

LNG63 Remote Switch-disconnector

Product Specification

(IPD-ENG-DEV-T20 A2 2023-03-14)

Approved by 丁莹莹 64852 Date 2025-09-30



Revision History					
Version	Revision Reason/Content	Implementation Date	Prepared by	Reviewed by	Approved by
0	Add	2025-09-28	Xing Hongbo	Ding Yingying	Hu Qi



1 Application Scope and Purpose

Applicable to the installation, wiring and use guidance of disconnecting switch products with remote trip function.

2 Picture of Product

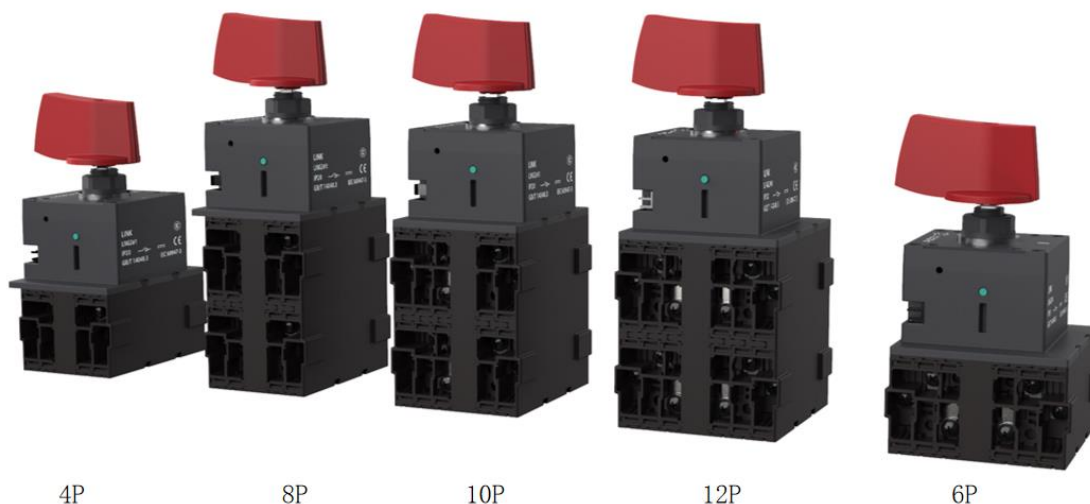


Figure 1 Photo of Product LNG63

3 Specifications and Models Description

LNG □ □ □ □ □ □ □ □
1 2 3 4 5 6 7 8 9

Table1 Product Specification and Model Description Table

SN	Name	Code	Description
1	Product Model	LNG	
2	Shell frame level	63-63A	
3	Current Type	DC - Direct Current	
4	Type of trip/trip characteristics	F2-Remote trip, direct reset	
5	Number of poles	12-12 poles 6-6 poles.....	
6	Wiring mode	1: Serial cabling across two layers	
7	Installation method	M: on cabinet door	
8	Parameter code	63A@DC1500V	
9	Certification type	CCC, CB, CE, TUV	Vacant default CCC

4 Main Technical Parameters

4.1 Electrical parameters

Table 2: Main electrical parameters of LNG63

Parameter name	Category/ unit	Specific parameters			
Insulation Voltage, Ui	V	1500			
Rated impulse withstand voltage Uimp	kV	8			
Rated voltage DC	V	600	800	1000	1500
Rated current DC-PV1	A	63	63	63	63
Rated current DC-PV2	A	63	63	63	63
Rated short-time withstand current, Icw	kA 1s	0.76			
Rated short-time making capacity Icm	kA	1.4			
Agreed thermal current Ith	A	63			
Mechanical life	Times	10000			
Electrical life	Times	300			
Critical current	Times	100			
Remote trip life	Times	300			
Closing torque	N·m	4P, 6P	1~4	8P, 10P, 12P	2~5
Opening torque	N·m		0.5~2.5		1.5~3.5
Re-tripping torque	N·m		0.5~3.5		1~4
Trip stroke	mm		1~3mm		1~3mm
Trip force	N		1.5~4.5N		1.5~4.5N
Fixed moment of the complete appliance	N·m	2.3±10%			
Connection moment	N·m	1.2~1.6 (Electric screwdriver speed 1000r/min)			
Contact resistance	mΩ	≤0.8(single layer)			
Tightening torque of handle mounting screw	N·m	0.3~0.4			
Operation frequency	Times/h	120			
Thickness of the mounting cabinet	mm	2			
Dimensions of the switch body(4P in cabinet)	mm	70(H)×89(W)×92.5(L - top and bottom faces)			
Dimensions of the switch body(6P in cabinet)		82(H)×89(W)×92.5(L - top and bottom faces)			
Dimensions of the switch body(8P in cabinet)		70(H)×89(W)×137.5(L - top and bottom faces)			

Dimensions of the switch body(10P in cabinet)		72(H)×89(W)×137.5(L - top and bottom faces)
Dimensions of the switch body(1P in cabinet)		82(H)×89(W)×137.5(L - top and bottom faces)
Switch weight(4P)	g	572
Switch weight(6P)		678
Switch weight(8P)		840
Switch weight(10P)		940
Switch weight(12P)		1051
Wiring capacity (bare copper cable)	mm ²	6, 8, 10, 16
Wiring capacity (bare copper cable)	AWG	10, 8, 6
Switch trip break time	ms	≤20
Parameters of the trip system	1) DC drive, rated voltage: DC12V, reliable operating voltage: 8-16V, discharge time: 4-20ms, interval between two discharges: >30ms. 2) Capacitor discharge (recommended ≥3x470uF capacitor), rated voltage: DC12V, does not trip below 3.5V, trip above 9V, discharge time: 3.2~20ms, interval between two discharges: >30ms. 3) Magnetic Flux internal resistance: 4.6±20%Ω	
Installation method	On cabinet door	
Rotary position	9 o'clock direction (O); 12 o'clock direction (I)	
Forms of operation	Independent manual operation	
Number of layers	4, 6, 8, 10, 12	
Utilization category	DC-PV1, DC-PV2	
Pollution level	Level 2:4000 meters, Level 3:3000meters	
Protection class	IP20 for the complete machine and IP66 for the installed machine	
Storage, operating ambient temperature	-40°C ~+85°C	
Storage, operating ambient humidity	0-85%	
Product certification	CCC, CB, CE, TUV	
Applicable standards	GB/T 14048.1; GB/T 14048.3; IEC 60947-1; IEC 60947-3.	

