NGC8 Low Voltage Switchgear
Technical Info

CATALOG

WELCOME TO CHINT

To comply with the trend of integrated development of modern energy, inteligent manufacturing and digital technology, CHINT has adopted One Cloud & Two Nets as the development strategy. As the carrier of intelligent technology and data application, CHINT Cloud fulfills corporate internal and external digital application and services. Relying on the Industrial Internet of Things , CHINT builds its intelligent manufacturing system and practices intdligentized application of the electrical industry; relying on the Energy Internet of Things , CHINT builds its smart energy system and explores the regional EloT rnode.

Focusing on energy supply, storage, transmission, allotment and consumption system, CHINT considers new energy, energy allotment, big data and energy value-added services as core businesses, with photovoltaic equipment, energy storage, power transmission and distribution, low-voltage apparatuses, intelligent terminals, software development and control automation as pillar businesses, to develop the platform enterprise and to build the regional smart energy comprehensive operation management ecosphere, ultimately, to provide the public institutions, industry & commerce and terminal users with a package of energy solutions.
CHINT has unswervingly adhered to people-oriented and value-sharing culture with the mission of "making the electric power even safer, green, convenient and efficient'.

CHINT IS A WORLD RENOWNED SMART ENERGY SOLUTION PROVIDER

CHINT has actively explored overseas markets, has established 3 research and development (R&D) centers in Europe, North America and Asia Pacific. 6 global marketing areas and manufacturing bases in Thailand, Malaysia, Egypt. Singapore and Vietnam.

CHINT has stuck to the industrial development and innovation-driving concept actively promoting the development of global R&D system. Till 2018, CHINT has won more than 4,000 patent licenses and 5,000 patent applications, on top of that CHINT leaded the formulation of 185 industrial and national standards, and won 32 national and provincial science and technology awards.

OVERVIEW OF NGC8 SYSTEM

INTRODUCTION OF MANUFACTURER


01

CHINT Electrical Appliance Co., Ltd. was established in August 1997, as the core holding company of CHINT Group. The company specializes in centers, production and sales of over 100 series and more than 10,000 specifications of low voltage electrical appliances, such as distribution appliances, control appliances, terminal appliances, power supply appliances and power electronics. It provides increasingly perfect system solutions for construction, power, lifting, HVAC and communications industries. Over the past 30 years, CHINT Electric Appliances has provided reliable products and services for more than 140 countries and regions.

In 2010, CHINT began to accelerate the development of overseas markets, acquiring four factories including Singapore, Malaysia, Vietnam and Egypt. Many overseas cooperative disk factories have been established,resulting in gradually empowering CHINT Electric.


02

03

04

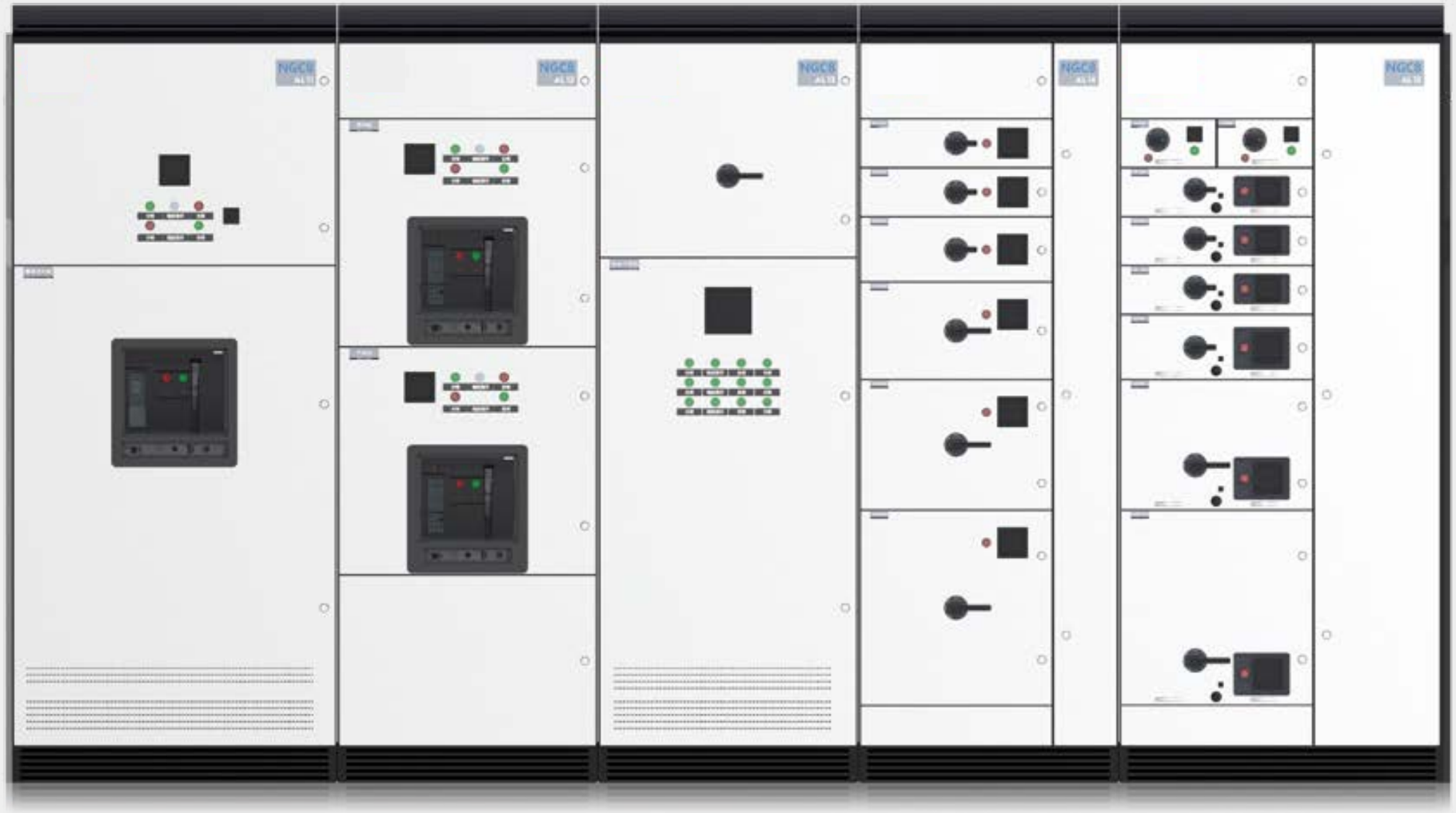
Wenzhou **01**

EGEMAC Factory in Egypt **02**

Sunlight Singapore **03**

Sunlight Factory in Vietnam **04**

PARAMETERS OF SWITCHBOARD



	ACB Incoming Panel	ACB Outgoing Panel	Capacitance Panel	Fixed Panel	Drawer Panel
Installation System	Fixed/Removable	Fixed/Removable	Fixed	Fixed/Removable	Withdrawable
Function	Incoming/Connection	Distribution/Motor	Reactive Power Compensation	Distribution/Motor	Distribution/Motor
Rated Current(In)	Up to 6300A	Up to 3200A	500 kvar with choke and 600 kvar without choke	Up to 800A	Up to 630A
Inlet/Outlet	TOP/Bottom	TOP/Bottom	N/A	Rear/Side	Rear/Side
Cabinet Width(mm)	600/800/1000/1200	600/800/1000/1200	800/1000	600/1000	600/1000
Class Level	Form 2b/3a/3b/4a/4b Type6	Form 2b/3a/3b/4a/4b Type6	Form 2b/3b	Form 3b/4b Type6	Form 3b/4b Type6
Busbar Location	Top	Top	Top	Top	Top

