

## GCK, GCL

### Low-voltage drawer switchgear

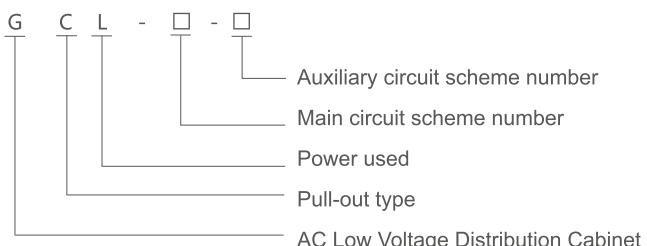
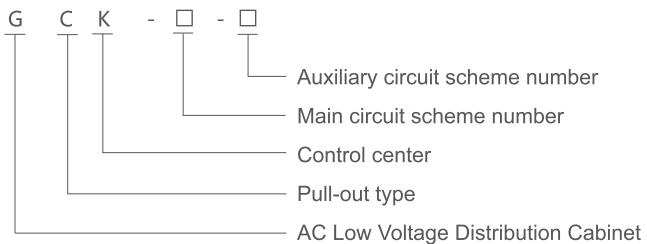


#### Description

GCK and GCL series low-voltage drawer type switchgear are designed by our company according to the needs of the vast number of users. They have the characteristics of advanced structure, beautiful appearance, high electrical performance, high protection grade, safety and reliability, and convenient maintenance. They are ideal distribution devices for low-voltage power supply systems in industries such as metallurgy, petroleum, chemical industry, electric power, machinery, and textiles.

It is listed as a recommended product for the transformation of the two grids and the ninth batch of energy-saving products by the state.

#### Model No. and its implication



#### Main technical parameter

- Rated insulation voltage: 660V
- Rated working voltage: 380V 660V
- Rated voltage of auxiliary circuit: AC220v, 380v, DC110v, 220v
- Using frequency: 50 ~ (60) Hz
- Rated current: horizontal bus ≤ 3150A, vertical bus 630A, 800A
- Rated short-term withstand current: 105kA/1S, neutral bus 30kA/1S

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- Rated peak current: 105kA/0.1 S, 50kA/0.1 S
- Functional unit (drawer) breaking capacity: 50kA (effective value)
- Case protection grade: IP30, IP40
- Bus setting: three-phase four-wire system, three-phase five-wire system
- Meet the standards:  
IEC-439 BS5486 VDE0660, GB7251, NEMAIC2-322, JJB/T9661
- Operation mode: in-site, remote, automatic

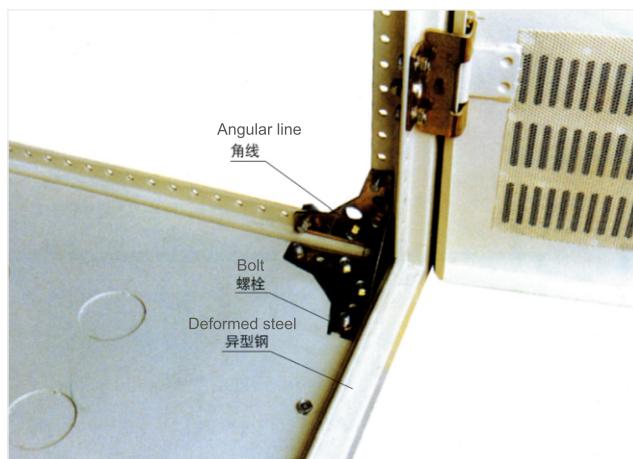
#### Structure characteristics

The basic cabinets of GCK and GCL are the combined assembly structure, all the structural parts of the cabinets are galvanized, sprayed and fastened with screws to form the basic cabinets. Doors, baffles, partitions, drawers, mounting brackets, busbar and electrical components are added as needed to assemble a complete control center cabinet. The structure of this cabinet has the following characteristics:

##### 1. Cabinet frame

The cabinet frame adopts special-material steel, uses corner plate positioning, and bolts connection without welding structure.

