



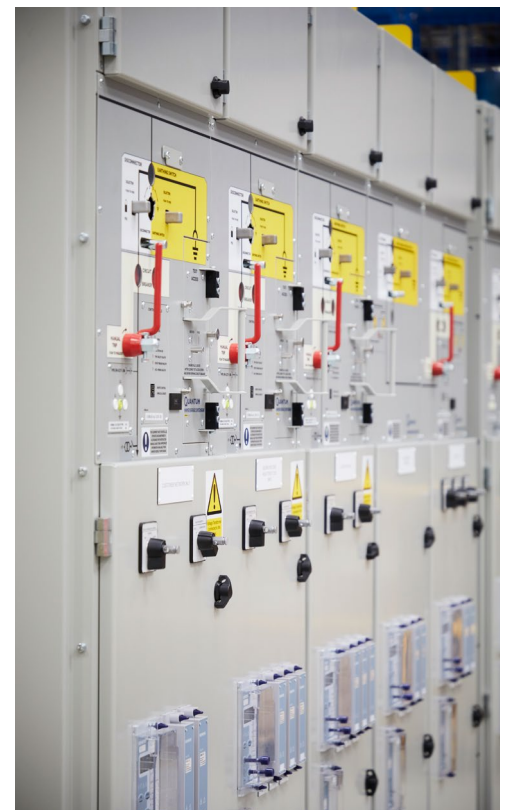
CRYNO

12kV Fixed Pattern Indoor Metal Enclosed Vacuum Switchgear with Award-winning Magnetic Actuator

Overview

Introducing **Cryno**, the latest addition to the BRUSH Switchgear AC range. Utilising air insulation and vacuum technology, **Cryno** is a 12kV fixed pattern indoor metal enclosed vacuum switchgear, suitable for use in a wide range of industries.

Combining the functionality of our highly regarded Eclipse and Quantum switchboards, **Cryno** is the next step in switchgear evolution. Delivering the performance, reliability and safety you'd expect from BRUSH Switchgear, **Cryno** also offers a compact, space-saving footprint, and boasts enhanced features.



Key features

- Compact design
- Improved operator safety
- Custom solutions
- Ease of maintenance
- Diversification of energy
- Award-winning technology

Dimensions

Dimensions (mm)

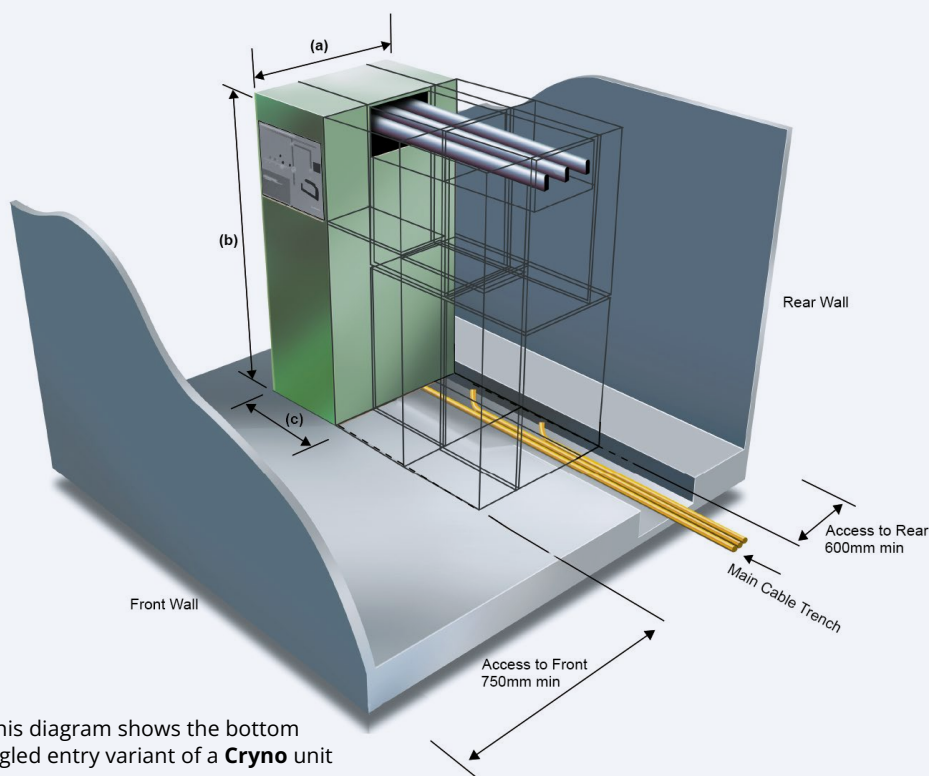
Dimensions for a standard **Cryno** feeder/incomer panel:
(a) 1172 **(b)** 2104 **(c)** 500

Dimensions for a standard bus-section panel:
(a) 1172 **(b)** 2104 **(c)** 1000

Dimensions for a single panel with busbar VT:
(b) 2446

Dimensions for extended top/bottom entry cable box:
 Up to four cables per phase
(a) 1852

