The specialist in Medium Voltage Switchgear







THE SPECIALIST IN MEDIUM VOLTAGE SWITCHGEAR

www.switchgearcompany.eu

# SGC, your partner in medium voltage switchgear

SGC – SwitchGear Company provides reliable products for electrical distribution applications. More specific, SGC-SwitchGear Company is a **supplier of medium voltage switchgear (1000 - 36000 V)**.

We are a fast-growing Belgian company that invests considerable time and energy in **Research & Development** to serve customers even better. **User-friendliness, safety** and **care for the environment** are the main drive for developing SGC's switchgear.

SGC - SwitchGear Company is **driven by operator safety.** Our mission is to safeguard the personal safety of the operators of our products. We serve our distributors, electric utility companies, contractors and industrial companies around the world with innovative and durable medium voltage switchgear.



 Driven by operator safety

 Active supplier in all continents of the world

# Medium voltage? What's that all about?

Power stations generate electrical power, with voltages up to 380.000 V, which is transported to transformer stations and dispersion stations.

These substations distribute medium voltage (1 kV up to 36 kV). Here too, a number of SGC nv SwitchGear Company's cubicles are used. A medium voltage grid starts from every substation and supplies a large area with medium voltage.

Wherever medium voltage enters residential areas, industrial production companies, market gardening, hotels, sport venues, and more, there is a medium voltage switchboard fulfilling four essential functions.

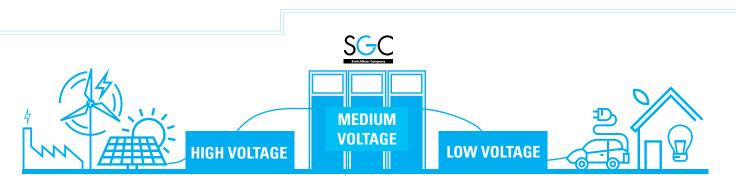
**1. POWER SUPPLY:** the utilities grid is branched off to create a reliable grid which allows switching.

**2. SECURITY:** the installation is secured with a load break switch with HRC fuses, or by a circuit breaker with a safety relay.

**3. MEASUREMENT:** the energy consumption is measured on the medium-voltage, or low-voltage side.

**4. TRANSFORMATION:** medium voltage is transformed into low-voltage < 1 kV.





SGC OFFERS SOLUTIONS FOR ALL KINDS OF APPLICATIONS Contact us for any further information or questions Call +32(0)9/321.91.12 or mail to sales@switchgearcompany.eu





# SGC, stands for...

- Safety: as we are active in a technical sector, transferring high amounts of energy, safety is of the highest importance.
- **Built to last:** we produce reliable switchgear that requires minimal maintenance and is aimed to have an infinite life.
- IEC certified products.
- Modern technology: we invest constantly in high technology to produce our switchgear.
- Ergonomic, eco-friendly production processes and green results: we achieve results where our products don't affect the ecology.
- Made-to-measure >> & Optionally customer labeled.
- User friendly products: A clear and logic synoptic diagram together with simple operations are essential to be able to take the correct actions in emergency situations.













# **DF-2**<sup>(+)</sup>, Our top of the range, superstar cubicle.



The DF-2 system is a **modular concept** based on the building blocks principle, which means that the manufacturing of the cubicles takes place in series. As such the modular concept **DF-2 meets the highest technical standards in a rational and economical responsible manner**. The combination of cubicles is unlimited. The most complex schemes of distribution and transformation substations can be constructed.

As the switching happens in an  $SF_6$  gas medium, the dimensions of our cubicles are very restricted. The semi-compact cubicles are especially interesting when the available space is a problem or is economically a heavy factor. The cubicles contain all functional interlockings so that they will operate properly in line with all applicable standards, in a workroom next to major users. It reduces the power losses to a strict minimum. The cubicles are equipped with a pressure relief so that the user is always protected against the negative consequences of an internal arc.



## Safety is our force. Built to last.

#### SF<sub>6</sub> insulation

For over 30 years  $SF_6$  gas has proven to be superior as an insulation and interruption medium in high (HV) and medium-voltage (MV) installations. It is extremely stable.

#### 2mm galvanized steel plates

DF-2 cubicles consist of 2 mm galvanized steel plates. This particular plate size coupled with the design means cubicles are able to withstand internal arcs effortlessly, both in the cable compartment as well as in the busbar compartment. Possible internal arcs are also guaranteed to be restricted to the compartment where they originated.

#### **Prevent leakage currents**

It is of great importance that leakages currents are avoided. Leakage current can provoke an internal arc. Therefore, it's important that the creepage distances between adjacent phases is enlarged without changing the physical distance between the phases and that the build-up of condensation is avoided.

# **SGC offers solutions** for all kinds of applications



#### **Metal Enclosed**

- Air insulated
- Always extendible
- Minimal amount of SF<sub>6</sub> (LBS)
- Switchgear is compartmentalized

#### **Metal-Clad**

Suitable for heavy industry and power stations

#### **Ring Main Unit**

- Gas insulated
- Compact monobloc
- Lateral extension optional

## **Other SF**<sub>6</sub> free solutions

- Extendible blocs
- Switchgear is compartmentalized

Get impressed. Visit our showroom virtually.



