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## NUMERICAL RELAY SELECTION GUIDE AND CASE DIMENSIONS



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.

Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
A	Agile P153	Modbus/IEC103/ 60870	4	4	4	0	50, 50N, 51, 51N, 68, 49, 37, 46, 46BC, 50BF, CLP, 86, 74
B	Agile P154	Modbus/ IEC103/ DNP 3	6	6	4	0	50, 51, 50N, 51N, 46, 49, 50 BF, 64R, 86, 95, 68, 37, 46BC, CLP
C	Agile P14NB	Modbus / IEC103	3 / 8 / 11	4 / 8 / 12	4	0	50,51,50N,51N,68,46,46BC,49,CBCF,86,64R,80
		61850	8	8	4	0	
D	Agile P14NZ	Modbus / IEC103	3 / 8 / 11	4 / 8 / 12	4	0	P14NB + 79
		61850	8	8	4	0	
E	Agile P14DA	Modbus / IEC103	3 / 8	4 / 8	4	4	50,51,51N,50N,46,47,49,46BC,67,67N,68,37,CBFP,27,59,59N,86,80,60
F	Agile P14DB	Modbus / IEC103	8 / 13	8 / 12	4	4	P14DA + 81U,81O,81DF/DT
		61850	8	8	4	4	
G	Agile P141	Modbus / IEC103	8	7	5	3	50/51,50/51N,67P,67N,67N,64,51V,46,49,37,27/59,59N,DV/DT,47,81O/U,86,32,50BF,60,68,85,21FL,87B
		61850	8	7	5	3	
H	Agile P142	Modbus / IEC103	8 / 16	7 / 15	5	4	P141 + 79 + Extra DI/DO
		61850	8 / 16	7 / 15	5	4	
I	Agile P143	Modbus / IEC103	16 / 32	14 / 32	5	4	P142 + 25 + Extra DI/DO
		61850	16 / 32	14 / 32	5	4	


Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
A	 Agile P253	Modbus/ IEC103/ DNP 3	6	6	4	0	50, 51, 50N, 51N, 46, 49, 50 BF, 64R, 86, 95, 68, 37, 14, 48, 51S, 51LR, 66, 74
B	Agile P241	Modbus/ IEC103/ IEC 61850	8 / 12	7 / 11	4	3	50, 51, 50N, 51N, 67N, 32N/64N, 50BF, 66, 37, 46, 32R, 47, 49, 40, 27/59, 47, 29ABS, 59N, 81U, 48/51LR, 51S, 55, 14, 26
C	Agile P242	Modbus/ IEC103/ IEC 61851	16	16	4	3	P241 + Funtion Keys (10 No's)
D	Agile P243	Modbus/ IEC103/ IEC 61852	16	16	7	3	P242 + 87
E	Agile P24NM	Modbus/ IEC103/ IEC 61852	3/8/11/13	4 / 8 / 12	4	0	50,50N,51,51N,50/51SEF,68,46,37,49,50BF,66,48/51LR,86,14
F	Agile P24DM	Modbus/ IEC103/ IEC 61852	3/8/11/13	4 / 8 / 12	4	4	P24NM+ 67,67N,32,27,27V,59,59V,59N,47,27Abs,81O,81U,81V,81df/dt,81RF,81RAV,81R,VT supervision,CT supervision


Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
A	 Agile P14DG	Modbus / IEC103	8 / 13	8 / 12	4	4	50,51,51N,50N,46,47,49,46BC,67,67N,68,37,CBFP,27,59,59N,81U,81O81DF/DT,86,80,60,25,32,95
		61850	8	8	4	4	
B	Agile P342	Modbus / IEC103	16 / 32	14 / 32	5	4	50/51/67,50N/51N,67N,64,51V,21,59N,27/59,81U/O,32R,40,46T,47,49,24,50BF,37, 25, Rotor E/F
		61850	16 / 32	14 / 32	5	4	
C	Agile P343	Modbus / IEC103	16 / 32	14 / 32	8	4	P342 + 87G + Pole slipping + 100% stator Earthfault through 3rd Harmonic.
		61850	16 / 32	14 / 32	8	4	
D	Agile P346	Modbus / IEC103	16 / 32	14 / 32	8	4	87,50/51/67,50N/51N,67N,64,51V,21,59N,27/59,81U/O, 32R,40,46T,47,49,24,50BF,37,25, 64Rotor E/F
		61850	16 / 32	14 / 32	8	4	
E	Agile P344	Modbus / IEC103	24 / 32	24 / 32	8	5	P343 + Extra DI/DO + 5 PT input
		61850	24 / 32	24 / 32	8	5	
F	Agile P345	Modbus / IEC103	24 / 32	24 / 32	9	6	P344 + 9CT and 6PT, 100% stator Earthfault through Frequency injection principle.
		61850	24 / 32	24 / 32	9	6	

