



HV Switchgear

XGN-40.5 Box-Type Fixed Metal-Enclosed Switchgear

XGN□-40.5 box-type fixed AC metal-enclosed switchgear is designed to GB 3906-2006 for indoor three-phase AC 50Hz single-busbar (and single-busbar-with-bypass) systems — for receiving and distributing 35kV network power, with control, protection and monitoring. Of fixed assembled combination structure with an air-insulated, IP2X enclosure, it is used in power plants, substations, industrial & mining enterprises and high-rise buildings.

Final configuration is confirmed against the approved project specification.

MODEL DESIGNATION

XGN□-40.5

X	box-type	G	metal-enclosed
N	indoor	□	design series
40.5	rated voltage (kV)		

TECHNICAL SPECIFICATIONS

Rated voltage	40.5 kV
Rated frequency	50 Hz
Main busbar rated current	1250 / 1600 / 2000 A
Branch busbar rated current	630 / 1250 / 1600 / 2000 A
Short-circuit breaking current	25 / 31.5 kA
Short-time withstand (thermal)	25 / 31.5 kA (4s)
Peak / dynamic withstand	63 / 80 kA
Short-circuit making (peak)	63 / 80 kA
Power-frequency withstand	95 kV / 1 min
Lightning impulse withstand	185 kV
Enclosure protection	IP2X
Standards	GB 3906 / IEC 62271-200

KEY FEATURES

- ▶ Fixed assembled combination structure of section steel and bent steel plate; IP2X enclosure
- ▶ New composite-insulation vacuum breaker, floor-mounted truck structure — interchangeable
- ▶ Pressure-relief covers over breaker, busbar and cable compartments; ample cable space
- ▶ Air-insulated, phase-to-phase / phase-to-earth clearance ≥ 300 mm
- ▶ Forced mechanical five-prevention interlocks; all operations with the door closed

NORMAL OPERATING ENVIRONMENT

- ▶ Ambient air temperature $+40$ °C max, -10 °C min; daily average $\leq +35$ °C
- ▶ Relative humidity: daily average $\leq 95\%$, monthly average $\leq 90\%$
- ▶ Free of fire / explosion hazard, severe pollution, chemical corrosion and violent vibration
- ▶ Altitude ≤ 1000 m
- ▶ Vapour pressure: daily ≤ 2.2 kPa, monthly ≤ 1.8 kPa; seismic intensity ≤ 8