

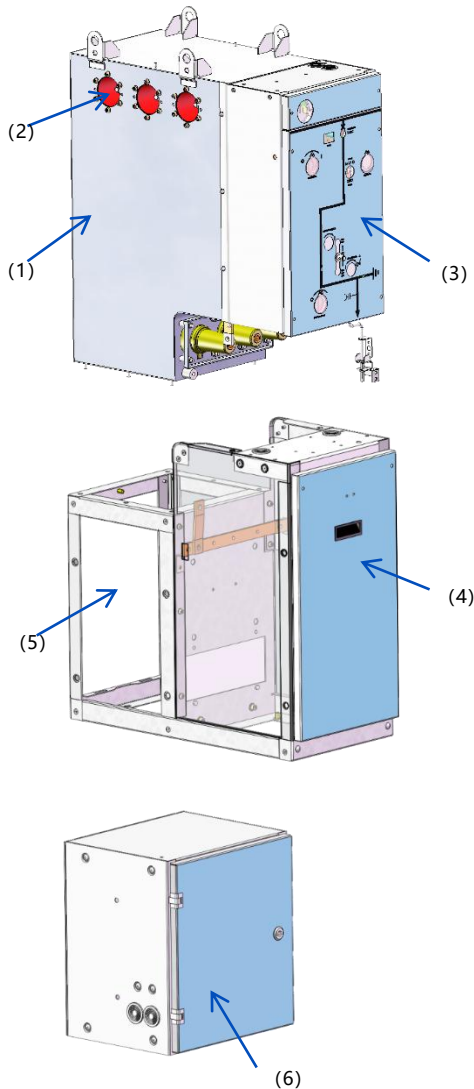


Enerswit⁺ (GIM) RMU for Secondary Distribution

12kV~24kV,...1250A,...25kA, SF₆ Insulated

| Table of Contents

Overview.....	1
Working Conditions & Qualifications.....	2
Technical Parameters.....	3
Function Unit.....	5
Solutions and Scheme Combinations.....	18
Microcomputer Protection Devices.....	21
Dimensions.....	22
Foundation Layout Diagrams.....	24
Instructions of Order.....	34



Introduction

The Enerswit⁺ (GIM) series SF₆ gas insulated ring main unit utilizes an auto-reclosing load break switch and a vacuum circuit breaker with ultra-low resistance. The primary live parts are packaged in a stainless steel gas tank filled with SF₆ gas, which is isolated from the external environment to ensure unaffected operations of switchgear and all live components within the tank. The gas tank is mounted on a cable compartment base made of aluminum-zinc plate. Reliable and safe sequential operations are achieved through the interlocking device between the operating mechanism and cable compartment door. Over 90% of metal materials are used, resulting in maintenance-free equipment that enhances power supply reliability and personnel safety, meeting the requirements for stable economic operation.

Notes:

- (1) Stainless steel gas tank filled with SF₆ gas
- (2) Busbar connection expansion sleeve
- (3) Operating mechanism and door panel
- (4) Cable compartment door panel
- (5) Cable compartment base
- (6) Secondary instrument box

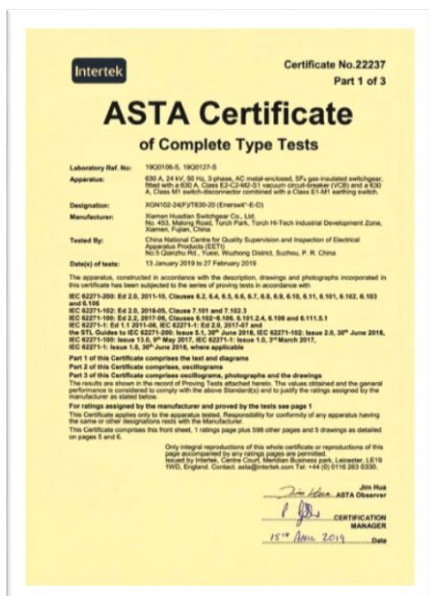
Features

- The Enerswit⁺ (GIM) series is based on a standardized design on the same platform, offering a compact and reliable solution
- SF₆ gas insulation
- Enerswit⁺ rated voltages of 12kV and 24kV
- GIM rated voltage 12kV
- All primary live components are sealed within a stainless steel gas tank filled with SF₆ gas
- Ability to withstand internal arc faults
- The grounding switch has the capability to close and establish a ground connection
- It has mechanical interlocking function to ensure proper and reliable sequential operations
- The primary equipment is fully enclosed within the gas tank, making it suitable for distribution locations exposed to salt spray, moisture, or contamination
- With cabinet widths of 360mm, 420mm, 450mm, and 500mm, the Enerswit⁺ (GIM) series features a compact and lightweight design, effectively saving space and reducing the footprint
- The design of the Enerswit⁺ (GIM) series adopts a fully metal-sealed and modular concept, ensuring a maintenance-free lifecycle for the primary live equipment

Working Conditions and Qualifications

- Temperature rating: -25°C
- Average (maximum) within 24 hours: 40°C
- Rated voltage: 12kV, 24kV
- Operating temperature: -25°C to +40°C
- Altitude: ≤2000m
- Degree of protection: Core unit (gas tank) IP68
- Degree of protection of the cabinet enclosure: IP4X
- Insulating gas: SF₆
- Relative pressure at 20°C: 0.03 MPa
- Installation environment: Class IV as specified in GB/T 16434

In accordance with GB/T 16434 standard, for special operating conditions that deviate from the normal operating conditions mentioned above, the manufacturer and end-user must reach a mutual agreement. If there are harsh operating environments involved, it is necessary to consult the manufacturer and supplier for guidance.



• GB/T 3906

• GB/T 3804

• GB/T 1984

• GB/T 1985

• GB/T 16926

• GB/T 11022

• GB/T 4208

• GB/T 15166.2

• IEC_62271-100

• IEC_62271-102

• IEC_62271-200

• IEC_60265

Alternating-current Metal-enclosed Switchgear and Controlgear for Rated Voltages Above 3.6 kV and Up to and Including 40.5 kV

High-voltage Alternating-current Switches for Rated Voltage Above 6 kV and Less Than 40.5 kV

High-voltage Alternating-current Circuit-breakers

High-voltage Alternating-current Disconnectors and Earthing Switches

High-voltage Alternating Current Switch-Fuse Combinations

Common Specifications for High-voltage Alternating-current Switchgear and Controlgear Standards

Degrees of Protection Provided by Enclosure (IP Code)

High-voltage Alternating-current Fuses: Current-limiting Fuses

High-voltage Alternating-current Circuit-breakers

High-voltage Alternating-current Disconnectors and Earthing Switches

Alternating-current Metal-enclosed Switchgear and Controlgear

High-voltage Load Break Switches



Technical Parameters

Model	Enerswit ⁺			GIM
Function unit	C load break switch unit	T- combination electrical unit	D vacuum circuit breaker unit	D vacuum circuit breaker unit
Rated voltage (kV)	12	12	12	12
Rated current (A)	630	125	630	1250
Rated withstand current (kA/4s)	20	/	20(25)	25
Rated short-circuit closing current (peak) (kA)	50	/	50(63)	63
Electrical lifespan (number of operations)	E3	/	E2	E2
Rated short-circuit breaking current (kA)	/	31.5	20(25)	25
Short-circuit closing capability of the grounding switch	E2	/	E2	E2
Internal arc test AFLR (kA/1s)	20	/	20(25)	25
Mechanical life of the circuit breaker (number of operations)	/	/	10000	10000
Mechanical life of the isolation switch (number of operations)	/	/	5000	5000
Mechanical life of the load break switch (number of operations)	5000	5000	/	/
Mechanical life of the grounding switch (number of operations)	3000	3000	3000	3000
Power frequency withstand voltage (across the air gap) (kV)	48	48	48	48
Power frequency withstand voltage (phase-to-phase, phase-to-ground) (kV)	42	42	42	42
Lightning impulse withstand voltage (across the isolation gap) (kV)	85(110)	85(110)	85(110)	85
Lightning impulse withstand voltage (across the air gap, phase-to-phase, phase-to-ground) (kV)	75(95)	75(95)	75(95)	75
Annual leakage rate (%/year)	0.01%	0.01%	0.01%	0.01%
Degree of protection (gas tank)	IP68	IP68	IP68	IP68
Cabinet width (mm)	360、450	360	360、420、450	500

Model	Enerswit+		
Function unit	C load break switch unit	T- combination electrical unit	D vacuum circuit breaker unit
Rated voltage (kV)	24	24	24
Rated current (A)	630	125	630
Rated withstand current (kA/4s)	20	/	20
Rated short-circuit closing current (peak)	50	/	50
Electrical lifespan (number of operations)	E2	/	E2
Rated short-circuit breaking current (kA)	/	31.5	20
Short-circuit closing capability of the grounding switch	E2	/	E2
Internal arc test AFLR (kA/1s)	20	/	20
Mechanical life of the circuit breaker (number of operations)	/	/	10000
Mechanical life of the isolation switch (number of operations)	/	/	5000
Mechanical life of the load break switch (number of operations)	5000	5000	/
Mechanical life of the grounding switch (number of operations)	3000	3000	3000
Power frequency withstand voltage (across the air gap) (kV)	79	79	79
Power frequency withstand voltage (phase-to-phase, phase-to-ground) (kV)	65	65	65
Lightning impulse withstand voltage (across the isolation gap) (kV)	145	145	145
Lightning impulse withstand voltage (across the air gap, phase-to-phase, phase-to-ground) (kV)	125	125	125
Annual leakage rate (%/year)	0.01%	0.01%	0.01%
Degree of protection (gas tank)	IP68	IP68	IP68
Cabinet width (mm)	360	360	360

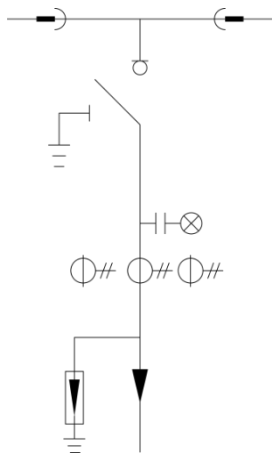
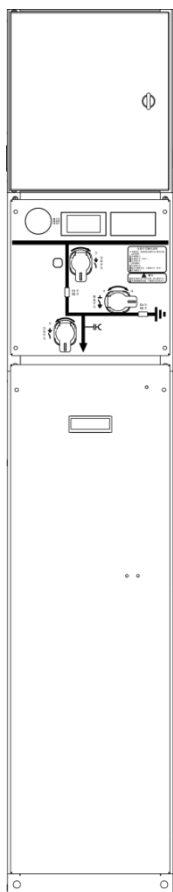
C Load Break Switch Function Unit

Standard Configuration

- Gas tank
- Three-position load break switch
- Manual operating mechanism for three-position load break switch
- Manual operating mechanism for grounding switch
- Pressure gauge without auxiliary contacts
- Live indicator (indicating live cable outlet bushing)
- 630A/1250A internal busbar
- Cable compartment with interlocking mechanism with the grounding switch
- Grounding busbar
- Low voltage compartment (height 400mm)

Optional Accessories Available at an Additional Cost

- Electric operating mechanism for three-position load break switch
- Lightning arrester for incoming lines
- Cable T-connector
- Short-circuit and ground fault indicator
- Reserved external busbar expansion and bus coupler
- Density meter with alarm contact (1NO)
- Cased CT or through-the-core CT



