Green Power

LIGHTS UP THE WAY
TO THE **FUTURE**

- Low Voltage Switchgear and Circuit Breaker

GREENPOWER
global procurement & manufacture


● Environment Friendly
● Save Energy and Resource
● One-Stop Solutions Concept
● Customer Value Increasing

About Us

GreenPower promotes environmental awareness, and aims to create unpreced ented happiness and wealth for our investors, employees, clients and partners. By focusing in the mid-to-high voltage and low voltage field, and professionally working on R&D, manufacturing, marketing and service of high-end green intelligent switchgears, equipments and products.GreenPower sets to become a well-respected global company in the power industry.

GreenPower, is jointly established by a number of state-owned excellent industrial electrical professional manufacturers, we committed to meet the procurement needs of clients. It is a professional procurement service provider with entity of industrial electrical.

GreenPower provides ONE-STOP solutions service for all customers in the International area. It is located in the time-honored electrical industrial city, a collection of world-class brand of industrial electrical products,excellent brand of domestic electrical products as the basis.

Innovative business philosophy, strong professional supply team, expert technical guidance, advanced Information network management platform, fast logistics, which makes GreenPower as your procurement expert by your side.

GreenPower adheres to its own brand and multi-brand integration, marketing differentiated development strategy. The products involving low voltage, medium voltage and high voltage transmission and distribution products and industrial automation products.

It covering all aspects of distribution, logistics, warehousing, professional and technical engineering services, systems integration and complete sets of manufacturing. Stable business foundation for cooperation with customers and suppliers, and has established a good reputation to maintain its leading position in the market competition.

Human quests for transcendence, with transcendence we make progress, when the pursuit of unlimited become a belief, our dream began to realize.

Hard-working, dedicated GreenPower people, will be adhering to its past glory, beginners mind, let go sailing, to face the fierce competition in the future, and always help customers make the best choice, and strive to become the best and most reliable procurement service provider in the field of industrial electrical.

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1. GPM1 Low Voltage Withdrawable Switchgear

a. Summary

GPM1 LV switchgear is suitable for AC 50~60Hz, 1000V and below power system. It is applied into power plant, substation, oil field, chemistry industry, metallurgy, mineral enterprise etc. To receive and distribute power with the function of control, protection and monitor. Different types of switch is used inside the cabinet.
The LV Switchgear conforms to IEC60439 VDE0660, part five, GB7251 " LV Switchgear and controlgear " standard and JB/T9661 " LV draw out switchgear " standard.

b. Ambient condition

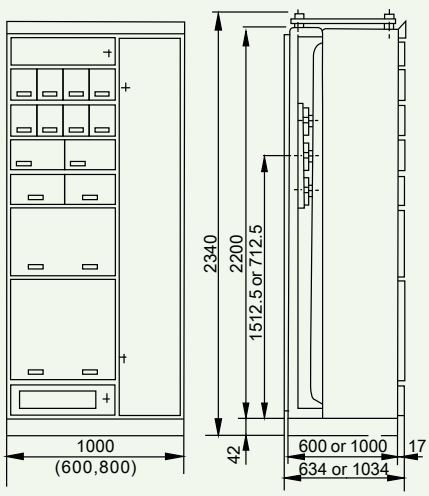
1. Ambient temperature: -25℃ ~+45℃ , daily temperature ≤ +35℃ ;
2. Relative humidity at highest temperature +45℃ , ≤ 50%, allowed max. relative humidity at low temperature, for example, +20℃ is 90% , it will occur moderate moist due to temperature change;
3. Altitude: ≤ 2000m;
4. The device is suitable for transportation and storage as the following temperature: -25℃ ~55℃ . The device should not be suffered from non-recovery damage.

c. Technical specification

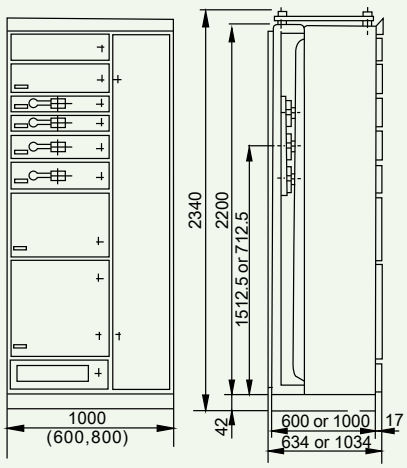
Type	Rated current (A)	Rated current of over current release (A)	Rated insulation voltage (V)	Rated breaking capacity / Rated making capacity				Short time withstand current (1s)
				Instantaneous		Delay 0.42s		
				660V	380V	660V	380V	
GPM1-600	600	250,400,630	1000		42/88.2		22/46.2	30
GPM1-1000	1000	250,400,630,1000	1000		50/105		30/63or40/84	40
GPM1-1600	1600	1000,1250,1600	1000	30/63	65/143	22/46.2	35/80.5	50
GPM1-2000	2000	1250,2000	1000	30/63	65/143	30/63	35/80.5	50
GPM1-2000G	2000	1250,2000	1000	30/63	70/154	30/63	70/154	70
GPM1-3200	3200	2000,3200	1000	50/105	65/143	42/88.2	42/88.2	65
GPM1-3200G	3200	2000,3200	1000	50/105	85/187	42/88.2	42/88.2	85
GPM1-5000	5000	5000	1000	50/105	120/264	42/88.2	42/88.2	100

Note: Suitable for ABB/Siemens/Schneider etc. all brands of circuit breakers.

d. Outline and installation dimension



Withdrawable type MCC panel



Removable type MCC panel

2. GPM2 Low Voltage Switchgear

a. Summary

The GPM2 economic type low voltage switchgear is updated and developed by us, suitable for system with AC 50(60)Hz and rated working voltage up to 660V, working current 6300A, and applicable for power generation, transmission, distribution, changeover and consumption equipment control. It conforms to relevant standards such as IEC60439-1, GB7251.1 and JB/T9661.

b. Ambient condition

1. Ambient temperature: -25℃ ~+45℃ ;
2. Relative humidity: daily average ≤95%, monthly average ≤90%;
3. Indoor type, altitude ≤2000m;
4. Earthquake intensity ≤8 degree;
5. Occasions without flammable and explosive matter, without corrosive chemical and frequent severe vibration.

c. Structure feature

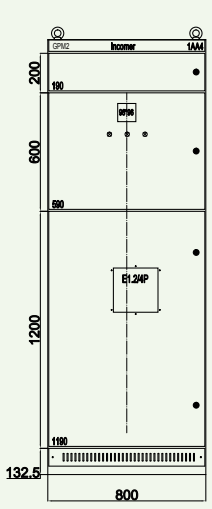
Framework made of C profiles.
Structure of Galvanized or made of aluminum zinc coated steel sheet
Fastened by self-tapping lock screw 8.8 grade hex bolts into basic frame
Module unit E=25mm).
Same as GPM3 on vertical busbar and primary, secondary connectors.
Horizontal busbar is placed at the top
Rear outgoing or lateral outgoing for option
Safety, dependability, easy for mounting, testing and maintenance.
Protection degree of the enclosure is IP3X-4X.

d. Technical feature

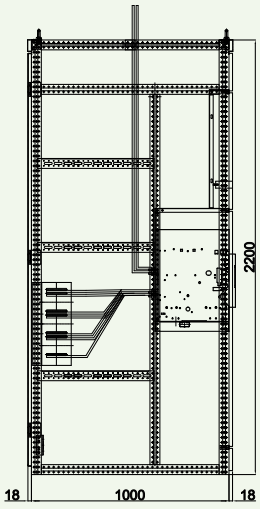
The rated current of unit loop is 600A or below, among them 1/2 unit drawer can withstand maximum current of 100A. The effective height of drawer mounting units is 1800mm. The drawers of same function units have great interchangeability. The incoming and outgoing lines of drawers adopt different rear-outgoing connectors subject to current. The modules have adequate secondary connectors.

