



ge.com/grid

RELAY SELECTION GUIDE- GENERATOR PROTECTION



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.



Models

➤ P14DG Small generator applications

(ANSI Code- 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)

➤ P342 Generator Protection

(ANSI Code- 50/51/67,50N/51N,67N,64,51V,21,59N,27/59,81U/O, 32R,40,46T,47,49,24,50BF,37, 25,)

➤ P343 Generator Protection with 87G/T, 78, 27/59TN,(27/50)

(ANSI Code- P342 + 87G + 78 Pole slipping + 27/59TN100% stator Earth fault through 3rd Harmonic.+27/50 Unintentional energisation at standstill)

➤ P344 Generator Protection, as P343 with 2nd neutral voltage (59N) input

(ANSI Code- P343 + Extra DI/DO + 5 PT input)

* Manufacturing for this product has been discontinued. As an alternative, please refer to P345

➤ P345 Generator Protection as P344 with 100% Stator Earth Fault via low frequency injection (64S)

(ANSI Code- P344 + 9CT and 6PT, 100% stator Earth fault through Frequency injection principle)

➤ P346 Generator Protection, as P343 with 100% SEF (27/59TN), pole slipping (78), Dead Machine (27/50) removed

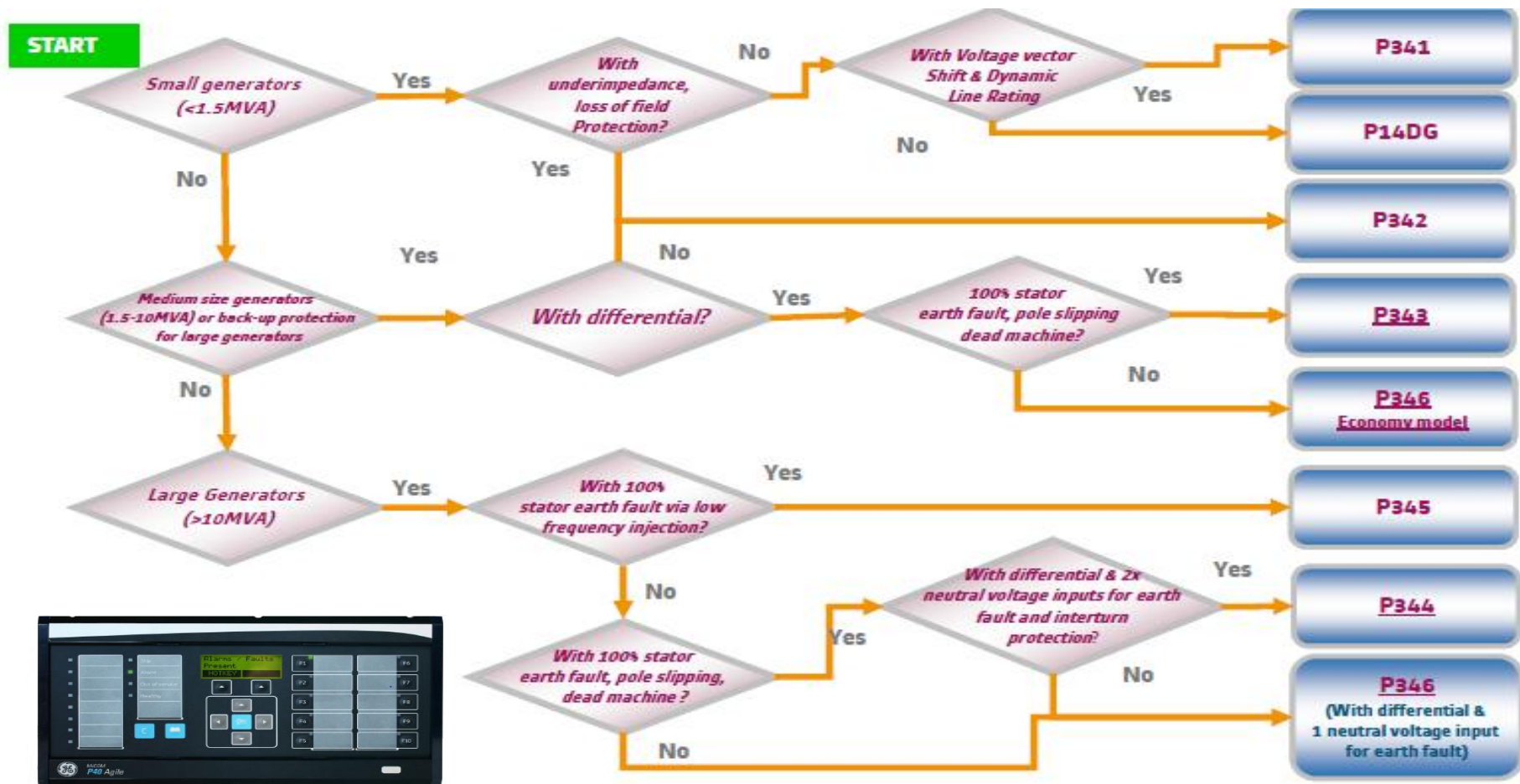
(ANSI Code- 87,50/51/67,50N/51N,67N,64,51V,21,59N,27/59,81U/O,32R,40,46T,47,49,24,50BF,37,25,)