Dimensions for 'C-type' bottom/top entry cable:
(a) 1648



Ratings

| RATINGS | |
|--|---|
| Rated normal current | 630A, 1250A, 2000A |
| Rated voltage (Ur) | 12kV |
| Rated frequency (fr) | 50 Hz |
| Rated BIL | 95kV pk |
| Rated power frequency withstand | 38kV 1 min |
| Rated short-time withstand current | 25kA rms 3 secs |
| Rated peak making current (Ik) | 62.5kA |
| Ratings for internal arc classification (IAC) | |
| Type of accessibility | AF/AFL (optional) |
| Rated three-phase arc fault values: current (IA) and duration (tA) | 25kA for 1 sec |
| Rated short circuit breaking current | 25kA |
| Degree of protection | IP4X |
| Single capacitor bank breaking current | 400A* |
| Circuit breaker classification | E ₂ ** , S ₁ , C ₂ * |
| Auxiliary operating supply | 110V DC |
| Busbars normal current | Up to 2000A |
| Typical weight | 500-700kg |
| Ambient air temperature | -5°C to +40°C |
| Relative humidity | <95% |
| Altitude | <1000m |
| Mechanical endurance | M2, 10,000 operations |

* 2000A not yet available

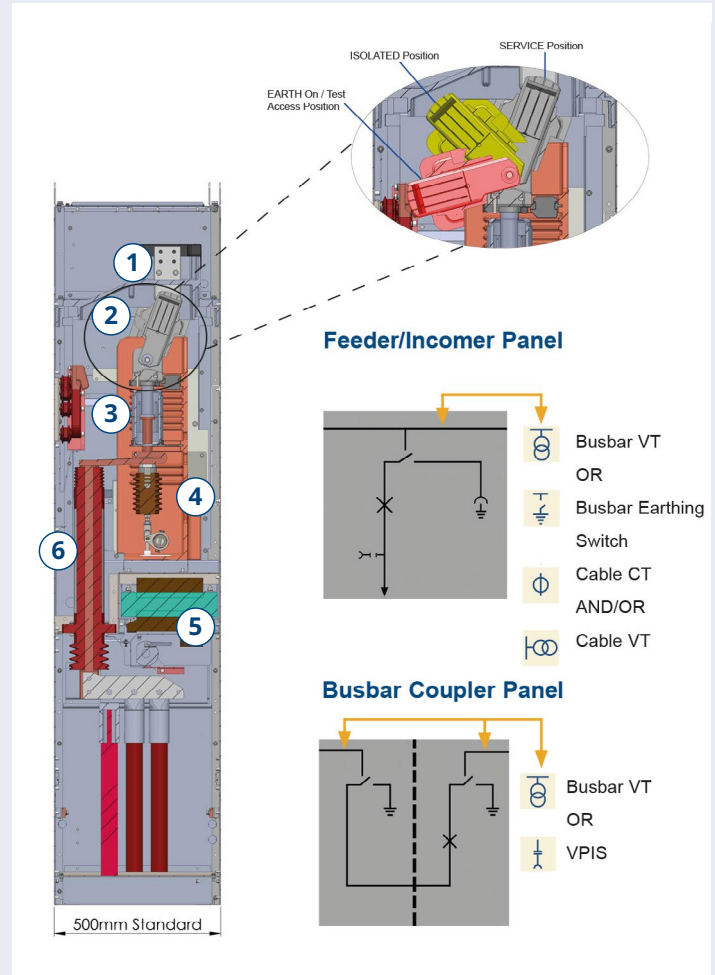
** non auto-reclose for 2000A only

Standards

- IEC 62271 series of standards
- ENA Notice of Conformity No. 1140

Engineering detail

- 1 Sleeved busbars constructed from hard drawn, high conductivity copper, and vermin proof covered joints, with normal current ratings up to 2000A. The busbar arrangement permits future expansion, at either end of the switchboard.
- 2 Fully interlocked, manually operated three-position disconnecter including circuit earth and front panel cable test access. The disconnecter can be secured and padlocked in all three positions: 'SERVICE', 'ISOLATED' and 'EARTH On/Test Access Position', with its status indicated by animated front panel mimics.
- 3 A single moulding supports the three phase vacuum interrupter assembly, magnetic actuator mechanism and drive mechanism.
- 4 The single coil magnetic actuator mechanism is based on a solenoid plunger, held in the tripped or closed position by permanent magnets.
- 5 Three phase cast resin voltage transformer, with manually operated off-load disconnecter on the primary circuit.
- 6 Generous CT accommodation enables complex protection schemes to be catered for in a single panel, whilst still allowing for a metering provision. The CT designs are rated in keeping with the short time withstand level of the equipment.



More information

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FOR MORE
INFORMATION
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Our solutions

Supporting the
drive to net zero

Engineered to
perform

Innovative
by design