



RGE-R1, Residual current relay for WGC transformer, type A

Code: P12231. (CONSULTAR DISPONIBILIDAD)

> Módules: 2

> I\( \Delta n \) (A): 0,03 ... 3 A

> Power supply (Vac): 230 Vac

> Delay: 0,02 ... 1 s (\*1)

> Mounting: DIN rail

#### Description

Electronic residual current protection relay, used to connect to the residual current transformers WG / WGC Series. These electronic relays offer a high reliability, with the option of a fixed or adjustable sensitivity and delay Type A relay with high frequency current filtering and high immunity. Monitoring of the true root mean square (TRMS).

- O Assembly on DIN rail 46277
- o Reduced size: 2 modules
- o LED indicators:
  - o Permanently lit leak indicator: LED Trigger relay
  - o Flashing power LED and lit leak LED: detection of faults in the transformer's continuity
  - Flashing leak LED indicator:
    - $\circ\;$  Leak with a value under the value selected
    - o 1 flash every 2s: 25 ... 50% of the leakage current
    - o 1 flash every 1s: 50 ... 75%
    - o 2 flashes every 1s: 75 ... <100%
    - o Permanently: 100 %

#### **Application**

The relays of the RGE series and the transformer of the WG / WGC series enable a full residual current protection for both single and three-phase lines. They guarantee maximum security and continuity of the electrical service, avoiding unwanted tripping.







Electronic residual current relay

Code: P12231.