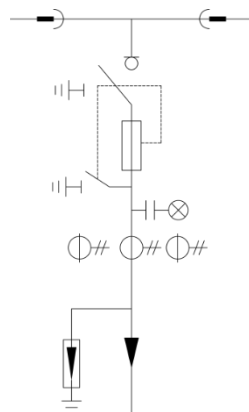
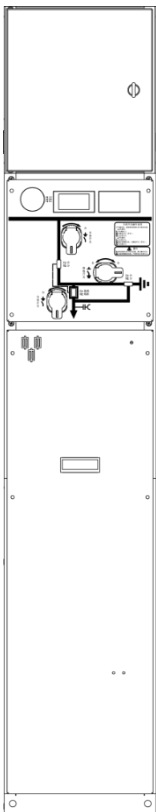
T Combination Electrical Function Unit

Standard Configuration

- Gas tank
- Three-position load break switch
- Manual operating mechanism for three-position load break switch
- Manual operating mechanism for grounding switch
- Pressure gauge without auxiliary contacts
- Live indicator (indicating live cable outlet bushing)
- 630A/1250A internal busbar
- Cable compartment with interlocking mechanism with the grounding switch
- Grounding busbar
- Fuse barrel
- Maximum 125A fuse
- Low voltage compartment (height 400mm)

Optional Accessories Available at an Additional Cost

- Electric operating mechanism for three-position load break switch
- Lightning arrester for incoming lines
- Cable T-connector
- Short-circuit and ground fault indicator
- Reserved external busbar expansion and bus coupler
- Density meter with alarm contact (1NO)
- Cased CT or through-the-core CT



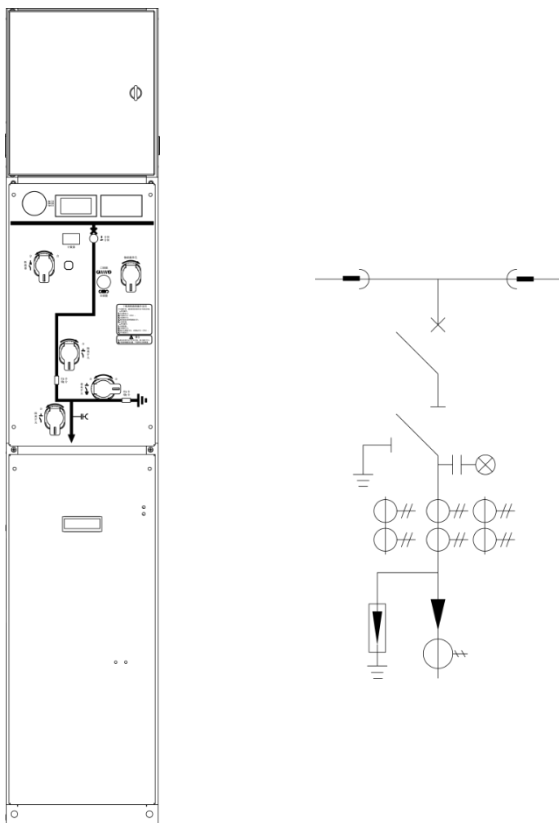
D Vacuum Circuit Breaker Function Unit (630A)

Standard Configuration

- Gas tank
- 630A vacuum circuit breaker
- Manual operating mechanism for vacuum circuit breaker
- Three-position disconnecting switch
- Manual operating mechanism for three-position disconnecting switch
- Live indicator (indicating live cable outlet bushing)
- Pressure gauge without auxiliary contacts
- 630A/1250A internal busbar
- Cable compartment with interlocking mechanism with the grounding switch
- Grounding busbar
- Low voltage compartment (height 400mm)

Optional Accessories Available at an Additional Cost

- Electric operating mechanism for vacuum circuit breaker
- Lightning arrester for incoming lines
- Cable T-connector
- Short-circuit and ground fault indicator
- AP330-R series microcomputer integrated protection device
- Reserved external busbar expansion and bus coupler
- Density meter with alarm contact (1NO)
- Cased CT or through-the-core CT



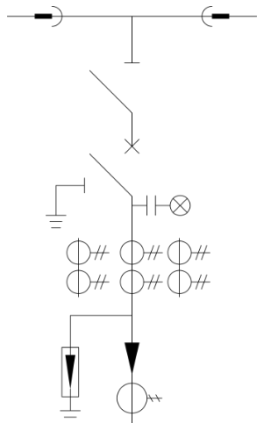
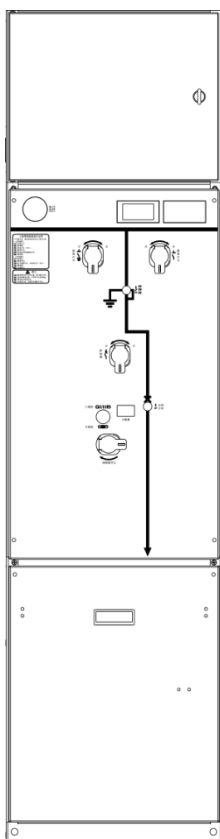
D Vacuum Circuit Breaker Function Unit (1250A)

Standard Configuration

- Gas tank
- 1250A vacuum circuit breaker
- Manual operating mechanism for vacuum circuit breaker
- Three-position disconnecting switch
- Manual operating mechanism for three-position disconnecting switch
- Live indicator (indicating live cable outlet bushing)
- Pressure gauge without auxiliary contacts
- 1250A internal busbar
- Cable compartment with interlocking mechanism with the grounding switch
- Grounding busbar
- Low voltage compartment (height 400mm)

Optional Accessories Available at an Additional Cost

- Electric operating mechanism for vacuum circuit breaker
- Lightning arrester for incoming lines
- Cable T-connector
- Short-circuit and ground fault indicator
- AP330-R series microcomputer integrated protection device
- Reserved external busbar expansion and bus coupler
- Density meter with alarm contact (1NO)
- Cased CT or through-the-core CT



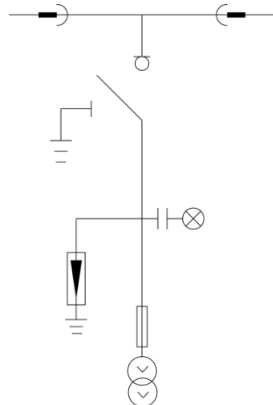
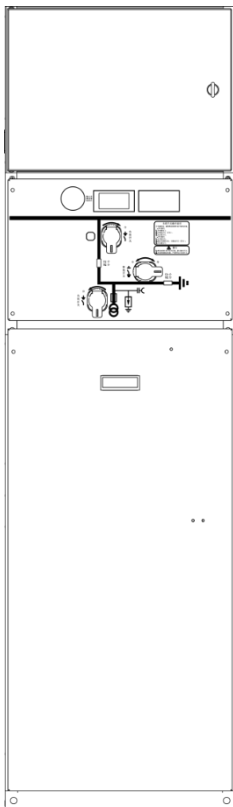
PT PT Function Unit with Load Break Switch

Standard Configuration

- Gas tank
- Three-position load break switch
- Manual operating mechanism for three-position load break switch
- Manual operating mechanism for grounding switch
- Pressure gauge without auxiliary contacts
- Live indicator (indicating live cable outlet bushing)
- 630A/1250A internal busbar
- Cable compartment with interlocking mechanism with the grounding switch
- Grounding busbar
- Auxiliary insulation T-connector
- Cabinet body (width 360, 550mm)
- Low voltage compartment (height 400mm)

Optional Accessories Available at an Additional Cost

- Electric operating mechanism for three-position load break switch
- Lightning arrester for incoming lines
- Short-circuit and ground fault indicator
- Reserved external busbar expansion and bus coupler
- Density meter with alarm contact (1NO)
- 2 or 3 voltage transformers (JDZ11-10 or JDZ11-20)
- 3 fuses for the protection of PT
- 1 voltmeter with a changeover switch



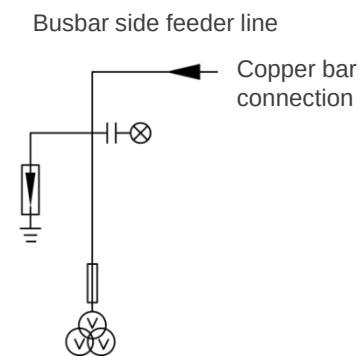
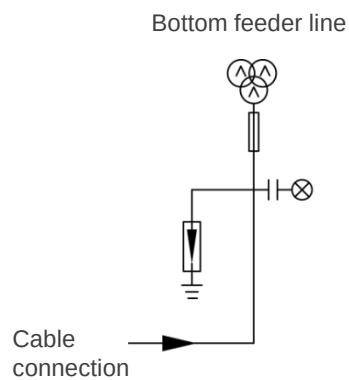
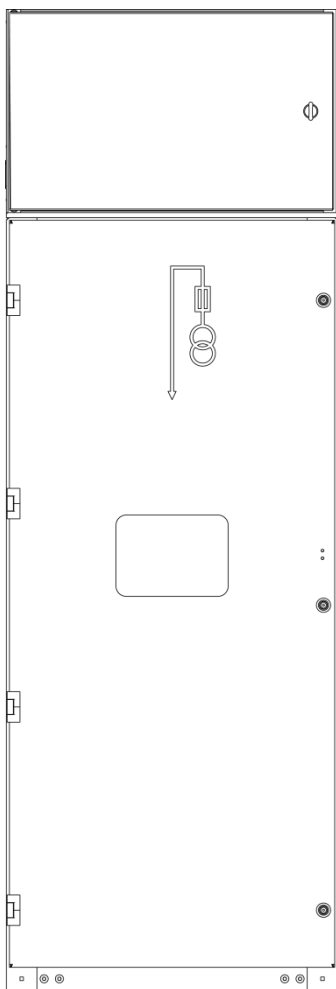
P PT Function Unit Without Earthing Switch

Standard Configuration

- Live indicator (indicating live cable outlet bushing)
- 630A/1250A internal busbar
- Grounding busbar
- Auxiliary insulation T-connector
- Cabinet body (width 650mm)
- Low voltage compartment (height 400mm)

Optional Accessories Available at an Additional Cost

- Lightning arrester for incoming lines
- 3 nos. of 630A busbar connectors for connection with other function units
- 2 or 3 voltage transformers (JDZ11-10 or JDZ11-20)
- 3 fuses for the protection of PT
- 1 voltmeter with a changeover switch



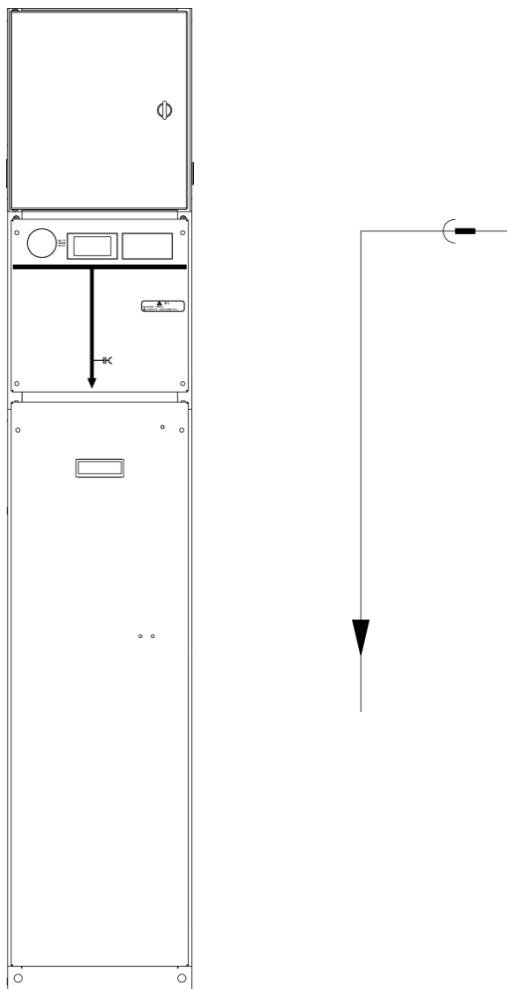
Cable Connection Function Unit

Standard Configuration

- Gas tank
- 630A/1250A internal busbar
- Cable bushing for front cabinet outlet 630A/1250A
- Live indicator (indicating live cable outlet bushing)
- Pressure gauge without auxiliary contacts
- Grounding busbar
- Low voltage compartment (height 400mm)

