G2FW400VL20 24-240V AC/DC

Monitoring relay - frequency monitoring for 50/60Hz networks

Status: Available Data sheet created: 01.07.2025

Item Number: 2390900 - **Serie:** Gamma - **EAN:** 9008662006607



- Monitoring relays GAMMA series
- Underfrequency and overfrequency monitoring
- measuring voltage 110-400V AC
- for 50Hz and 60Hz networks
- Voltage failure detection
- Supply voltage 24-240V AC/DC
- Fault memory selectable
- 2 changeover contacts
- width 22,5mm
- industrial design

Description

Frequency monitoring for 50/60Hz power grids with adjustable thresholds, timing for ON-Delay and tripping delay separately adjustable.

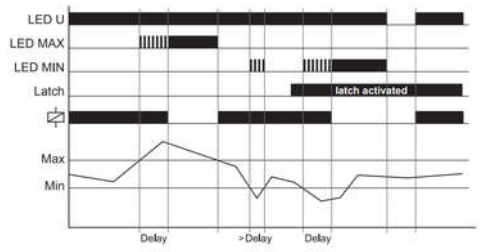
General information

Short description	Frequency monitoring for 50/60Hz mains; window function; power failure detection; fault memory; 2 changeover contacts
Item Number	2390900
EAN	9008662006607
Main category	Monitoring Relays
Series	Gamma
Type	G2FW400VL20 24-240V AC/DC
Design	Industrial design
Supply	24-240V AC/DC
Dimensions	22.5 x 90 x 108 mm

G2FW400VL20 24-240V AC/DC

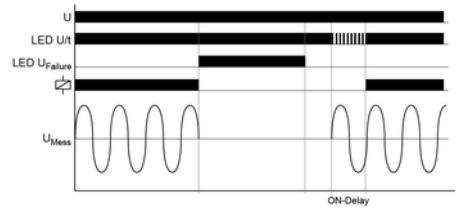
Functions and measurands

Amount of functions 2



Window function (WIN, WIN+Latch)

When the supply voltage U is applied, the output relay R switches into on-position, if the measured current is within the adjusted window. When the measured current leaves the window between Min and Max, the output relay R switches into off-position after the interval of the tripping delay (Delay) has expired. WIN: The output relay R switches into on-position again, if the current re-enter the adjusted window. WIN+Latch: The output relay R switches only into on-position again by interrupting and re-applying of the supply voltage, provided that the measured current is within the threshold values.



Recognition of missing measuring voltage (-)

If the measuring voltage is missing (red LED UFailure illuminated) the output relay switches into off-position. When the measured voltage and frequency stays within the set limits for more than the ON-Delay the output relay energises. If the fault latch is activated (WIN+LATCH) a detected frequency fault will not be reset by interrupting and re-applying the measuring voltage.

Time ranges

Number Of Areas	2	
Time ranges	**Setting range**	
	Switch-on delay (ON-Delay)	0 ... 10s
	Shutter delay	0.1 ... 10s

Indicators

Supply/time lapse 1	Green LED U ON: Supply voltage applied
Supply/time lapse 2	Green LED flashes: Display switch-on delay
Relay state	Yellow LED ON/OFF: position of the output relay
Error / monitoring function	Red LED max/min ON/OFF: Display error for corresponding threshold
Error / monitoring function	Red LED max/min flashes: Indication of tripping delay for corresponding threshold
Error / monitoring function 2	Red LED UFailure ON/OFF: Voltage error

Mechanical design

Housing material	made of self-extinguishing plastic
Housing - protection degree	IP40
Mounting	top hat rail TH 35 7,5-15 according to IEC 60715:2017 / EN 60715:2017
Terminals/connections	Touch-proof clamping yoke terminals according to DGUV 3 (Screwdriver PZ1 required)
Terminals - protection degree	IP20
Mounting position	any
Stripping length	7 mm
Max. Tightening Torque	1 Nm
Terminal capacity	• 1 x 0.5 to 2.5mm² with/without ferrule • 1 x 4mm² without ferrule • 2 x 0.5 to 1.5mm² with/without ferrules • 2 x 2.5mm² flexible without ferrules