➤ P391 Rotor earth fault coupling unit

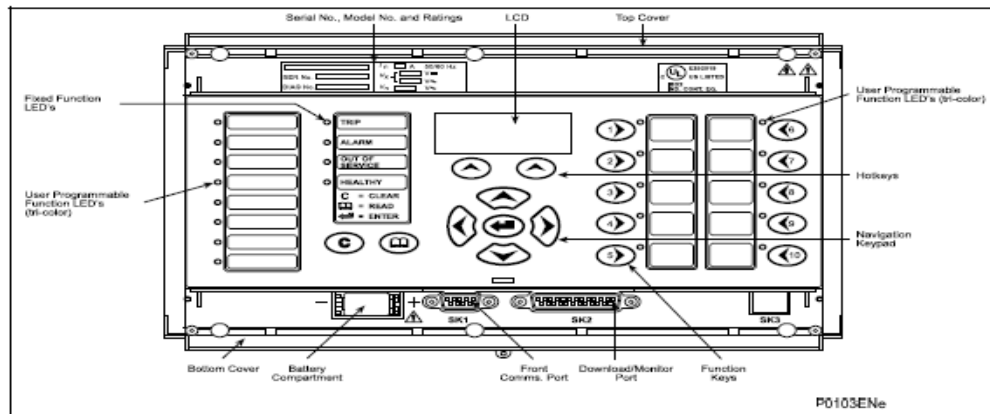
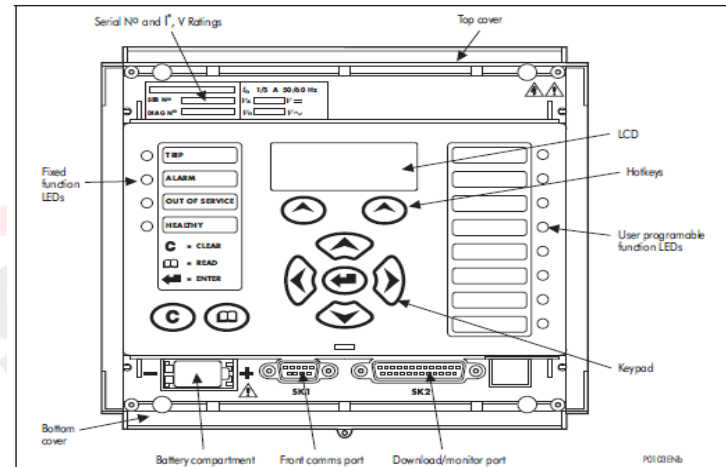
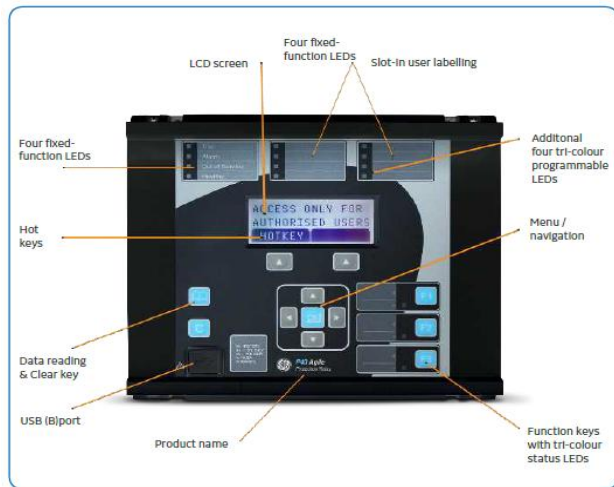
(ANSI Code-64R)