5 Normal Working Environment

- a) The ambient air temperature for normal operation ranges in -40°C~+85°C; when the ambient air temperature is above +85°C, or below -40°C, the user should negotiate with the manufacturer; the altitude of the normal installation site does not exceed 4000m, and the derating curve when it exceeds 4000m is shown in Figure 2. The current should be negotiated with the manufacturer.

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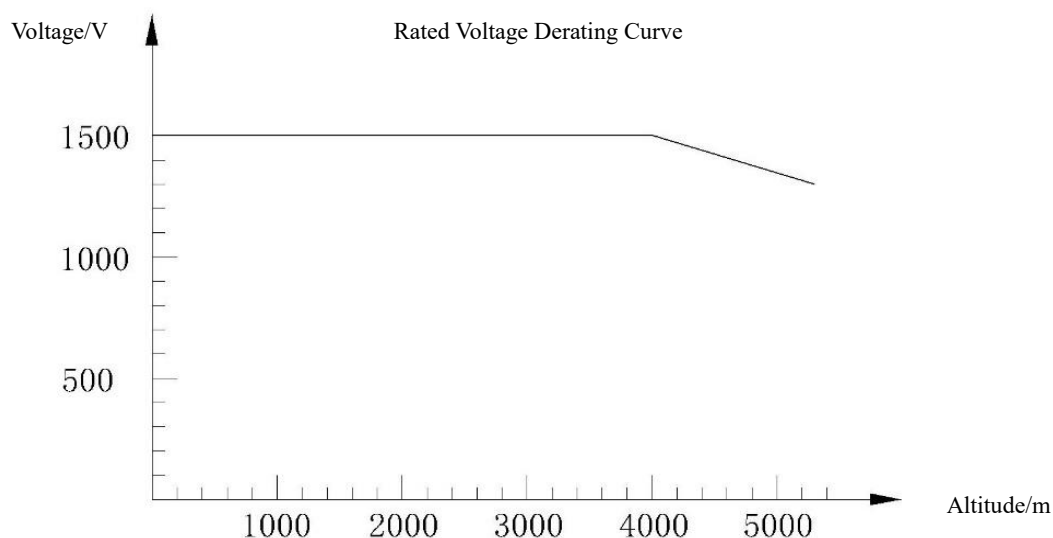


Figure 2 Altitude derating curve

Rated Operating Current/A

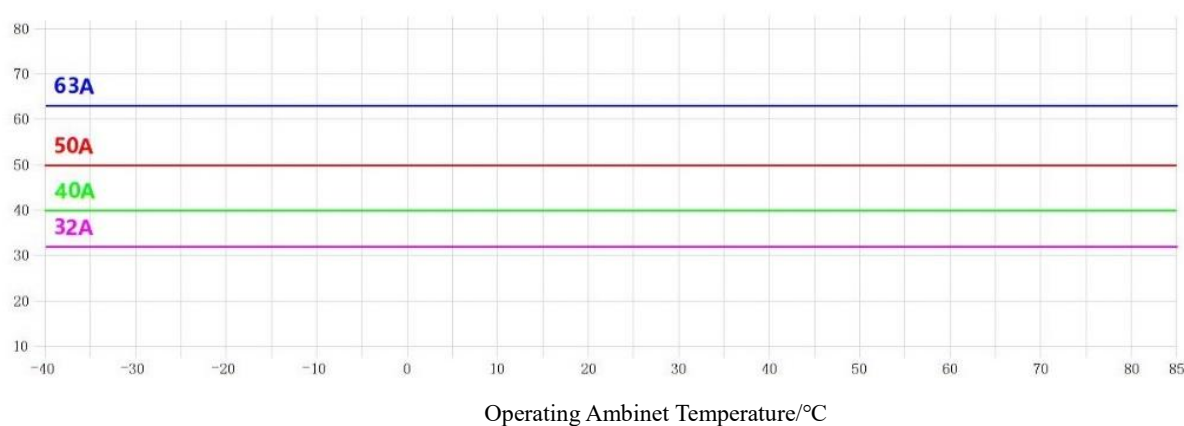


Figure 3 Temperature derating curve

- b) The relative humidity should not exceed 50% at an ambient temperature of +40°C. A higher relative humidity is allowed at a lower temperature. For example, it can be 90% at 20°C. Special measures should be taken to address occasional condensing due to temperature fluctuation.
- c) The product can be disposed in places that are free from explosive media, media corrosive to metal, insulation damaging gas, and conductive dust. The product should be avoided from snow and rain.
- d) The product is applicable in an environment with pollution class III.

