



#### Models Available

**B866/3W** 3 Phase 3 Wire

**B866/4W** 3 Phase 4 Wire

**A866PSI/3W** 3 Phase 3 Wire with Phase Sequence Indication

**A866PSI/4W** 3 Phase 4 Wire with Phase Sequence Indication

#### Product Features

- Protects against:-
  - Loss of phase
  - Incorrect phase sequence (rotation)
  - Phase reversal
  - Symmetrical/asymmetrical under voltage
- LED indication
- Single or double pole output available
- Optional built-in time delay

For dimensions see page 3

## Phase Protection (Phase Failure)

Phase protection relays continuously monitor a three phase AC power supply, tripping upon fault condition. These relays protect against total loss of a phase (phase failure), incorrect phase sequence (rotation), symmetrical under voltage and asymmetrical under voltage. The A866PSI model also offers phase sequence and fault indication.

The internal relay remains energised and the LED illuminates only when the power supply is satisfactory for connection to the three phase equipment. The under voltage trip point on all three phases is fixed at 85% of the nominal voltage, although an alternative trip point may be possible upon request. The relays are self powered, requiring no auxiliary power supply and are available with either a single or double pole changeover relay output and optional built-in time delay.

## For protection against phase failure, incorrect sequence and under voltage

#### Specification

##### Nominal Voltage, $U_n$ :

- 110, 230VL-N
- 380, 400, 415VL-L
- 60-500V upon request

##### Frequency:

- 50/60Hz (400Hz upon request)

##### Overload:

- $1.5 \times U_n$  continuous
- $2 \times U_n$  for 5 seconds

##### Burden:

- B866/3W & B866/4W  $< 2VA$
- A866PSI/3W & A866PSI/4W  $< 4VA$

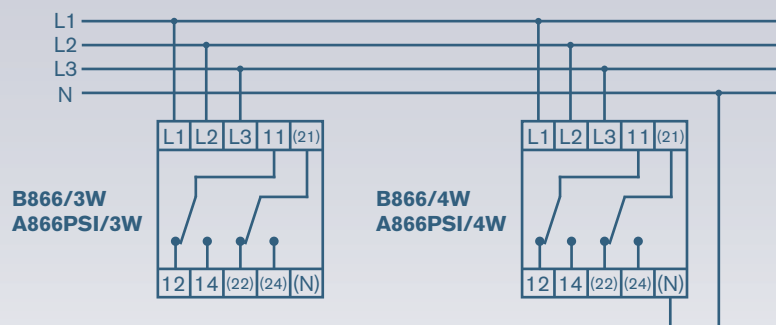
##### Operating Time:

- 100ms typically
- Built-in time delay (optional)

##### Weight:

- B866/3W & B866/4W 275g
- A866PSI/3W & A866PSI/4W 300g

#### Connections



#### Ordering information

Code	Relay Type	Nominal Voltage	Output
B866/3W	3 Phase 3 Wire	-	-
B866/4W	3 Phase 4 Wire	-	-
A866PSI/3W	3 Phase 3 Wire with Indication	-	-
A866PSI/4W	3 Phase 4 Wire with Indication	-	-
Specify	-	110, 230VL-N, 380, 400, 415VL-L	-
Specify	-	60 to 500V L-N/L-L	-
1C/O	-	1 Pole Changeover Relay Output	
2C/O	-	2 Pole Changeover Relay Output	
Time Delay (B866 only)	-	Time Delay on Reset - Specify Time Range	
(Note: order code begins TA866, not B866 when time delay is included)			
<b>Example</b>	<b>B866/3W</b>	<b>415VL-L</b>	<b>2C/O</b>

# General Specification

## Reference Standards

Performance: IEC 144 / BS 5420 / VDE/VDI 0435 / IEC 947 / EN60947

## Environmental

Calibration Temperature: 23°C  
Operating Temperature: 0°C to 60°C  
Storage Temperature: -10°C to 70°C  
Temperature Coefficient: ±0.03%/ °C  
Relative Humidity: 0 - 95% non-condensing

## Relay Output

Relay Type: Single pole change-over  
(Except CST-100 has single pole normally open or normally closed)  
(Double pole change-over available on some models as as option)

Contact Rating: 5A @ 250Vac (non-resistive), 1A @ 125Vdc (resistive)

Contact Life: 1,000,000 at 5A, 10,000,000 at 1A

Mechanical Life: 2,000,000 operations

Dielectric Strength: 4kV coil/contact, 1kV contact/contact

Optional Time Delay: 0.3-10 sec, 1-30 sec, 2-60 sec, 3-100 sec or 10-300 sec (delay on fault or reset)  
(Note if the voltage supply to the protection relay falls below 75% of the nominal the timer will fail to operate and the relay will trip instantaneously upon fault)

## Enclosure

Enclosure: Flame retardant black ABS plastic with screw type terminals

Enclosure Code: Case IP50, terminals IP10 to IEC529 and BS5490

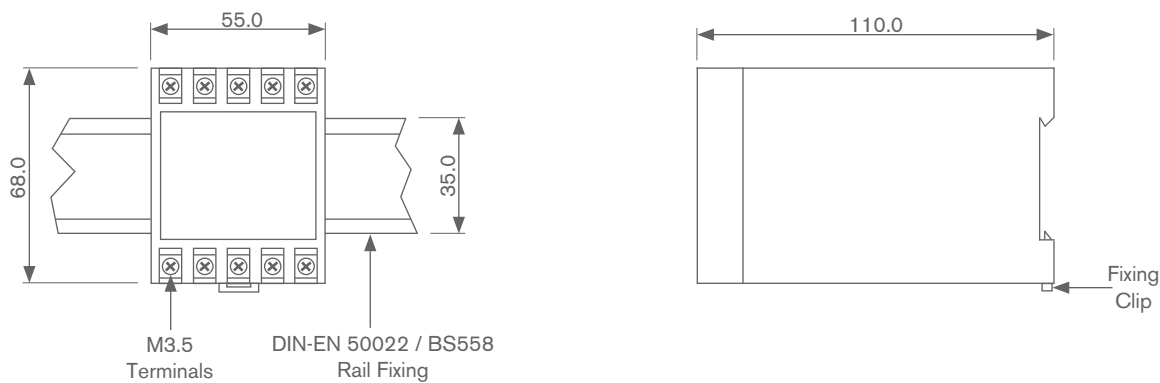
Insulation Test: 2kV rms 50Hz 1min (to IEC 414) between Input / Case / AC Auxiliary

Mounting: 35mm DIN rail (DIN-EN 50022)

Markings: CE marked

Specification subject to change without notice.

## Dimensions



All dimensions in mm