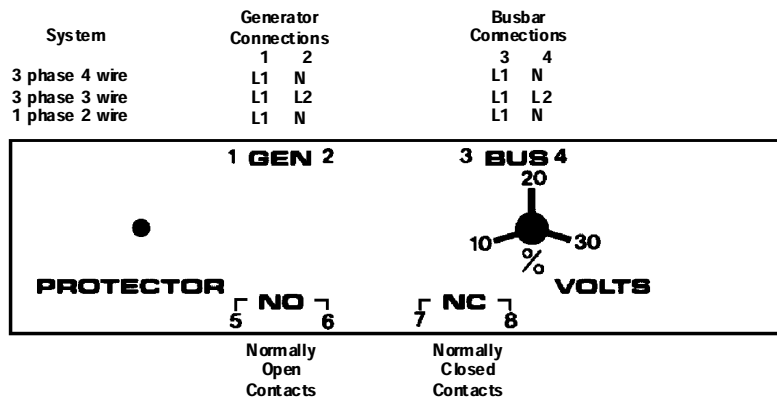
| | | | |
|---------------------------|---|--------------------------------|--|
| Approvals: | U.L. recognized up to 300V. | Setpoint Synchronising: | |
| Nominal Voltage: | 100, 110, 120, 208, 220, 230, 240, 277, 380, 400, 415, 440 & 480V | Set point: | 10% to 30% of the nominal voltage |
| Voltage tolerance: | -25% to +30% of the nominal voltage | Adjustment: | (6° to 20° electrical) |
| Frequency: | 45 or 50 or 55 or 60 or 65Hz | Weight: | Approximately 0.85kg |
| Burden maximum: | Bus 2VA, Generator 4VA | Output Relay: | |
| | | Relay contacts: | 1 pair NO*, 1 pair NC* |
| | | | *2 pair NO and 2 pair NC available on request. |

Product Code Examples

| Relay | Input | Protection | ANSI No. | Catalogue No. |
|-------------------------|------------|-----------------------|----------|---------------------------|
| Single Phase or 3 Phase | 120V, 60Hz | Phase Angle & Voltage | 25 | Live bus 256-PLLU-PQBX-C6 |
| 3 or 4 Wire | 120V, 60Hz | | 25 | Dead Bus 256-PLDU-PQBX-C6 |

Connection Diagrams

256-PLL
 256-PLD



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