e. Outline and dimension

Incomer cabinet

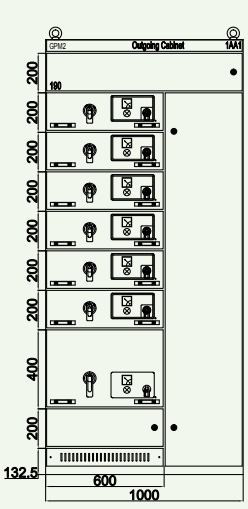


Front view

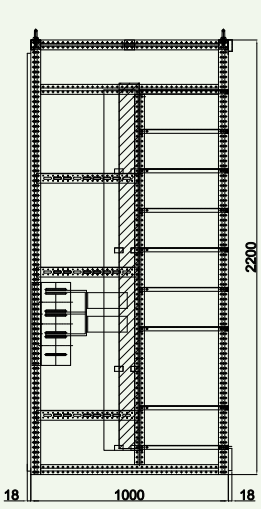


Side view

Outgoing cabinet



Front view

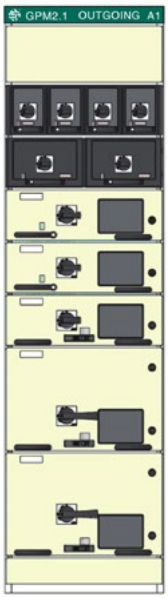


Side view

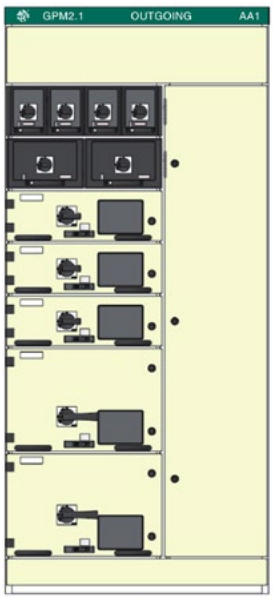
Note: Suitable for ABB/Siemens/Schneider etc. all brands of circuit breakers.

3. GPM2.1 Drawer Unit System Structure Device

Rear outlet cabinet

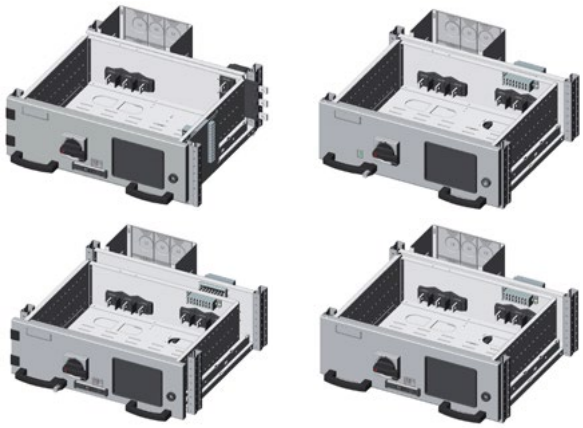


Side outlet cabinet

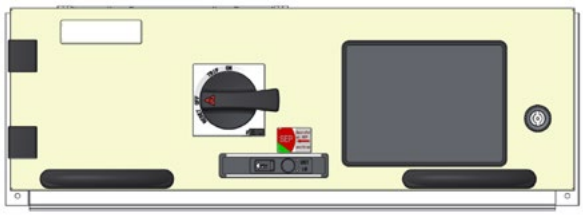


Rear outlet cabinet size: 600 × 1000 × 2200
Unit room depth: 450
Side outlet cabinet size: 1000 × 600 × 2200
Unit room depth: 450
Maximum vertical busbar allowed: 6 × 80
Horizontal busbar: top installation

a. Unit drawer basic function application



b. GPJG8(H) propulsion mechanism panel



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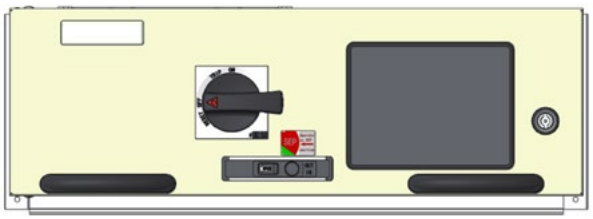

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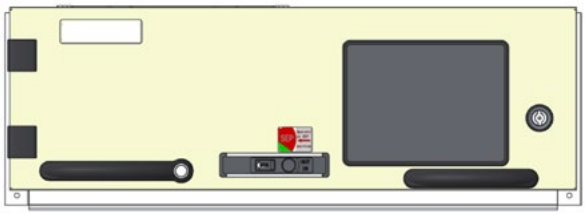
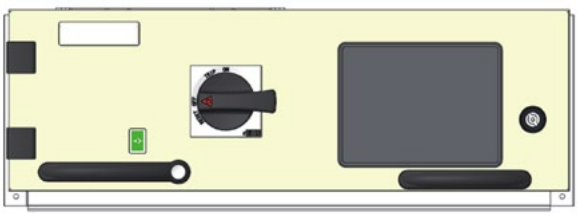


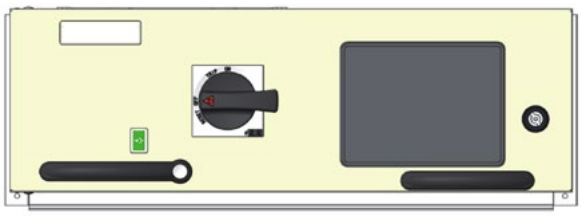
3

1. GPJG8 (H) hand-pulling interlock mechanism, clear hinge unit drawer surface
2. GPJG8 (H) hand-pulling interlock mechanism, hide hinge unit drawer face
3. GPJG8 (H2) electric hand crank propulsion interlocking mechanism, clear hinge unit drawer panel (optional)
   (Select the hide hinge), The button can be locked 90 degrees right to prevent accidental tripping of the running collision.

c. GPSL-2 Hand-pulling mechanism panel



1



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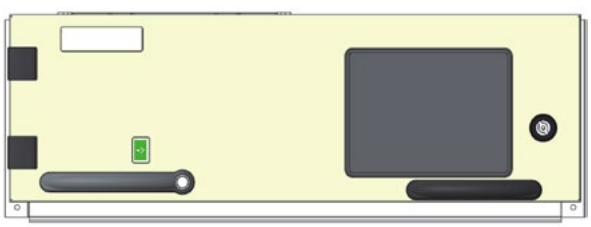
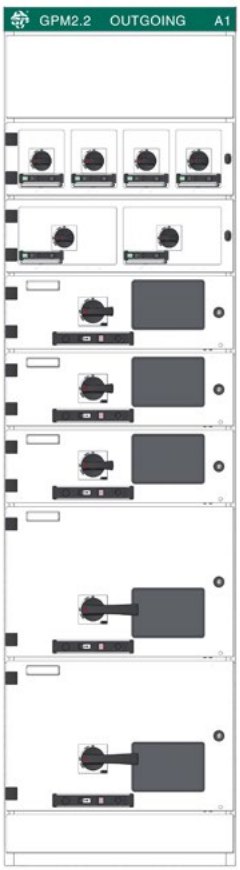


3

1. GPSL-2 hand-pulling interlock mechanism, clear hinge unit drawer face
2. GPSL-2 hand-pulling interlock mechanism, hide hinge unit drawer face
3. GPSL-2 electric operation hand push-pull interlocking mechanism, clear hinge unit drawer surface (optional hide hinge), button can be locked right 90 degrees to prevent accidental trip of running collision

4. GPM2.2 Cabinet Introduction



a. Structure overview

GPM2.2 drawer structure is a new technology developed by our company, and authorizing two inventions.
GPM2.2 removable operation drawer unit structure is driven by the drawer to push the interlocking mechanism chassis, the moving part is composed of two parts, and the interlocking mechanism chassis and the unit compartment are locked, The unit door is closed, the three position operation conversion is implemented by a movable part.

b. current level

Unit drawer:
Three-pole rear outlet scheme 125A, 250A, 400A, 630A, 800A
Four-pole rear outlet scheme 125A, 250A, 400A, 630A
Three-pole side outlet scheme 125A, 250A, 400A, 630A

c. GPM2.2 drawer push interlock technology function

The drawer enters the unit room, the unit door is closed, and the movable parts are converted in three positions.
Three-position operation does not change the operational protection level;
Separation: main and auxiliary circuit isolation
Test: Auxiliary circuit is on, main circuit is isolated
Connection: main and auxiliary circuits are connected
When the movable part is moved out of the separation position, the drawer chassis and the unit compartment are locked, only in the separated position, Drawers can enter and exit the unit to prevent any position the drawer and has an emergency unlock function;
The movable part enters the connection position, the unit door is locked by the door interlock, but can unlock to open through the emergency unlock function.
Ensure that the hand-operated closing and the drawer propulsion mechanism are locked, and only the opening position can be operated and moved component;
Ensuring the interlocking function technology that the main switch must trip when the electric operation is mishandled;
The unit drawer can be equipped with an intelligent 24V communication port, which is driven by the propulsion mechanism.