### Specifications

Electrical safety, Maximum height (m)  Electrical safety, Installation category  CAT III 300V ca  Standards  Electrical safety  Insulation  Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum current  10 A ~  Maximum power  2500 VA  Maximum switching capacity  2500 VA  Differential protection  Type  Type A ultra-immunised  Sensitivity (IΔn), A  0,03 3 seleccionable  Delay time (tΔ)  Protection	AC power supply	
Frequency	Installation category	CAT III 300 Vac (IEC 61010)
Mechanical characteristics  Size (mm) width x height x depth 35 x 85 x 88 (mm)  Envelope Polycarbonate Fastening IN rail 46277 Weight (kg) 0,168  Environmental characteristics  Protection class IP 20 Relative humidity (without condensation) 5 95 % Relative humidity (without condensation) 5 95 %  Standards  Electrical safety, Maximum height (m) 2000 Electrical safety, Installation category CAT III 300V ca Electrical safety, Installation category CAT III 300V ca  Electrical safety  Insulation Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum power 2500 VA Maximum power 2500 VA Maximum switching capacity 2500 VA  Maximum switching capacity 2500 VA  Differential protection  Type Type A ultra-immunised Sensitivity (Idn.), A 0,03 3 seleccionable Delay time (t\(\bar{\tau}\)) Power supply voltage Earth leakage tripping External transformer discons Prealarm	Consumption	3 VA
Mechanical characteristics  Size (mm) width x height x depth 35 x 85 x 68 (mm)  Envelope Polycarbonate Fastening DIN rail 46277 Weight (kg) 0,168  Environmental characteristics  Protection class IP 20 Relative humidity (without condensation) 5 95 % Working temperature -10 450 °C  Standards  Electrical safety, Maximum height (m) 2000 Electrical safety, Installation category CAT III 300V ca  Electrical safety, Installation category CAT III 300V ca  Electrical safety  Insulation Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum power 2500 VA  Deley time (t\( \) 0,03 3 seleccionable Questionable 2500 VA  Delay time (t\( \) 0,02 5 s (selectable)	Frequency	50/60 Hz
Size (mm) width x height x depth Envelope Polycarbonate Fastening DIN rail 46277 Weight (kg) O,168  Environmental characteristics  Protection class IP 20 Relative humidity (without condensation) 5 95 % Working temperature -10 +50 °C  Standards  Electrical safety, Maximum height (m) 2000 Electrical safety, Installation category CAT III 300V ca  Electrical safety  Insulation Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum power 2500 VA Maximum switching capacity Differential protection  Type Type A ultra-immunised Sensitivity (Idn.), A 0.03 3 seleccionabile Delay time (Id.) Protection  Preclation  Power supply voltage Earth leakage tripping External transformer disconn Preclation Power supply voltage Earth leakage tripping External transformer disconn Preclation Power supply voltage Earth leakage tripping External transformer disconn Preclation  Power supply voltage Earth leakage tripping External transformer disconn Preclation  Power supply voltage Earth leakage tripping External transformer disconn Preclation  Power supply voltage Earth leakage tripping External transformer disconn Preclation  Power supply voltage Earth leakage tripping External transformer disconn Preclation	Nominal voltage	230 V~ / 110 V~ (±20 %)
Envelope Polycarbonate Fastening DIN rail 46277 Weight (kg) 0,168  Environmental characteristics  Protection class IP 20 Relative humidity (without condensation) 5 95 % Working temperature -10 +50 °C  Standards  Electrical safety, Maximum height (m) 2000 Electrical safety, Installation category CAT III 300V ca Standards  Electrical safety Insulation Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum current 10 A ~ Maximum power 2500 VA Maximum switching capacity 2500 VA  Differential protection  Type Type A ultra-immunised Sensitivity (Idn.), A 0,03 3 seleccionable Delay time (ta) Power supply voltage Earth leakage tripping External transformer disconn Prealarm	Mechanical characteristics	
Fastening DIN rail 46277 Weight (kg) 0,168  Environmental characteristics  Protection class IP 20 Relative humidity (without condensation) 5 95 % Working temperature -10 +50 °C  Standards  Electrical safety, Maximum height (m) 2000 Electrical safety, Installation category CAT III 300V ca Electrical safety, Installation category CAT III 300V ca  Electrical safety  Insulation Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum current 10 A -  Maximum power 2500 VA  Maximum power 2500 VA  Maximum switching capacity 2500 VA  Differential protection  Type Type A ultra-immunised  Sensitivity (Iún), A 0,03 3 seleccionable Delay time (t\(\bar{\tau}\)) 700 C3 (selectable)  Protection  LED indication Power supply voltage Earth leakage tripping External transformer discons Prealarm	Size (mm) width x height x depth	35 x 85 x 68 (mm)
Weight (kg)	Envelope	Polycarbonate
Protection class IP 20  Relative humidity (without condensation) 5 95 %  Working temperature -10 +50 °C  Standards  Electrical safety, Maximum height (m) 2000 Electrical safety, Installation category CAT III 300V ca Standards  Electrical safety III substitution of the safety of the safet	Fastening	DIN rail 46277
Protection class       IP 20         Relative humidity (without condensation)       5 95 %         Working temperature       -10 +50 °C         Standards         Electrical safety, Maximum height (m)       2000         Electrical safety, Installation category       CAT III 300V ca         Standards       IEC 60755, IEC 60947-2-M         Electrical safety       Double-insulated electric shock protection class II (IEC 61010-1)         Digital relay outputs       Double-insulated electric shock protection class II (IEC 61010-1)         Digital relay outputs       2500 VA         Maximum current       10 A -         Maximum switching capacity       2500 VA         Differential protection       Type A ultra-immunised         Sensitivity (I∆n), A       0,03 3 seleccionable         Delay time (t∆)       0,02 5 s (selectable)         Protection         LED indication       Power supply voltage Earth leakage tripping External transformer disconning Prealarm	Weight (kg)	0,168
Relative humidity (without condensation)  Working temperature  -10 +50 °C  Standards  Electrical safety, Maximum height (m)  Electrical safety, Installation category  CAT III 300V ca  Standards  Electrical safety  Insulation  Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum current  10 A –  Maximum power  2500 VA  Maximum switching capacity  Differential protection  Type  Type A ultra-immunised  Sensitivity (IΔn), A  0,03 3 seleccionable  Delay time (tΔ)  Protection  LED indication  Power supply voltage Earth leakage tripping External transformer disconning realarm	Environmental characteristics	
Standards  Electrical safety, Maximum height (m) 2000 Electrical safety, Installation category CAT III 300V ca Standards IEC 60755, IEC 60947-2-M  Electrical safety  Insulation Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum current 10 A ~  Maximum power 2500 VA  Maximum switching capacity 2500 VA  Differential protection  Type Type A ultra-immunised  Sensitivity (IΔn), A 0,03 3 seleccionable Delay time (tΔ) 0,02 5 s (selectable)  Protection  LED Indication Power supply voltage Earth leakage tripping External transformer disconning realignment of the protection of transformer disconning realignment of transformer disconning realignment of the protection of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignment of the power supply voltage Earth leakage tripping External transformer disconning realignm	Protection class	IP 20
