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RELAY SELECTION GUIDE- MICOM P220 VS MICOM P253



SYSTEM CONTROLS & SWITCHGEARS



Online Solutions for Electrical Needs



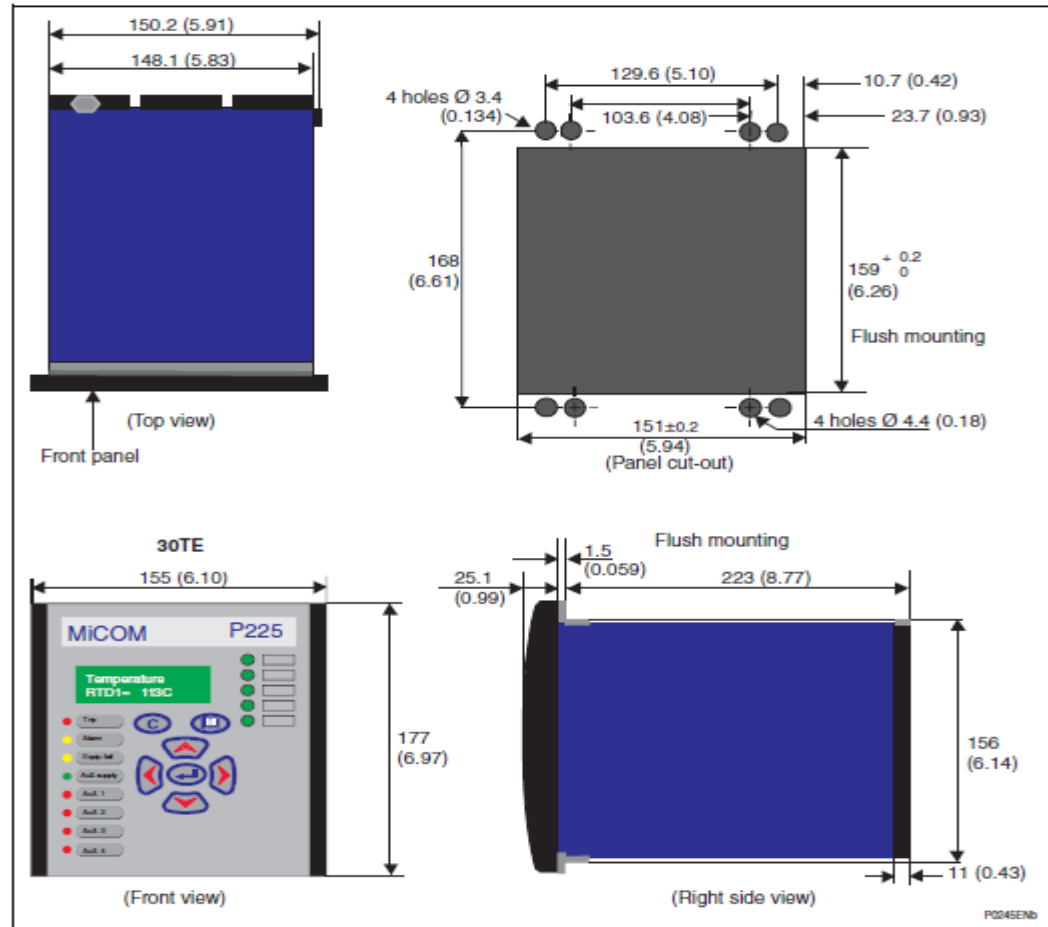
Overview

System controls & switchgears is one of the fastest growing companies in India. Established in 1983, a privately owned company has unrivalled experience in the distribution of electrical products. SCS business covers a broad range of Medium Voltage Switchgears, Low Voltage Switchgears, Power Capacitors, Internal wiring accessories, Lighting, Metal Detectors, Energy Management Products and other products. Over the last 3 decades history, we've developed strong relationships with customers. Our strength lives in all of our people, who have extended our tradition of service and integrity to customers in every location and situation, and who take pride in making us one of the most resilient resources in the products we deal.

