SF₆ Circuit Breaker (up to 252kV)
Disconnected (up to 252kV)
Earthing Switch (up to 252kV)
2014/2015

SF₆ Circuit Breaker (up to 252kV)
Disconnected (up to 252kV)
Earthing Switch (up to 252kV)
Brief Introduction

About CHINT Electric
CHINT Electric is a subsidiary of CHINT Group Corporation. With an investment of 450 million USD, CHINT Electric possesses 4300 employees and 5 manufacturing business units with manufactory area of 900,000m² located in Shanghai, which is one of the world's largest power transmission & distribution equipments manufactory centers.

New Orders
Around 725 million USD in the year of 2012

Employee
4,300 employees
Product Range
- Power Transformer up to 750kV
- Distribution Transformer up to 35kV
- Dry-type Transformer up to 35kV
- Reactor up to 220kV
- GIS up to 252kV
- HV Circuit Breaker & Disconnector up to 252kV
- VCB 12–40.5kV
- MV & LV Switchgear Panel, Prefabricated Substation up to 40.5kV
- LV Terminal Box, Bus Bar Duct
- Surge Arrester & Insulator up to 500kV, CT & PT up to 220kV
- Power Distribution Automation System
- Cable up to 35kV
- Capacitor
- Turn-key Solution

About CHINT Group
- CHINT is the leading player in the Power Transmission & Distribution industry and Low-voltage electrics industry in China. Founded in 1984 by a few local entrepreneurs and currently hiring 28,000 employees worldwide.
- National Employment Advanced Corporate (China State Council, 2012)
- Ranked in the 2011 BCG 100 New Global Challengers (The Boston Consulting Group, 2011)
- CHINT Low-voltage Electrics launched IPO at the Shanghai Stock Exchange of China (2010)
- No.2 in China Electricity Industry’s Top 10 Most Competitive Enterprises (China Machinery Industry Information Institute, 2009)
- No.3 in China Electricity Industry (China Machinery Industry Information Institute, 2009)
- No.240 in Top 500 Chinese-Companies (China Enterprise Federation, 2009)
- No.1 in Power T&D and the controlling devices (China Machinery Summit, 2009)
- Ranked in Top 100 Best Employers in China (China Entrepreneurs Summit, 2008)
- No.15 in Top 100 Private & Public Companies in China (Forbes, 2006)
- National Quality Management Award (2004) (One of top honours for manufacturing companies in China)
- Worldwide business operation with 2,000 sales offices, agents, distributors, and local partners in domestic Chinese market and distributors & local partners in over 105 countries. International branches or regional offices set up in USA, UAE, Germany, Russia, Brazil, Ukraine, Hong Kong of China, UK and Nigeria.
- CHINT stretches its business to a new frontier of solar energy by setting up a branch company specialized in the solar energy products development.
- The R&D center of CHINT is recognized as the National Level R&D Center run by the companies, which means the R&D level of CHINT Group has reached the leading position in the industry of China.
Sales References

With a worldwide presence in over 125 countries such as, Italy, Germany, Estonia, USA, Russia, Japan, Australia, Saudi Arabia, Poland, Ukraine, Mongolia, Kazakhstan, Pakistan, Myanmar, Indonesia, Thailand, Egypt, Yemen, Algeria, Morocco, Congo, Tanzania, Mali, Zambia, Kenya, South Africa, Ghana, Nigeria, Colombia, etc, CHINT Electric provides reliable and high-qualified products and solutions to clients engaged in different businesses.

Utility User

**Application:** cooperation with National Electricity Companies in over 50 countries for power generation, transmission and distribution.

**Europe**
- **EAC-Cyprus**
  - Products: Cable.
- **Eesti Energia-Estonia**
  - Products: Power transformer.
- **EMS-Serbia**
  - Products: Power transformer.
- **ENEL-Italy**
  - Products: Distribution transformer, cable.
- **Fingrid-Finland**
  - Products: Distribution transformer.
- **HS ORKA HF-Iceland**
  - Products: Power transformer.
- **PPC-Greece**
  - Products: Power transformer, cable.
- **NEC-Bulgaria**
  - Products: VCB.

**Latin America**
- **BPC-Bhutan**
  - Products: Surge arrester.
- **CELEC S.P.-Ecuador**
  - Products: Power transformer.
- **CNEL-Ecuador**
  - Products: Power transformer.
- **ELCOSA-Honduras**
  - Products: Power transformer.
- **Enersis-Chile**
  - Products: Power transformer, surge arrester, insulator, SF6 circuit breaker.
- **ENDESA-Chile**
  - Products: Power transformer, surge arrester, insulator, SF6 circuit breaker.
- **ICE-Costa Rica**
  - Products: Power transformer.
- **PREPA-Puerto Rico**
  - Products: Surge Arrester.

**Asia-pacific**
- **EVN-Vietnam**
  - Products: Switch disconnector, power transformer, etc.
- **Kamoki-Pakistan**
  - Products: Substation tnm-key project.
- **MEPE-Myanmar**
  - Products: Reactor, Power transformer.
- **NEA-Nepal**
  - Products: Substation tnm-key project.
- **NTDC-Pakistan**
  - Products: Substation tnm-key project.
- **QESCO-Pakistan**
  - Products: Surge arrester.
- **TEPCO-Japan**
  - Products: Power transformer, circuit breaker, disconnector and CT&PT.

**Africa**
- **EEPCO-Ethiopia**
  - Products: HV Circuit breaker, disconnector, earthing switch, surge arrester, insulator, CT.
- **ENE-Angola**
  - Products: GIS.
- **JIRAMA-Madagascar**
  - Products: Reactor.
- **KENGEN-Kenya**
  - Products: Surge arrester.
- **KPLC-Kenya**
  - Products: Cut-out fuse, surge arrester, insulator.
- **PHCN-Nigeria**
  - Products: Transformer protection & control panel.
- **RECO-Rwanda**
  - Products: Distribution transformer, etc.
- **REGIDESO-Burundi**
  - Products: Power transformer, distribution transformer.
- **SBE-Benin**
  - Products: Power transformer.
- **SNE-S.R.-Congo**
  - Products: Power transformer.
- **SONABEL-Burkina Faso**
  - Products: Transformer, reactor.
- **TANESCO-Tanzania**
  - Products: Substation tnm-key project.
- **VRA-Ghana**
  - Products: HV switchgear, DC panel, disconnector.
- **ZESCO-Zambia**
  - Products: CTVT metering unit.

**Middle-east**
- **NEC-Sudan**
  - Products: Power transformer.
- **NEPCO-Jordan**
  - Products: Power transformer, earthing transformer.
- **ONEC-Oman**
  - Products: Power transformer.
- **PEC-Yemen**
  - Products: Substation tnm-key project.
- **PEDEE-Syria**
  - Products: Insulator, surge arrester, substation tnm-key project.
- **PEEGT-Syria**
  - Products: Insulator.
- **TEIAS-Turkey**
  - Products: Surge arrester, insulator.
- **WARD-Lebanon**
  - Products: SF6 circuit breaker, disconnector, surge arrester, insulator.

**CIS**
- **ENA-Armenia**
  - Products: HV circuit breaker, switch disconnector, etc.

More >>>
Global Operation in Over 125 Countries

Industrial End User

**Application:** widely applicable for mining, iron-steel, cement, metallurgy, chemical, railway, petroleum, paper, power generation industries, etc.

**Mining Industry**
- BHP Billiton-Australia
  Products: CT & PT, distribution transformer, etc.
- Rio Tinto-Australia
  Products: Distribution transformer, CT.
- FMG-Australia
  Products: Power transformer.

**Iron-steel Industry**
- JFE Steel-Japan
  Products: Disconnector.
- Baosteel-China
  Products: Power transformer, MV switchgear panel.

**Cement Industry**
- Serebryabisk Cement Plant-Russia
  Products: HV capacity compensation device, HV capacitor.
- Viet Quang Cement Plant-Vietnam
  Products: Power transformer, HV circuit breaker, disconnector, MV&LV switchgear panel.

**Petroleum & Gas Industry**
- Chevron-USA
  Products: Switchgear panel, distribution transformer.
- PDVSA-Venezuela
  Products: Power transformer, distribution transformer.
- CNPC-China
  Products: Power transformer, GIS, MV switchgear panel.

**Power Rental Industry**
- Aggreko-UK
  Products: Power transformer.
- APR Energy-USA
  Products: Power transformer, HV circuit breaker, disconnector, CT, PT.

**Paper Industry**
- VISP-Australia
  Products: Switchgear panel.
- UPM-Finland
  Products: MV switchgear panel.

**Chemical Industry**
- Saint Gobain-France
  Products: Power transformer, MV switchgear panel, cable, busduct.
- INVISTA-USA
  Products: Distribution transformer, switchgear panel, DC panel.

**Power Generation**
- TATA Power-India
  Products: Power transformer.
- SIBAYAK Geothermal Power Plant-Indonesia
  Products: MV&LV switchgear panel, surge arrester, insulator, CT, VCB.

**Commercial & Civil Construction**
- Shangri-La Hotel-Philippine
  Products: Distribution transformer.
- Kiev Boryspil International Airport-Ukraine
  Products: GIS.

**Shipbuilding Industry**
- Fincantieri-Italy
  Products: Power transformer.

More >>>

Engineering & Contracting

- **EFFAGE-France**
  Products: Power transformer, reactor.
- **FLUOR-USA**
  Products: Power transformer.

More >>>

Turn-key Project

- **Kamoki-Pakistan**
  Projects: 230kV substation EPC.
- **Saint Gobain-France**
  Projects: 35kV substation EPC.
- **PEC-Yemen**
  Projects: 132kV and 33kV substation EPC.
- **NEA-Nepal**
  Projects: 132kV and 33kV substation EPC.
- **SMCO-D.R. Congo**
  Projects: 220kV substation EPC.
- **TANESCO-Tanzania**
  Projects: 35kV and 66kV substation EPC.
- **NTDC-Pakistan**
  Projects: 220kV substation EPC.

More >>>
SF₆ Circuit Breaker, Disconnector, Earthing Switch

CHINT Electric HV Switches are widely adopted by Utility Users from Armenia, Chile, Lebanon, Ethiopia, Tanzania, Ghana, Vietnam, Myanmar, Pakistan, Yemen, etc.; Industrial End Users from France, Australia, Kenya, Japan, Vietnam, etc. like JFE Steel and Engineering Companies from Lebanon, USA, Ghana, Vietnam, Bangladesh, Mongolia, etc.

Utility User
- Electric Networks of Armenia (ENA)- Armenia
- Enersis-Chile
- Electricity of Vietnam (EVN)-Vietnam
- Volta River Authority (VRA)-Ghana
- Public Electricity Corporation (PEC)-Yemen
- Water Resources Utilization Department (WARD)-Lebanon
- Ethiopian Electric Power Corporation (EEPCO)-Ethiopia
- Kamoki-Pakistan
- Tokyo Electric Power Company (TEPCO)-Japan
- Cement Plant-Vietnam
- Tanzania Electric Supply Company (TANESCO)-Tanzania
- Myanmar Electric Power Enterprise (MEPE)-Myanmar
- Water Resources Utilization Department (WRUD)-Myanmar

Industrial End User
- Saint Gobain-France
- Fortescue Metals Group (FMG)-Australia

Engineering & Contracting
- EIFFAGE-France

※ Note: Contact us for more detailed sales references.
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Outdoor AC Earthing Switch
Quality Management

- Quality Management System: ISO9001
- Environmental Management System: ISO14001
- Occupational Health & Safety Management: OHSAS18001
- Survey Management System: ISO10012

QC Policy
- To create a world famous brand and to provide satisfied products and solutions for customers.
- An independent and systematic QC system, 30 quality control points for each key procedures.
- Training of total quality control philosophy for new employees each year.
- ‘Quality Month’ in May each year to improve quality awareness.
- Internal audit in April every year.

QC Activities
- Scheme the quality improvement each year.
- Record and analyze quality loss each month to correct and prevent significant defects.

QC Review
- National Quality Management Award.
- China Top Quality Management Award.

QC Honors
- Raw Material
  - All the suppliers for raw materials are strictly selected.
  - Materials outsourced are strictly tested.

Process Control
- Quality inspectors are responsible for process inspection and final quality inspection.
- Quality engineers are responsible for random inspections and quality auditing.

Delivery & Test
- Finished products are strictly tested before delivery.
- Third party inspection and end user inspection are scheduled before delivery.

Zero Defect
- We adopt the Zero Defect Theory from Philip B. Crosby to make things right from the beginning.

QC System Certificate

※ Note: Similar to America Baldrige Criteria.
Quality Management / Certification

Quality Management Procedure

1. Spare part assembly of SF6 circuit breaker
2. 275kV Power frequency withstand voltage testing transformer

Certification

CHINT T&D’s products are evaluated by STL (Short-Circuit Testing Liaison) laboratories such as KEMA, CESI, and other international certification like PCT (GOST), TÜV, and tested by CNAS (Ilac member in China) laboratories such as CTQC, SEPTDTC, etc.
Sales Service

Professional & Fast customer support system set up to ensure customer satisfaction:

- Multi-language service team.
- Experienced engineers and sales representatives are chosen to provide professional service and support.
- Customer-oriented solutions are provided.

- Customized products and solutions are available according to clients’ requirements.
- Customized products meet local standards like AS standard in Australia, etc.
- Regular internal inspection and supervision on contract execution.

- Quick-response logistics and finance system to support contract.
- Strategic collaboration with global renowned logistics service provider to improve global transportation solutions even in tough conditions.
- Service tracking system and timely customer feedback evaluation system.

- Large scale production capacity ensures short manufacturing period.
- Shortest delivery time on special requirements.

- Standard procedures with feedback collection, problem tracking and problem shooting.
- In-time and efficient solutions to solve problems.
- Systematical service improvement through problem feedback and tracking.

- Professional engineers are sent abroad for on-site service, installation guidance, maintenance and handling emergencies.
- Local service partners are selected for installation and maintenance supports.
- Global service network being built in order to provide convenient local after-sales service to different customers.

1. Installation of disconnector in Armenia
2. Installation training for local workers
3. Installation of SF6 circuit breaker in Botswana
SF6 Circuit Breaker

LW8-40.5 SF6 Circuit Breaker (Dead Tank) (40.5kV)

1 General
1.1 Application: three-phase AC 50Hz outdoor HV electrical apparatus with CT14 spring operating mechanism, for control and protection of 35kV transmission and distribution system as well as communicating with circuit breaker and open/close capacitor group.
1.2 Standard: IEC 62271-100.

2 Type Designation

LW8 - 40.5
Rated voltage
Design No.
Outdoor
SF6 circuit breaker

3 Working Condition
3.1 Sunlight: 1000W/m²
3.2 Relative humidity: Daily average value is ≤95%
   Monthly average value is ≤90%
3.3 Max wind velocity: 34m/s
3.4 Seismic: Horizontal acceleration: 0.250g
   Vertical acceleration: 0.125g
3.5 Pollution level: III (25 mm/kV)
3.6 Thickness of ice covering: 10 mm
3.7 Protection degree: IP5XW
※ Note: Customized products are available.

4 Technical Parameter
4.1 Main Technical Parameter of Circuit Breaker

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altitude</td>
<td>m</td>
<td>1000</td>
</tr>
<tr>
<td>Ambient air temperature</td>
<td></td>
<td>-30°C～40°C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-40°C～40°C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-30°C～40°C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-40°C～40°C</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>kV</td>
<td>40.5</td>
</tr>
<tr>
<td>Rated frequency</td>
<td>Hz</td>
<td>50</td>
</tr>
<tr>
<td>Rated current</td>
<td>A</td>
<td>2000</td>
</tr>
<tr>
<td>Rated short-circuit breaking current for tsc</td>
<td>kA</td>
<td>31.5</td>
</tr>
<tr>
<td>Rated short-time withstand current/continuous time</td>
<td>kA</td>
<td>31.5/4</td>
</tr>
<tr>
<td>Rated peak withstand current (peak)</td>
<td>kA</td>
<td>80</td>
</tr>
<tr>
<td>Rated short-circuit moving current (peak)</td>
<td>kA</td>
<td>80</td>
</tr>
<tr>
<td>First-pole-to clear factor</td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td>Rated out-of-phase breaking current</td>
<td>kA</td>
<td>Isc×25%</td>
</tr>
<tr>
<td>Power frequency withstand voltage for 1min</td>
<td></td>
<td>95±24</td>
</tr>
<tr>
<td>To earth</td>
<td></td>
<td>95</td>
</tr>
<tr>
<td>Lightning impulse withstand voltage (peak)</td>
<td></td>
<td>185±33</td>
</tr>
<tr>
<td>Open contacts</td>
<td></td>
<td>185</td>
</tr>
<tr>
<td>To earth</td>
<td></td>
<td>185</td>
</tr>
<tr>
<td>Rated operating sequence</td>
<td></td>
<td>O-0.3s-CO-3min-CO</td>
</tr>
</tbody>
</table>

4.2 Installation and Adjusting Parameters of Circuit Breaker

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moving contact travel</td>
<td>mm</td>
<td>95±2</td>
</tr>
<tr>
<td>Contact open distance</td>
<td>mm</td>
<td>60±1.5</td>
</tr>
<tr>
<td>Closing synchronization</td>
<td>ms</td>
<td>≤3</td>
</tr>
<tr>
<td>Opening synchronization</td>
<td>ms</td>
<td>≤2</td>
</tr>
<tr>
<td>Main circuit resistance</td>
<td>μΩ</td>
<td>≤120</td>
</tr>
<tr>
<td>Rigid closing speed</td>
<td>m/s</td>
<td>3.2±0.2</td>
</tr>
<tr>
<td>Rigid opening speed</td>
<td>m/s</td>
<td>3.4±0.2</td>
</tr>
</tbody>
</table>
5 Outline and Installation Dimension (Unit: mm)

6 Ordering Information
Please specify the following items when ordering:
6.1 Model.
6.2 Rated electric parameters.
6.3 Service environment conditions.
6.4 Voltage of control supply.
6.5 Quantity, ratio, capacity, and accuracy of current transformers.
6.6 The quantity of necessary spare parts, accessories, special tools, and equipments.
※ Note: Customized products are available.
SF6 Circuit Breaker

LW8A-40.5 SF6 Circuit Breaker (Live Tank) (40.5kV)

1 General

1.1 Application: three-phase AC 50Hz outdoor HV electrical apparatus with CT14 spring operating mechanism, for control and protection of 40.5kV power system as well as communicating with circuit breaker. Current transformer inside as well for measuring and protection.

1.2 Standard: IEC 62271-100.

2 Type Designation

Rated voltage
Design No.
Outdoor
SF6 circuit breaker

3 Working Condition

3.1 Sunlight: 1000W/m²
3.2 Relative humidity: Daily average value is ≤95%
    Monthly average value is ≤90%
3.3 Max wind velocity: 34m/s
3.4 Seismic: Horizontal acceleration: 0.250g
    Vertical acceleration: 0.125g
3.5 Pollution level: III (25mm/kV)
3.6 Thickness of ice covering: 10mm (when wind speed ≤15m/s)
3.7 Protection degree: IP5XW
※ Note: Customized products are available.

4 Technical Parameter

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altitude</td>
<td>m</td>
<td>1000</td>
</tr>
<tr>
<td>Ambient air temperature</td>
<td>—</td>
<td>-30℃~40℃</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-40℃~40℃</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-40℃~40℃</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-40℃~40℃</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>kV</td>
<td>40.5</td>
</tr>
<tr>
<td>Rated frequency</td>
<td>Hz</td>
<td>50</td>
</tr>
<tr>
<td>Rated current</td>
<td>A</td>
<td>2000</td>
</tr>
<tr>
<td>Rated short-circuit breaking current</td>
<td>kA</td>
<td>31.5</td>
</tr>
<tr>
<td>Rated short-time withstand current/</td>
<td>kA/s</td>
<td>31.5/4</td>
</tr>
<tr>
<td>continuous time</td>
<td></td>
<td>25/4</td>
</tr>
<tr>
<td>Rated peak withstand current (peak)</td>
<td>kA</td>
<td>80</td>
</tr>
<tr>
<td>Rated short-circuit making current</td>
<td>kA</td>
<td>80</td>
</tr>
<tr>
<td>(peak)</td>
<td></td>
<td>63</td>
</tr>
<tr>
<td>First-pole-to clear factor</td>
<td>—</td>
<td>1.5</td>
</tr>
<tr>
<td>Rated out-of-phase breaking current</td>
<td>kA</td>
<td>Isc × 25%</td>
</tr>
<tr>
<td>Power frequency withstand voltage</td>
<td>Open contacts</td>
<td>95 ~ 24</td>
</tr>
<tr>
<td>for 1min</td>
<td>To earth</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td></td>
<td>95</td>
</tr>
<tr>
<td></td>
<td></td>
<td>95</td>
</tr>
<tr>
<td>Lightning impulse withstand voltage</td>
<td>Open contacts</td>
<td>185 ~ 33</td>
</tr>
<tr>
<td>(peak)</td>
<td>To earth</td>
<td>185</td>
</tr>
<tr>
<td></td>
<td></td>
<td>185</td>
</tr>
<tr>
<td></td>
<td></td>
<td>185</td>
</tr>
<tr>
<td>Rated operating sequence</td>
<td>—</td>
<td>O-0.3s-CO-3min-CO</td>
</tr>
</tbody>
</table>
5 Outline and Installation Dimension (Unit: mm)

Technical requirement:
1. Weight: 1000kg (with gas); total weight of gas: 5kg.
2. Foundation loading: static state 1000kg;
   dynamic state: horizontal direction: 1300kg; vertical
direction (upon): 2000kg.
3. Concrete surface levelness: ≤1.5mm.
4. Every circuit breaker can be fitted with 12 bush current
transformers.

6 Ordering Information

Please specify the following items when ordering:
6.1 Model.
6.2 Rated electric parameters.
6.3 Service environment conditions.
6.4 Voltage of control supply.
6.5 Quantity, ratio, capacity and accuracy of current transformers.
6.6 The quantity of necessary spare parts, accessories, special tools and equipments.
※ Note: Customized products are available.
SF6 Circuit Breaker

LW36-126 SF6 Circuit Breaker (126kV)

1 General
1.1 Application: three-pole AC 50Hz outdoor HV electrical apparatus, for control and protection of 110kV power system as well as communicating with circuit breaker.
1.2 Standard: IEC 62271-100.

2 Type Designation

Rated voltage
Design No.
Outdoor
SF6 circuit breaker

3 Working Condition
3.1 Daily temperature variation: ≤±25°C
3.2 Sunshine: 0.1 W/cm²
3.3 Relative humidity: Daily average value ≤95%
   Monthly average value ≤90%
3.4 Wind velocity: 34 m/s
3.5 Seismic: Horizontal acceleration is 0.250g
   Vertical acceleration is 0.125g
3.6 Pollution level: III (25mm/kV), IV (31mm/kV)
3.7 Thickness of ice covering: 10 mm (the wind velocity ≤15m/s)
3.8 Protection degree: IP5XW
   ※ Note: Customized products are available.

4 Technical Parameter

<table>
<thead>
<tr>
<th>Item</th>
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<th>Parameter</th>
</tr>
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<tbody>
<tr>
<td>Altitude</td>
<td>m</td>
<td>1000</td>
</tr>
<tr>
<td>Ambient air temperature</td>
<td>—</td>
<td>-30°C～40°C</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>kV</td>
<td>126</td>
</tr>
<tr>
<td>Rated frequency</td>
<td>Hz</td>
<td>50</td>
</tr>
<tr>
<td>Rated current</td>
<td>A</td>
<td>3150</td>
</tr>
<tr>
<td>Rated short-circuit breaking current (peak)</td>
<td>kA</td>
<td>40</td>
</tr>
<tr>
<td>Rated short-circuit making current (peak)</td>
<td>kA</td>
<td>100</td>
</tr>
<tr>
<td>Rated short-time withstand current/continuous time</td>
<td>kA</td>
<td>40</td>
</tr>
<tr>
<td>Rated short-time withstand continuous time</td>
<td>s</td>
<td>4</td>
</tr>
<tr>
<td>Rated peak withstand current (peak)</td>
<td>kA</td>
<td>100</td>
</tr>
<tr>
<td>Short-time fault breaking current</td>
<td>kA</td>
<td>ISc×90%, ISc×75%</td>
</tr>
<tr>
<td>Rated out-of-phase breaking current</td>
<td>kA</td>
<td>ISc×25%</td>
</tr>
<tr>
<td>First-pole-to clear factor</td>
<td>—</td>
<td>1.5</td>
</tr>
<tr>
<td>Rated line charging open/close current</td>
<td>A</td>
<td>31.5</td>
</tr>
<tr>
<td>Rated line charging interrupted current</td>
<td>A</td>
<td>ISc×87%</td>
</tr>
<tr>
<td>Power frequency withstand voltage for 1min</td>
<td>Open contacts between poles / to earth</td>
<td>kV</td>
</tr>
<tr>
<td>Lightning impulse withstand voltage (peak)</td>
<td>Open contacts between poles / to earth</td>
<td>kV</td>
</tr>
<tr>
<td>Rated operating sequence</td>
<td>—</td>
<td>0-0.3s-CO-3min-CO</td>
</tr>
</tbody>
</table>
5 Outline and Installation Dimension (Unit:mm)

- Technical requirement:
  1. Weight: 1300kg (with gas);
     total weight of gas: 10kg.
  2. Foundation loading: static state (down) 1300kg;
     dynamic: horizontal direction: 2720kg;
     vertical direction (up): 2000kg.
  3. Concrete surface levelness: ≤1.5mm.
  4. The installation hole between the connection terminal and primary is customized on-site.
     The material of connection terminal is 2A12-T4.

6 Ordering Information
Please specify the following items when ordering:

6.1 Model.
6.2 Rated electric parameters (voltage, current).
6.3 Service environment conditions.
6.4 Voltage of control supply.
6.5 Wiring direction of primary terminal.
6.6 The quantity of necessary spare parts, accessories, special tools and equipments.
※ Note: Customized products are available.
LW36-145 SF₆ Circuit Breaker (145kV)

1 General
1.1 Application: three-phase AC 50Hz outdoor/indoor HV electrical apparatus, for control and protection of 132kV power system as well as communicating with circuit breaker.
1.2 Standard: IEC 62271-100.

2 Type Designation

3 Working Condition
3.1 Altitude: ≤1000m
3.2 Ambient air temperature: -30℃ ~ +40℃
3.3 Daily temperature variation: ≤25℃
3.4 Sunshine: 0.1 W/cm²
3.5 Relative humidity: Daily average value ≤95%
   Monthly average value ≤90%
3.6 Max wind velocity: 34m/s
3.7 Seismic: Horizontal acceleration is 0.250g
   Vertical acceleration is 0.125g
3.8 Pollution level: III (25mm/kV), IV (31mm/kV)
3.9 Thickness of ice covering: 10 mm (the wind velocity ≤15m/s)
※ Note: Customized products are available.

4 Technical Parameter

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>1000</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altitude</td>
<td>m</td>
<td>-30℃~40℃</td>
<td>-30℃~40℃</td>
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<tr>
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<tr>
<td>Rated voltage</td>
<td>kV</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Rated current</td>
<td>A</td>
<td>3150</td>
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</tr>
<tr>
<td>Rated short-circuit breaking current lsc</td>
<td>kA</td>
<td>40</td>
<td>31.5</td>
</tr>
<tr>
<td>Rated short time withstand current/continuous time</td>
<td>kA/S</td>
<td>40/3</td>
<td>31.5/3</td>
</tr>
<tr>
<td>Rated withstand current (peak)</td>
<td>kA</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>Rated short-circuit making current (peak)</td>
<td>kA</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>First-pole-to-clear factor</td>
<td></td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Nearby area fault breaking current</td>
<td>kA</td>
<td>lsc×90%, lsc×75%</td>
<td></td>
</tr>
<tr>
<td>Rated out-of-phase breaking current</td>
<td>kA</td>
<td>lsc×25%</td>
<td></td>
</tr>
<tr>
<td>Power frequency withstand voltage for 1 min (effective value) Open contacts</td>
<td>kV</td>
<td>275+84</td>
<td>275</td>
</tr>
<tr>
<td></td>
<td>To earth</td>
<td>275</td>
<td>275+84</td>
</tr>
<tr>
<td>Lightning impulse withstand voltage (peak) Open contacts</td>
<td>kV</td>
<td>650+119</td>
<td>650</td>
</tr>
<tr>
<td></td>
<td>To earth</td>
<td>650</td>
<td>650+119</td>
</tr>
<tr>
<td>Rated operating sequence</td>
<td></td>
<td>O-0.3s-CO-3min-CO</td>
<td></td>
</tr>
</tbody>
</table>
5 Outline and Installation Dimension (Unit:mm)

Technical requirement:
1. Weight: 1800kg (with gas); gas weight: 15kg.
3. Concrete surface levelness: ≤1.5mm.
4. The installation hole between the connection terminal and primary is customized on-site. The material of connection terminal is 2A12-T4.
5. Creepage distance: 3625mm; dry arc distance: 1260mm.
6. Area by the wind: 41.1m²; natural frequency: 2.0 Hz.

6 Ordering Information
Please specify the following items when ordering:
6.1 Model.
6.2 Rated electrical parameters (voltage, current).
6.3 Service environment conditions.
6.4 Voltage of control supply and auxiliary supply.
6.5 The quantity of necessary spare parts, accessories, special tools and equipments.
※ Note: Customized products are available.
SF6 Circuit Breaker

LW43-252 SF6 Circuit Breaker (252kV)

1 General
1.1 Application: three-phase AC 50Hz outdoor HV electrical apparatus, for control and protection of 220kV power system as well as communicating with circuit breaker.
1.2 Standard: IEC 62271-100.

2 Type Designation

3 Working Condition
3.1 Daily temperature variation: ≤25 °C
3.2 Sunshine: 0.1W/cm²
3.3 Relative humidity: Daily average value ≤95%
   Monthly average value ≤90%
3.4 Max wind velocity: 34m/s
3.5 Seismic: Horizontal acceleration: 0.250g
   Vertical acceleration: 0.125g
3.6 Pollution level: III (25mm/kV), IV (31mm/kV)
3.7 Thickness of ice covering: 10 mm (the wind velocity ≤15m/s)
3.8 Protection degree: IP5XW
※ Note: Customized products are available.