Connection Test Separation

Functional technology for connection of road synchronization operations;
Vertical busbar end closure structure, equipped with hinge locking flaps, drawers entering the unit compartment,
The hinge shutter is automatically opened and the drawer is moved out of the unit compartment.
The hinge shutter is automatically closed to achieve the protection level IP40;
Anti-drop door hinge, Hide hinge, clear hinge for selection;
Brand cooperation technology, high-performance innovation requirements, with many big project engineering in domestic and global market.

5. GPM3 Low Voltage Withdrawable Switchgear

a. Summary

The product is suitable for power plant, substation, industrial enterprise ,etc. It takes a role of power distribution, motor control in 50/60Hz, Max. working voltage 1000V, Max. working current 5000A distribution system.
The product is high breaking capacity, perfect dynamic stable, reasonable structure, effective electric scheme, strong versatility, multi loops, save acreage,excellent appearance, high protection degree, convenient maintenance, secure and reliable.

b. Ambient condition

1. Ambient temperature: -25℃ ~+45℃ ;
2. Relative humidity: daily average ≤95%, monthly average ≤90%;
3. Indoor type, altitude ≤2000m;
4. Earthquake intensity ≤8 degree;
5. Occasions without flammable and explosive matter, without corrosive chemical and frequent severe vibration.

c. Model

GP M 3 - □

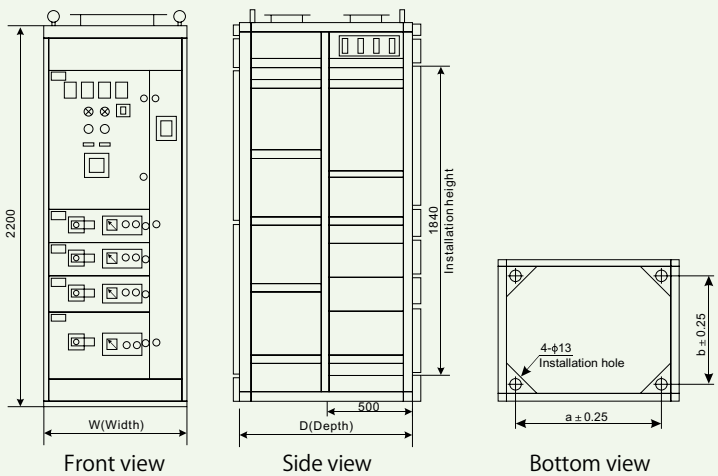
- Main circuit scheme drawing
- Design No.
- Enclosed drawable
- Company feature code

Note: Suitable for ABB/Siemens/Schneider etc. all brands of circuit breakers.

d. Structure feature

GPM3 panel is combination structure with bolt. The complete panel is compose of door, terminal board, baffle plate, supporting frame and drawer, busbar, etc.
Basic frame adopts FA28 type or KB type (C type) to combine with together. Total structural components of frame are connected by self-tapping screw. It should add to door, faceplate, baffle plate, supporting frame and drawer to finish complete panel by requirements.
The installation hole of body and components modulus E=25mm change, flexible and convenient to install.
Drawer unit height divide into 1/2 unit,200mm,300mm,400mm,500mm and 600mm series. The loop current decide the drawer height, virtual installation height is1800mm.
GPM3 panel withdrawable function unit adopts special push (pull) mechanism, light structure, perfect interchange. It indicate of working position, test position and isolating position mechanical locking condition. Install additional padlock for operating handle .
The frame and inner metal components are galvanized to assure reliable earthing.

e. Outline and dimension



Front view　Side view　Bottom view

Installation dimension:

W	D	a	b
600	800	490	690
	1000	490	890
800	800	685	690
	1000	685	890
1000	800	890	690
	1000	890	890

6. GPM4 Low Voltage Withdrawable Type Electrical Switchgear

a. Summary

GPM4 complete set low-voltage withdrawable switchgear panel is applied to 3-phase AC 50(60) Hz, rated operating voltage of 400V (660V), rated current of 4000A and below for power generation and supply, motor control and reactive power compensation. The device is widely used in the power distribution system of power plants, oil, chemical, metallurgical and textile industry. It is designed and manufactured by complying with GB7251.12-2013 and IEC standard.

b. Ambient condition

- **Normal ambient conditions**

  GPM4 switchgear is generally equipped for operation/service in normal indoor conditions in accordance with GB7251.12-2013
  The following limitations apply:
  Max. Temperature +45℃
  Max. Temperature (24-hour average) +35℃
  Min. Temperature: - 25℃
  Humidity: Max. Average relative humidity 50%, max. Temperature of +45℃
  Altitude: ≤2000 m.
- **Installation**

  The installation lean against vertical plane shall not exceed 5% and where without sharp vibration, impulse and corrosion which might cause harm to components of the device.
- **Special conditions**

  The manufacturer and end user must agree about special operating conditions which deviate from operation under normal conditions. The buyer must be consulted in advance if especially difficult operating conditions are involved.

c. Model

GP M 4 - □ □

- Auxiliary circuit scheme No .
- Main circuit scheme No .
- Electrical system
- Enclosed switch withdrawable type
- Company feature code

Note: Suitable for ABB/Siemens/Schneider etc. all brands of circuit breakers.

d. Structure features

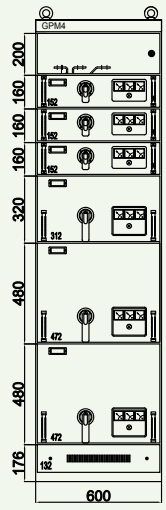
1. Main frame adopts 8MF open type steel which bended by 2.5mm cold rolled steel sheet. There are modulus E=20mm, Minimum drawer height =160mm, 9.2 mm installation hole located on three side, high strength for modelling installation conveniently.
2. The drawer divided into 1/2 unit, 1 unit, 2 unit, 3 unit, loop rated current is 400A and below.
3. Flexible assembly, compact structure, strong versatility, perfect secure performance, convenient assembly.
4. Improve thermal capacity of patchboard, reduce additional temperature rise of plug in, cable terminal, isolating board due to temperature rise of transition element.
5. It cannot influence others unit when any unit appears to fault between function unit and isolating unit, limit the emergency in a small scope.
6. Busbar horizontal is good for dynamic and thermal stable performance.
7. The maximum 22 loops for MCC single panel, take consideration of requirement of auto motor door group about large unit capacity power plant, petroleum chemistry system line.
8. It finish connection of device and outer cable in cable compartment, upper and down inlet and out let is available. The zero sequence current transformer is installed in the cable isolating compartment.
9. It can limit short circuit current depend on limited reactor in the same power distribution system, to stabilize busbar voltage, reduce short circuit intensity requirement.

e. Technical data

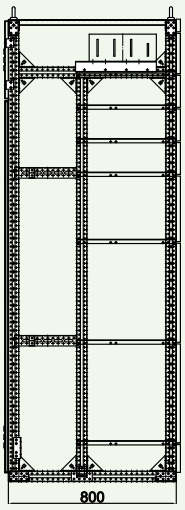
No.	Item	Unit	Data
1	Main circuit voltage rating	V	AC 380, 400, 660
2	Auxiliary circuit voltage rating	V	AC 220, 380, 400; DC 110, 220
3	Rated frequency	Hz	50/60
4	Rated insulation voltage	V	660, 1000

5	Horizontal busbar current rating	A	≤4000
6	Vertical busbar(MCC) current rating	A	1000
7	Busbar short-time withstand current rating	kA/1s	50, 80
8	Busbar peak value withstand current rating	kA/0.1s	150, 176
9	Main circuit power frequency test voltage	V/1min	2500
10	Auxiliary circuit power frequency test voltage	V/1min	1760
11	Three phase four wire system busbar		A, B, C, PEN
12	Three phase five wire system busbar		A, B, C, PEN
13	Protection degree		IP30, IP40