Sr. No	Model of relay	Protocol	Input Min / Max)	Outputs Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
A	Agile P14DL	Modbus / IEC103	6 / 13	8 / 12	4	4	P14DG + Load Enchroachment + 21FL + Neutral Admitance + dv/dt, 79, 81R, 81Rf, 81RAV
		61850	8	8	4	4	
B	Agile P441	Modbus/ IEC103/ DNP 3	8	14	4	4	21P, 21G, 50/51/67, 50N/51N/67N, 67N, 32N, 67/46, 68, 50/27, 85, 49, 25, 27, 59, 46BC, 50ST, 50BF, CTS, VTS, 51FF, 78. 3 pole tripping only
C	Agile P442	Modbus/ IEC103/ DNP 3/ IEC 61850	16	21	4	4	P441 + 1/3 Pole tripping + 37, 81 U/O
D	Agile P443	Modbus/ IEC103/ DNP 3/ IEC 61850	16/24	16/ 24/ 32	4	4	21P, 21G (Both Mho or Quad), 79, 78, 68, 25, 50, 27, 50/51P, 69P, 50/51N, 67N, 46, 46/67, 49, 27/59, 59N, 81U/O, 81R, 50BF, 46BC, 50ST, VTS, CTS, 85
E	Agile P444	Modbus/ IEC103/ DNP 3/ IEC 61850	24	32/ 46	4	4	P442 + Sampled values (IEC 61850 - 9-2)


## GRID ISLANDING PROTECTION RELAY

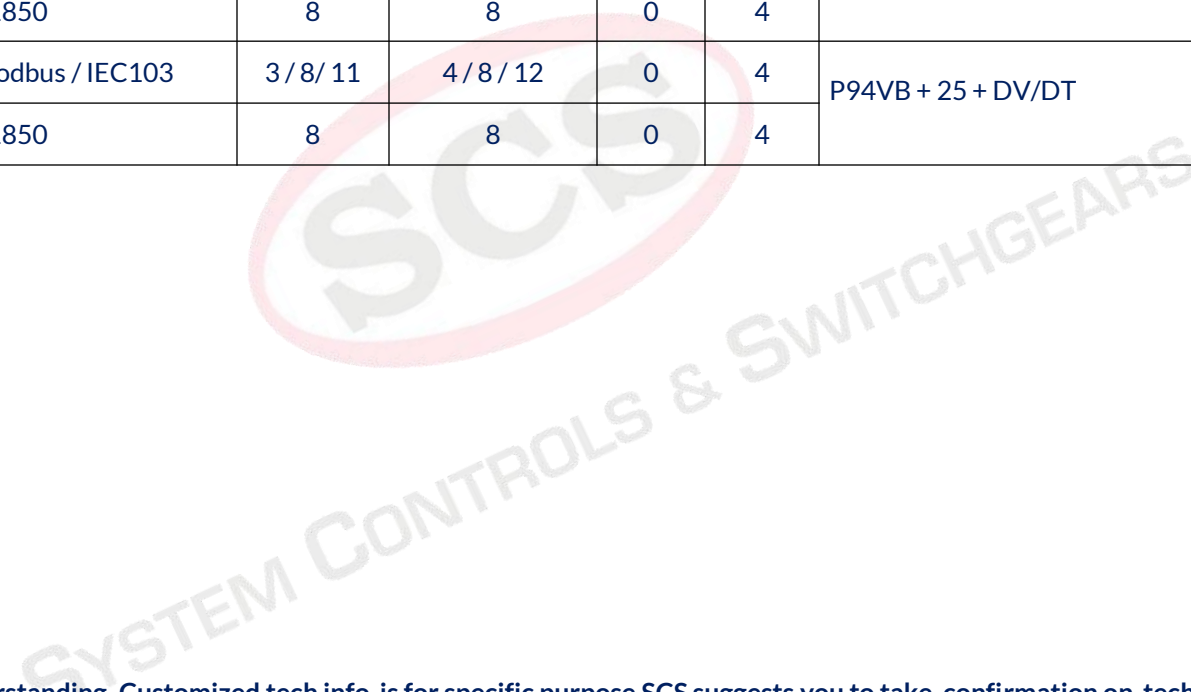
A	Agile P341	Modbus / IEC103	8 / 24	7 / 24	4	4	81R,50/51/50N/51N,67,67N,64,59N,27/59,81U/81O,32,49,46,47,50BF, Vector Surge
		61850	8 / 24	7 / 24	4	4	

Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
A	 Agile P541	Modbus/ IEC103/ DNP 3	8	7	4	0	87, 50, 51, 49, BC, 50BF, TCS
B	Agile P542	Modbus/ IEC103/ DNP 3	16	15	4	0	P541 + 79
C	Agile P543	Modbus/ IEC103/ DNP 3/ IEC 61850	16	14	5	4	87, 21, 85, 50/27, 68, 78, 50/51, 50N/51N, 67, 67N, 64, 67/46, 46BC, 49, 27, 59, 59N, 81U/O/R, 50BF, 79, 25, 21FL
D	Agile P54A	Modbus/ IEC103/ DNP 3/ IEC 61850	8	8	4	0	87P/87N, 50/27, 50/51/67, 50N/51N/67N, 51N/67N/S EF, 64, 67/46, 46BC, 49, 50BF,
E	Agile P54B	Modbus/ IEC103/ DNP 3/ IEC 61850	8	8	5	4	P54A + 27, 59, 59N, 81U, 81O, 81R, 79, 25

Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
a	 Micom P 652	Modbus / IEC103	6	6	8	0	87T, 64R, 49, 50/51, 50N/51N, 46, 50BF, CTS, TCS,
b	Agile P642 (2-Winding)	Modbus / IEC103	8	8	8	1	87T, 64R, 49, 24, 50/51, 50N/51N, 46, 50BF, CTS, TCS,
		61850	8	8	8	1	
c	Agile P643 (3-Winding)	Modbus / IEC103	16	16	12	1	87T, 64R, 49, 24, 50/51, 50N/51N, 46, 67/67N, 50BF, 27/59/59N, 81U/81O, VTS, CTS, 95, 51S
		61850	16 / 40	16 / 24	12	1 / 4	
c	Agile P645 (5-Winding)	Modbus / IEC103	16 / 40	16 / 24	18	1 / 4	P643 + Extra DI/DO + Extra CT input
		61850	16 / 40	16 / 24	18	1 / 4	



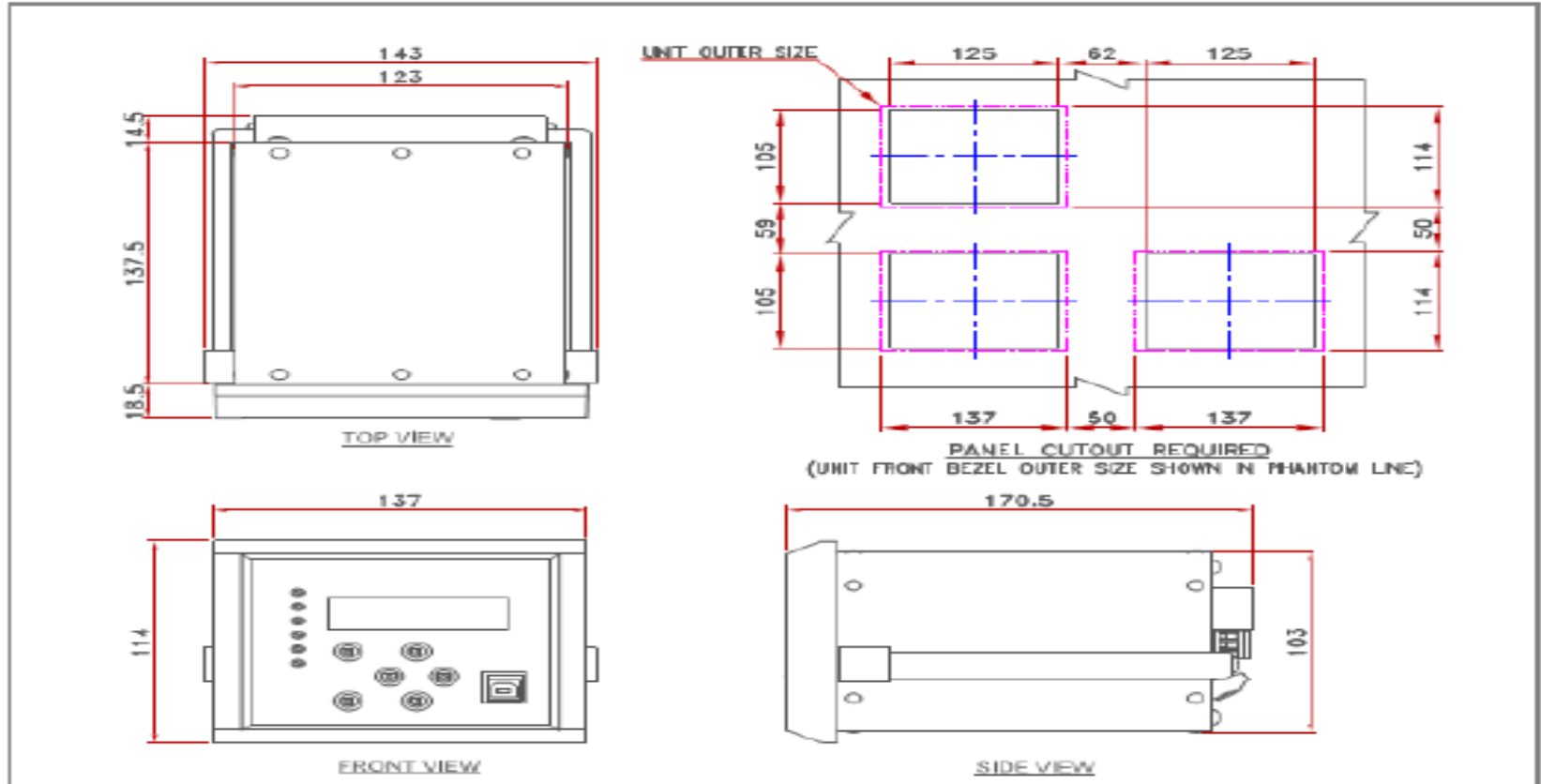
Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
a	 Agile P 94 VB	Modbus / IEC103	3	4	0	4	27,59,59N,47,81O,81U,81df/dt,86,80
		61850	8	8	0	4	
b	Agile P 94 VP	Modbus / IEC103	3 / 8 / 11	4 / 8 / 12	0	4	P94VB + 25 + DV/DT
		61850	8	8	0	4	



