Read the operation instruction carefully before installation

Disconnect Switch
Operation Instruction

It is recommended to send
instructions to end users!
No.ZXGL3DCN25091801

Content

1. Scope Of Application

The GL3D series DC disconnectors are suitable for power systems with a rated voltage of DC1000V/DC1500V or below and a rated operating current of 630A or below. The product can be used for infrequent switching on and off, functioning to isolate and interrupt circuits to facilitate equipment maintenance or overhaul.It is widely applied in various industries such as construction, electric power,and metallurgy.

2. Operating Environment

- Operating Altitude: Altitude of 5,000 meters or below.
- Operating Temperature: Ambient air temperature ranges from-40℃ to +85℃. Derating is required when the temperature is higher than +70℃.
- Storage Temperature:Ranges from -40℃ to +85℃.
- Relative Humidity:The relative humidity of the atmosphere shall not exceed 50% when the ambientair temperature is +40℃;higher relative humidity is allowed at lower temperatures.For example,the relative humidity can reach 90% when the ambient air temperature is 20℃.Users shall take special measures against occasional condensation caused by temperature changes.
- Environmental Medium:It shall be used in an environment without explosive hazards,and where the medium contains no gases or conductive dust that can corrode metals or damage insulation;it shall also be installed in a place free from rain and snow erosion.
- Installation Category:Category III.
- Pollution Degree:Degree 3.

3. Model And Its Meaning

□ GL 3 D - 630 / □ □□ □ F

- F — Auxiliary Switch:
  One Normally Open (NO)
  and One Normally Closed (NC)
- □ — Foot Mounting Method:
  1: Vertical Foot Mounting (parallel to thedirection of the copper bar);
  2: Horizontal Foot Mounting (perpendicular to the direction of the copper bar);
  3: Left Vertical & Right Horizontal Foot Mounting
- □ — Handle Type:
  K: In-cabinet Direct Operation Handle (directly installed on the switch);
  P: External Cabinet Handle + Extended Square Shaft Accessory Required (additional order needed)
- □ — Operation Mode:
  Z: Front-side Operation;
  C: Side-side Operation (only optional when mechanism splicing is 02)
- □ — Mechanism Splicing:
  02-Mechanism on the Left;
  11- Mechanism in the Center
- 630 — Rated Current:
  630 (optional values:315、325、400、500、630)315 (80、100、125、160、200、225、250、275、315)
- D — Design Type: D-DC (Direct Current)
- 3 — Design Series
- GL — Disconnector
- Enterprise Code

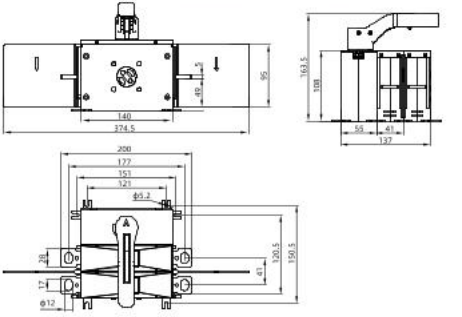
4. Structural Features

- The contacts adopt a rotating double-end contact structure:ensuring the safe distance of the disconnector, meeting the requirement of reliable isolation,and the contacts have a self-cleaning function.
- Double-spring operating mechanism:The double-springenergy storage mechanism realizes fast switching on andoff. The switching effect is not affected by the operator'sspeed,improving the breaking speed.
- The shell is made of glass fiber unsaturated polyester resin, which has excellent flame retardancy, dielectric properties,anti-carbonization performance, and impactresistance.
- Complies with the latest EU RoHS directive.
- The operating mechanism supports front-side and side-side operation.
- The arc-extinguishing system adopts the arc-extinguishing principle of permanent magnetism to increase arc voltage,improving the breaking performance.

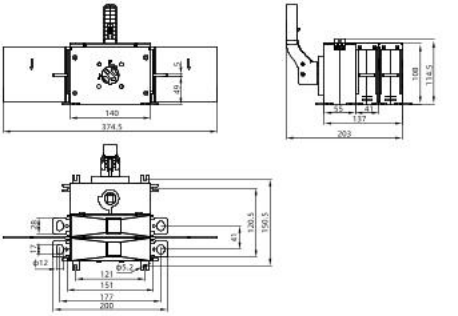
5. Main Technical Parameters

Technical Parameter	Specification
Applicable Standards	GB/T 14048.3、IEC 60947-3
Certifications Obtained	CCC
Product Pole Number	2P
Frame Rating Current	CCC: 315/630
Rated Current (A)	80 100 125 160 200 225 250 275 315 325 400 500 630
For 315 Frame	■ ■ ■ ■ ■ ■ ■ ■ ■
For 630 Frame	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Rated Voltage(V)	DC1000/DC1500
Rated Insulation Voltage (Ui)	2000V
Rated Short-Circuit Making Capacity (Icm) (kA)	Frame Size 315: 10kA Frame Size 630: 20kA
Rated Short-Time Withstand Current (Icw)	Frame Size 315：8kA/1s、20kA/0.15s Frame Size 630：10kA/1s、20kA/0.15s
Rated Impulse Withstand Voltage Uimp (kV)	12kV
Protection Level	Inside cabinet: IP20; Outside cabinet: Ip65
Operation Mode	Front-side operation, side-side operation (side-side operation is an extended operation mode)
Terminal Tightening Torque (Locking Torque)	M8 screw: 6N.m; M12 screw: 14N.m
Electrical Life	Frame current ≤ 315A: 500 times; Frame current > 315A: 400 times
Mechanical Life	Front-side operation: 10,000 times; Side-side operation: 3,000 times
Service Category	CCC:DC-22B/PV2
Operating Torque	For 315 frame: Front-side operation: 4~7N.mm; Side-side operation: 6~11N.mm For 630 frame: Front-side operation: 8~13N.mm; Side-side operation: 12~23N.mm

