The RCF35 is a compact relay for monitoring the frequency variations on 50/60Hz and 400Hz networks. It can detect the over frequency and the under frequency event with the two independents thresholds setting. A LED display with 3 digits shows the network frequency measurement.

Description:
The device monitor all the time its own power voltage, each relay outputs can be used in alarm for over or under frequency event with setting delays and hysteresis. If the "memory" function is activated, a power off is necessary to rearm the device or press simultaneously the two push buttons (under the front face) during 5 seconds.

Front face:
- Measure display (frequency) : 3 digits, 7 segments (1100pts), green LED, 10 mm height.
- over scale detection: <40Hz or >450Hz (display "Lo" or "Hi")
- green LED for relays status
- 2 push buttons (under the front face) for the device configuration.

Relays:
- 2 changeover contacts, free potential, used in alarm, protection, ...
- threshold (over-frequency or under-frequency), hysteresis and delays are configurable with the push buttons for each relay.

Performance / Environment:
- Long-term stability 0.1 %/an.
- operating temperature up to 65 °C
- excellent EMC performance.
- resistant, protected against shock and vibration

Assembly and connection:
- Mounting on DIN rail according to EN 50022
- connection on spring terminals max section : 1 mm²
- galvanic isolation: power / relay
- IP20 protection and conformal coating.
- firmware upgrade is possible.

Version and order code:
- RCF35-1: 115Vac +/- 25% power supply version
- RCF35-2: 230Vac +/- 25% power supply version
- RCF35-3: 400Vac +/- 25% power supply version
### TECHNICAL SPECIFICATIONS

#### INPUT

<table>
<thead>
<tr>
<th>TYPE</th>
<th>RANGE</th>
<th>ACCURACY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>40Hz ... 450Hz</td>
<td>+/- 0.1Hz &lt; 100Hz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+/- 1Hz &gt; 100Hz</td>
</tr>
</tbody>
</table>

#### RELAYS

- Isolated changeover contact: 1500 Vac
- Switching capacity: 5A / 250V
- Repeatability: +/- 0.1Hz

#### POWER SUPPLY

- To be define at order
- 115Vac 50-60Hz +/- 25%
- 230Vac 50-60Hz +/- 25%
- 400Vac 50-60Hz +/- 25%
- Consumption: < 1.5 VA

#### ENVIRONMENT

- Operating temperature: -20 to 65 °C
- Storage temperature: -40 to +85 °C
- Drift (% of full scale): < 0.02 % / °C
- Humidity: 85 % not condensed
- Protection: (according to EN60529) IP 20
- Weight: 150 g.
- Dielectric strength (Supply / Relay): 2500 Veff
- MTBF (MIL HDBK 217F): > 3 000 000 Hrs @ 25°C
- Life time: > 170 000 Hrs @ 30°C

#### Electromagnetic compatibility

- EN 61000-4-2 ESD
- EN 61000-4-8 AC MF
- EN 61000-4-3 RF
- EN 61000-4-9 pulse MF
- EN 61000-4-4 EFT
- EN 61000-4-11 AC dips
- EN 61000-4-5 CWG
- EN 61000-4-12 ring wave
- EN 61000-4-6 RF
- EN 61000-4-29 DC dips

#### Wiring and Dimensions:

![Diagram with relays status LEDs and pivotant cover]