

Frequency control relay (50Hz, 60Hz or 400Hz applications)

RCF35

LOREME

- **Monitor the network frequency variations**

self-powered : 115Vac, 230Vac, 400Vac
self-powered, for 40Hz to 450Hz networks

- **10000 pts Led display**

Resolution 0.1Hz < 100Hz; 1Hz up to 450Hz

- **Front face threshold setting**

with push buttons, pitch 0.1Hz

- **Over and under frequency with 2 outputs relays**

sense and delay configurable,
relay state indicated by LED

- **DIN rail mounting**

2 modules (35mm)

- **Application**

Electric power source monitoring
- Generator, wind turbine, micro station, ...



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 it's 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.

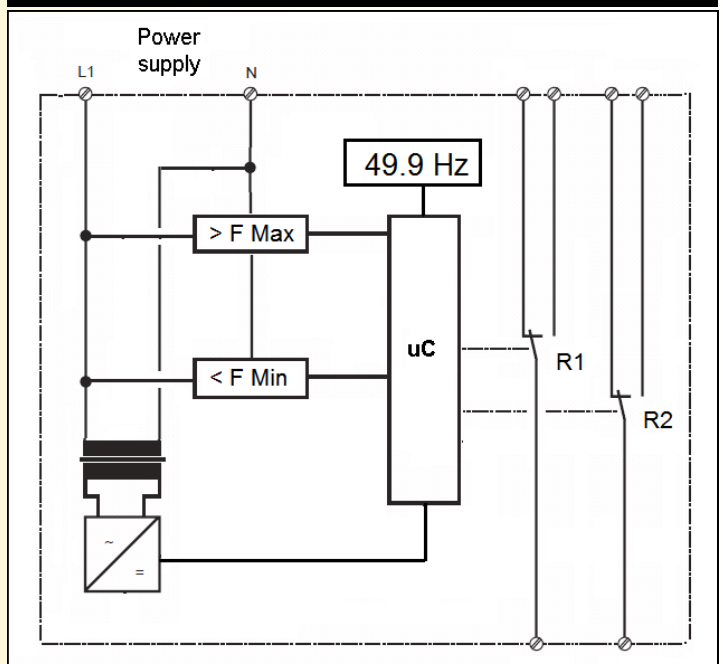
Performance / Environment :

- 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.

Synoptic:



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

INPUT		
TYPE	RANGE	ACCURACY
Frequency	40Hz ... 450Hz	+/- 0.1Hz < 100Hz +/- 1Hz > 100HZ
RELAYS		
Isolated changeover contact		1500 Vac
Switching capacity		5A / 250V
response time		100ms min
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 2004/108/CE / Low Voltage Directive 2006/95/EC		
Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011 group 1 class A
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:

