

# Protection Systems



**EASUN REYROLLE**

Catalogue

# Product Range

Generator Control Panel

Transformer Panel

Line Panel

Bus Coupler Panel

Bus Sectionaliser Panel

Metering Panel

Control Desk

Mosaic Mimic Panel

Control Desk-cum-Mosaic Mimic Panel

# Protection Systems

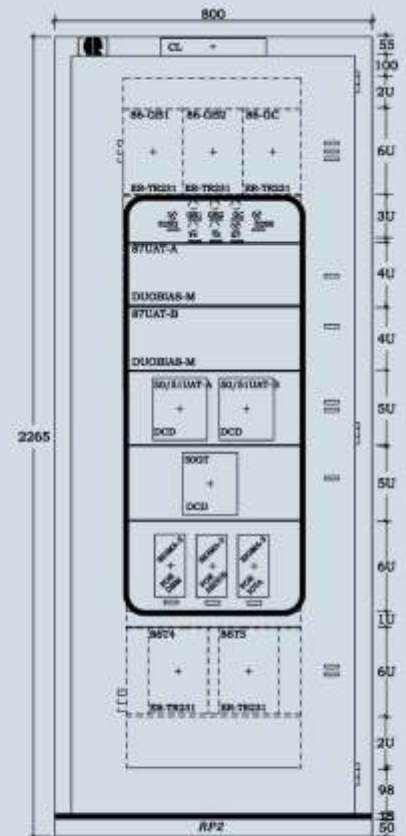


## Features & Benefits

- Choice of simplex or duplex panel design
- Suitable for system ratings from 11 kV to 400 kV
- Completely metal-enclosed, free-standing, floor mounting installation
- Suitable for flush or semi-flush mounting of equipment
- Modular construction with 19" rack mounting arrangement for relays
- Dust & vermin-proof conforming to IP:31 or IP:54 as per IS:2147
- Seven-tank phosphate process for metal surface
- Panel dimensions as per requirements
- Well-illuminated cubicles with anti-condensation heaters
- Convenient minimum & maximum operating heights to meet with requirements
- Mimic diagram power flow representation
- Perspex transparent doors for easy visibility of relays & simultaneously providing protection from dust / moisture ingress
- Test blocks for facilitating site testing & calibration
- Suitable for both indoor & outdoor (kiosk) duty



Relay Panel - Simplex version



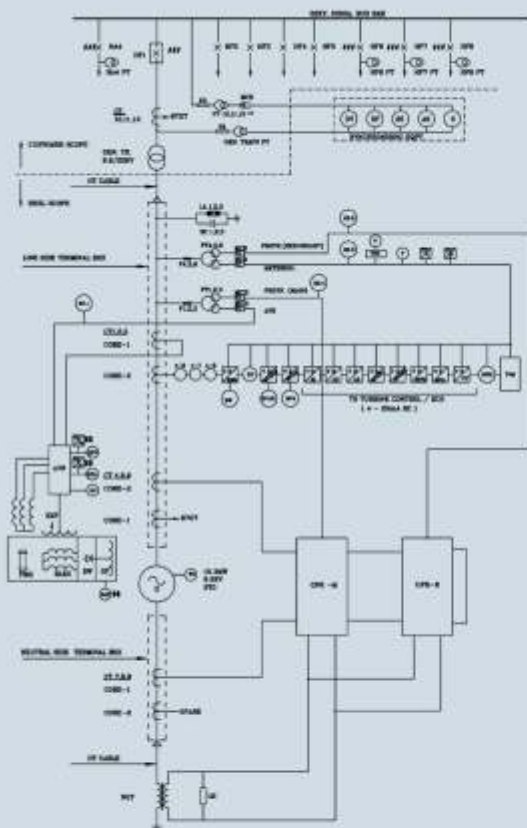
GA Drawing for Generator Control Panel-Simplex swing version

# Protection Systems

## Applications

Scheme design & total solutions for following applications:

- Generator protection & control
- Line protection & control
- Transformer protection & control
- Busbar protection & control
- Synchronising
- Reactor protection & control
- Buscoupler protection
- Capacitor bank protection & control