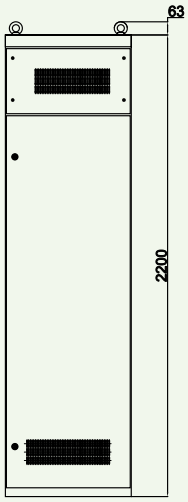
f. Outline and dimension



Front view



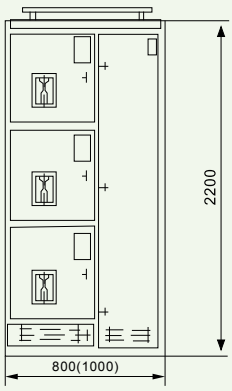
Side view



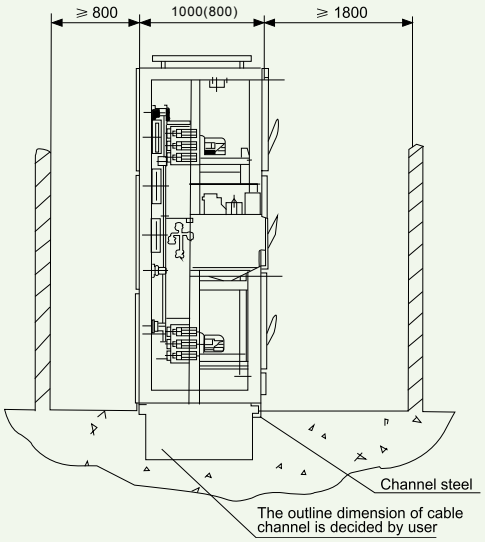
Rear view

Installation dimension: (mm)

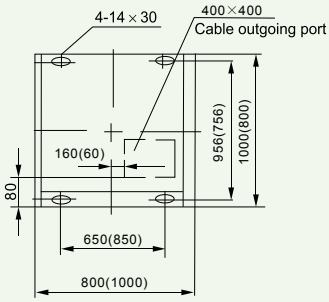
Width	Depth	Height
600	800/1000	2200
800	800/1000	2200
1000	800/1000	2200



Front view



Side view



Bottom view

Note: Suitable for ABB/Siemens/Schneider etc. all brands of circuit breakers.

7. GPS2 Micro-computer DC Power Supply Panel

a. Summary

GPS2 micro-computer DC power supply panel is a new product which mainly design for nobody monitor substation. It applies to power plant and substation as a DC power supply to open and close high voltage switch and relay protection automatic control fault lighting.

b. Model

GP S 2 □ / □ - □

- Battery: G Cadmium-nickel battery; M Leaad-acid battery
- Rated voltage(V)
- Battery rated capacitor(AH)
- Micro-computer control
- DC power supply system
- Company feature code

c. Technical specification

1. Input voltage: AC380V ± 10%;
2. Output voltage: DC220V, DC110V, DC48V;
3. Output current: 10, 20, 30, 40, 50, 60, 100, 200A;
4. Voltage regulation precision: ≤1%;
5. Permanent flow precision: ≤1%;
6. Permanent flow factor: ≤1%;
7. Main transformer temperature rise: ≤60℃ ;
8. Noise: ≤55dB;
9. Working type: Continuous working.

d. Product feature

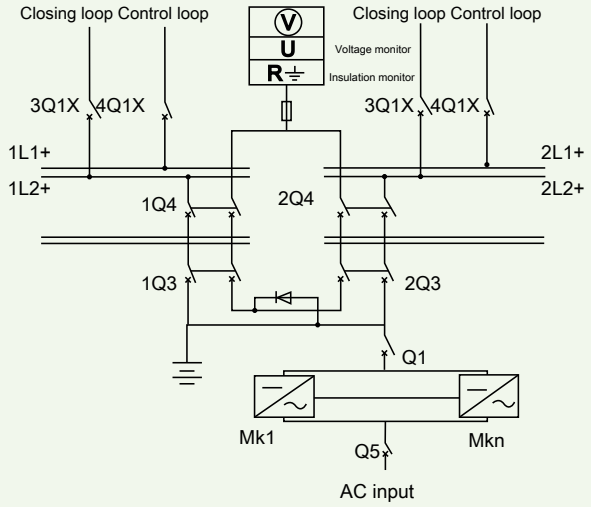
1. Equal charge and floating charging condition for choice, convenient to adjust voltage, Be with function of voltage regulation limit current and permanent flow limit voltage for choice.
2. Micro computer monitor unit adopts large LCD screen, perfect human-machine interface. Display battery capacity, battery voltage, charging current, control busbar voltage, load current and DC system parameters in English. It will be perfect equal current performance to circulate multi module. Another modules will be normal circulation when plug in or out anyone module separately. Restart to throw in after AC loss electricity, the system can choose the best charging type according b attery capacity. The system will be normal if micro-computer monitor unit retreat from system.

e. Design number

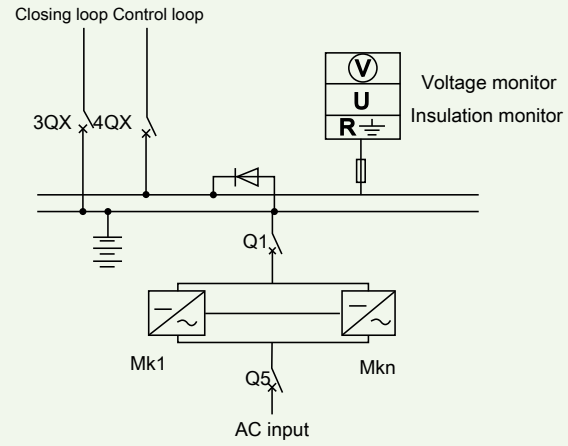
Model	Description	Spec.	Application
GPS2-30- □ / □	Single busbar section, single bank battery, two sets double line charging output, no reduction voltage loop	10	Power plant or large substation
GPS2-31- □ / □	Single busbar, single bank battery, two sets double line charging output, no reduction voltage loop	10	Power plant or large substation
GPS2-32- □ / □	Double busbar section, single bank battery, two sets double line charging output	20	10-220kV substation, small & medium scale factory
GPS2-33- □ / □	Double busbar single bank battery, two sets double line charging output	20	10-220kV substation, small & medium scale factory
GPS2-34- □ / □	Double busbar section, single bank battery, two sets triplicate line charging output	20	10-220kV substation, small & medium scale factory
GPS2-35- □ / □	Double busbar, single bank battery, two sets triplicate line charging output	20	10-220kV substation, small & medium scale factory
GPS2-40- □ / □	Single busbar section, single bank battery, two sets double line charging output, no reduction voltage loop	10	Power plant or large substation
GPS2-41- □ / □	Double busbar, double banks battery, two sets double lines charging output	12	10-220kV substation, small & medium scale factory
GPS2-42- □ / □	Double busbar section, double banks battery, triplicate sets double lines charging output	10	Power plant or large substation
GPS2-43- □ / □	Double busbar, double banks battery, two sets triplicate lines charging output	12	10-220kV substation, small & medium scale factory

Note: Press N+1 redundant principle to collocate module quantity when adopts high frequency switch power supply module as charging device.

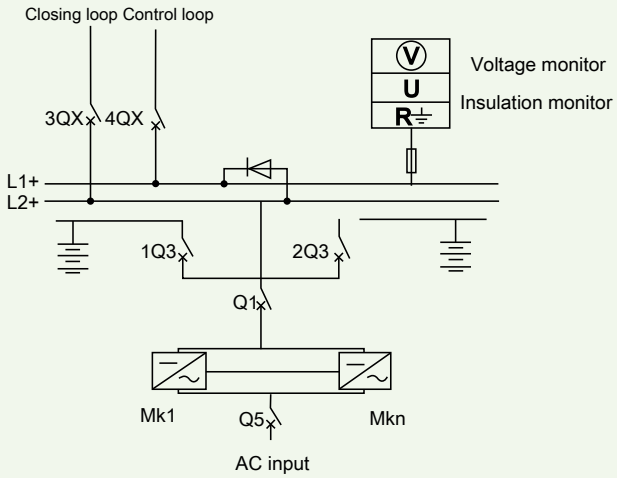
f. Series DC power supply system diagram



