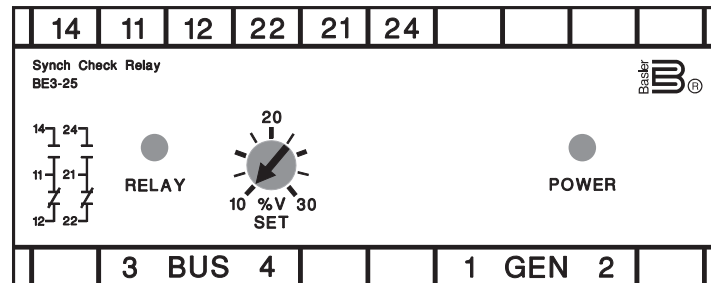


## BE3-25 SYNCHRONIZING CHECK RELAYS

### APPLICATION:

The BE3-25 series are synchronizing check relays, also known as paralleling relays. They are used to ensure that two AC supplies are synchronized. For a system to be synchronized, the frequency, phase angle, and voltage must be within preset limits. The BE3-25-\*\*\*\*4 can monitor either utility mains bus bar and incoming generator, or two generators. The BE3-25-\*\*\*\*4 offers user adjustment of the reset voltage from 10 to 30%. This voltage corresponds to 6 to 20 electrical degrees. The unit compares the input voltage and phase relationship of the bus bar to that of the generator. When the signal is within the preset limits, the relay energizes. The BE3-25-\*\*\*\*5 operates as the BE3-25-\*\*\*\*4, but has the additional feature of a dead bus facility. This enables the relay to energize with a generator supply only, which is a common requirement when utility mains failure occurs.

### CASE CONNECTIONS:



### GENERAL SPECIFICATIONS:

#### Input

Nominal voltage: 120V, 240V, 380V, 480V  
 Other nominal voltages: Contact the factory  
 Frequency: 50/60 or 400Hz  
 Burden: Less than 4VA terminals marked GEN, less than 2VA terminals marked BUS  
 Overload: 1.5 times nominal voltage continuous, 10 times nominal voltage for 3 seconds  
 All units self-powered.

#### Setpoint

Range: Adjustable 10% to 30% of generator voltage (6-20 electrical degrees)  
 Differential: Fixed at 5%  
 Repeatability: Better than 0.5% of full span  
 Operating time: 500ms, typical

#### Weight and Case Size

Approx. 1.32 lbs. (0.6kg), 3.94 in. wide (100mm)



## PERFORMANCE SPECIFICATIONS:

### Environmental

Operating temperature: 0°C to +60°C (32°F to 140°F)  
 Functional temperature: -25°C to +70°C (-13°F to 158°F)  
 Storage temperature: -40°C to +70°C (-40°F to 158°F)  
 Temperature coefficient: 0.03% per °C (200ppm/°C)  
 Relative humidity: 95% noncondensing

### Agency Approvals

UL recognized, CSA certified, C.E. compliant

### Insulation

Test voltage: 4kV RMS 50Hz 1min between Input, Case, and Auxiliary  
 Impulse test: EMC 5kV transient, complies with IEC 801, EN 55020  
 HF interference test: EHF 2.5kV 1MHz, complies with IEC 255-4  
 Protection class: II, complies with IEC 348

### Applied Standards

General: IEC 144, BS 5420,  
 VDE/VDI 0435, IEC 947,  
 EN 60947

### Safety:

### Surge withstand:

### RFI:

BS EN 61010, DIN 57411,  
 VDE 0411, ANSI C37  
 IEC 801, EN 55020,  
 ANSI C37-90a  
 RFI degree N, complies with  
 VDE 0875

### Relay Output

Relay type: D.P.D.T.  
 AC Rating: 250V, 5A, nonresistive, 1200VA  
 DC Rating: 125V, 1A, resistive, 120 watts  
 Mechanical Life: 5 million operations

### Enclosure

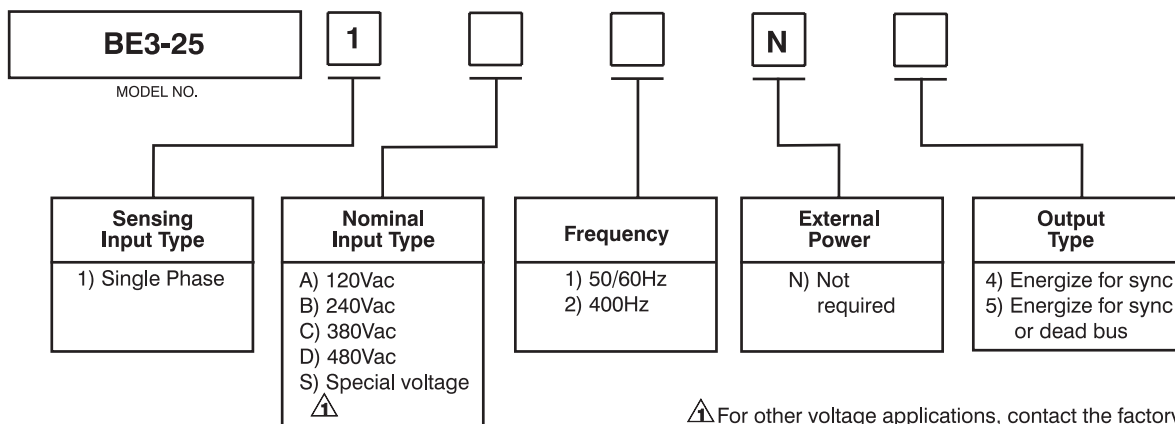
Mounting: Snap onto DIN rail 1.38in. x .29in. (35mmx7.5mm),  
 complies with DIN-EN 50022,  
 BS 5584  
 Any position  
 Enclosure code: Case IP 50, terminals IP 30  
 Material: Complies with UL 94 VO

## HOW TO ORDER:

Designate the Model Number followed by the complete Style Number.

Complete the Style Number by selecting one feature from each column of the Style Identification Chart and entering its designation, letter or number, in the appropriate square. Note: The description of a complete relay must include both Model Number and Style Number.

## STYLE IDENTIFICATION CHART:



⚠ For other voltage applications, contact the factory.

# Basler Electric



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