Optional Accessories Available at an Additional Cost

- Short-circuit and ground fault indicator
- Cable T-connector
- Reserved external busbar expansion and bus coupler (busbar)
- Density meter with alarm contact (1NO)
- Cased CT or through-the-core CT



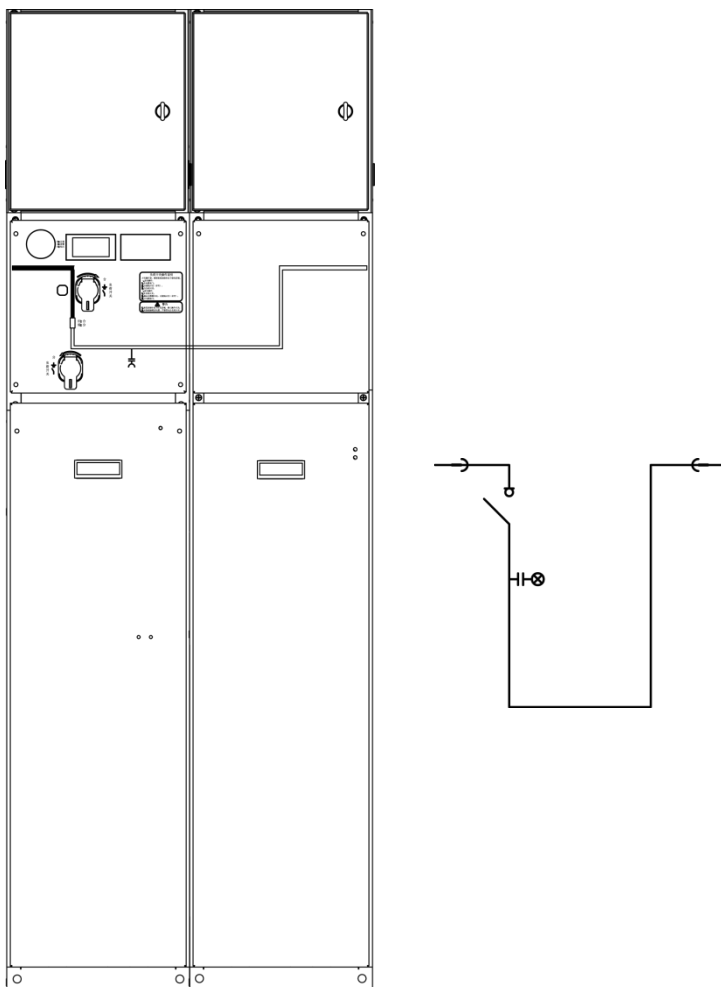
Cr Busbar Segmentation (Load Break Switch) Function Unit

Standard Configuration

- Gas tank
- Load break switch
- Manual operating mechanism for load break switch
- Pressure gauge without auxiliary contacts
- Live indicator
- 630A/1250A internal busbar
- Cable compartment
- Low voltage compartment (height 400mm)

Optional Accessories Available at an Additional Cost

- Electric operating mechanism for load break switch
- Reserved external busbar expansion and bus coupler
- Density meter with alarm contact (1NO)



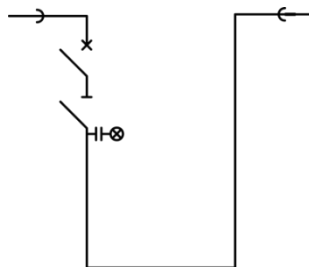
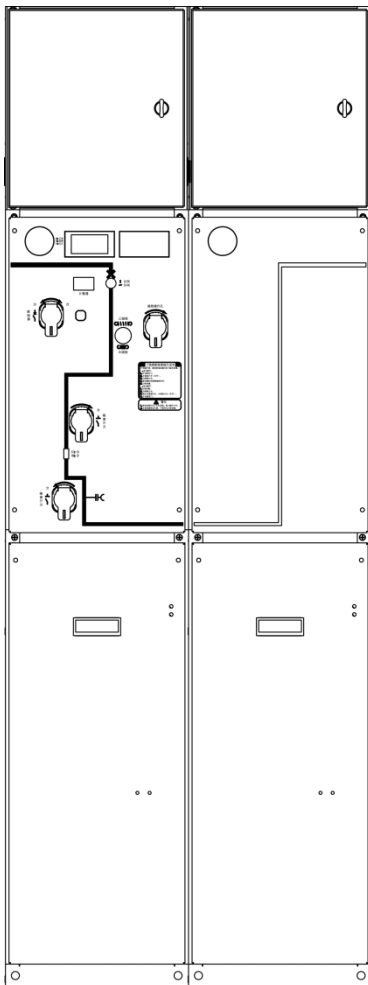
Dr Busbar Segmentation (Vacuum Circuit Breaker) Function Unit

Standard Configuration

- Gas tank
- 630A vacuum circuit breaker
- Manual operating mechanism for vacuum circuit breaker
- Isolating switch
- Manual operating mechanism for isolating switch
- Live indicator
- Pressure gauge without auxiliary contacts
- 630A/1250A internal busbar
- Cable compartment
- Low voltage compartment (height 400mm)

Optional Accessories Available at an Additional Cost

- Electric operating mechanism for vacuum circuit breaker
- AP330-R series microcomputer integrated protection device
- Reserved external busbar expansion and bus coupler
- Density meter with alarm contact (1NO)



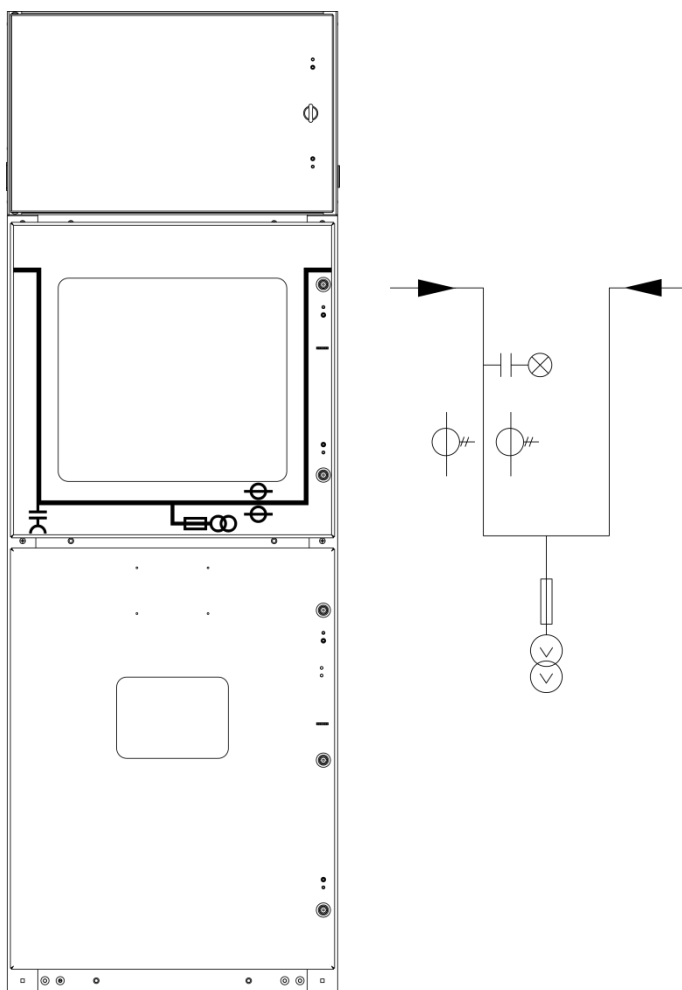
M Metrology Function Unit

Standard Configuration

- 630A/1250A internal busbar
- Auxiliary insulation T-connector
- Live indicator
- Cabinet body (width 650mm)
- Low voltage compartment (height 400mm)

Optional Accessories Available at an Additional Cost

- 2 or 3 voltage transformers (JDZ11-10 or JDZ11-20)
- 2 or 3 current transformers (LZZBJ9-12 or LZZBJ9-24)
- 3 fuses for the protection of PT
- Electricity meter
- 1 voltmeter with a changeover switch
- 1 current meter with a changeover switch



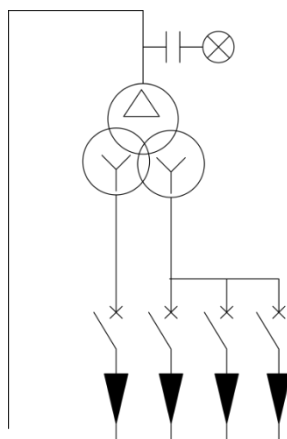
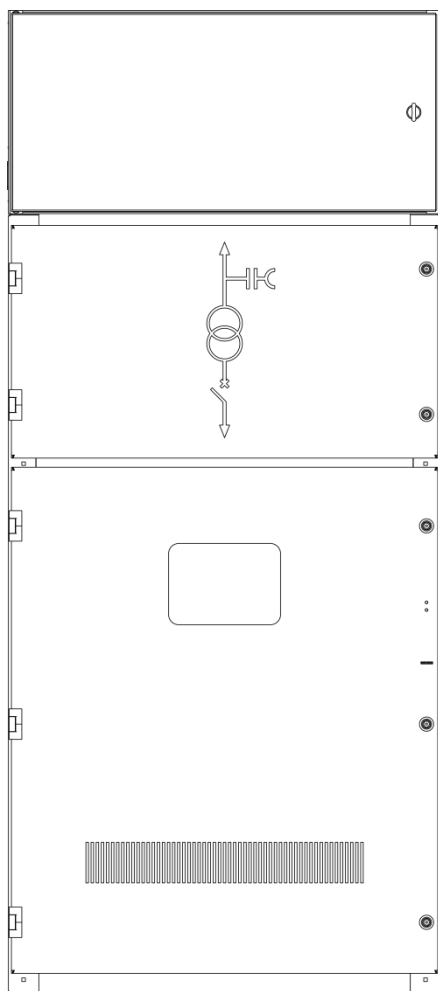
TF Station Transformer Function Unit

Standard Configuration

- 630A/1250A internal busbar
- Live indicator
- Cabinet body (width 850mm * depth 840mm)
- Low voltage compartment (height 400mm)

Optional Accessories Available at an Additional Cost

- Dry-type transformer (SC11-30.5/10/10/0.4/0.1)
- Miniature circuit breaker



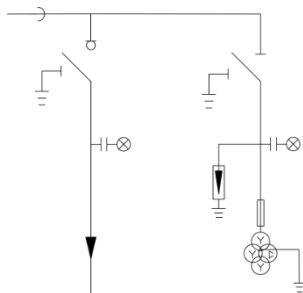
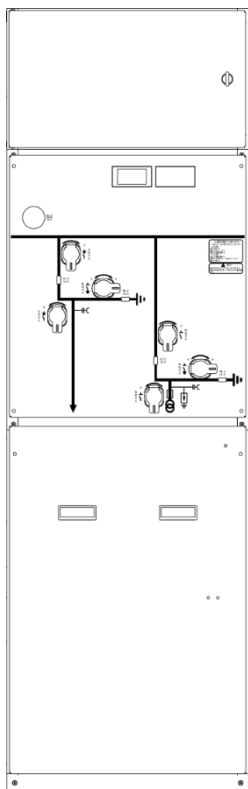
PTC Quick-Connect PT Cabinet Function Unit (State Grid Standardized Solution)

