

Relay for monitoring of the supply frequency

Nominal frequency selectable 50 Hz or 60 Hz

Adjustable bandwidth from 1 to 10 Hz

Selectable reaction delay 0.1 sec. or 1 sec.

1- or 2-pole relay output

Made in accordance with the CE and EMC regulations



C-mac® frequency relay type RF20 is used for monitoring of the supply frequency, $f_{inst.}$ in connection with generator controls.

By means of connections on the relay base you can select between nominal frequency of 50 or 60 Hz and reaction delay 0.1 sec. or 1 sec.

On the built-in potentiometer, the bandwidth is adjustable between ± 0.5 Hz and ± 5 Hz.

If the supply frequency is within the adjusted bandwidth, the relay is activated, and if the frequency is outside the limits, the output relay releases after the selected reaction delay.

Common technical data:

Supply voltage, AC: 24, 115 and 230 VAC $\pm 10\%$

Supply frequency: 40-70 Hz

Isolation voltage: Supply - input - output: 3.75 kV

Power consumption: 2,5 VA

Operation temp.: -20°C to $+60^{\circ}\text{C}$

Humidity: 0 - 90% RH, non-condensing

Adjustments:

Bandwidth: Potentiometer, scale 1 to 10 Hz (± 0.5 Hz til ± 5 Hz)

Indications:

Green LED: Supply voltage connected
Red LED: Relay active

Accuracy:

scale: 5 %
min. bandwidth: ± 0.02 Hz
max. bandwidth: ± 0.04 Hz

Hysteresis: 10% of the adjusted bandwidth.

Nominal frequency: pin 6-7
open: 50 Hz, closed: 60 Hz

Reaction delay: pin 5-7
open: 1 sec., closed: 0.1 sec.

Max. load, relay: 1-pole: 8 A - 250 VAC
2-pole: 5 A - 250 VAC,
ohmic load

EMC and safety regulations.

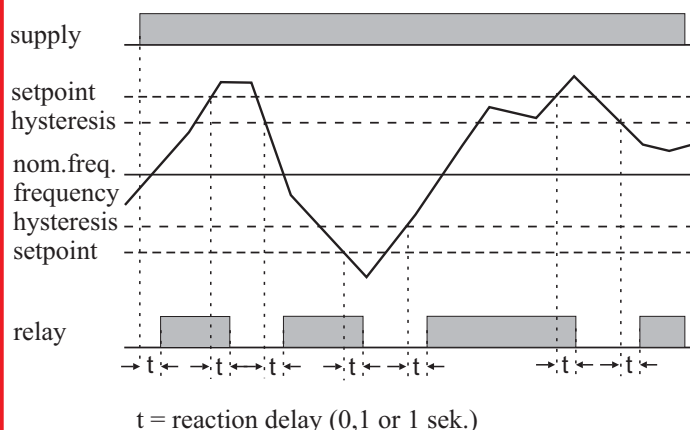
Emmision: EN 50 081 - 1

Immunity: EN 50 082 - 2

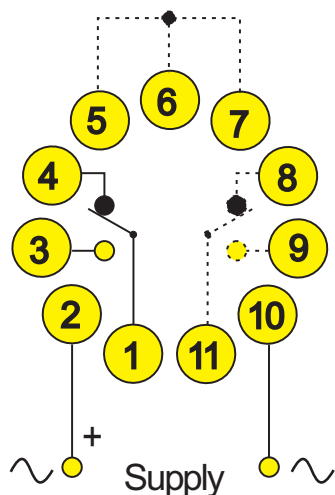
Safety: EN 60 730

Approvals: The units are produced in accordance with the CE og low voltage regulations.

Functional diagram:



Connections:

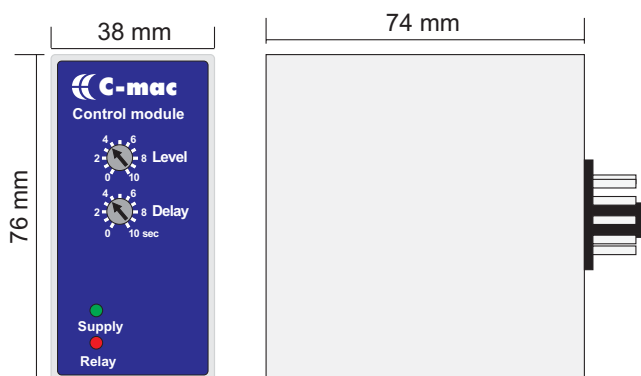


pin 8-9-11: 2-pole version only
pin 5-7: reaction delay
pin 6-7: nominal frequency

Ordering guide:

Supply	Type number.
24 VAC	RF20-x-1-024
120 VAC	RF20-x-1-115
230 VAC	RF20-x-1-230
x = relay output:	1 = 1-pole 2 = 2-pole

Mechanical dimensions:



Materials and weight:

Housing:	NORYL-SE-1, grey, self-extinguishing
Housing bottom:	NORYL SE-1, GFN-2, black, self-extinguishing
Terminals:	Nickel-plated brass
Weight:	200 g