4 Technical Parameter

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altitude</td>
<td>m</td>
<td>-30°C~40°C</td>
</tr>
<tr>
<td>Ambient air temperature</td>
<td></td>
<td>1000</td>
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<tr>
<td>Rated voltage</td>
<td>kV</td>
<td>252</td>
</tr>
<tr>
<td>Rated frequency</td>
<td>Hz</td>
<td>50</td>
</tr>
<tr>
<td>Rated current</td>
<td>A</td>
<td>4000</td>
</tr>
<tr>
<td>Rated short-circuit breaking current</td>
<td>kA</td>
<td>50</td>
</tr>
<tr>
<td>Rated short-circuit making current</td>
<td>kA</td>
<td>125</td>
</tr>
<tr>
<td>Rated short-time withstand current</td>
<td>kA</td>
<td>50</td>
</tr>
<tr>
<td>Rated short-time withstand continuous time</td>
<td>s</td>
<td>3</td>
</tr>
<tr>
<td>Rated peak withstand current (peak)</td>
<td>kA</td>
<td>125</td>
</tr>
<tr>
<td>Short-line fault breaking current</td>
<td>kA</td>
<td>Isc×90%, Isc×75%</td>
</tr>
<tr>
<td>Rated out-of-phase breaking current</td>
<td>kA</td>
<td>Isc×25%</td>
</tr>
<tr>
<td>First-pole-to clear factor</td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td>Rated line charging open/close current</td>
<td>A</td>
<td>160</td>
</tr>
<tr>
<td>On-load transformer breaking current</td>
<td>A</td>
<td>0.5~20</td>
</tr>
<tr>
<td>Power frequency withstand voltage for 1min</td>
<td>Open contacts</td>
<td>kV</td>
</tr>
<tr>
<td>To earth</td>
<td></td>
<td>460</td>
</tr>
<tr>
<td>Lightning impulse withstand voltage (peak)</td>
<td>Open contacts</td>
<td>kV</td>
</tr>
<tr>
<td>To earth</td>
<td></td>
<td>1050</td>
</tr>
<tr>
<td>Rated operating sequence</td>
<td></td>
<td>O-0.3s-CO-3min-CO</td>
</tr>
</tbody>
</table>
5 Outline and Installation Dimension (Unit:mm)

Technical requirements:
1. Weight: 4000kg (with gas);
   total weight of gas: 35kg.
2. Foundation loading:
   static state: horizontal direction: 1333kg;
   vertical direction (upward): 3000kg
   vertical direction (downward): 5000Kg
3. Concrete surface levelness: ≤ 1.5mm.
4. The installation hole between the connection terminal and primary
   is customized on-site. The material of connection terminal is 2A12-T4.
6 Ordering Information

Please specify the following items when ordering:

6.1 Model.
6.2 Rated electric parameters (voltage, current).
6.3 Service environment conditions.
6.4 Voltage of control supply.
6.5 Wiring direction of primary terminal.
6.6 The quantity of necessary spare parts, accessories, special tools and equipments.

※ Note: Customized products are available.
**SF6 Circuit Breaker**

**LW43A-252** SF6 Circuit Breaker (252kV)

1 **General**
1.1 Application: three-pole AC 50Hz outdoor HV electrical apparatus for control and protection in 220kV power system as well as communicating with circuit breaker.
1.2 Standard: IEC 62271-100.

2 **Type Designation**

3 **Working Condition**
3.1 Altitude: ≤1000m; special area ≤3000m
3.2 Daily temperature variation: ≤25 °C
3.3 Ambient air temperature: -40 °C ~ +40 °C
3.4 Max wind velocity: 34m/s
3.5 Seismic: Horizontal acceleration: 0.250g
   Vertical acceleration: 0.125g
3.6 Thickness of ice covering: ≤10mm
3.7 Relative humidity: Daily average ≤95%
   Monthly average ≤90%
3.8 Pollution level: III (25mm/kV), IV (31mm/kV)
3.9 Protection degree: IP5XW

4 **Technical Parameter**

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altitude</td>
<td>m</td>
<td>1000, 2000</td>
</tr>
<tr>
<td>Ambient air temperature</td>
<td>°C</td>
<td>-30°C<del>40°C, -30°C</del>40°C, -40°C~40°C</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>kV</td>
<td>252</td>
</tr>
<tr>
<td>Rated frequency</td>
<td>Hz</td>
<td>50</td>
</tr>
<tr>
<td>Rated current</td>
<td>kA</td>
<td>4000, 3150, 4000, 3150</td>
</tr>
<tr>
<td>Rated short-circuit breaking current for lsc</td>
<td>kA</td>
<td>50, 40, 50, 40</td>
</tr>
<tr>
<td>Rated short-circuit making current (peak)</td>
<td>kA</td>
<td>125, 100, 125, 100</td>
</tr>
<tr>
<td>Rated short-time withstand current</td>
<td>kA</td>
<td>50, 40, 50, 40</td>
</tr>
<tr>
<td>Rated short-time withstand continuous time</td>
<td>s</td>
<td>3, 3, 3, 3</td>
</tr>
<tr>
<td>Rated peak withstand current (peak)</td>
<td>kA</td>
<td>125, 100, 125, 100</td>
</tr>
<tr>
<td>Short-line fault breaking current</td>
<td>kA</td>
<td>lsc×90%, lsc×75%</td>
</tr>
<tr>
<td>Rated out-of-phase breaking current</td>
<td>kA</td>
<td>lsc×25%</td>
</tr>
<tr>
<td>First-pole-to-clear factor</td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td>Rated line charging open/close current</td>
<td>A</td>
<td>160</td>
</tr>
<tr>
<td>On-load transformer breaking current</td>
<td>A</td>
<td>0.5~20</td>
</tr>
<tr>
<td>Power frequency withstand voltage for 1min (effective value)</td>
<td>Open contacts kV</td>
<td>460; 460+145; 460; 460; 460; 460</td>
</tr>
<tr>
<td>Lightning impulse withstand voltage (peak)</td>
<td>Open contacts kV</td>
<td>1050; 1050+206; 1050; 1050; 1050; 1050</td>
</tr>
<tr>
<td>Rated operating sequence</td>
<td></td>
<td>O-0.3s-CO-3min-CO</td>
</tr>
</tbody>
</table>
5 Outline and Installation Dimension (Unit:mm)

Technical requirement:
1. Waterproof glue is used on the joining spots of the flanges of all exposed bolts.
2. Weight: 5,500kg (gas included); total gas weight: 35kg.
3. Foundation loading: static state 5,500kg;
   dynamic state: horizontal direction 2,720kg; vertical direction (upward) 10,000kg
4. Concrete surface flatness ≤0.5mm.
5. The installation hole between the connection terminal and primary is customized on-site; the material of connection terminal is 2A12-T4.

6 Ordering Information
Please specify the following items when ordering:
6.1 Model.
6.2 Rated electric parameters (voltage, current)
6.3 Service environment conditions.
6.4 Voltage of control supply.
6.5 Wiring direction of primary terminal.
6.6 The quantity of necessary spare parts, accessories, special tools and equipments.
※ Note: Customized products are available.
Disconnector

GW4 Series Outdoor AC Disconnector (40.5kV/126kV/145kV/252kV)

1 General
1.1 Application: three-phase AC 50Hz outdoor HV electrical apparatus, for switching under no-load condition and electrical disconnecting between electrical apparatus and live circuit in rated voltage 35~220kV power system.
1.2 Standard: IEC 62271-102.