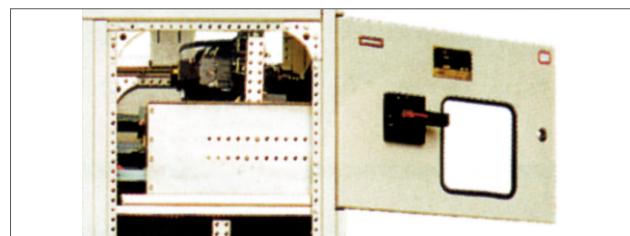
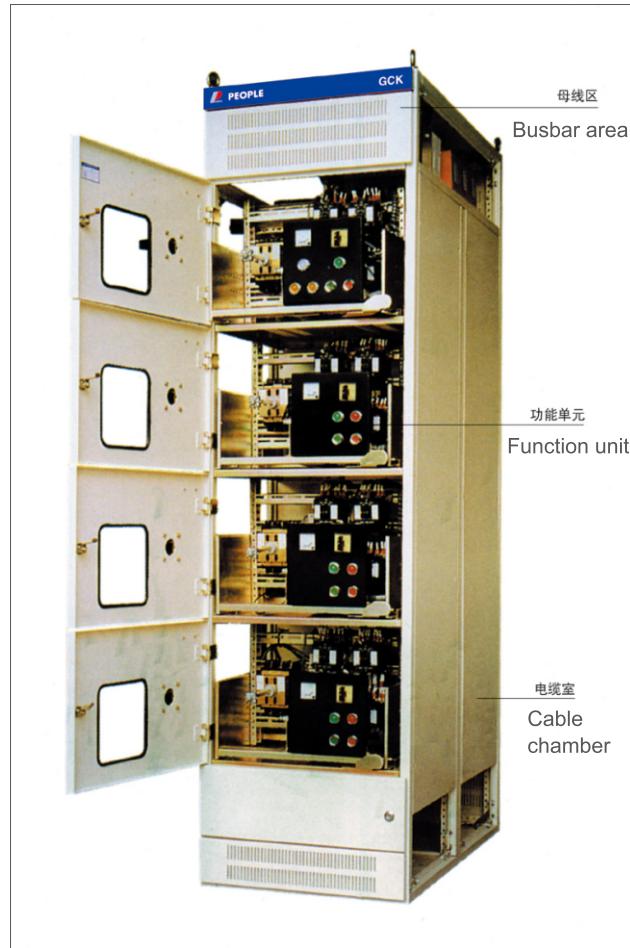
- a. Forming size of the spare parts, opening size and equipment interval uses modular. (Modulus E = 20mm, the same below).
- b. The internal structural parts are galvanized.
- c. The exterior is phosphate: then sprayed with electrostatic epoxy powder.
- d. The cabinets are divided into three separate sections: bus room, functional unit and cable room, which can prevent accident from spreading and convenient for the maintenance with live.



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#### 2. Functional unit (drawer part)

a. Functional units: Feed units, motor units, public power supply units.

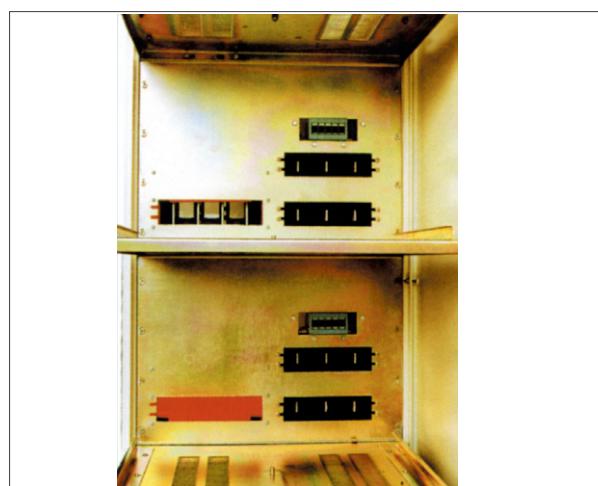


b. The height modulus of the drawer layer is 200mm, and it is divided into six size series:-unit, 1 unit, 1-unit, 2 unit, 2-unit, and 3 unit. The rated current of the unit circuit is 630A and below.

