

CDGNE-50

Disconnecting
switch

Instruction manual



Before installing and using the product, please read the instruction manual carefully and keep it properly.

Safety Notice

Before installation, operation, running, maintenance, and inspection, please read this manual carefully, and install and use this product accurately according to the content in the manual.



Danger:

- Do not operate the isolation switch with wet hands;
- In use, do not touch the conductive part;
- Care and maintenance must ensure that the product is not live;
- It is strictly prohibited to test the product by short circuit;



Notice:

- Installation, care and maintenance should be operated by professionally qualified personnel;
- The product shall be installed and used according to the product instructions;
- The characteristics of the product have been set before the factory, and can not be disassembled or adjusted at will in use;
- Before use, please confirm whether the rated voltage, rated current, frequency and characteristics of the product meet the working requirements;
- Insulate the exposed wire or copper busbar at the wiring end to ensure safe insulation;
- If you need to test insulation resistance or power frequency voltage resistance, you must first disconnect the electronic components between the current circuit, otherwise it will damage the product performance;
- If the product is damaged or abnormal when unpacking, stop using it immediately and contact the supplier;
- If you need to buy accessories, please choose the supporting accessories provided by the company to ensure quality, and users due to the use of non-company accessories and all adverse consequences, the company will not be responsible;
- When the product is scrapped, please do a good job of product waste treatment, thank you for your cooperation.

Please note the information in



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1、 Know CDGNE

1. 1 Packing list

Product model	Retaining nut	contro- ller	Disconnecting switch
CDGNE-50	1	1	1

After opening the box, the user must check whether the product is intact, whether the exposed metal is rusty, and whether the product is defective due to poor transportation and storage. If the above phenomenon occurs, the product cannot be used. Please contact the supplier in time.

1. 2 Product use

CDGNE-50 series isolation switch is suitable for rated voltage DC1500V and below in the power system, the product can be used as infrequent on and off, play the role of isolation line, can be widely used in construction, telecommunications, metallurgy and other industries, and for the current solar photovoltaic system in the DC breaking problem has excellent performance.

Product design meets standards: GB/T 14048.1、GB/T 14048.3、IEC 60947-1、IEC 60947-3

1. 3 Product model and meaning

CDGNE50 - □ / □ / □ / □ / □

(1) (2) (3) (4) (5) (6)

(1) Product series number

(2) Design code: L/M/H

(3) Number of floors: 2、3、4、6、8

(4) Wiring mode: 1-two layers in series; 2- Two positives, two negatives

(5) Handle form: 1- Standard handle; 2- Padlock handle

(6) Product number (see technical parameter table for details)

2、 Storage and transportation

- In the transportation, installation process should be handled gently, not upside down, to avoid violent collision and vibration
- It shall not be subjected to the direct attack of rain and snow and the long-term direct radiation of the sun
- It should be stored in a warehouse with relative air circulation, an ambient temperature of -40 ° C ~ 85 ° C, corresponding relative humidity below 80%, and no acidic, alkaline or other corrosive gases in the surrounding air

3、 Environment and conditions of use

- Altitude: ≤4000m (Higher than 4000m, need to reduce the capacity of use, see the table of capacity reduction coefficient)

Altitude reduction coefficient			
Altitude/m	4000	4500	5000
Working current correction factor	1	0.94	0.9
Working voltage correction factor	1	0.9	0.8

- Ambient temperature: Ambient air temperature in normal operation is $-40^{\circ}\text{C}\sim+85^{\circ}\text{C}$ (ambient air temperature exceeds $+70^{\circ}\text{C}$, it needs to be used for capacity reduction, see the schedule of capacity reduction coefficient)

Temperature reduction coefficient			
Ambient temperature/ $^{\circ}\text{C}$	75	80	85
Capacity reduction factor	0.92	0.84	0.76

- Relative humidity: (ambient temperature $+40^{\circ}\text{C}$) $\leq 50\%$, at a lower temperature can have a higher relative humidity, such as 20°C can reach 90% relative humidity

- Pollution level: Level 3

- Protection level: Product protection level: IP20

Protection level at handle: IP66

- It should be installed in a medium without explosion risk, and the medium is free of gas and conductive dust that are sufficient to corrode metal and destroy insulation;

