

Ancillary functions

- Metering functions:
 - Phase currents (Ia, Ib, Ic), Zero sequence current (Ie, Ise)
 - Sequence currents (I1, I2), Ratio of sequence currents (I2/I1)
 - Percentage of thermal capacity (THM%), Max. phase current (Iamax, Ibmax, Icmax)
 - Max. zero sequence current (Iemax, Isemax), Maximum negative sequence currents (I2max)
 - Maximum ratio of sequence current (I2I max)
- Event Recording
 - Up to 200 most recent events time-tagged to 1ms resolution.
- Fault recording
 - Up to 5 most recent faults with phase-by-phase reports prior to and during fault conditions.
- Disturbance recording
 - 8 analog and 12 binary signal records.
 - Max. 5 records each of five seconds duration.
- Communication
 - RS485: Modbus or IEC 60870-5-103
 - Ethernet (100Base-TX or 100Base-FX): Modbus or IEC 61850

Dimensions and Weight

- 4U (177mm) height,
- 1/3 x 19" (149mm) width (for model 400, 401, 420 and 421),
- 1/2 x 19" (223mm) width (for model 402 and 422)
- 151mm depth
- 1.5kg (for model 400, 401, 420 and 421)
- 1.8kg (for model 402 and 422)

Ordering code **GRE110** - **A** - **1** - **0**

Type :	
Overcurrent relay	GRE110
Model :	
3OC+EF	
2xBIs, 4xBOs + Fail	400
6xBIs, 4xBOs + Fail	401
6xBIs, 8xBOs + Fail	402
3OC+EF+SEF	
2xBIs, 4xBOs + Fail	420
6xBIs, 4xBOs + Fail	421
6xBIs, 8xBOs + Fail	422
Rating :	
CT: 1/5A, f: 50/60Hz, 110/250Vdc/110/240Vac	1
CT: 1/5A, f: 50/60Hz, 48/110Vdc	2
CT: 1/5A, f: 50/60Hz, 24/48Vdc	A
Standard and language :	
IEC (English)	0
Communication :	
RS485 1 port (Modbus/ IEC 60870-5-103)	10
100BASE-TX 1 port (Modbus/IEC 61850) + RS485 1 port (Modbus/IEC 60870-5-103)	A0
100BASE-FX 1 port(*) (Modbus/IEC 61850) + RS485 1 port (Modbus/IEC 60870-5-103)	C0

(*) 100BASE-FX port is not available on 24/48Vdc power rating model.

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Leading Innovation >>>

GRE110
Protection and Control
for MV Systems

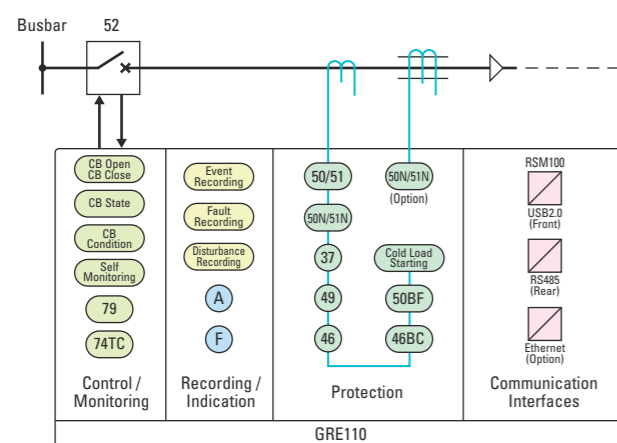


GRE-Series – GRE110

Multi-Function Protection and Control



GRE110 is a numerical multi-function protection device designed for feeder protection applications in MV networks, drawing upon proven technologies developed over more than 100 years, and providing a comprehensive range of protection and control functions. This compact and cost-effective device can be applied not only as feeder protection but also as motor protection and back-up protection for generators and transformers.



Features

- Protection of feeders and motors in medium voltage networks
- Provides backup protection for generators, transformers and feeders in high voltage networks
- Feeder manager device with CB control function, 43R/L switch and comprehensive support functions
- Compact and cost-effective design
- Elementary, environmentally-friendly, easy to use and featuring enhanced product concepts

Functions

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> - Protection <ul style="list-style-type: none"> Phase Fault O/C (50/51P) Earth Fault O/C (50/51N) SEF (50/51N) Phase Undercurrent (37) Thermal Overload (49) NPS Overcurrent (46) Broken Conductor (46BC) Circuit Breaker Fail (50BF) Cold Load Protection - Control <ul style="list-style-type: none"> Local/Remote Control Autoreclose (79) | <ul style="list-style-type: none"> - Monitoring <ul style="list-style-type: none"> Trip circuit supervision (74TC) Self supervision CB State Monitoring Trip Counter Alarm ΣI^2 Alarm CB Operate Time Alarm - Communication <ul style="list-style-type: none"> USB port Remote communication (Modbus, IEC 60870-5-103 and IEC 61850) | <ul style="list-style-type: none"> - Others <ul style="list-style-type: none"> Two setting groups Menu-based HMI (16 x 8 characters) Configurable LED (8 fixed and 6 configurable) Programmable Logic Controller (PLC) |
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