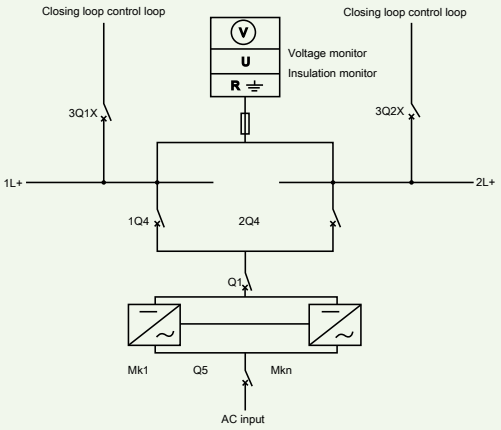
GPS2-32 DC power supply diagram



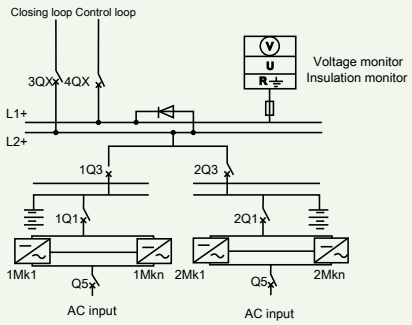
GPS2-33 DC power supply system diagram



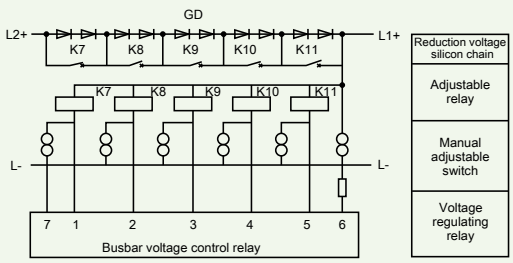
GPS2-41 DC power supply system diagram



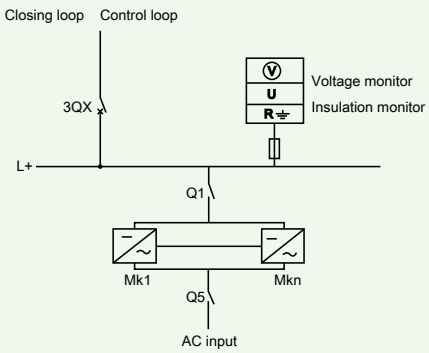
GPS2-30 DC power supply system diagram



GPS2-43 DC power supply diagram



Reduce voltage device working diagram



GPS2-31 DC power supply system diagram

8. GPM5 Low Voltage AC Distribution Control Box

a.Summary

GPM5 model AC low voltage distribution control box applies to power plant, substation industrial enterprise, as motive force in AC 50/60Hz, rated working voltage 380/ 415V, rated current 3150A and below distribution system. For transferring power energy, distributing and controlling of lightning and distribution. High breaking capacity, rated short time current will reach 50kA. Flexible circuit scheme, convenient combination, novel structure.
This product conforms to IEC60439 LV Switchgear and Controlgear, GB7251 LV Switchgear and Controlgear etc.

b. Model

GP M 5 □ / □ □

- Auxiliary circuit scheme code
- Main circuit scheme code
- Design serial No.
  - 1-Breaking capacity 15kA
  - 2-Breaking capacity 30kA
  - 3-Breaking capacity 50kA
- Fixed installation and fixed wiring for components
- AC LV distribution panel
- Company feature code

c. Ambient condition

1. Ambient temperature: -25℃ ~+45℃ , daily average temperature ≤+35℃ ;
2. Altitude: ≤2000m, indoor type;
3. Ambient relative humidity at highest temperature +45℃ not exceed 50%;
4. Allowed max relative humidity at low temperature, example for +20 is 90%, it will occur moderate moist due to temperature change;
5. Vertical installation, gradient: 5%;
6. Occasions without flammable and explosive matter, without corrosive chemical and frequent severe vibration.

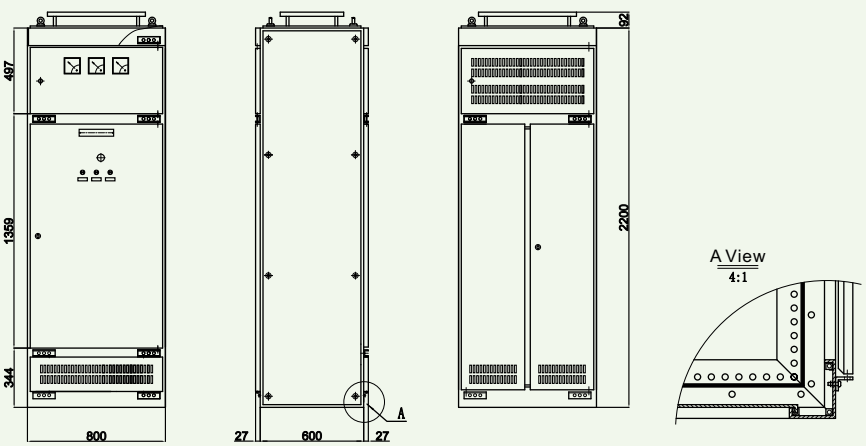
d. Products feature

1. GPM5 AC LV distribution panel adopts commonly type, the frame are welded or assembled by 8MF cold bend steel, the components and special fitting of frame are supplied by our company. To keep perfect precision and quality.
2. Commonly panel components are designed reference to module principle, 20 modular, high commonly fact or, shorten production cycle and improve production efficiency.
3. We have taken account of heat radiation during operating when got ready to design. There are many heat radiation slotted eye from top to bottom on the body. Heat quantity will displace to direction of upper slotted eye, then the cold wind will be compensated from bottom slotted eye, when the components is heating and increase heat quantity, then form to a natural air channel.
4. GPM5 panel adopts modern industrial style design, adopts golden section method to design panel outline and section dimension of every parts.
5. The panel door are connected by transfer axle type moving link chain and frame, convenient to install and disassemble.
6. There is a rubber plastic bar in the place of edge and a compress travel between door and frame in closing.
7. Panel finishing coat of instrument door chooses multi strand soft copper line to connect with frame.
8. The installation components and frame are connected by knurled washer to complete earthing protection system.
9. Finishing coat color RAL7035 or as requirement.
10. Protection degree is IP 30, or IP 20 to IP 40 as requirement.

e. Outline and dimension

Note: Suitable for ABB/Siemens/ Schneider etc. all brands of circuit breakers.

W (mm)	D (mm)	H (mm)
600	600/800/1000	2200
800	600/800/1000	2200
1000	600/800/1000	2200



Front view Side view Rear view

9. GPM6 Low Voltage Power Panel

a. Summary

GPM6 LV closed type power panel can be used in AC 500V or lower system of 3-phase 3-wire, 3-phase 4-wire, 3-phase 5-wire for electricity-generating and mine enterprises, also for the purpose of power, lighting, distribution. GPM6 type low voltage power panel has flexible distribution scheme, convenient combination, good practical performance, new structure and etc.

b. Model

GP M 6
- 6 — Closed type
- M — Power panel
- GP — Company feature code

c. Structure feature

1. Main electrical performance shall completely comply with regulations of IEC60439-1:1992,GB7251.1-1997.
2. The auxiliary circuit has functions of local/remote, remote, automatic control and in- site/remote, remote control switch. The contactor can adopt DC protection.
3. Receiving main switch has optional protection of instant trip and pyromagnetic trip. Can cancel instant protection for matching next class main-switch, avoid skip-class tripping, and has functions of motor/manual operation and automatic switch.
4. Main switch of feeding circuit has protection of instant trip and pyromagnetic trip. Can add fault protection if customer required.
5. The motor control circuit has protection of short-circuit instant, overload, undervoltage release and phase-break.
6. Ammeter and voltage meter for incoming circuit.

d. Ambient condition

1. Altitude: ≤2000m;
2. The indoor environment shall be non-ash, non-corrosion gas, and rainwater-proof;
3. Ambient temperature: -25℃ ~+45℃ , the measured average temperature in 24 hours: ≤35℃ ; the temperature under storage and transportation condition: -25℃ ~+55℃ , the temperature in short time ≤70℃ ;
4. Relative humidity under the highest temperature of 45℃ : ≤50%;
5. No vibration and the oblique mounting angle: ≤5℃ .

e. Structure feature

1. GPM6 type low-voltage close type power cabinet, to be assemblied with C type or 8MF type material. The frame and special parts will be supplied by our company in order to guarantee the accuracy and quliaty of cabinet. Other cabinet parts is designed according to scale principle with high generalized coefficient, and can fulfill production in advance.
2. Use removable height to connect cabinet door and frame, convenient installation and unloading.
3. The earthing of instrument door for electrical components installation adopts soft multi-copper wire to connect frame. The installation parts in cabinet connect the knurled washer, the complete cabinet comprises the integrated earthing protection system.