TECHNICAL PARAMETER TABLE

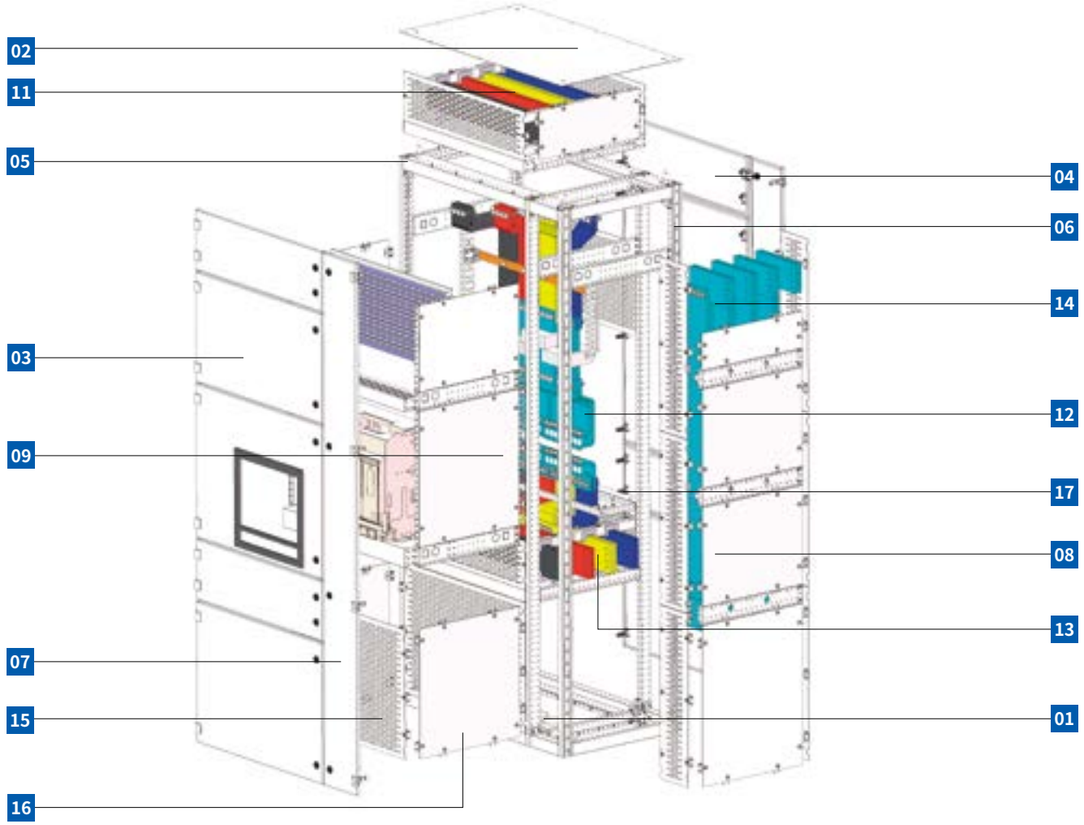
Technical parameters		
Application cases		Distribution
		Motor control
Reference criteria	Low Voltage Switchgear and Control Equipment (TTA) Through Type Test	IEC 61439-1&2
		GB 7251-2013
		YD5083-2005 (SEISMIC TEST)
		GB/T18859-20169 (IEC/TR 61641:2014,IDT)
Test Report	National Compulsory Product Certification (CCC)	Contents of all types of tests
	ASTA, UK	Contents of all types of tests
Climate Tolerance	Damp-heat tolerance	IEC 60068-2-30
	Dry-heat tolerance	IEC 60068-2-2
	Low temperature tolerance	IEC 60068-2-1
	Salt fog tolerance	IEC 60068-2-11
Installation site		Indoor
Structural parameters		
Cable access		Top/bottom
Connection		Rear/Side
Protection Level		Up To IP54
Isolation form		Up To Form 4b Type6
Dimension (mm)	Recommended height H	2200/2400mm
	Recommended width W	600/800/1000/1200mm
	Recommended depth D	600/800/1000/1200mm
	Modulus	25mm
Surface protection	Frame	Aluminum-zinc cladding
	Gusset plate&Installation Board for Electrical Components	Aluminum-zinc cladding
	Installation of crossbar	Hot dip galvanizing
	Metal Shell	Epoxy Resin Powder Spraying > 50 μ
	Metal Shell Color	RAL 7035/Customization
Average weight per panel		750KG
Electrical parameters		
Rated insulation voltage (Ui)		1000V
Rated operating voltage (Ue)		400/690V
Rated Frequency (F)		50/60Hz
Rated impulse voltage (Uimp)		8kV
Auxiliary Circuit Voltage		230V AC max
Overvoltage level		III
Pollution Level		3
Horizontal Busbar Rating Current		Up to 6300A
Vertical Busbar Rated Current		Up to 6300A
HBB	Rated short-term withstand current (Icw/1s)	30/50/65/85/100kA
	Rated Peak Tolerance Current (Ipk)	63/105/143/187/220kA
VBB	Rated short-term withstand current (Icw/1s)	30/50/65/85kA
	Rated Peak Tolerance Current (Ipk)	63/105/143/187kA
HBB	Rated short-term withstand current (Icw/3s)	50/65/75
	Rated Peak Tolerance Current (Ipk)	105/145/165
VBB	Rated short-term withstand current (Icw/3s)	50/65/75
	Rated Peak Tolerance Current (Ipk)	105/145/165kA
Internal combustion arc personal protection		690V/85kA 0.5s
Grounding system		TT-IT-TNS-TNC
Maximum Outgoing Switch		6300A
Maximum motor capacity		250kW

DESIGN VERIFICATION

The following table provides the items required for all tests	Verification by Design Standards	Verification by Calculation	Certification Test
Strength Of Materials And Core Components	√	-	-
Protection Class Of Frame	√	-	√
Electrical Clearance And Creepage Distance	√	√	√
Protection against electric shock and integrity of protection circuit	√	√	√
Dielectric properties	√	√	√
Limit of temperature rise	√	√	√
Short Circuit	√	√	√
Mechanical operation	√	√	√

DESIGN OF NGC8 SWITCHGEAR

CHARACTERISTICS OF SWITCHGEAR



Frame

- 01 Bottom Plate
- 02 Top Plate
- 03 Front Door
- 04 Rear Door
- 05 Frame
- 06 Vertical Channel Frame
- 07 Vertical Channel Door
- 08 Vertical Channel Unit
- 09 ACB Unit
- 10 Control Unit

Busbar

- 11 Main Busbar
- 12 Distribution Busbar
- 13 Connection Busbar
- 14 Vertical Busbar

Internal metal partition

- 15 Plate for open door IP20
- 16 Partition between panel
- 17 Partition between unit
- 18 Partition between control cable unit

FUNCTION UNIT

Front view of switchboard

Rear view of switchboard

01 Main Busbar Unit

Including NGC8 busbar system, each for a single panel.
The phase is insulated by air and connected with the distribution busbar by screw.

02 Control Line Unit

Contains control elements such as meters, lights, buttons, etc.
Including all control loops cable
Terminal used in secondary control circuit

03 Switching Unit

Containing components such as ACB or MCCB and cables or copper bars for connection
The phase is insulated by air and connected by screw.

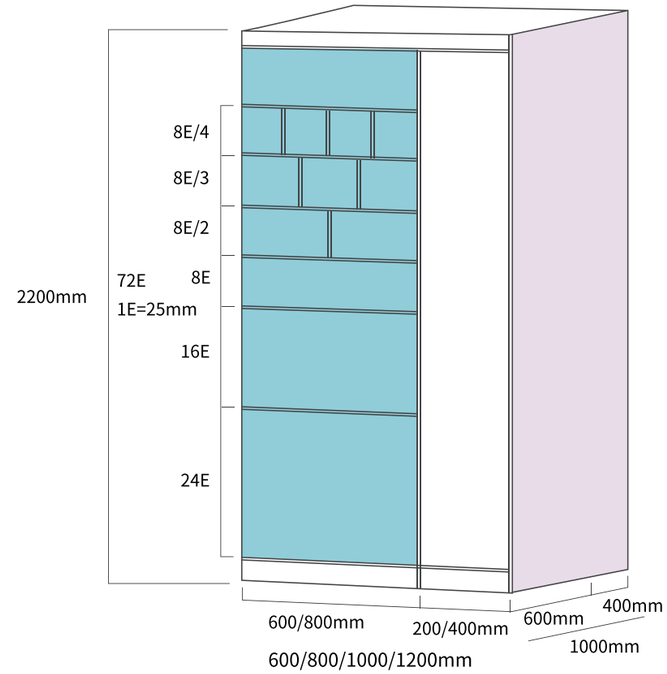
04 Cable Unit

Including control cables, terminals, power cables and connecting components
Cable feeding can be up or down

05 Spare Unit

For Standby and Late Extension

SWITCHGEAR DIMENSIONS



01 ACB Switchboard Size

Foundation size: W=600 or 800 mm D=600mm H=2200mm

Switchboard Width Expansion Channel Size: :W=200 or 400mm D=600mm H=2200mm

Switchboard Deep Expansion Channel Size: W=600 or 800 mm D=400mm H=2200mm

Through the combination of various expansion channels, different outgoing modes can be realized.

