GCK Low Voltage Withdrawable Switchgear

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 660V, Max. working current 3150A 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.

Ambient condition

1. Ambient temperature: -5°C~+40°C;
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.

Model

GCK panel is combination structure with bolt. The complete panel is composed of door, terminal board, baffle plate, supporting frame and drawer, busbar, etc.

Basic frame adopts FA 28 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 divides into 1/2 unit, 200mm, 300mm, 400mm, 500mm and 600mm series. The loop current decide the drawer height, virtual installation height is 1800mm.

GCK panel withdrawable function unit adopts special push (pull) mechanism, light structure, perfect interchange. It indicates of working position, test position and isolating position mechanical locking condition. Install additional padlock for operating handle.

The frame and inner metal components are galvanization to assure reliable earthing.

Outline dimension

<table>
<thead>
<tr>
<th>Main circuit rated voltage (V)</th>
<th>AC 380/400, (600)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary circuit rated voltage (V)</td>
<td>AC 220, 380(400)</td>
</tr>
<tr>
<td>DC 110, 220</td>
<td></td>
</tr>
<tr>
<td>Rated frequency (Hz)</td>
<td>50(60)</td>
</tr>
<tr>
<td>Rated insulation voltage (V)</td>
<td>660(1000)</td>
</tr>
<tr>
<td>Rated current (A)</td>
<td>Horizontal busbar ≤4000</td>
</tr>
<tr>
<td>Vertical busbar (mm)</td>
<td>1000</td>
</tr>
<tr>
<td>Busbar rated short time withstand current (kA/1s)</td>
<td>50, 80</td>
</tr>
<tr>
<td>Busbar rated peak withstand current (kA/0.1s)</td>
<td>105, 176</td>
</tr>
<tr>
<td>P.F. test voltage (V/min)</td>
<td>2500</td>
</tr>
<tr>
<td>Busbar</td>
<td>Three phase four wire A.B.C.PEN</td>
</tr>
<tr>
<td>Three phase five wire</td>
<td>A.B.C.PEN</td>
</tr>
<tr>
<td>Protection degree</td>
<td>IP40</td>
</tr>
</tbody>
</table>

GCK panel is combination structure with bolt. The complete panel is composed of door, terminal board, baffle plate, supporting frame and drawer, busbar, etc.

Basic frame adopts FA 28 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 divides into 1/2 unit, 200mm, 300mm, 400mm, 500mm and 600mm series. The loop current decide the drawer height, virtual installation height is 1800mm.

GCK panel withdrawable function unit adopts special push (pull) mechanism, light structure, perfect interchange. It indicates of working position, test position and isolating position mechanical locking condition. Install additional padlock for operating handle.

The frame and inner metal components are galvanization to assure reliable earthing.
GGD Low Voltage Switchgear

**Summary**

GGD model AC LV Withdrawable 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 lighting 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.

**Ambient condition**

1. Ambient temperature: -5°C~+40°C, daily average temperature < +35°C;
2. Altitude: ≤2000m, indoor type;
3. Ambient relative humidity at highest temperature +40°C not exceed 50%;
4. Allowed max relative humidity at low temperature, example for +20°C 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.

**Model**

- **Auxiliary circuit scheme code**
- **Main circuit scheme code**
- **Design**
  - 1-Breaking capacity 15kA
  - 2-Breaking capacity 30kA
  - 3-Breaking capacity 50kA
- **Electric power panel**
  - Fixed installation and fixed wiring for components
  - AC LV distribution panel

**Product feature**

1. GGD AC LV distribution panel adopts commonly type, the frame are welded or assembled by IMF 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 factor, 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. GGD 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. The body finishing coat is choice polyester orange type bake lacquer, also can choose spouting moulding technology, strong adhesive force.
10. The body protection degree is IP 30, allowed scope is from IP 20 to IP 40 according to ambient condition.