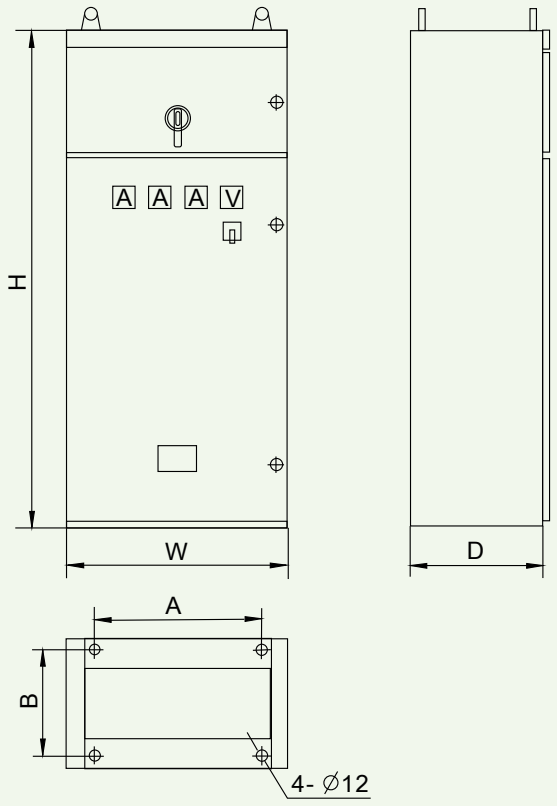
f. Technical specification

No.	Item	Unit	Data
1	Main circuit rated voltage	V	AC: 400, 660
2	Auxiliary circuit rated voltage	V	AC: 220, 380
3	Rated frequency	Hz	50/60
4	Rated insulation voltage	V	660, 1000
5	Rated current	A	≤1250

g. Outline and installation dimension

Height	Width	Depth	B × A Installation size(C type material)
1600	600	400	300 × 500
1600	600	600	500 × 500
1600	600	400	300 × 500
1800	600	600	500 × 500
1800	800	400	300 × 700
1800	800	600	500 × 700
2000	800	400	300 × 700
2000	800	600	500 × 700

Note: 1. The dimension of cabinet can be according to the diagram from customer.
2. The dimension showed in the diagram do not include the door and right-left board.



GPM6 Power panel outline mounting dimension

Note: Suitable for ABB/Siemens/Schneider etc. all brands of circuit breakers.

10. GPU3-1600 Universal Air Circuit Breaker

a. Summary

GPU3 Series smart universal air circuit breaker is designed developed products by us, rated voltage of AC 50/60Hz, 480V(690V), rated current 200A~4000A, mainly use for the distribution of power and protection circuits for power distribution network, prevent the power supply and electrical equipment damage from fault of excessive overload, short-circuit, earth fault, etc.. It has high precision selective protection and improve the reliability of power supply. Breaker also has isolation function, it conform to the standard of GB 14048.2, IEC 60947-2

Features

1. Compact structure
2. No flashover distance High safety
3. High capacity of On-Off
4. Smart type over-current trip protection, with communication interface, Can be controlled by computer cluster, realized remote functions.
5. Display function of ammeter, voltmeter
6. Up and down incoming will not affect product performance

b. Model

GPU3	Universal air circuit breaker
1600	Shield frame current
4	3 3-phase not mark 4 4-Phase
3M type smart controller	Smart controller 2M type: Digital tube display, button adjusting, 3 section with earthing fault protection function 3M type: LCD display, button adjusting, 3 section with earthing fault protection function 3H type: LCD display, button adjusting and for communicate, 3 section with earthing fault protection function.
Mounting way	Draw-out type Fixed type
Connect way	Horizontal wiring vertical wiring Plate-rear front wiring
Accessories selection	Under-voltage tripper Mechanical interlock: 2 set or 3 sets breaker in vertical lever interlocked 2 sets breaker horizontal or vertical interlocked by steel cable "Open" lock position (key lock) Draw-out 3 position switch External connecting N phase transformer
In=630	Rated current(A)

Note: 1. Smart controller is M type; Auxiliary switch: 4 groups' contacts, Connection way is in horizontal.
2. Smart controller, shunt release device, close electromagnetic, motor drive mechanism and under-voltage tripper shall be specified the voltage value when ordering.

c. Technical selection table

Type	Rated working voltage Ue(V)	Rated insulating voltage Ui(V)	Rated impulse withstand voltage Uimp (V)	Shield frame current Inm (A)	Rated current Inm (A)	Phase number
GPU3-1600	AC400 AC690	AC690, 1000V	12000	1600	200, 400, 630, 800, 1000, 1250, 1600	3, 4

Short-circuit breaking capacity				Rated short-time withstand current Icw (kA)/1s		Operation performance	
Rated max short-circuit breaking capacity Icu (kA)		Rated running short-circuit breaking capacity Ics (kA)		400V	690V	Mechanical life (times)	Electric life (times)
400V	690V	400V	690V				
60	25	50	25	42	25	10000	6000

11. GPU1-1250 Universal Circuit Breaker

a. Summary

GPU1 Series smart universal air circuit breaker is designed developed products by us, rated voltage of AC 50/60Hz, 480V(690V), rated current 630A~6300A, mainly use for the distribution of power and protection circuits for power distribution network, prevent the power supply and electrical equipment damage from fault of excessive overload, short-circuit, earth fault, etc.. It has high precision selective protection and improve the reliability of power supply. Breaker also has isolation function, it Conform to the standard of GB 14048.2, IEC 60947-2

Features

1. Compact structure
2. No flashover distance High safety
3. High capacity of On-Off
4. Smart type over-current trip protection, with communication interface, Can be controlled by computer cluster, realized remote functions.
5. Display function of ammeter, voltmeter
6. Up and down incoming will not affect product performance

b. Model

GPU1	Universal air circuit breaker
1250	Shield frame current
4	3 3-phase not mark 4 4-Phase
M type smart controller	Smart controller M type: Digital tube display, button adjusting, 3 section with earthing fault protection function
Mounting way	Draw-out type Fixed type
Connect way	Horizontal wiring Plate-rear front wiring
Accessories selection	Under-voltage tripper Mechanical interlock: 2 sets breaker in horizontal or vertical interlocked by steel cable “Open” lock position (key lock) External connecting N phase transformer Draw-out type circuit breaker partition between phases.
In=630	Rated current(A)

Note: 1. Smart controller is M type; Auxiliary switch: 4 groups’ contacts, Connection way is in horizontal.
2. Smart controller, shunt release device, close electromagnetic, motor drive mechanism and under-voltage tripper shall be specified the voltage value when ordering.

c. Technical selection table

Type	Rated working voltage Ue(V)	Rated insulating voltage Ui(V)	Rated impulse withstand voltage Uimp (V)	Shield frame current Inm (A)	Rated current Inm (A)	Phase number
GPU1-1250	AC400 AC690	AC690, AC1000	12000	1250	200, 400,630, 800,1000, 1250	3, 4
GPU1-2000				2000	630, 800, 1000, 1250, 1600, 2000	
GPU1-3200				3200	2000, 2500, 3600, 4000	
GPU1-6300				6300	4000, 5000, 6300	

Short-circuit breaking capacity				Rated short-time withstand current Icw (kA)/1s		Operation performance	
Rated max short-circuit breaking capacity Icu (kA)		Rated running short-circuit breaking capacity Ics (kA)				Mechanical life (times)	Electric life (times)
400V	690V	400V	690V	400V	690V		
50		42		42		15000	6000
80	50	50	40	50	40	15000	10000
100	65	80	50	80	50	12000	8000(5000)
120	75	100	65	100	65	3000	1000

12. GPU2 Series Universal Circuit Breaker

a. Summary

GPU2 Series smart universal air circuit breaker is designed developed products by us, rated voltage of AC 50/60Hz, 480V(690V), rated current 200A~2000A, mainly use for the distribution of power and protection circuits for power distribution network, prevent the power supply and electrical equipment damage from fault of excessive overload, short-circuit, earth fault, etc.. It has high precision selective protection and improve the reliability of power supply. Breaker also has isolation function, it Conform to the standard of GB 14048.2, IEC 60947-2

