

B105

Gas-Insulated Substations 253 kV, 50 kA, 4 000 A

GE makes the most of 50 years of experience in design, material selection, development, engineering, manufacturing and servicing of gas-insulated substations.

GE's B105 GIS meet the challenges of networks up to 253 kV for all applications: power generation, transmission, distribution, tertiary and heavy industry.

High Availability

- Best experience and reliability data
- Current transformers outside SF₆
- Pure-spring circuit-breaker drives
- Outstanding accessibility: drives and accessories within easy reach

Short Site Works

- Completed bays assembled, wired and tested
- Shipped in a single standard container



Lowest Cost of Land and Civil Works

- Most compact GIS: bay footprint 50% below market average

Smart Grid Features

- Full-digital monitoring, control and protection

Low Environmental Impact

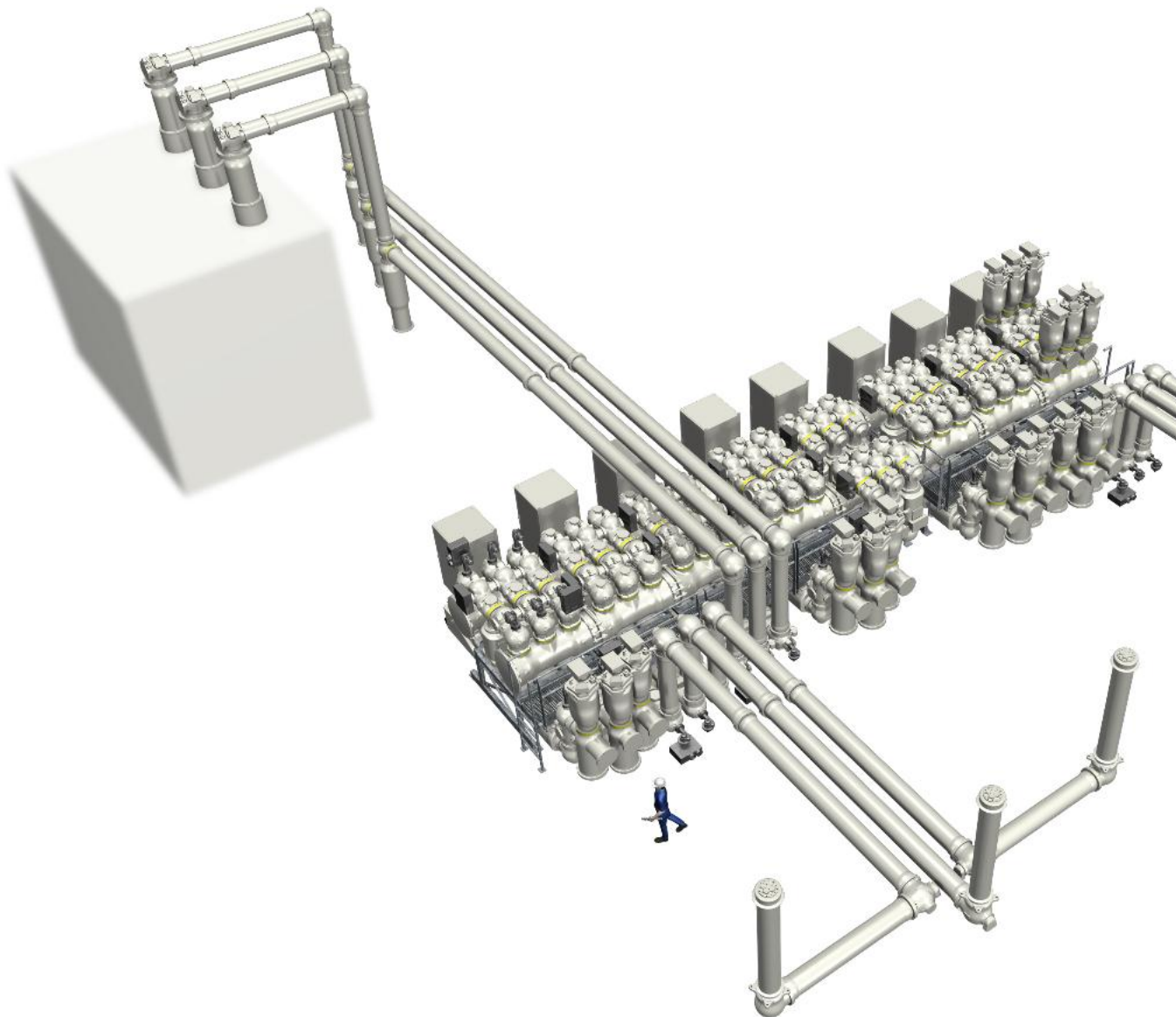
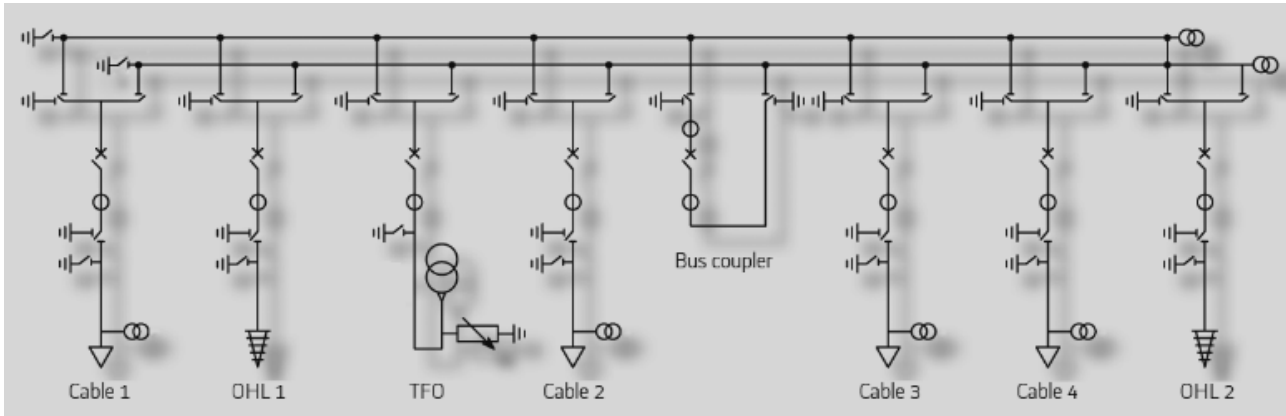
- First-in-class sealing system and gas monitoring system BWatch