❖ **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.

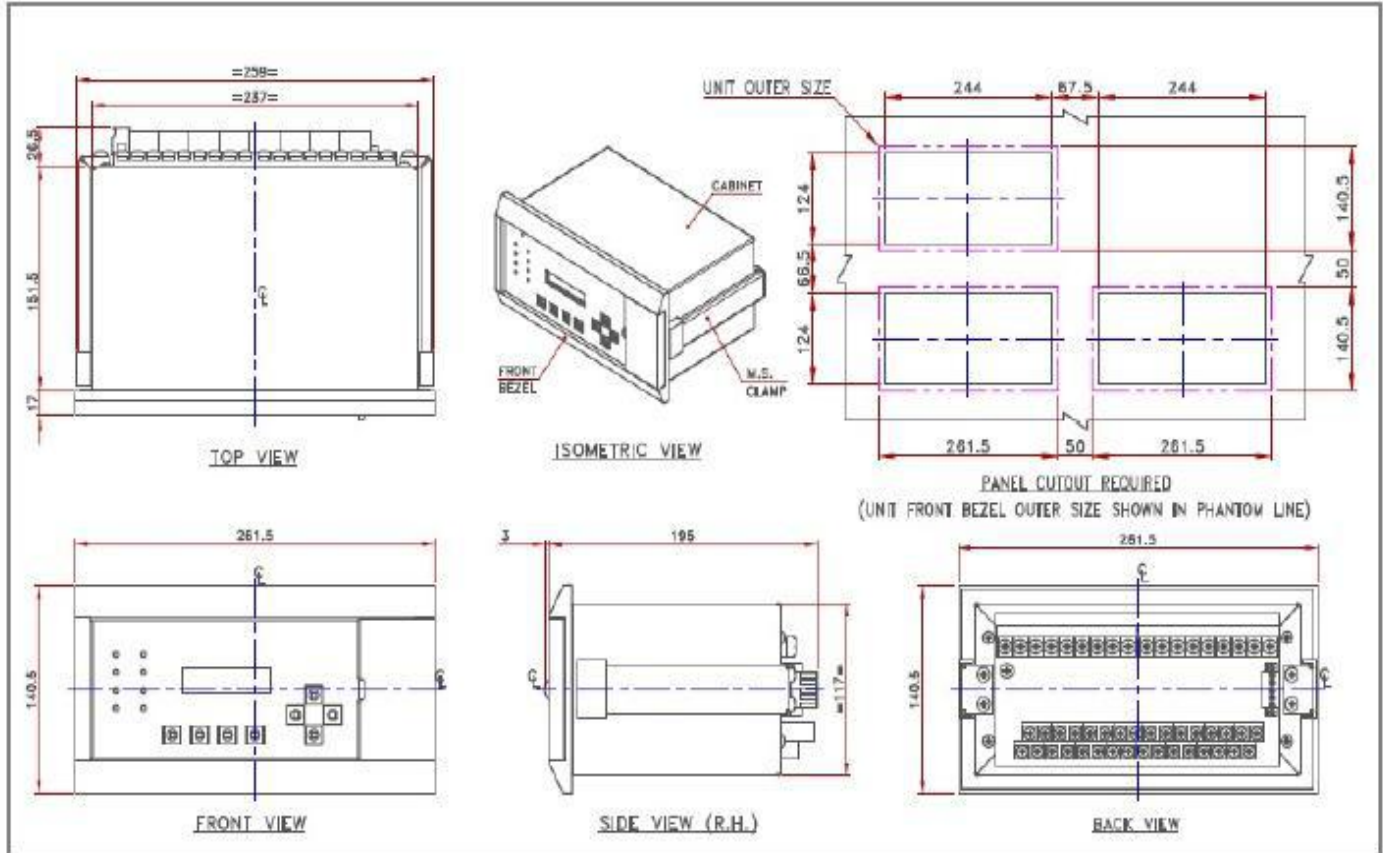
## P50 Agile P153 CASE DIMENSIONS



## P50 Agile P154/P252/P652 CASE DIMENSIONS

Design Flush mounting case

Weight 3.50 Kg  
approximate

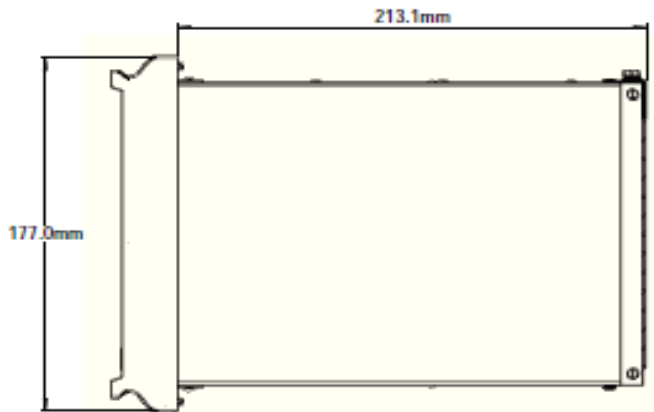