#### INTERESTED IN OUR PRODUCTS, PRODUCTION PROCESS OR PLANT?

Please contact our Sales Team. Send an e-mail to sales@switchgearcompany.eu for a guided tour, information on our products or visit our website www.switchgearcompany.eu





#### **DF-2**<sup>(+)</sup>

- Modular design
- Two position load break switch
- LSC 2A
- Ur:12-24kV; Ir: 630-1250A



#### **DF-3**<sup>(+)</sup>

- Compact modular design
- Three position load break switch
- LSC 2A
- Ur:12-24kV; Ir: 630A



#### **DW-2**

- AIS SF<sub>6</sub> Free
- Withdrawable circuit breaker with metallic shutters
- 4 separate compartments
- LSC 2B
- Ur:12-17.5kV; Ir: 630-2000A



#### GI-2

- Gas insulated switchgear
- Modular
- Ur: 12/17,5/24 kV
- Ir: 630-1250-1600-2500 A



#### DR-6<sup>(+)</sup>/DT-6<sup>(+)</sup>

- Monobloc with cable feeder and/or switch fuse combination
- Extension with monobloc and/or individual units
- Three position load break switch
- LSC 2A
- Ur:12-24kV; Ir: 630A



#### DI-2

- Monobloc with cable feeder and/or switch fuse combination
- Extension with individual units
- Two position load break switch
- LSC 2A
  - Ur:36kV; Ir: 400-630A



## SI-2

- Modular
- Two position load break switch
- IP 68
- LSC 2A
- Ur:12-15kV; Ir: 630A



## N<sub>2</sub> Blue

#### N<sub>2</sub> Blue

- Insulation medium: Nitrogen
- Flexible modular system
- Ur: 17,5 kV; Ir: 2500 A

# 

Our built-in Arc-Killers extinguish an arc in 48 milliseconds, 8 times faster than the blink of an eye

A short-circuit or another malfunction can create an internal arc. An internal arc in a classic MV cubicle, could severely damage the installation and possibly injure the operator and electrocute him or her.

Through a strategic **pressure release system**, the internal arc is restricted to the compartment where it originated and it does not propagate towards the operator or to other compartments.

The anti-arc kit of our cubicles is specifically designed to minimize the consequences of an internal arc. By default all provided cubicles are fitted on the rear side with overpressure valves pointing downward. All SGC nv SwitchGear Company cubicles are internal arc resistant.





# Our patented Arc-Killers SV-25 and SV-50 with DF-2<sup>+</sup>, DF-3<sup>+</sup> and DR-6<sup>+</sup> for optimal operator safety.

SGC nv SwitchGear Company's patented **SV-25** and **SV-50** Arc-Killers takes safety to a new level. Not just the operator and the environment are shielded from harm, but the super-swift arc extinguishing system allows cubicles to be back in operation very quickly in case of an internal fault.

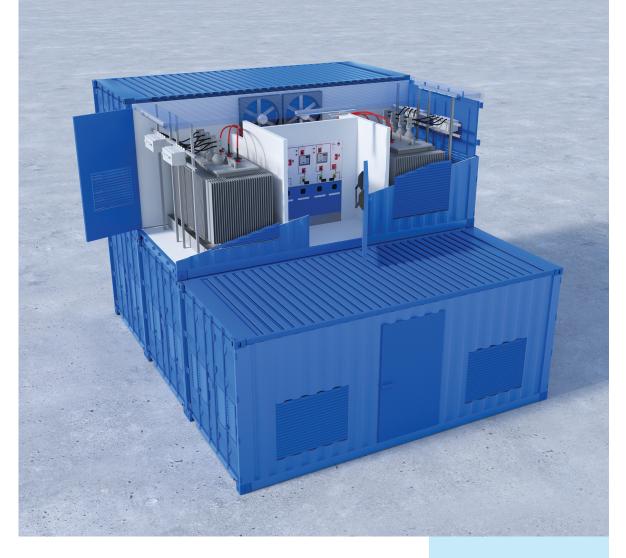
What's more, the arc-killer's improved security features place less strict demands on the installation room. As such, the Arc-Killer couples security and operational safety, with flexible room demands.











# Mobile switchgear solutions

One of our solutions is the CX-2 range: containerized mobile substations that offer a plug and play solution for mobile power plants and switching substations.

The CX-2 includes medium-voltage switchgear cubicles, (a) power transformer(s), and low-voltage distribution boards. Your entire CX-2 container is fitted with all components, tested in our factory, and shipped worldwide.

Containerized solution CX-2

### Typical Medium voltage setup

- Metering cubicle
- Protection cubicle
- Outgoing cubicle
- Incoming cubicle



# SGC, flexible solutions, indoor and outdoor

The CX-2 ranges sits in between our range of concrete solutions (BX-2) and galvanized steel solutions (GS-2), to complete a range of medium-voltage solutions that offer clients a quick and easy medium.

Galvanised steel housing GS-2



Concrete housing BX-2P





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Our vision is to be a global player and to be the premier switchgear company in every market that we serve. Being premier does mean being the best in terms of operator safety, quality, durability, innovation, technology, delivery and profitability, resulting in long term customer satisfaction.

#### SGC - SwitchGear Company nv

#### Medium voltage switchgear, built to last.

SGC - SwitchGear Company nv has been supplying reliable products for electrical distribution for more than 40 years. Innovative ideas and environmental care are the driving forces behind SGC - Switch-Gear Company nv. The development of complete solutions consists of a minimum number of components, all of which have an exceptional life span. SGC - SwitchGear Company nv stands for exceptional quality and superior customer care. Your desired specifications and deadlines are our main concern.

An exclusive factory and highly automated production lines are key factors in our "state of the art" components and systems. It enables us to develop the DF-2, DR-6/DT-6, DF-3 ,DI-2, SI-2, DW-2, GI-2 and  $N_2$  Blue to the highest quality standards. When it comes to delivery times, prices and products SGC - SwitchGear Company nv delivers.



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