Standard Configuration

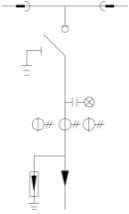
- Gas tank
- Three-position load break switch
- Manual operating mechanism for three-position load break switch
- Manual operating mechanism for grounding switch
- 200A quick-connect socket
- Pressure gauge without auxiliary contacts
- Live indicator (indicating live cable outlet bushing)
- 630A/1250A internal busbar
- Cable compartment with interlocking mechanism with the grounding switch
- Grounding busbar
- Low voltage compartment (height 350mm)

Optional Accessories Available at an Additional Cost

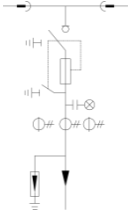
- Electric operating mechanism for three-position load break switch
- Lightning arrester for incoming lines
- Cable T-connector
- Short-circuit and ground fault indicator
- Reserved external busbar expansion and bus coupler
- Density meter with alarm contact (1NO)
- 2 or 3 voltage transformers (JDZ11-10 or JDZ11-20)
- 3 fuses for the protection of PT
- 1 voltmeter with a changeover switch



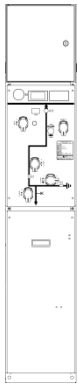
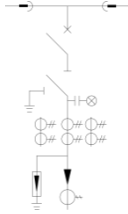
C



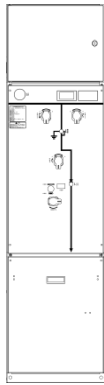
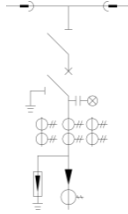
T



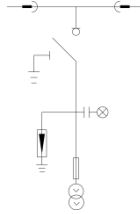
D



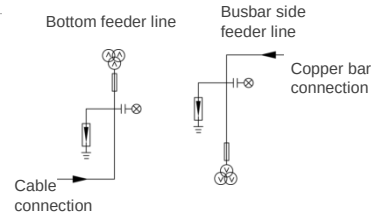
D



PT



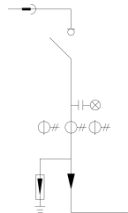
P



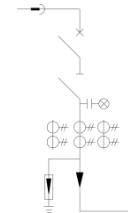
R



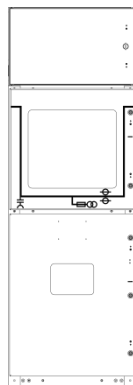
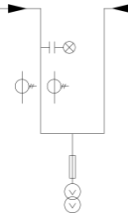
Cr



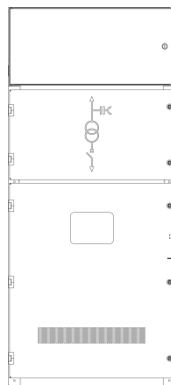
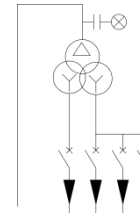
Dr

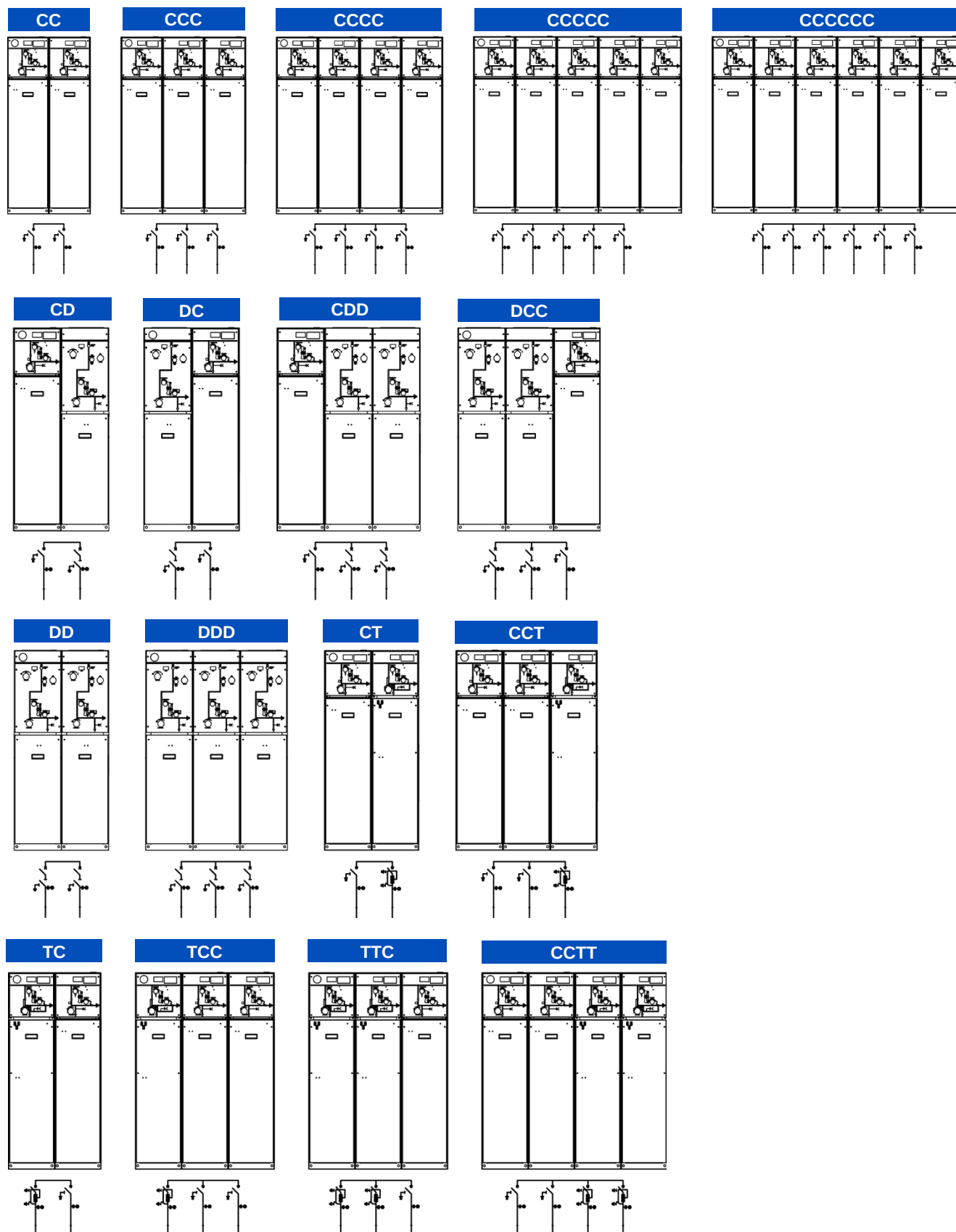


M



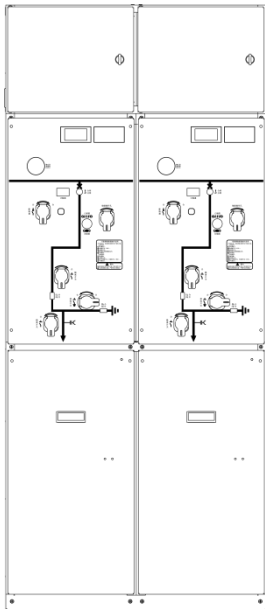
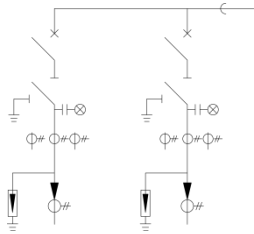
TF



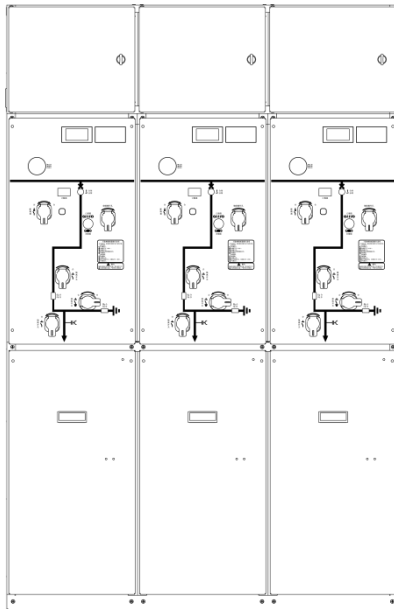
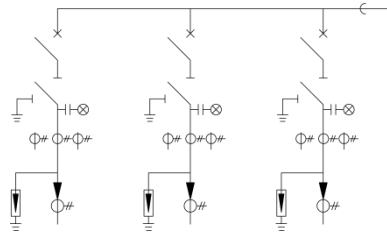


Solutions and Scheme Combinations

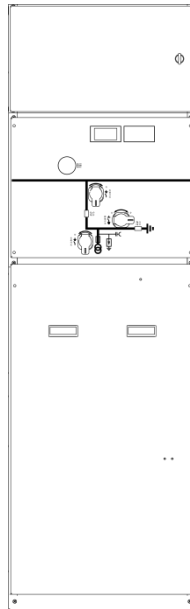
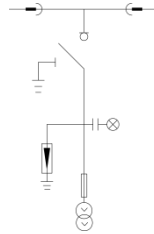
DD



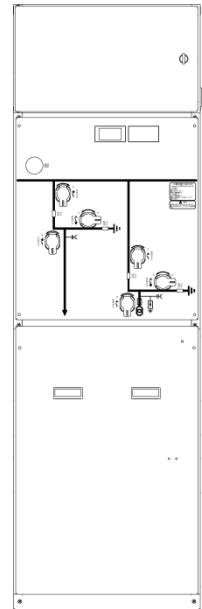
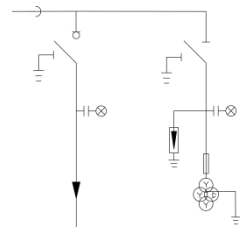
DDD



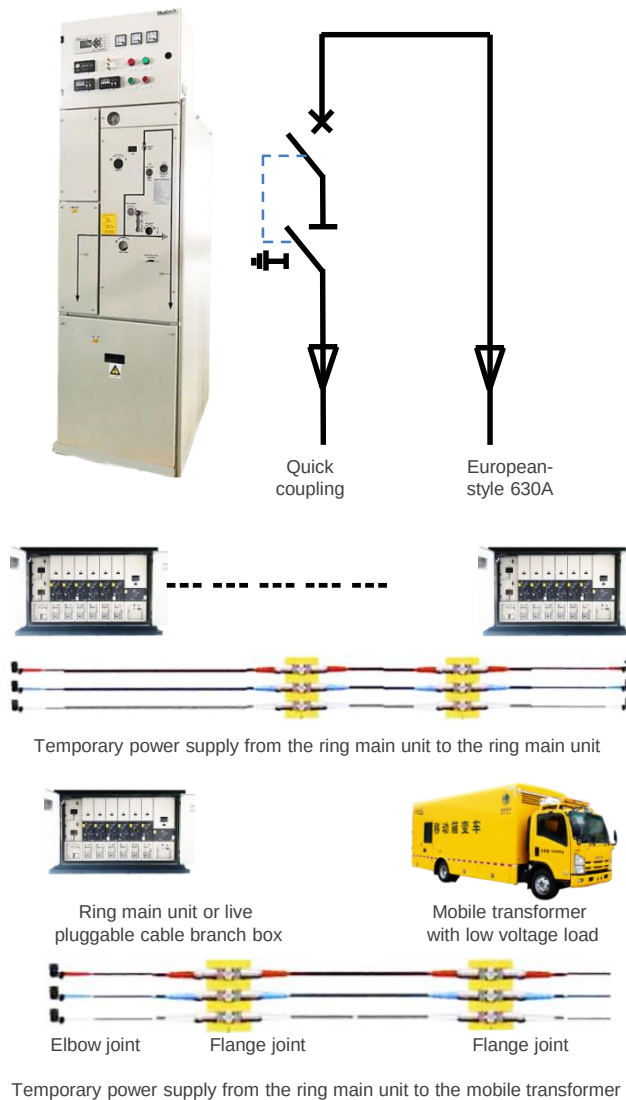
PT



PTC



Bypass Quick Access Application Solution (Non-Stop Maintenance Operation)



Bypass Operation System

A bypass operation system refers to a system that uses bypass switches and bypass power cables as temporary bypass power lines for maintenance or repair of faulty or under-maintenance power line segments. By using the bypass switches, the power supply is directed to the temporary power lines for uninterrupted power supply to the user. Then, the power supply to the faulty or under-maintenance power line segment is cut off, and the system enters a power-off status for maintenance and repair operations.