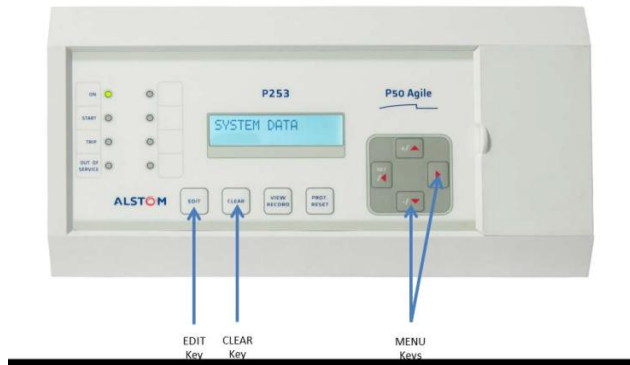
OLD RELAY- MICOM P220



Weight : about 2.5 Kg
External size : Height Case 152.2 mm
Front panel 177 mm
Width Case 148,1 mm
Front panel 155 mm
Depth Case (flush part) 140,8 mm
Case + Front panel 166 mm



NEW RELAY- MICOM P253



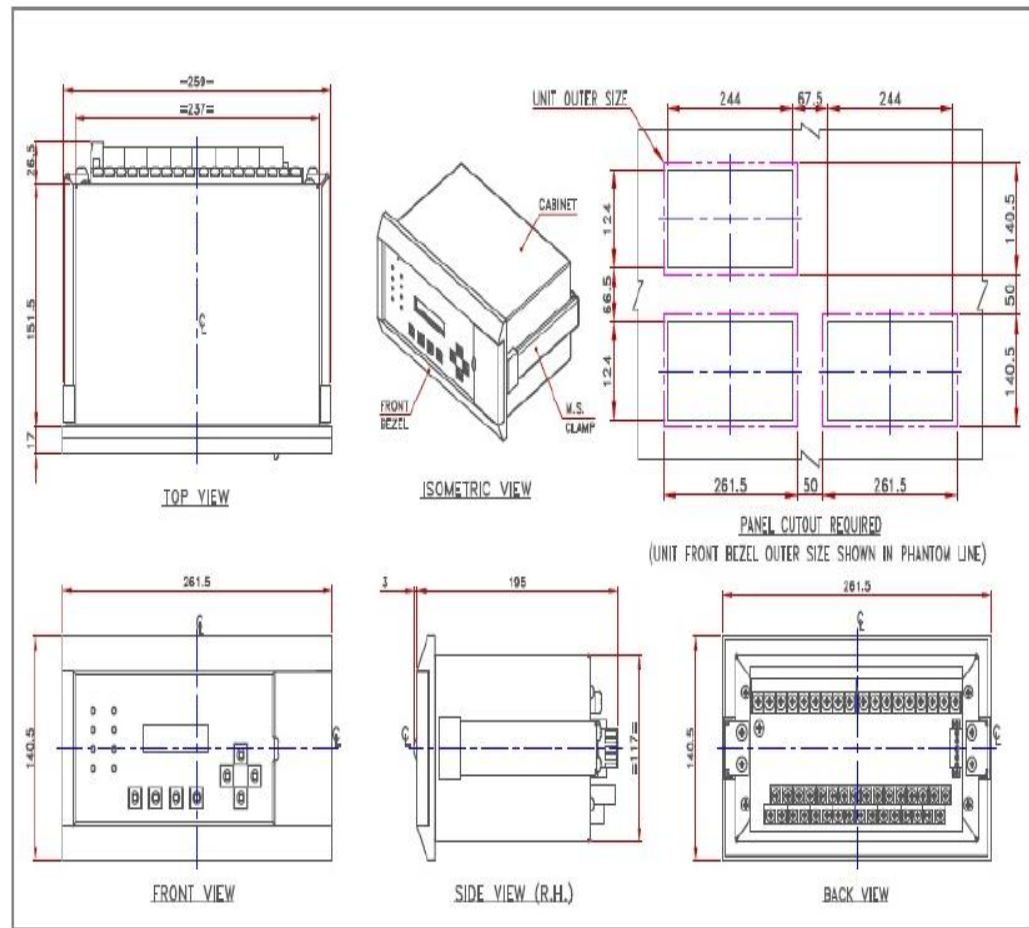
P253 case dimensions

Design Flush mounting case

Weight 3.50 Kg approximate

The P253 hardware comprises of following main components:

- Housing, consisting of a front panel and connections at the rear
- Microcontroller module
- Analogue input module
- Digital input module
- Digital output module
- Communication module
- Power supply unit
- Human machine Interface (HMI) module



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PROTECTION FUNCTIONS				
ANSI	Features	OLD RELAY- MICOM P220	P220	P225
50/51	Three-Phase Overcurrent		-	-
50N/51N	Earth fault		-	-
50BF	Break Failure		-	-
66	Number of starts limitation		-	-
37	Loss of load/Underpower		-	-
46	Negative Sequence Overcurrent		-	-
49	Thermal Overload		-	-
27/27LV/59	Undervoltage/Overvoltage			-
86	Latching of output relay		-	-
48/51LR	Start/Stalled protection/Motor Re-acceleration		-	-
	Undervoltage Auto-Restart / Load restoration sequence			-
51S	Locked rotor during start-up		-	-
14	Speed switch input		-	-
26	Optional RTD/Thermistor inputs		6/2	10/3
CONTROL AND MONITORING				
Features			P220	P225
Emergency Restart			-	-
Programmable Scheme Logic (4 basic equations)			-	-
CB Control & Monitoring			-	-
Trip Circuit Supervision			-	-
Setting Groups			2	2
MEASUREMENT & RECORDS				
Features			P220	P225
Measurements			-	-
Power and Energy Measurements				-
Hours Run			-	-
CB Operations			-	-
Disturbance Records up to number x 2.5 sec (backed-up)			5	5
Fault Records (backed-up)			25	25
Event Logging (backed-up)			250	250

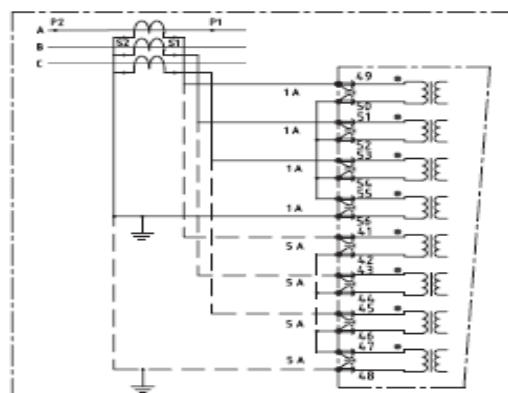
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ANSI	Function Overview	NEW RELAY- MICOM P253	Motor P253
	Protection		
50	Definite time overcurrent		•
50N	Neutral/Earth definite time overcurrent		•
51	IDMT overcurrent		•
51N	Neutral/Earth IDMT overcurrent		•
68	Inrush blocking		•
49	Thermal overload		•
37	Undercurrent detection/Loss of load		•
46	Negative sequence overcurrent		•
46BC	Broken conductor		
50BF	Circuit breaker fail		•
CLP	Cold load pick-up		
64R	Restricted earthfault		•
14	Speed switch input		•
48	Prolonged start (excessive long start)		•
51S	Locked rotor (during starting)		•
51LR	Locked rotor (during normal running)		•
66	Excessive number of starts		•
86	Latching of output contacts (Lock out)		•
	Control Functions		
74	Trip circuit supervision		•
	Watchdog function		•
	Self monitoring & diagnostics		•
	Test/Commisioning facilities		•