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6 Electric Circuit Diagram



Figure 4 Electric Schematic Diagram

7 Outline and Installation Dimensions

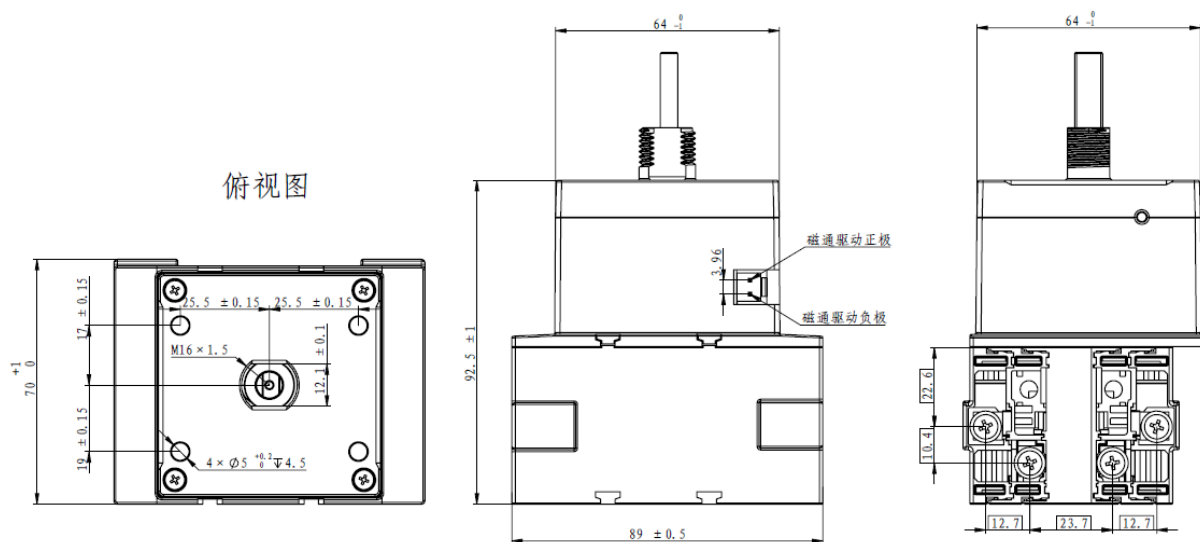


Figure 5 4P outline drawing

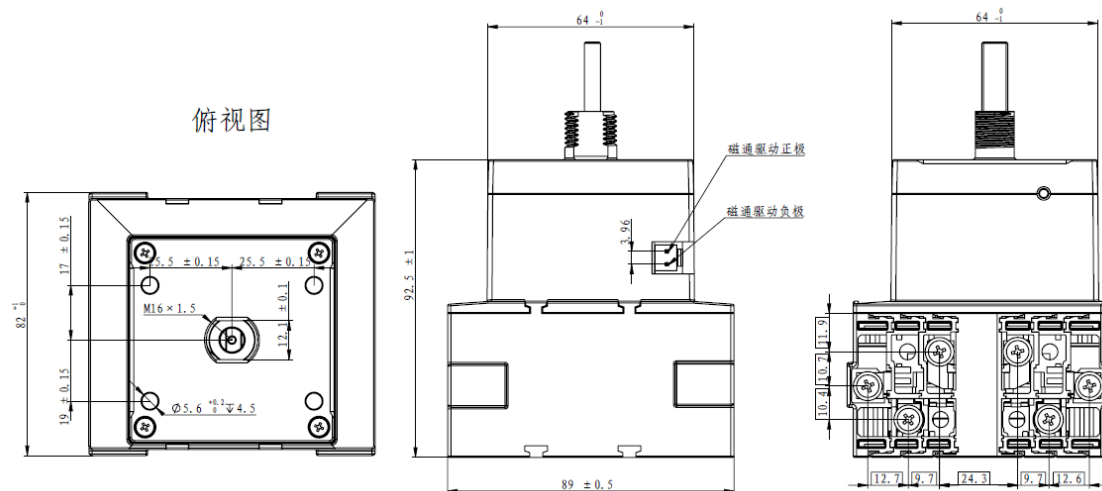


Figure 6 6P outline drawing

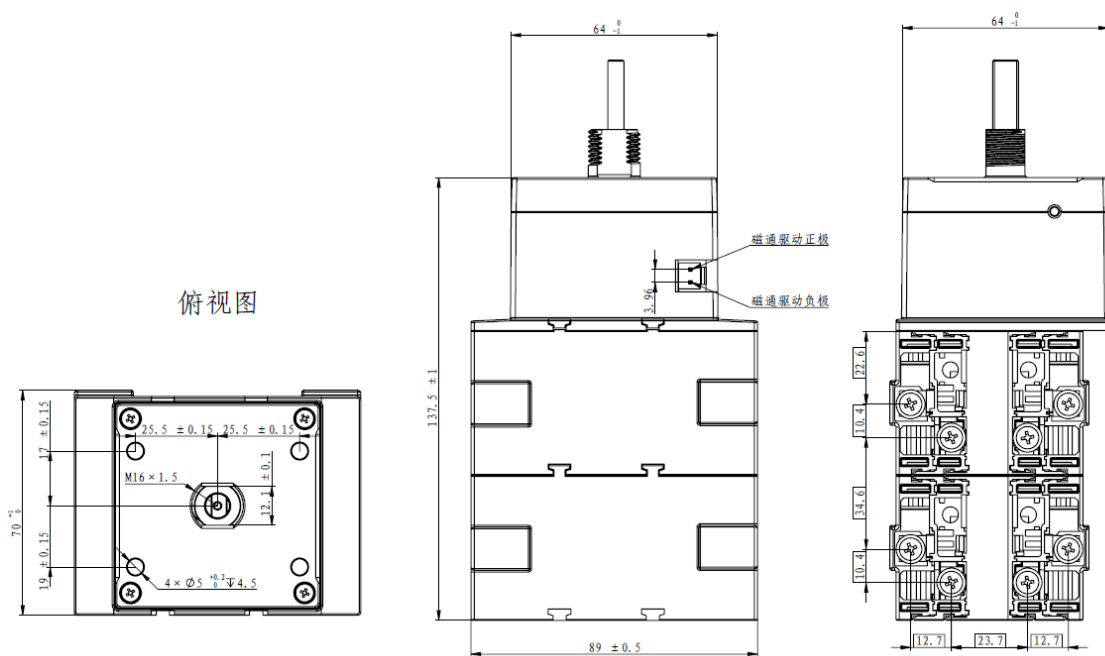


Figure 7 8P outline drawing

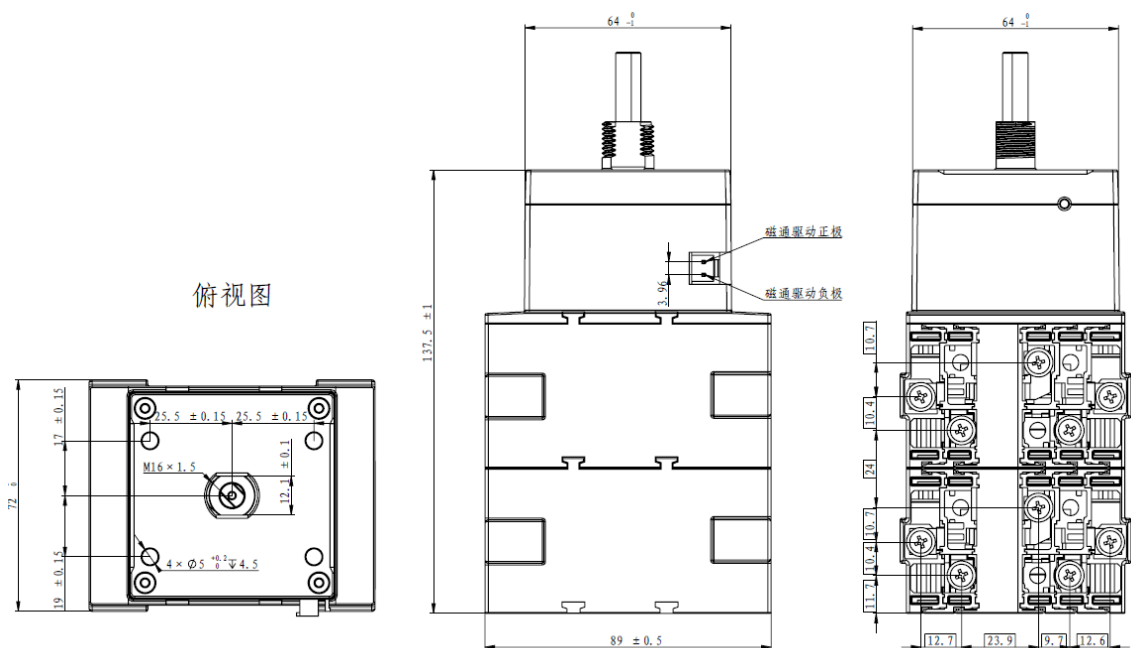


Figure 8 10P outline drawing

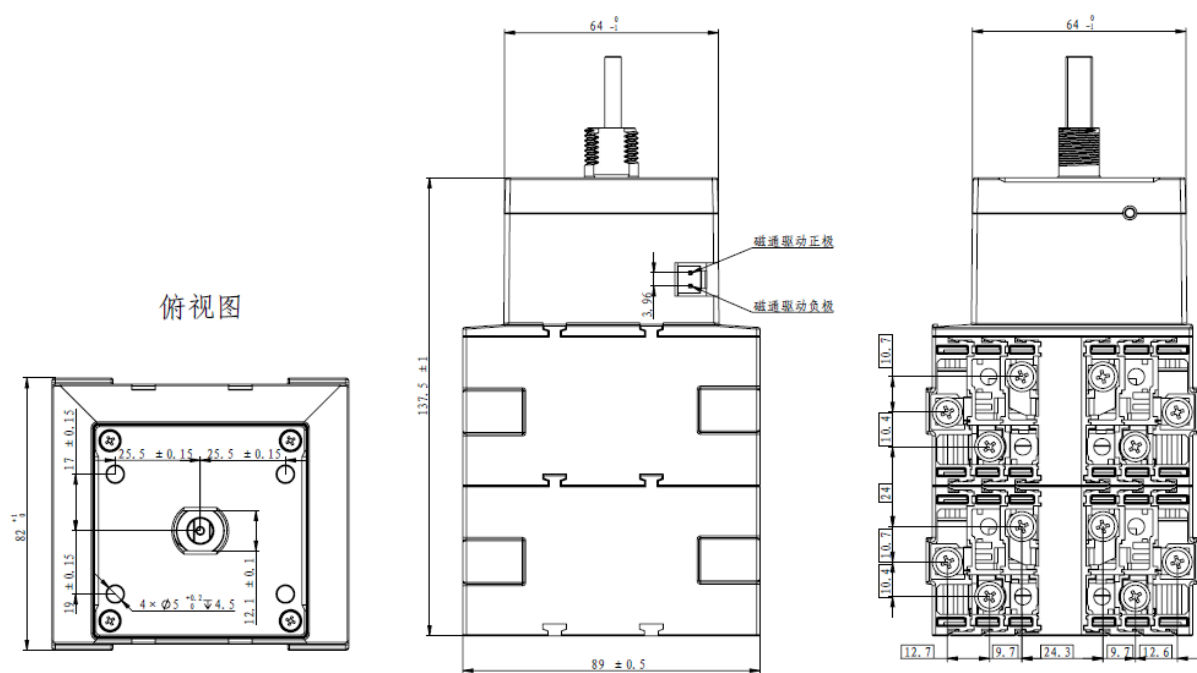


Figure 9 12P outline drawing

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Installation Method

Installation method: Install it on the cabinet door;

Positions after installation: As shown in Figure 10, the product has three switch positions, which are the "I/ON" position, "O/OFF" position and "Trip" position.

Opening dimensions of the cabinet door: As shown in Figure 11, 5.0 is the diameter of the client limit post,

Suggest the diameter of the upper limit pin on the inverter be 4mm