02 Drawer/Fixed Switchboard Size

Foundation size: W=600 mm D=1000mm H=2200mm **Outlets:** Rear

W=1000 mm D=600mm H=2200mm **Outlets:** Side

Drawer Unit Size: 8E/4 3/8E 8E/2 8E 16E 24E

Fixed Unit Size: 8E 12E 16E 24E

FRAME PARAMETERS

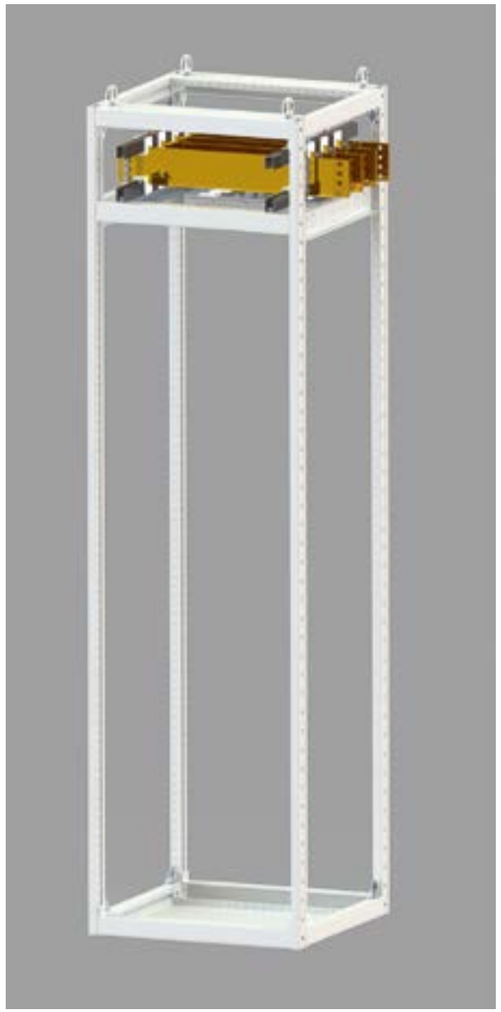
Frame Structure

NGC8 frame is a new frame composed of C profiles with 25mm modulus holes. In NGC8, 25mm is a modular unit, denoted by 1E (=25mm). The layout of the module holes can provide an extension of different USES, with excellent user friendliness, and can meet any non-standard design requirements.

The frame and all supporting parts are used with strong self-tapping screws to achieve reliable connection, the frame structure is maintenation-free, with excellent safety.

The frame and all supporting parts are made of 2mm aluminum-zinc plate with excellent corrosion resistance. Pass the 48-hour salt spray test.

FRAME PARAMETERS



Shell Structure

The shell of NGC8 is made of cold-rolled steel plate treated by special spraying process, with customizable color and maximum strength.

The patented hinge with novel design can easily change the opening direction of the cabinet door from left to right, and the maximum opening can reach 130° .

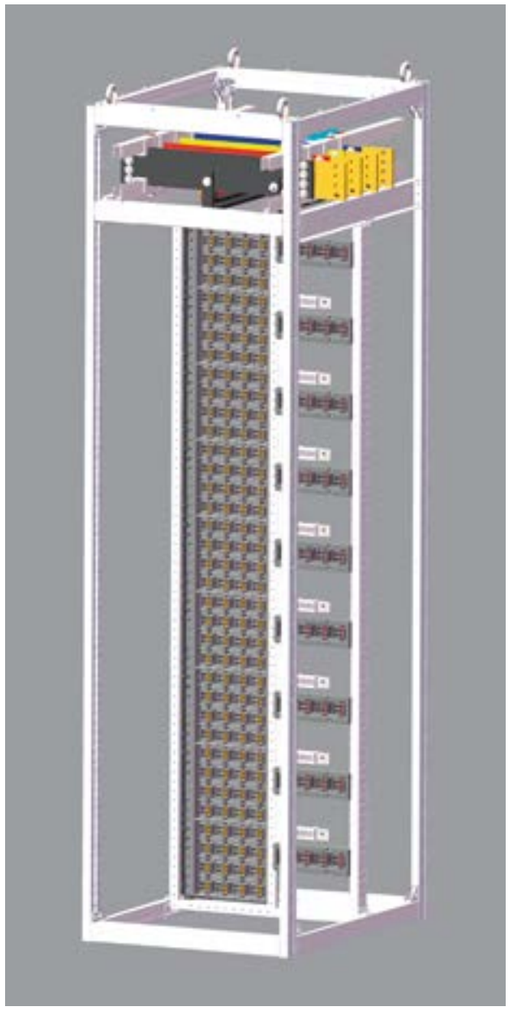
According to the requirements of Form class, each functional unit has an independent door plate. Door plate, top plate, bottom plate and side plate are installed with self-tapping screws. Different protection grade schemes are available according to different customer requirements, up to IP54.

Technical parameters

Frame	The opening Angle of the door	Up to 130°
	Frame height	2200mm
	IP class	Up to Ip54
Busbar	The length of the busbar	Single cabinet width for a section
	Rated current	Up to 6300A
	Rated peak withstand current(Ipk)	Up to 220kA
	Rated short-term withstand current(Icw)	Up to 100kA

DESIGN OF DRAWER

CHARACTERISTICS OF DRAWER



The specifications of NGC8 drawer unit are selected according to the current level, which can be freely combined to achieve the most compact scheme of panel. In all locations of drawer unit (work, test, disconnect), the door panel of drawer unit is closed, even if the failure can meet the higher personal security.

Drawer units are highly secure and flexible. The maintenance time is short, with few maintenance tool, and small demand of qualified personnel.

INTRODUCTION OF DRAWER UNIT

The drawer unit can fits the application scenario that often needs to be changed and repaired. Drawer can easily replace and repair the units needed when the equipment is running. It has high flexibility.

The size of drawer unit is designed according to different requirements,and it has compact design. A single cabinet can be equipped with up to 9 layers of 8E/4, which equals to 36 feeder circuits. The cabinet width only needs 600 mm. This modular design enables the complete cabinet to maximize the use of existing space and reduce the area occupied by the switchgear cabinet.

8E/4 Drawer Unit

8E/3 Drawer Unit

INTRODUCTION OF DRAWER UNIT

8E/3 Drawer Unit

The drawer of NGC8 system is operated by multi-function handle. Drawing out a drawer does not require any special tools or unlocking devices. The drawer can be moved to the test, separation and working position without opening the door. Taking into account the prevention of misoperation and personal safety of operators, drawer units can be locked separately in separate positions. It takes less than 1 minute to replace a drawer when the on-site operation process permits, and the replacement of drawers can be carried out when the equipment is live.

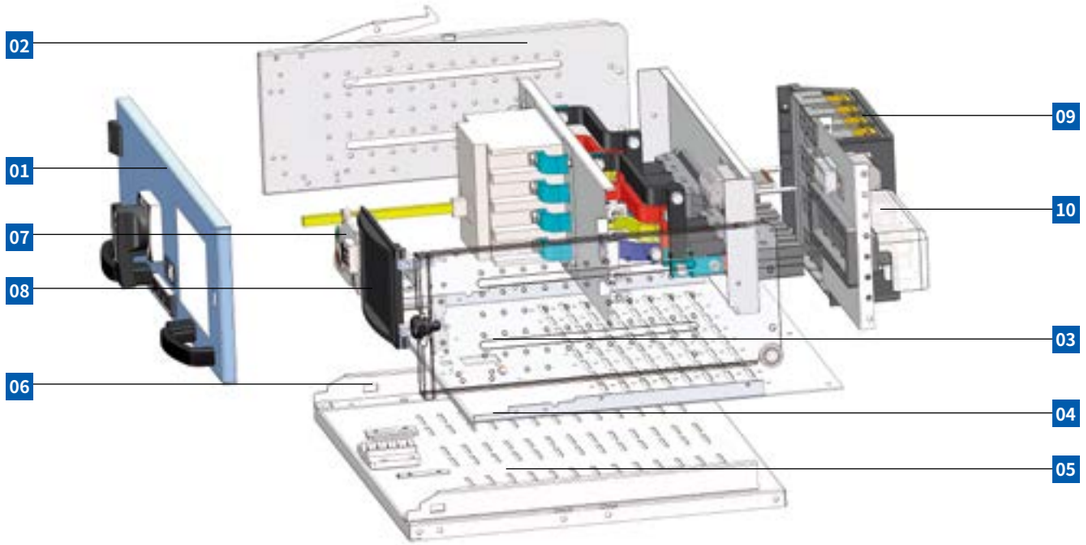
All drawers are locked and transformed by patented mechanical manipulators. All once and twice plug-ins can self-locate without additional tools. All position instructions are clear thanks to the mechanical operation mechanism indicator.