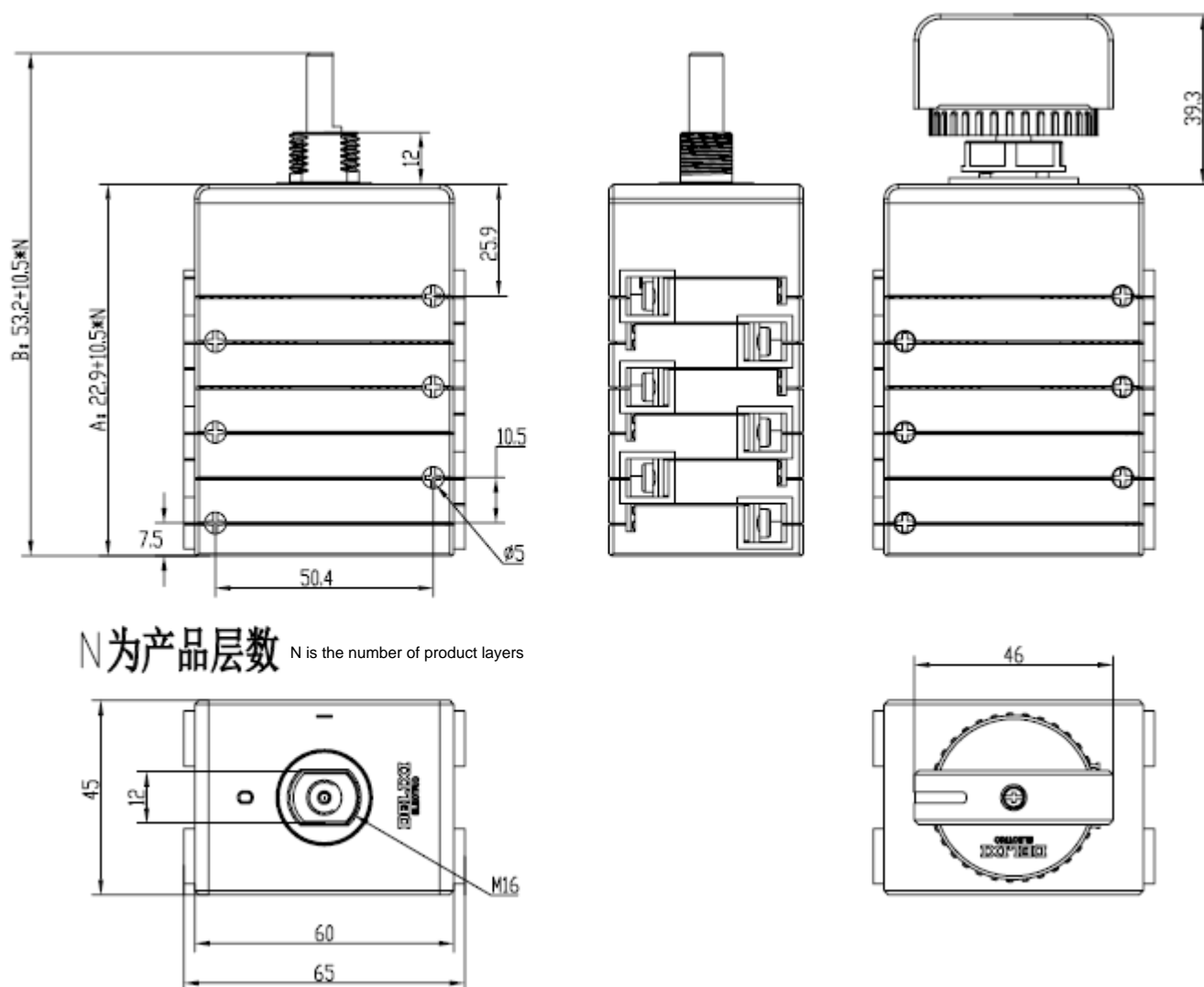
Where there is no rain or snow. When the user's use conditions are more severe than the above, the manufacturer should be consulted.

