LEIDUN ELECTRIC

PHOTOVOLTAIC COMPONENTS SERIES

New Energy·New Power

National unified customer service hotline
400-822-0588

LEIDUN ELECTRIC CO., LTD.

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Enterprise official website

ABOUT US

Dedicated to developing safe, reliable and high-tech smart electrical products.

LEIDUN Electric Co., Ltd was founded in 2016 and is headquartered in Suzhou City, Jiangsu Province. We are a modernized electrical enterprise integrating R&D, production, and sales. In response to societal progress and development, and to meet market demands while aligning with the company's growth objectives, the Wenzhou Branch was opened in 2018 in Liushi Town, Yueqing City—known as "The Electric Capital of China".

Our primary products include components for photovoltaic (PV) systems, components and power distribution cabinets for both low and high voltage, new energy power equipment, and Internet of Things (IoT) circuit breakers. We have recently expanded our product line to include new energy charging piles, energy storage systems, combiner boxes, grid-connected cabinets, prefabricated cabin equipment and are continually developing new products..

Through continuous technological innovation, these products have achieved significant advancements in both design and technical performance. They are primarily utilized in various sectors, such as the State Grid Corporation of China, PV systems, railway traffic, fire protection, construction engineering, hospitals , and other fields. Market sales data confirm that our products effectively meet customer needs and project requirements, earning approval and positive feedback from clients.

All kinds of products manufactured by Leidun have been successfully sold across various provinces, cities, and autonomous regions, as well as exported to Europe, the United States, Australia, Asia, Africa, and other countries. However, we have not slowed our pace of progress. We consistently adhere to the management principle of "people-oriented, technology innovation", and have trained numerous excellent technical and management professionals. We have also developed a comprehensive set of enterprise management rules and regulations. Our staff is stable and well-trained, and we are equipped with complete production and processing facilities, as well as quality testing equipment. We value our market reputation and the trust of our customers, which drives us to continually learn advanced technologies and management practices both domestically and internationally to enhance product quality.

We have successfully obtained the "CCC" certificate and "CQC" certifications, along with three system certifications and numerous honorary awards. Since our establishment, we have been dedicated to manufacturing new energy photovoltaic products and and operating in the high and low voltage electrical fields. Our enterprise development philosophy is centered on "specialization, excellence, growth", and our service concept is "perseverance". We aims to focus on global markets, strive for national brand recognition, and provide outstanding solutions for "carbon-neutral" and intelligent green electricity.

2016
LEIDUN was established in 2016

CCC
All products have obtained national 3C certification

ISO
Fully passed the ISO three system certification

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LEIDUN ELECTRIC

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High Voltage Air Circuit Breaker (AC800~1140V)

LDW9 Series

Product Overview

LDW9 High Voltage Air Circuit Breaker (ACB), also known as an intelligent universal circuit breaker or frame circuit breaker, is designed for power distribution networks operating at an AC 50Hz, with a rated working voltage 800V~1140V and a rated working current of 7500A.

This ACB is utilized for the distribution of electrical energy and serves to protect cables and power equipment from various faults, including overload, under-voltage, short-circuits, and grounding issues. It incorporates a range of curve protection controllers that offer comprehensive protection functions, making it particularly suitable for power distribution networks that require enhanced power supply reliability and aim to minimize unnecessary power outages.

The 3H type smart controller is equipped with a communication interface that facilitates connectivity with field buses, thereby enabling four remote functionalities: "telemetry", "remote adjustment", "remote control" and "remote message" to fulfill the requirements of control automation. The integration of a leakage transformer with the corresponding smart controller provides leakage protection. This device can be utilized for motor fault protection within AC 50Hz, 400V network. Under normal conditions, it is suitable for infrequent starting of motors.

The products have successfully obtained "CQC" certification from the China Quality Certification Center.

LDW9 Series

High Voltage Air Circuit Breaker (AC800~1140V)

Model Description

LD	W	9	–	□	HU	/	4	□	□	□	□	□
↓	↓	↓		↓	↓		↓	↓	↓	↓	↓	↓
①	②	③		④	⑤		⑥	⑦	⑧	⑨	⑩	⑪

①	Company Code
②	Air Circuit Breaker or Frame Circuit Breaker or Intelligent Universal Circuit Breaker
③	Design No.
④	Inm=2500、Inm=4000、Inm=7500
⑤	High Voltage Level
⑥	3 Poles、4 Poles
⑦	Intelligent Controller：M–type: Digital display, 3M–type: LCD display standard, 3H–type: LCD communication interface
⑧	200A, 400A, 630A, 800A, 1000A, 1250A, 1600A, 2000A, 2500A, 2900A, 3200A, 3600A, 4000A, 5000A, 6300A, 7500A
⑨	C: Drawer Type, F: Fixed type
⑩	Horizontal Rear, Vertical Front, Vertical Rear
⑪	◎ Button lock device ◎ Phase partition for drawer type circuit breaker ◎ Under–voltage release ◎ "OFF" locking device (key lock) ◎ Mechanical interlocking: 2 or 3 circuit breakers horizontal steel cable interlocking, 2 or 3 circuit breakers vertical lever interlocking ◎ External neutral N current transformer ◎ DC power supply module

Note：
The standard configuration includes an M–type intelligent controller, four sets of auxiliary switch conversion contacts, and a horizontal rear connection method;
Voltage value for the intelligent controller, shunt release, under–voltage release, and closing electromagnet mechanism should be indicated.

Terms of use

● Ambient Air Temperature：–5℃ to +40℃ (Please refer to temperatures derating factor for above +40℃ to +60℃).

● Installation Location：Install the ACB according to the requirements in the user manual. The altitude shall not exceed 2000m. (Please refer to high altitude derating factor for altitudes above 2000m). The vertical tilt of the circuit breaker should not exceed 5° .

● Atmospheric Conditions: The relative humidity of the air at the installation site should not exceed 50% at a maximum temperature of +40℃ . At lower temperatures, higher relative humidity is acceptable, such as reaching 90% at 20℃ . It is important to consider the condensation on the product surface due to temperature changes.

● Pollution Level：III

● Installation Category：The circuit breaker main circuit, undervoltage release coil, and power transformer primary coil are used for installation category IV. The installation category of other auxiliary circuits and control circuits is category II.

● ACB is suitable for electromagnetic environments；

● Install the ACB in an area free from explosion hazards, conductive dust, metal corrosion and insulation damage. It should be housed in a cabinet with a door frame, achieving IP54 protection level.

LDW9 Series

High Voltage Air Circuit Breaker (AC800~1140V)

ACB complies with following standards

- IEC60947-1, GB/T14048.1: Low voltage switchgear and controlgear – General rules
- IEC60947-2, GBT14048.2: Low-voltage switchgear and controlgear – Circuit-breakers
- IEC60947-4-1, GB/T14048.4: Low-voltage switchgear and controlgear – Contactors and motor-starters
- GB/T2421.1: Environmental testing for electric and electronic products – General and guidance
- GB/T14597: Environmental climatic conditions appearing in different altitudes for electrical products

Main technical parameters

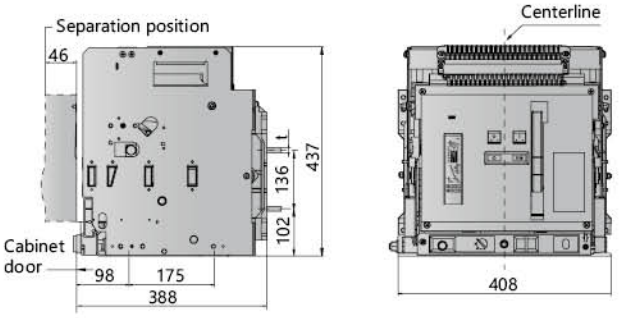
Model		LDW9-2500HU	LDW9-4000HU	LDW9-7500HU
Ampere Frame Rating (A) Inm		2500	4000	7500
Rated working current (A) In		400、630、800、1000、1250、1600、2000、2500	2000、2500、2900、3200、3600、4000	4000、5000、6300、7500
Rated working voltage (A) Ue		50Hz AC800V、1140V	50Hz AC800V、1140V	50Hz AC800V、1140V
Rated insulation voltage (V) Ui		1150V	1150V	1150V
Rated impulse withstand voltage Uimp (kV)		12	12	12
Power frequency withstand voltage U (V) 1min		50Hz 3500	50Hz 3500	50Hz 3500
No. of poles		3P/4P	3P/4P	3P/4P
Ultimate short circuit breaking capacity (kA) Icu	AC400V	100	100	150
	AC690V	65	80	100
	AC800V AC1140V	50	50	65
Operating short circuit breaking capacity (kA) Ics	AC400V	100	100	150
	AC690V	65	80	100
	AC800V AC1140V	50	50	65
Rated short-time withstand current (kA) Icw/1s	AC400V	100	100	150
	AC690V	65	80	100
	AC800V AC1140V	50	50	65
Inherent opening time (ms)		23~32	23~32	23~32
Inherent closing time (ms)		50 ± 10	50 ± 10	50 ± 10
Arcing distance (mm)		0	0	0
Electrical endurance (Cycles)		AC400/690V：7000/3000 AC800/1140V：2500/2000	AC400/690V：7000/2500 AC800/1140V：2000/1000	AC400/690V：2000/1500 AC800/1140V：1200/1000
Mechanical endurance (Cycles)	No maintenance	10000	10000	10000
	With maintenance	15000	15000	15000

LDW9 Series

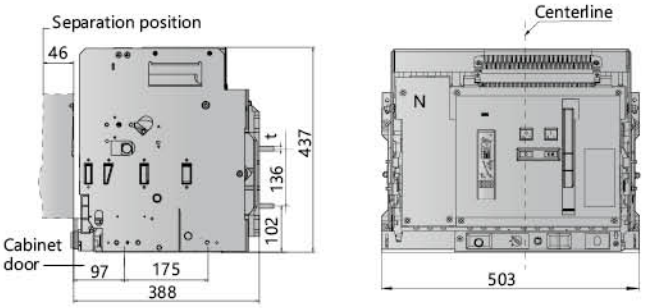
High Voltage Air Circuit Breaker (AC800~1140V)

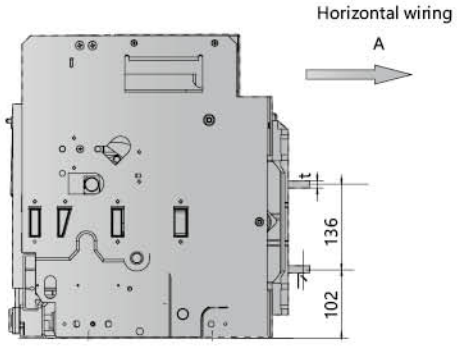
Appearance and Installation dimensions (mm)

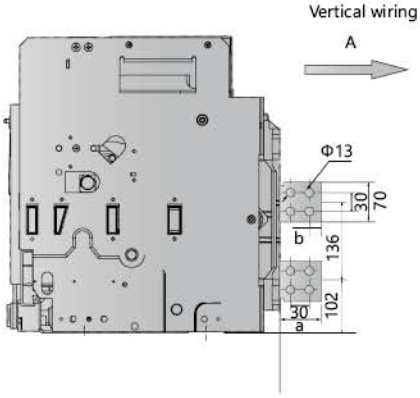
◆ LDW9-2500HU Withdrawable circuit breaker (3 poles)



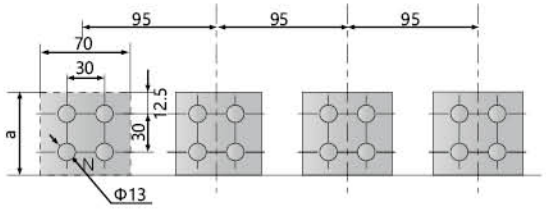
◆ LDW9-2500HU Withdrawable circuit breaker (4 poles)



