Grid Solutions

T168

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

GE Vernova makes the most of 50 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 SF_6
- 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 50 years of GIS experience

- More than 570 bays of 550 kV GIS installed in 13 countries

Compact 550 kV GIS

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

Optimized Asset Utilization

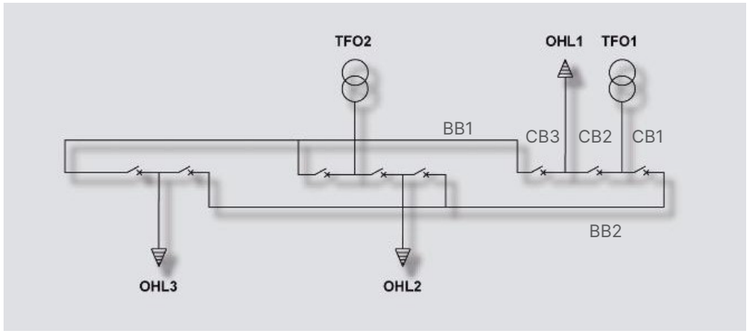
- Full-digital monitoring, control and protection
- Advanced monitoring systems enhance management by anticipating events

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

GE VERNOVA

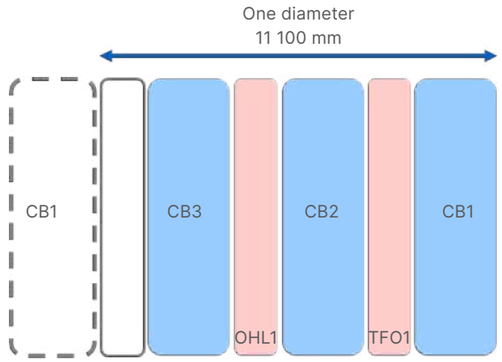
T168-550 kV, 63 kA, 6 300 A - One-and-a-half circuit-breaker diagram

