

T168

Gas-Insulated Substations 550 kV, 63 kA, 6300 A

GE Vernova makes the most of 60 years of experience in design, material selection, development, engineering, manufacturing and servicing of gas-insulated substations.

GE Vernova's T168-550 kV GIS meet the challenges of networks up to 550 kV for all applications: power generation, transmission and heavy industry.

Availability is critical for 550 kV networks and industrial processes

- Reliability is founded on GE Vernova's extensive experience at 550 kV
- Current transformers are outside SF₆
- Controlled switching of the circuit-breaker reduces stress on the equipment

Safety is essential

- Accessibility: all drives and accessories are within easy reach

T168-550 kV leverages more than 60 years of GIS experience

- More than 700 bays of 550 kV GIS in 17 countries



Compact 550 kV GIS

- Bay volume reduced by 12% vs previous version
- Low Cost of Land and Civil Works

Optimized Asset Utilization

- Full-digital monitoring, control and protection
- Advanced monitoring systems enhance management by anticipating events

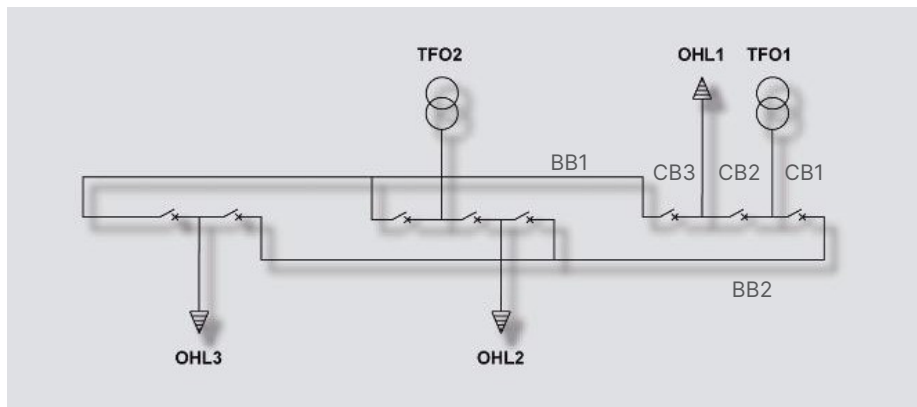
Environmental Friendliness

- Gas mass reduced by 6 % compared with previous version
- State-of-the-art and patented sealing system to prevent gas emissions
- Digital gas monitoring system enables to keep gas emissions at the lowest



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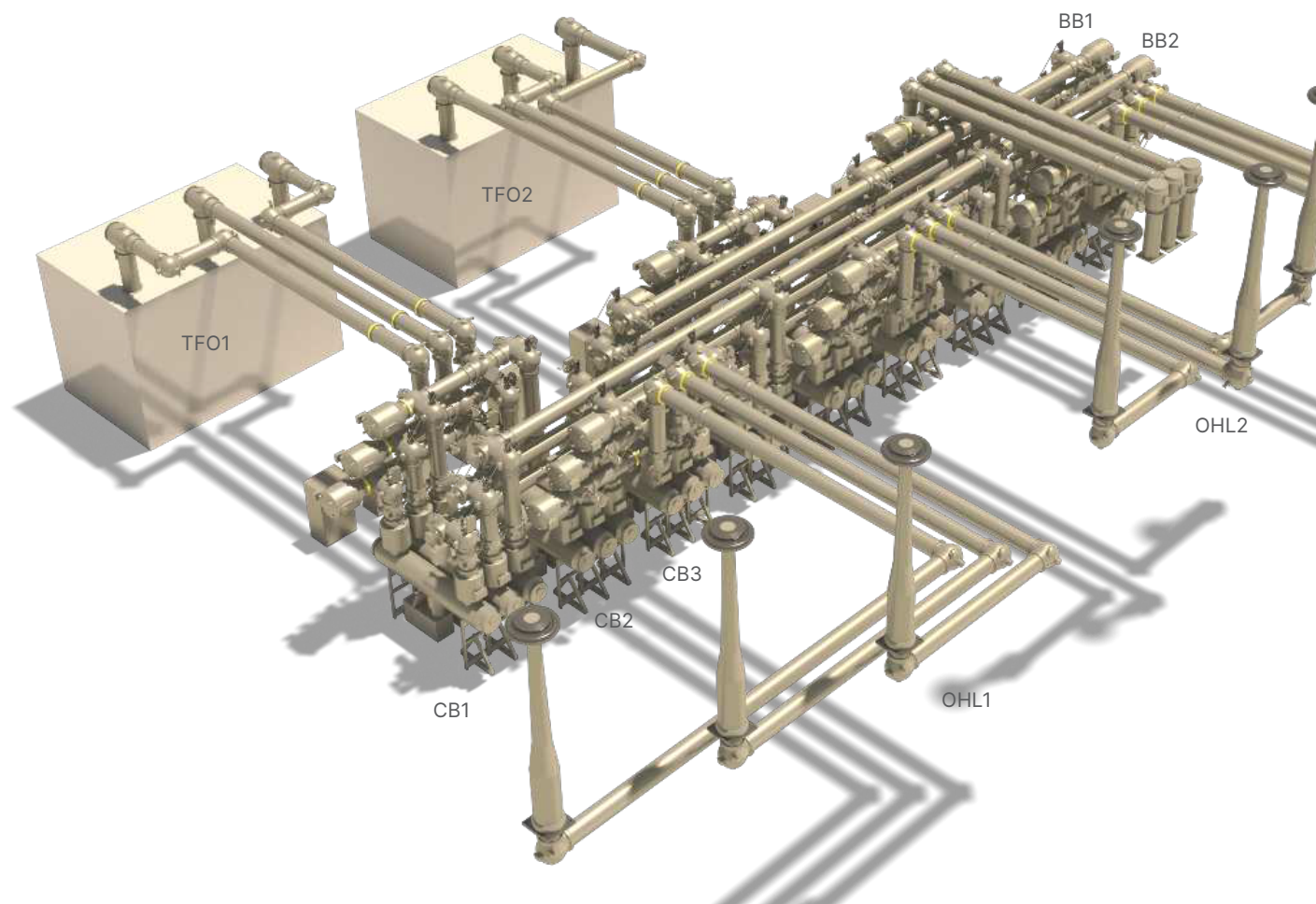
T168-550 kV, 63 kA, 6 300 A - One-and-a-half circuit-breaker diagram

