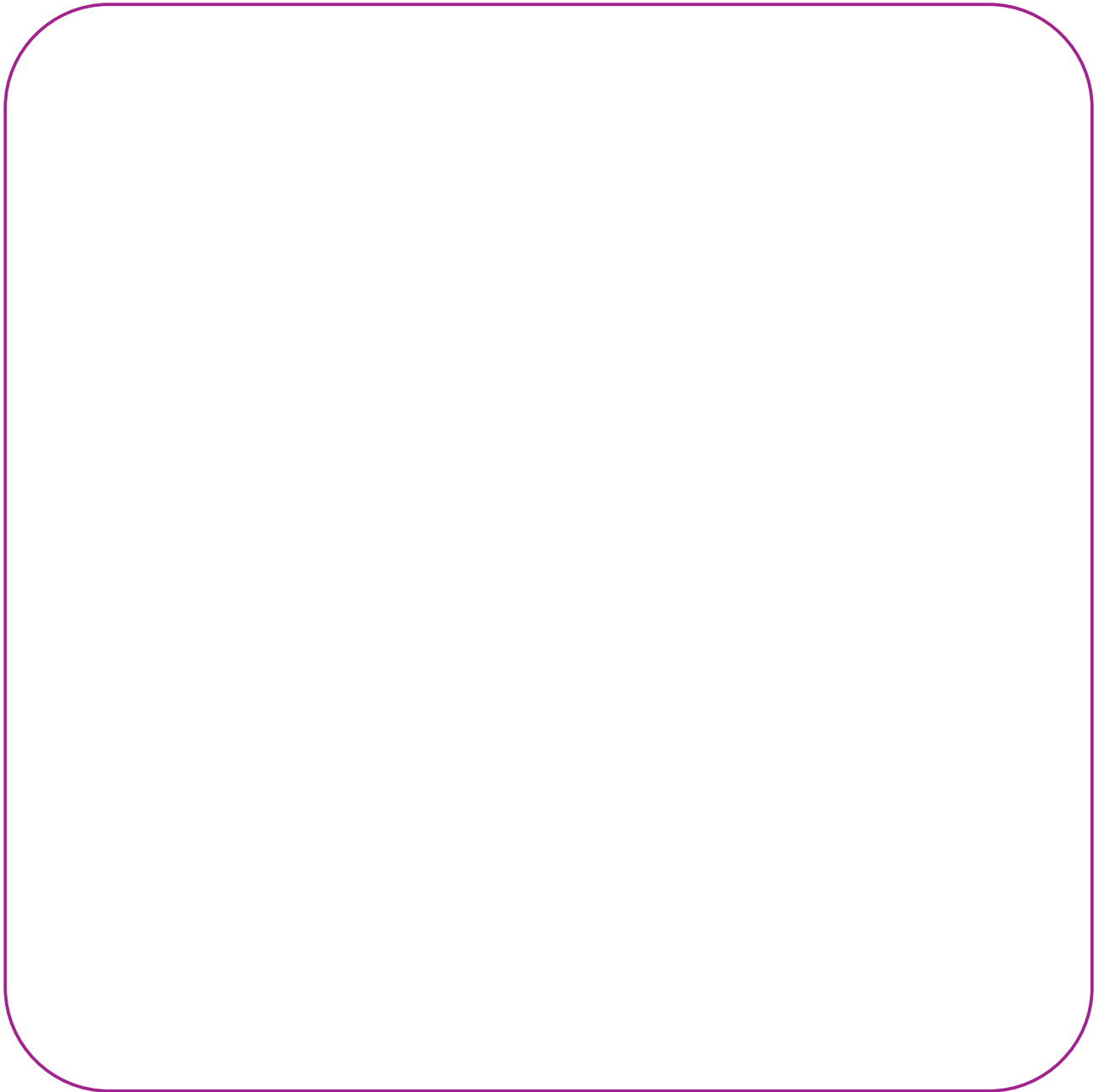


RISH *Lay*

The Protector Trip Relay Series

Data Sheet

Synchro - Check Relay (Paralleling)



Measure



Control



Record


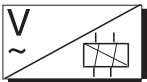


Analyze



Optimize

Models available

	
Function / System	Product Type
1 generator, 1 bus or 2 generator systems 1 generator with 'Dead Bus' Facility	256-PLL 256-PLD

Applications

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

Features

- LED trip indication
- Two pole relay contacts (optional)
- Adjustable synchronizing set points
- Live and Dead bus versions

Introduction

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

The Rishabh Paralleling protector provides manual / automatic switching of generator to busbar without damage or disturbance to the system.

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

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.