4、Main technical parameters

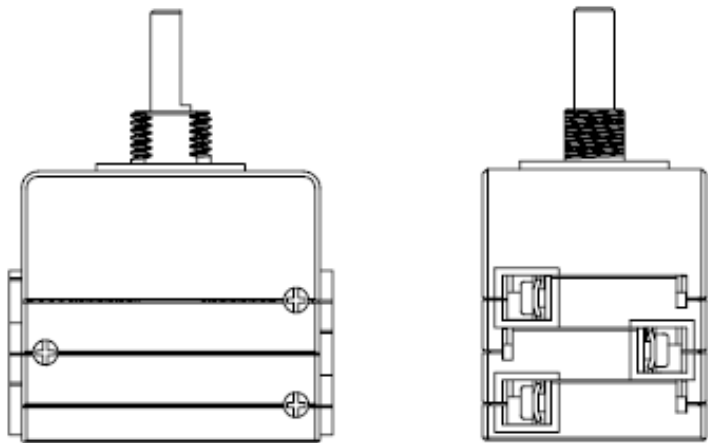
Disconnecting switch				Specific parameter			
Conventional heating current I _{th} （A）				55			
Insulation voltage U _i （V）				1500			
Rated impulse withstand voltage U _{imp} （kV）				8			
rated current （A）	CDGNE-50L	Product No.	Category of use	600	800	1000/1100	1250
		1	DC-21B/PV1	36	32	20	13
		2		40	36	26	16
		3		50	40	32	20
	CDGNE-50M	Product No.	Category of use	800	1000/1100	1250	1500
		1	DC-21B/PV1	40	32	20	16
			DC-PV2	32	26	16	13
		2	DC-21B/PV1	50	36	26	20
			DC-PV2	40	32	20	16
	CDGNE-50H	Product No.	Category of use	800	1000/1100	1250	1500
		1	DC-21B/PV1	50	40	26	20
		2	DC –PV2	50	50	32	26
Rated short-time withstand current I _{cw} （1s） （A）				660			
Rated short-circuit connecting capacity I _{cm} （kA）				1.4			

Mechanical life (second)	9700
Electrical life (s)	300
Product certification	CCC、CE、CB、TUV
Fixed torque of the whole machine (N·m)	2.0-2.5
Wiring moment (N·m)	1.5-1.7
Holding torque of handle (N·m)	0.6-0.75
Connection area	Follow Table 9 of GB/T14048.1
Installation mode	Panel installation
Class of protection	The whole machine IP20; External handle: IP66

5、Overall dimension



3层产品示意图 3-layer product diagram



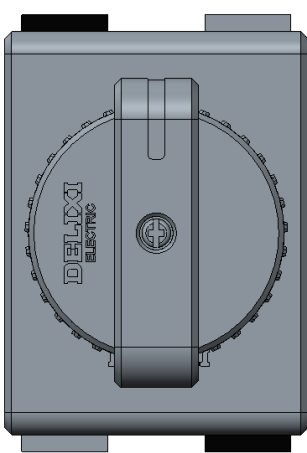
CDGNE-50 product outline and mounting dimensions

	A	B
2 layer switch body	43.9	74.2
3-layer switch body	54.4	84.7
4-layer switch body	64.9	95.2
6-layer switch body	85.9	116.2
8-layer switch body	106.9	137.2

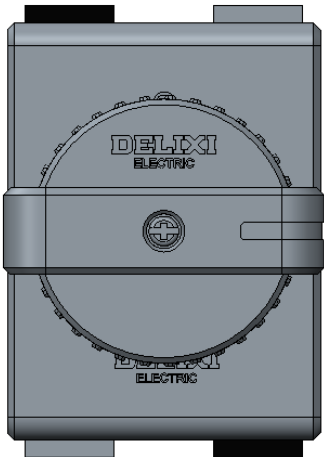
6、installation

6. 1、Status position

This product has two position states, that is, the opening position "O/OFF" and the closing position "I/ON", as shown below.