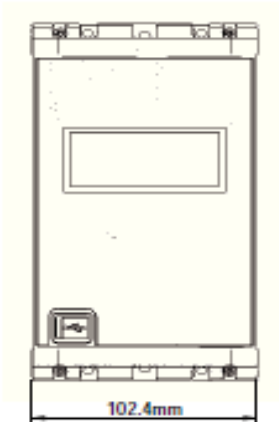
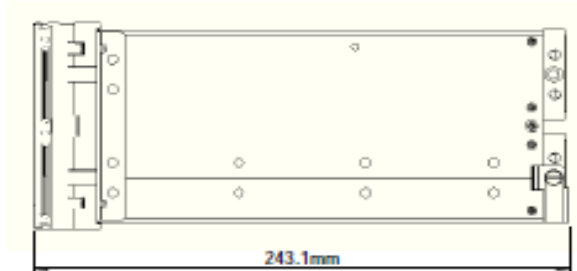
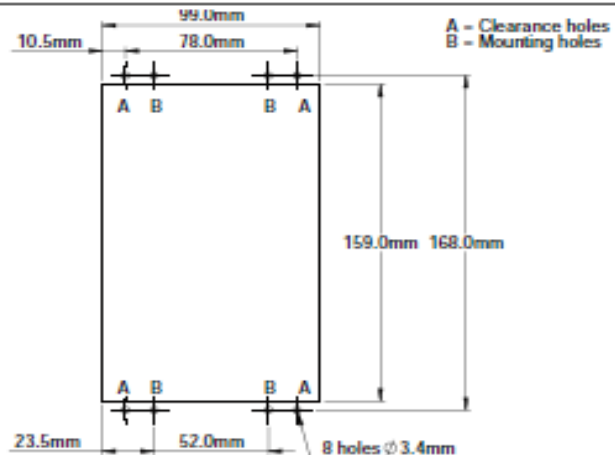


## (20TE CASE) CASE DIMENSIONS

Dimensions in mm (w x h x l)  
(20TE case) W: 102.4mm H: 177.0mm D: 243.1mm

Weight (20TE case) 2 kg – 3 kg  
(depending on chosen options)