16.1 & 12.1 are the client opening dimensions.

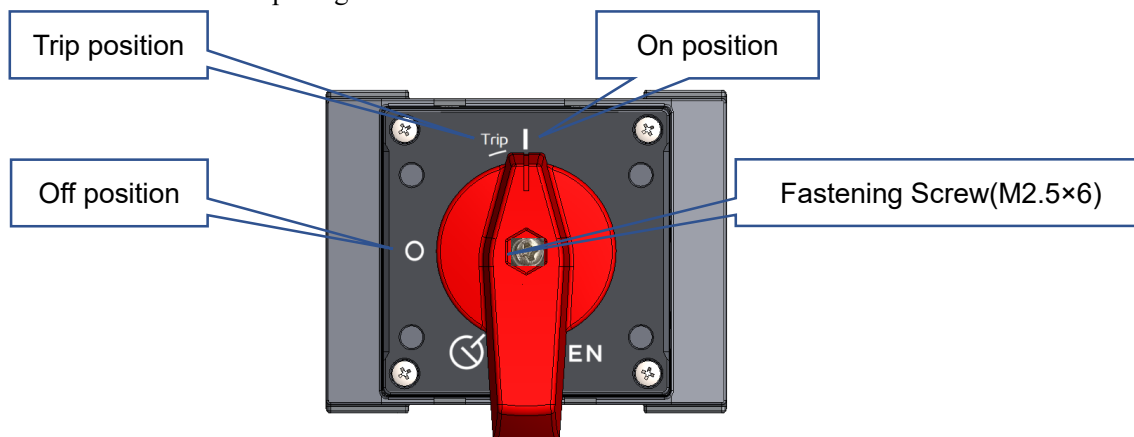


Figure 10 Mounting status position

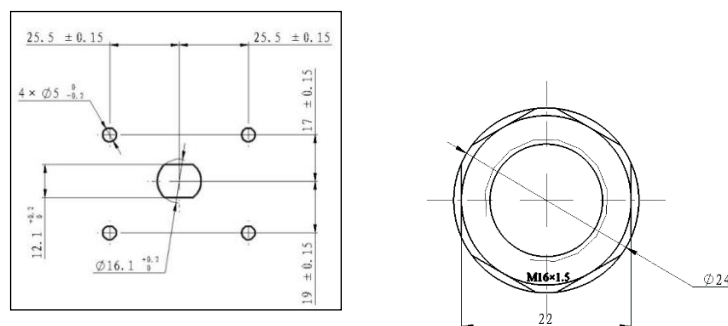


Figure 11 Cabinet door mounting dimensions

9 Packaging and Storage

9.1 Disconnecting switch remote trip product packaging

Table 3 Packaging of LNG63 remote trip product

SN	Specification	Number of Layers	Quantity	Product mode
1	LNG63DC/F2/4	4	32units/box	Trip
2	LNG63DC/F2/6	6	28units/box	Trip
3	LNG63DC/F2/8	8	20units/box	Trip
4	LNG63DC/F2/10	10	20untis/box	Trip
5	LNG63DC/F2/12	12	16units/box	Trip

9.2 Transportation and storage

During storage, the influences from rain and snow should be prevented, and warehouse should be in excellent ventilation with the relative humidity less than 80% and the temperature between -40°C and

+85°C. No acidic alkaline or other corrosive gas exists in the ambient air in the warehouse. Under the above conditions, the storage period shall be no more than three years since the manufacturing date.