2 Type Designation

3 Working Condition
3.1 Altitude: ≤2000m
3.2 Ambient air temperature: -40°C~+40°C
3.3 Max wind velocity: 34m/s
3.4 Seismic: Horizontal acceleration: 0.250g
   Vertical acceleration: 0.125g
3.5 Thickness of ice covering: ≤10mm
3.6 Pollution level of insulator: III (25mm/kV), IV (31mm/kV)
3.7 Installation area without fire, explosion, chemical corrosion and frequent shocking

4 Technical Parameter

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>kV</td>
<td>40.5, 126, 145, 252</td>
</tr>
<tr>
<td>Rated current</td>
<td>A</td>
<td>2000, 2000, 2000, 3150</td>
</tr>
<tr>
<td>Rated short time withstand current, 3s</td>
<td>kA</td>
<td>40, 40, 40, 50</td>
</tr>
<tr>
<td>Rated peak withstand current</td>
<td>kA</td>
<td>80, 100, 100, 125</td>
</tr>
<tr>
<td>Rated power frequency withstand voltage (rms)</td>
<td>To earth</td>
<td>kV 95, 230, 275, 460</td>
</tr>
<tr>
<td>Rated lightning impulse withstand voltage (peak)</td>
<td>To earth</td>
<td>kV 110, 230+70, 315, 460+145</td>
</tr>
<tr>
<td>Rated tension of connecting terminal</td>
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<td></td>
</tr>
<tr>
<td>Min failing load</td>
<td>N</td>
<td>4000, 6000, 6000, 8000</td>
</tr>
<tr>
<td>Electromagnetic coupling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated induction current</td>
<td>A</td>
<td>50, 80</td>
</tr>
<tr>
<td>Rated induction voltage</td>
<td>kV</td>
<td>0.5, 2</td>
</tr>
<tr>
<td>Electrostatic coupling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated induction current</td>
<td>A</td>
<td>0.4, 2</td>
</tr>
<tr>
<td>Rated induction voltage</td>
<td>kV</td>
<td>3, 6</td>
</tr>
<tr>
<td>Open/close bus switching circuit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td></td>
<td>3000, 3000, 3000, 3000</td>
</tr>
<tr>
<td>Single pole weight</td>
<td>kg</td>
<td>80, 240, 300, 650</td>
</tr>
</tbody>
</table>
5 Outline and Installation Dimension (Unit: mm)

GW4-40.5 II DW type Disconnector

VIEW A
Assembling dimensions of disconnecting switch

VIEW B
110 aluminum and silver plating

Installation hole 4.0 4.5
GW4-126 II DW Disconnector

VIEW A

Operation axis center of earth pole

Installation hole

VIEW B

Installation dimension of disconnecting switch

Operation axis center of disconnecting switch

VIEW C

Aluminum plate silvering

Installation dimension of DS

4-ø19
6 Ordering Information

Please specify the following items when ordering:

6.1 Model, specification and quantity of disconnector.

6.2 Rated current, rated short time and peak withstand current.

6.3 Pollution level and altitude.

6.4 Please indicate whether fitted with earthing blade, in which side and whether fitted with electromagnetic lock.

6.5 The electric motor voltage, control voltage and auxiliary poles of electric operation mechanism.

※ Note: Customized products are available.
GW5-126 Outdoor AC Disconnector (126kV)

1 General
1.1 Application: three-phase AC 50Hz outdoor HV electrical apparatus, for switching under no-load condition and electrical disconnecting between electrical apparatus under repairing and live HV circuit in rated voltage 110kV power system.
1.2 Standard: IEC 62271-102.

2 Type Designation

G W 5-126 D

- Rated voltage
- Design No.
- Outdoor
- Disconnector

3 Working Condition
3.1 Altitude: ≤2000m
3.2 Ambient air temperature: -40°C ~ +40°C
3.3 Max wind velocity: 34m/s
3.4 Seismic: Horizontal acceleration: 0.250g
   Vertical acceleration: 0.125g
3.5 Thickness of ice covering: ≤10mm
3.6 Pollution level of insulator: III (25mm/kV), IV (31mm/kV)
3.7 Installation area without fire, explosion, chemical corrosion and frequent shocking.

4 Technical Parameter

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>kV</td>
<td>126</td>
</tr>
<tr>
<td>Rated current</td>
<td>A</td>
<td>2000</td>
</tr>
<tr>
<td>Rated withstand current (peak)</td>
<td>kA</td>
<td>100</td>
</tr>
<tr>
<td>Rated short time withstand current, 3s (effective value)</td>
<td>kA</td>
<td>40</td>
</tr>
<tr>
<td>Rated frequency</td>
<td>Hz</td>
<td>50</td>
</tr>
<tr>
<td>Earthing switch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated withstand current (peak)</td>
<td>kA</td>
<td>100</td>
</tr>
<tr>
<td>Rated short time withstand current, 3s (effective value)</td>
<td>kA</td>
<td>40</td>
</tr>
<tr>
<td>Rated tension of connecting terminals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horizontal</td>
<td>N</td>
<td>750</td>
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<tr>
<td>Vertical</td>
<td>N</td>
<td>1000</td>
</tr>
<tr>
<td>Rated insulation level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated short time power frequency withstand voltage (effective value)</td>
<td>kV</td>
<td>230</td>
</tr>
<tr>
<td>Lightening impulse withstand voltage (peak)</td>
<td>kV</td>
<td>550</td>
</tr>
<tr>
<td>Open contacts</td>
<td>kV</td>
<td>230+70</td>
</tr>
<tr>
<td>To earth</td>
<td>kV</td>
<td>550+100</td>
</tr>
<tr>
<td>Open contacts</td>
<td>kV</td>
<td>550+100</td>
</tr>
<tr>
<td>Mechanical life</td>
<td></td>
<td>3000</td>
</tr>
<tr>
<td>Disconnector circuit resistance</td>
<td>μΩ</td>
<td>85</td>
</tr>
<tr>
<td>Single pole weight</td>
<td>kg</td>
<td>230</td>
</tr>
</tbody>
</table>
5 Outline and Installation Dimension (Unit: mm)
GW5-126ⅢDW Disconnector

6 Ordering Information
Please specify the following items when ordering:

6.1 Model, specification and quantity.
6.2 Rated current, rated short time and peak withstands current, pollution level of porcelain.
6.3 Please indicate whether fitted with earthing blade, on which side and whether fitted with electromagnetic lock.
※ Note: Customized products are available.
GW7-252 Outdoor AC Disconnector (252kV)

1 General
1.1 Application: three-phase AC 50Hz outdoor HV electrical apparatus, for switching under no-load condition and electrical disconnecting between electrical apparatus under repairing and live HV circuit in rated voltage 220kV power system.
1.2 Standard: IEC 62271-102.

2 Type Designation

G W 7 -252 D
With earthing blade
Rated voltage
Design No.
Outdoor
Disconnected

3 Working Condition
3.1 Altitude: ≤2000m
3.2 Ambient air temperature: -40°C~+40°C
3.3 Max wind velocity: 34m/s
3.4 Seismic: Horizontal acceleration: 0.250g
Vertical acceleration: 0.125g
3.5 Thickness of ice covering: ≤10mm
3.6 Pollution level of insulator: III(25mm/kV), IV(31mm/kV)
3.7 Installation area without fire, explosion, chemical corrosion and frequent shocking.

