HCG4L-400 DC isolation switch specification

Description

HCG4L series DC load isolation switch Developed and designed the modular concept for our company The rated operating voltage is DC1000V/ DC1500V Rated current 80A~400A in new energy power system, The switch body adopts a dedicated module combination and a new visual appearance The aesthetic design reduces the exposed metal parts of the switch body and improves the safe operation performance of the switch.This enables the product to fully demonstrate high electrical performance in DC systems.

Product Model:										
	HC	G	4L	- 400	/ 2	Q	C	J	F22	V
Company Code										
Isolation switch										
Desige Code										
Rated current										
2 Poles										
DC										
C:Not marked on the front, marked C on the side										
J: The operation inside the cabinet is not marked, the operation outside the cabinet is marked J										
Auxiliary contact: F22:2 normally open 2 normally closed, F44:4 normally open 4 normally closed, unmarked: no auxiliary contact										
Rated voltage: DC1000V marked V,DC1500V not marked										

Selection example

1, HCG4L-400/2QF22:HCG4L isolation switch, DC1500V, rated current 400A,2 poles, cabinet operation, auxiliary contact 2 normally open 2 normally closed.

2, HCG4L-250/2QCJF44V: HCG4L isolation switch, DC1000V, rated current 250A,2 poles, side operation outside the cabinet, auxiliary contact 4 normal open 4 normal close.

4. Main technical parameters

Product number	HCG 4L -400/2Q
Rated voltage Ui (V)	DC1000/ DC1500
Agreed heating current Ith (A)	400
Number of poles	2
Rated insulation voltage Ui (V)	1800
Rated impulse withstand voltage Uimp (kV)	12
Rated operating current Ie (A)	80 , 100 , 160 , 200, 250, 315 , 400
Usage categories	DC -21B
Rated short-time withstand current Icw (kA/1s)	10
Rated short circuit making current Icm (kA)	10
Limit short circuit current Iq (kA)	45
Mechanical life (times)	10000
Electrical life (times)	400
pollution level	Ⅲ
Protection level	IP 20 (inside the cabinet) IP65 (outside the counter)
Installation method	Bottom plate fixed installation
Weight (kg)	2.3
Certification	UL, CCC , CE , RoHS , EAC

4.2. Main parameters of auxiliary switch

Electrical parameters

Rated working voltage	AC 125V	AC 230V	DC30V
Rated operating current	3A	1A	1A

Rated insulation voltage 600V

Rated impulse withstand voltage 2.5 kv

Agreed heating current 3A

Rated frequency 50/60 Hz

5.Normal working environment

(1) The ambient air temperature is -30℃~+70 ℃ and its 24h The average internal temperature value does not exceed +35 ℃ Ambient temperature is 50℃, maximum rated current derating coefficient is 0.93Ie ;

Ambient temperature 60°C, maximum rated current derating factor 0.87Ie ;

Ambient temperature 70℃, maximum rated current derating factor 0.81Ie ;

(2) High altitude derating usage

Altitude	2500m	3000m	3500m	4000m
Derating factor	0.95Ie	0.91Ie	0.84Ie	0.80Ie

(3) The relative humidity of the atmosphere does not exceed 50% when the ambient air temperature is +40 °C. Higher relative humidity is allowed at lower temperatures. degree, for example Reached at 20℃ 95%. Special measures should be taken to deal with occasional condensation due to temperature changes.

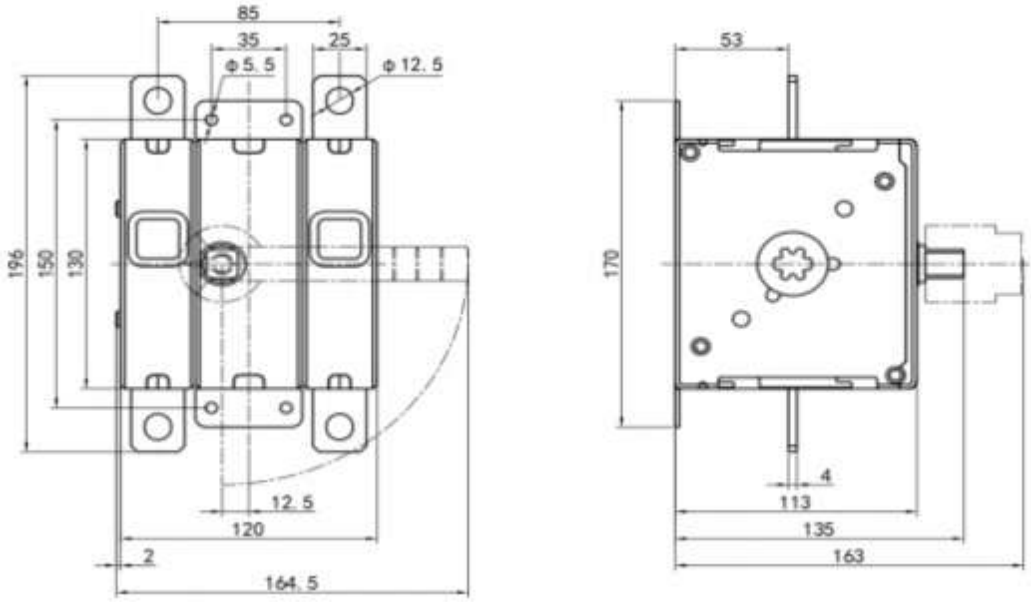
(4) In a medium with no explosion hazard and in a place where the medium does not contain gases and conductive dust that are sufficient to corrode metal and destroy insulation. without rain Where snow hits