OLD RELAY- MICOM P220

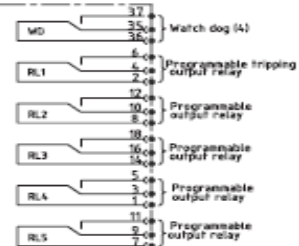
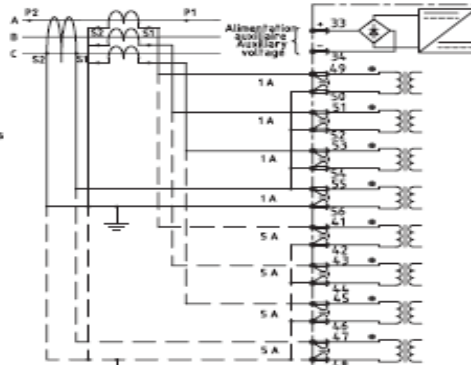
Alternative : The earth current input is connected to the summation of the three phase CTs.



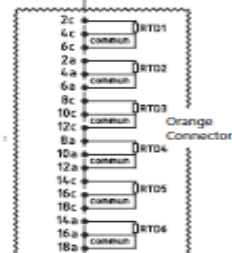
ADVICE FOR CONNECTION:
A tightening torque of 1.3 Newton metres is recommended for all screws fitted to the MD05 terminal blocks.
Functioning temperature limited to 55°C.
For any connection use the provided kit or use cable terminals UL LISTED.
Wiring : use copper conductors only size AWG22 to AWG10.



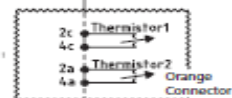
The earth current input is connected to a core balanced CT.



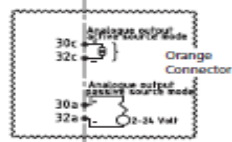
MiCOM P220 Phase 1



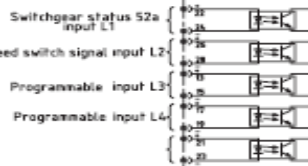
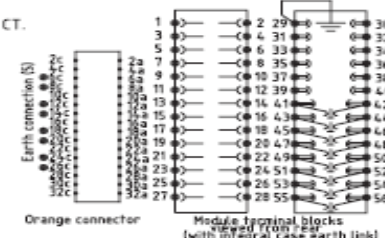
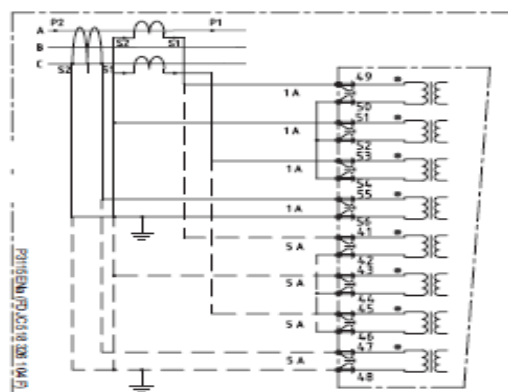
If 6 RTD option :



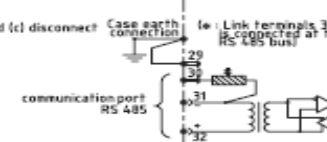
If thermistor option :



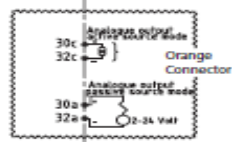
Alternative : Connection to 2 phase CTs + a core blanced CT.