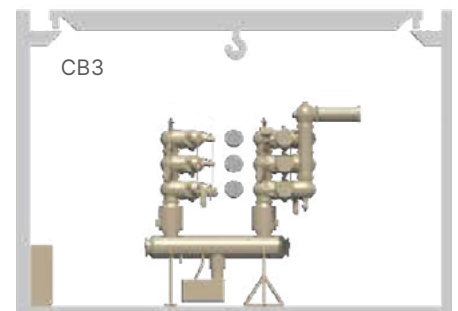
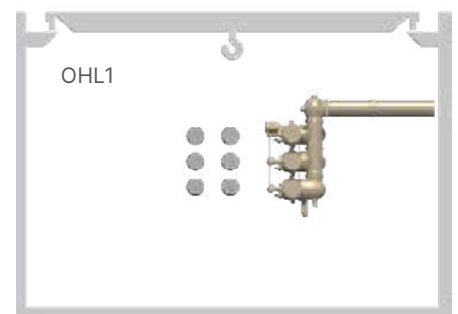
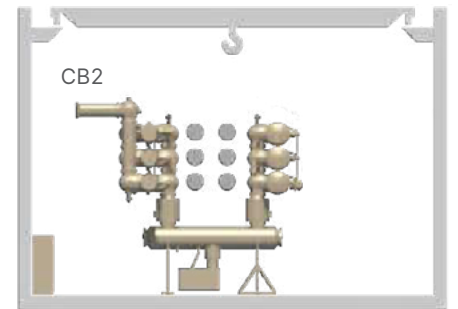
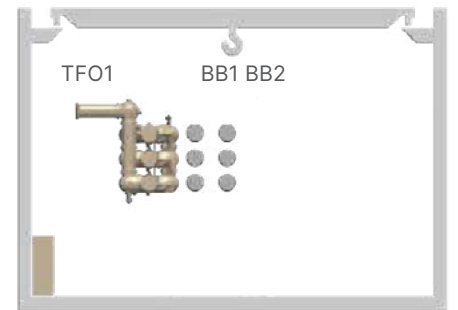
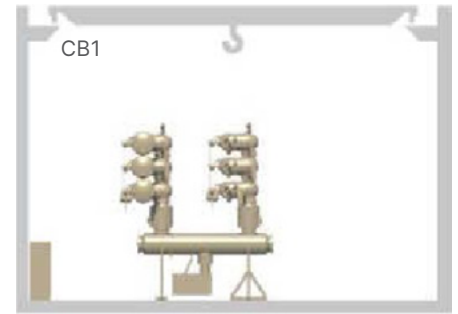
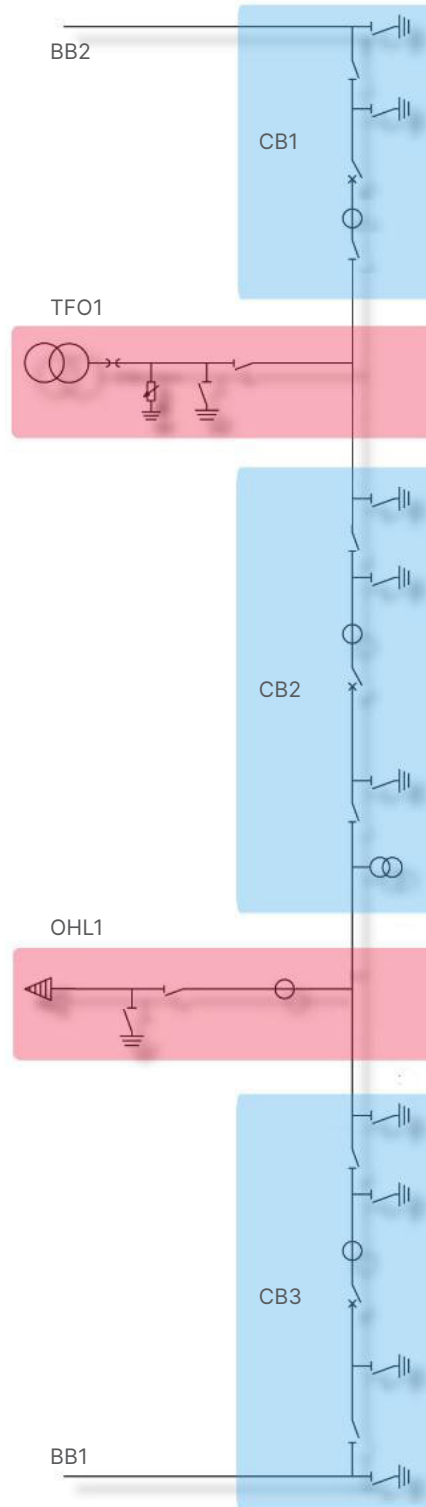
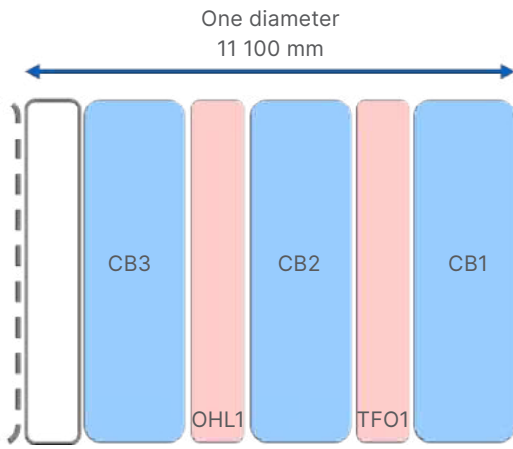