Typical single line diagram for 15.3 Mw, 6.6kV Generator



Generator Control Panel



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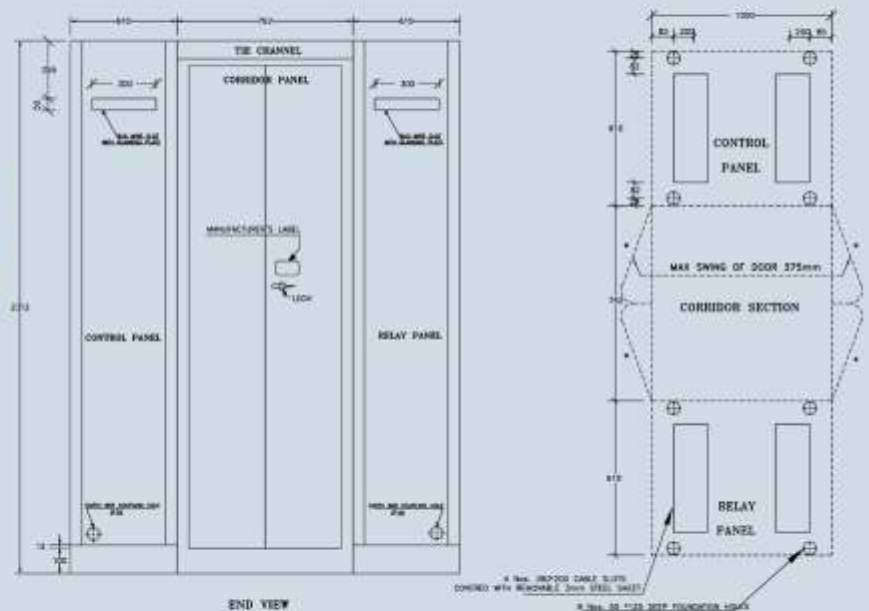


## Design Considerations

- Sheet steel thickness
  - Front, door frames & bottom - 3mm
  - Top, sides & door - 2mm
- Single/double leaf doors with locking arrangement
- Tinned copper flat safety earth bus 25x6mm or 50x6mm
- Anodised aluminium or PVC name plates
- Neoprene gaskets for all doors, covers & panels
- 650V grade PVC control wiring with multistrand copper
- Disconnecting & non-disconnecting terminal blocks with adequate spare terminals
- Ferrules for easy wire identification
- Bottom cable entry



Duplex Relay and Control Panel

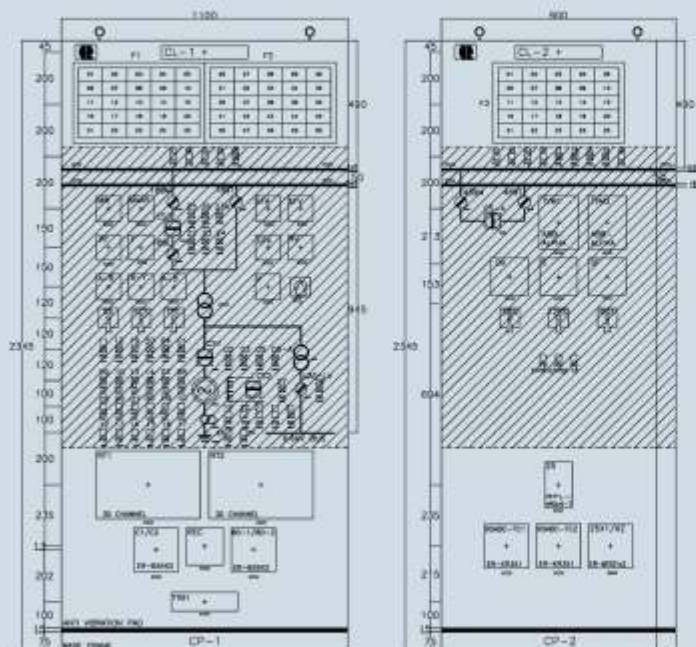


Typical end elevation and foundation plan details of 33kV Duplex Panel

# Protection Systems

## Typical Equipment Types

- Relay and control panels for Generators, Transformers, Busbars, Reactors, Capacitors etc.
- Swivel-type synchronising panels/trolleys
- Annunciation panels
- Control desks
- Mosaic mimic panels
- Control desk-cum-mimic panels



Typical GA Drawing for 62.69 Mw, 11kV Relay Panel-Simplex version



Control-cum-Annunciation Desk





The policy of Easun Reyrolle is one of continuous improvement and development. The company therefore reserves the right to supply equipment, which may differ slightly from that described and illustrated in this publication.

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