c. Each MCC cabinet can be equipped with a maximum of 9 pcs of -unit drawers or 18 pcs of -unit drawers.

d. The door panel of the compartment is mechanically interlocked with the drawer by the operating mechanism of the main switch. When the main switch is in the closing position, the door panel cannot be opened.

e. The operating mechanism of the main switch can be locked in the closing or opening position with a pick lock, which can safely carry out maintenance of electrical equipment.



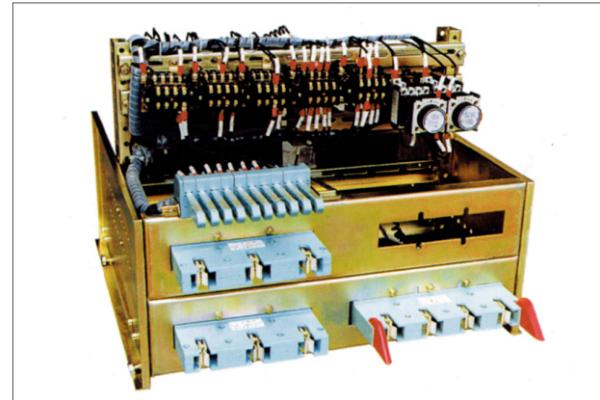
f. The functional unit compartments are separated by metal partitions.

g. The valve in the compartment opens and closes automatically with the push and pull of the draw, so that it cannot touch the vertical bus bar in the compartment.

# SWITCHGEAR

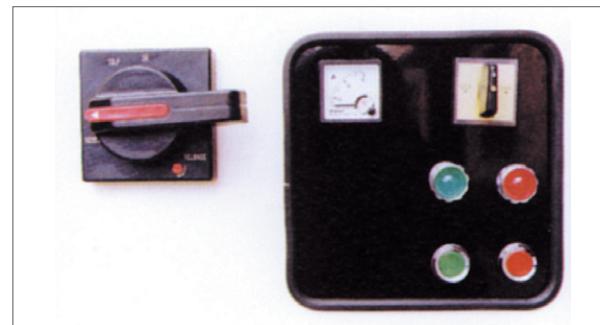
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h. The back of the function unit is provided with an inlet and outlet plug of the main circuit, a secondary plug of the auxiliary circuit and a grounding plug.

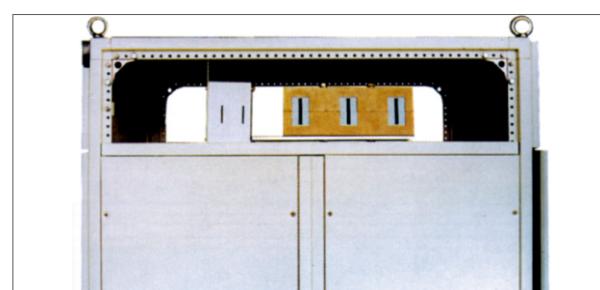
I. The grounding plug ensures the continuity of the protection circuit when the drawer is separated from the test connection position



3. Busbar system

A. RGCK and RGCL bus systems adopt three-phase four-wire system and three-phase five-wire system. Horizontal bus wires are installed on the top of the cabinet, and N and PE wires can be installed on the top of the cabinet or on the bottom of the cabinet.

b. The three-phase horizontal bus bar adopts copper bus bar, which has high mechanical strength and good heat dissipation.



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C. The vertical bus is sealed with carbonate engineering plastic shell.

