

T155

Gas-Insulated Substations 420 kV, 63 kA, 5 000 A, 2 cycles

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

GE's T155 GIS meet the challenges of networks up to 420 kV for all applications: power generation, transmission and heavy industry.

Highest Availability

- Best experience and reliability data
- Current transformers outside SF₆
- Pure-spring circuit-breaker drives
- State-of-the-art maintenance isolating device: major repair and HV tests with no more than 1 bay down
- Outstanding accessibility: drives and accessories at easy reach

Shortest Site Works

- Complete bays assembled, wired, tested and shipped



Lowest Cost of Land and Civil Works

- Most compact GIS with single-phase enclosures only: bay footprint 40 % below market average

Smart Grid Features

- Full-digital monitoring, control and protection

Environment Friendliness

- Lowest gas weight on the market
- First-in-class SF₆ sealing system

Customer Benefits

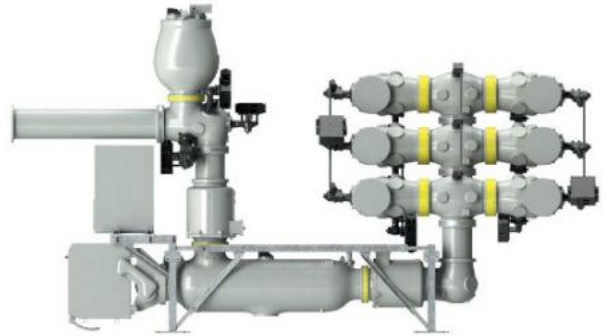
- Maximum safety
- Compact but accessible
- Field-proven reliability
- First-class availability
- Low total cost of ownership
- Smart Grid ready
- Low environmental impact



T155 - 420 kV, 63 kA, 5 000 A - Double busbar diagram, a complete range of availability levels according to your needs



T155 with Maintenance Isolating Device (MID) and Low Power Instrument Transformers (LPIT)