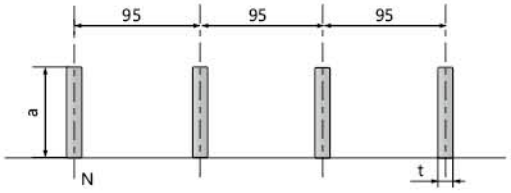


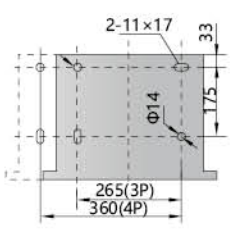


◆ Standard horizontal wiring

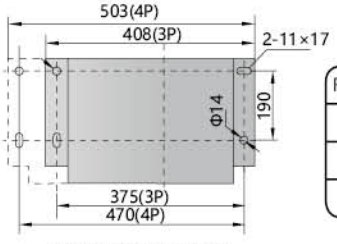


◆ Vertical wiring





Internal installation dimensions



Installation dimensions

Rated Current (A)	Size (t)	Size (a)	Size (b)
630-800	10	63	15
1000-1600	15	68	12.5
2000-2500	20	68	12.5

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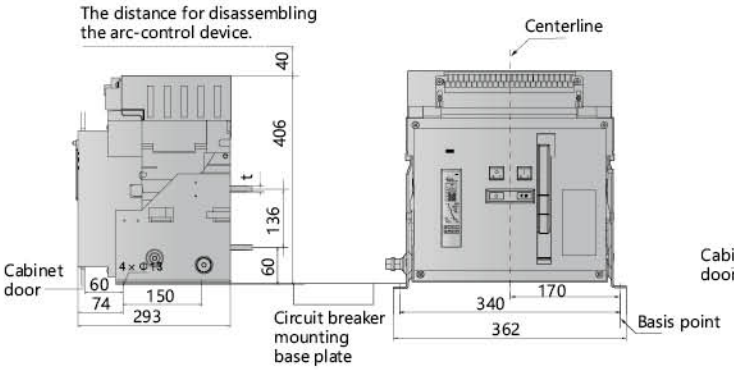
LDW9 Series

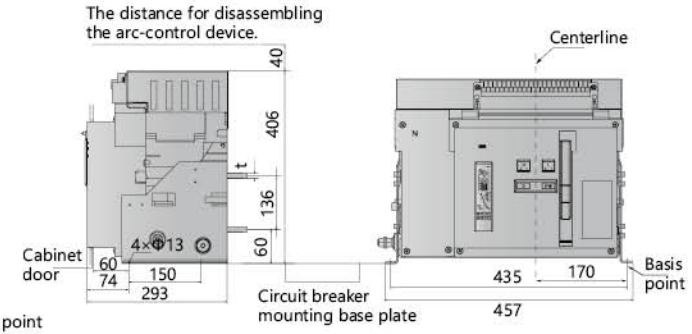
High Voltage Air Circuit Breaker (AC800~1140V)

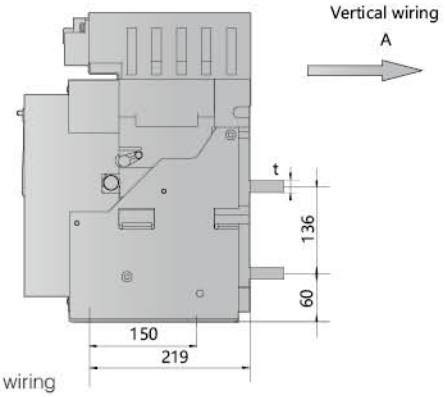
Appearance and Installation dimensions (mm)

◆ LDW9–2500HU Fixed circuit breaker (3 poles)

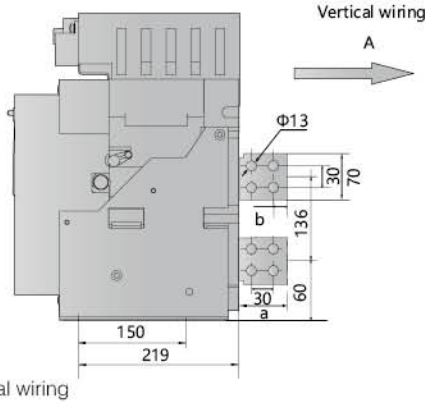


◆ LDW9–2500HU Fixed circuit breaker (4 poles)

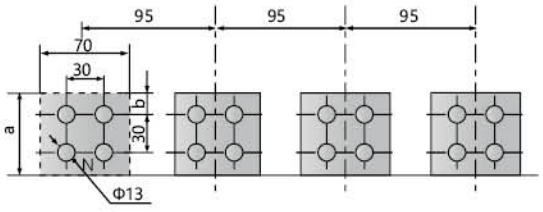


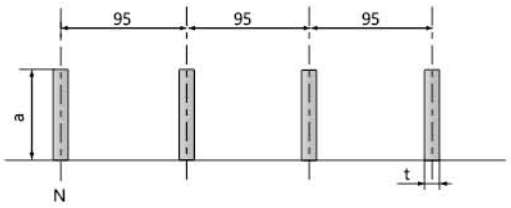


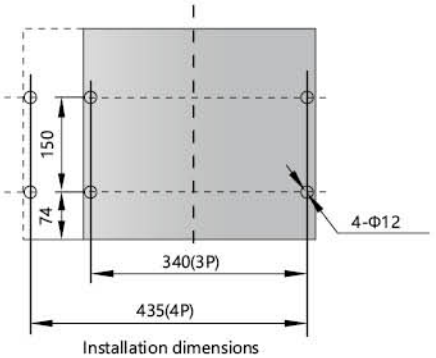
◆ Standard horizontal wiring



◆ Vertical wiring







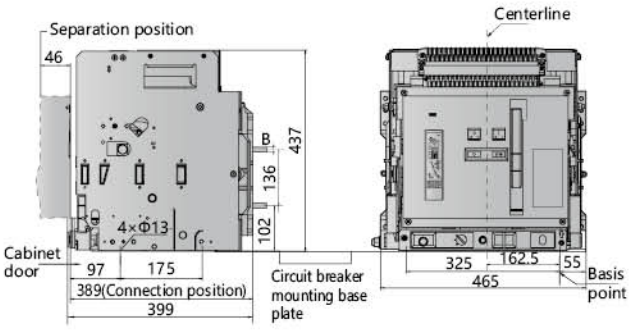
Rated Current(A)	Size (t)	Size (a)	Size (b)
630–800	10	63	15
1000–1600	15	68	12.5
2000–2500	20	68	12.5

LDW9 Series

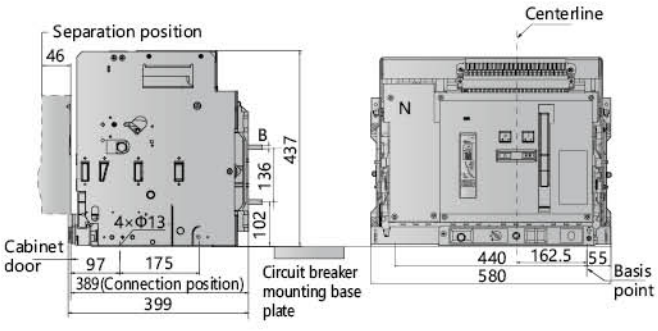
High Voltage Air Circuit Breaker (AC800~1140V)

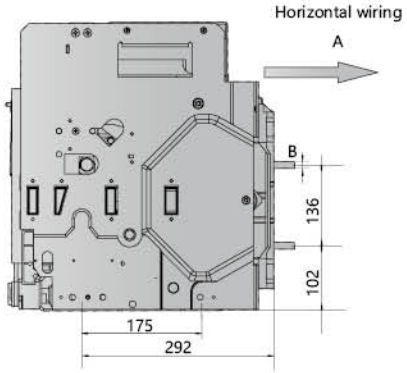
Appearance and Installation dimensions (mm)

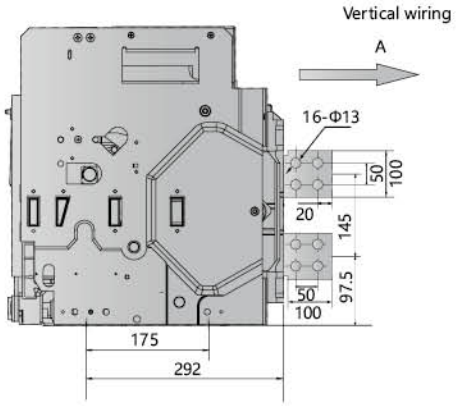
◆ LDW9-4000HU Withdrawable circuit breaker (3 poles)



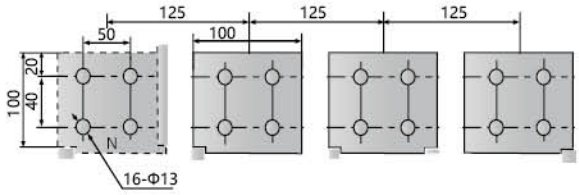
◆ LDW9-4000HU Withdrawable circuit breaker (4 poles)



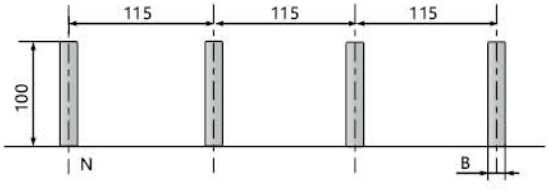


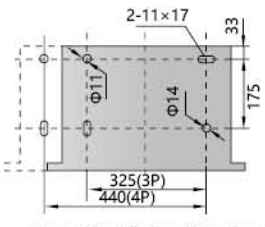


◆ Standard horizontal wiring

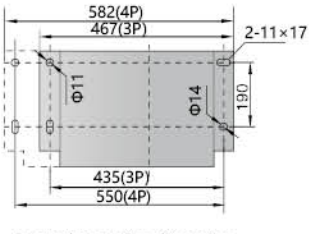


◆ Vertical wiring





Internal installation dimensions



External mounting dimension

Rated Current (A)	Size B (mm)
2000、2500、2900、3200	20
3600、4000	30

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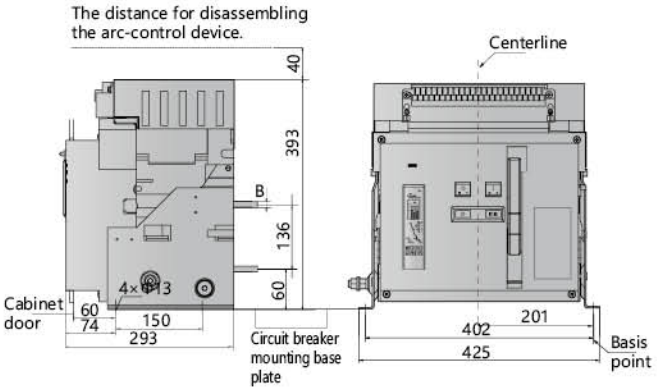
LDW9 Series

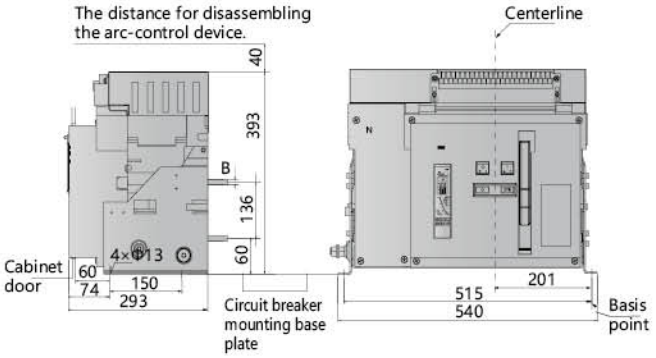
High Voltage Air Circuit Breaker (AC800~1140V)

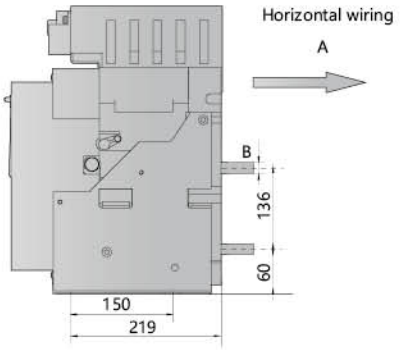
Appearance and Installation dimensions (mm)