Specifications

Nominal Voltage	: 100, 110, 120, 220, 230, 240, 380, 400, 415 & 440V
Overload	: -25% to +30% of the nominal voltage
Frequency	: 45, 50, 55, 60, 65 Hz
Burden maximum	: Bus 2 VA, Generator 4 VA
Setpoint repeatability	: >0.5% of full span
Differential (hysteresis)	: Pre-set at 1% (1 to 10% available on request.)
Set point	: 10% to 30% of the nominal voltage
Adjustment	: (6° to 20° electrical)
Output Relay	
Contacts	: 1 pair NO*, 1 pair NC* [2 pair NO, 2 pair NC available on request]

Rating A.C.	: 240 V, 5A non-inductive
D.C.	: 24V 5A resistive
Operations	: 0.2 million at the above loads
Reset	: Automatic

Other Specifications

Operating temperature	: 0° C to +60° C
Storage temperature	: -20° C to +70° C
Temp. co-efficient	: 0.05% per °C
Interference immunity	: Electrical stress surge withstand and non function to ANSI/IEEE C37 90a
Enclosure style	: DIN-rail with wall mounting facility
Material	: Flame retardant polycarbonate /ABS
Enclosure integrity	: IP 50
Model 256 dimensions	: 150mm(5.9")wide x 70mm(2.8")H x 112mm (4.4") deep
Weight:	: Approximately 1.0 kg

Principle of operation

MODEL 256 - PLL

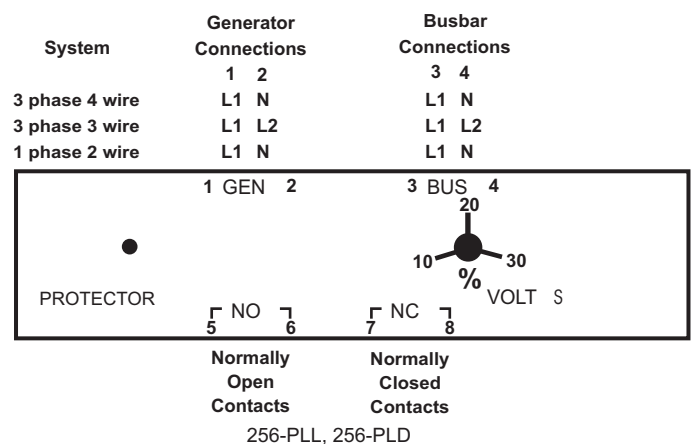
The relay continuously monitors the voltage, phase displacement and frequency of two supplies. A single set point adjustment permits selection of suitable matching and a red LED illuminates when the relay is energised, indicating that the two supplies are well matched and it is safe to close the breaker.

MODEL 256 - PLD

This version operates in the same way as model 256-PLL but includes an additional dead bus detection function. If there is a requirement for a continuous supply or emergency power, then the generator can be connected without synchronising, thus ensuring continuity of supply. The absence of bus voltage will cause the relay to energise.

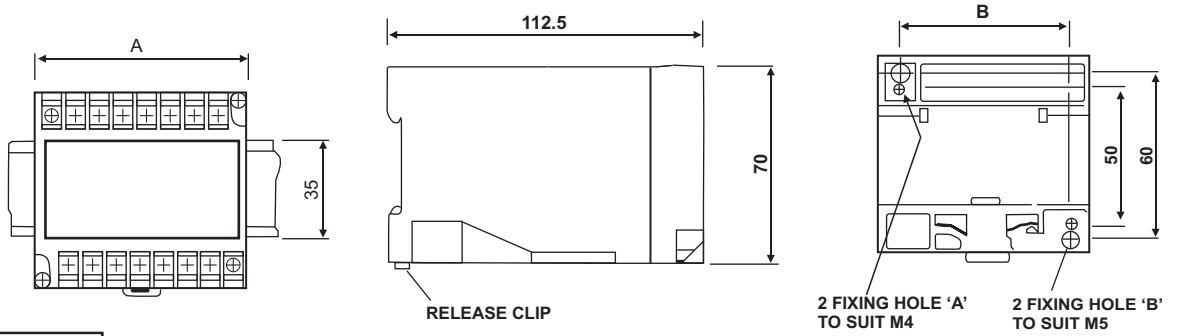
The relay provides one pair of normally open and one pair of normally closed contacts. An LED indicates relay energised state. The synchronising set point limits are user adjustable.

Connection diagram



Dimensions

Model 256



Model	A	B
256	150	135

Ordering Information

Please quote :

1. Product Type.
2. Please specify standard or non standard trip. An energised relay is indicated by a "Lit" red LED. Setpoint can be factory adjusted to your requirements.
3. System Voltage and/or Current where applicable.
4. System Frequency.
5. Preset Differential where required.



Measure



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