RELAY SELECTION GUIDE- GENERATOR PROTECTION




RELAY SELECTION GUIDE- GENERATOR PROTECTION



RELAY SELECTION GUIDE- GENERATOR PROTECTION



Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
a	Agile P14DG 	Modbus / IEC103/61850	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

P14DG-30TE case dimensions

Case Types 30TE

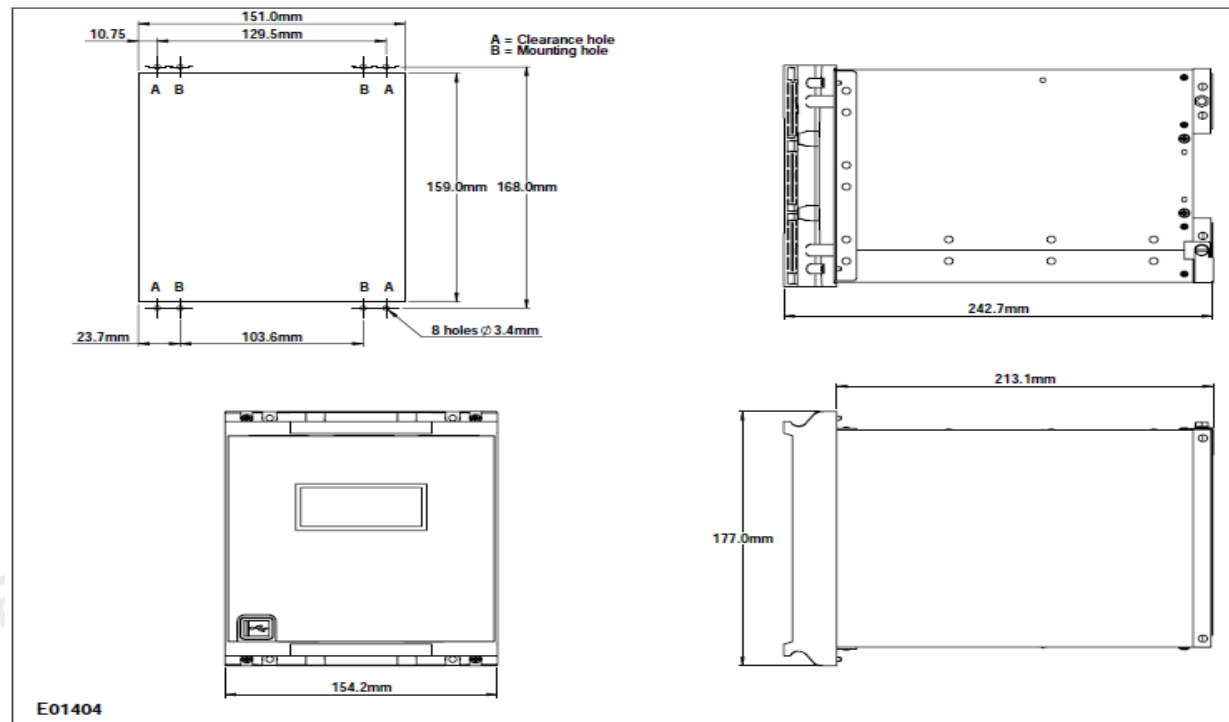
Weight (30TE case) 3 kg – 4 kg

(depending on chosen options)

Dimensions in mm (w x h x l) (30TE case)

W: 154.2mm H: 177.0mm D: 243.1mm

Mounting Panel, rack, or retrofit



RELAY SELECTION GUIDE- GENERATOR PROTECTION



Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
b	Agile P342	Modbus / IEC103/61850	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,

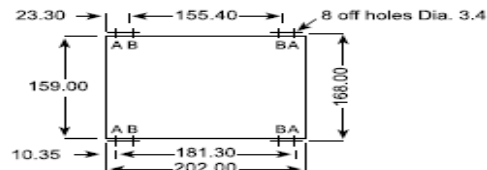
P342 case dimensions (40TE case)

DESIGN

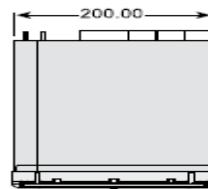
Modular MiCOM Px40 platform relay, P342 in 40TE Mounting is front of panel flush mounting, or 19" rack mounted (ordering options).

