Medium voltage switchgear
With fixed pattern circuit breaker

GenieEvo
Simple and highly reliable switchgear for primary and secondary distribution
GenieEvo is an indoor switchgear assembly circuit breaker that provides maximum user safety. It is intended to meet all electrical distribution needs from 3.3kV to 13.8kV and incorporates a set of innovative solutions using proven techniques:

- Hi-performance vacuum breaking device
- Digital protection and control system
- A range of cubicles designed and tested for internal arc resistance
- Proven insulation systems for all environments

GenieEvo is the result of extensive experience: proven to deliver high levels of reliability and safety. It is particularly suitable for network operators, infrastructure, banking, data centres and large commercial sites, for the distribution of medium voltage.

**GenieEvo: outstanding references**

With its strong reputation, GenieEvo has become the switchgear trusted by those who supply the critical installations and need to ensure uninterrupted service:

- **Network operators**
  - EDF Energy
  - Scottish Power

- **Transport**
  - Tyne Crossing
  - Heathrow airport
  - Birmingham New street station
  - Paddington Central station

- **Water treatment**
  - UU Water
  - Yorkshire Water
  - Severn Trent Water

- **Telecommunications & data centres**
  - Equinix Data
  - BBC Media
  - Infinity data centre

- **Industry**
  - Aston Martin
  - Bells Whiskey
  - British Gypsum
  - John Smiths brewery

- **Banking and finance**
  - Canary Wharf
  - New York Stock Exchange
  - Morgan Stanley
  - Deutsch Bank

- **Hospitals**
  - Hammersmith hospital
  - Princess Diana hospital
GenieEvo: high-level protection for users
GenieEvo is designed to protect users through its resistance to faults due to internal arcing.

Offering piece of mind for end users:
- Internal arc to IEC 62271-200
- Front protection
- Optional four sided protection
- Assessed to ENATS 41-36 specification
- Safety systems that prevent unauthorised operations

GenieEvo: high reliability in all environments
GenieEvo is has been proven to be reliable no matter what the substation environment.

GenieEvo design has features design features for enhanced reliability:
- Insulated connections and earth screened disconnector
- Earth screened busbar option for a fully earth screened switchboard
- Evolis breaker proven technology
- Solid insulated busbar and primary connections

GenieEvo: simplicity in design and operation
GenieEvo has been designed for all involved in the selection, installation, commissioning and end user.

With unique features for all those involved in the supply chain to the end user:
- Pre-engineered catalogue solutions or engineered to individual requirements
- Attractive lead times
- Simple to use
- Virtually maintenance free fit and forget

GenieEvo: compact in design
GenieEvo compact design allows designers to keep substation civil costs down with features to assist consultants, architects and contractors:
- Compact footprint and lower than standard door height
- Easy to install and commission
- Minimal working space required when installed
- Switchboards can have additional panels added at a later date
GenieEvo:

### Main characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated system voltage</td>
<td>13.8kV</td>
</tr>
<tr>
<td>Rated frequency</td>
<td>50/60Hz</td>
</tr>
<tr>
<td>Rated insulation level</td>
<td></td>
</tr>
<tr>
<td>Impulse voltage withstand (1.2/50μs)</td>
<td>95kV peak</td>
</tr>
<tr>
<td>Power frequency voltage withstand (1 min)</td>
<td>38kV</td>
</tr>
<tr>
<td>Busbar ratings</td>
<td>630A/1250A/2500A</td>
</tr>
<tr>
<td>Internal arc rating</td>
<td>Up to 25kA AF or AFLR for 1 second</td>
</tr>
<tr>
<td>Rated short time current</td>
<td>25kA rms</td>
</tr>
<tr>
<td>Rated short time duration</td>
<td>3 seconds</td>
</tr>
</tbody>
</table>

### Circuit breaker characteristics

<table>
<thead>
<tr>
<th>Technology</th>
<th>Vacuum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated breaking current (symm)</td>
<td>25kA</td>
</tr>
<tr>
<td>Rated peak making current</td>
<td>67.5kA</td>
</tr>
<tr>
<td>Rated nominal current</td>
<td>200A/630A/1250A/2000A/2500A</td>
</tr>
<tr>
<td>Rated cable charging breaking current</td>
<td>25A</td>
</tr>
<tr>
<td>Rated operating sequence</td>
<td>0-0.3s-CO-15s-CO</td>
</tr>
<tr>
<td>Mechanical charging time</td>
<td>&lt; 5 seconds</td>
</tr>
</tbody>
</table>

### Dimensions

<table>
<thead>
<tr>
<th>Type</th>
<th>Width</th>
<th>Depth</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incomer/feeder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 1250A</td>
<td>500mm</td>
<td>1200mm</td>
<td>1900mm</td>
</tr>
<tr>
<td>2000A/2500A</td>
<td>750mm</td>
<td>1200mm</td>
<td>1900mm</td>
</tr>
<tr>
<td>Bus-section</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 1250A</td>
<td>1000mm</td>
<td>1200mm</td>
<td>1900mm</td>
</tr>
<tr>
<td>2000A/2500A</td>
<td>1250mm</td>
<td>1200mm</td>
<td>1900mm</td>
</tr>
</tbody>
</table>

GenieEvo: thorough, systematic testing

During manufacture, each cubicle undergoes systematic routine testing aimed to check quality and conformity:

- Testing of circuit breaker and disconnector
- Measurement of closing and opening speeds
- Dielectric testing
- Testing of safety systems and interlocks
- Testing of digital protection and control systems
- Testing of low voltage components
- Conformity of drawings and diagrams

GenieEvo: ISO 9001 certified quality

Each Schneider Electric manufacturing site complies with meticulous quality department procedures to maintain constant high quality and ensure compliance to standards.

Schneider Electric gives you the guarantee of consistent quality, wherever the manufacturing site, anywhere in the world and is recognised by a large number of customers and officially recognised organisations.

The strict, measured implementation of the quality system has been acknowledged by independent organisations: UKAS (UK Accreditation Service) and AFAQ (French Quality Assurance Association).

GenieEvo’s quality system for design and manufacturing is certified according to the requirements of ISO 9001: 200 quality assurance standards.
**GenieEvo:** high reliability and simplicity in design

**Low voltage cabinet**
This cabinet includes:
- Sepam relay
- Low voltage components
- Electrical controls for the switchboard
- Voltage presence indicator

**Busbar compartment**
This compartment connects other cubicles in the switchboard via busbars.

**Switchgear compartment**
This compartment contains:
- Vacuum circuit breaker
- Encapsulated air disconnector and earthing switch
- Protection and metering CT’s
- Voltage transformers

**Cable box**
The cable box can accommodate up to 4 x 630²mm cables per phase

For further information on our range of products please contact:
Call 0870 608 8 608 or visit [www.schneider-electric.co.uk](http://www.schneider-electric.co.uk)
Nationwide support on one number -

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With sales of €18.3 billion in 2008, the company’s 114,000 employees in 102 countries help individuals and organisations make the most of their energy.

We are changing our brand names and becoming one Schneider Electric. You’ll get the same great quality products, but from one name you can remember and trust. This provides you and your customers with the reassurance associated with Schneider Electric.

Some of our market leading brands have already become Schneider Electric including Merlin Gerin, Telemecanique, Mita, Sarel, Himel, Thorsman, Tower and TAC.

Working as one Schneider Electric makes it clearer that our ranges are highly compatible for integrated solutions.

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As standards, specifications and designs change from time to time, please ask for confirmation of the information given in this publication.