Bay width: 2700 mm

Also available:

- Other single-line diagrams
- Specific layouts





Ratings

BAY		
Reference electrotechnical standards		IEC/GB
Voltage	kV	550
Withstand voltages		
Short-duration power-frequency, phase-to-earth/ across open switching device	kV	740/740 (+315)
Switching impulse, phase-to-earth/ across isolating distance	kVp	1300/1175 (+450)
Lightning impulse, phase-to-earth/ across open switching device	kVp	1675/1675 (+450)
Frequency	Hz	50/60
Continuous current	A	up to 6 300
Short-time withstand current	kA	63
Peak withstand current	kAp	170
Duration of short-circuit	s	3
Installation		indoor/outdoor

CIRCUIT-BREAKER		
First-pole-to-clear factor		1.3
Short-circuit breaking current	kA	63
Short-circuit making current	kAp	170
Operating sequence		O - 0.3 s - CO - 3 min - CO/ CO - 15 s - CO
Capacitive switching	class	C2

DISCONNECTOR AND LOW-SPEED EARTHING SWITCH		
Capacitive current switching	A	0.5
Bus-transfer current switching capability	A/V	up to 4000/100

MAKE-PROOF EARTHING SWITCH		
Making current capability	kAp	170
Switching capability - electromagnetic coupling	A/kV	up to 200/25
Switching capability - electrostatic coupling	A/kV	up to 50/50

Other data available on request.

Gas Data*

The functioning of this equipment relies upon SF₆, a fluorinated greenhouse gas.

	SF ₆
Average mass of gas/mixture in the equipment (kg)*	632
GWP100 of gas/mixture (CO ₂ -equivalent)	24,300
CO ₂ -eq of gas/mixture in the equipment (tco ₂ -eq)*	15,357

*For information purposes only. It varies depending on the equipment considered.

For more information, visit
gevernova.com/grid-solutions

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