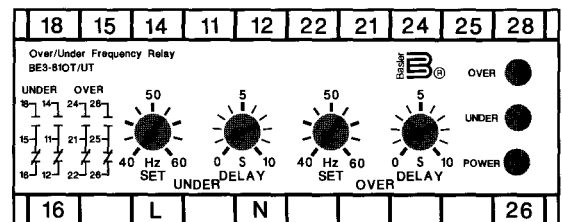
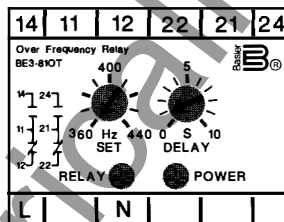
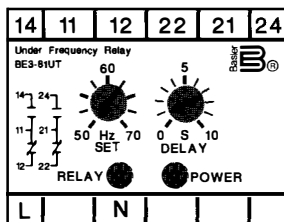


## BE3-81OT, BE3-81UT, BE3-81OT/UT FREQUENCY RELAYS WITH TIME DELAY

### APPLICATION:

BE3 frequency relays monitor the frequency of a system, and if the frequency deviates outside the user-adjustable preset limits, the relay will operate. Typically used in protecting generators against over or under speed, this is achieved as speed is proportional to frequency. Other uses include monitoring utility mains power supplies and computer supplies. The user is provided with adjustment of both the trip point of frequency and the time delay. The time delay is provided to prevent nuisance tripping when there is a slight variation in the frequency supply. The differential is fixed at 1%. All the frequency relays energize when the input signal exceeds the trip point, i.e. relay energizes on trip, unless option of de-energize on trip is requested. A red LED indicates the state of the relay, while a green LED indicates the condition of the power supply. The frequency relay monitors its own power supply so no auxiliary power is necessary.

### CASE CONNECTIONS:



### GENERAL SPECIFICATIONS:

#### Input

Nominal voltage: 120V, 240V, 380V, 480V  
Other nominal voltages: Contact the factory  
Burden: Less than 2.5VA  
Overload: 1.5 times nominal voltage continuous, 2 times nominal voltage for 3 seconds

All units self-powered.

#### Setpoint

Range: 50Hz nominal Adjustable 40 to 60Hz

60Hz nominal Adjustable 50 to 70Hz  
400Hz nominal Adjustable 360 to 440Hz

Differential: Fixed at 1%  
Repeatability: Better than 0.5% of full span  
Time delay: Adjustable 0 to 10 sec  
Operating time: 200 ms, typical

#### Weight and Case Size

Single unit: 0.88 lbs. (0.4kg)  
2.17 in. wide (55mm)  
Combined unit: 1.32 lbs. (0.6kg)  
3.93 in. wide (100mm)

**B Basler Electric**

ROUTE 143, BOX 269 HIGHLAND, ILLINOIS 62249, U.S.A. PHONE 618-654-2341 FAX 618-654-2351

ULM-1  
3-98

## 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:

BE3-81OT, BE3-81UT, BE3-81OT/UT MODEL NO		1			N	
Sensing Input Type	Nominal Input Type	Frequency	External Power	Output Type		
1) Single Phase	A) 120Vac B) 240Vac C) 380Vac D) 480Vac S) Special voltage ⚠	2) 400Hz 3) 50Hz 4) 60Hz	N) Not required	1) Energize to trip (81OT) 2) De-energize to trip (81UT) 3) Energize to trip over, de-energize to trip under (81OT/UT)		

⚠ For other voltage applications, contact the factory.

# Basler Electric



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