



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 |
|  Reduced maintenance |  SF ₆ -free |  Future proof projects |





CRYNO

Dimensions

CRYNO achieves its compact product footprint by combining our magnetic actuator and single phase vacuum interrupters, in a fixed pattern configuration. Our CT sizing allows for complex protection and metering provision and ensures operators have space to maneuver when completing maintenance.

Custom duct solutions available, for ceiling heights as low as 2.7m, should your project require directed venting to **BS EN 62271-200 ANNEX A**.

Dimensions (mm)

Dimensions for a standard feeder/incomer panel:

CRYNO (a) 1172 (b) 2104 (c) 500

CRYNO AFLR (a) 1450 (b) 2311 (c) 500

Dimensions for a standard bus-section panel:

CRYNO (a) 1172 (b) 2104 (c) 1000

CRYNO AFLR (a) 1450 (b) 2311 (c) 1000

Dimensions for a single panel with busbar VT:

CRYNO (b) 2446

CRYNO AFLR (b) 2653

Dimensions for 'C-type' bottom/top entry cable:

CRYNO (a) 1648

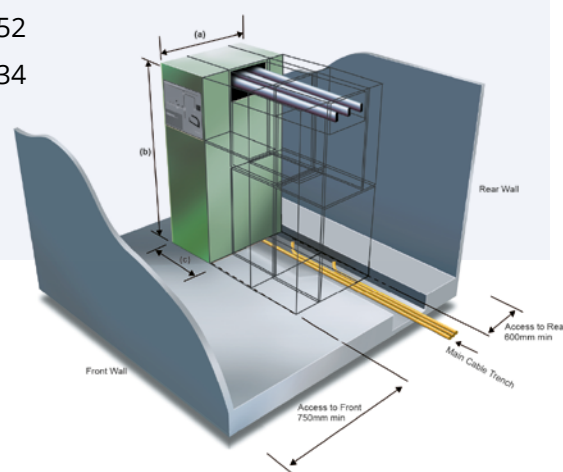
CRYNO AFLR (a) 1839

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

CRYNO (a) 1852

CRYNO AFLR (a) 2134

Note: This diagram shows the bottom flat / angled entry variant of a **CRYNO** unit



Standards

■ IEC 62271 series of standards

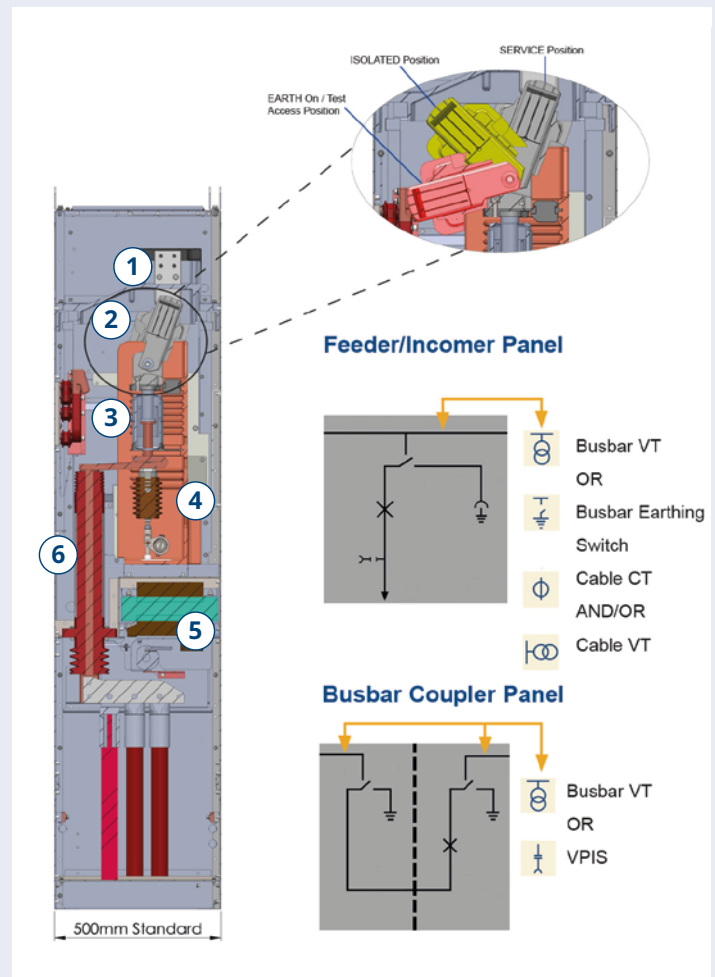
Ratings

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

* 2000A not yet available ** non auto-reclose for 2000A only

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

BRUSH Switchgear

Unit 4, Hawtin Park
Gellihaf,
Blackwood
South Wales
NP12 2EU

switchgearservice@brush.eu
+44 (0)1495 223001



FOR MORE
INFORMATION
SCAN HERE

SERVICE 24

- Technical support 24/7 from our team of highly experienced service engineers.

+44 (0)1495 223001
switchgearservice@brush.eu

Our solutions


Supporting the
drive to net zero


Engineered
to perform


Innovative
by design