

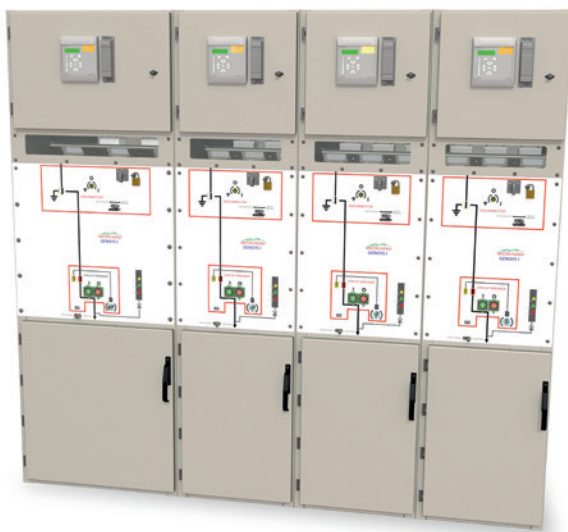
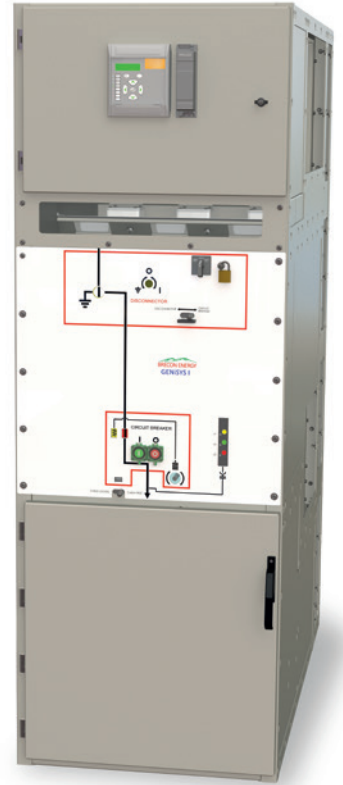
# GENiSYS I

**GENiSYS I** – Innovative range of fixed pattern 12kV solid dielectric distribution switchgear.

Resulting from many years of extensive research and analysis, combined with the latest moulding technologies and production techniques, Brecon Energy Limited is proud to present GENiSYS I.

### At the heart of the design is:

- Sealed for life, single phase module containing a vacuum interrupter in series with a three position linear disconnecter
- Each module is touch proof with the external surface earth bonded, ensuring complete phase segregation
- The earth bonding systems ensures a highly reliable discharge free environment
- All primary connections are completely earth bonded and touch proof
- Operation of the vacuum circuit breaker is by a highly efficient motor wound spring mechanism, with manual operating facilities for spring charging, trip and closing
- Combined with the vacuum circuit breaker mechanism is a fully interlocked drive for the three position disconnecter, which can be fully automated or manually operated
- Viewing window allows observation of the disconnecter moving contacts when located in the EARTH and SERVICE positions
- Busbars are silicone rubber insulated and of a plug together design, allowing easy on site installation. This design allows individual panels to be removed from a switchboard without the requirement to dismantle the complete switchboard