Features

1. Compact structure
2. No flashover distance High safety
3. High capacity of On-Off
4. Smart type over-current trip protection, with communication interface, Can be controlled by computer cluster, realized remote functions.
5. Display function of ammeter, voltmeter
6. Up and down incoming will not affect product performance

b. Model

GPU2	Universal air circuit breaker
1250	Shield frame current
4	3 3-phase not mark 4 4-Phase
M type smart controller	Smart controller: M type: Digital tube display, button adjusting, 3 section with earthing fault protection function;
Mounting way	Draw-out type Fixed type
Connect way	Horizontal wiring
Accessories selection	Low-voltage trip Mechanical interlock: 2 set breaker vertical steel cable interlock "Open" lock position (key lock) (GPU2-630 w/o this) External connecting N phase transformer Partition between phases
In=630	Rated current(A)

Note: 1. Smart controller is M type; Auxiliary switch 4NO, 4NC contacts (GPU2-630 is 3NO, 3NC), connect way is in horizontal.
2. Smart controller, shunt release device, close electromagnetic, motor drive mechanism and under-voltage tripper shall be specified the voltage value when ordering.

c. Technical selection table

Type	Rated working voltage Ue(V)	Rated insulating voltage Ui(V)	Rated impulse withstand voltage Uimp (V)	Shield frame current Inm (A)	Rated current Inm (A)	Phase number
GPU2-1250	AC400, 690V	AC690, 1000V	12000	1250	200, 400, 630, 800 ,1000, 1250	3, 4
GPU2-2000				2000	1000, 1250, 1600, 2000	3, 4
GPU2-630				630	200, 315, 400, 630	3, 4

Short-circuit breaking capacity		Rated running short-circuit breaking capacity Ics (kA) /1s	Operation performance	
Short-circuit breaking capacity	Rated running short-circuit breaking capacity Ics (kA)		Mechanical life (times)	Electric life (times)
65	50	50	7000	3000
65	50	50	5500	2500
50	50	42	7500	3500

13. GPM11 Molded Case Circuit Breaker
GPM11Z Smart Molded Case Circuit Breaker

a. Summary of GPM11

GPM11 series molded case circuit breaker is suitable for AC 50/ 60Hz rated working voltage 400V, rated current up to 800A of power distribution network for the distribution of power and protection circuits, power supply and electrical equipment against overload, under-voltage and short circuit hazards, it improves the reliability of power supply under normal use conditions which are not frequent start as infrequent line conversion and motor. And with isolation function as well. It meet with standard of GB/T 14048.2 and IEC 60947-2.

b. Summary of GPM11Z

GPM11Z series smart molded case circuit breaker is new designed circuit breaker, which applied the advanced CAD/CAM/CAE technology for design and manufacturing. It is suitable for AC 50/ 60Hz rated working voltage 630V, rated current up to 630A of power distribution network for the distribution of power and protection circuits, power supply and electrical equipment against overload, under-voltage and short circuit hazards, it improves the reliability of power supply under normal use conditions which are not frequent start as infrequent line conversion and motor. And with isolation function as well. It meet with standard of GB/T 14048.2 and IEC 60947-2.

c. Model

GPM11 GPM11Z	Molded Case Circuit Breaker Smart Molded Case Circuit Breaker
100	Shield frame current
H	Short-circuit breaking capacity: N: Normal type S: Standard type H: High-breaking type
P	Operating way: Motorized operation: P Rotate handle operate: Z Direct operation (no code)
2	Protection feature Selection: distribution protection: no code Motor protection: 2
4	Phase number 2 : two phases 3 : three phases 4 : four phases
208	Trip way and internal accessories code
In=100	Rated current(A)
B	4 Phase breaker N phase have 4 different types marked as A, B, C, D A: N phase will not install current tripper, and N connected always, not operated with other 3 phases. B: N phase not install current tripper, and N phase not operated with other 3 phases. C: N phase installed current tripper, and N phase operated with other 3 phases. D: N phase installed current tripper, and N phase connected always, Not operated with other 3 phases.
Q	Wiring way: Front of plate wiring: Q Rear of plate wiring: H Plug-in type wiring: R

Note: 1. Wiring method: rear of plate wiring (400, 630's 4P without it); plug-in type wiring (4P without it)
2. Internal accessories are installed in the left side of the breaker.

d. Technical selection table for GPM11Z MCCB

Type	Rated working voltage Ue(V)	Rated insulating voltage Ui(V)	Rated impulse withstand voltage Uimp (V)	Shield frame current Inm (A)	Rated current Inm (A)	Phase number	Short-circuit breaking capacity		Rated short- time withstand current Icw (kA) 1s	Operation performance	
							Rated max short-circuit breaking capacity Icu (kA)	Rated running short-circuit breaking capacity Ics (kA)		Mechanical life (times)	Electrical Life (times)
GPM11Z-100	AC400	AC690	AC8000	100	32, 100	3,4	65	50	1	20000	8000
GPM11Z-225				225	225		65	50	2.5	20000	8000
GPM11Z-400				400	400		65	50	5	15000	7000
GPM11Z-630				630	630		65	50	8	10000	7000

e. Technical selection table for GPM11 MCCB

Type	Rated working voltage Ue	Rated insulating voltage Ui	Rated impulse withstand voltage Uimp	Frame class rated current Inm A	Rated current In (A)	Phase number	Rated max short-circuit breaking capacity code	Rated max short -circuit breaking capacity	Rated running short-circuit breaking capacity Ics (kA)	Trip device type	Operation performance (times)	
											Live	No-Live
GPM11- 63	400, 690	800, 1000	8	63	10, 16, 20, 25, 32, 40, 50, 63	3	N	10	5	Heat electromagnetic	3000	7000
						3,4	S	25	18	Heat electromagnetic		
						3,4	H	50	35	Heat electromagnetic		
GPM11-100				100	16, 20, 25, 32, 40, 50, 63, 80, 100	3	N	35	25	Heat electromagnetic	3000	7000
						3,4	S	50	35	Heat electromagnetic		
						3,4	H	65	50	Heat electromagnetic		
GPM11-160				160	100, 125, 140, 160	3	N	35	25	Heat electromagnetic	1500	6500
						3,4	S	50	35	Heat electromagnetic		
						3,4	H	65	50	Heat electromagnetic		
GPM11- 225				225	100, 125, 140, 160, 180, 200, 225	3	N	35	25	Heat electromagnetic	1500	6500
						3,4	S	50	35	Heat electromagnetic		
						3,4	H	65	50	Heat electromagnetic		
GPM11- 250				250	100, 125, 140, 160, 180, 200, 225, 250	3	N	35	25	Heat electromagnetic	1500	6500
						3,4	S	50	35	Heat electromagnetic		
						3,4	H	65	50	Heat electromagnetic		
GPM11- 400				400	225, 250, 315, 350, 400	3	N	35	25	Heat electromagnetic	1000	4000
						3,4	S	50	35	Heat electromagnetic		
						3,4	H	65	50	Heat electromagnetic		
GPM11- 630				630	400, 500, 630, 630, 700, 800	3	N	35	25	Heat electromagnetic	1000	4000
						3,4	S	50	35	Heat electromagnetic		
						3,4	H	65	50	Heat electromagnetic		
GPM11- 800				800	630, 700, 800	3,4	S	50	35	Heat electromagnetic	1000	4000
						3,4	H	65	50	Heat electromagnetic		

14. GPM11L Series Residual Current Circuit Breaker

a. Summary

GPM11L series residual current operated circuit breaker is suitable for AC 50/ 60Hz rated working voltage400V, rated current up to 630A of power distribution network for the distribution of power and protection circuits, power supply and electrical equipment against overload, under-voltage and short circuit hazards, it improves the reliability of power supply under normal use conditions which are not frequent start as infrequent line conversion and motor. And with isolation function as well. The main technical data: rated insulating voltage Ui: AC 690V, rated working voltage: Ue: AC 400V, shield frame rated current: 100A, 225A, 400A, 630A, Rated current: 16~630A.
It meet with standard of GB/T 14048.2 and IEC 60947-2.