G2FW400VL20 24-240V AC/DC

Supply circuit

Terminals/connections	A1-A2 (galvanically seperated)
Supply voltage d.c.	24 ... 240 V
Supply voltage tolerance d.c.	-20% ... +25%
Rated consumption d.c.	1 W / 2 VA
Supply voltage a.c.	24 ... 240 V
Supply voltage tolerance a.c.	-15% ... +10%
Rated frequency [Hz]	24 ... 240 V a.c.: 48 ... 400 Hz; 48 ... 240 V a.c.: 16 ... 48 Hz
Rated consumption a.c.	1 W / 2 VA
Duty cycle	100%
Recovery time	500 ms
Residual ripple	d.c. 10%
Drop-out voltage	>15% the supply voltage
Overvoltage category	III (IEC 60664-1)
Rated surge voltage	4 kV
Rated impulse withstand voltage	400 V a.c.

Output curcuit

Type	Relay
Contact 1	1 change pver contact
Terminals 1	15-16-18
Contacts 2	1 change over contact
Terminals/connections 2	25-26-28
Rated voltage	250 V a.c.
Fuse Protection	5 A quick
Mechanical life	15 x 10^6 Switching cycles
Electrical life	100 x 10^3 Switching cycles (1000 VA)
Utilization categorie	AC 15
Switching frequency	max. 60/min at 100 VA resistive load
Switching frequency 2	max. 6/min at 1000 VA resisitve load (IEC 60947-5-1)
Rated surge voltage	4 kV
Overvoltage category	III (IEC 60664-1)

Measuring circuit

Measurand	Frequency
Fusing	max. 20A (in accordance with UL 508)
Terminals/connections	F-E
Input resistance	1 M
Switching threshold minimum	ax und
Rated impulse withstand voltage	440 V a.c.
Rated surge voltage	4 kV
Overvoltage category	III (IEC 60664-1)

Accuracy

Base accuracy	0,5 % von FN
Repetition accuracy	0.2 % of FN
Temperature influence	≤0,01 % / °C

G2FW400VL20 24-240V AC/DC

Ambient conditions and general specifications

Ambient temperature IEC	25 ... +55°C (IEC 60068-1)
Ambient temperature UL	-25 ... +40°C (UL 508)
Storage temperature	-25 ... +70 °C
Transport temperature	-25 ... +70 °C
Relative humidity	15% ... 85% (in accordance with IEC 60721-3-3 class 3K3)
Vibration resistance	10 ... 55 Hz 0.35 mm (IEC 60068-2-6)
Shock resistance	15 g 11 ms (IEC 60068-2-27)
Pollution degree	3 (IEC 60664-1)
Installation altitude	Up to 2000 m above sea level

Logistics

Minimum Quantity	1
Tariff Number	85364900
EAN	9008662006607
Country of Origin	AT
Product Weight (g)	139

Available declarations / conformities

EAC	✓
CE	Open document
REACH	Open document
WEEE	Open document
TSCA	Open document
RoHs	Open document
CMRT	Open document