WEIGHT

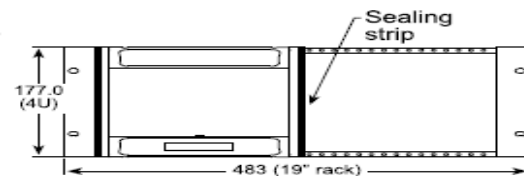
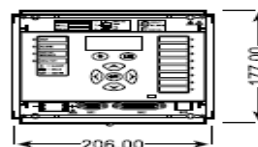
P342 40TE): 7.9kg



A = Clearance holes
B = Mounting holes



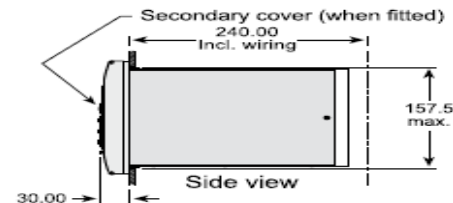
Front view



Flush mounting panel
Panel cut-out detail

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

All dimensions in mm



RELAY SELECTION GUIDE- GENERATOR PROTECTION



Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
d	Agile P343	Modbus / IEC103/61850	16 / 32	14 / 32	8	4	P342 + 87G + Pole slipping + 100% stator Earth fault through 3rd Harmonic+27/50

P342/3/6 case dimensions(60TE case)

WEIGHT

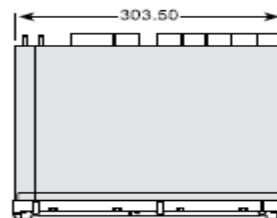
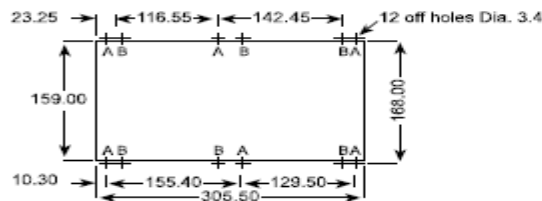
P342 (60TE): 9.2kg

P343 (60TE): 11.5kg

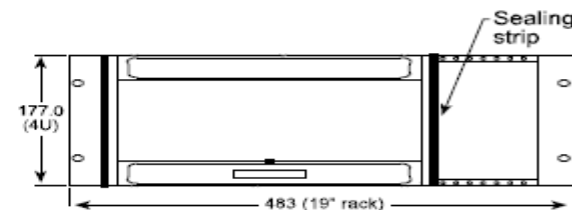
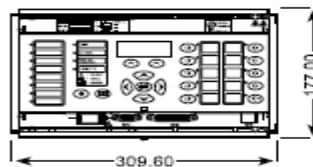
P343 (80TE): 14kg

DESIGN

Modular MiCOM Px40 platform relay,
P342 in 40TE or 60TE case, P343 in
60TE or 80TE
or 19" rack mounted (ordering options).

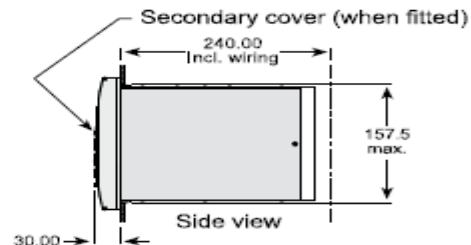


Front view



A = Clearance holes
B = Mounting holes

All dimensions in mm




Side view

P1616ENi

RELAY SELECTION GUIDE- GENERATOR PROTECTION



Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
e	Agile P344 	Modbus / IEC103/61850	24 / 32	24 / 32	8	5	P343 + Extra DI/DO + 5 PT input