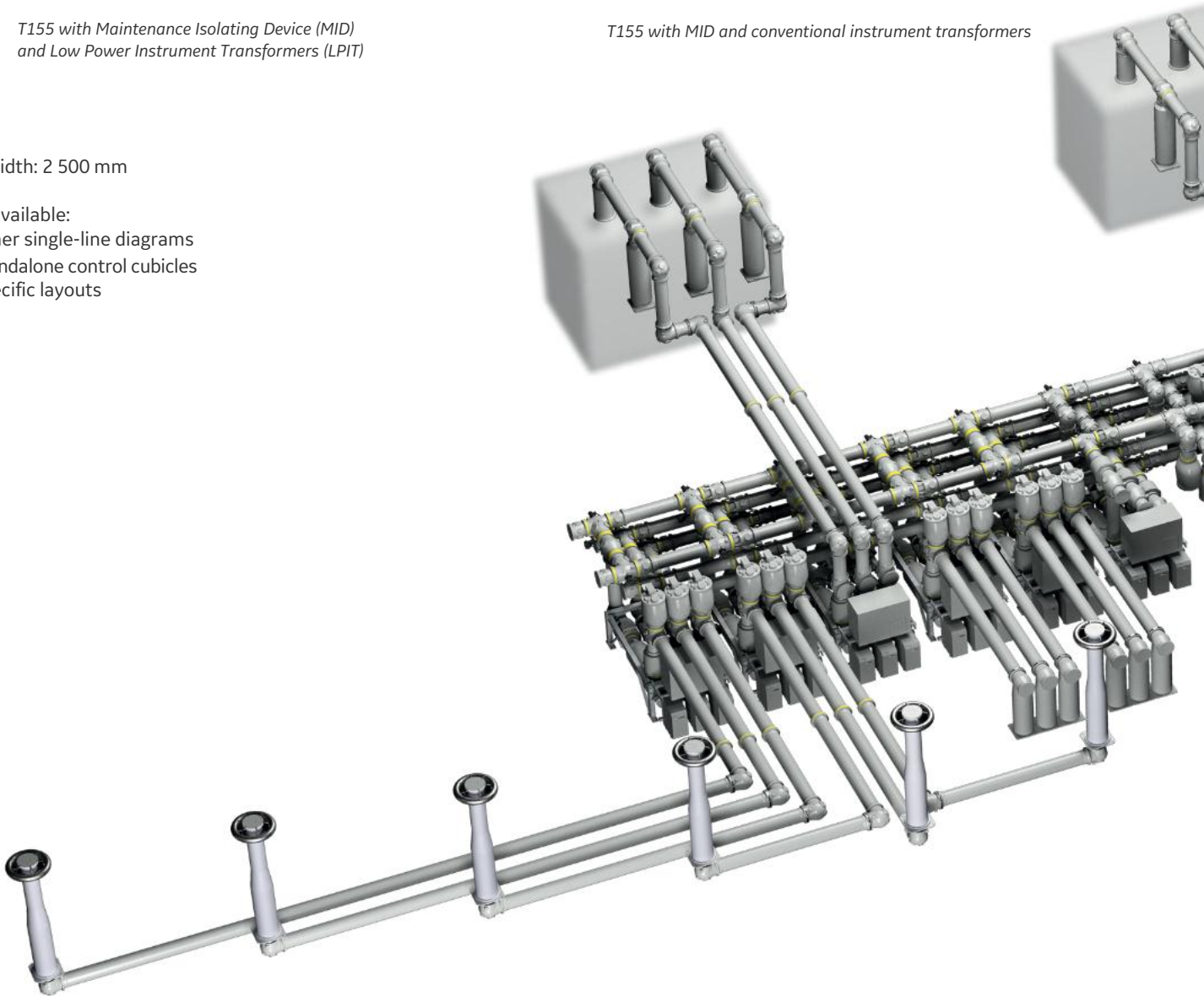


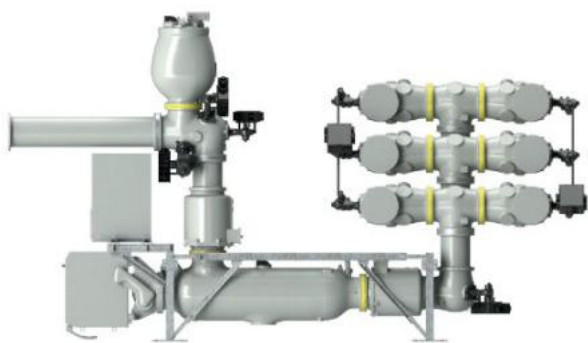
T155 with MID and conventional instrument transformers

Bay width: 2 500 mm

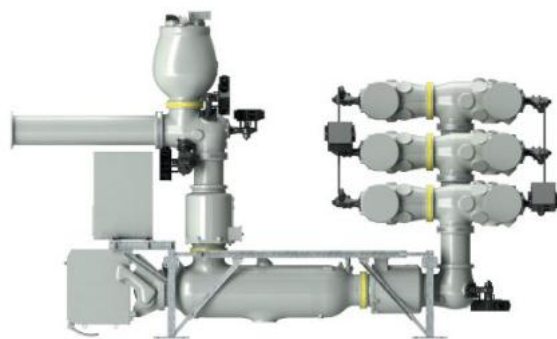
Also available:

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

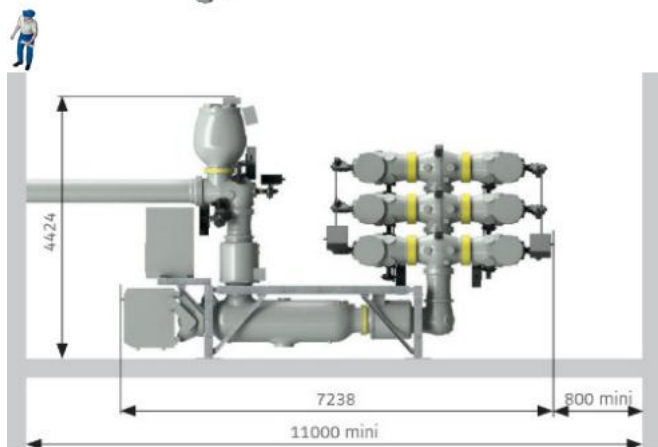
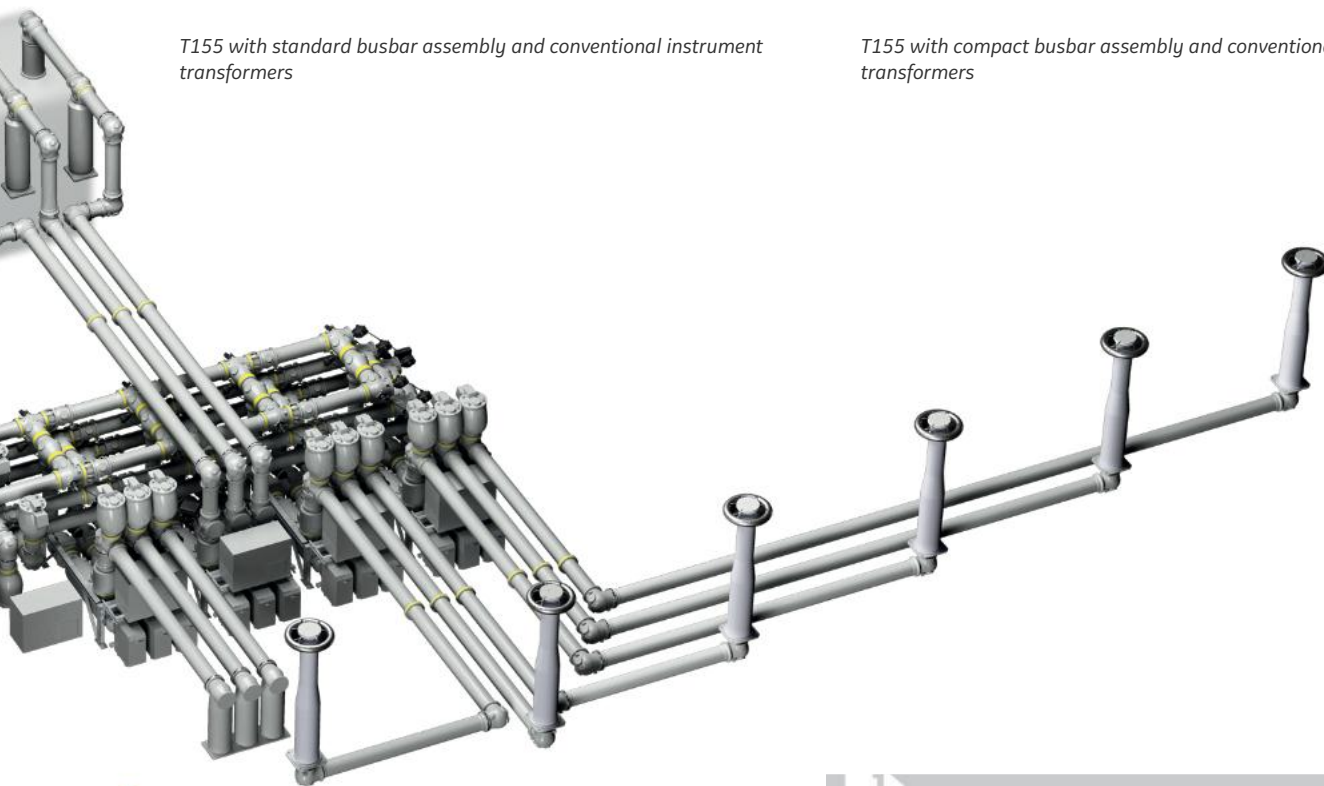




