

# Class 300 Equipment UF312 AND UF324 UNDERFREQUENCY PROTECTIVE MODULES



TYPICAL UNDERFREQUENCY  
PROTECTIVE MODULE

## FEATURES:

- Accurate trip characteristics with change negligible over operating temperature range.
- Protection of all generating system components.
- Easily installed.
- Low cost.
- Can be added to existing systems.
- Optional circuit breaker mounting.
- Available from stock.

## DESCRIPTION:

The UF312 and UF324 Underfrequency Protective Modules are designed primarily for use with the Basler KR-F Voltage Regulators or with the SRA line of regulators to protect generating systems. The units automatically open a circuit breaker located in the input power line to the regulator SCR's when an underfrequency condition exists, typically during an idling condition of the prime mover.

## PARTICULARS

- **SENSING:** Single Phase.
- **MOUNTING:** Direct mounting with capability for re-locating circuit breaker for thru-panel applications.
- **OPERATING TEMPERATURE RANGE:** -40°F (-40°C) to +140°F (60°C).
- **SHOCK:** Withstands 15 G's in each of three mutually perpendicular axes.
- **VIBRATION:** Withstands .5 G's from 5 to 10 cps, 1.3 G's from 10 to 26 cps, .036 D. A. from 26 to 52 cps, and 5 G's from 52 to 260 cps in each axis of vibration.
- **FINISH:** Dark grey, lusterless, textured, baked enamel.
- **MAXIMUM WEIGHT:** Net 1.5 pounds; Shipping 2 pounds.

## APPLICATION

TABLE 1—UF PROTECTIVE MODULE APPLICATION

Model Number	Generator Freq. (Hz)	Input Volts*	Input Current (Max.)	Contact Rating
UF312	60	120	82.5 ma	30 A @ 250 VAC
UF324	60	240	66.0 ma	30 A @ 250 VAC

\*Also available with 139 and 280 volts input; contact factory.

## HOW TO ORDER:

Specify model number. For example, to order for a 120 volt application, specify: Basler Model UF312 Underfrequency Protective Module. (Refer to Table 1 above).

**B** Basler Electric

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SPV-1  
5-73

Supersedes SPD-1

## SAMPLE SPECIFICATION

A protective unit is required to provide underfrequency protection of generating systems. The unit shall have the capability to automatically open a circuit breaker located in an input line to the regulator SCR's when an underfrequency condition exists.

The module shall have single phase sensing, with an input voltage of 120 volts and an input current of 82.5 milliamperes at 60 Hertz with a relay contact rating of 30 A @ 250 VAC.

The module circuit breaker shall be able to be mounted in back of the panel and through the panel applications.

Environmentally, the unit shall have the capability to withstand up to 15 G's shock in each of three mutually perpendicular axes, and vibration over the frequency range of 5 to 10 cps at .5 G's, 10 to 26 cps at 1.3 G's, 26 to 52 cps at .036 D. A., and 52 to 260 cps at 5 G's.

The module shall also be required to operate over the temperature range from  $-40^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$  without malfunction.

The module shall be the Basler model UF312 Under-frequency Protective Module.

**NOTE:** These drawings are NOT intended for installation purposes. Refer to OPERATION MANUAL received with equipment for proper installation drawings.

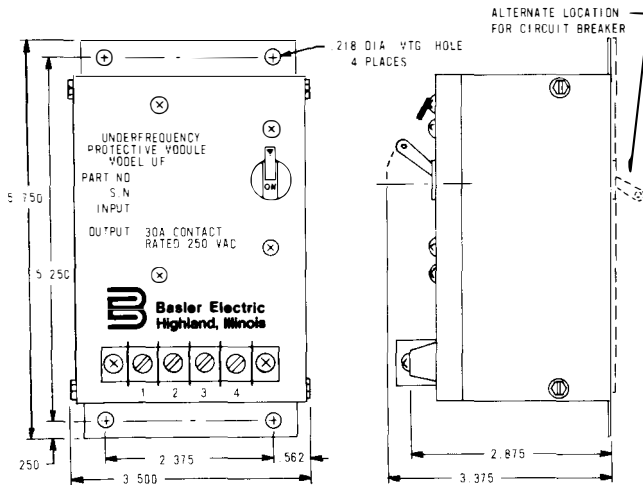


FIGURE 1—OUTLINE DRAWING (UF312/UF324)

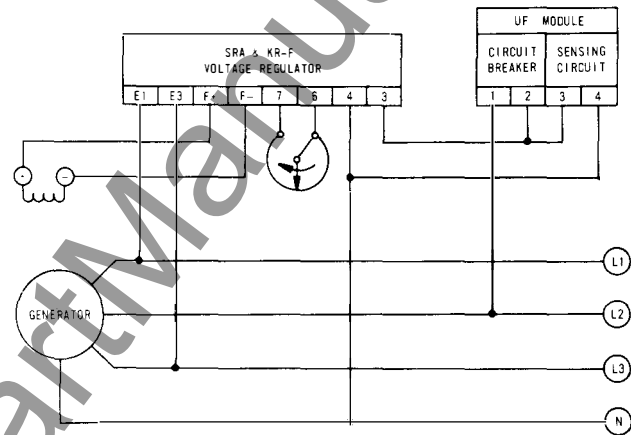


FIGURE 2—INTERCONNECTION DIAGRAM

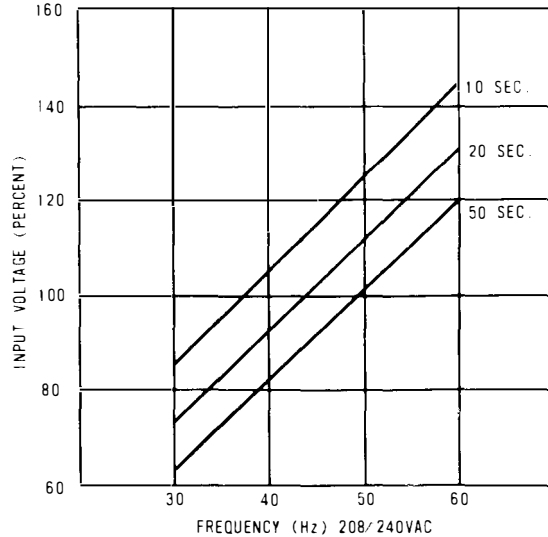
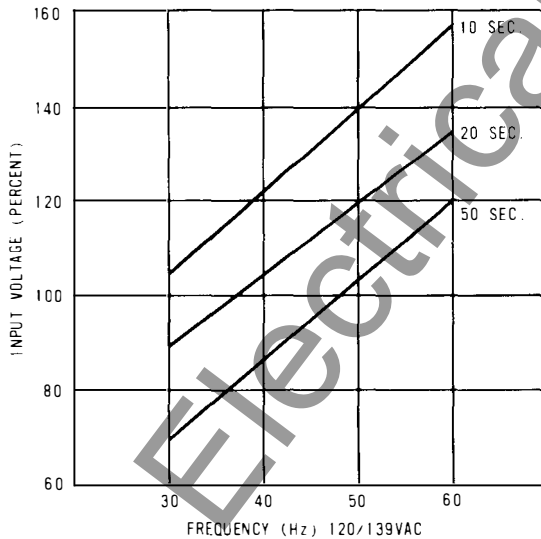


FIGURE 3—TYPICAL TRIP CHARACTERISTICS

**NOTE:** 139 and 208 Volts Input models have similar trip characteristics as models shown above.

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