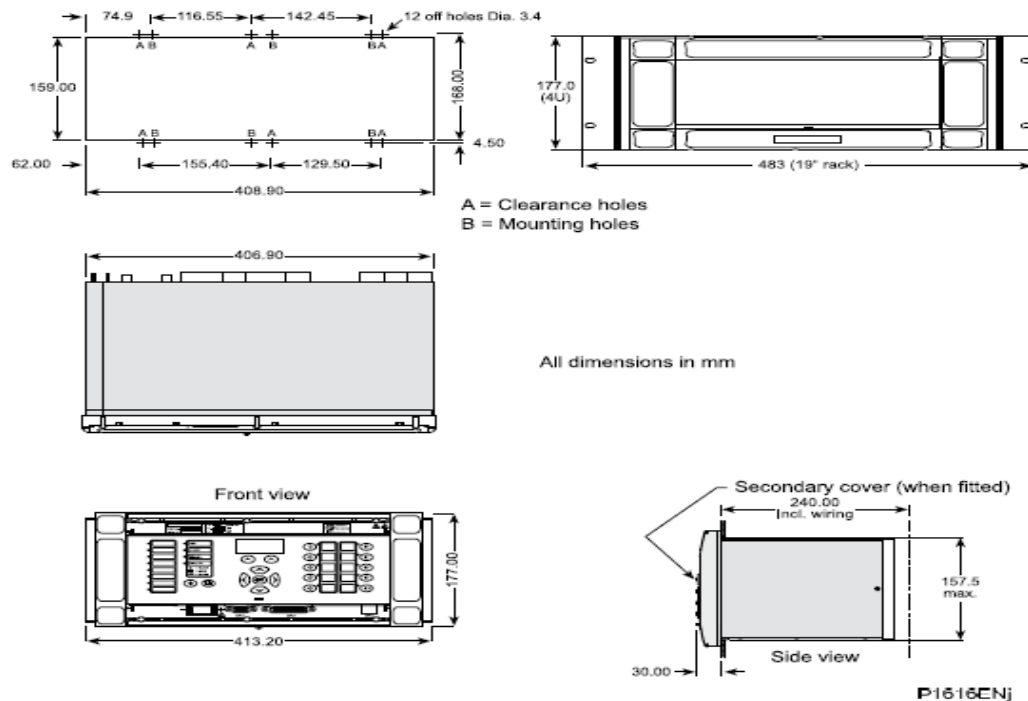
P343/4 case dimensions (80TE case)

WEIGHT

P343/4/5/6 (80TE): 14kg

DESIGN

case and P344 in 80TE case.
Mounting is front of panel flush mounting, or 19" rack mounted (ordering options).



RELAY SELECTION GUIDE- GENERATOR PROTECTION



Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
F	Agile P345	Modbus / IEC103/61850	24/ 32	24/ 32	9	6	P344 + 9CT and 6PT, 100% stator Earth fault through Frequency injection principle.

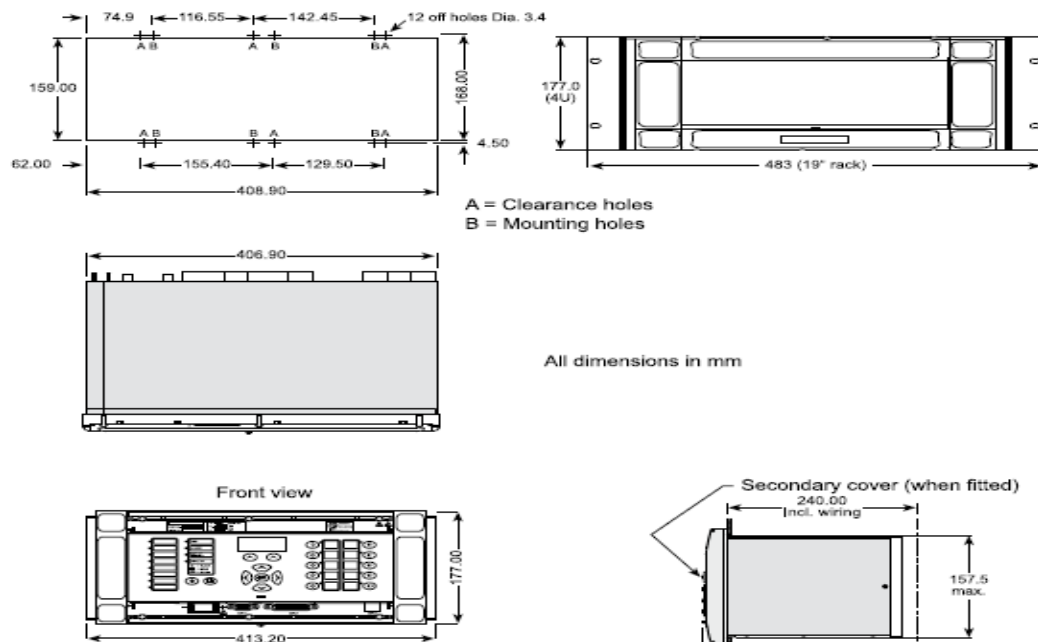
P345 case dimensions (80TE case)

WEIGHT

P345/6 (80TE): 14kg

DESIGN

case and P345 in 80TE case.
Mounting is front of panel flush mounting, or 19" rack mounted (ordering options).