b. Model

GPM11L	Residual current operated circuit breaker
100	Shield frame current
H	Short-circuit breaking capacity: S: standard type H: High-breaking type (400, 630)
P	Operating way: Motorized operation: P Rotate handle operate: Z Direct operation (no code)
3P+N	3P+N (3 Phases 4 lines); N phase always connected, do not operated with other 3 phases, w/o over-current tripper 4P (4-phase): N phase always connected and be operated together, no over-current tripper
208	Trip way and internal accessories code:
In=100	Rated current(A)

c. Technical selection table

Type	Rated working voltage Ue (V)	Rated insulating voltage Ui (V)	Rated impulse withstand voltage Uimp (V)	Shield frame current Inm (A)	Rated current In (A)	Phase number	Rated max short -circuit breaking capacity code
GPM11L- 100	AC400 AC690	690 V 1000 V	8000 V	100	16,20,25,32,40, 50,63,80,100	3P+N 4P	S
GPM11L- 225				225	100,125,140, 160,180,200,225	3P+N 4P	S
GPM11L- 400				400	225,250,315, 350,400	3P+N 4P	S H
GPM11L- 630				630	400,500,630	3P+N 4P	S H

Rated max/ rated running Icu/ Ics (kA)	Short-circuit residual operating current I △ n (mA)		Rated residual no- acting current I △ n (mA)	Rated residual short-circuit connecting capacity I △ n (mA)	Trip device type	Operation performance	
	No delay type	Delay type				Mechanical life (times)	Electrical Life (times)
50/35	(Adjustable) 50/100 200/300	(Adjustable) 50/100 200/300	1/2I △ n	1/4Icn	Thermo-magnetic-type	8500	1500
50/35	(Adjustable) 50/100 200/300	(Adjustable) 50/100 200/300			Thermo-magnetic-type	7000	1000
50/35 65/50	(Adjustable) 100/200 300/500	(Adjustable) 100/200 300/500			Thermo-magnetic-type	4000	1000
50/35 65/50	(Adjustable) 100/200 300/500	(Adjustable) 100/200 300/500			Thermo-magnetic-type	2500	500

15. GPQ3 Series Dual Power Switch / GPQ5 Automatic Dual Power Switch

a. Summary

GPQ3 type dual power supply transfer switch (Class CB) is set the switches and control logic integrated without additional controller, achieve integration of automatic electromechanical switch, voltage detection, frequency detection, communication interface, electrical, mechanical interlocking functions, automatic, electric remote emergency manual control. It is suit for 50/60Hz, with rated working current from 16A to 630A, rated insulating voltage AC 690V. Rated impulse withstand voltage 8kV, rated working voltage 400V. It applies the standard IEC 60947-6.

b. Model

GPQ3 GPQ5	Dual power supply transfer switch Automatic dual power supply transfer switch
Z	Control function code: Z: Grid-Grid ZF: Grid-Generate
100	Shield frame current
S	Breaking grade: S: standard type H: high breaking type
3P	Phase and N-phase structure 3 phase: 3P 4 phase: 4A, 4B, 4C, 4D
100	Rated current Main specification and execute
Y	Transfer switch type Y: Integrated type Split-type no code

Note: The N phase of 4P circuit breaker has 4 structures:
4A: N phase do not install current tripper and N phase always connected;
4B: N phase do not install current tripper and N phase operated together with other 3 phases;
4C: N phase installed over-current tripper and N phase operated together with other 3 phases;
4D: N phase installed over-current tripper and N phase always connected.
Integrated control unit installed on the switch body; split type means the control unit through a 2m length connecting cable to connect the switch body, the control unit can installed on the cabinet door or surface panel.

c. Main performance and control functions

Controller function	Grid-Grid	Grid– Generate
Main performance	Measuring phase voltage of the common and spare supply, if over the setting value, then transfer or lighting and sound warning	Measuring the voltage for each phase of supply, if find over the setting range of the setting time, it will commended to start generator, when the supply back to normal will transfer back.
4 position working state	A. "Automatic" operation, B. Forced on "common supply"; C. forced on "spare supply" (or generator supply), D. "Stop" state.	
Controller state indicate	Close, Open, Fault trip, Warning	
Voltage protection range	Low-voltage protection (150V~200V; user can adjust, step in 1V; over-voltage (230, 280V, user can adjust, step in 1V	
Control function	Common, spare (generator) automatic switch and recover; Common, spare (generator) automatic switch without automatic recover.	
Control performance	Open delay time t1(0-60s, user can adjust), close delay t2 (0~60 s, user can adjust)	Open delay t1(0-60s, user can adjust); close delay t2 (0~60s, user can adjust); generator start delay t3 (0-30s, user can adjust); generator close delay t4 (0-300s, user can adjust)

d. Main specification and selected circuit breaker

Type	Frame current	Executed circuit breaker	Phase of circuit breaker	Rated current (A)	Rated working voltage	Rated insulating voltage
GPQ3Z(ZF)-63	63	GPM3-63	3 P (S, H), 4P (H)	16, 20, 25, 32, 40, 50, 63	AC 400V AC 690V	AC 690V AC 1000V
GPQ3(ZF)-100	100	GPM3-100	3P (S,H), 4P (H)	16,20,25,32,40,50,63,80,100		
GPQ3Z(ZF)-255	225	GPM3-225	3P(S, H), 4P (H)	100,125,140,160,180,200,225		
GPQ3Z(ZF)-400	400	GPM3-400	3P(S, H), 4P (H)	225,250,315,350,400		
GPQ3Z(ZF)-630	630	GPM3-630	3P(S, H), 4P (H)	400,500,630,		
GPQ3Z(ZF)-800	800	GPM3-800	3P(S, H)	630,700,800		

16. GPB6 Series Miniature Circuit Breaker

a. Summary

GPB6 series mini circuit breaker (MCB) has type test certificated, breaking capacity is 6KA. It has the following features:
1. Applied to protect the overload and short circuit in the lighting and motor power distribution systems with rated frequency of AC 50Hz or 60Hz, single-pole voltage of 240V, and max. Rated current to 63A;
2. Under normal condition, it may also be applied as the unfrequented make-break electric device and lighting circuit;
3. Beautiful appearance, light in weight, excellent and reliable function;
4. High breaking capacity and trips rapidly;
5. The case body and the parts adopt the high fire-resistant and impact plastic that can use long life;
6. Pole number is from 1 pole to 4 poles;
7. In accordance with the standards of IEC60898, IEC61009-1 and GB16917.1.

b. Model

GPB(H)	B: MCB H: Miniature isolating switch
6	Design code
L	MCB with residual protection code
63	Frame class Rated current
C	MCB's instant tripper model
63	Rated current
4	Phase number

c. Technical selection table

Image						
Type	GPB60-32N	GPB60-63	GPB60-100	GPB60L-32N	GPB60L-63	GPH60-100
Standard	GB10963.1	GB10963.1	GB14048.2	GB16917.1	GB16917.1	GB14048.3
Frame class rated current Inm (A)	32	63	100	32	63	100
Phase number	1P+N	1,2,3,4	1,2,3,4	1P+N	1P+N, 2,3,3P+N, 4	1,2,3,4
Rated working voltage Ue (V)	230	230/400	230/400	230	230/400	230/400
Rated insulating voltage Ui (V)	230	400	400	230	400	400
Rated impulse withstand voltage imp (kV)	4	4	6	4	4	6
Instant trip current model	C(5-10)In	C(5-10)In; D(10-20)In	(10 ± 20%)In	C(5-10)In	C(5-10)In; D(10-20)In	——
Rated working current In (A)	6,10,16,20,25,32	6,10,16,20,25,32,40,50,63	63,80,100,	6,10,16,20,25,32	6,10,16,20,25,32,40,50	32,40,50,63,80,100
Running short-circuit capacity Ics (kA)	4.5	6-32 (A) is 6; 40-63(A) is 4	10	4.5	6-32 (A) is 6; 40-63(A) is 4	——
Rated short-circuit capacity Icn (kA)	4.5	6-32 (A) is 6; 40-63(A) is 4	10	4.5	6-32 (A) is 6; 40-63(A) is 4	——
Rated residual operation current I △ n (mA)	——	——-	——	30	30	——
Mechanical and electric life (times)	10000	10000	10000	10000	10000	10000

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