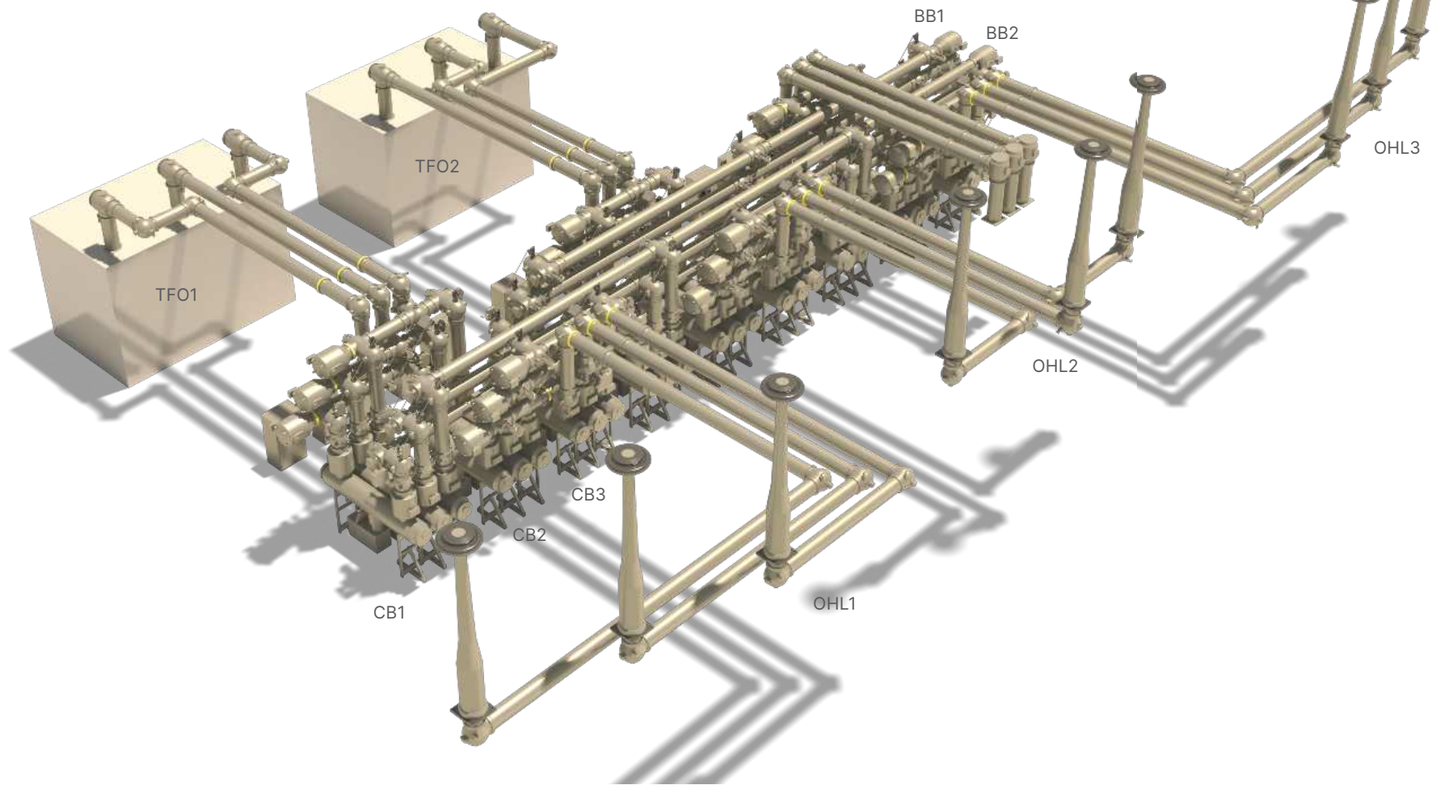


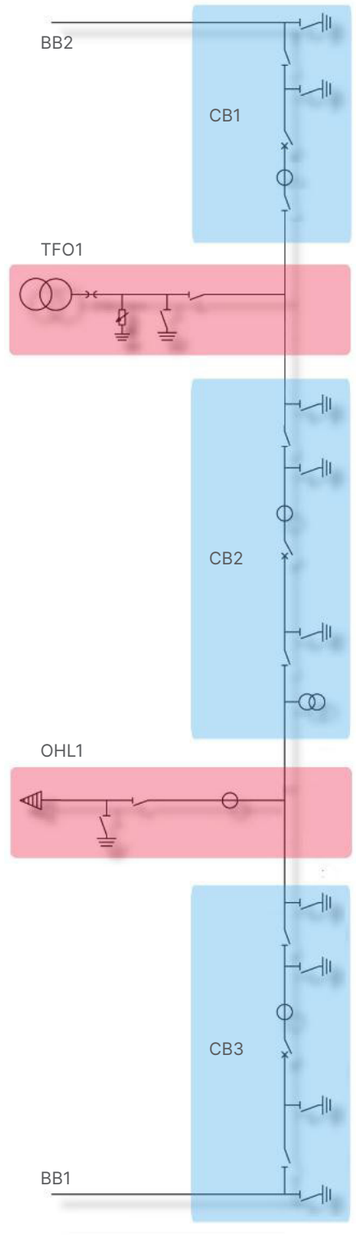
Bay width: 2700 mm

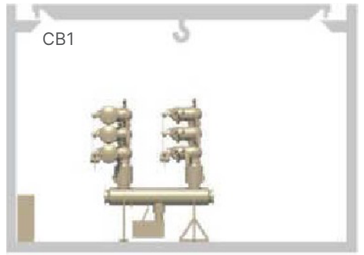
Also available :

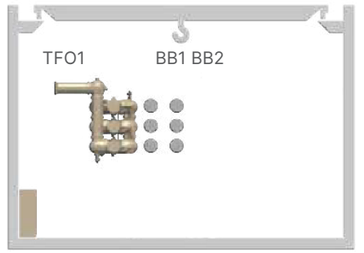
- Other single-line diagrams
- Specific layouts

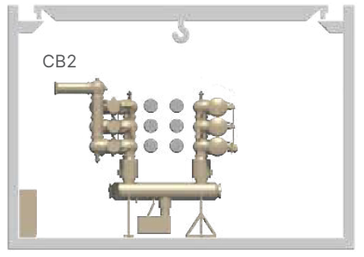


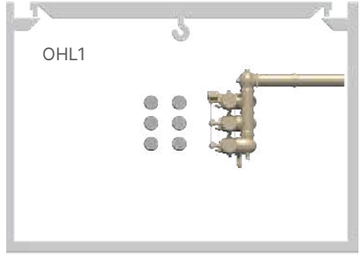


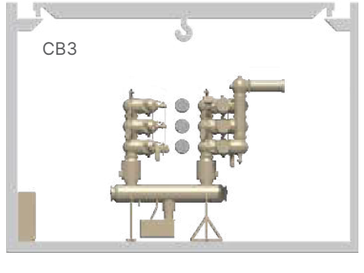












T168-550 kV Gas-Insulated Substation

Ratings

BAY		
Reference electrotechnical standards		IEC/GB
Voltage	kV	550
Withstand voltages Short-duration power-frequency, phase-to-earth/ across open switching device Switching impulse, phase-to-earth/ across isolating distance Lightning impulse, phase-to-earth/ across open switching device	 kV kVp kVp	 740/740 (+315) 1300/1175 (+450) 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.

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

IEC is a registered trademark of Commission Electrotechnique Internationale.

GE Vernova reserves the right to make changes to specifications of products described at any time withoutnotice and without obligation to notify any person of such changes.

© 2025 GE Vernova and/or its affiliates. All rights reserved. GE and the GE Monogram are trademarks of General Electric Company used under trademark license.

GEA-N50094
English
250725

GE VERNOVA