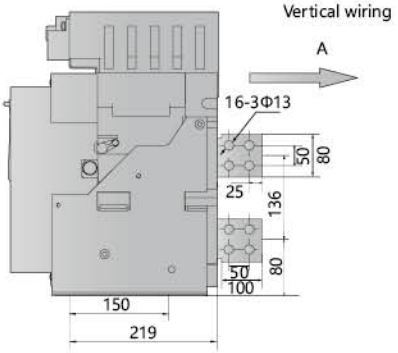
◆ LDW9-4000HU Fixed circuit breaker (3 poles)



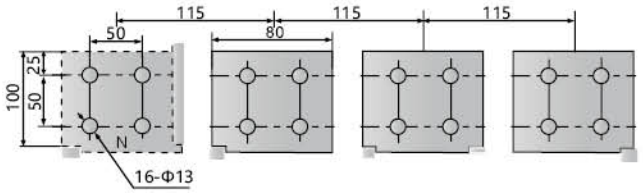
◆ LDW9-4000HU Fixed circuit breaker (4 poles)



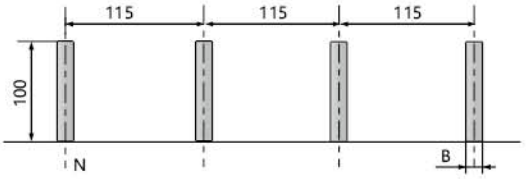


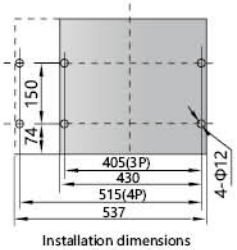


◆ Standard horizontal wiring



◆ Vertical wiring





Installation dimensions

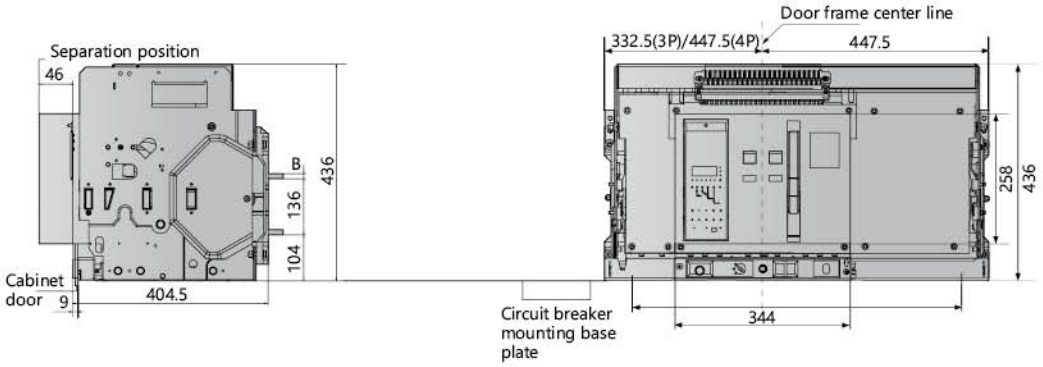
Rated Current (A)	Size B (mm)
2000、2500、2900、3200、3600、4000	20

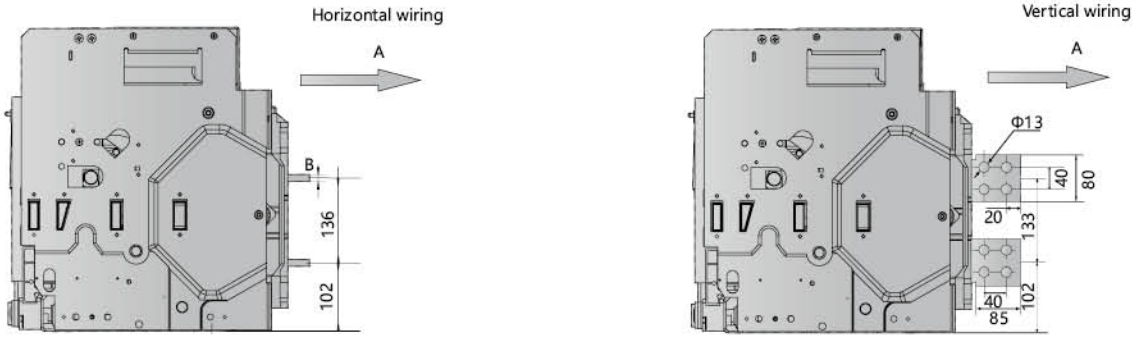
LDW9 Series

High Voltage Air Circuit Breaker (AC800~1140V)

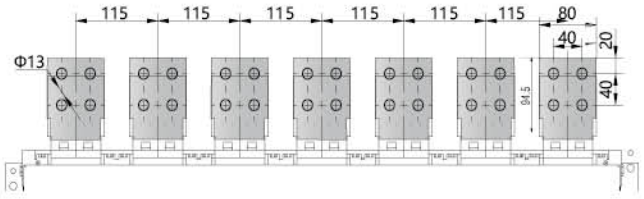
Appearance and Installation dimensions (mm)

◆ LDW9-7500HU Withdrawable circuit breaker (3P/4P 4000A、5000A)

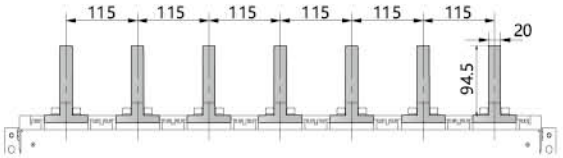


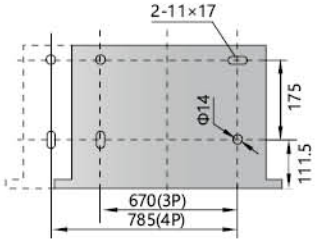


◆ Standard horizontal wiring



◆ Vertical wiring





Installation dimensions

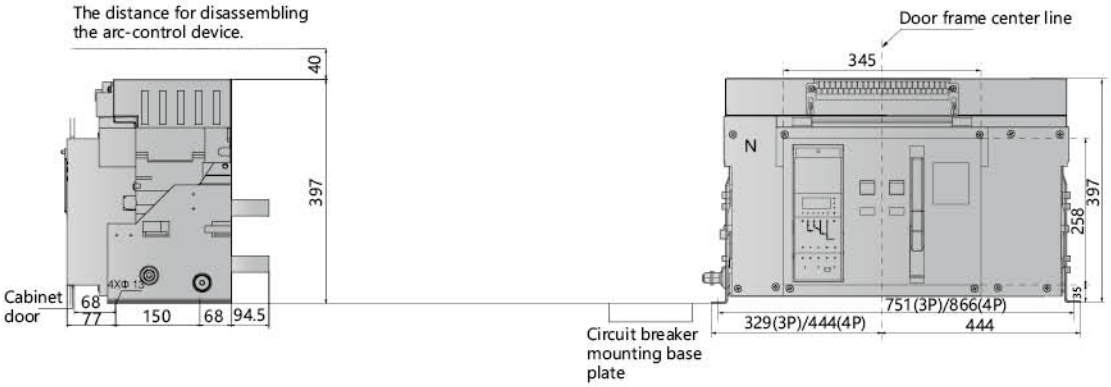
Rated Current (A)	Size B (mm)
4000	20
5000	

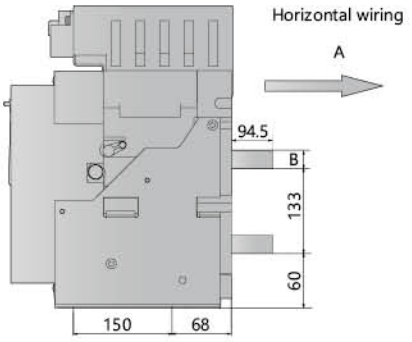
LDW9 Series

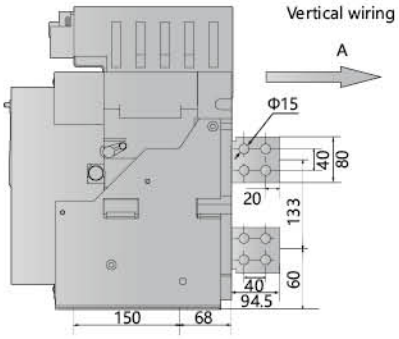
High Voltage Air Circuit Breaker (AC800~1140V)

Appearance and Installation dimensions (mm)

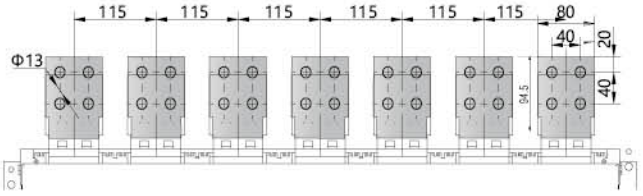
◆ LDW9-7500HU Fixed circuit breaker (3P/4P 4000A、5000A)



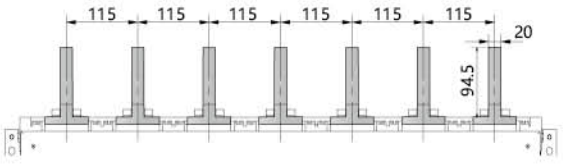


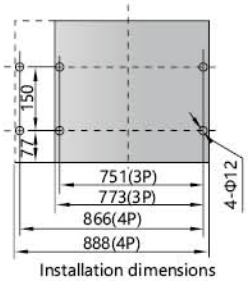


◆ Standard horizontal wiring



◆ Vertical wiring

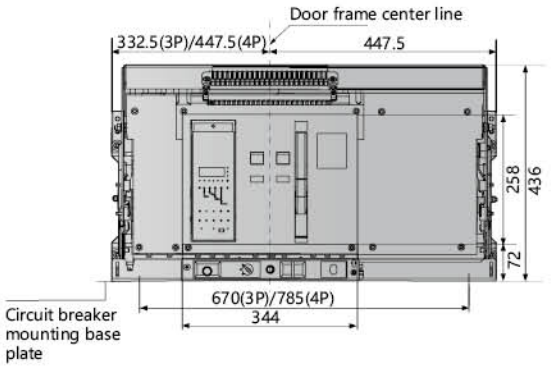




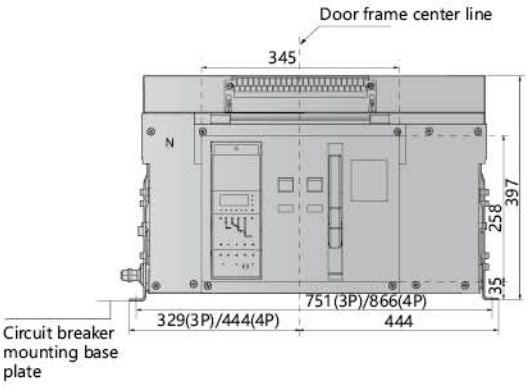
Rated current (A)	Size B (mm)
4000	20
5000	

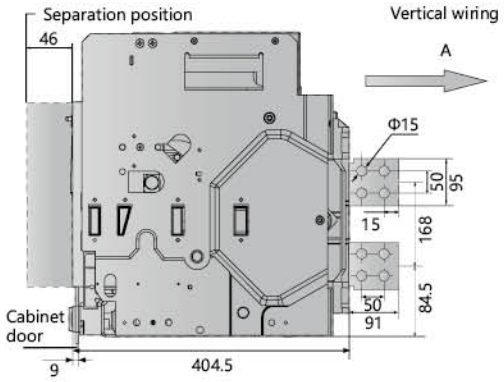
Appearance and Installation dimensions (mm)