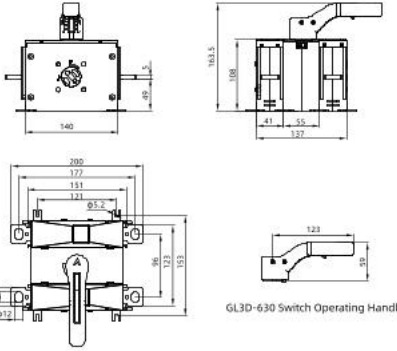
6. Overall And Installation Dimensions



GL3D-630 Front - Operated Outline Installation Diagram (Open Position)

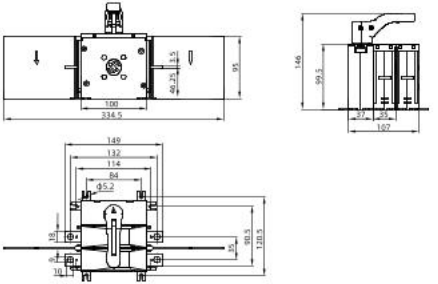


GL3D-630 Side-Side Operation Outline Installation Drawing (Open Position)

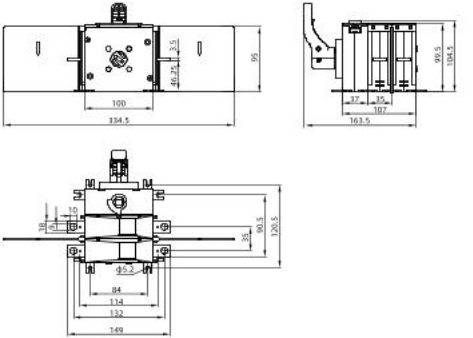


GL3D-630 Switch Operating Handle

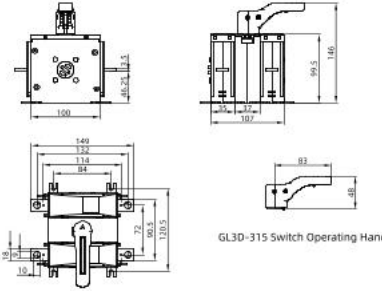
GL3D-630 Front-Side Operation (Mechanism Centered) Outline Installation Drawing



GL3D-315 Front-Side Operation Outline Installation Drawing (Open Position)



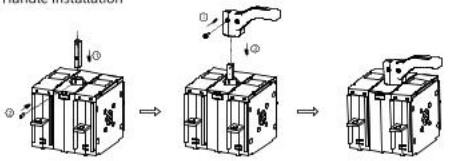
GL3D-315 Side-Side Operation Outline Installation Drawing (Open Position)



GL3D-315 Switch Operating Handle

GL3D-315 Front-Side Operation (Mechanism Centered) Outline Installation Drawing

Handle Installation

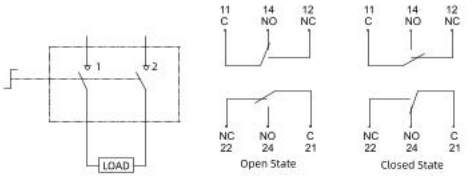


Insert the square shaft of the handle into the handle connector according to the direction of the hole, and fix it with a set screw.

Installation of Auxiliary Terminals

Insert the auxiliary terminals into the auxiliary plug of the mechanism

7. Wiring Method



Main Circuit

Open State: Output Signals at 11/14, 21/22
Closed State: Output Signals at 11/12, 21/24

auxiliary loop

8. Installation Method And Installation Position

Installation Method:Base plate Mounting
Installation Position:Vertical mounting and horizontal mounting. The inclination angle for vertical mounting shall not exceed 5°.
Status Positions:Open position "0", Closed position "|".

9. Precautions

1) For quality issues caused by unauthorized disassembly of the product,the user shall bear full responsibility.
2) When the equipment is in the energized working state,do not touch the exposednon-insulated parts of the isolating switch with bare parts of the body.
3) Connecting wires shall be secured to the distribution cabinet frame;the switch shall not bear the weight of the wires.Before fastening the wires,ensure that the plane of the busbar or cable terminal is parallel to the plane of the switch terminal. After connecting the wirestothe switch terminal swith bolts,the switch shall not be subjected to any mechanical stress.
4) Wire connections must be reliable to prevent burning damage to the isolating switch terminals caused by abnormal heating at the terminals.