MC30-2T (GB310)

THREE PHASE + NEUTRAL CURRENT PROTECTION RELAY

General Characteristics

G-Base is the new generation of Microelettrica Scientifica's base-performance protection relays. This range is the ideal solution for protection and automation, thanks to its high configurability.

It is based on the same powerful microprocessor adopted on high-performance G-Pro range.

G-Base platform is based on a four-channel configuration, allowing it to be used for current and voltage protection functions.

MC30-2T, part of the G-Base range, is a relay designed for the interface to the power distribution grid.

Protective Functions

- F49 : Thermal Image (one element)
- F50/51 : Overcurrent, with standard IEC inverse time curves (three elements)
- F50N/51N : Earth Fault, with standard IEC inverse time curves (three elements)
- F46 : Inverse sequence (two elements)
- 74TCS : Trip circuit supervision
- F51BF : Breaker Failure protection
- F79 : Four-shot programmable autoreclosing, with reclosing sequence coordination and reclosing disabling push button
- Two complete setting programs, switchable locally or remotely

Measurements

- Real Time Measurements (IA - IB - IC - Io)
- Maximum Demand and Inrush Recording (IA - IB - IC - Io)
- Trip Recording

Hardware

- 8 Output Relays
- 8 Digital Inputs
- Hi-resolution graphic dispaly (240*128)
- 10 Leds for signalization
- 6 programmable push buttons
- Two-piece plastic enclosure, IP44 protection degree (IP54 available on request)

Firmware

- Time tagged multiple event recording and jurnal
- Oscillographic wave form capture up to 40 sec.
- Complete autodiagnostic program
- Blocking Outputs and Blockings Input for pilot wire selectivity coordination
- 100In/1s
- File system - Mass storage device
- Oscillo in comtrade format

Power Supply Ratings

- Type 1 : 24V(-20%) / 110V(+15%) a.c. - 24V(-20%) / 125V(+20%) d.c.
- Type 2 : 80V(-20%) / 220V(+15%) a.c. - 90V(-20%) / 250V(+20%) d.c.

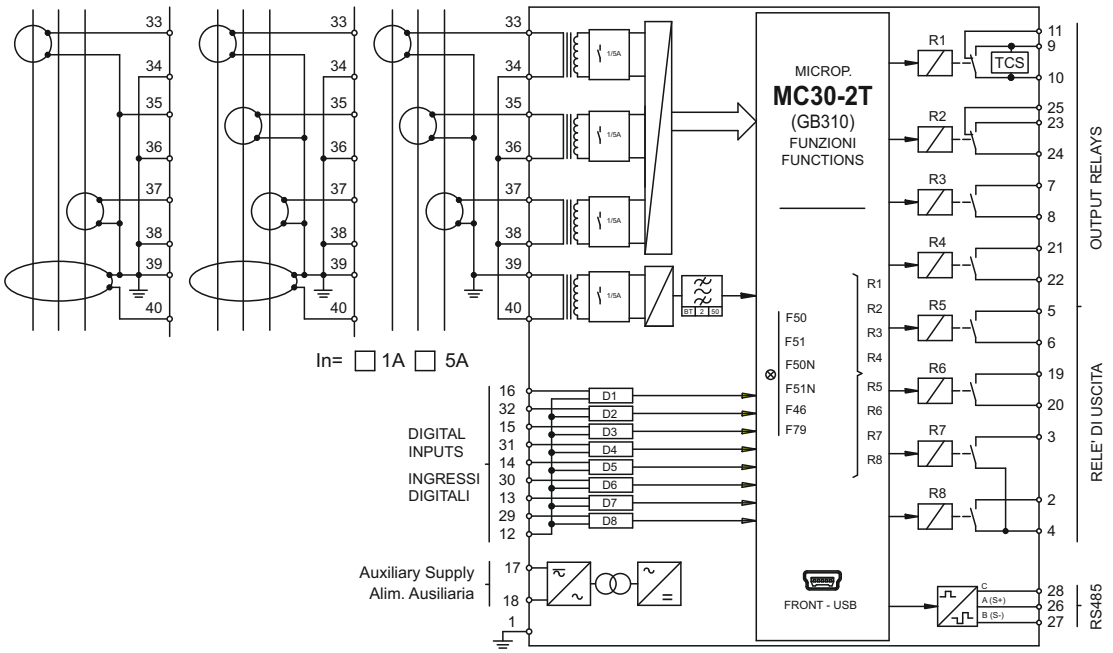
Communications

- RS485 Serial communication port on rear side
- USB communication port on front panel
- Modbus RTU / IEC870-5-103 Communication Protocols

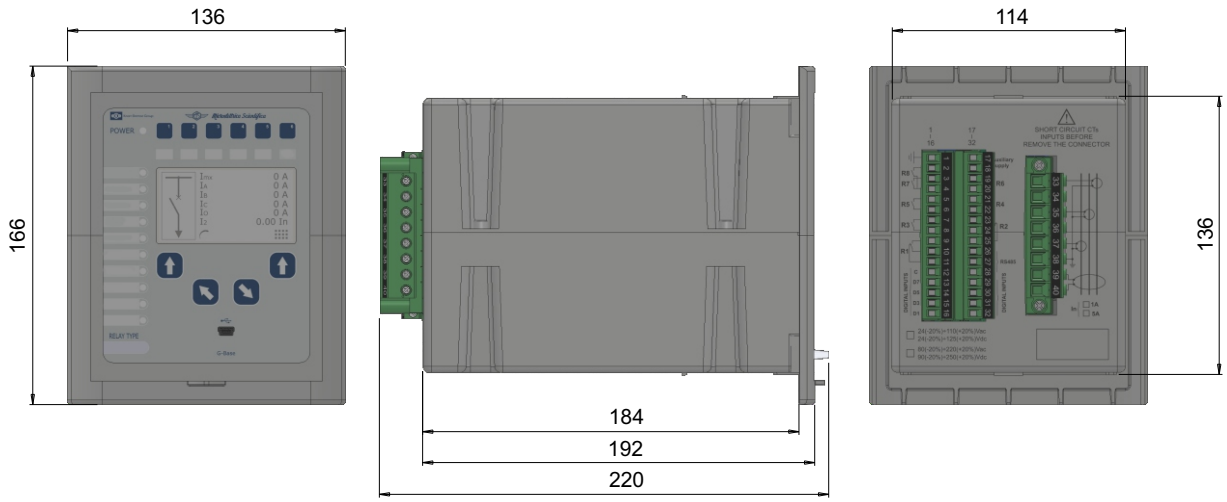
Software

- MSCom2 Program interface for device management

Connection Diagram



Overall Dimensions (mm)



Typical Characteristics		
Accuracy at reference value of influencing factors	2% In - 0.2% On	for measurements
	2% + (to = 20 ÷ 30ms @ 2xIs)	for times
Rated Current	In = 1A/5A - On = 1A/5A	
Current Overload	500A for 1 sec; 20A continuous	
Burden on current input	0.1VA at In = 1A; 0.3Va at In = 5A	
Average power supply consumption	≤ 7 VA	
Output relays	rating 6A; Vn = 250V A.C. resistive switching = 1500W (400V max)	
	make = 30 A (peak) 0.5 sec.; break = 0.3 A, 110 Vcc, L/R = 40 ms (100.000 op.)	

Order Code - Example :			
MC30-2T	1	2	1
	Power Supply	Phase Rated Input Current	Zero sequence Input Current
	1 = Type 1	1 = 1A	1 = 1A
	2 = Type 2	2 = 5A	2 = 5A

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