(5) Suitable for pollution level 3 installed and used under environmental conditions .

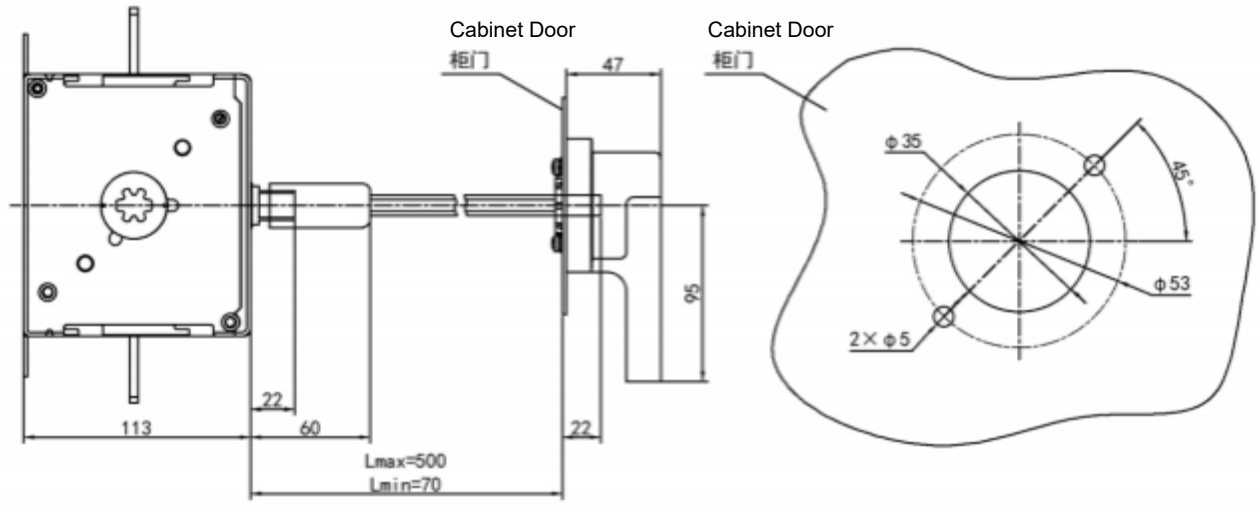
(6) Indoor use

6. Product appearance and installation dimensions (unit: mm)

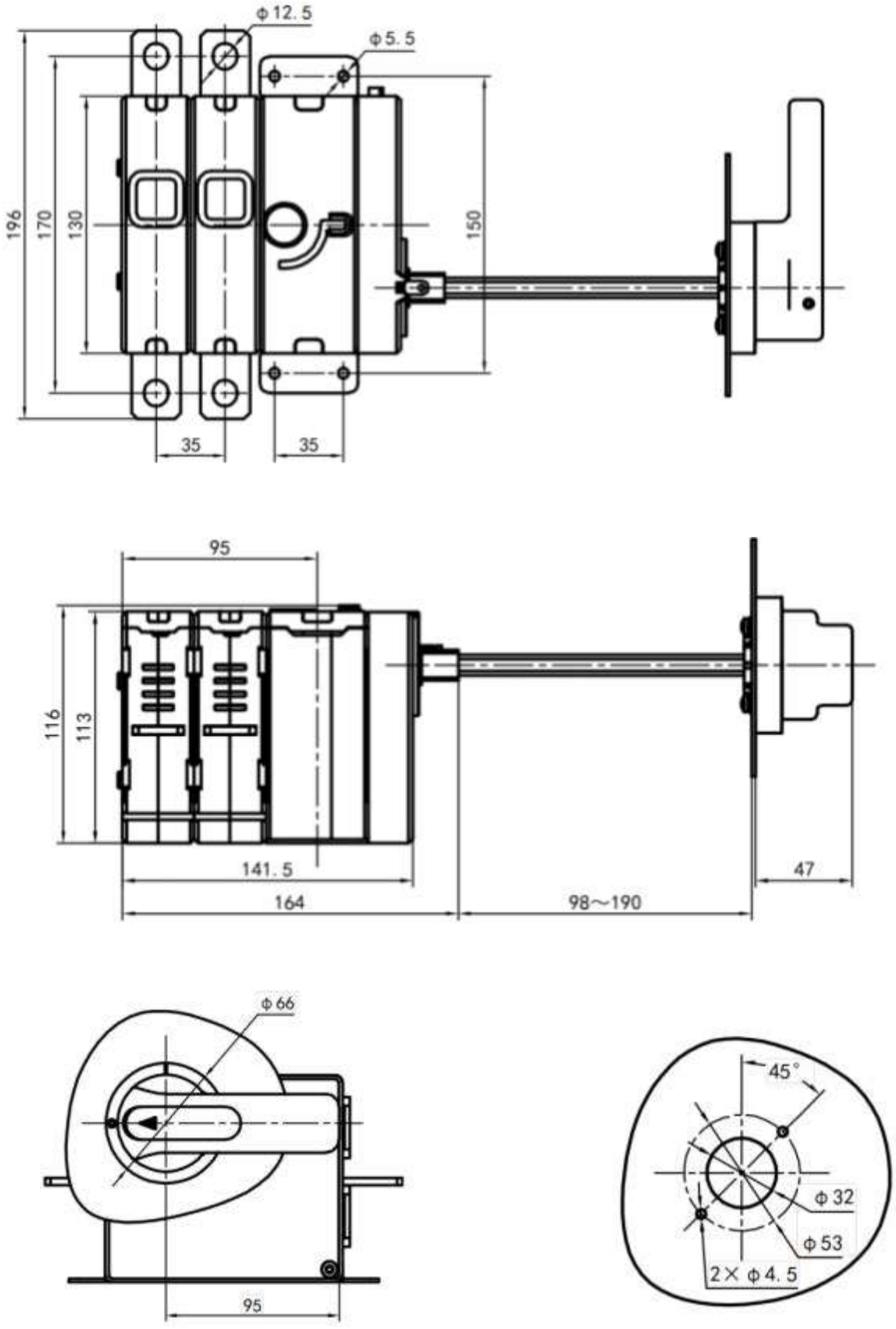