10 Environmental Compliance

Products comply with RoHs2.0.

[Note: Complies with EU Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment and its amending Directive (EU) 2015/863]

11 Accessories

11.1 Remote trip auxiliary circuit terminals

The remote trip auxiliary circuit 2PIN terminals are shown in Figure 12, and the 2PIN terminal specifications and customer plug-in terminal specifications are shown in Table 4.

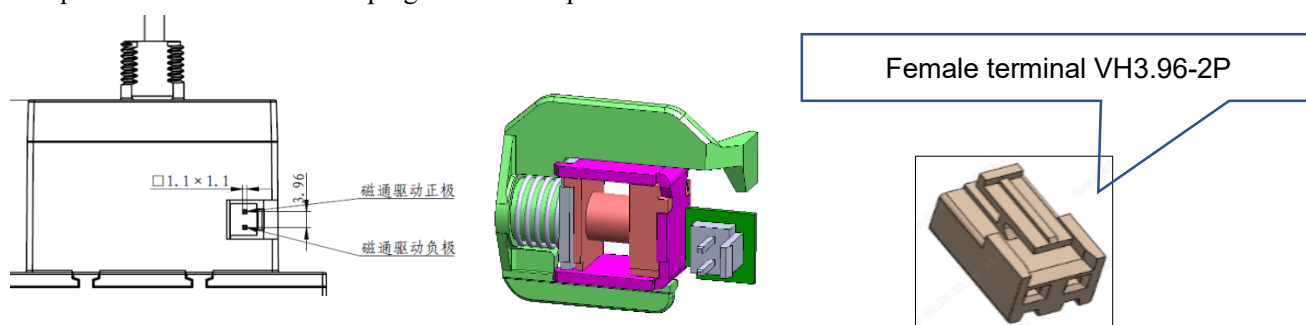


Figure 12 Remote auxiliary circuit

Table 4 2 PIN terminal specifications [product male terminal, customer plug-in terminal (female terminal)]

Terminal Name	Specification
Product male connection terminal	VH3.96-2P
Customer plug-in terminal (female terminal)	VH3.96-2P

11.2 Mounting nut and handle

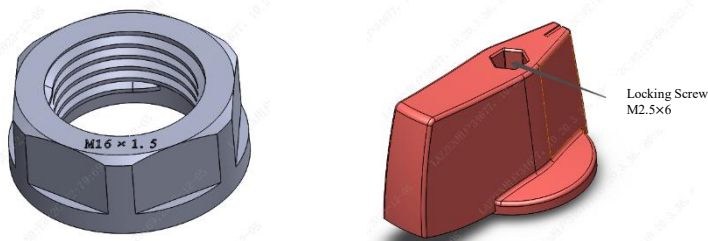


Figure13 Mounting nut and handle

Note: Plastic mounting nut M16×1.5, inner diameter range 14.6~14.8mm

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11.3 Wiring screws

Standard: GB9074.8-88

Specification: M4×10

11.4 Cold-Pressed Terminal

Cold-Pressed terminal model: 90° right-angle O-Type terminal.

Note 1: The terminal selection manufacturer is not exclusive. Please consult our company's technical support if you have any questions.

Note 2: Recommended Crimping Method: Hexagonal.

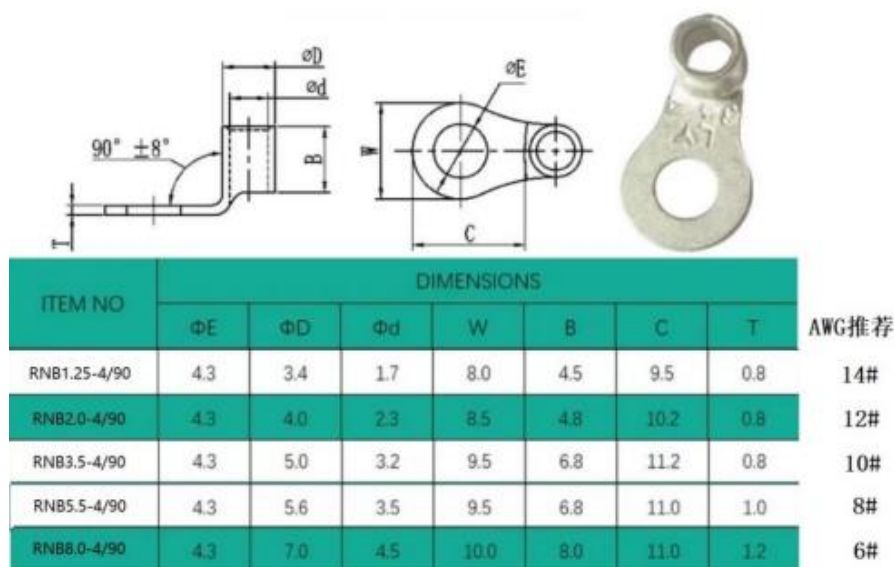


Figure 14 Cold-Pressed Terminal Selection Diagram

12 Requirements for Terminal Marking

Please see the appendix for details.

13 Precautions

- 1) The product is shipped with the handle, mounting nut, and handle screws separated and unassembled;
- 2) When the product is installed in the cabinet: It is necessary to ensure that the electrical clearance between the product and other parts in the cabinet should not be less than 8mm, while ensuring that the clearance between the product's arc nozzle and the nearest component is not less than 50mm;
- 3) Any quality problem due to disassembly without permission will be the liability of the user;
- 4) Do not touch the non-insulated exposed parts of the disconnecting switch when it is connected to a power supply;
- 5) Reliable cabling is required to prevent the terminals from being burnt out due to abnormal heat at the terminals.

14 Ordering Specifications

If the operating environment is beyond the range of the operating conditions in Article 4, please contact the manufacturer.