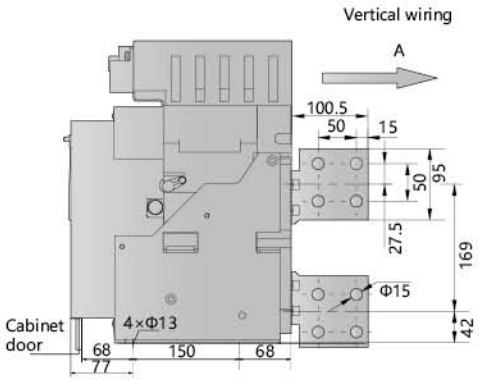
◆ LDW9--7500HU Withdrawable circuit breaker (3P/4P 6300A)

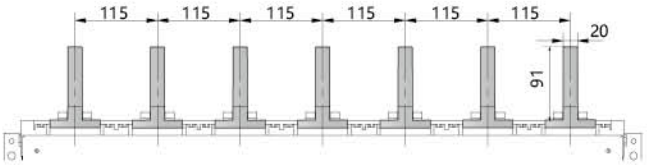


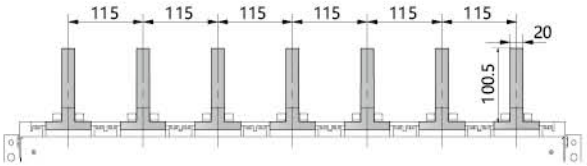
◆ LDW9--7500HU Fixed circuit breaker (3P/4P 6300A)

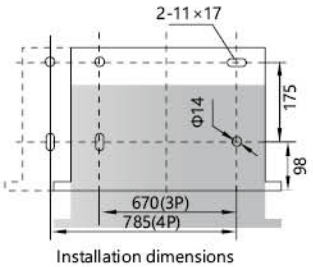




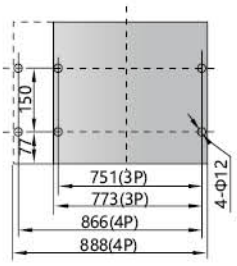








Installation dimensions



Installation dimensions

Rated current (A)	Size B (mm)
6300A	20

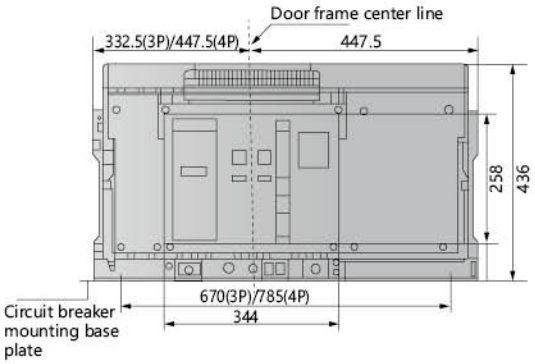
Rated current (A)	Size B (mm)
6300A	20

LDW9 Series

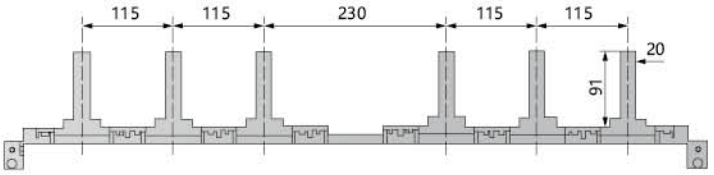
High Voltage Air Circuit Breaker (AC800~1140V)

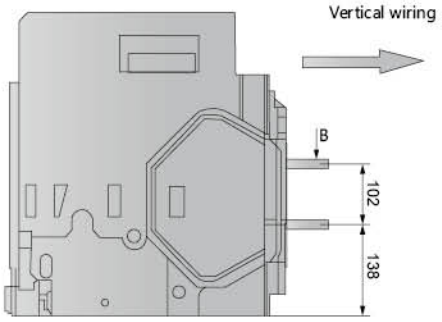
Appearance and Installation dimensions (mm)

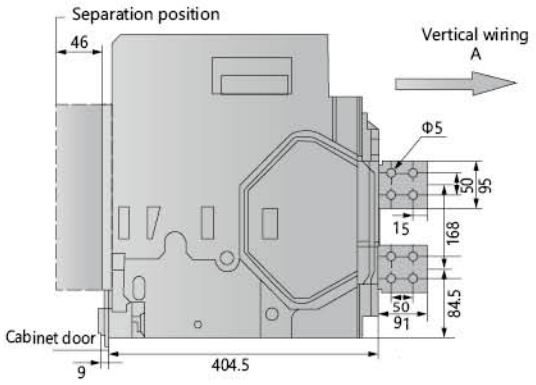
◆ LDW9–7500HU Withdrawable circuit breaker (7500A)

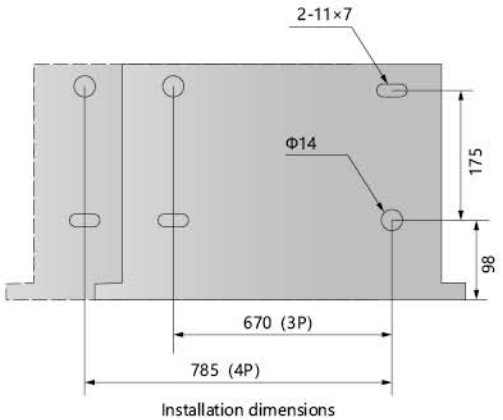


◆ Vertical wiring





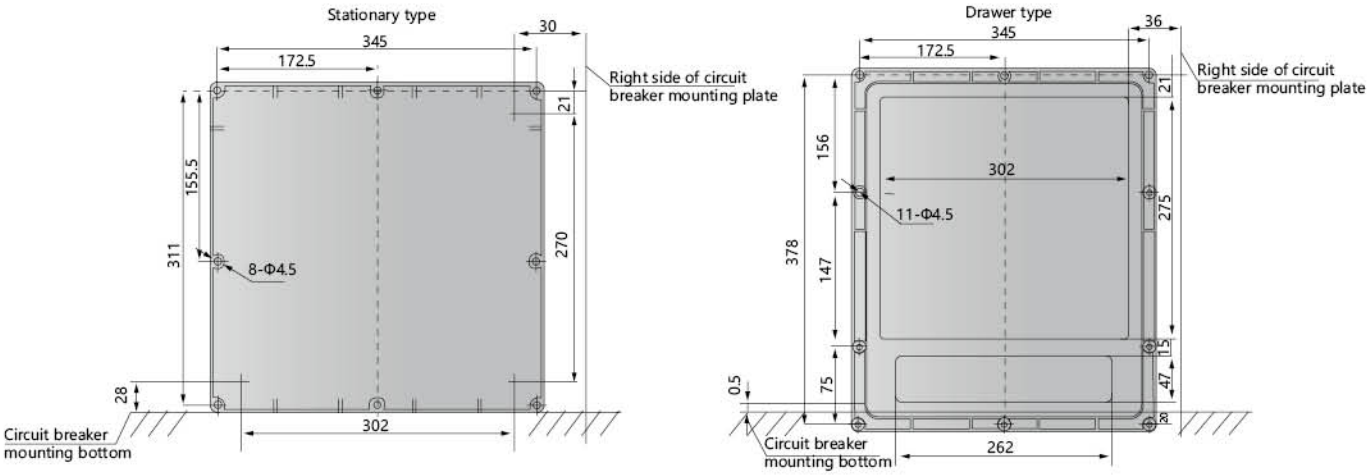




Rated current (A)	Size B (mm)
7500A	20

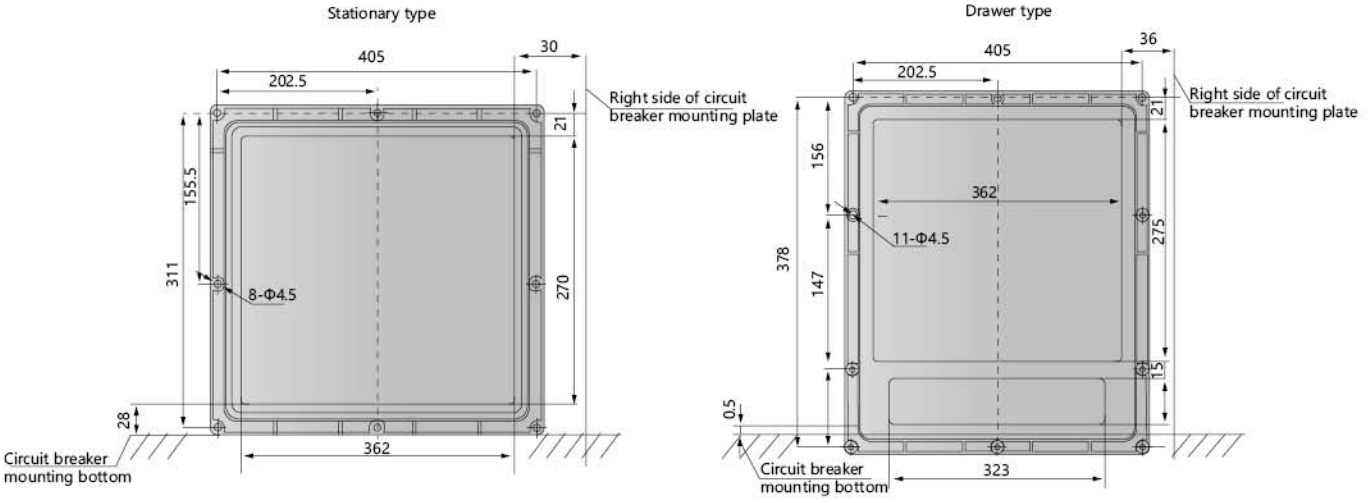
Door frame dimensions and installation hole spacing

◆ LDW9-2500HU (630A-2500A 3P、4P)



◆ LDW9-4000HU (2000A~4000A 3P、4P)

◆ LDW9-7500HU (4000A~7500A 3P、4P)



Photovoltaic

Energy Storage

Electrical grid

Industry

Type 45 Air Circuit Breaker (AC400~800V)

LDW9 Series

Product Overview

LDW9 Type 45 Air Circuit Breaker (ACB) is designed for AC 50Hz power distribution networks, with a maximum rated working voltage of 800V and a rated working current 400~6300A.

It is used to distribute electrical energy and protect circuits and power equipment from hazards such as overload, under-voltage, short circuits, and single-phase grounding faults. It features intelligent protection functions and has high precision selective protection, which improves power supply reliability. Additionally, it is equipped with a standard RS485 communication interface, enabling the four remote functions of "telemetry", "remote adjustment", "remote control" and "telecommunication" to fulfill the requirements of cluster control centers and automation systems.

This ACB features a compact structure, high breaking capacity, and no arcing distance. It can be used as an isolating switch when not equipped with an intelligent trip unit and sensors, marked as —/|—.

It complies with GB14048.2 "Low-voltage switchgear and controlgear – circuit breakers" and IEC60947-2 "Low-voltage switchgear and controlgear – Circuit breakers" and other standards.