Mounting Panel, rack, or retrofit

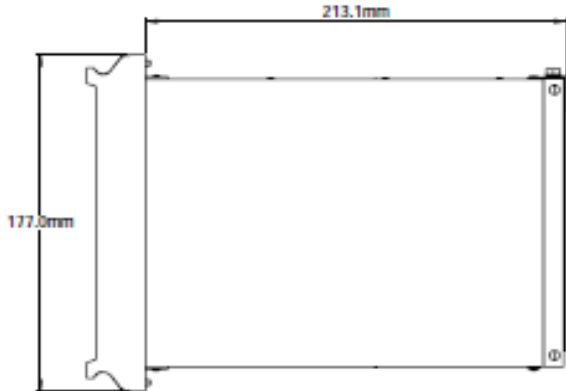
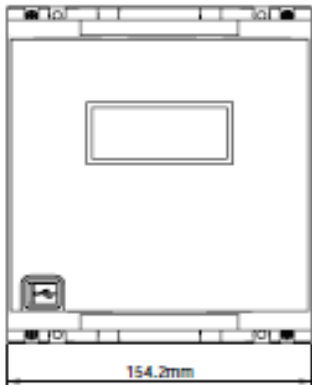
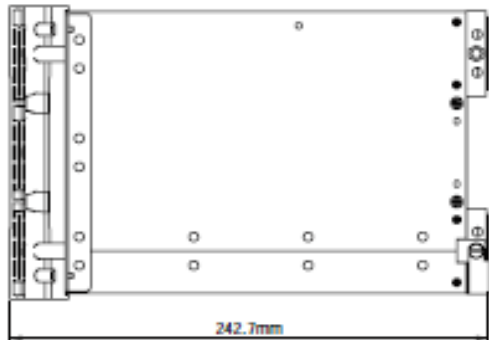
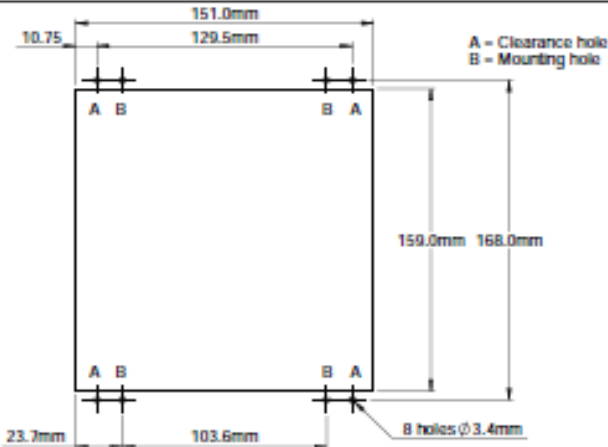


## (30TE CASE) CASE DIMENSIONS

Dimensions in mm (w x h x l)  
(30TE case) W: 154.2mm  
H: 177.0mm D: 243.1mm

Weight (30TE case) 3 kg – 4 kg  
(depending on chosen options)

Mounting Panel, rack, or retrofit



## (40TE CASE) CASE DIMENSIONS

### DESIGN

Modular MiCOM Px40 platform relay,

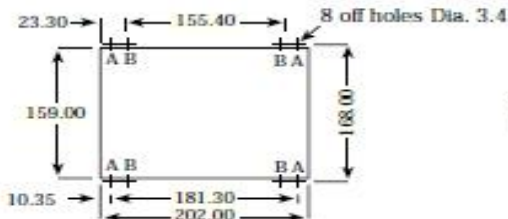
W: 206.0 mm H: 177.0 mm

D: 243.1 mm

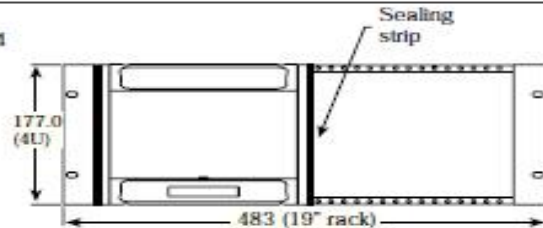
40TE Mounting is front of panel flush mounting, or 19" rack mounted (ordering options).