Appendix: Laser Marking Diagram

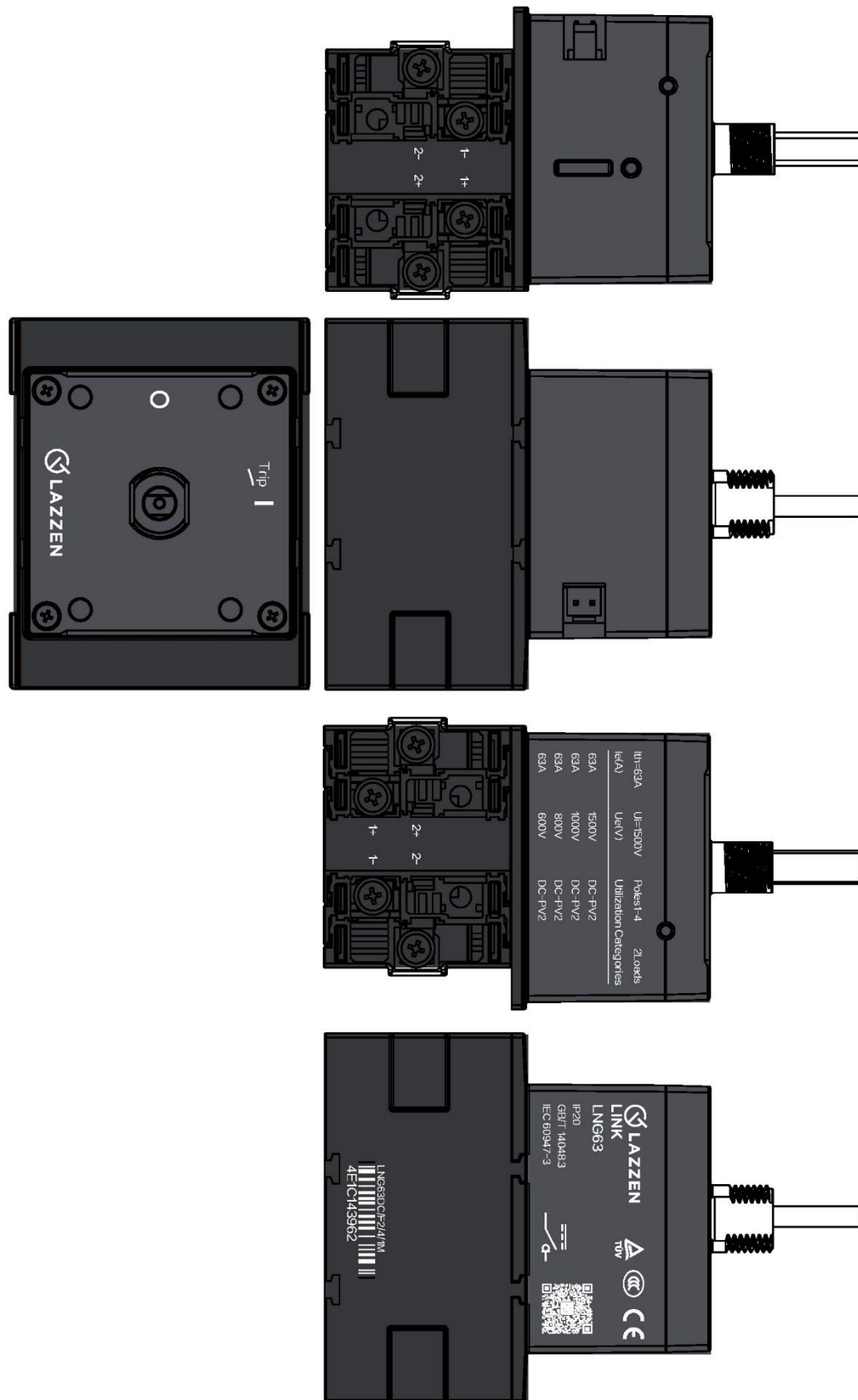


Figure 15 4P Laser Marking Diagram

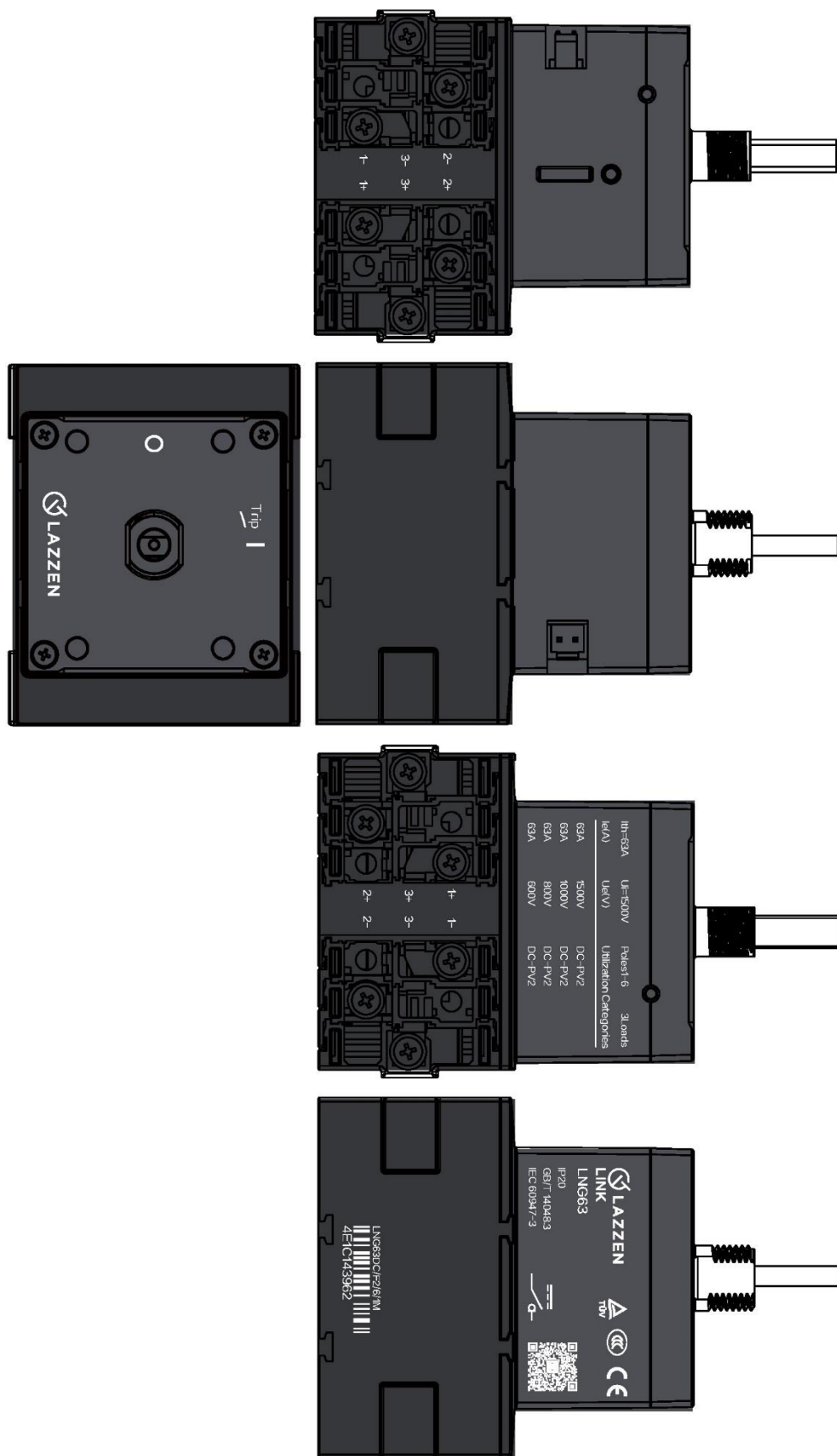


