Eclipse

12kV Fixed Pattern Indoor Metal-Enclosed Vacuum Switchgear

The Eclipse is designed to provide a lifetime of unrivalled service, bringing together one of the most advanced operating mechanisms available on the market today – the award winning magnetic actuator technology, with vacuum interruption and the simplicity of air insulation in a compact, fixed pattern design. Appreciated throughout the distribution network and across every business sector, the Eclipse currently holds a dominant market position for 11kV indoor switchgear.

The Eclipse, which is newly certified to IEC62271, is also now available as a pre-engineered solution in ratings up to 25kA, 2000A. Alternatively, it can be fully engineered to meet exact customers needs.

Key Features

- Superior, proven 'Fit & Forget' technology with minimal maintenance;
- The fixed pattern design has the simplicity of air insulation and, with the low parts count (the total parts count has been reduced by a factor of x20 and the number of moving parts by a factor of x50), is more compact (500mm wide) than equivalent rated GIS equipment;
- The Eclipse boasts of superior operator safety with a fully interlocked disconnector selector mechanism, animated front panel mimic and a front access cable test facility, eliminating the need for any intrusive access to high-voltage compartments;
- Endurance tested to 10,000 operations;
- Environmentally friendly vacuum interrupters;
- Internal arc containment;
- Voltage Presence Indication System (VPIS) is fitted as standard to all panels (circuit);
- Magnetic Actuator powered from substation battery via contactors;
- Trip circuit supervision, self diagnostics & position indication contacts included as standard;
- Customer's choice of protection.

RATINGS	
Rated Normal Current	630/1250/2000A
Rated Voltage	12 kV
Rated Frequency	50 Hz
Rated BIL	75/95 kV pk
Rated Power Frequency Withstand	28/38 kV 1min
Rated Short-Time Withstand Current	20/25 kArms 3secs
Rated Peak Making Current	50/62.5 kA
Internal Arc Compliance	25 kA 1sec
Rated Short Circuit Breaking Current	20/25kA
Degree of Protection	IP4X
Single Capacitor Bank Breaking Current	400A /1250A
Circuit Breaker Classification	E2, S2, C2
Auxiliary Operating Supply	125/110/48/30V DC
Busbars Normal Current	1250, 2000A
Typical Weight	500 - 650kg
Ambient Air Temperature	-5˚C to +40˚C
Relative Humidity	<95%
Altitude	<1000m

Standards:

IEC 62271-200, IEC 62271-100, IEC 62271-102, IEC 62271-1, ENA TS 41-36

Quality Assurance Certified and accredited to ISO 9001 by AFAQ-EAQA.

HAWKER SIDDELEY SWITCHGEAR

your power in safe hands

DIMENSIONS (In mm)

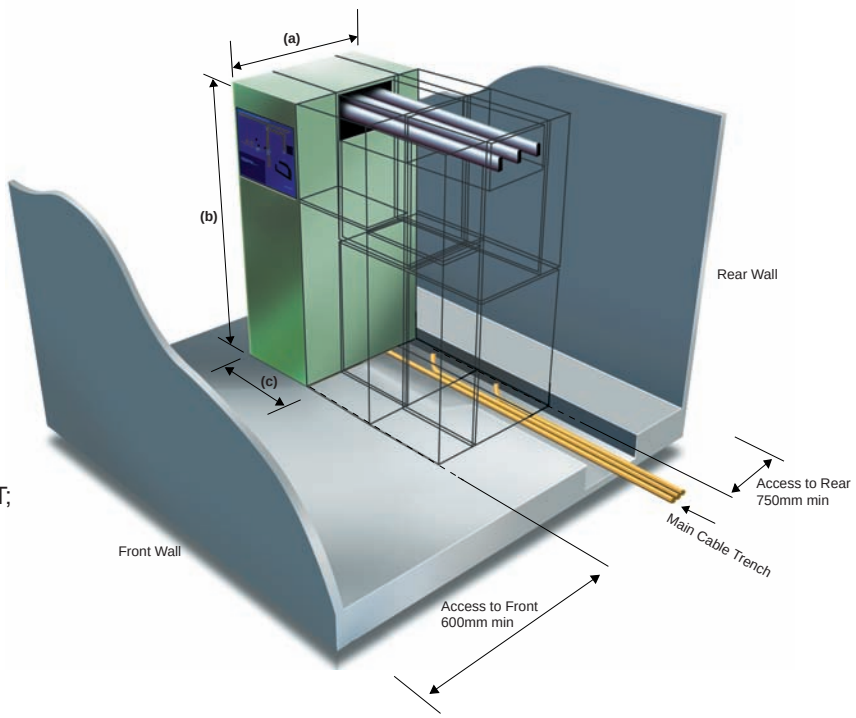
Dimensions for a standard Eclipse feeder/incomer panel;
(a) 1162 (b) 2165 (c) 500