LDW9 Series

Type 45 Air Circuit Breaker(AC400~800V)

Model Description

LD	W	9	–	□	/	□	□	□
↓	↓	↓		↓		↓	↓	↓
Leidun Company Code	ACB	Design No.		Ampere Frame Rating		Poles	Rated Current (A)	High Breaking Capacity Marked "H"

Terms of use

- Ambient Air Temperature：−5℃ to +40℃ , the average temperature for 24 hours does not exceed +35℃ .
- Atmospheric Conditions：The relative humidity of the air should not exceed 50% at a maximum temperature of +40 ℃ . At lower temperatures, higher relative humidity is acceptable, such as reaching 90% at 25℃ . It is important to consider the condensation on the product surface due to temperature changes.
- Installation Location：The altitude shall not exceed 2000m. The vertical tilt of the circuit breaker should not exceed 5° .
- Pollution Level：III
- Installation Category：Circuit breaker with a maximum rated working voltage 690V, undervoltage release coil, and power transformer primary coil are used for installation category IV. The auxiliary circuits and control circuits are installed in category III.
- Use Category：B

Changes in rated continuous current of circuit breakers at different ambient temperatures

In (A) / Ambient temperature(℃)	2000/AC400	2000/AC630	2000/AC800	2000/AC1000	2000/AC1250	2000/AC1600	2000/AC2000	3200/AC2000
+40℃	400	630	800	1000	1250	1600	2000	2000
+50℃	400	630	800	1000	1250	1550	1900	2000
+60℃	700	630	800	1000	1250	1550	1800	2000

In (A) / Ambient temperature(℃)	3200/AC2500	3200/AC2900	3200/AC3200	4000/AC3200	4000/AC3600	4000/AC4000	6300/AC4000	6300/AC5000	6300/AC6300
+40℃	2500	2900	3200	3200	3600	4000	4000	5000	6300
+50℃	2300	2600	2900	3000	3200	3600	3800	4500	5300
+60℃	2100	2300	2500	2700	2900	3100	3500	4000	4800

LDW9 Series

Type 45 Air Circuit Breaker(AC400~800V)

Main technical parameters

Model		LDW9-2000					
Ultimate short circuit breaking capacity (kA) Icu		80(400V) 50(690V)					
Operating short circuit breaking capacity (kA) Ics		65(400V) 40(690V)					
Rated short-time withstand current (kA) Icw/1s		65(400V) 40(690V)					
Rated Current (A) In		630	800	1000	1250	1600	2000
No. of poles (P)		3、4					
Rated Voltage (V) Ue		AC400、AC690					
Rated insulation voltage (V) Ui		AC1000					
Rated impulse withstand voltage (kV) Uimp		12					
Maximum continuous current of the N pole IN (A)		100%In					
Inherent breaking time (ms)		23~32					
Smart Controller	Standard (M)	●	●	●	●	●	●
	Communication type(H)	●	●	●	●	●	●
Electrical endurance (Cycles)		AC400V：500 AC690V：500					
Mechanical endurance (Cycles)	No maintenance	2500					
	With maintenance	10000					
Wiring Method		Horizontal、Vertical					
Net Weight (kg)	Withdrawable 3P/4P	67.5/80	70/84	70/84	70/84	70/84	79/90.5
	Fixed 3P/4P	42/52	44/52	44/52	44/52	44/52	45/54
Gross Weight (kg)	Withdrawable 3P/4P	79.5/94	82/98	82/98	82/98	82/98	91/104.5
	Fixed 3P/4P	54/66	56/66	56/66	56/66	56/66	57/68

Model		LDW9-3200、LDW9-4000			
Ultimate short circuit breaking capacity (kA) Icu		100(400V) 80(690V)			
Operating short circuit breaking capacity (kA) Ics		85(400V) 65(690V)			
Rated short-time withstand current (kA) Icw/1s		85(400V) 65(690V)			
Rated Current (A) In		2000	2500	3200	4000
No. of poles (P)		3、4	3、4	3、4	3、4
Rated Voltage (V) Ue		AC400、AC690			
Rated insulation voltage (V) Ui		AC1000			
Rated impulse withstand voltage (kV) Uimp		12			
Maximum continuous current of the N pole IN (A)		100%In		50%In	
Inherent breaking time (ms)		23~32			
Smart Controller	Standard (M)	●	●	●	●
	Communication type (H)	●	●	●	●
Electrical endurance (Cycles)		AC400V：500 AC690V：500			
Mechanical endurance (Cycles)	No maintenance	2500			
	With maintenance	9500			
Wiring Method		Horizontal、Vertical			
Net Weight (kg)	Withdrawable 3P/4P	90.5/116	90.5/116	103/130	132/172
	Fixed 3P/4P	55/68	55/68	56.5/71	72/–
Gross Weight (kg)	Withdrawable 3P/4P	105.5/135	105.5/135	118/149	147/191
	Fixed 3P/4P	68/83	68/83	69.5/86	85/–

Main technical parameters

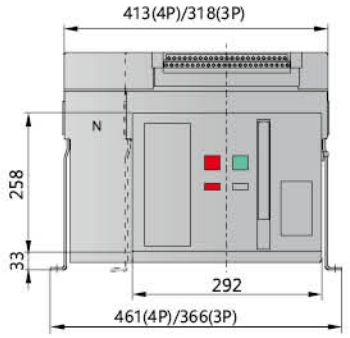
Model		LDW9-6300		
Ultimate short circuit breaking capacity (kA) Icu		120(400V) 85(690V)		
Operating short circuit breaking capacity (kA) Ics		100(400V) 75(690V)		
Rated short-time withstand current (kA) Icw/1s		100(400V) 75(690V)		
Rated Current (A) In		4000	5000	6300
No. of poles (P)		3、4	3、4	3、4
Rated Voltage (V) Ue		AC400、AC690		
Rated insulation voltage (V) Ui		AC1000		
Rated impulse withstand voltage (kV) Uimp		12		
Maximum continuous current of the N pole IN (A)		50%In		
Inherent breaking time (ms)		23~32		
Smart Controller	Standard (M)	●	●	●
	Communication type(H)	●	●	●
Electrical endurance (Cycles)		AC400V：500 AC690V：500		
Mechanical endurance (Cycles)	No maintenance	2000		
	With maintenance	4000		
Wiring Method		Horizontal and vertical		
Net Weight (kg)	Withdrawable 3P/4P	210/223	210/223	233/–
Gross Weight (kg)	Withdrawable 3P/4P	232/257	232/257	257/–

LDW9 Series

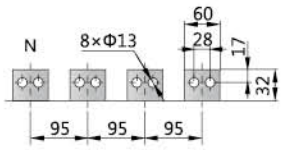
Type 45 Air Circuit Breaker(AC400~800V)

Appearance and Installation dimensions (mm)

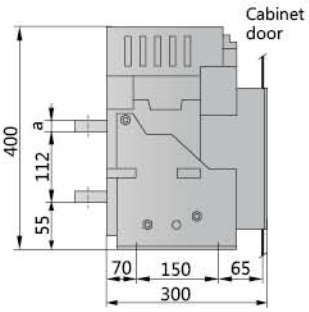
LDW9–2000 Fixed circuit breaker

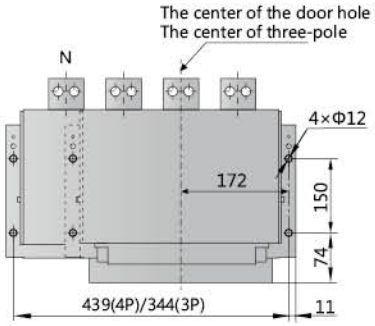


In	a
400–800A	10
1000–1600A	15
2000A	20

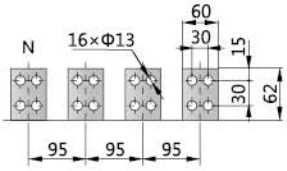


Horizontal short busbar
(default configuration)

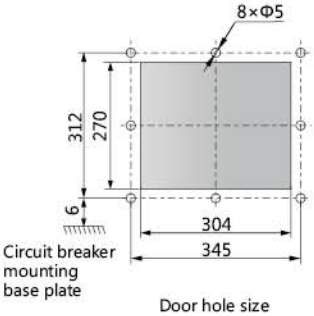




Installation dimensions

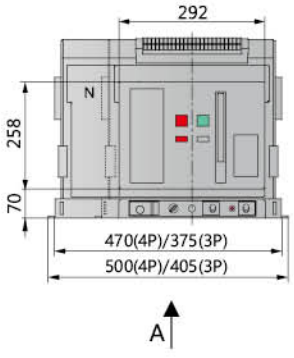


Horizontal long busbar (Customization)

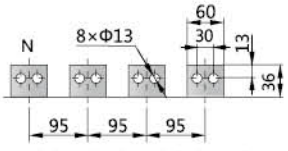


Door hole size

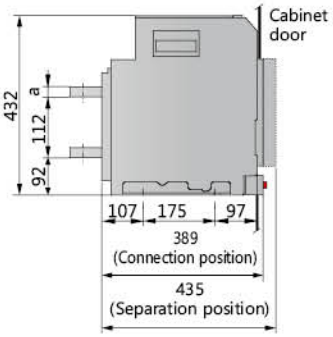
LDW9–2000 Withdrawable circuit breaker

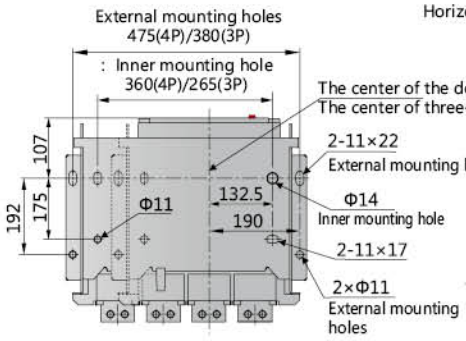


In	a
400–800A	10
1000–1600A	15
2000A	20

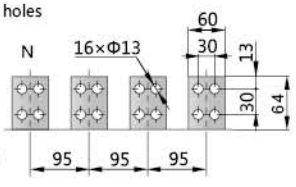


Horizontal short busbar (default configuration)

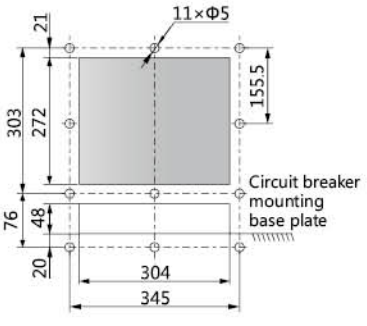




A-direction mounting dimensions



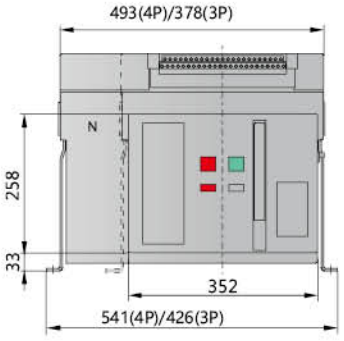
Horizontal long busbar (Customization)



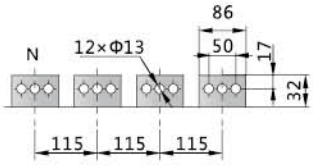
Door hole size

Appearance and Installation dimensions (mm)

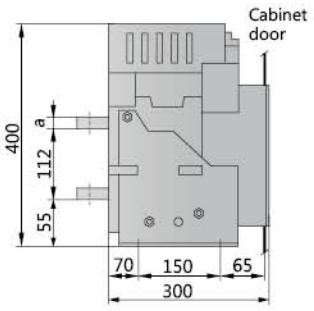
LDW9–3200 Fixed circuit breaker

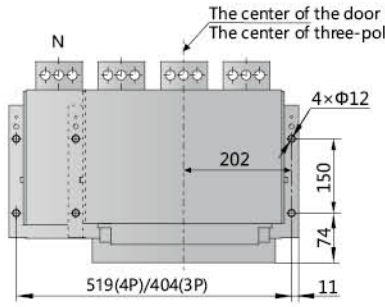


In	a
2000–2500A	20
3200A	30

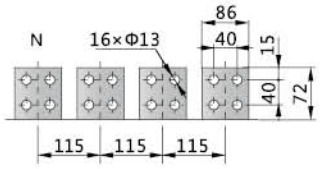


Horizontal short busbar (default configuration)

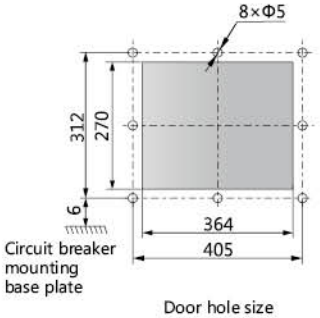




A-direction mounting dimensions

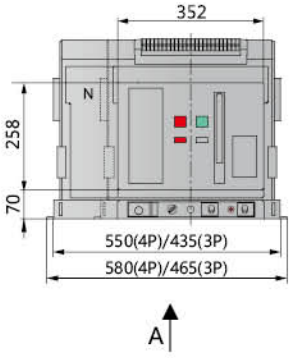


Horizontal long busbar (Customization)