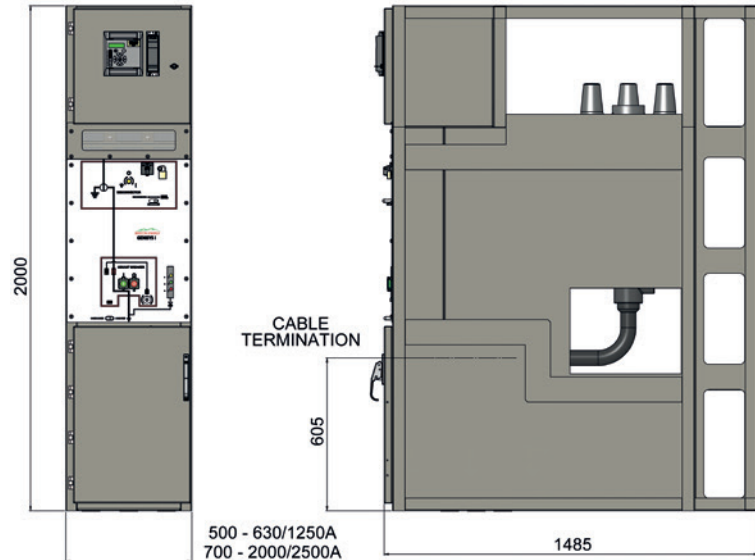


- Front access plug-on cable
- Cable accommodation 630/1250A – three cables per phase, 2000/2500A six per phase
- Busbar and feeder voltage transformers plug-on type therefore easily removable
- Plug on cables/bushings allow easy access to current transformers to facilitate upgrading
- Design allows location of the switchgear close to walls

# GENiSYS I

## Applicable Specifications

- IEC 62271-100
- IEC 62271-200
- EATS 41.36



## Technical Specification

GENiSYS I	630A	1250A	2000A	2500A
Rated Voltage (Ur)(kV rms)	12	12	12	12
Power frequency insulation level withstand test (kV) - 1 min dry	38	38	38	38
Rated lightning impulse withstand voltage (BIL) (kVp)	95	95	95	95
Impulse withstand voltage (BIL) (kVp) Isolation distance	110	110	110	110
Rated frequency (fr) (Hz)	50/60	50/60	50/60	50/60
Operating temperature range (°C)	-5 - +40	-5 - +40	-5 - +40	-5 - +40
Relative humidity (%)	0-100	0-100	0-100	0-100
Maximum altitude above sea level (m)	1000	1000	1000	1000
Rated continuous current (Ir) (A rms) - Busbars	1250 - 2500	1250 - 2500	2500	2500
Rated continuous current (Ir) (A rms) - Vacuum circuit breaker	630	1250	2000	2500
Rated short-time withstand current (Ik) (kA rms)	25/31.5	25/31.5	25/31.5	25/31.5
Rated duration of short circuit (fr) (s)	3	3	3	3
Rated peak withstand current (Ip) (kAp)	62.5/80	62.5/80	62.5/80	62.5/80
Rated symmetrical interrupting current of vacuum circuit breaker (Isc) (kA rms) (E2)	25/31.5	25/31.5	25/31.5	25/31.5
Rated asymmetrical making current (Ima) (kAp)	62.5/80	62.5/80	62.5/80	62.5/80
Rated operating sequence or circuit breaker (s)	O-0.3-CO-15-CO	O-0.3-CO-15-CO	O-0.3-CO-15-CO	O-0.3-CO-15-CO
Mechanical operating sequences of vacuum circuit breaker (C-O) (M2)	10 000	10 000	10 000	10 000
Rated short-time withstand current of Earthing Switch (Ik) (kA rms) (3s)	25/31.5	25/31.5	25/31.5	25/31.5
Rated making current of Earthing Switch (Ima) (kAp) (E2)	62.5/80	62.5/80	62.5/80	62.5/80
Mechanical operating sequences of Earthing Switch (C-O) (M2)	3000	3000	3000	3000
Degree of protection to exterior	IP4X	IP4X	IP4X	IP4X
Degree of protection high voltage	IP65	IP65	IP65	IP65
Internal arc to IEC62271-200 Accessibility Type	A	A	A	A
Internal arc to IEC62271-200 Accessibility class	FLR	FLR	FLR	FLR
Internal arc to IEC62271-200 Rated short-time current (Ik) (kA rms) (1s)	31.5	31.5	31.5	31.5
Internal arc to IEC62271-200 Rated peak current (Ip) (kAp)	80	80	80	80
Rated Control Voltage (Ua)(V dc)	30/110/220	30/110/220	30/110/220	30/110/220