Dimensions for a standard Bus-section panel;
(a) 1162 (b) 2165 (c) 1000

Dimensions for a Busbar earthing switch;
(c) 325

Dimensions for a single panel with Busbar VT;
(b) 2500

Dimensions for top entry cable;
One cable per phase - (a) 1482
Three cables per phase - (a) 1812



Eclipse 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.

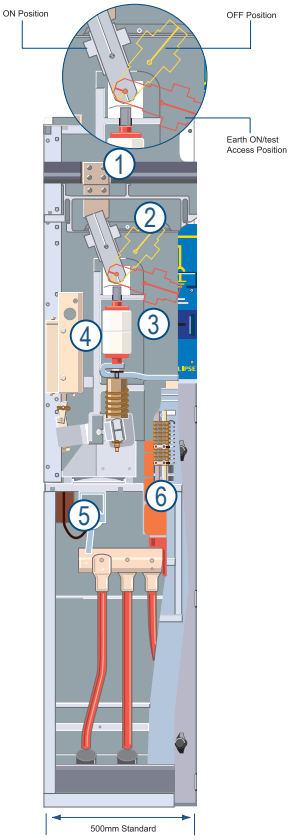
2. Fully interlocked, manually operated 3-position disconnector including circuit earth and front panel cable test access. The disconnector can be secured and padlocked in all three positions: 'on', 'off' and 'earth on/test', with its status indicated by animated front panel mimics.

3. A single moulding supports the three phase vacuum interrupter assembly, magnetic actuator mechanism and one-piece drive beam.

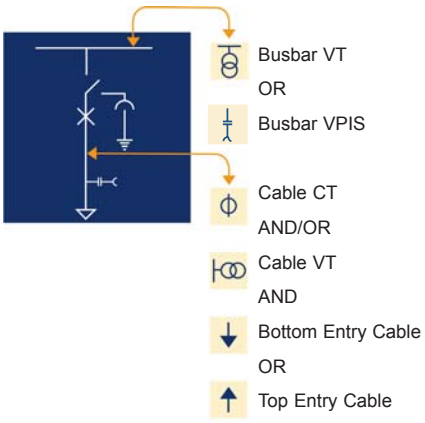
4. The patented single coil magnetic actuator mechanism is based on a solenoid plunger, held in the tripped or closed position by permanent magnets.

5. Three phase cast resin voltage transformer, with manually operated off-load disconnector on the primary circuit.

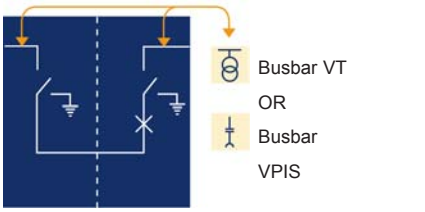
6. Generous CT accommodation enables complex protection schemes to be catered for in a single panel, whilst still allowing for a metering provision. The CT designs are rated in keeping with the short time withstand level of the equipment and comply with IEC 60044-1.



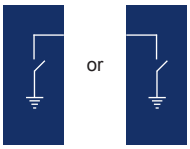
Feeder/Incomer Panel



Busbar Coupler Panel



Busbar Earthing Switch



Hawker Siddeley Switchgear Ltd Tel: +44 (0)1495 223001 Email: sales@hss-ltd.com
Hawker Siddeley Switchgear Pty Australia Tel: +61 (0) 7 3888 2333 Email: hssaus@hss-ltd.com
Hawker Sideley Switchgear South America Tel: +57 (0)1 256 4617 Email: sales@hss-ltd.com
Hawker Siddeley Switchgear Ltd Technology Centre Tel: +44 (0)1706 674000 Email: sales@hss-ltd.com

www.hss-ltd.com