P1516ENj

RELAY SELECTION GUIDE- GENERATOR PROTECTION



Sr. No	Model of relay	Protocol	Input (Min / Max)	Outputs (Min / Max)	CT INPUTS	VT INPUTS	ANSI Code
d	Agile P346	Modbus / IEC103/61850	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 ground fault (available with CLIO option and P391)

P346 case dimensions (80TE case)

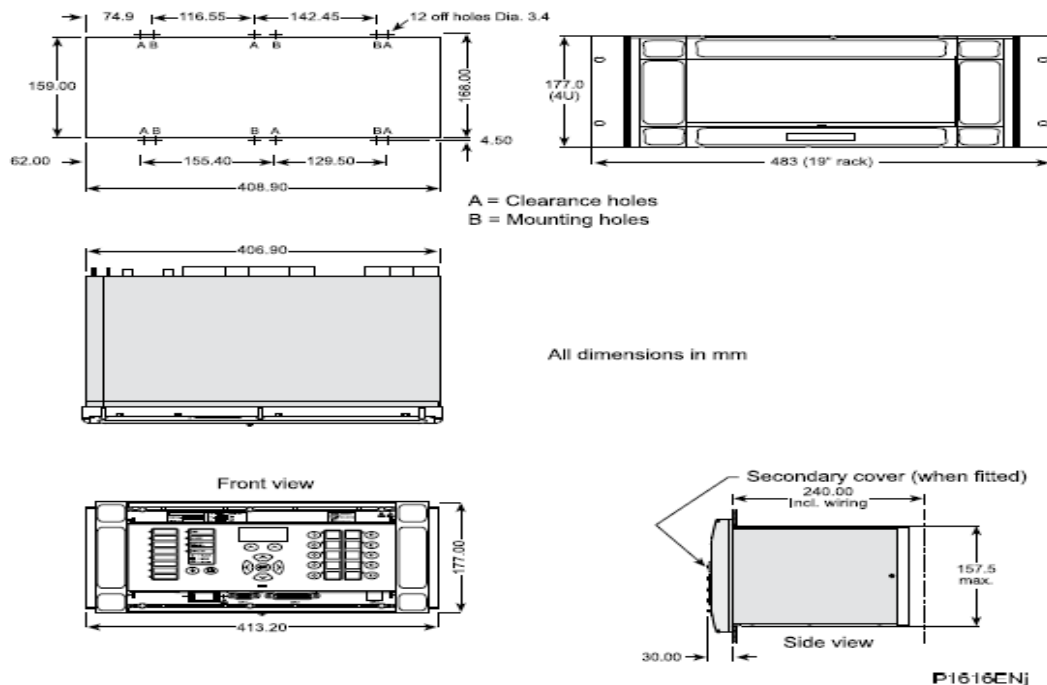
WEIGHT

P346 (60TE): 11.5kg

P343/4/5/6 (80TE): 14kg

DESIGN

Modular MiCOM Px40 platform relay,
P346 in 60TE or 80TE





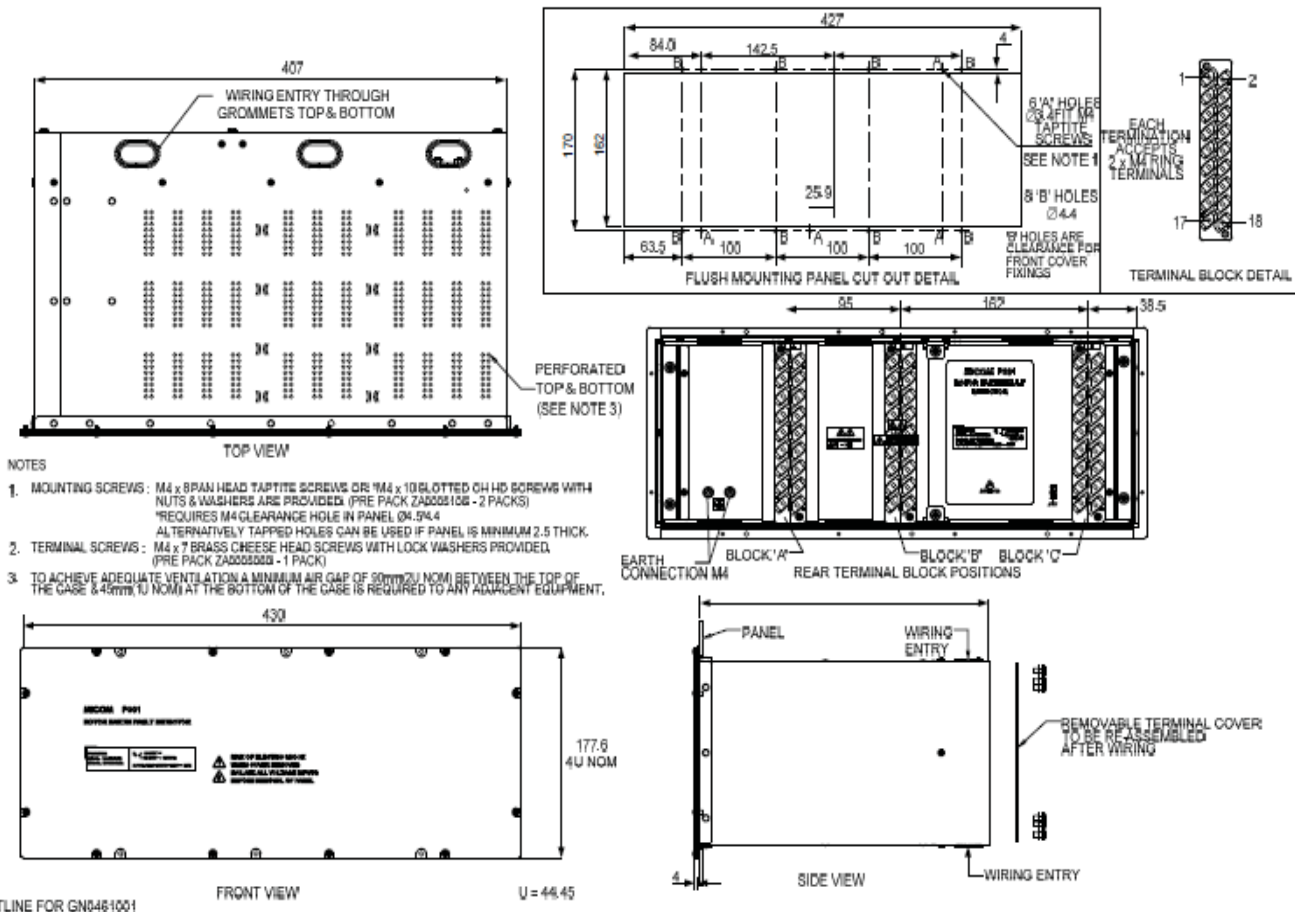
P391 case dimensions (80TE case)

WEIGHT

P391 (80TE): 5kg

80TE case.

Mounting options are, wall mounting, front of panel flush mounting, or 19" rack mounted (ordering options)



P391 ROTOR EARTH FAULT UNIT (REFU) MOUNTING

The P391 unit is dispatched either individually or as part of a panel/rack/wall assembly. Sufficient airflow must be maintained around the P391 at all times. For this reason it is essential that a minimum clearance from other equipment of 2U (89 mm) above and 1U (44.5 mm) below the P391 is maintained.

The REFU is normally supplied with an outline diagram showing the dimensions for panel cut-outs and hole centers. This information can also be found in the product publication.

8.1 Rack mounting

The P391 unit can be rack mounted into a rack with M6 x16 slotted pan head screws provided.

8.2 Panel mounting

The P391 unit can be flush mounted into panels using M4 x 8 Pan head Taptite self-tapping screws provided. These fastenings are available in packs of 5 (our part number ZA0005104).

Alternatively tapped holes can be used if the panel has a minimum thickness of 2.5 mm.

8.3 Wall mounting

The P391 unit can be wall mounted using M6 anchor bolts or similar (not provided).

Power Supply

Auxiliary Voltage (Vx) 60-250 V dc, or 100-230 V ac (rms) 50/60 Hz

Operating Range

48-300 V dc, or 85-253 V ac (rms) 50/60 Hz With a tolerable ac ripple of up to 12% for a dc supply, per IEC 60255-11: 1979.