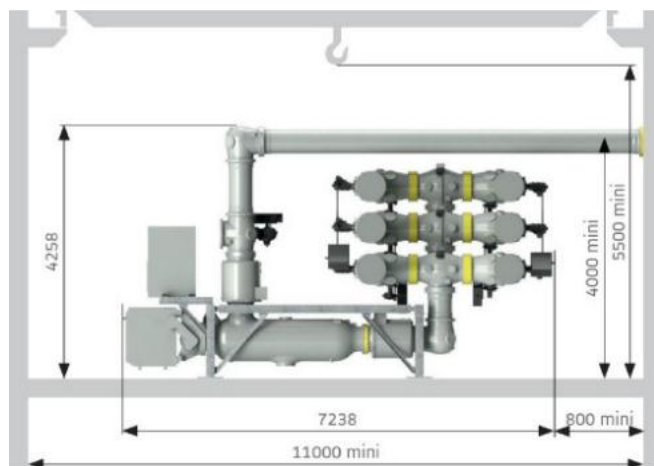
T155 with standard busbar assembly and conventional instrument transformers



T155 with compact busbar assembly and conventional instrument transformers



Overhead line bay



Transformer bay

Ratings

General

Reference electrotechnical standards		IEC / IEEE
Voltage	kV	362 - 420
Withstand voltages		
Short-duration power-frequency, phase-to-earth / across open switching device	kV	650 / 815
Switching impulse, phase-to-earth / across isolating distance	kVp	1 050 / 900 (+345)
Lightning impulse, phase-to-earth / across open switching device	kVp	1 425 / 1 425 (+240)
Frequency	Hz	50 / 60
Continuous current	A	up to 5 000
Short-time withstand current	kA	63
Peak withstand current	kAp	170
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	63
Short-circuit making current	kAp	170
Operating sequence		O - 0.3 s - CO - 3 min - CO / CO - 15 s - CO
Drive type		pure-spring
Breaking time	cycles	2
Closing time	ms	< 115
Mechanical endurance	class	M2
Capacitive switching	class	C2

Disconnecter and Low-Speed Earthing Switch

Capacitive current switching	A	0.5
Bus-transfer current switching capability	A / V	1 600 / 20
Mechanical endurance	class	M2

Make-Proof Earthing Switch

Making current capability	kAp	170
Switching capability - electromagnetic coupling	A / kV	160 / 10
Switching capability - electrostatic coupling	A / kV	18 / 20
Mechanical endurance	class	M1

Other data available on request.

For more information please contact
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Imagination at work