6.1 Product dimensions



HCG 4L -400/2Q inside the cabinet

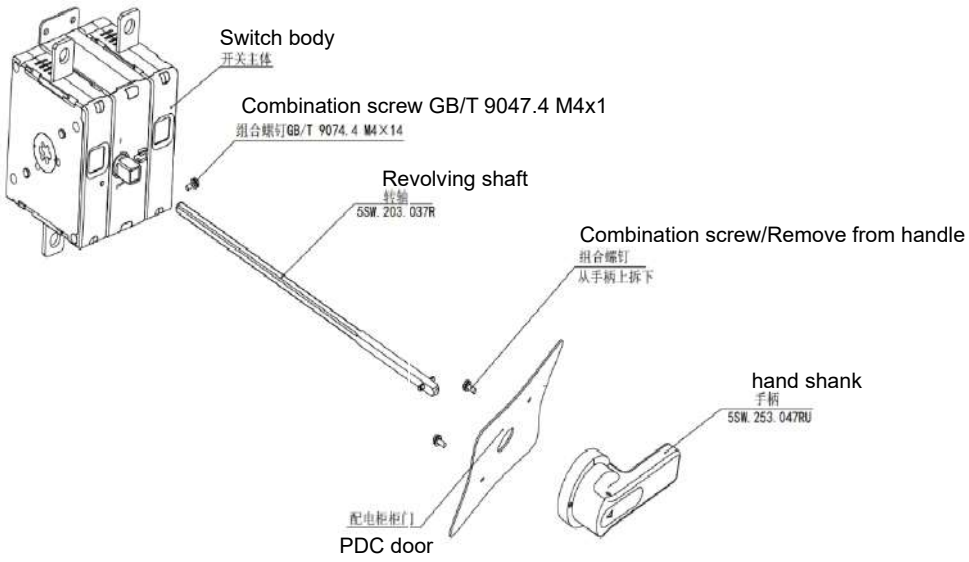


HCG 4L -400/2 QJ outside the cabinet



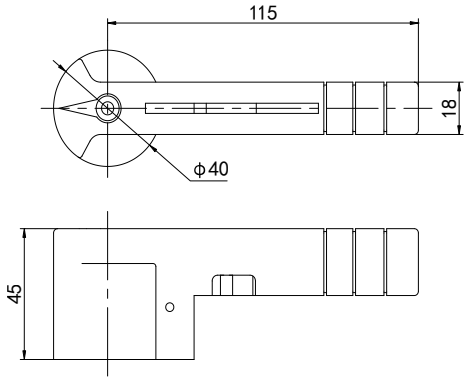
HCG 4L -400/2 QC side operation cabinet exterior