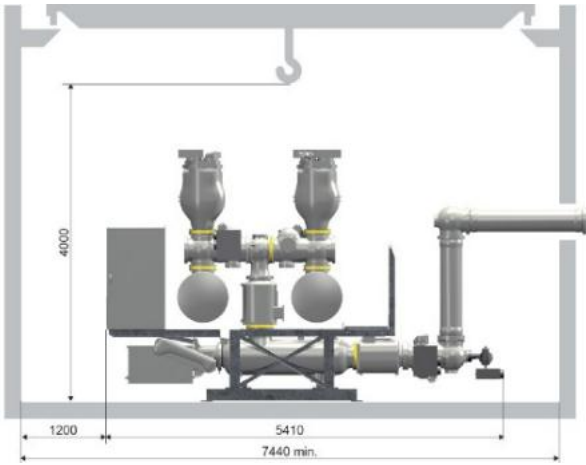
Customer Benefits

- Maximum safety
- Compact but accessible
- Field-proven reliability
- First-class availability
- Low total cost of ownership
- Smart Grid ready
- Low environmental impact

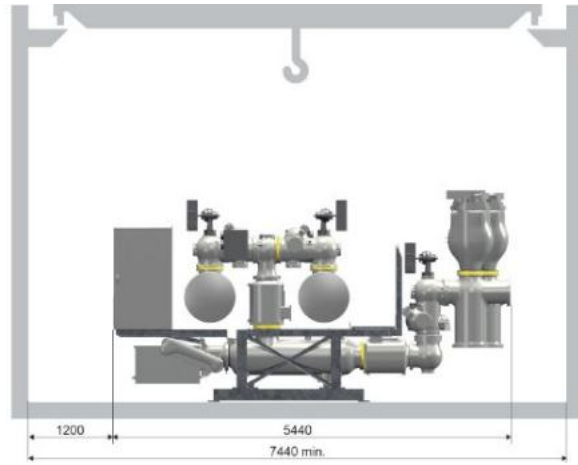


B105 - 253 kV, 50 kA, 4 000 A - Three-phase-busbar

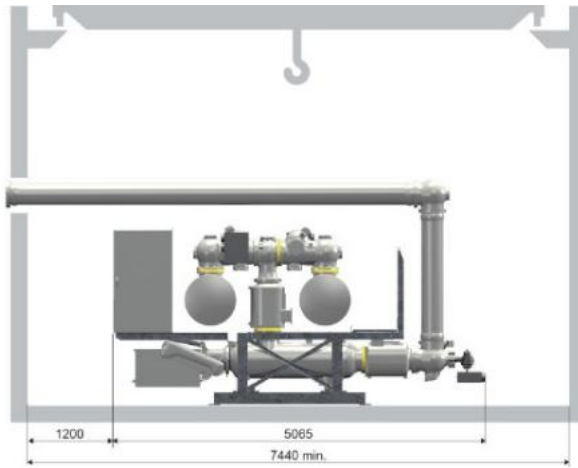




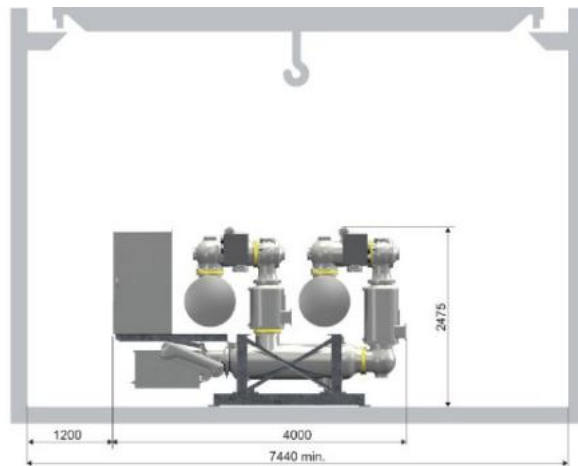
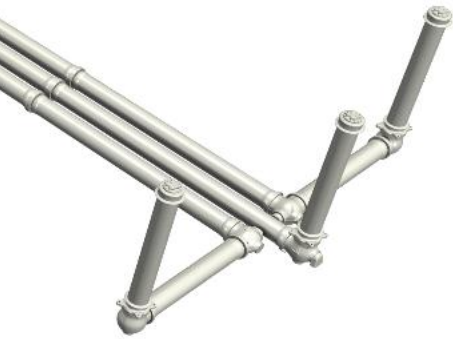
Overhead line bay



Cable Bay



Transformer bay



Bus coupler bay

Bay width: 1600 mm

Also available:

- Other single-line diagrams
- Standalone control cubicles
- Specific layouts

Ratings

General

Reference electrotechnical standards		IEC
Voltage	kV	253
Withstand voltages		
Short-duration power-frequency, phase-to-earth / across isolating distance	kV	460 / 530
Lightning impulse, phase-to-earth / across isolating distance	kVp	1050 / 1200
Frequency	Hz	50 / 60
Continuous current	A	up to 4000
Short-time withstand current	kA	50
Peak withstand current	kAp	135
Duration of short-circuit	s	3
Installation		indoor / outdoor
Ambient temperature range	°C	down to -25 / up to +55

Circuit-Breaker

First-pole-to-clear factor		1.3 - 1.5
Short-circuit breaking current	kA	50
Short-circuit making current	kAp	135
Operating sequence		O - 0.3 s - CO - 3 min - CO / CO - 15 s - CO
Drive type (three-phase or single-phase)		pure-spring
Breaking time	ms	<50
Closing time	ms	<100
Mechanical endurance	class	M2
Capacitive switching	class	C2

Disconnecter and Low-Speed Earthing Switch

Capacitive current switching	A	0.25
Bus-transfer current switching capability	A / V	1600 / 20
Mechanical endurance	class	M2

Make-Proof Earthing Switch

Making current capability	kAp	135
Switching capability - electromagnetic coupling	A / kV	80 / 2
Switching capability - electrostatic coupling	A / kV	3 / 12
Mechanical endurance	class	M1

Other data available on request.

For more information please contact
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Imagination at work