

CPM 310 G

DIGITAL MULTIFUNCTION DRAW-OUT TYPE CURRENT PROTECTION RELAY

CPM 310-G 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	CPM 310 G
Earth Overcurrent	50/51N	3 thresholds
Phase Overcurrent	50/51P	3 thresholds
Undercurrent Protection	37	1 thresholds
Negative Sequence Over-current Protection	46	2 thresholds
Thermal Overload Protection	49	2 thresholds
Automatic reclosing	79	4 shot
Breaker Failure Settings	50BF	
Broken Conductor Detection	46BC	
Cold Load Pickup	CLPU-50/50N	
Blocking Relay	68	
Trip Circuit Supervision	74TCS	
Latching	86	
Inrush Current Detection	68	



MEASUREMENTS/RECORDS

RMS Current Measurement
 Max Rms Current Meas.
 Fundamental Current Meas.
 P/N Sequences Current Meas.
 Frequency, Current, Thermal (θ) Measurements
 Circuit Breaker Monitoring
 Automatic reclosing Meas.
 Event Records
 Fault Records
 Alarm Records
 Disturbance Waveform Recording (3x5 s)



INPUT/OUTPUT

7 Binary Input
 8 Output



COMMUNICATION

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

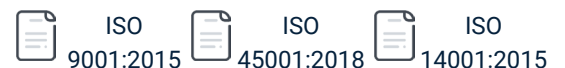
APPLICATION AREAS



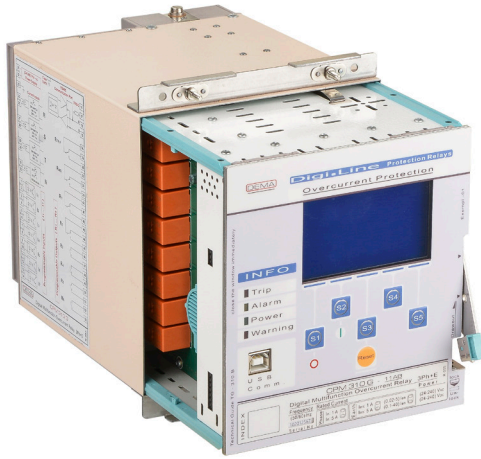
SPECIFICATIONS

- Full screen R – S – T and N ampermeter display
- Display of activated protection functions on a single screen
- Function Test without using Relay Test Set
- Largest LCD graphics screen in its class (128 px x 64 px)
- Wide IEC, ANSI and custom curve support; (X/1) A and (X/5) A current transformer compatibility in a single unit
- Quick alarm menu access and enhanced alarm explanations
- 8 programmable Virtual LEDs
- Electro-magnetic compatibility tested for IEC directives
- Draw-out system that enables under-load unit displacement / replacement
- IP52 front side and IP20 backside environmental protection
- SCADA ready
- IP52 and IP20 protection for front and rear panel respectively

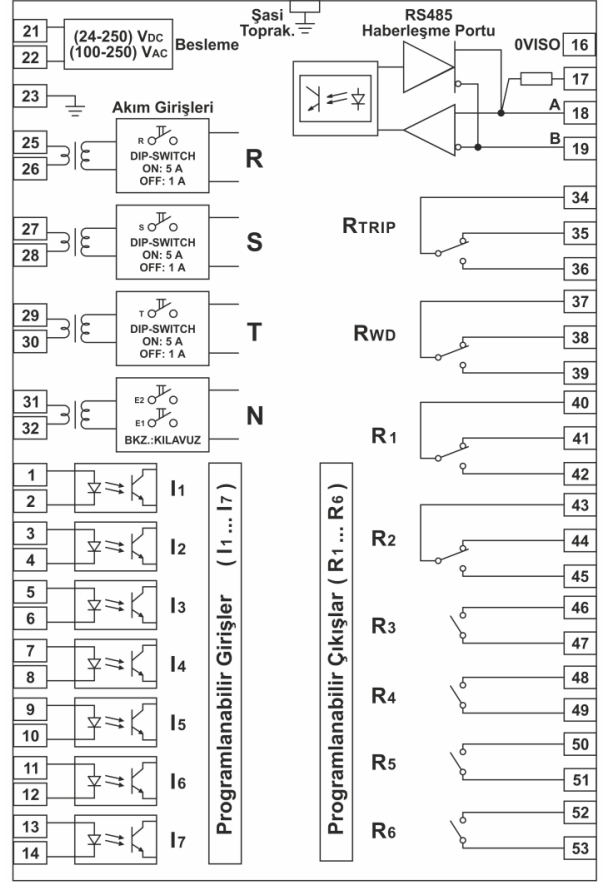
CERTIFICATES



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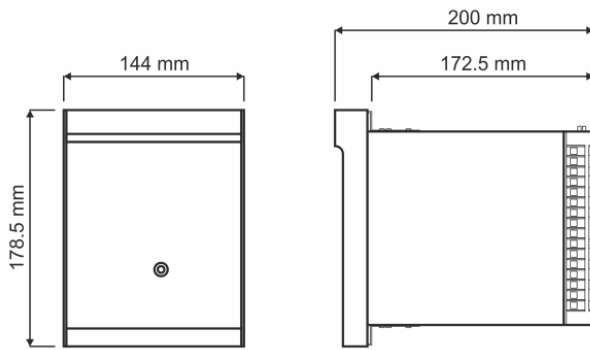
CPM 310 G CIRCUIT DIAGRAM



TECHNICAL SPECIFICATIONS

Nominal Auxiliary Voltage	(24 - 250) V _{DC} / (100 - 250) V _{AC}
Auxiliary Voltage Variation	(21 - 275) V _{DC} / (80 - 275) V _{AC}
Burden of Auxiliary	Max. 8 W / 15 VA
Secondary Current Inputs	(1/5)A, 3 Phase / 1 Earth
Secondary Burden	I _n : 1A if 0.01 VA, I _n : 5A if 0.2 VA
Phase / Earth Measurement Tech.	Fundamental harmonics
Thermal Measurement Technique	R.m.s
Programmable Inputs Quantity	7 with optic-coupling
Programmable Outputs Quantity	Total 8 outputs, 6 programmable
Language Options	Turkish / English
Communications Baudrate	Max 38,400 baud
Drop-out Time	40 ms
Storage & Operation Ambient Temp.	-25°C / +70 °C
Weight	3.5 kg net

CPM 310 G DIMENSIONS



DRC 144 - S4 PANEL CUTTING DIMENSIONS