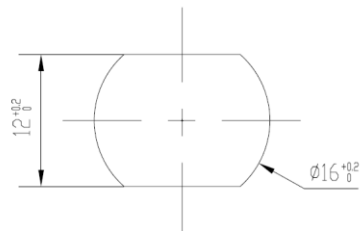
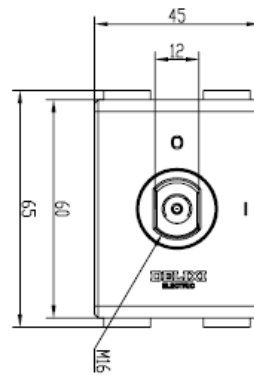
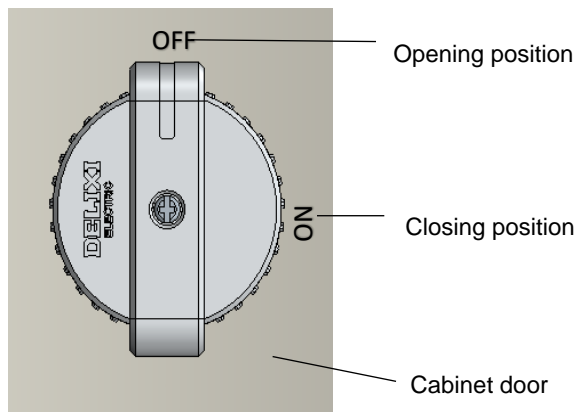


Opening position



Closing position

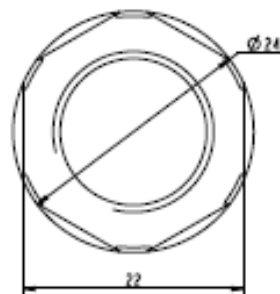
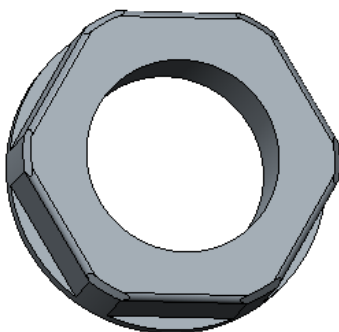
6. 2、Mounting dimension