4 Technical Parameter

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>KV</td>
<td>252</td>
</tr>
<tr>
<td>Rated current</td>
<td>A</td>
<td>5000</td>
</tr>
<tr>
<td>Rated withstand current (peak)</td>
<td>kA</td>
<td>160</td>
</tr>
<tr>
<td>Rated short time withstand current, 3s (effective value)</td>
<td>kA</td>
<td>63</td>
</tr>
<tr>
<td>Rated frequency</td>
<td>Hz</td>
<td>50</td>
</tr>
<tr>
<td>Earthing switch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated withstand current (peak)</td>
<td>kA</td>
<td>160</td>
</tr>
<tr>
<td>Rated short time withstand current, 3s (effective value)</td>
<td>kA</td>
<td>63</td>
</tr>
<tr>
<td>Rated tension of connecting terminals</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td></td>
<td>1500</td>
</tr>
<tr>
<td>Horizontal</td>
<td>N</td>
<td>1000</td>
</tr>
<tr>
<td>Vertical</td>
<td>N</td>
<td>1250</td>
</tr>
<tr>
<td>To earth</td>
<td>kV</td>
<td>460</td>
</tr>
<tr>
<td>Open contacts</td>
<td>kV</td>
<td>460 + 145</td>
</tr>
<tr>
<td>To earth</td>
<td>kV</td>
<td>1050</td>
</tr>
<tr>
<td>Open contacts</td>
<td>kV</td>
<td>1050 + 200</td>
</tr>
<tr>
<td>Rated short time power frequency withstand voltage (effective value)</td>
<td>kV</td>
<td></td>
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<tr>
<td>Rated insulation level</td>
<td></td>
<td></td>
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<tr>
<td>Lightning impulse withstand voltage (peak)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electromagnet coupling</td>
<td></td>
<td></td>
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<tr>
<td>Rated induction current</td>
<td>A</td>
<td>80</td>
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<tr>
<td>Rated induction voltage</td>
<td>kV</td>
<td>2</td>
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<tr>
<td>Electrostatic coupling</td>
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<tr>
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<td>A</td>
<td>3</td>
</tr>
<tr>
<td>Rated induction voltage</td>
<td>kV</td>
<td>12</td>
</tr>
<tr>
<td>Open/close bus switching circuit</td>
<td>A</td>
<td>1600</td>
</tr>
<tr>
<td>Mechanical life</td>
<td>Time</td>
<td>3000</td>
</tr>
<tr>
<td>Disconnecter circuit resistance</td>
<td>μΩ</td>
<td>50</td>
</tr>
<tr>
<td>Single pole weight</td>
<td>kg</td>
<td>1020</td>
</tr>
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</table>
5 Outline and Installation Dimension (Unit: mm)

GW7-252□□DW Disconnector

6 Ordering Information

Please specify the following items when ordering:

6.1 Model, specification and quantity.
6.2 Rated current, rated short time and peak withstands current.
6.3 Please indicate whether fitted with earthing blade, on which side and whether fitted with electromagnetic lock.
6.4 The electric motor voltage, control voltage and auxiliary poles of electric operating mechanism.

※ Note: Customized products are available.
**Disconnector**

**GW22-252 Outdoor AC Disconnector of Vertical single-column & Single-arm Flexible Fold Type (252kV)**

1 **General**

1.1 Application: single-column single-arm vertical fold type three-phase AC 50Hz outdoor HV electrical apparatus, for switching under no-load condition and electrical disconnection between electrical apparatus and live circuit in rated voltage 252kV power system.

1.2 Standard: IEC 62271-102.

2 **Type Designation**

---

With earthing blade
Rated voltage
Design No.
Outdoor
Disconnector

---

3 **Working Condition**

3.1 Altitude: $\leq$ 2000m

3.2 Ambient air temperature: $-40^\circ C \sim +40^\circ C$

3.3 Max wind velocity: 34m/s

3.4 Seismic: Horizontal acceleration: 0.250g

Vertical acceleration: 0.125g

3.5 Thickness of ice covering: $\leq$ 10mm

3.6 Pollution level of insulator: III (25mm/kV), IV (31mm/kV)

3.7 Installation area without fire, explosion, chemical corrosion and frequent shocking.

4 **Technical Parameter**

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Parameter</th>
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</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>kV</td>
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</tr>
<tr>
<td>Rated current</td>
<td>A</td>
<td>3150</td>
</tr>
<tr>
<td>Rated short time withstand current, 3s</td>
<td>kA</td>
<td>50</td>
</tr>
<tr>
<td>Rated peak withstand current</td>
<td>kA</td>
<td>125</td>
</tr>
<tr>
<td>Rated power frequency withstand voltage (rms)</td>
<td>kV</td>
<td>460</td>
</tr>
<tr>
<td>Rated lightning impulse withstand voltage (peak)</td>
<td>kV</td>
<td>1050+200</td>
</tr>
<tr>
<td>Mechanical strength of terminals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>N</td>
<td>2000</td>
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<tr>
<td>Horizontal</td>
<td></td>
<td>1000</td>
</tr>
<tr>
<td>Vertical</td>
<td></td>
<td>1250</td>
</tr>
<tr>
<td>Rated contact field (hard wire/soft wire)</td>
<td>mm</td>
<td>150</td>
</tr>
<tr>
<td>Total drift of Level Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical shift Z</td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>Longitudinal displacement of support conductor X</td>
<td>mm</td>
<td>150</td>
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<tr>
<td>Min failing load</td>
<td>N</td>
<td>8000</td>
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<tr>
<td>ES induction current switching capability Electromagnetic coupling</td>
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<td>1.25</td>
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<td>Rated induction voltage</td>
<td>kV</td>
<td>5</td>
</tr>
<tr>
<td>Electrostatic coupling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated induction current</td>
<td>A</td>
<td>1.4</td>
</tr>
<tr>
<td>Rated induction voltage</td>
<td>kV</td>
<td>5</td>
</tr>
<tr>
<td>Open/close bus switching circuit</td>
<td>A</td>
<td>1600</td>
</tr>
<tr>
<td>Mechanical life</td>
<td>Time</td>
<td>3000</td>
</tr>
<tr>
<td>Single pole weight</td>
<td>Kg</td>
<td>700</td>
</tr>
</tbody>
</table>
5 Outline and Installation Dimension (Unit: mm)

- View A
  - T16 Aluminum plate and slider sliding
  - Provide wiring hole by user

- Installation hole 4-M16
  - 220 x 200

- Installation hole 4-Φ18
  - 200 x 100

- Distance between buses ≥3000
  - (basic central distance)

- Distance between buses ≥3000
  - (basic central distance)

- Requirement about foundation
  - 1000kg
  - 2000 kg (pitch of strand)
  - 800kg
  - 2100 kg m

Installation dimension 320 x 330
6 Ordering Information

Please specify the following items when ordering:
6.1 Model, specification and quantity of disconnector.
6.2 Rated current, rated short time and peak withstanding current.
6.3 Pollution level and altitude.
6.4 Indicate if fitted with earthing blade or electromagnetic lock.
6.5 The electric motor voltage, control voltage and auxiliary poles of electric operation mechanism.

※ Note: Customized products are available.
GW23-252 Outdoor AC Disconnector Of Horizontal 
Double-column & Single-arm Flexible Fold Type (252kV)

1 General
1.1 Application: double-column horizontal fold type three-phase AC 50Hz outdoor HV electrical 
apparatus, for switching under off-load condition and electrical disconnection between electrical 
apparatus and live circuit in rated voltage 220kV power system.
1.2 Standard: IEC 62271-102.