8E Drawer Unit

System characteristics

- No need to open the door for all operations.
- It takes less time to replace the module and no special tools are needed.
- The drawer unit has an independent coding system to prevent confusion with the drawer of the same specification.
- High loop density and small area

CHARACTERISTICS OF 8E DRAWER



01 Front Door
02 Left Plate
03 Right Plate
04 Bottom Plate
05 Layer Baffle
06 Guide Rail
07 Hand-operated Mechanism
08 Open-type Instrument Panel
09 Half-Function Unit
10 Outgoing Unit

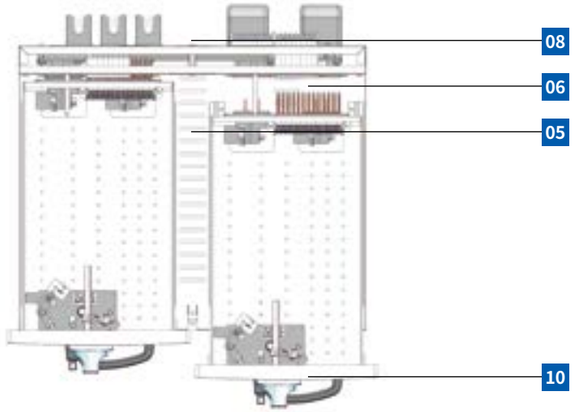
Hand-operated Mechanism

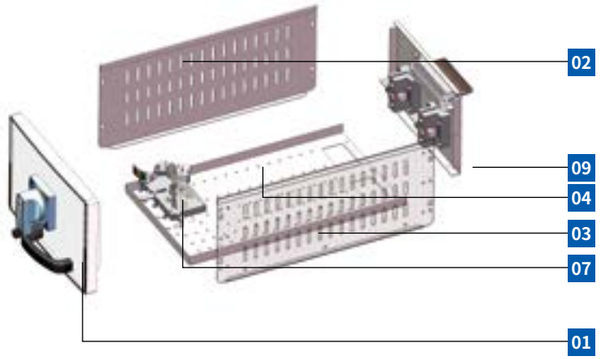
Mechanism Operating Handle

Open-type Instrument Panel

CHARACTERISTICS OF 8E/2 DRAWER

01 Front Door
02 Left Plate
03 Right Plate
04 Bottom Plate
05 Layer Baffle
06 Guide Rail
07 Hand-held Mechanism
08 Rear Outgoing Wire Transfer Unit
09 Rear Plate
10 Type-A Pull Handle



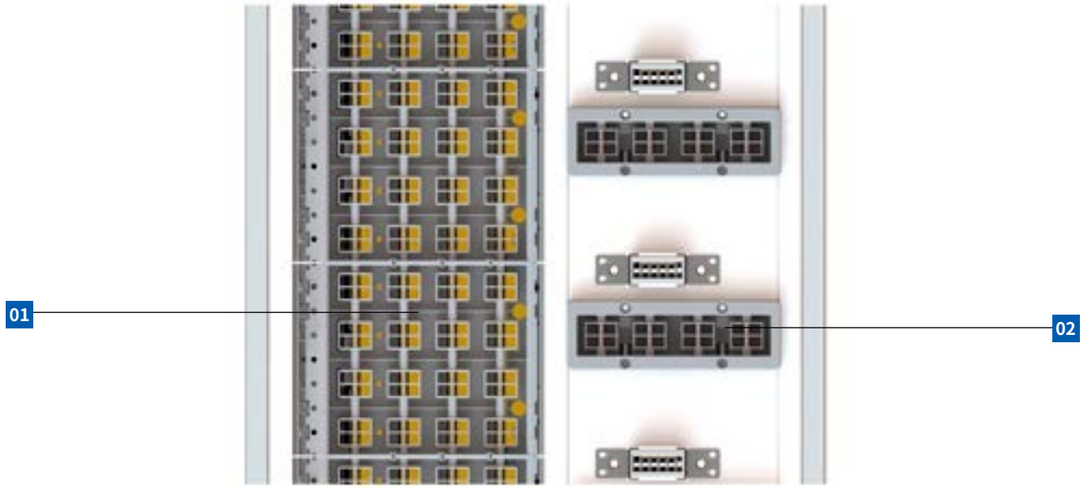


Hand-operated Mechanism

Hand-operated Mechanism

Hand-operated Mechanism

CHARACTERISTICS OF VERTICAL CHANNEL



01 Incoming unit

Vertical Channel

The vertical busbar of drawers is installed at the back of the panel. The L copper bar with special technology is embedded and installed in the multi-function board, perfectly realizing the separation of main busbar and functional units.

The multi-function board is made of halogen-free insulation material, which meets the requirements of flame retardant, self-extinguishing and self-extinguishing, and has good environmental friendliness. The use of insulation material makes the distribution busbar completely isolated between phases, there is no arc between phases, phase and main busbar, phase and drawer unit.

02 Outgoing unit

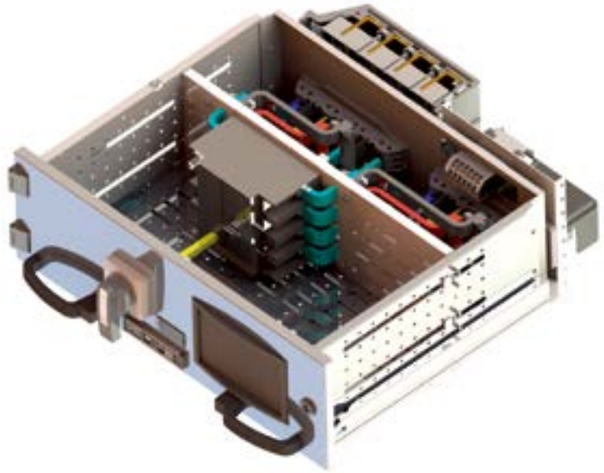
Contains the Main circuit unmovable plug-in, Control circuit unmovable plug-in

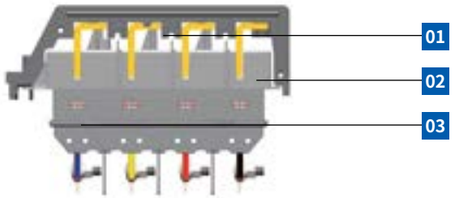
Outlets:Rear or Side

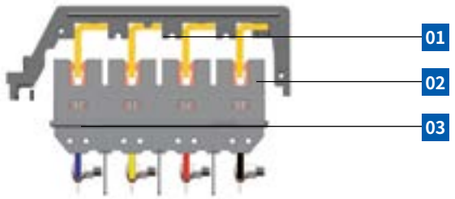
The maximum out rated current up to 630A

Control circuit unmovable plug-in up to 32 Lines

CHARACTERISTICS OF VERTICAL CHANNEL







Product features

- Complete phase isolation to ensure good connection with distribution bus
- Contact silver plated to ensure conductivity
- Operating life up to 1000 times

Incoming Unit

01 L Busbar

According to the actual length of use can be customized

02 Main circuit movable plug-in

Rated Current	Incoming	Outgoing(Rear)	Outgoing(Side)
125A 3P/4P	√	√	√
250A 3P/4P	√	√	√
400A 3P/4P	√	√	√
630A 3P/4P	*	√	√

03 Multi-function Board

200mm is a free combination, up to 1800mm

TRANSPORT AND INSTALLATION

Only after full assembly and successful inspection, the switchgear can be packed and transported. Packing consists of single-panel, twopanels and three- panels modes of transport. The maximum transport length is 2000mm.

When products arrive at the destination, customers should first check whether the packing cases are complete. If the switchgear is not used immediately, it should be stored at a dry and clean place.

The switchgear should be installed according to the section dimensional drawing. The base channel steel should be self prepared or required by the user before placing an order. If the cable outlet is required, the cable trench must be installed. Upon installation, the main busbar connection should be first installed according to the drawing, the busbar surface should be cleaned and then tightened with bolts, cable or overhead wiring should be also installed. In case of parallel switchgear installation, the parallel holes should be tightened using bolts.

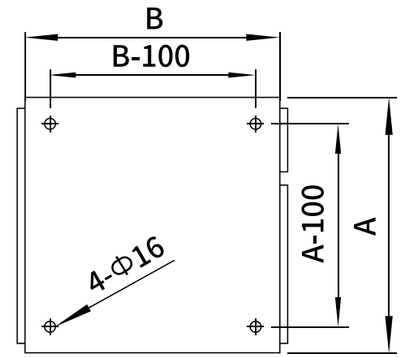
DANGER

Hazard of electric shock, burn or explosion

There is a risk of electric shock, scald or explosion inside and outside the equipment. Turn off all equipment before proceeding with workPower Supply.

Failure to comply with these instructions will result in electric shock, serious personal injury or death!

