

CPM 310-DE

DIGITAL MULTIFUNCTION DRAW-OUT TYPE CURRENT PROTECTION RELAY

CPM 310-DE is the digital Overcurrent relay that is designed with 50 years of experience in the relay sector and strong cooperation with our clients. It is widely implemented in Smart Grid and Substation Automation System, therefore it provides us easy-to-use advanced solutions of high protection, control and measurement application for the HV and MV system.



FUNCTION	ANSI CODE	CPM310-DE
Phase Overcurrent	50/51 P	3 thresholds
Earth Overcurrent	50/51N	3 thresholds
Negative Sequence Overcurrent Protection	46	2 thresholds
Undercurrent Protection	37	1 thresholds
Thermal Overload Protection	49	2 thresholds
Automatic reclosing	79	4 shot
Broken Conductor Detection	46BC	
Cold Load Pickup	CLPU-50/50N	
Latching	86	
Trip Circuit Supervision	74TCS	
Switch onto Fault	50HS (SOTF)	
Breaker Failure Settings	50BF	
Blocking Relay	68	
Inrush Current Detection	68	

MEASUREMENTS/RECORDS

- RMS Current Measurement
- Max Rms Current Meas.
- Fundamental Current Meas.
- P/N Sequences Current Meas.
- Thermal (θ) Measurements
- Circuit Breaker Monitoring
- Automatic reclosing Meas.
- Event Records
- Fault Records
- Alarm Records
- Comtrade Waveform Records

INPUT/OUTPUT

- 9 Binary input
- 8 Output

COMMUNICATION

- Ethernet
 - MODBUS TCP
 - IEC61850
- RS485
 - MODBUS RTU
 - IEC60870-5-103
- USB (front port)

APPLICATION AREAS



SPECIFICATIONS

- Wide range IEC, ANSI and Special Curves
- 10 Programmable Virtual Led
- Visualisation of activated functions on main screen (2 Group)
- Function Test without using Relay Test Set
- Visibility of R-S-T-N currents from 1,5 - 2 m distance thanks to the large LCD Screen (128 x 64 pix)
- Logic functions for 8 differ. scenarios
- 1-5 A Current transformer flexibility in usage (Selectable from menu)
- Blocking Selectivity by delaying previous breaker
- Breaker Supervision (Spring Supervision, trip/close pulse, $I^2t...$)
- Temperature/Buchholz/Pressure Protection
- 6 INFO LED (Phase Fault, Earth Fault, Internal Fault, Trip, Alarm)
- Remote or local Alarm-Reset
- Displaying Alarm and Fault Records with one click
- Remote or local breaker trip/close
- IP52 and IP20 protection for front and rear panel respectively