2 Type Designation

With earthing blade
Rated voltage
Design No.
Outdoor
Disconnector
G
W 23 - 252 D

3 Working Condition
3.1 Altitude: ≤2000m
3.2 Ambient air temperature: -40℃~+40℃
3.3 Max wind velocity: 34m/s
3.4 Seismic: Horizontal acceleration: 0.250g
Vertical acceleration: 0.125g
3.5 Thickness of ice: ≤10mm
3.6 Pollution level of insulator: III(25mm/kV), IV(31mm/kV)
3.7 Installation area without fire, explosion, chemical corrosion and frequent shocking

4 Technical Parameter

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>kV</td>
<td>252</td>
</tr>
<tr>
<td>Rated current</td>
<td>A</td>
<td>3150</td>
</tr>
<tr>
<td>Rated short time withstand current,3s</td>
<td>kA</td>
<td>50</td>
</tr>
<tr>
<td>Rated peak withstand current</td>
<td>kA</td>
<td>125</td>
</tr>
<tr>
<td>Rated power frequency withstand voltage</td>
<td>To earth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Open contacts</td>
<td>kV</td>
</tr>
<tr>
<td></td>
<td>Open contacts</td>
<td></td>
</tr>
<tr>
<td>Rated lightening impulse withstand voltage</td>
<td>To earth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Open contacts</td>
<td>kV</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical strength of terminals</td>
<td>Longitudinal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Horizontal</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Vertical</td>
<td></td>
</tr>
<tr>
<td>Min failure load</td>
<td>N</td>
<td>8000</td>
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<tr>
<td>Earthing switch induction current open/close capability</td>
<td>Electromagnetic coupling</td>
<td>Rated induction current</td>
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<tr>
<td></td>
<td>Rated induction voltage</td>
<td>kV</td>
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<tr>
<td></td>
<td>Electrostatic coupling</td>
<td>Rated induction current</td>
</tr>
<tr>
<td></td>
<td>Rated induction voltage</td>
<td>kV</td>
</tr>
<tr>
<td>Open/close bus switching circuit</td>
<td>A</td>
<td>1600</td>
</tr>
<tr>
<td>Mechanical life</td>
<td>Time</td>
<td>3000</td>
</tr>
<tr>
<td>Single pole weight</td>
<td>kg</td>
<td>1050</td>
</tr>
</tbody>
</table>
5 Outline and Installation Dimension (Unit: mm)

- Installation hole 4-M16 220x200
- Installation hole 4-M18 200x100
- Foundation center distance 3125
- Distance of disconnector's open position ≥3600
- T16 Aluminium plate and silver plating
- Provide wiring hole by user
- T30 Aluminium plate and silver plating
- 4-d18
- Max load 390x390
- Requirement about foundation
- 200kg.m (pitch of strand)
- 850kg
- 2100kg.m
6 Ordering Information

Please specify the following items when ordering:
6.1 Model, specification and quantity of disconnector.
6.2 Rated current, rated short time and peak withstand current.
6.3 Pollution level and altitude.
6.4 Please indicate whether fitted with earthing blade, in which side and whether fitted with electromagnetic lock.
6.5 The electric motor voltage, control voltage and auxiliary poles of electric operating mechanism.
※ Note: Customized products are available.
JW□-126, JW□-252 Outdoor AC Earthing Switch (126kV/252kV)

1 General
1.1 Application: three-phase AC 50Hz outdoor HV electrical apparatus, for earthing of HV bus in rated voltage 110~220kV power system.
1.2 Standard: IEC 62271-102.

2 Type Designation

3 Working Condition
3.1 Altitude: ≤2000m
3.2 Ambient air temperature: -40℃~+40℃
3.3 Max wind velocity: 34m/s
3.4 Seismic: Horizontal acceleration: 0.250g
  Vertical acceleration: 0.125g
3.5 Thickness of ice covering: ≤10mm
3.6 Pollution level of insulator: III(25mm/kV), IV(31mm/kV)
3.7 Installation area without fire, explosion, chemical corrosion and frequent shocking
3.8 Sunshine radiation: ≤1000W/m² (sunny noon).

4 Technical Parameter

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Parameter</th>
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</thead>
<tbody>
<tr>
<td>Rated voltage</td>
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<td>Rated peak withstand current</td>
<td>A</td>
<td>100</td>
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<tr>
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<td>40</td>
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<tr>
<td>Rated power frequency withstand voltage</td>
<td>kV</td>
<td>230</td>
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<tr>
<td>Open contacts</td>
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<td>265</td>
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<tr>
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<td>kV</td>
<td>550</td>
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<tr>
<td>Open contacts</td>
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<td>630</td>
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<tr>
<td>Mechanical strength of terminals</td>
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<td>1000</td>
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<tr>
<td>Longitudinal</td>
<td></td>
<td>1000</td>
</tr>
<tr>
<td>Horizontal</td>
<td></td>
<td>750</td>
</tr>
<tr>
<td>Vertical</td>
<td></td>
<td>1000</td>
</tr>
<tr>
<td>Earthing switch induction current</td>
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<td>Open/close capability</td>
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<tr>
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<td>kV</td>
<td>1.4</td>
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<tr>
<td>Rated induction current</td>
<td>A</td>
<td>0.4</td>
</tr>
<tr>
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<td>kV</td>
<td>3</td>
</tr>
<tr>
<td>Statically coupling</td>
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<td>5</td>
</tr>
<tr>
<td>Mechanical life</td>
<td>Times</td>
<td>3000</td>
</tr>
<tr>
<td>Min falling load</td>
<td>N</td>
<td>6000</td>
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<tr>
<td>Single pole weight</td>
<td>kg</td>
<td>110</td>
</tr>
<tr>
<td>Radio interference level</td>
<td>μV</td>
<td>≤2000</td>
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</table>
5 Outline and Dimension (Unit: mm)

5.1 JW□ Earthing Switch

※ Note:
1. The diagram is drawn according to phase arrangements.
2. No interelectrode linkage or linkage lever when monopole operation.
3. The distance between L poles will be provided by user, no less than 1500mm.
5.2 JW□-252 Earthing Switch

※ Note:
1. The diagram is drawn according to phase arrangements.
2. No interelectrode linkage or linkage lever when monopole operation.
3. The distance between L poles will be provided by user, no less than 3000mm.
International Business:
Attributed to our reliable quality and perfect after-sales service, CHINT Electric has been relied on and entrusted with by many of our clients around the world. We will continue to supply best products and try hard to win more compliments through our best service.

For inquiries, further interests for products cooperation, partnership, international alliance, investment discussion with us, please contact the following representatives.

<table>
<thead>
<tr>
<th>Area</th>
<th>Representative</th>
<th>Tel</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia-Pacific</td>
<td>Selina Peng</td>
<td>(+86) 21 6777 7777 ext.80917</td>
<td><a href="mailto:pengsua@chint.com">pengsua@chint.com</a></td>
</tr>
<tr>
<td>Latin America</td>
<td>B Chen</td>
<td>(+86) 21 6777 7777 ext.80911</td>
<td><a href="mailto:hanb@chint.com">hanb@chint.com</a></td>
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<tr>
<td>North America</td>
<td>Xufeng Jiang</td>
<td>(+86) 21 6777 7777 ext.80990</td>
<td><a href="mailto:jxfleng@chint.com">jxfleng@chint.com</a></td>
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<td>Europe</td>
<td>Yunk Zhi</td>
<td>(+86) 21 6777 7777 ext.80925</td>
<td><a href="mailto:zhy@chint.com">zhy@chint.com</a></td>
</tr>
<tr>
<td>Africa &amp; Middle East</td>
<td>Logan Liu</td>
<td>(+86) 21 6777 7777 ext.89006</td>
<td><a href="mailto:logen@chint.com">logen@chint.com</a></td>
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<tr>
<td>Russia–Speaking Countries</td>
<td>Andrey Tani</td>
<td>(+86) 21 6777 7777 ext.80965</td>
<td><a href="mailto:laocz0331@chint.com">laocz0331@chint.com</a></td>
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