Live bypass operation is the top type of Category IV operation method in live operations, which involves setting up a temporary bypass power supply system to isolate the equipment that needs maintenance from the power grid. This allows the equipment to be repaired while keeping uninterrupted power supply to the user. We will gradually expand the use of live bypass operation method to achieve the goal of being able to perform live work without power interruption, in order to ensure the reliability of power supply and improve the quality of power supply.

Technical Principles of the Fast-Access Bypass Solution for Operation

The characteristics of the distribution cable network circuits make it impossible to use live work methods for direct circuit maintenance. Therefore, the development of bypass cable operation methods and solutions have become a new direction for solving issues related to long power outages caused by planned maintenance and emergency repairs in the distribution cable network circuits.

The new bypass cable operation method proposes the concept of cable transfer, which uses the original incoming and outgoing cables of the ring main unit. Through a cable transfer device, the load is transferred to a temporary ring main unit, which replaces the one that needs maintenance or replacement. The operation principle is illustrated in the diagram.

AP330F Microcomputer-Based Circuit Protection and Control Device



AP330F

- User-friendly and rich human-machine interface
- Integrate protection, measurement, control, and communication functions into one
- Modular design with software and hardware standards
- Use of a comprehensive starting element with transient and steady-state quantities

AP330 R

AP330-R intelligent microcomputer-based protection and control device is a distribution automation terminal developed specifically for the application in ring main unit systems. It has multiple measurement and control functions such as multi-power, remote signaling, remote measurement, remote control, etc. It also has functions such as phase-current high-speed breaking, overcurrent protection with three types of action characteristic curves and inverse time delay, zero-sequence overcurrent protection, re-closing, overvoltage protection, undervoltage protection, and non-electrical protection trip functions.

Dimensions

Enerswit⁺ (GIM) Series SF₆ Gas Insulated Ring Main Unit

Features

The compact and small size greatly reduces the footprint, and it can be installed in basements or outdoor distribution rooms, which is conducive to on-site installation, shortening construction time and improving economic efficiency.

Compact Solution (12kV)

Function unit	Function program	Width (mm)	Depth (mm)	Height* (mm)
C	Load break switch cabinet	360 (450)	750	1360 (1535) + 400
T	Combination electric cabinet	360	750	1360 (1535) + 400
D	630A vacuum circuit breaker cabinet	360 (450)	750	1360 (1535) + 400
D	1250A vacuum circuit breaker cabinet	500	750	1360 (1535) + 400
R	Cable connection cabinet	360	750	1360 (1535) + 400
PT	PT cabinet with load break switch	360 (550)	750	1360 (1535) + 400
P	PT cabinet without a three-position switch	550	750	1360 (1535) + 400
Cr	Busbar sectionalizer with load break switch	720	750	1360 (1535) + 400
Dr	Busbar sectionalizer with vacuum circuit breaker	720	750	1360 (1535) + 400
M	Metering cabinet	650	750	1360 (1535) + 400
TF	Station transformer cabinet	850	850	1360 (1535) + 400

State Grid Standardized Solution (12kV)

Function unit	Function program	Width (mm)	Depth (mm)	Height (mm)
T	Combination electric cabinet	420	750	1600 + 350
D	630A vacuum circuit breaker cabinet	420	750	1600 + 350
R	Cable connection cabinet	375	750	1600 + 350
PT	PT cabinet with load break switch	600	750	1600 + 350
PTC	PT cabinet for market integrated node switch	600	750	1600 + 350

Dimensions

Enerswit⁺ (GIM) Series SF₆ Gas Insulated Ring Main Unit

Features

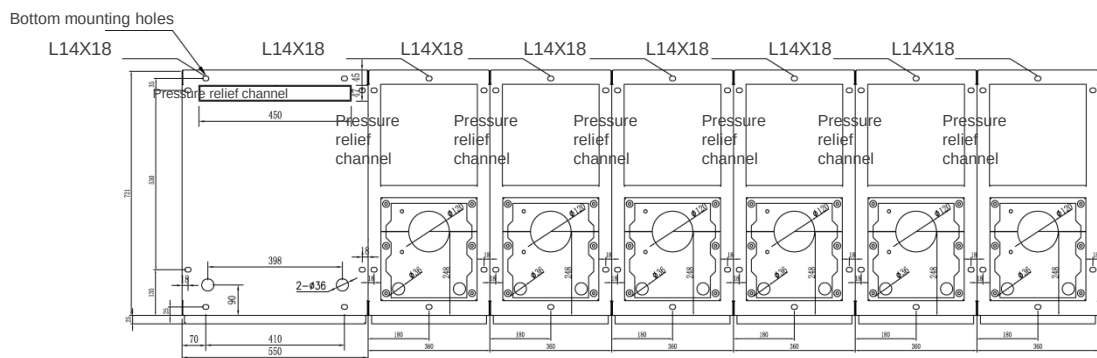
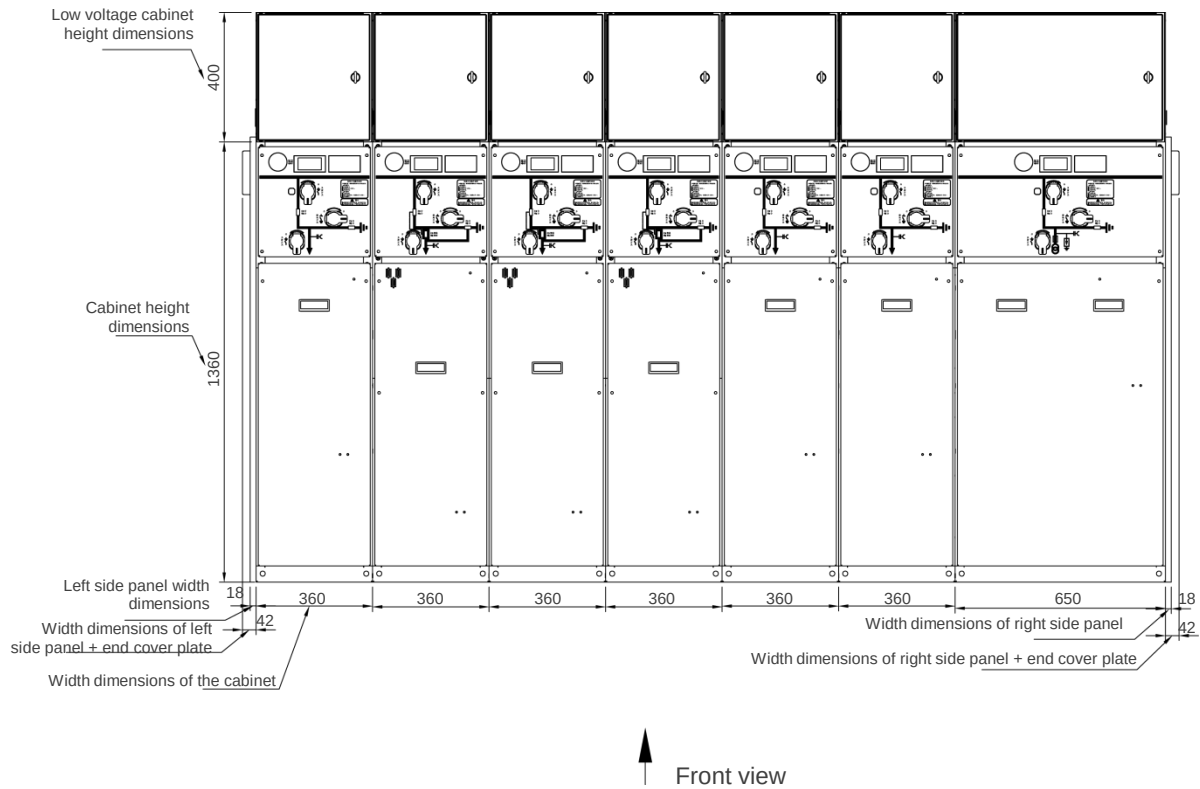
The compact and small size greatly reduces the footprint, and it can be installed in basements or outdoor distribution rooms, which is conducive to on-site installation, shortening construction time and improving economic efficiency.

Compact Solution (24kV)

Function unit	Function program	Width (mm)	Depth (mm)	Height* (mm)
C	Load break switch cabinet	360	750	1360 (1535) + 400
T	Combination electric cabinet	360	750	1360 (1535) + 400
D	630A vacuum circuit breaker cabinet	360	750	1360 (1535) + 400
R	Cable connection cabinet	360	750	1360 (1535) + 400
PT	PT cabinet with load break switch	360 (550)	750	1360 (1535) + 400
P	PT cabinet without a three-position switch	550	750	1360 (1535) + 400
Cr	Busbar sectionalizer with load break switch	720	750	1360 (1535) + 400
Dr	Busbar sectionalizer with vacuum circuit breaker	720	750	1360 (1535) + 400
M	Metering cabinet	650	750	1360 (1535) + 400
TF	Station transformer cabinet	850	850	1360 (1535) + 400

Foundation Layout Diagrams

Compact Scheme C+3T+2C+PT Schematic Diagram



Bottom opening diagram

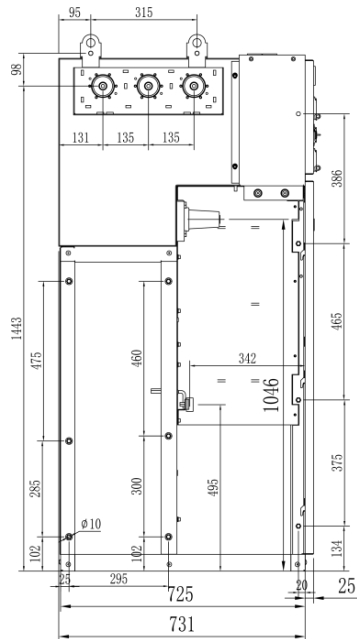
Precaution

1. Please indicate the dimensions of the left and right end plates, each with a thickness of 20mm.

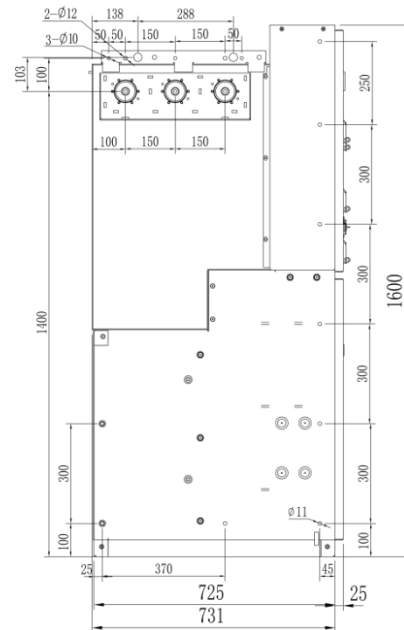
Foundation Layout Diagrams

Compact Scheme C+3T+2C+PT Schematic Diagrams

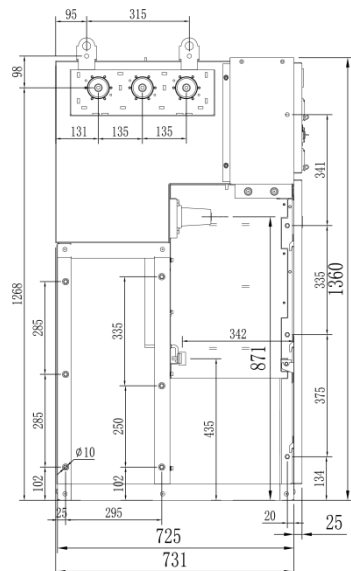
Position of busbar connection holes
for the 1535 high modular cabinet