Cabinet door opening dimensions

Cabinet door thickness: 1.5-3mm

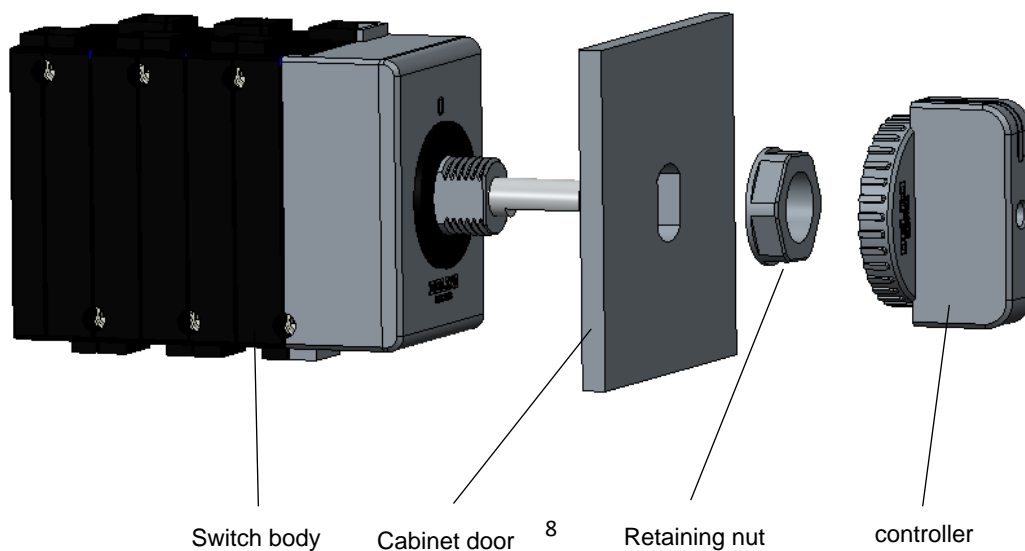
6. 3、Retaining nut



Installation mode: Panel installation

6. 4、Switch body and handle

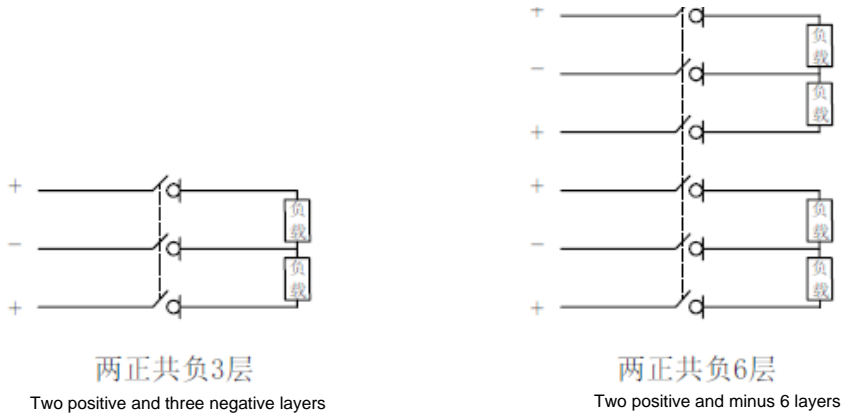
ii



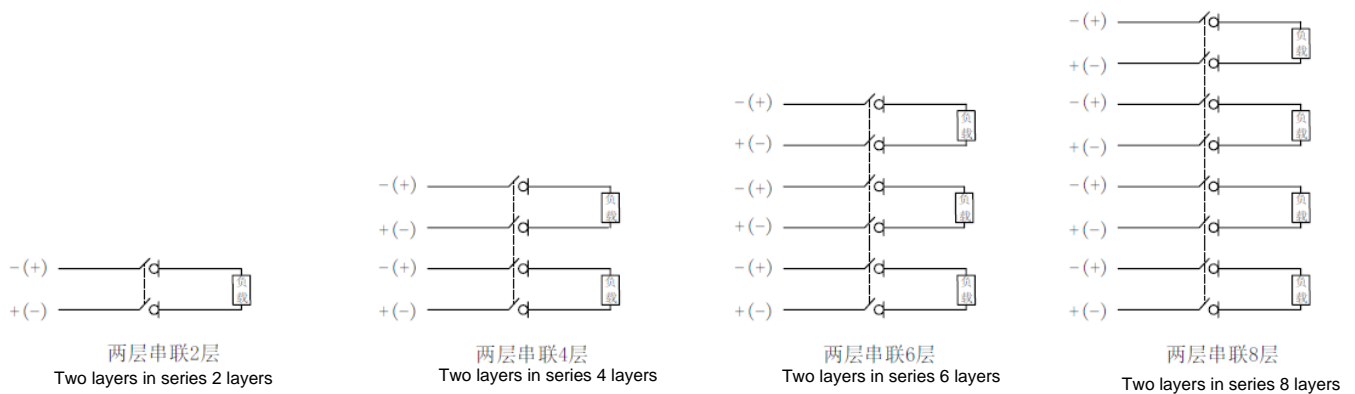
Insert the switch body into the opening hole of the cabinet door, and install the retaining nut and handle in turn.

7 Connection mode

Two positive and negative product wiring diagram



Two-layer series product wiring diagram



Note: Two positive and negative products, the negative current shall not exceed the rated current value.

8、Care and maintenance

- Care and maintenance must be operated by professionally qualified personnel;
- Must ensure that the product is not live;
- Under normal operating conditions, maintenance and maintenance once a year, as shown in the following table

item	content
outline	No dust, no condensation, if necessary to clean; Case intact
Terminal connection	Tighten with a torque of 1.5-1.7N.m

9、Unpacking inspection

After opening the box, the user must check whether the product is intact, whether the exposed metal is rusty, whether the product is defective due to poor transportation and storage, if the above phenomenon, the product can not be used, please contact the supplier in time to solve.

10、Corporate commitment

Under the premise that the user complies with the use and storage conditions and the product seal is intact, the company is responsible for free repair or replacement if the product is damaged or cannot be used normally due to manufacturing quality problems within thirty six months from the date of production. If the warranty period is exceeded, repair shall be paid. However, if the damage is caused by the following circumstances, paid repair will be made even within the warranty period:

- Due to improper use, maintenance or storage;
- Self-modification or improper maintenance;
- Damaged after purchase due to fall and installation process;
- Earthquake, fire, lightning strike, abnormal voltage, secondary disasters and other force majeure.

If you have any questions, please contact the distributor or our customer service department. Customer service hotline: 400-826-8008.

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