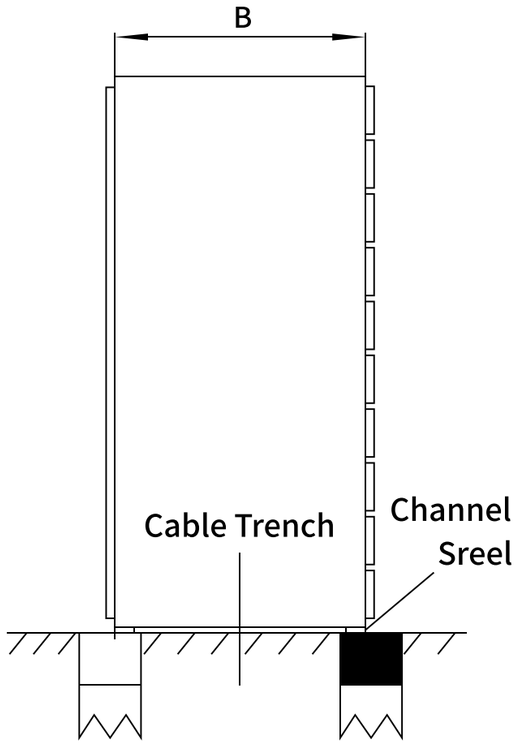
INSTALLATION DIMENSIONS OF SWITCHGEAR



Using bolts

A switchgear width(mm)

B switchgear depth(mm)

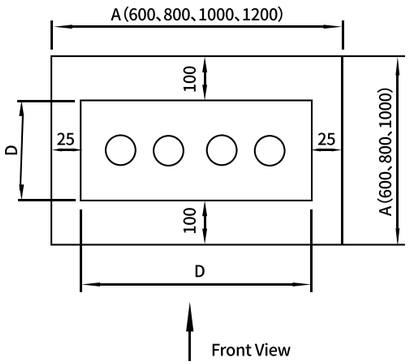


Using electric welding

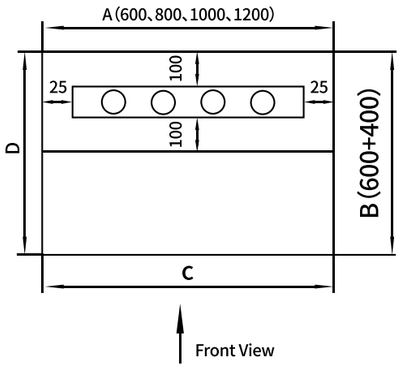
Notes

If the floor is not completely flat, use a wedge to block the units before fixing them.

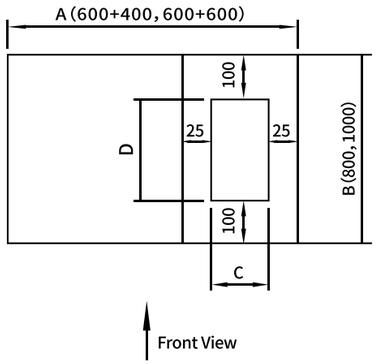
INSTALLATION DIMENSIONS OF SWITCHGEAR



Incomeing Switchgear(raer outlet)



Feeder switchgear (rear outlet)



Feeder switchgear(side outlet)

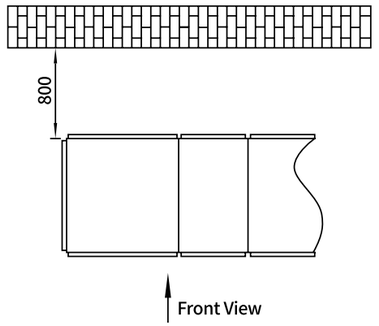
- **A** switchgear width(mm)
- **B** switchgear depth(mm)
- **C** hole width(mm)
- **D** hole width(mm)

Pre-operation check

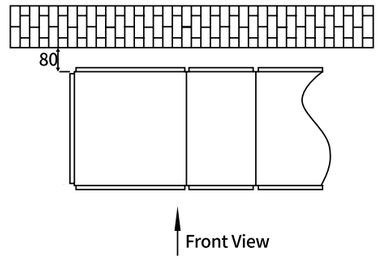
After switchgear installation or overhaul and before operation, the following inspections and tests should be done (Post-overhaul check may be determined in view of the overhaul nature).

- Check whether the switchgear internal electric devices and wiring conform to the drawing requirements, and terminals are numbered, and connection is complete and solid.
- Check whether the installed electric devices are in good contact and conform to their technical requirement.
- Check the reliability of mechanical and electrical interlocks.
- Check whether the draw-out assembly is in flexible action and good contact.
- Check and test whether the switchgear earthing device is reliable with conspicuous mark.
- Check and test whether all meters and relays act properly.

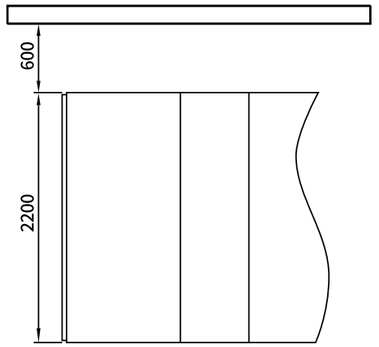
INSTALLATION DIMENSIONS OF SWITCHGEAR



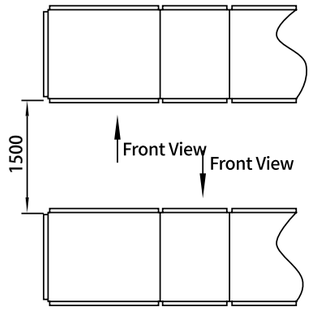
Rear outlet(top view)



Side outlet(top view)



Proposed reserved space of switchgear top (site view)



Switchgear face-to-face installation(top view)

Notes

If the floor is not completely flat, use a wedge to block the units before fixing them.

Spatial requirements of switch room

- In case of rear outlet, the distance of switchgear back from the wall is ⩾ 800mm;
- In case of side outlet, the switchgear back can be installed against the wall, and thedistance of switchgear back from the wall is ⩾ 80mm.
- The distance of switchgear top from the ceiling is ⩾ 600mm.
- Face-to-face distance of switchgear front side is ⩾ 1000mm.

APPENDIX

COMPONENTS

NA8 Air Circuit Breakers

Rated current of air circuit breakers ranges from 200A to 6300A.

They are mainly used in the distribution gird, and provide the protection and control functions.
There are fixed and draw-out types.

The draw-out circuit breaker has the isolation function.

For more information, please refer to product catalog.

Main Technical Parameters

Shell grade rated current Inm(A)	1600		2500		4000		7500	
Rated insulation voltage Ui(V)	1000							
Rated impulse withstand voltage(kV)	12							
Number of poles	3P/4P							
Flashover distance mm	0							
Rated operational voltage Ue(V)	N:400V	N690V	N:415V	H:415V	N:690V	H:690V	H:415V	H:690V	415V	690V
Rated ultimate short circuit breaking capacity Icu (kA)	55	30	90	85	50	65	100	85	135	100
Rated service breaking capacity Ics(kA)	42	25	80	85	50	65	100	85	135	100
Rated ultimate short circuit breaking capacity Icw (kA)1s	42	25	65	85	50	65	100	85	135	100
Rated ultimate short circuit breaking capacity Icw (kA)3s	-	-	-	-	50	65	75	75	-	-

COMPONENTS

NM8N Molded Case Circuit Breaker

Rated current of molded case circuit breakers ranges from 16A to 1600A.

They are mainly used in the distribution gird, and provide the overload, short-circuit and undervoltage feeder protection of the circuit and electrical equipments.

There are two kinds of releases, i.e. thermal-magnetic and electronic release.

For more information, please refer to product catalog.

Main Technical Parameters						
Shell grade rated current Inm(A)	125	250	400	630	800	1600
Number of poles	3P/4P					
Rated insulation voltage Ui(V)	800					
Rated impulse withstand voltage(kV)	8					
Rated operational voltage Ue(V) AC 50/60Hz	690					
Rated ultimate short circuit breaking capacity Icw (kA)max	25	50	70	100	100	150
Rated service breaking capacity (Ics=%Icu)	100					
Dimension(mm)W×H×L/3P	90×140×79	105×157×88	140×255×113	140×255×113	210×370×196	210×370×196
Dimension(mm)W×H×L/4P	120×140×79	140×157×88	185×255×113	185×255×113	280×370×196	280×370×196
Weight（kg)/3p	1.2	2.1	7.5	7.5	17.5	17.5
Weight（kg)/4p	1.6	2.8	10	10	23	23

COMPONENTS

NVF300M Series Inverter

NVF300M Soft starters requiring external bypass contactors. The voltage series is 380V, and the power specifications are 7.5kW to 500kW. It has the characteristics of strong load adaptability, stable and reliable operation. It is widely used in motor transmission equipment in metallurgy, petroleum, fire protection, mine, water supply, municipal, food, cement, petrochemical and other fields. Traditional Star-Triangle Start and Self-Lotus Decompression Start are ideal renewal products.

For more information, please refer to product catalog.

Universal Inverter

Universal frequency converter, using speed sensorless vector control technology, has the characteristics of small, portable, fast operation and excellent performance. It is widely used in various small and medium-sized mechanical equipment, such as air conditioning and refrigeration, building water supply, logistics machinery, ceramic machinery, etc.

For more information, please refer to product catalog.

TYPICAL PERFORMANCE

Project Name:
Zhejiang petrochemical 40 million tonsrefinery integration project

Project Introduction: As the main electrical equipment supplier of this project divided in four batches, CHINT electric will provide 1200 sets of low-voltage switchgear and 150 sets of medium-voltage switchgear, among which some of them have been supplied smoothly according to the delivery date.