Position of busbar connection holes
for the State Grid standardized cabinet,
1600 high modular cabinet



Position of busbar connection holes
for the 1360 high modular cabinet

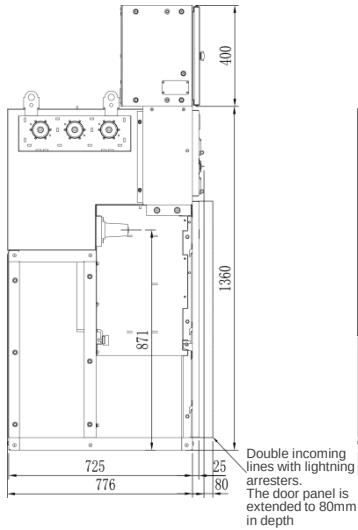


Precaution

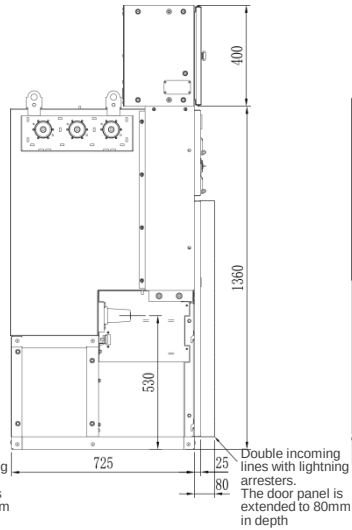
1. Please indicate the dimensions of the left and right end plates, each with a thickness of 20mm.

Side View of the Compact Scheme Unit Cabinet

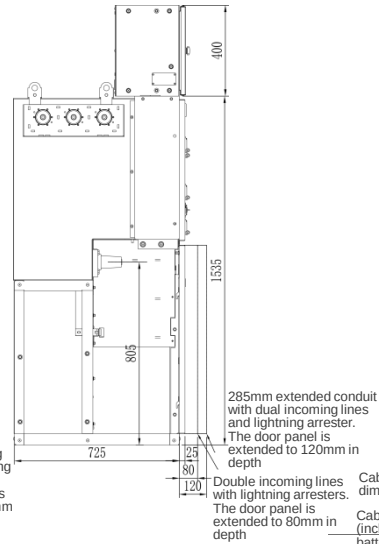
Enerswit+
C side view



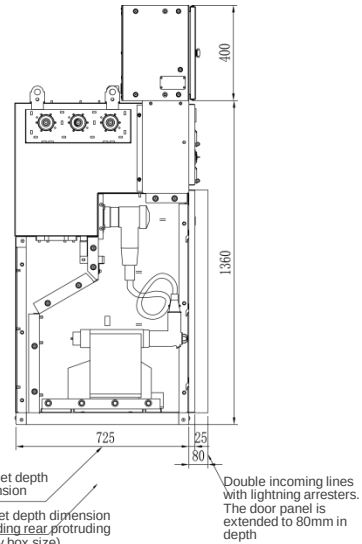
Enerswit+
T side view



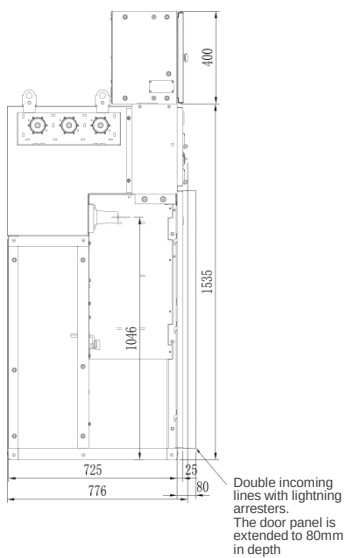
Enerswit+
D side view(20kA)



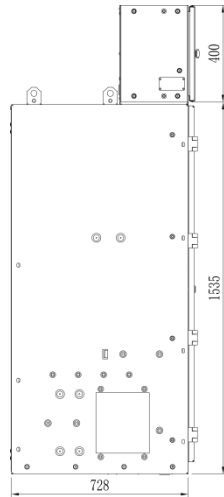
Enerswit+
PT side view



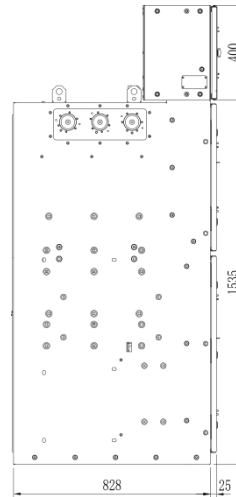
Enerswit+
R side view



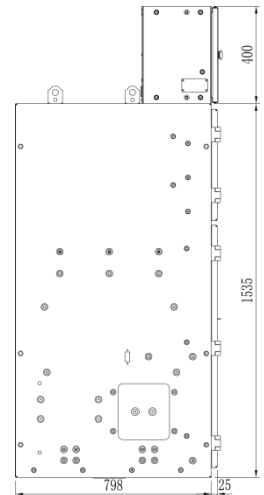
Enerswit+
P side view



Enerswit+
M side view



Enerswit+
TF side view



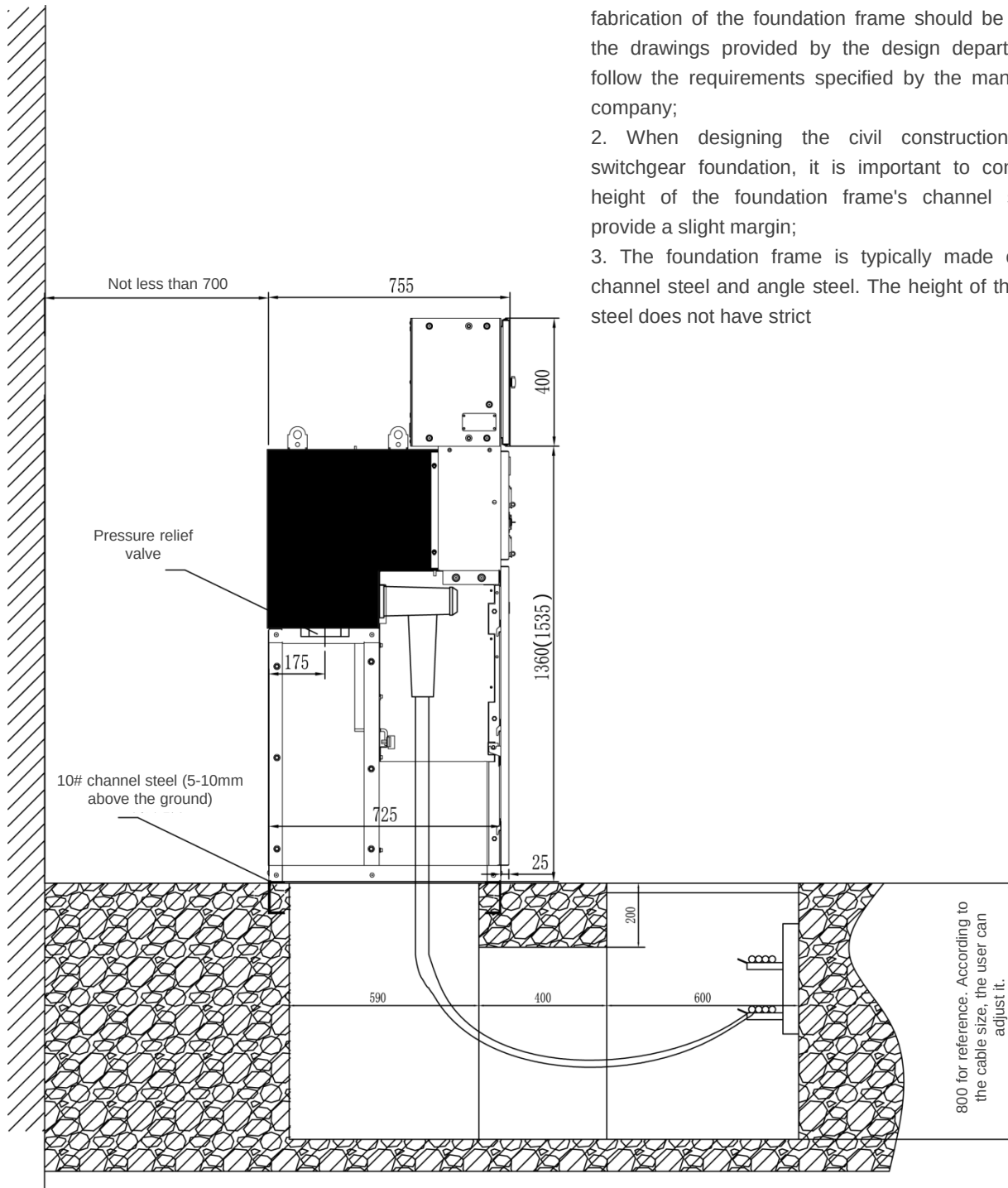
Precaution

1. Please indicate the dimensions of the left and right end plates, each with a thickness of 20mm.

Foundation Layout Diagram (1535/1360+400)

