



Designing a smarter future for a better life.

→ About neoGEN

NeoGen is a new range of sustainable modular medium voltage switchgear for secondary distribution applications such as compact substations. It has innovative, environmentally friendly, SF₆ free technology and combines resistance to ambient conditions with the flexibility and extendibility of a modular design. The insulation is air combined with solid insulation while all switching operations are done with vacuum technology. The switchgear is also prepared for smart grid applications and can be equipped with advanced protection, control and monitoring functions.

In the NeoGen range there are two main panel types:

- A vacuum switch-disconnector function for cable connections (IS);
- A vacuum circuit-breaker protection function for transformer or cable connections (DC).

→ neoGEN Design Features

- SF₆ free technology
- Modular switchgear (extensible both sides)
- Main circuit isolated and protected from ambient conditions
- Very compact and light design
- Insulation medium is air combined with solid insulation
- Vacuum technology for switching
- Easy installation and extension
- Same width for switch disconnector and circuit breaker modules (375 mm)
- Integrated MV cable testing facilities (optional)
- Integrated voltage and current sensors (optional)
- Automation controllers (optional)

Applicable International Standards

IEC 62271-1/100/102/103/200

Installation

Ambient temperature	-15 °C to 40 °C
Relative humidity	≤ 95 %
Altitude	≤ 1000 m
Installation type	Indoor

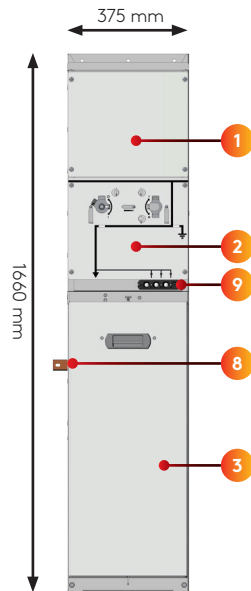
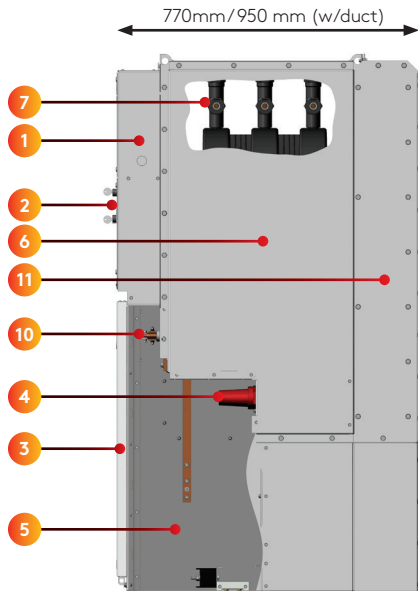
Ratings

Nominal voltage	17,5 kV	24 kV
Power frequency withstand voltage 50 Hz -1 min	38 kV	50 kV
Lightning impulse withstand voltage	95 kV	125 kV
Nominal current	630 A	
Short time withstand current	16 kA (3s)	20 kA (1s)
Peak withstand current	40 kA	50kA
Frequency	50 / 60 Hz	
Internal Arc (IAC AFLR)	up to 20 kA 1s	
Protection Index	IP2XC (operating mechanisms) IP3X (enclosure)	
Auxiliary circuits		
Signal voltage	24-220 Vdc / 110-230 Vac	
Control voltage	24-220 Vdc / 110-230 Vac	
Power frequency withstand voltage 50 Hz -1 min	2 kV	

→ neoGEN Architecture & Dimensions

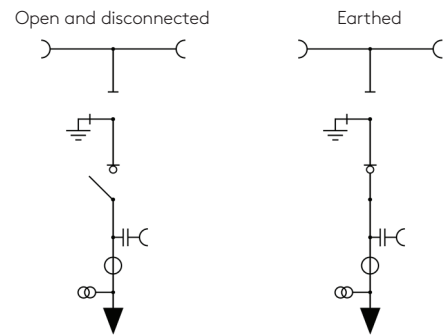
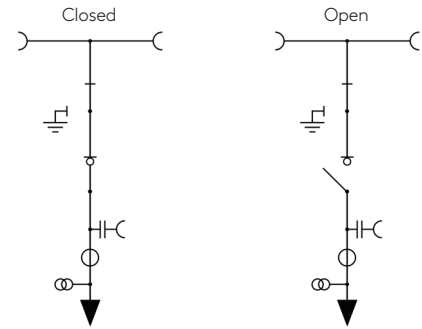
NeoGen switchgear design combines a two position disconnecter with a downstream vacuum switching device. This allows four operating positions of the switchgear as represented below. Note that in the disconnected position there is a safe sectionalizing distance in air isolating the cables from the busbar.

Dimensions & Single line diagram:

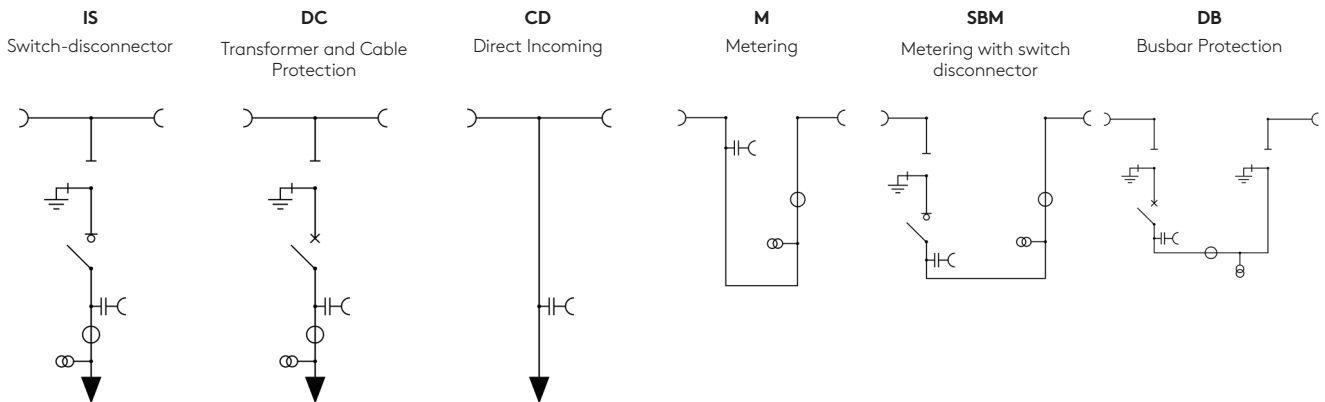


MAIN COMPONENTS

- | | |
|--|------------------------------------|
| 1. LV compartment | 7. Main busbar connector |
| 2. Operating mechanism | 8. Earthing bar connection |
| 3. Cable access door | 9. Voltage indicator (VPIS/VDS) |
| 4. Cable connection bushing | 10. Cable test bushings (optional) |
| 5. Cable compartment | 11. Internal arc duct (optional) |
| 6. Breaker/Switch and busbar compartment | |



→ neoGEN Functions



Due to our policy of continuous development, specifications may change without notice. Not valid as a contractual item.