Because the project is located in Zhoushan island area, the anti-corrosion ability of the product has received higher requirements. CHINT electric designed the technical scheme together with the users, and all the switch cabinets provided by this project were specially treated to cope with the high salt fog and high humidity environment.

Project Name:
Wuhan tianhe airport phase III expansion project terminal project

Project Introduction: Wuhan Tianhe international airport is one of the busiest airports in China. The phase III expansion project of the airport is a key project of Hubei province and Wuhan city.

The project started in June 2013 andpassed the completion acceptance in June 2017. Aiming at 2020, the project is designed to meet the annual passenger throughput of 35 million, cargo and postal throughput of 440,000 tons and annual takeoff flights of 404,000.

CHINT's products for this project are NGC8 Switchgears for a total amount of $3.53 million.

TYPICAL PERFORMANCE

Project Name:
Intercontinental Shanghai Wonderland Hotel

Project Introduction: CHINT participated in the construction of this special building as the hotel's power distribution equipment supplier and provided the hotel with a full set of lowvoltage power distribution equipment.As the hotel is located below the horizon, the environment is extremely special, which required high reliability and security of power distribution operation.

CHINT adopted multi-process special anti-corrosion treatment in the process, and the anti-corrosion performance of the equipment got improved by more than 50%. Through many technical innovations design, simulation analysis, optimization of the structure design. CHINT succeeded in ensuring that the equipment has a level 9 seismic capacity.

Project Name:
Pudong financial plaza project

Project Introduction: The project covers a total land area of 48,530 square meters and a total construction area of 464,677 square meters, including three grade a office buildings, a large senior business center, a ground bus hub, a ground floor underground business, a three-floor underground parking garage and supporting equipment room. When completed, the project will become a landmark in the middle of century avenue.

TYPICAL PERFORMANCE

Project Name:
Indonesia ruipu 600,000 tons ferrochrome and 700,000 tons stainless steel cold

Project Introduction: Indonesia ruipu 600,000 tons ferrochrome (matching heat recovery coking power) and 700,000 tons stainless steel cold rolling project is a production capacity cooperation between China and Indonesia, which is highly concerned by the local government of Indonesia. The project is located in Bahodopi town, Morowali county, central sulawesi island, Indonesia, close to the nickel mining area of sulawesi mining company.

Project Name:
Office expansion project of well-known software giant company

Project Introduction: This comp-any is located in the latest phase of Singapore Central Business district (can be described as the “new Central Business district .This Company is expanding its business in Singapore and need more power supply ; thus it is increase the electrical system for its office expansion .

Couple wit-h the Long term relationship with the Electrical contractor plus the well known "Sunlight" name for its brand image, product quality and responsive aftersales service , Sunlight was again selected for the office expansion of this world wide well known giant software company .

TYPICAL PERFORMANCE

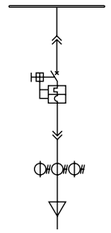
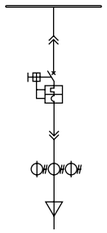
Project Name:
AUSTRALIAN NATIONAL UNIVERSITY (AUSTRALIA)

Project Introduction: 4x MSB PANEL-1250A supplied to project ANU. Australian National University is a national research university located in Canberra, the capital of Australia. Its main campus in Acton encompasses seven teaching and research colleges, in addition to several national academies and institutes.

Project Name:
MIM HYDRO MINING (AUSTRALIA)

Project Introduction: 2x MCC PANEL-4000A supplied to Project MIM HYDRO MINING under National Pump & Energy (NPE). NPE are one of Australia’s leading pump, power and compressed air hire equipment specialists. It has an extensive range of pumps, generators and compressors for hire or sale including pontoon pumps, silenced pumps, generators, air compressors and associated equipment.

TYPICAL SCHEME

Rated Current(A)	Mode	Contact Mode				Contact Mode			
		3P		4P		3P		4P	
		Width	Depth	Width	Depth	Width	Depth	Width	Depth
Primary Schematic Diagram									
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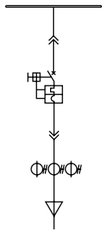
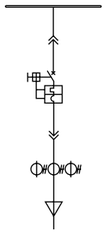
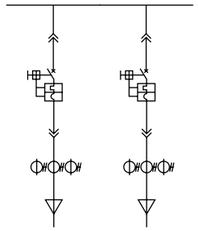
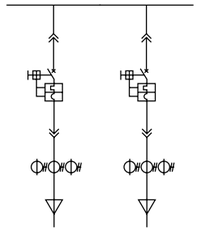
400	NA8-1600	600	600	600	600	600	600	600	600
630	NA8-1600	600	600	600	600	600	600	600	600
800	NA8-1600	600	600	600	600	600	600	600	600
1000	NA8-1600	600	600	600	600	600	600	600	600
1250	NA8-1600	600	600	600	600	600	600	600	600
1600	NA8-1600	600	600	600	600	600	600	600	600
2000	NA8-2500	800	800	800	800	800	800	800	800
2500	NA8-2500	800	800	800	800	800	800	800	800
3200	NA8-3200	800	800	1000	800	800	800	1000	1000
3600	NA8-4000	800	1000	1000	1000	800	1000	1000	1000
4000	NA8-4000	800	1000	1000	1000	800	1000	1000	1000
5000	NA8-6300	1200	1000	1200	1000				
6300	NA8-6300	1200	1000	1200	1000				

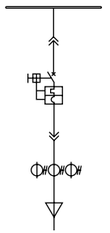
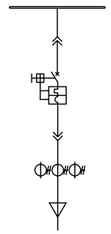
TYPICAL SCHEME

Rated Current(A)	Mode	Incoming、Outgoing/Drawer Mode				Incoming、Outgoing/Drawer Mode			
		3P		4P		3P		4P	
		Width	Depth	Width	Depth	Width	Depth	Width	Depth
Primary Schematic Diagram									
200	NA8-1600	600	600	600	600	600	600	600	600
400	NA8-1600	600	600	600	600	600	600	600	600
630	NA8-1600	600	600	600	600	600	600	600	600
800	NA8-1600	600	600	600	600	600	600	600	600
1000	NA8-1600	600	600	600	600	600	600	600	600
1250	NA8-1600	600	600	600	600	600	600	600	600
1600	NA8-1600	600	600	600	600	600	600	600	600
2000	NA8-2500	800	800	800	800	800	800	800	800
2500	NA8-2500	800	800	800	800	800	800	800	800
3200	NA8-3200	800	800	1000	800	800	800	1000	1000
3600	NA8-4000	800	1000	1000	1000	800	1000	1000	1000
4000	NA8-4000	800	1000	1000	1000	800	1000	1000	1000
5000	NA8-6300	1200	1000	1200	1000				
6300	NA8-6300	1200	1000	1200	1000				

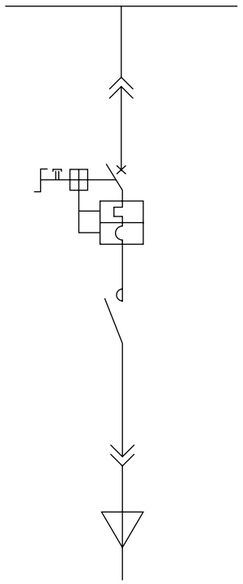
TYPICAL SCHEME

Rated Current(A)	Mode	Incoming、Outgoing/Drawer Mode				Incoming、Outgoing/Drawer Mode			
		3P		4P		3P		4P	
		Width	Depth	Width	Depth	Width	Depth	Width	Depth
Primary Schematic Diagram									
200	NA8-1600	600	600	800	600	600	600	800	600
400	NA8-1600	600	600	800	600	600	600	800	600
630	NA8-1600	600	600	800	600	600	600	800	600
800	NA8-1600	600	600	800	600	600	600	800	600
1000	NA8-1600	600	600	800	600	600	600	800	600
1250	NA8-1600	600	600	800	600	600	600	800	600
1600	NA8-1600	600	600	800	600	600	600	800	600
2000	NA8-2500	800	800	1000	800	800	800	1000	800
2500	NA8-2500	800	800	1000	800	800	800	1000	800
3200	NA8-3200	800	800	1000	800	800	800	1000	800
3600	NA8-4000	1000	1000	1200	1000	1000	1000	1200	1000
4000	NA8-4000	1000	1000	1200	1000	1000	1000	1200	1000