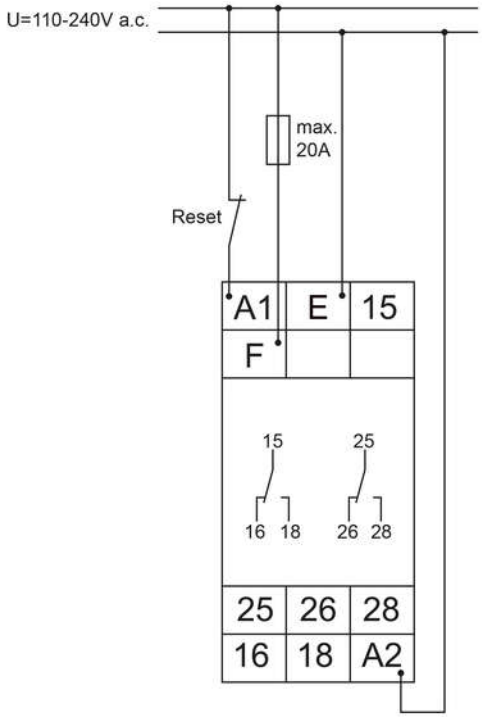
CAD Files

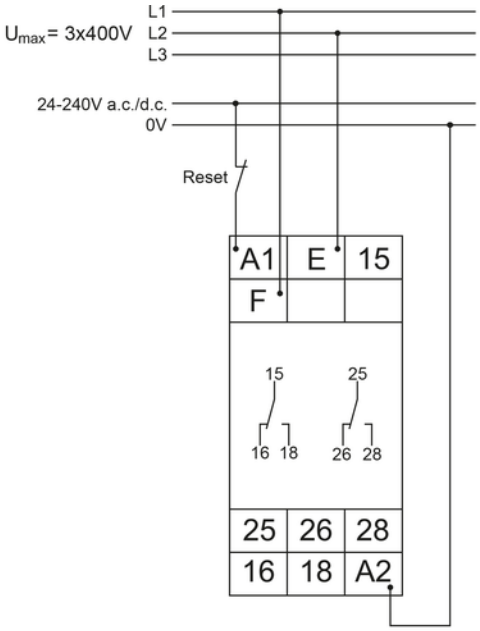
STEP_G2_en.STEP	Download file

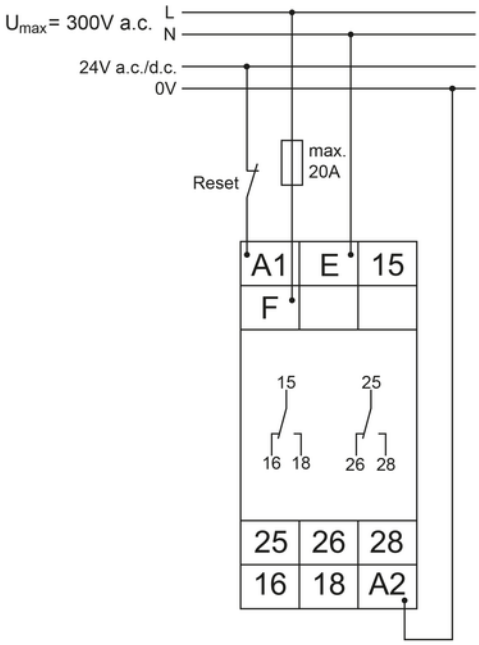
G2FW400VL20 24-240V AC/DC

Media & drawings

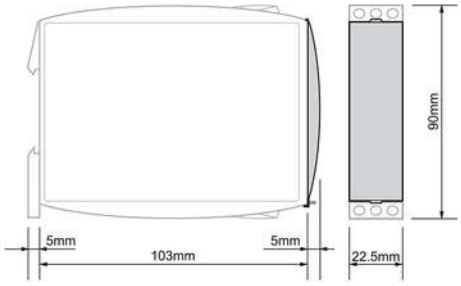


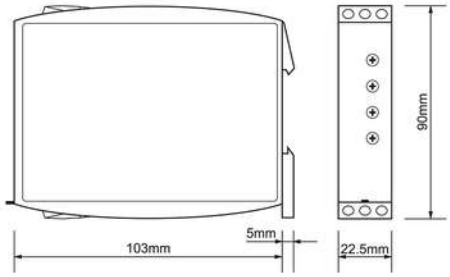






[fill in]









Tele Haase Steuergeräte Ges.m.b.H
Vorarlberger Allee 38
1230 Vienna
Austria

CALL US +43 / 1 / 614 74 - 0

ONLINE SUPPORT support@tele-haase.at

Changes and errors excepted