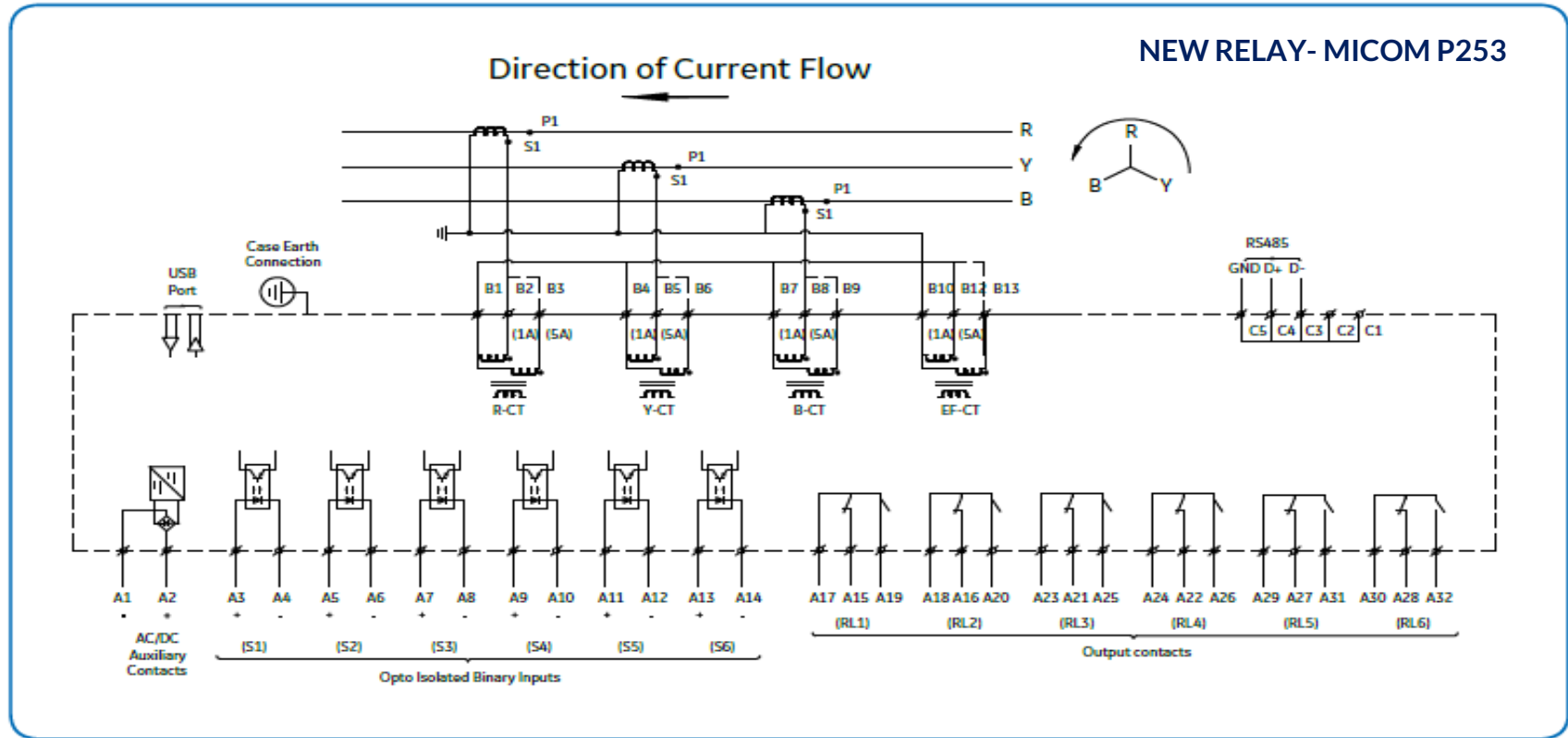


Notes:
(1) (a) CT shorting links make before (b) and (c) disconnect
(b) Short terminal break before (c)
(c) Long terminals
(d) Pins terminals (pcb type)
(2) CT connection are typical only
(3) Earth connection are typical only
(4) The MICOM P220 relay is shown with power supply off
(5) The shielding is bonded to the earth point located next to the connector.
(6) Important : the analogue output option shall be used either in active source mode or in passive source mode



(6) If analogue output option :





❖ **Disclaimer:-**
 Info given herein is for ease of understanding. Customized tech info is for specific purpose SCS suggests you to take confirmation on technical details from GE experts SCS does not take responsibility or claim this will suit your needs.



SYSTEM CONTROLS & SWITCHGEARS

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