### WEIGHT

7 kg – 8 kg (depending on chosen options)



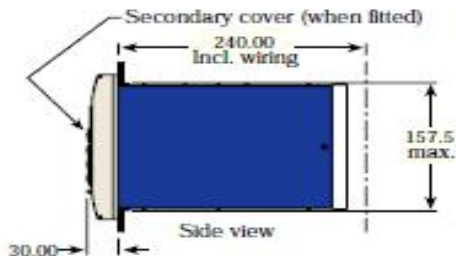
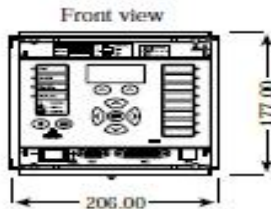
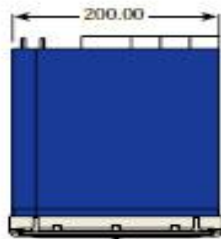
A = Clearance holes  
B = Mounting holes



Flush mounting panel  
Panel cut-out details

Note: If mounting plate is required use flush mounting cut out dimensions

All dimensions in mm



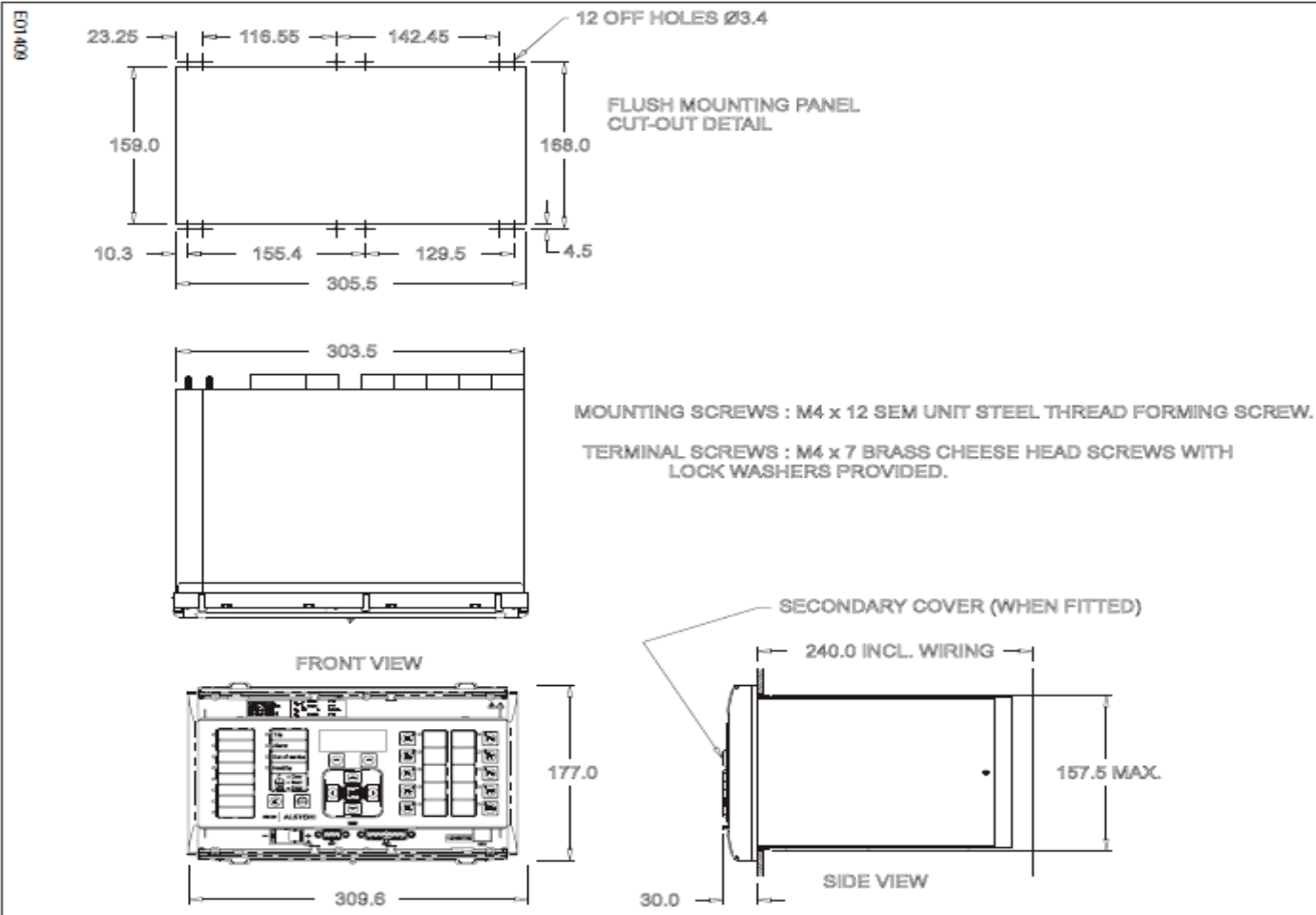
## (60TE CASE) CASE DIMENSIONS

### DESIGN

Modular MiCOM Px40 platform relay,  
60TE W: 309.6 mm H: 177.0 mm D: 243.1 mm or 19" rack mounted (ordering options).