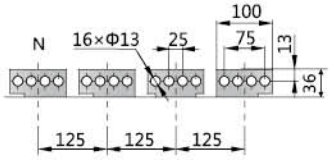


Door hole size

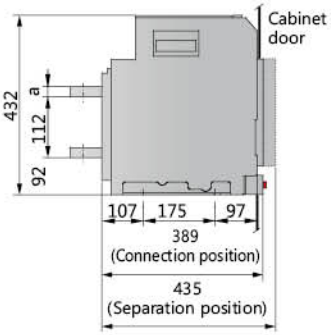
LDW9–3200 Withdrawable circuit breaker

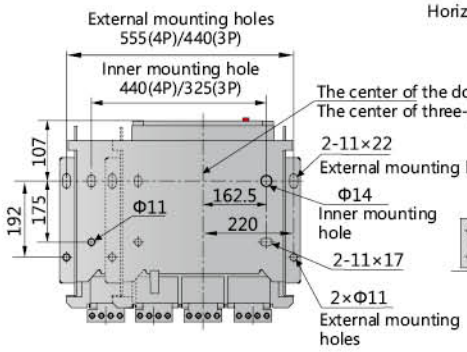


In	a
2000–2500A	20
3200A	30

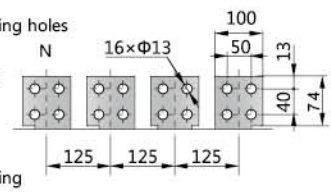


Horizontal short busbar (default configuration)

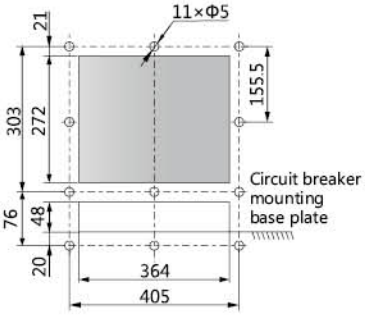




A-direction mounting dimensions



Horizontal long busbar (Customization)



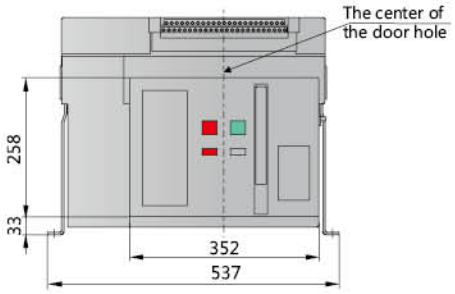
Door hole size

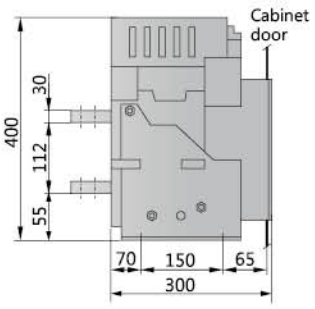
LDW9 Series

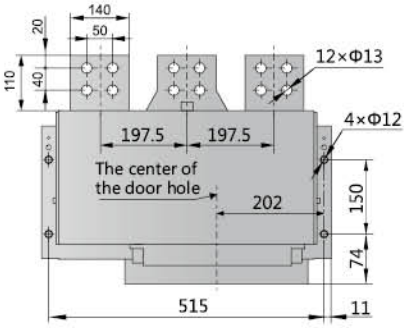
Type 45 Air Circuit Breaker(AC400~800V)

Appearance and Installation dimensions (mm)

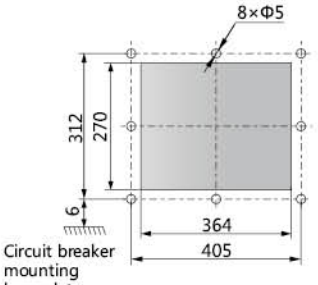
LDW9–4000/3P Capacity expansion fixed circuit breaker





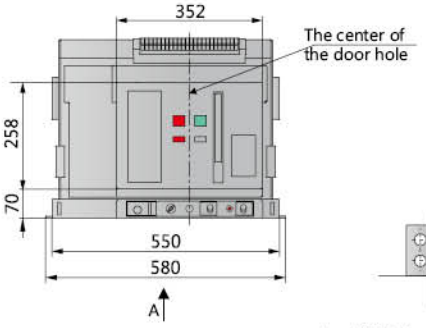


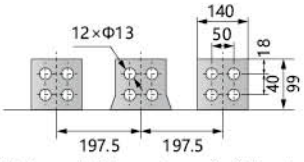
Installation dimensions



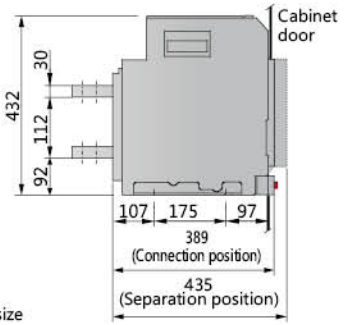
Door hole size

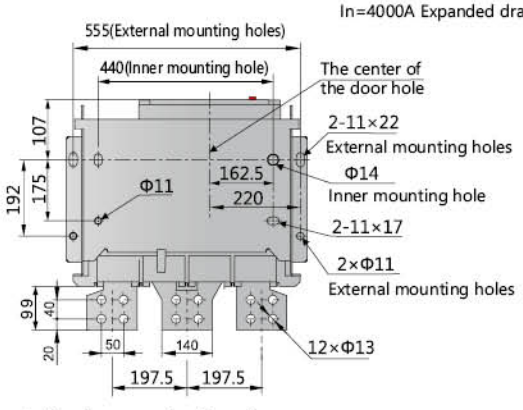
LDW9–4000/3P Capacity expansion Withdrawable circuit breaker



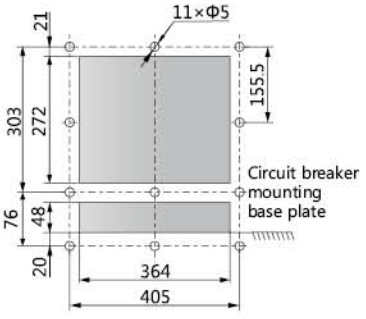


In=4000A Expanded drawer type circuit breaker bus size





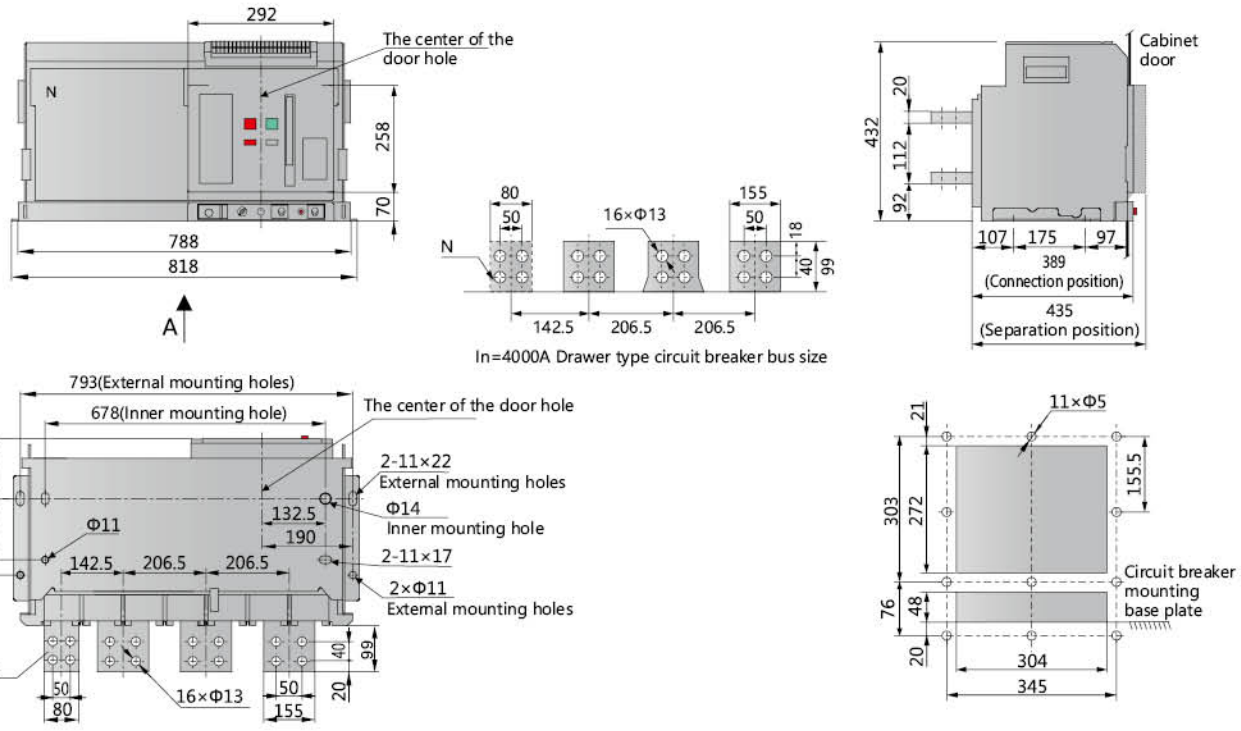
A-direction mounting dimensions



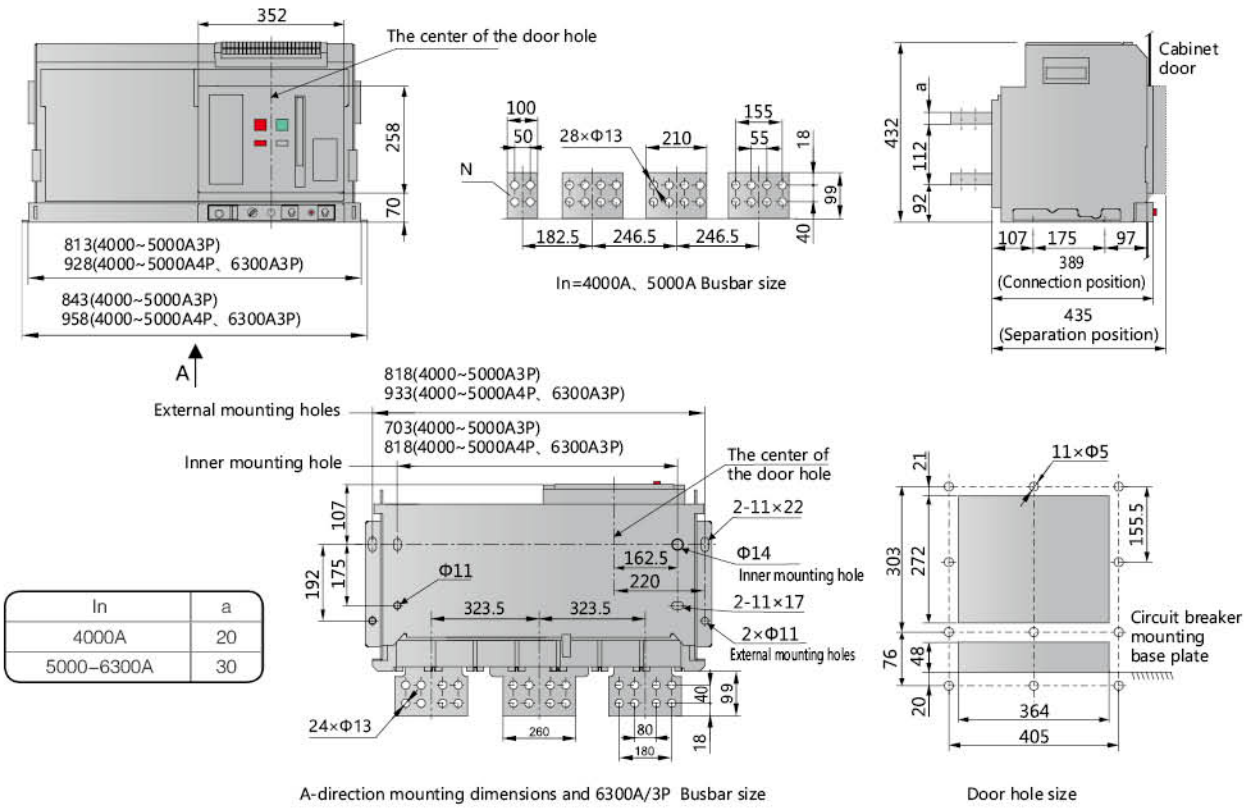
Door hole size

Appearance and Installation dimensions (mm)

LDW9–4000/4P Withdrawable circuit breaker



LDW9–6300 Withdrawable circuit breaker



In	a
4000A	20
5000–6300A	30

Photovoltaic

Energy Storage

Electrical grid

Industry

Type 450 Air Circuit Breaker (AC400~690V)

LDW9 Series

Product Overview

LDW9 Type 450 Air Circuit Breaker (ACB) is a newly developed product by our company, utilizing advanced research and development technology. This device is characterized by its small size, high breaking capacity, and multifunctional capabilities.