6.2 Schematic diagram of the operating mechanism outside the cabinet

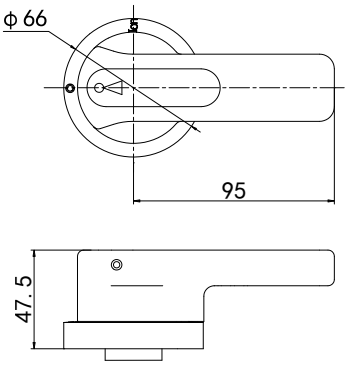


HCG 4L-400/2 QJ box outer handle has a standard length of 230 mm and a cross-section of 10x10 (mm²), and the length can be customized

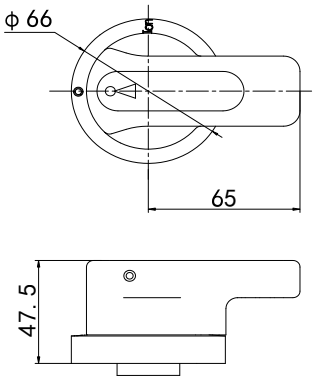
6.3 Mounting Dimensions of the handle (unit: mm)



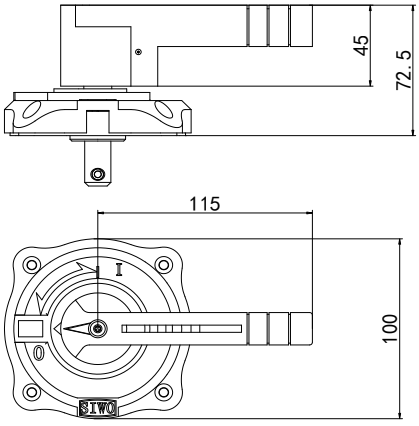
Cabinet handle (standard)



Outside handle (standard)

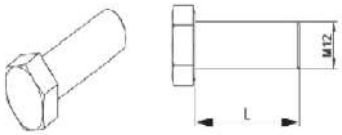


Outside handle (optional)



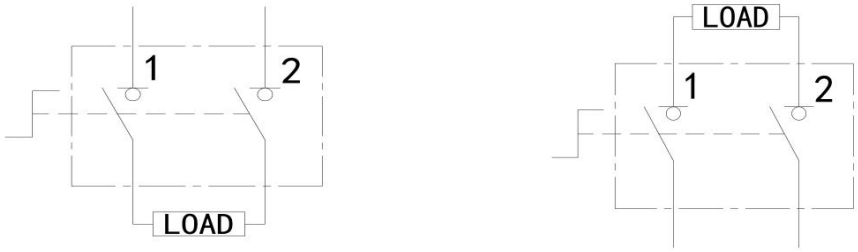
External handle IP65 (optional)

6.4 Dimensions of copper bar cable screws



Current class： HCG4L
Copper bar cable screws： Outer hexagon bolt: M12*3

7 Mode of connection



Main circuit

Auxiliary circuit

8 Installation Methods and positions

Installation method: base plate installation;

Installation position: vertical installation and horizontal installation, vertical installation inclination is not more than 5°

Status position: ←break position O, ↑ close position I, two positions

9.Packaging

Product maximum packaging volume

Model	Number of units	Sets / Boxes
HCG 4L -(80~400)/2 QV	1	8 units/carton
HCG 4L- (80~400)/2 QF 44V	1	8 units/carton
HCG 4L- (80~400)/2 QJF 44V	1	8 units/carton
HCG 4L- (80~400)/2Q	1	8 units/carton
HCG 4L- (80~400)/2 QF 44	1	8 units/carton
HCG 4L- (80~400)/2 QJF 44	1	8 units/carton

Maximum packaging size mm) 541 × 371 × 376
Maximum packaging weight (kg) 22.2

10. Precautions

1) Before installation, check whether the nameplate content meets the usage requirements and confirm that the switch should be in the off state. Toggle switch operating handle ,handle Pointing to 0", the moving contact of the observation window is obviously in the upward state and the switch is in the off state; The handle points to " I" position, observation window The oral contact is in the hidden state and the switch is in the closed state. Make sure that the handle opens and closes flexibly and smoothly.

3) If the extension shaft of the operation switch outside the cabinet is not coaxial with the handle hole, remember not to pull the extension shaft to avoid damaging the internal parts. It should be adjusted by The switch position makes it coaxial.

4) The connecting wires should be fastened to the distribution cabinet frame. The switch should not bear the weight of the wires. Before tightening the wires, the busbar or cable terminals should be The plane is parallel to the plane of the switch terminal. After bolting the wires to the switch terminal, the switch should not be subjected to various stresses.

Safety warning : Non-professionals of our company must not disassemble or assemble our products at will to avoid personal or equipment safety hazards.