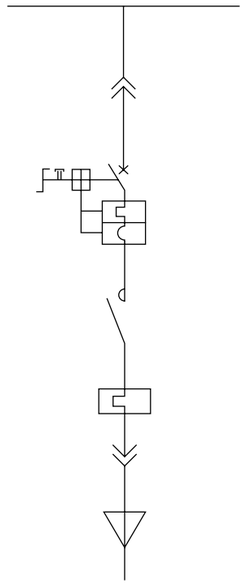
TYPICAL SCHEME

Rated Current(A)	Mode	Incoming、Outgoing/Drawer Mode				Incoming、Outgoing/Drawer Mode			
		3P		4P		3P		4P	
		Height	Depth	Height	Depth	Height	Depth	Height	Depth
Primary Schematic Diagram									
16	NB1-63	150	450	150	450	150	450	150	450
32	NB1-63	150	450	150	450	150	450	150	450
63	NB1-63	150	450	150	450	150	450	150	450
32	NM8-125	150	450	200	450	150	450	200	450
63	NM8-125	150	450	200	450	150	450	200	450
100	NM8-125	150	450	200	450	150	450	200	450
125	NM8-125	150	450	200	450	150	450	200	450
32	NM8S-125	150	450	200	450	150	450	200	450
63	NM8S-125	150	450	200	450	150	450	200	450
100	NM8S-125	150	450	200	450	150	450	200	450
125	NM8S-125	150	450	200	450	150	450	200	450
160	NM8-250 / NM8S-250S	200	450	200	450	200	450	200	450
200	NM8-250 / NM8S-250S	200	450	200	450	200	450	200	450
250	NM8-250 / NM8S-250S	200	450	200	450	200	450	200	450
315	NM8-400 / NM8S-400S	400	450	400	450	400	450	400	450
350	NM8-400 / NM8S-400S	400	450	400	450	400	450	400	450
400	NM8-400 / NM8S-400S	400	450	400	450	400	450	400	450
500	NM8-630 / NM8S-630S	600	450	600	450	600	450	600	450
630	NM8-630 / NM8S-630S	600	450	600	450	600	450	600	450

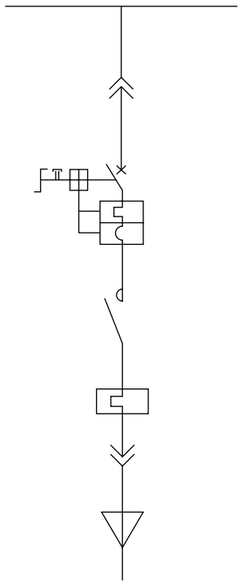
TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
Direct Start						
	5.5	12	NM8-125	NC1-18	N/A	200
	11	21	NM8-125	NC1-25	N/A	200
	22	43	NM8-125	NC1-50	N/A	200
	45	83	NM8-125	NC1-95	N/A	400
	55	99	NM8-125	NC2-115	N/A	400
	75	133	NM8-250	NC2-150	N/A	400
	90	157	NM8-250	NC2-185	N/A	400
	110	195	NM8-250	NC2-225	N/A	400
	132	233	NM8-250	NC2-265	N/A	400
	160	280	NM8-400	NC2-330	N/A	400
	200	340	NM8-400	NC2-400	N/A	400

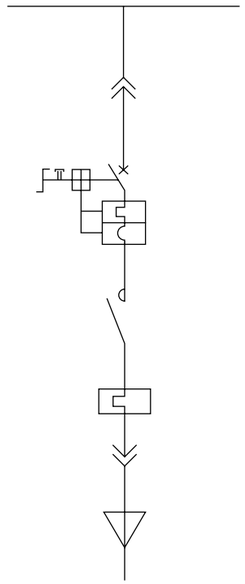
TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
Heavy-Duty Start						
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	200
	45	83	NM8-125	NC1-95	NR2-93	400
	55	99	NM8-125	NC2-115	NR2-150	400
	75	133	NM8-250	NC2-150	NR2-150	400
	90	157	NM8-250	NC2-185	NR2-200	400
	110	195	NM8-250	NC2-225	NR2-630	400
	132	233	NM8-250	NC2-265	NR2-630	400
	160	280	NM8-400	NC2-330	NR2-630	600
	200	340	NM8-400	NC2-400	NR2-630	600

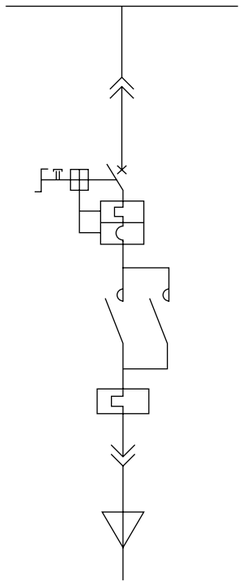
TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
Heavy-Duty Start						
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	200
	45	83	NM8-125	NC1-95	NR2-93	400
	55	99	NM8-125	NC2-115	NR2-150	400
	75	133	NM8-250	NC2-150	NR2-150	400
	90	157	NM8-250	NC2-185	NR2-200	400
	110	195	NM8-250	NC2-225	NR2-630	400
	132	233	NM8-250	NC2-265	NR2-630	400
	160	280	NM8-400	NC2-330	NR2-630	600
	200	340	NM8-400	NC2-400	NR2-630	600

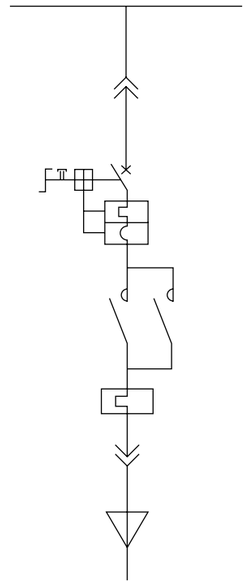
TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
Direct Start						
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	200
	45	83	NM8-125	NC1-95	NR2-93	400
	55	99	NM8-125	NC2-115	NR2-150	400
	75	133	NM8-250	NC2-150	NR2-150	400
	90	157	NM8-250	NC2-185	NR2-200	400
	110	195	NM8-250	NC2-225	NR2-630	400
	132	233	NM8-250	NC2-265	NR2-630	400
	160	280	NM8-400	NC2-330	NR2-630	600
	200	340	NM8-400	NC2-400	NR2-630	600

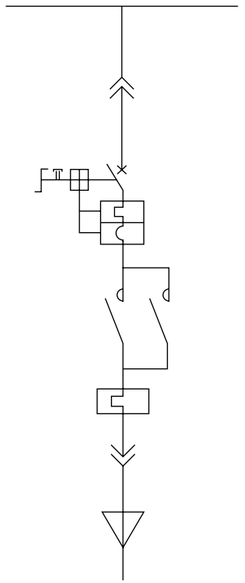
TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
Direct Start Reversible						
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	400
	45	83	NM8-125	NC1-95	NR2-93	400
	55	99	NM8-125	NC2-115	NR2-150	600
	75	133	NM8-250	NC2-150	NR2-150	600
	90	157	NM8-250	NC2-185	NR2-200	600
	110	195	NM8-250	NC2-225	NR2-630	600
	132	233	NM8-250	NC2-265	NR2-630	600

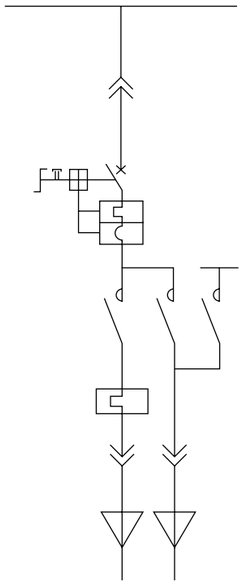
TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
Direct Start Reversible						
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	400
	45	83	NM8-125	NC1-95	NR2-93	400
	55	99	NM8-125	NC2-115	NR2-150	600
	75	133	NM8-250	NC2-150	NR2-150	600
	90	157	NM8-250	NC2-185	NR2-200	600
	110	195	NM8-250	NC2-225	NR2-630	600
	132	233	NM8-250	NC2-265	NR2-630	600

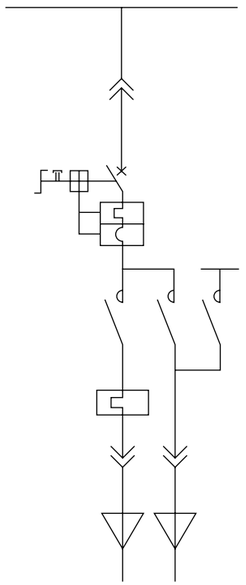
TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
Direct Start Reversible						
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	400
	45	83	NM8-125	NC1-95	NR2-93	400
	55	99	NM8-125	NC2-115	NR2-150	600
	75	133	NM8-250	NC2-150	NR2-150	600
	90	157	NM8-250	NC2-185	NR2-200	600
	110	195	NM8-250	NC2-225	NR2-630	600
	132	233	NM8-250	NC2-265	NR2-630	600

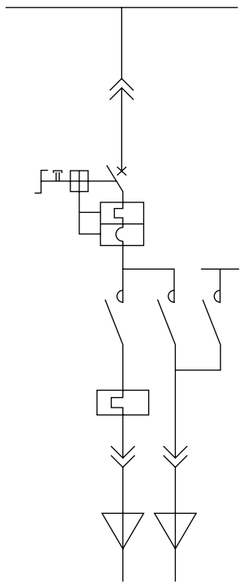
TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
SS						
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	400
	45	83	NM8-125	NC1-95	NR2-93	400
	55	99	NM8-125	NC2-115	NR2-150	600
	75	133	NM8-250	NC2-150	NR2-150	600
	90	157	NM8-250	NC2-185	NR2-200	600
	110	195	NM8-250	NC2-225	NR2-630	600
	132	233	NM8-250	NC2-265	NR2-630	600