It is suitable for general distribution systems, new energy generation and distribution systems, multi-source distribution networks, inverters, and grid connection operations and protection for distributed power sources such as rotating motor power supplies.

It complies with the circuit breaker standard GB/T14048.2 for Class B usage category.

LDW9 Series

Type 450 Air Circuit Breaker(AC400~690V)

Model Description

LD	W	9	–	□	/	□	□	□
↓	↓	↓		↓		↓	↓	↓
LEIDUN	ACB	Design No.		Ampere Frame Rating		Poles	Rated Current (A)	High Breaking Capacity Marked "H"

Main technical parameters

Model			LDW9–1600			
Ampere Frame Rating (A) Inm			1600			
Rated Current (A) In			200、250、320、400、500、630、800、1000、1250、1600			
Rated working voltage (V) Ue			AC50Hz/60Hz 400，690			
Rated insulation voltage (V) Ui			1000			
Rated impulse withstand voltage (kV) Uimp			12			
Power frequency withstand voltage (V) U/Imin			2500			
No. of poles (P)			3、4			
N–pole rated current (A) In			100%In			
Use Category	GB/T14048.2		B			
	GB/T14048.4 (In ≤ 1000A)		AC–3			
Ultimate short circuit breaking capacity (kA) Icu (Effective value)	AC400V		55			
	AC690V		42			
Operating short circuit breaking capacity (kA) Ics (Effective value)	AC400V		50			
	AC690V		35			
The rated short–circuit making capacity (peak value) (kA) Icm	AC400V		143			
	AC690V		105			
Rated short–time withstand current (Is) Icw (kA) (Effective value)	AC400V		50			
	AC690V		35			
Full breaking time (without additional delay) (ms)			25			
Closing time (ms)			MAX. 70			
Electrical endurance (Cycles)	AC400V	In=200A~1000A	1500			
		In=1250A~1600A	1200			
	AC690V	In=200A~1000A	1000			
		In=1250A~1600A	700			
Mechanical endurance (Cycles)	No maintenance		3000			
	With maintenance		10000			
External dimensions (Length x Width x High) (mm)	Fixed	3P	263×240×310	Withdrawable	3P	275×330×345
		4P	333×240×310		4P	315×330×345

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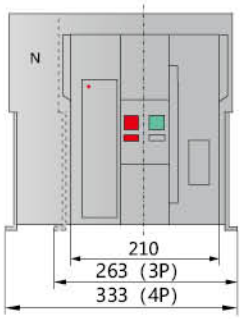
LDW9 Series

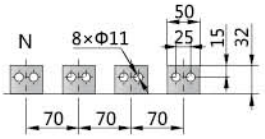
Type 450 Air Circuit Breaker(AC400~690V)

Appearance and Installation dimensions (mm)

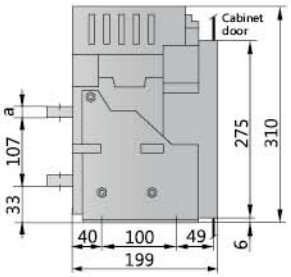
LDW9–1600 Fixed circuit breaker

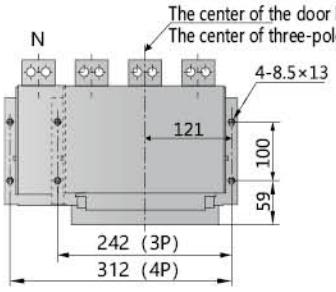


In	a
200~1000A	10
1250~1600A	18

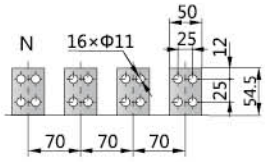


Horizontal short busbar
(default configuration)

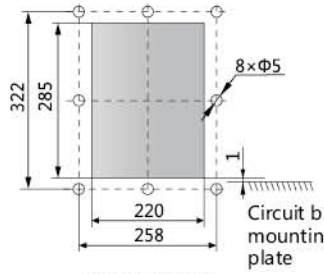




Mounting dimension



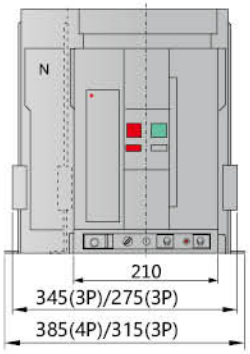
Horizontal long busbar
(Customization)



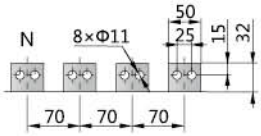
Circuit breaker mounting base plate

Door hole size

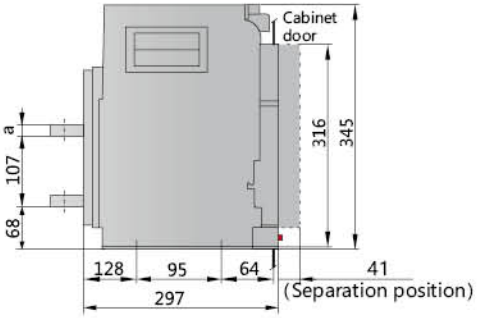
LDW9–1600 Drawer type circuit breaker

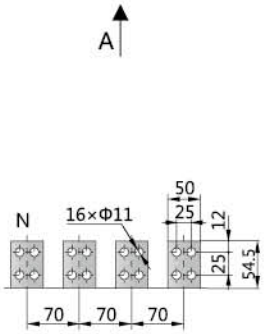


In	a
200~1000A	10
1250~1600A	18

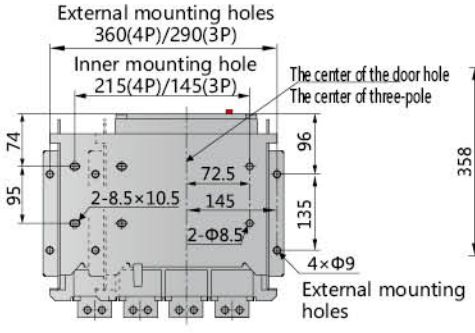


Horizontal short busbar
(default configuration)

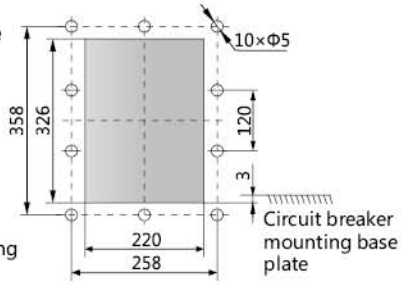




Horizontal long busbar
(Customization)



A-direction mounting dimensions

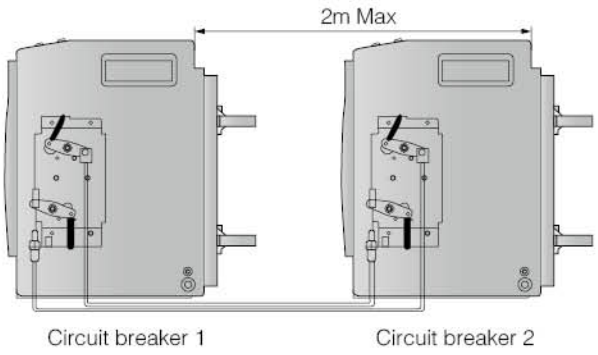


Circuit breaker mounting base plate

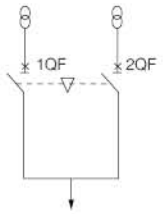
Door hole size

Door frame dimensions and installation hole spacing

Steel cable interlocking for two horizontally or vertically mounted circuit breakers



Circuit diagram



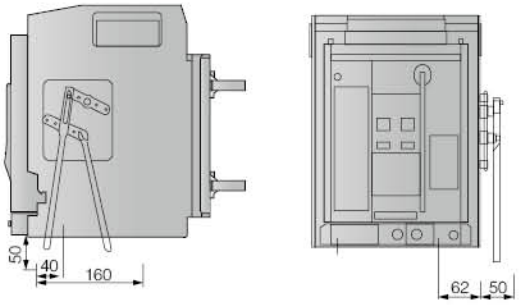
Possible operating modes

1QF	2QF
0	0
0	1
1	0

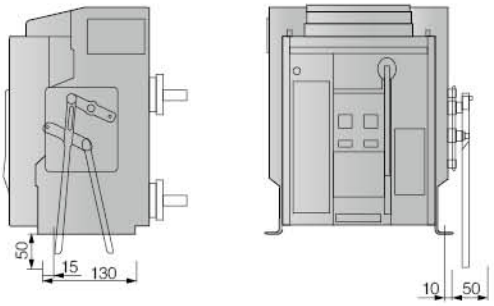
Note: The standard length of the steel cable for interlocking is 2.5m, but a 1.5m steel cable is also available. Please specify when placing an order.

Lever interlocking of two vertically mounted circuit breakers

Drawer type



Stationary type

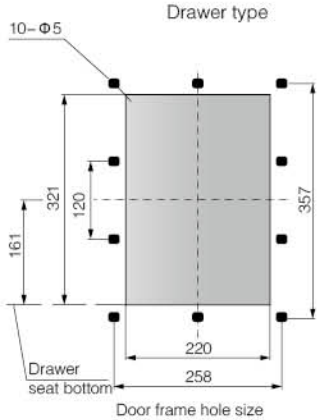


Note: The distance between the upper and lower mounting plates is 0.6m~0.7m

"OFF" locking device

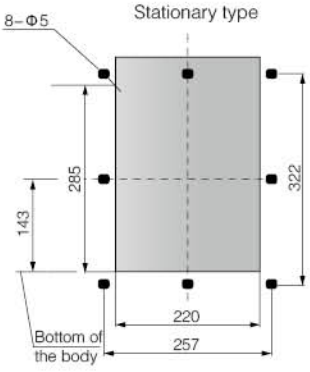
The "OFF" locking device can lock the "OFF" button of the circuit breaker in the pressed position. At this time, the circuit breaker cannot be open. After the user selects the installation, we provide locks and keys. Three circuit breakers are equipped with three identical locks and two keys

Drawer type



Door frame hole size

Stationary type



Door frame hole size

Warm instructions: This withdrawable product has a locking device with three positions: "Separate," "Test," and "Connect" to prevent user misoperation. When the red button pops out at the corresponding indicator position, and the next operation cannot be performed until it is reset.

Photovoltaic

Energy Storage

Electrical grid

Industry

CM3 Plastic Molded Case Circuit Breaker (AC400~800V)

LDM9 Series

Product Overview

LDM9 CM3 Plastic Molded Case Circuit Breaker (MCCB) is one of the new circuit breakers developed by our company using internationally advanced design and manufacturing technology.

Its rated insulation voltage is 800V, suitable for AC 50Hz, with a maximum rated working voltage of 690V (LDM9-63 is 400V), and a rated working current of up to 800A, used for infrequent switching of circuits and infrequent starting of motors. It has overload, short circuit, and undervoltage protection functions, which can protect the circuit and power equipment from damage.