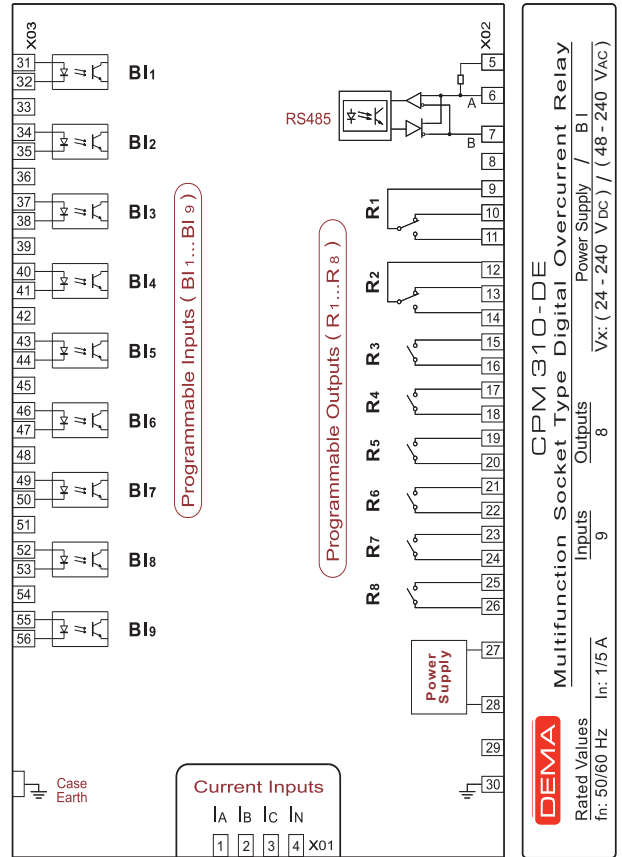
CERTIFICATES



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CPM 310-DE CIRCUIT DIAGRAM

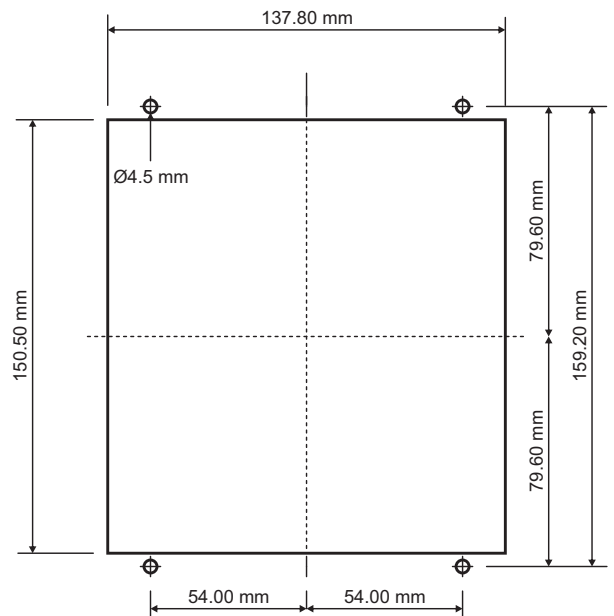
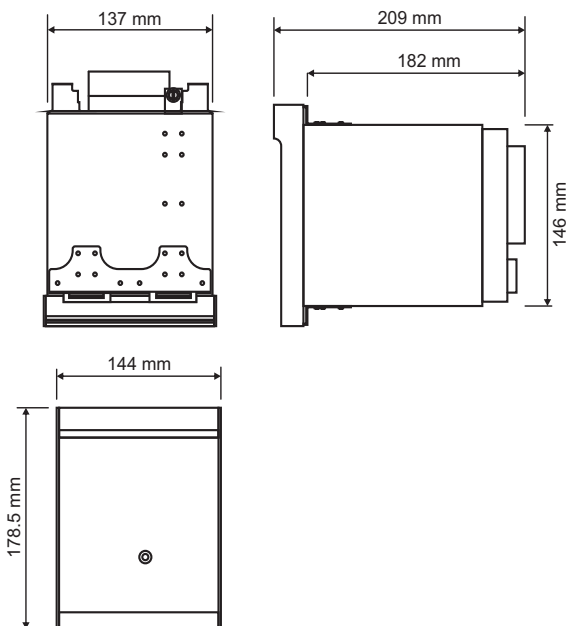


TECHNICAL SPECIFICATIONS

Nominal Auxiliary Voltage	(24-240) V _{DC} / (48-240) V _{AC}
Auxiliary Voltage Variation	(19-280) V _{DC} / (36-264) V _{AC}
Burden of Auxiliary	Max. 10 W / 16.5 VA
Secondary Current Inputs	(1/5)A, 3 Phase / 1 Earth
Secondary Burden	I _n : 1A if 0.02VA, I _n : 5A if 0.6 VA
Phase / Earth Measurement Tech.	Fundamental harmonics
Thermal Measurement Technique	RMS Current
Programmable Inputs Quantity	9 inputs, opto isolation
Programmable Outputs Quantity	8 outputs
Language Options	English / Turkish
Communications Baudrate	Max 115200 baud
Drop-out Time	40 ms
Storage & Operation Ambient Temp.	25°C / +70 °C
Weight	2.8 kg net

DRC 144 - S4 PANEL CUTTING DIMENSIONS

CPM 310-DE DIMENSIONS



DEMA RELAY INDUSTRY INC.

Tel: +90(216) 352 77 34-35 / Fax: +90(216) 442 17 95 / info@demarole.com.tr / www.demarole.com.tr