A-A

Size unit : mm

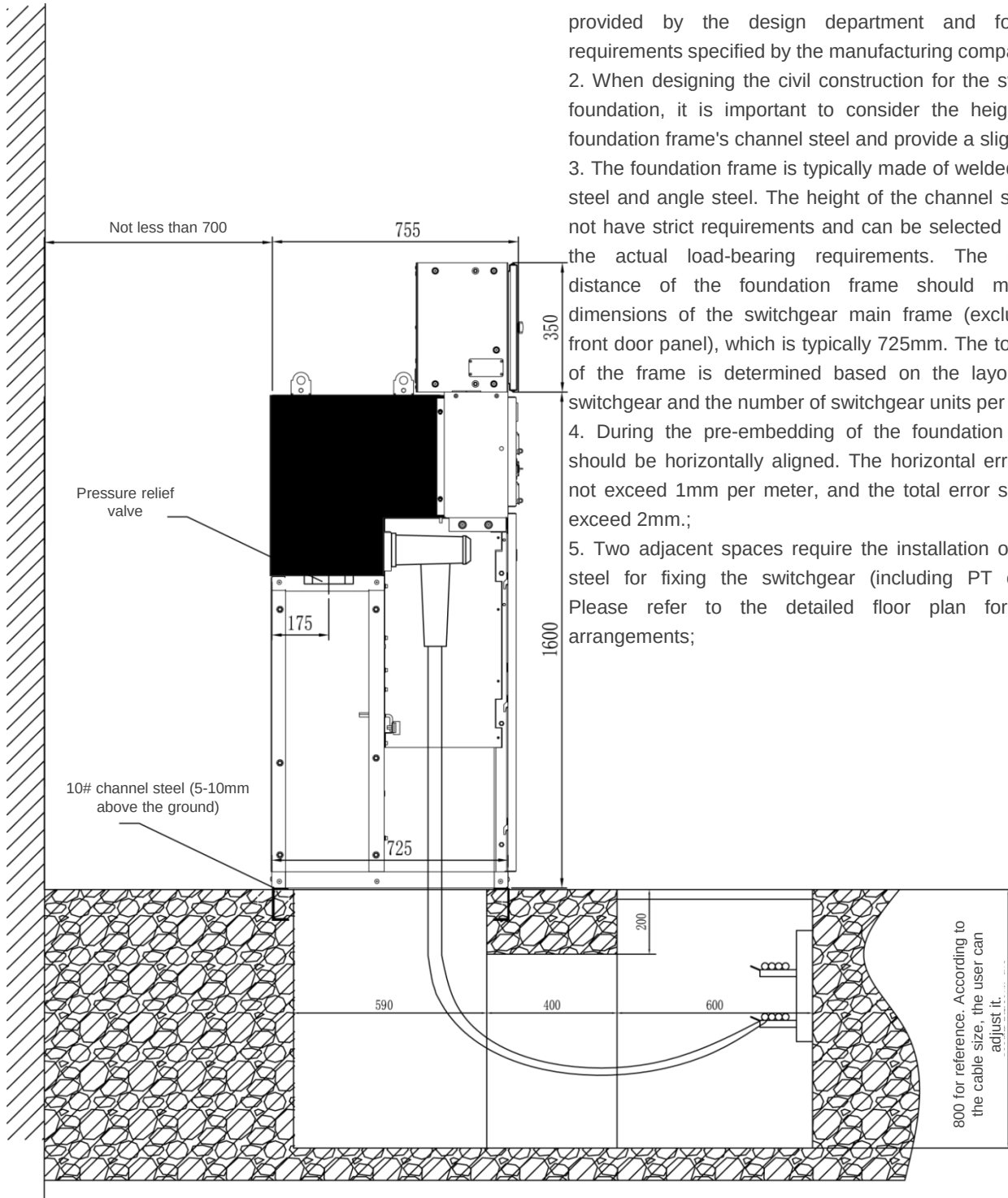


1. The general requirement for the installation of the foundation frame is to adopt the method of secondary pouring. After the civil construction is completed, it should be installed by the electrical installation unit. The fabrication of the foundation frame should be based on the drawings provided by the design department and follow the requirements specified by the manufacturing company;
2. When designing the civil construction for the switchgear foundation, it is important to consider the height of the foundation frame's channel steel and provide a slight margin;
3. The foundation frame is typically made of welded channel steel and angle steel. The height of the channel steel does not have strict

Foundation Layout Diagram (1600+350)

A-A

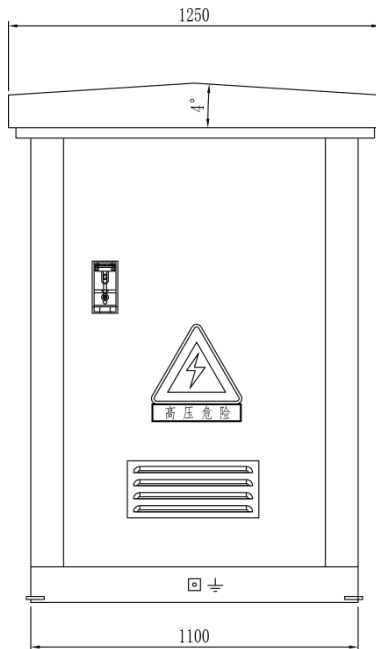
Size unit : mm



1. The general requirement for the installation of the foundation frame is to adopt the method of secondary pouring. After the civil construction is completed, it should be installed by the electrical installation unit. The fabrication of the foundation frame should be based on the drawings provided by the design department and follow the requirements specified by the manufacturing company;
2. When designing the civil construction for the switchgear foundation, it is important to consider the height of the foundation frame's channel steel and provide a slight margin;
3. The foundation frame is typically made of welded channel steel and angle steel. The height of the channel steel does not have strict requirements and can be selected based on the actual load-bearing requirements. The extension distance of the foundation frame should match the dimensions of the switchgear main frame (excluding the front door panel), which is typically 725mm. The total length of the frame is determined based on the layout of the switchgear and the number of switchgear units per row;
4. During the pre-embedding of the foundation frame, it should be horizontally aligned. The horizontal error should not exceed 1mm per meter, and the total error should not exceed 2mm.;
5. Two adjacent spaces require the installation of channel steel for fixing the switchgear (including PT cabinets). Please refer to the detailed floor plan for specific arrangements;

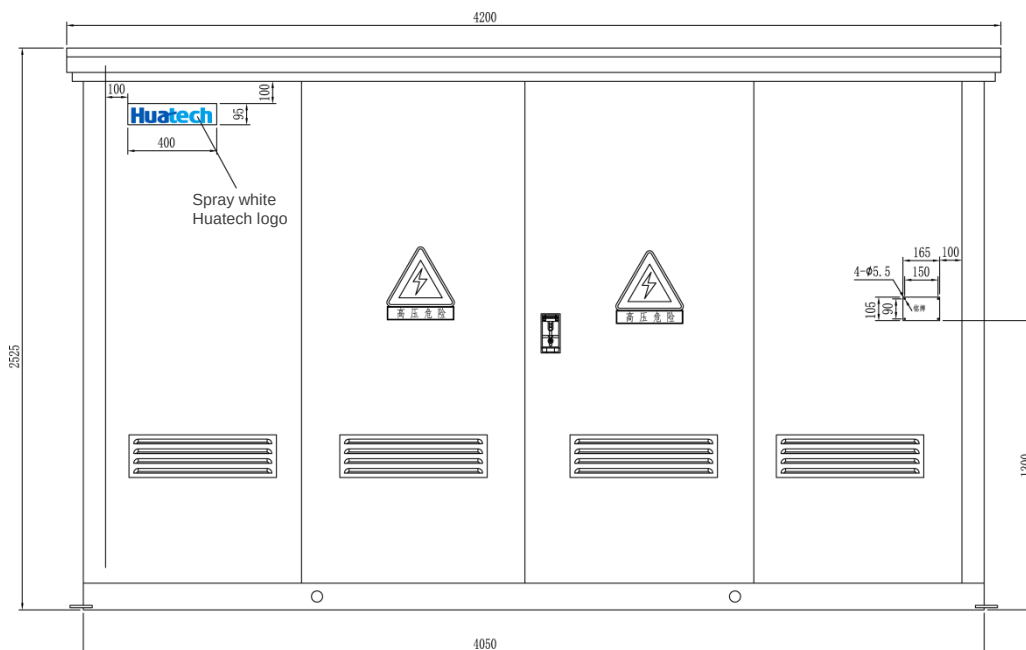
B-B

Size unit : mm



Precautions:

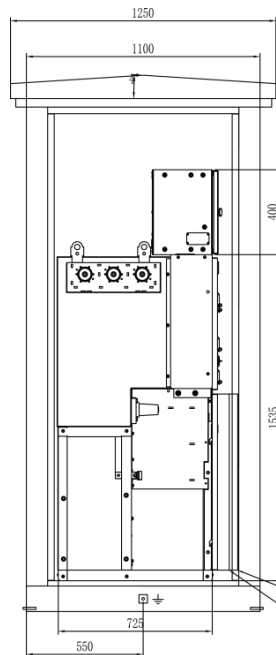
1. The end panels, including the blanking plate, have a thickness of 42mm. The end panels, excluding the blanking plate, have a thickness of 18mm;
2. Verify the opening angle of the protection relay protrusion and check if it interferes with the left and right columns;
3. Verify if the battery protrusion at the back interferes with the rear door panel or columns;
4. Verify if the presence of quick-insert chambers or conduit outlets at the rear interferes with the door pull rod or columns;
5. Verify if the thickness of the document box, which is 80mm, interferes with the extended door panel of the cabinet;
6. Verify if the rotating hinge door of the air cabinet interferes with the column when it is placed at the end cabinet;
7. In the case of a circuit breaker cabinet placed at the right end cabinet, the operating handle interferes with the column. It is necessary to use an extended operating handle;
8. The default height of the low-voltage cabinet is 400mm, but the specific height may vary depending on the project requirements.



Layout Diagrams (Height 2525mm)

B+B

Size unit : mm

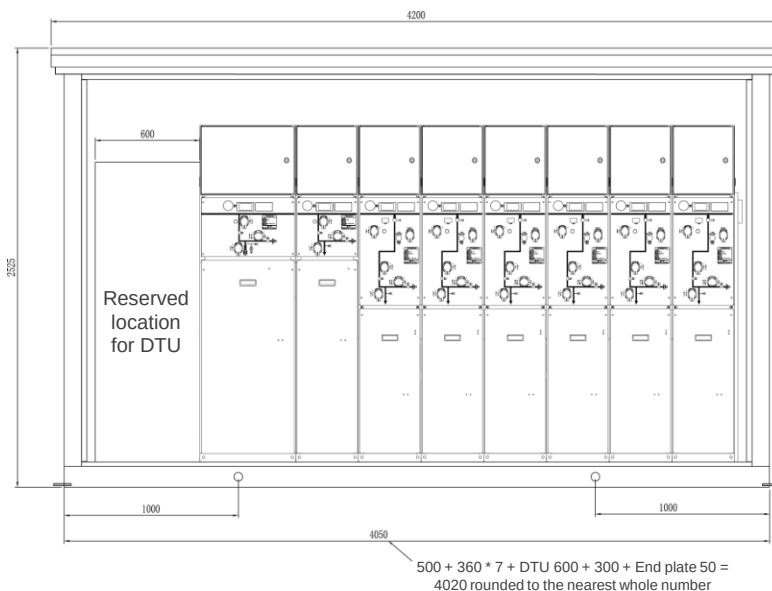


Increase the depth of 285mm extended conduit with dual incoming lines and lightning arrester door panel to 120mm. Increase the depth of the outdoor room by 100mm.

Increase the depth of the door panel with dual incoming lines and lightning protectors to 80mm. Increase the depth of the outdoor room by 50mm.

Precautions:

1. The end panels, including the blanking plate, have a thickness of 42mm. The end panels, excluding the blanking plate, have a thickness of 18mm;
2. Verify the opening angle of the protection relay protrusion and check if it interferes with the left and right columns;
3. Verify if the battery protrusion at the back interferes with the rear door panel or columns;
4. Verify if the presence of quick-insert chambers or conduit outlets at the rear interferes with the door pull rod or columns;
5. Verify if the thickness of the document box, which is 80mm, interferes with the extended door panel of the cabinet;
6. Verify if the rotating hinge door of the air cabinet interferes with the column when it is placed at the end cabinet;
7. In the case of a circuit breaker cabinet placed at the right end cabinet, the operating handle interferes with the column. It is necessary to use an extended operating handle;
8. The default height of the low-voltage cabinet is 400mm, but the specific height may vary depending on the project requirements.