Standards         Electrical safety, Maximum height (m)       2000         Electrical safety, Installation category       CAT III 300V ca         Standards       IEC 60755, IEC 60947-2-M         Electrical safety         Insulation       Double-insulated electric shock protection class II (IEC 61010-1)         Digital relay outputs         Maximum current       10 A ~         Maximum power       2500 VA         Maximum switching capacity       2500 VA         Differential protection         Type       Type A ultra-immunised         Sensitivity (IΔn), A       0,03 3 seleccionable         Delay time (tΔ)       0.02 5 s (selectable)         Protection         LED indication       Power supply voltage Earth leakage tripping External transformer disconnersed         Prealarm	Relative humidity (without condensation)	5 95 %
Electrical safety, Maximum height (m)  Electrical safety, Installation category  Standards  Electrical safety  Insulation  Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum current  10 A ~  Maximum power  2500 VA  Maximum switching capacity  2500 VA  Differential protection  Type  Type A ultra-immunised  Sensitivity (IΔn), A  Delay time (tΔ)  Double-insulated electric shock protection class II (IEC 61010-1)  Type  Type A ultra-immunised  Double-insulated electric shock protection class II (IEC 61010-1)  10 A ~  10 A ~  10 A ~  10 A ~  11 A ~  12 Digital relay outputs  12 Digital relay outputs  13 A ~  14 Digital relay outputs  15 Digital relay outputs  16 Digital relay outputs  17 Digital relay outputs  18 Digital relay outputs  19 Digital relay outputs  10 A ~  10 A ~  25 Digital relay outputs  10 A ~  10 A ~  10 Digital relay outputs  10 Di	Working temperature	-10 +50 °C
Electrical safety, Installation category  Standards  Electrical safety  Insulation  Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum current  10 A ~  Maximum power  2500 VA  Maximum switching capacity  2500 VA  Differential protection  Type  Type A ultra-immunised  Sensitivity (IΔn), A  Delay time (tΔ)  Power supply voltage Earth leakage tripping External transformer disconner Prealarm	Standards	
Electrical safety  Insulation  Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum current  10 A ~  Maximum power  2500 VA  Maximum switching capacity  2500 VA  Differential protection  Type  Type A ultra-immunised  Sensitivity (IΔn), A  Delay time (tΔ)  Protection  LED indication  Power supply voltage Earth leakage tripping External transformer disconning Prealarm	Electrical safety, Maximum height (m)	2000
Electrical safety  Insulation Double-insulated electric shock protection class II (IEC 61010-1)  Digital relay outputs  Maximum current 10 A ~  Maximum power 2500 VA  Maximum switching capacity 2500 VA  Differential protection  Type Type A ultra-immunised  Sensitivity (IΔn), A 0,03 3 seleccionable  Delay time (tΔ) 0.02 5 s (selectable)  Protection  LED indication Power supply voltage Earth leakage tripping External transformer disconner Prealarm	Electrical safety, Installation category	CAT III 300V ca
Double-insulated electric shock protection class II (IEC 61010-1)    Digital relay outputs	Standards	IEC 60755, IEC 60947-2-M
Digital relay outputs         Maximum current       10 A ~         Maximum power       2500 VA         Maximum switching capacity       2500 VA         Differential protection         Type       Type A ultra-immunised         Sensitivity (IΔn), A       0,03 3 seleccionable         Delay time (tΔ)       0.02 5 s (selectable)         Protection         LED indication       Power supply voltage Earth leakage tripping External transformer disconnegreed         Prealarm	Electrical safety	
Maximum current       10 A ~         Maximum power       2500 VA         Maximum switching capacity       2500 VA         Differential protection         Type       Type A ultra-immunised         Sensitivity (IΔn), A       0,03 3 seleccionable         Delay time (tΔ)       0.02 5 s (selectable)         Protection         LED indication       Power supply voltage Earth leakage tripping External transformer disconnereal preadarm	Insulation	Double-insulated electric shock protection class II (IEC 61010-1)
Maximum power       2500 VA         Maximum switching capacity       2500 VA         Differential protection         Type       Type A ultra-immunised         Sensitivity (IΔn), A       0,03 3 seleccionable         Delay time (tΔ)       0.02 5 s (selectable)         Protection         LED indication       Power supply voltage Earth leakage tripping External transformer disconnegreal         Prealarm	Digital relay outputs	
Maximum switching capacity       2500 VA         Differential protection         Type       Type A ultra-immunised         Sensitivity (IΔn), A       0,03 3 seleccionable         Delay time (tΔ)       0.02 5 s (selectable)         Protection         LED indication       Power supply voltage Earth leakage tripping External transformer disconnermal         Prealarm	Maximum current	10 A ~
Differential protection       Type     Type A ultra-immunised       Sensitivity (IΔn), A     0,03 3 seleccionable       Delay time (tΔ)     0.02 5 s (selectable)       Protection       LED indication     Power supply voltage Earth leakage tripping External transformer disconnergealarm	Maximum power	2500 VA
Type A ultra-immunised  Sensitivity (IΔn), A 0,03 3 seleccionable  Delay time (tΔ) 0.02 5 s (selectable)  Protection  LED indication Power supply voltage Earth leakage tripping External transformer disconner Prealarm	Maximum switching capacity	2500 VA
Sensitivity (IΔn), A 0,03 3 selectionable  Delay time (tΔ) 0.02 5 s (selectable)  Protection  LED indication Power supply voltage Earth leakage tripping External transformer disconners of the prealarm	Differential protection	
Delay time (tΔ)  Protection  LED indication  Power supply voltage Earth leakage tripping External transformer disconners Prealarm	Туре	Type A ultra-immunised
Protection  LED indication  Power supply voltage Earth leakage tripping External transformer disconners of the prealarm	Sensitivity (I∆n), A	0,03 3 seleccionable
LED indication Power supply voltage Earth leakage tripping External transformer disconnection Prealarm	Delay time (tΔ)	0.02 5 s (selectable)
Prealarm	Protection	
Measure True root mean square (TRMS)	LED indication	Power supply voltage Earth leakage tripping External transformer disconnection Prealarm
	Measure	True root mean square (TRMS)







Electronic residual current relay

Code: P12231.

Circuit breaker type

Contactor or Circuit Breaker + trigger coil

RGE-R Residual current relay, type A, for WGC transformer, 2 modules with visual prealarm.

CODE	TYPE	N° relays	ΙΔη (Α)
P12A32.	RGE-RL	1	0,03 5 A
P122320040000	RGE-R	1	0,03 5 A

Requires a WGC residual current transformer To encode other parameters, such as the auxiliary power supply voltage, see the table at the end of the section







Electronic residual current relay

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# **Dimensions**

# Connections