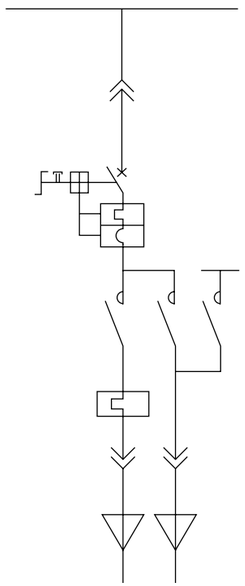
TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
SS						
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	400
	45	83	NM8-125	NC1-95	NR2-93	400
	55	99	NM8-125	NC2-115	NR2-150	600
	75	133	NM8-250	NC2-150	NR2-150	600
	90	157	NM8-250	NC2-185	NR2-200	600
	110	195	NM8-250	NC2-225	NR2-630	600
	132	233	NM8-250	NC2-265	NR2-630	600

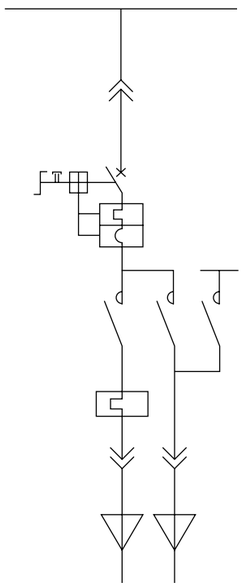
TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
VF						
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	400
	45	83	NM8-125	NC1-95	NR2-93	400
	55	99	NM8-125	NC2-115	NR2-150	600
	75	133	NM8-250	NC2-150	NR2-150	600
	90	157	NM8-250	NC2-185	NR2-200	600
	110	195	NM8-250	NC2-225	NR2-630	600
	132	233	NM8-250	NC2-265	NR2-630	600

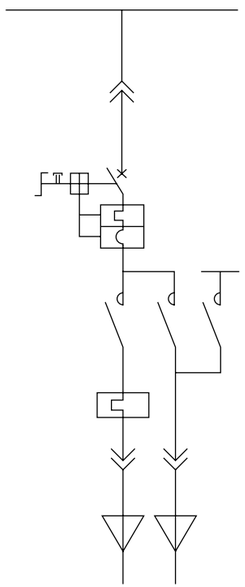
TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
	SS					
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	400
	45	83	NM8-125	NC1-95	NR2-93	400
	55	99	NM8-125	NC2-115	NR2-150	600
	75	133	NM8-250	NC2-150	NR2-150	600
	90	157	NM8-250	NC2-185	NR2-200	600
	110	195	NM8-250	NC2-225	NR2-630	600
	132	233	NM8-250	NC2-265	NR2-630	600

TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
	VF					
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	400
	45	83	NM8-125	NC1-95	NR2-93	400
	55	99	NM8-125	NC2-115	NR2-150	600
	75	133	NM8-250	NC2-150	NR2-150	600
	90	157	NM8-250	NC2-185	NR2-200	600
	110	195	NM8-250	NC2-225	NR2-630	600
	132	233	NM8-250	NC2-265	NR2-630	600

TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
	VF					
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	400
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	90	157	NM8-250	NC2-185	NR2-200	600
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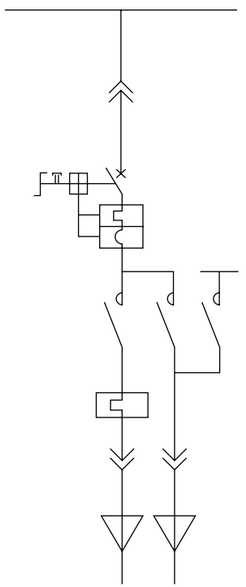
	132	233	NM8-250	NC2-265	NR2-630	600

TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
	DR					
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	400
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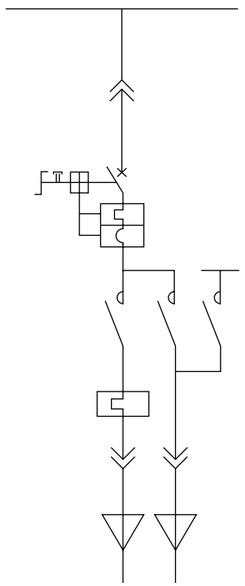
	KW	A	Mode	Mode	Mode	mm
DR						
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
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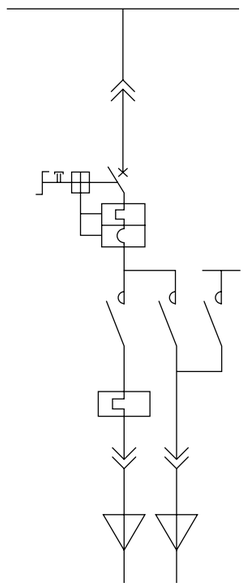
	90	157	NM8-250	NC2-185	NR2-200	600
	110	195	NM8-250	NC2-225	NR2-630	600
	132	233	NM8-250	NC2-265	NR2-630	600

TYPICAL SCHEME

Primary Schematic Diagram	Power	Current	Main breaker	Contactor	Thermal over load	Height
	KW	A	Mode	Mode	Mode	mm
Star Delta Start						
	5.5	12	NM8-125	NC1-18	NR2-25	200
	11	21	NM8-125	NC1-25	NR2-25	200
	22	43	NM8-125	NC1-50	NR2-93	400
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	110	195	NM8-250	NC2-225	NR2-630	600
	132	233	NM8-250	NC2-265	NR2-630	600

ORDER FORM

Project Name:			Project No.:		
Client Name:					
Name of issue:			Tel of issue:		
Designer:			Tel of designer:		
Date:			Checker:		
General					
LV Switchgear Type	☐ NGC1	☐ NGC2	☐ NGC3	☐ NGC8	☐ NGC8-S
	☐ NGC8-R	☐ NGG1	☐ NGL	☐ Other_____	
System Voltage	☐ 230V	☐ 400V	☐ 690V	☐ Other_____	
Cabinet Type	☐ Drawer	☐ Fixed	☐ Mixed		
IP Class(Close Door)	☐ IP30	☐ IP31	☐ IP40	☐ IP41	☐ IP42
	☐ IP43	☐ IP54			
Form Class	☐ Chint Standard		☐ Special Requirements_____		
Protection System	☐ TN-S	☐ TN-C	☐ TN-C-S	☐ IT	☐ TT
Installation Site	☐ Rear site on the wall		☐ Space between the wall		
Color	☐ RAL 7032		☐ RAL 7035		☐ Other_____
Panel Depth(mm)	☐ 600	☐ 800	☐ 1000	☐ 1200	☐ Other_____
IP Class(Open Door)	☐ Chint Standard		☐ IP20		
Anti-magnetic Skeleton	☐ Yes	☐ No (When the current exceeds 3200A,it must be installed			
Bottom Plate	☐ Chint Standard		☐ Without Bottom Plate		
	☐ Special Requirements(Provide the size of cables)				
Delivery Requirement	☐⩽ 2.6M	☐ Single	☐ MAX_____m		
ACb with mechanical interlock		☐ Yes	☐ No		
Drawer Vertical Busbar	☐ No Half function Board		☐ With Half function Board		
Heavy Loop	☐ No		☐ Yes(See the list of heavy loop)		
Description Tag					
1)Loop&Cabinet	☐ Chint Standard		☐ Special Requirements_____		
2)Components	☐ Chint Standard		☐ Special Requirements_____		
3)Language	☐ English		☐ Chinese		☐ Other_____

ORDER FORM

Others					
Temperature and humidity controller			☐ Yes	☐ No	
Forced Cooling	☐ Yes	☐ No			
Special parts install on the door			☐ Yes_____	☐ No	
Busbar					
Phase	☐ 3		☐ 4 50%N	☐ 4 100%N	
The requirements to Busbar					
☐ Bare copper	☐ Thinning		☐ Silvering	☐ Heat shninkable Tubing	
The colum order of the switchgear and the diagram of busbar interface have been confirned by the client ☐ Yes ☐ No					
Feeder General					
The pattern of incoming/outgoing					
Incoming	☐ Cable	☐ Top	Outgoing	☐ Cable	☐ Top
		☐ Bottom			☐ Bottom
	☐ Busbar	☐ Top		☐ Busbar	☐ Top
		☐ Bottom			☐ Bottom
Cables specofocations(Use cable)					
Phase sequence(Use Busbar)					
Heavy Loop			Further Equiment Requirements		
Cabinet NO.	Loop NO.	System			