Figure 16 6P Laser Marking Diagram

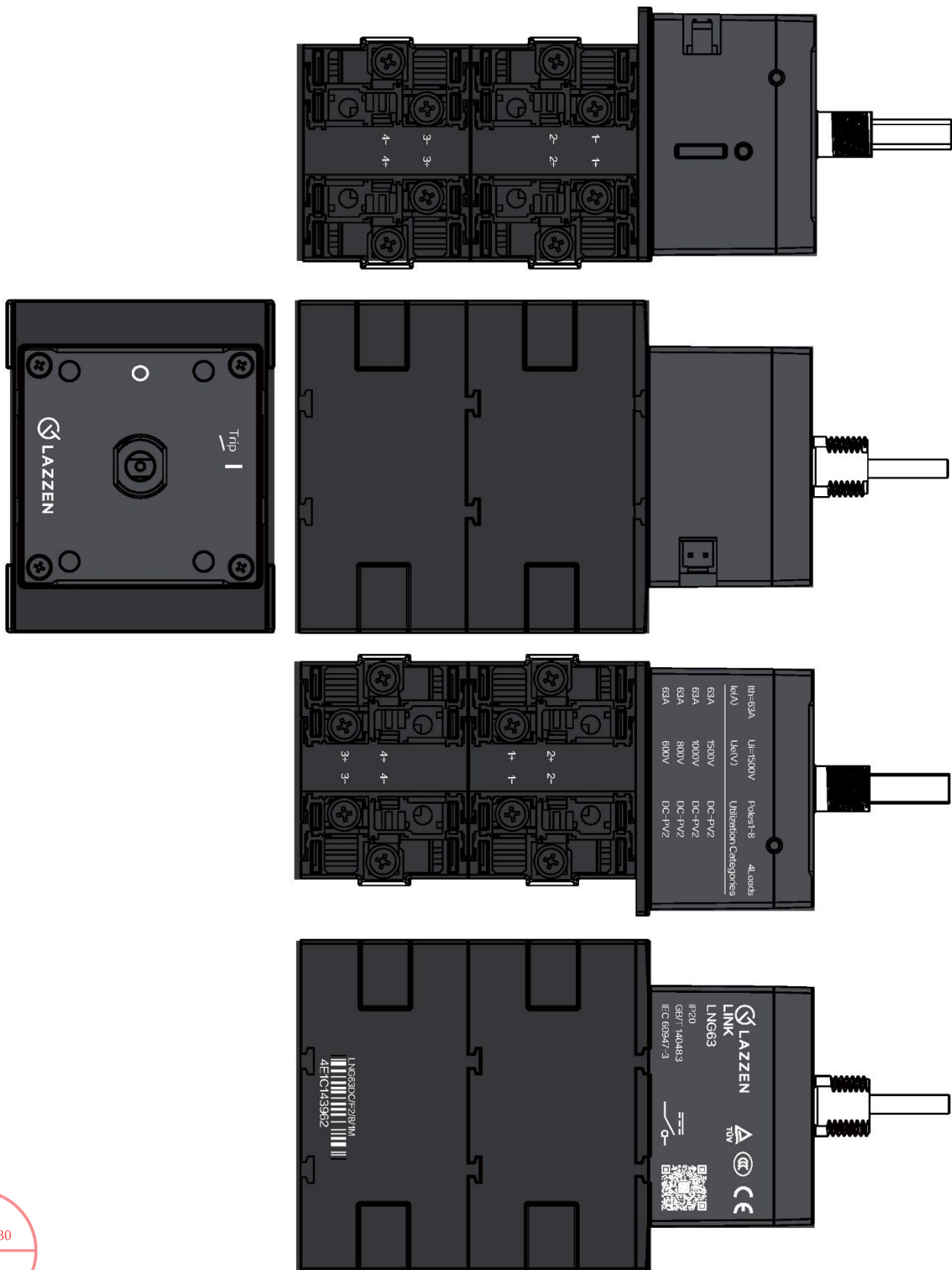


Figure 17 8P Laser Marking Diagram