### WEIGHT

9 kg – 12 kg (depending on chosen options)

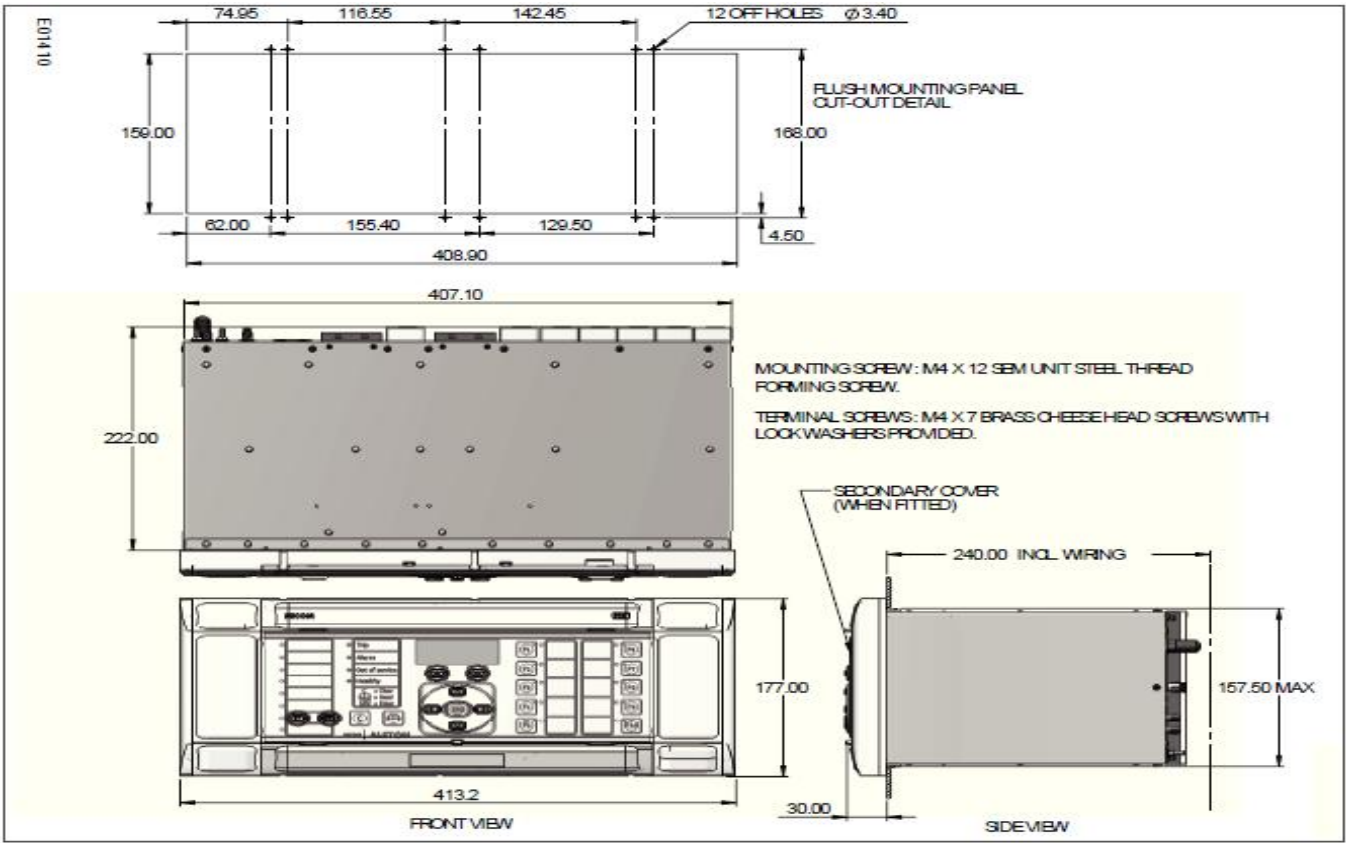


## (80TE CASE) CASE DIMENSIONS

Dimensions in mm (w x h x l)  
(80TE case) W 413.2 mm  
H 177.0 mm D 243.1 mm

Mounting Panel, rack, or retrofit

Weight (80TE case) 13 kg - 16 kg  
(depending on chosen options)



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## SYSTEM CONTROLS & SWITCHGEARS

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