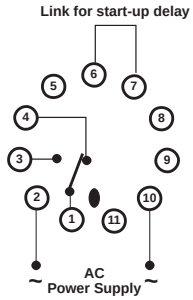
RHOMBERG

Frequency Monitoring Relay

SP 320

WIRING EXAMPLE
(requires optional S3-B base)



SLIMLINE

Application Examples

- Frequency supervision on AC generator sets.
- Over-frequency/under-frequency detection.
- Protection of frequency-sensitive equipment.
- Detection of over frequency on generator sets to prevent overheating.

ORDERING CODE

TYPE		SUPPLY VOLTAGE	AC/DC		RELAY CONTACTS
SP320	/	240	AC	-	S

Note: 50Hz standard (60Hz, 400Hz on special order)

Technical Specification

Power Supply:

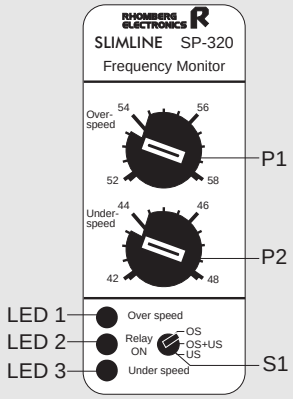
Supply voltage: 12, 24, 110, 240 (ie. 220-240), 380, 400, 415, 525 VAC ±15%

Supply frequency: 50Hz nominal (ie. 42Hz-58Hz)
60Hz & 400Hz versions available on special order.

Response:
Start-up delay: approx. 10 seconds standard (1 to 15 seconds available on special order)
Time delay on trip: 1 second (approx).

Frequency Sensing:
Repetitive accuracy: 1%
Hysteresis: 0.5Hz fixed

Description of Controls



P1: **The Over-frequency** Threshold is adjusted on P1.

P2: **The Under-frequency** Threshold is adjusted on P2.

S1: With the function **Selector Switch** the unit can be programmed to:
- respond to over-frequency only (S1 set to “OS”).
- respond to under-frequency only (S1 set to “US”).
- respond to both over-frequency as well as under-frequency (S1 set to “OS + US”).

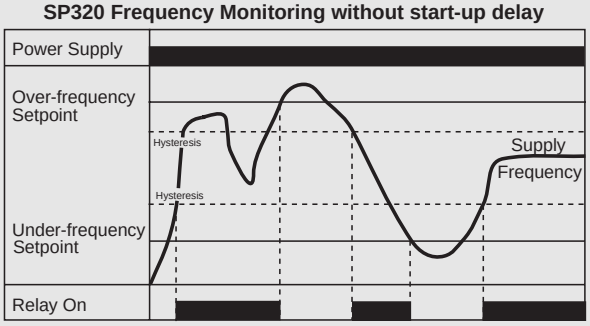
LED 1: The red LED marked **“Over-speed”** illuminates whenever the frequency exceeds the set over-frequency threshold.

LED 2: The green LED marked **“Relay ON”** illuminates when the relay is energised, ie. under normal frequency conditions.

LED 3: The red LED marked **“Under-speed”** illuminates whenever the frequency drops below the set under-frequency threshold.

Operational Diagrams

SP320 Frequency Monitoring without start-up delay



SP320 Frequency Monitoring with start-up delay