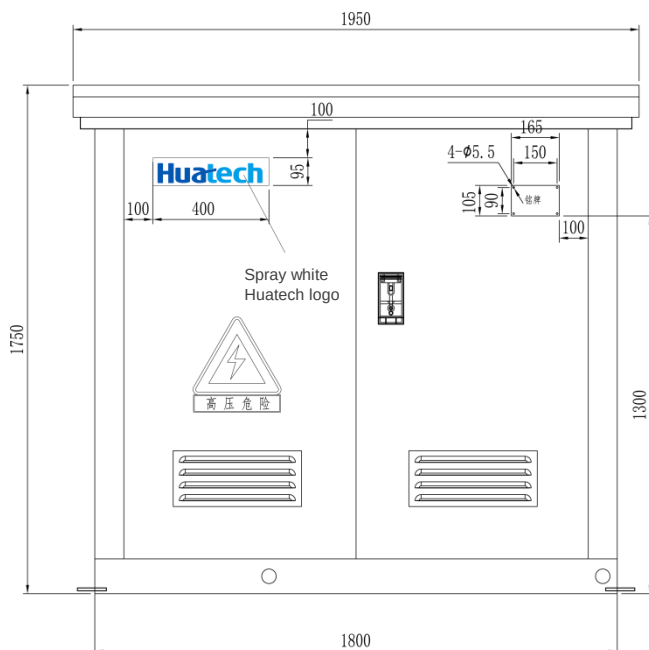
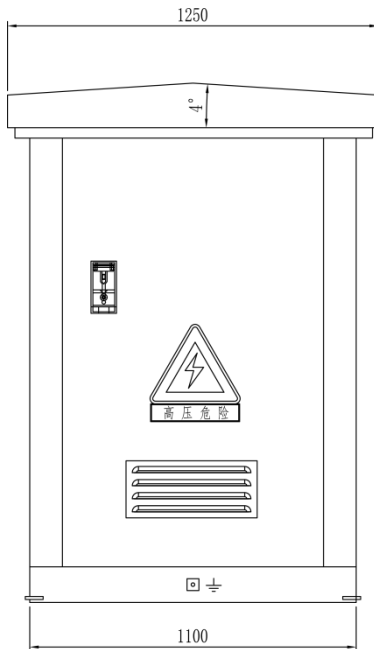


Front view

Layout Diagrams (Height 1750mm)

C+C

Size unit : mm



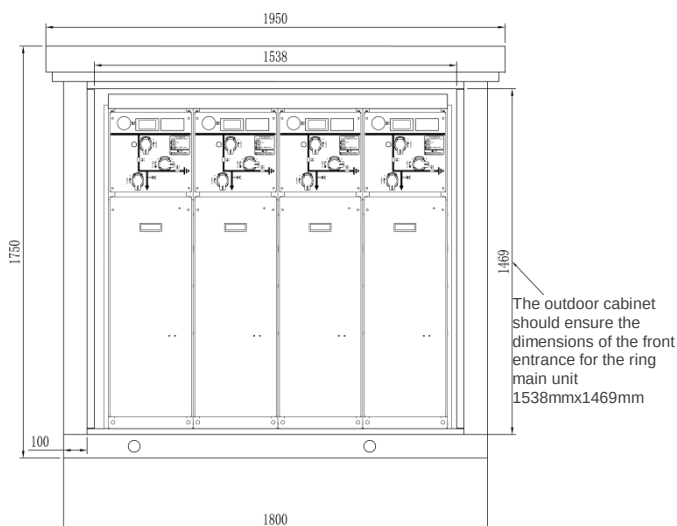
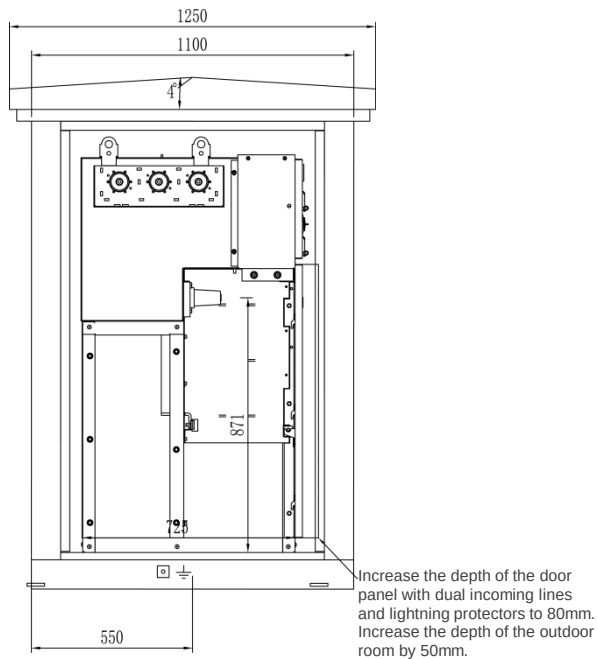
Precautions:

1. The end panels, including the blanking plate, have a thickness of 42mm. The end panels, excluding the blanking plate, have a thickness of 18mm;
2. Verify the opening angle of the protection relay protrusion and check if it interferes with the left and right columns;
3. Verify if the battery protrusion at the back interferes with the rear door panel or columns;
4. Verify if the presence of quick-insert chambers or conduit outlets at the rear interferes with the door pull rod or columns;
5. Verify if the thickness of the document box, which is 80mm, interferes with the extended door panel of the cabinet;
6. Verify if the rotating hinge door of the air cabinet interferes with the column when it is placed at the end cabinet;
7. In the case of a circuit breaker cabinet placed at the right end cabinet, the operating handle interferes with the column. It is necessary to use an extended operating handle;
8. The default height of the low-voltage cabinet is 400mm, but the specific height may vary depending on the project requirements.

Layout Diagrams (Height 1750mm)

C+C

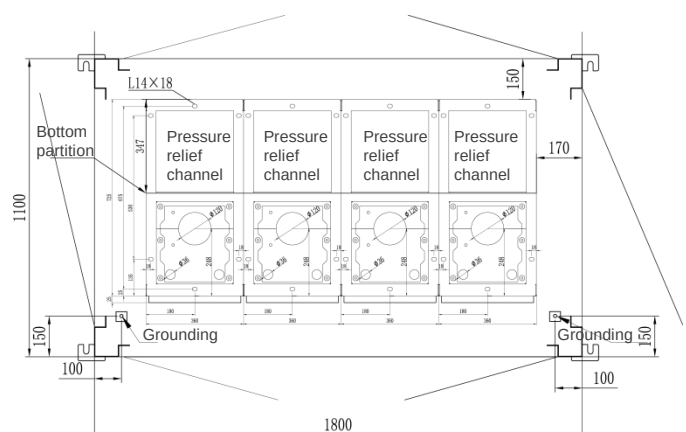
Size unit : mm



Front view

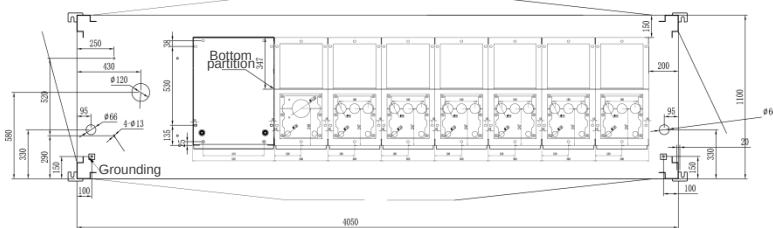
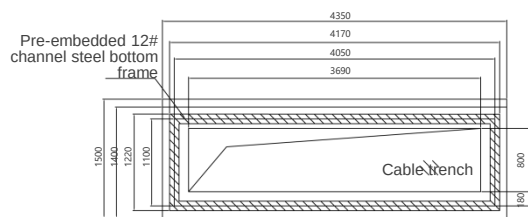
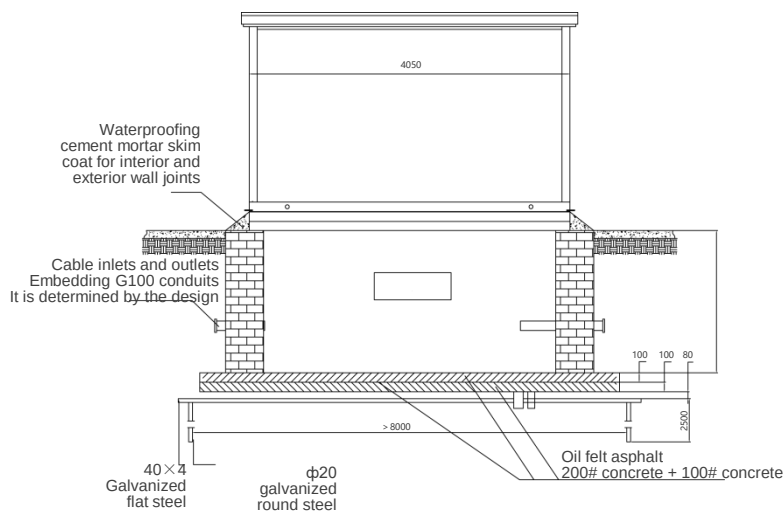
Precautions:

1. The end panels, including the blanking plate, have a thickness of 42mm. The end panels, excluding the blanking plate, have a thickness of 18mm;
2. Verify the opening angle of the protection relay protrusion and check if it interferes with the left and right columns;
3. Verify if the battery protrusion at the back interferes with the rear door panel or columns;
4. Verify if the presence of quick-insert chambers or conduit outlets at the rear interferes with the door pull rod or columns;
5. Verify if the thickness of the document box, which is 80mm, interferes with the extended door panel of the cabinet;
6. Verify if the rotating hinge door of the air cabinet interferes with the column when it is placed at the end cabinet;
7. In the case of a circuit breaker cabinet placed at the right end cabinet, the operating handle interferes with the column. It is necessary to use an extended operating handle;
8. The default height of the low-voltage cabinet is 400mm, but the specific height may vary depending on the project requirements.



Bottom opening diagram

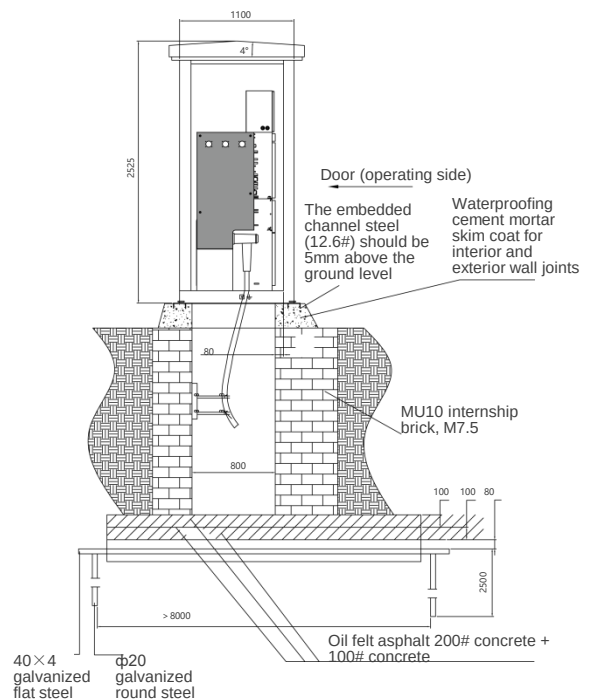
D+D Size unit : mm



Bottom opening diagram

Instructions:

1. During the excavation of the foundation pit, it is necessary to compact the natural soil and reinforce the loose and mixed soil with ground improvement techniques. The construction site for the foundation should be chosen at the highest point in the surrounding area to prevent damage from water accumulation.
2. The installation piers can be constructed using poured concrete or built with bricks, with a 20cm thick plaster of 1:25 cement-sand mortar applied on the top surface and side walls. The piers should be built on a level reinforced concrete slab that has been properly prepared and poured.
3. The prefabricated operating platforms are made of precast reinforced concrete slabs.



Instructions of Order

Please Indicate When Ordering

- RMU model, name, and scheme
- Rated voltage, rated current, quantity required
- Manual or electric operating mechanism, and indicate the electric operating voltage
- Name and quantity of spare parts
- Other special requirements, if any, shall be indicated before ordering.

Files and Attachments

- Product certificate (report of factory inspection)
- User Manual
- Packing list
- Operating handle

CONTACT US

Xiamen Huadian Switchgear Co., Ltd.

453 Malong Rd, Torch Hi-Tech Industrial Zone,
Xiamen ,CN 361006

globalsales@huadianswg.cn

www.huatechglobal.com



We reserve the right to make technical changes or modify the contents of this document without prior notice. All the agreed particulars shall prevail . All rights reserved.

© Xiamen Huadian Switchgear Co.,Ltd.
2026.10