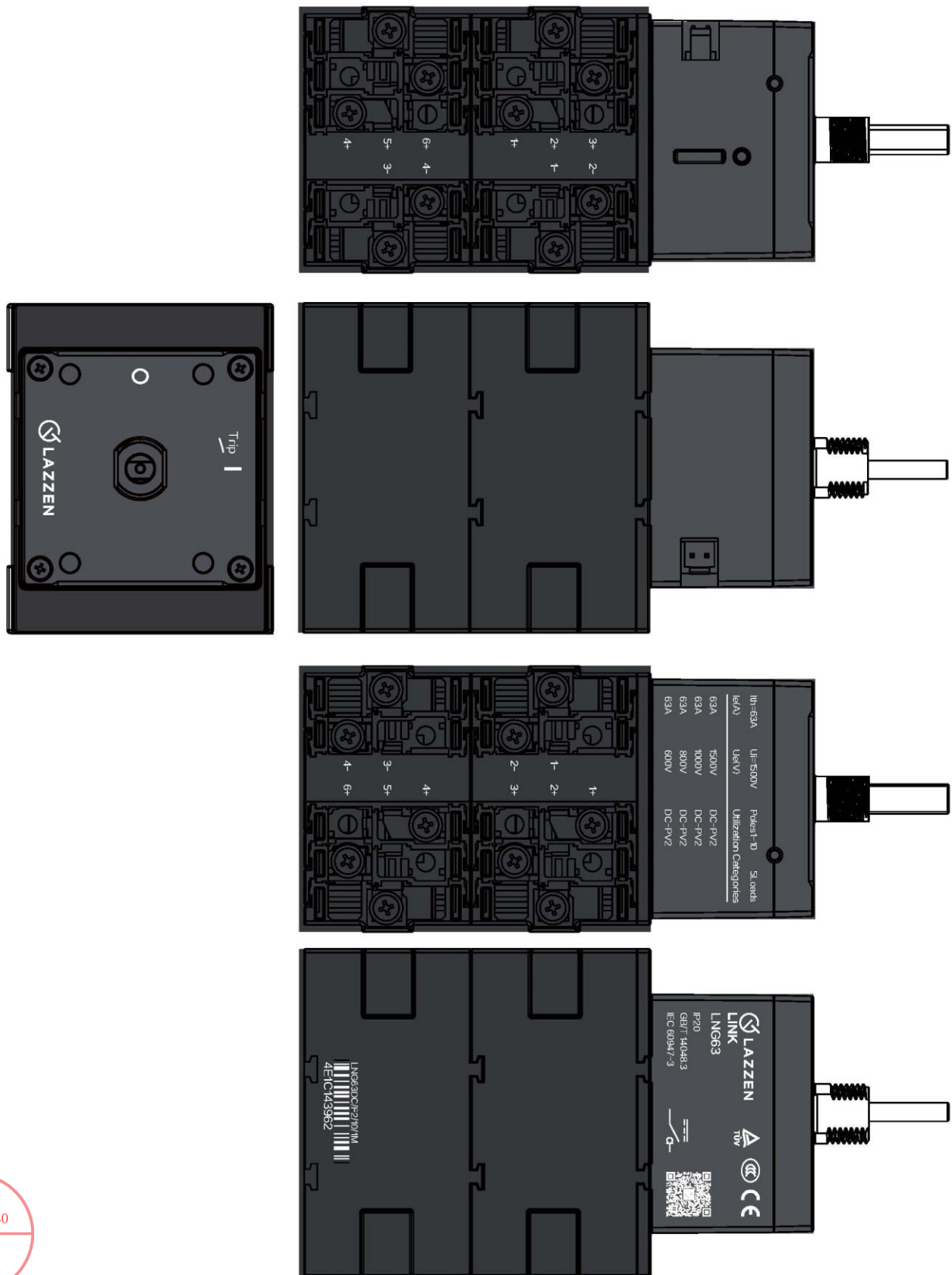


Figure 18 10P Laser Marking Diagram

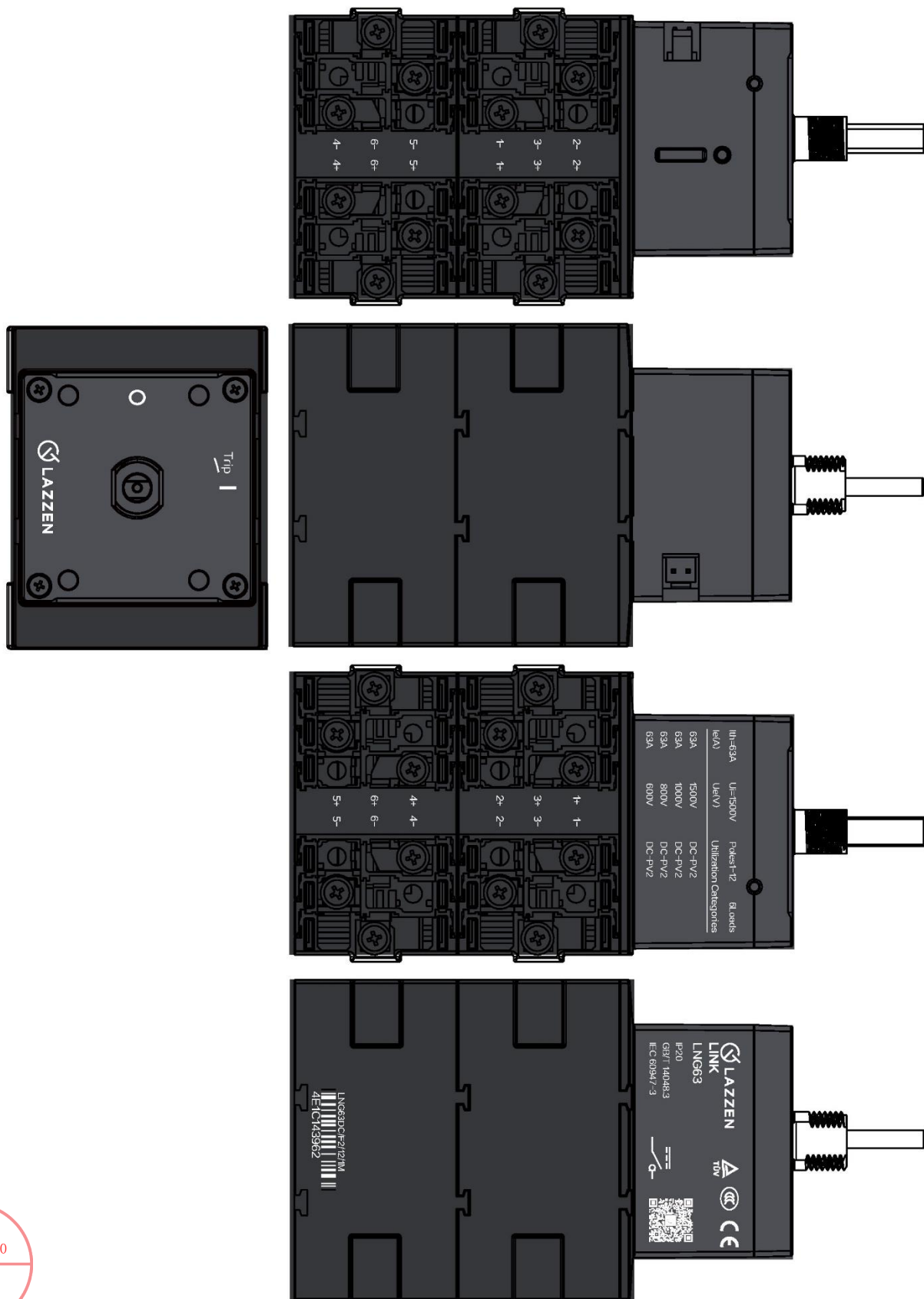


Figure 19 12P Laser Marking Diagram