Nominal Burden

Auxiliary Supply Input burden: 11 W or 24 VA.

Power Supply Interruption

Per IEC 60255-11: 1979 The relay will withstand a 20 ms interruption in the DC auxiliary supply, without De-energizing.

Per IEC 61000-4-11: 2004 The relay will withstand a 20 ms interruption in an AC auxiliary supply, without de-energizing.

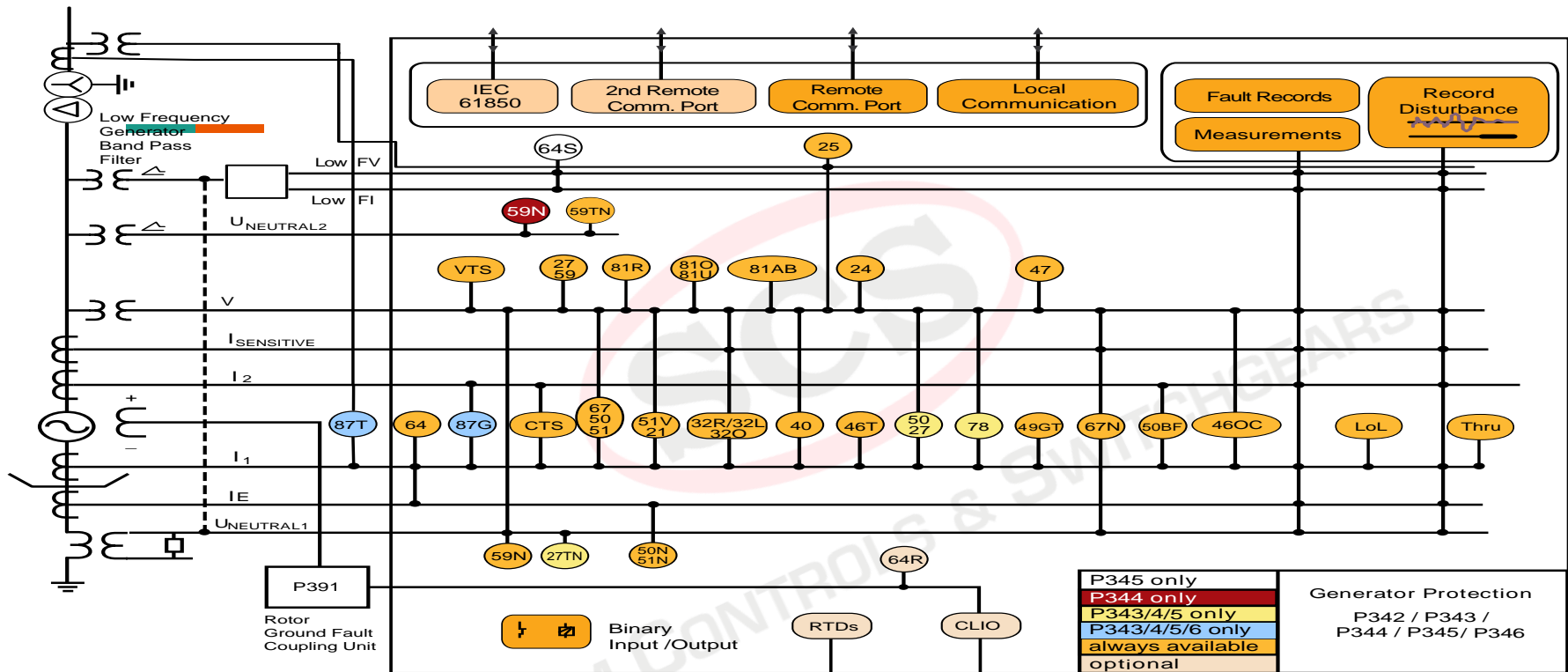
Output Contacts

Watchdog Contacts

Non-programmable contacts for relay healthy/relay fail indication:

Breaking capacity:

RELAY SELECTION GUIDE- GENERATOR PROTECTION



P1668ENC

❖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

Office / Stores : Plot No.8,Block No.A,Naraina Industrial Area, Phase-1, New Delhi-28



[Sales@systemcontrols.co. in/](mailto:Sales@systemcontrols.co.in) support@systemcontrols.co.in



Sales :- 011-45631915,45631902,09810009036



Support :- 9717143393



011-45631903

www.systemcontrols.co.in / www.powerfactorshop.com