This MCCB complies with the following standards:

- IEC60947-1 and GB/T14048.1 General rules
- IEC60947-2 and GB/T14048.2 Low-voltage circuit breakers
- IEC60947-4 and GB/T14048.4 Contactors and motor starters
- IEC60947-5.1 and GB/T14048.5 Electromechanical control circuit devices

Model Description

LD	M	9	-	125	M	P	/	3	3	00	2	I	100A	□
↓	↓	↓		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓
①	②	③		④	⑤	⑥		⑦	⑧	⑨	⑩	⑪	⑫	⑬

① LEIDUN

② MCCB

③ Design No.

④ Ampere Frame Rating

⑤ Breaking Capacity, L: Standrd; M: Higher Type; H: Highest Type

⑥ Blank: Direct Operation; Z: Turn handle operation; P: Electric operation (230V/400V)(type I or type II)

⑦ 3 Poles ; 4 Poles

⑧ 2: Instantaneous tripping, 3: Compound tripping

⑨ Internal accessories

⑩ Blank: For power distribution; 2: For motor protection; TH: For three-proof occasions

⑪ Blank: No overload alarm and no tripping function, I: With overload alarm without tripping function

⑫ Rated Current (A)

⑬ Installation method: Front wiring; Back panel wiring; Insertable wiring

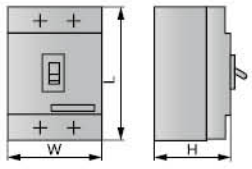
Terms of use:

- Ambient Air Temperature：−5℃ to +40℃ , the average temperature for 24 hours does not exceed +35℃ .
- Installation Location：The altitude shall not exceed 2000m.
- Atmospheric Conditions：The relative humidity of the air should not exceed 50% at a maximum temperature of +40 ℃ . At lower temperatures, higher relative humidity is acceptable, such as reaching 90% at 20℃ . It is important to consider the condensation on the product surface due to temperature changes.
- Pollution Level：III
- Installation Category：The circuit breaker main circuit and undervoltage release coil are used for installation category Ⅲ . The auxiliary circuits and control circuits are installed in category III.
- MCCB can withstand the effects of humid air, salt spray, oil mist, mold, and nuclear radiation.
- The maximum inclination of MCCB installation is ±22.5° .
- MCCB can operate reliably under earthquake conditions (4g).
- MCCB should be installed in a location that is free from explosion hazards, conductive dust, ametal corrosion and insulation damage.
- MCCB should be installed in a place that is not exposed to rain or snow.

LDM9 Series

CM3 Plastic Molded Case Circuit Breaker(AC400~800V)

Main technical parameters

Ampere Frame Rating (A)		63			125				
Model		LDM9(CM3)-63L	LDM9(CM3)-63M		LDM9(CM3)-125L	LDM9(CM3)-125M		LDM9(CM3)-125H	
Rated Current (A) In		(6)、10、16、20、25、32、40、50、63			(10)、10、16、20、25、32、40、50、63、80、100、125				
No. of poles (P)		3	3	4	3	3	4	3	
Rated insulation voltage (V) Ui		AC800			AC800				
Rated impulse withstand voltage (V) Uimp		8000			8000				
Rated working voltage (V) Ue		AC400			AC400	AC400 AC690		AC400	
Arcing distance (mm)		0			< 50				
Ultimate short circuit breaking capacity (kA) Icu	AC400V AC690V	22	50		35	85 25		85	
Operating short circuit breaking capacity (kA) Ics	AC400V AC690V	18	35		22	55 15		50	
Operational Performance (cycles)	Power On	6000							
	Power Off	8500							
Overall dimension(mm) 	W	78	78	103	91	91	120	91	
	L	135	135		150	150			
	H	73.5	81.5		68	86			
Shunt Release		○	○		○	○		○	
Undervoltage Release		○	○		○	○		○	
Auxiliary Contacts		○	○		○	○		○	
Alarm Contacts		○	○		○	○		○	
Electric operation		○	○		○	○		○	
Turn handle operation		○	○		○	○		○	

Note：Limit breaking and arcing distances include horizontal and vertical installation.

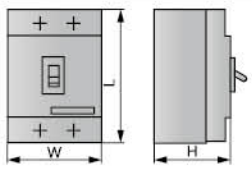
*LDM9(CM3)-125 has two types of arcing distances: "0" and "50" mm, which should be specified when ordering. There is no 0 mm arcing for the 690V four-pole circuit breaker.

LDM9 Series

CM3 Plastic Molded Case Circuit Breaker(AC400~800V)

LEIDUN ELECTRIC

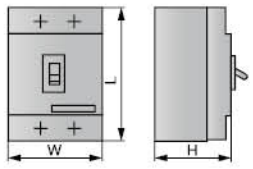
Main technical parameters

Ampere Frame Rating (A)		250				400			
Model		LDM9(CM3)-250L	LDM9(CM3)-250M		LDM9(CM3)-250H	LDM9(CM3)-400L	LDM9(CM3)-400M		LDM9(CM3)-400H
Rated Current (A) In		100、125、140、160、180、200、225、250				225、250、315、350、400			
No. of poles (P)		3	3	4	3	3	3	4	3
Rated insulation voltage (V) Ui		AC800				AC800			
Rated impulse withstand voltage (V) Uimp		8000				8000			
Rated working voltage (V) Ue		AC400	AC400 AC690	AC400		AC400	AC400 AC690	AC400	
Arcing distance (mm)		< 50				< 100			
Ultimate short circuit breaking capacity (kA) Icu	AC400V AC690V	35	85 25		85	50	65 25		100
Operating short circuit breaking capacity (kA) Ics	AC400V AC690V	25	55 15		50	35	42 15		65
Operational Performance (cycles)	Power On	7500				7500			
	Power Off	10000				10000			
Overall dimension(mm) 	W	106	106	141	107	150	198		150
	L	165	165			257			
	H	86	103			106.5			
Shunt Release		○	○		○	○	○		○
Undervoltage Release		○	○		○	○	○		○
Auxiliary Contacts		○	○		○	○	○		○
Alarm Contacts		○	○		○	○	○		○
Electric operation		○	○		○	○	○		○
Turn handle operation		○	○		○	○	○		○

LDM9 Series

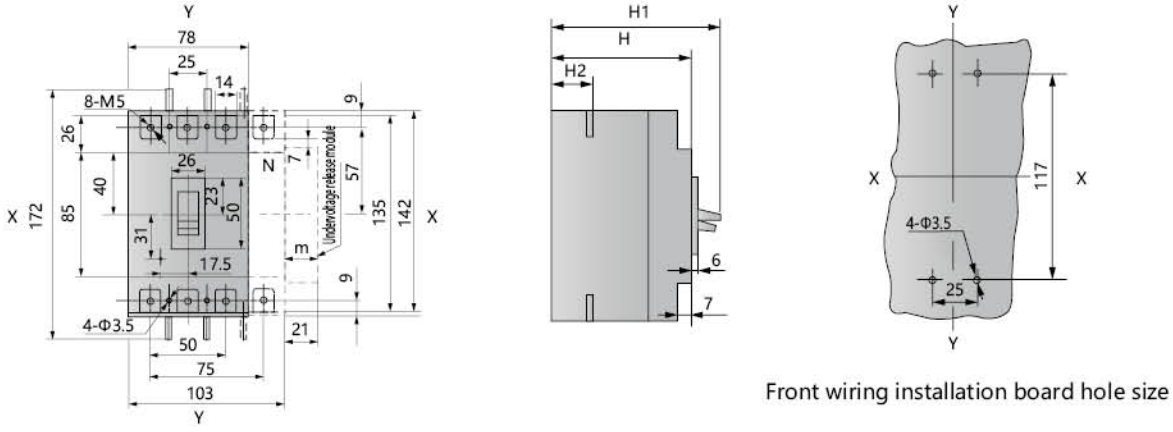
CM3 Plastic Molded Case Circuit Breaker(AC400~800V)

Main technical parameters

Ampere Frame Rating (A)		630				800		
Model		LDM9(CM3)-630L	LDM9(CM3)-630M		LDM9(CM3)-630H	LDM9(CM3)-800M		LDM9(CM3)-800H
Rated Current (A) In		400、500、630				630、700、800		
No. of poles (P)		3	3	4	3	3	4	3
Rated insulation voltage (V) Ui		AC800				AC800		
Rated impulse withstand voltage (V) Uimp		8000				8000		
Rated working voltage (V) Ue		AC400	AC400 AC690		AC400	AC400 AC690		AC400
Arcing distance (mm)		< 100				< 100		
Ultimate short circuit breaking capacity (kA) Icu	AC400V AC690V	50	85 30		100	85 30		100
Operating short circuit breaking capacity (kA) Ics	AC400V AC690V	35	50 20		65	50 20		65
Operational Performance (cycles)	Power On	7500				7500		
	Power Off	10000				10000		
Overall dimension(mm) 	W	182	240		182	210	280	210
	L	270				280	280	280
	H	110				115.5	115.5	115.5
Shunt Release		○	○		○	○		○
Undervoltage Release		○	○		○	○		○
Auxiliary Contacts		○	○		○	○		○
Alarm Contacts		○	○		○	○		○
Electric operation		○	○		○	○		○
Turn handle operation		○	○		○	○		○

Appearance and Installation dimensions (mm)

LDM9(CM3)-63(L、M) Front Wiring (3, 4 Poles) (X-X、Y-Y are the center of three-pole MCCB)

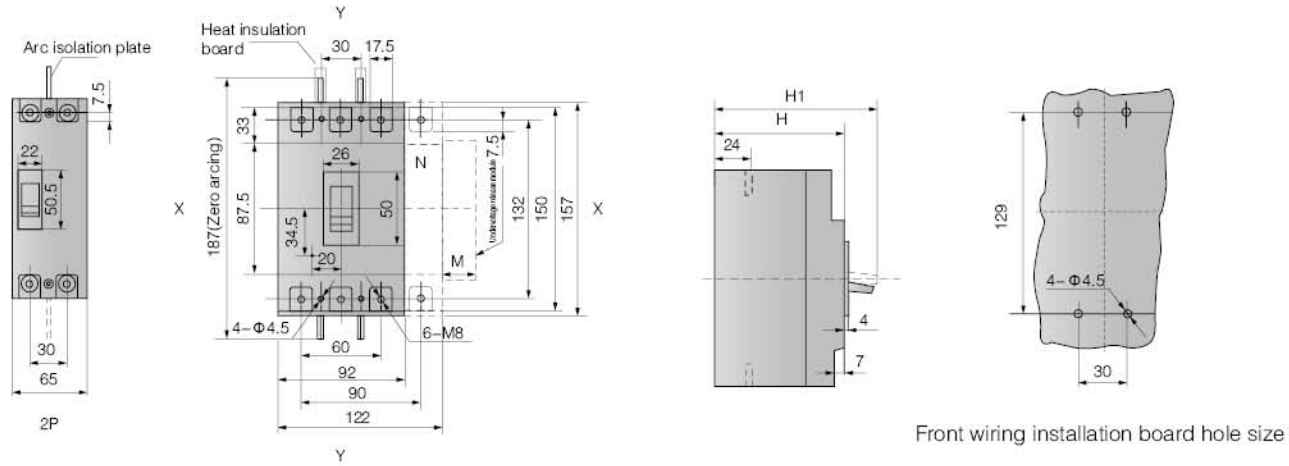


Front wiring installation board hole size

Thickness of undervoltage release: Type A、B: m=12, Type C: m=21

Model	H	H1	H2
LDM9(CM3)-63L	73.5	90.5	20.5
LDM9(CM3)-63M	81.5	98.5	28.5
LDM9(CM3)-63 4 Poles			

LDM9(CM3)-125(L、M、H) Front Wiring (2, 3, 4 Poles) (X-X、Y-Y are the center of three-pole MCCB)



Front wiring installation board hole size

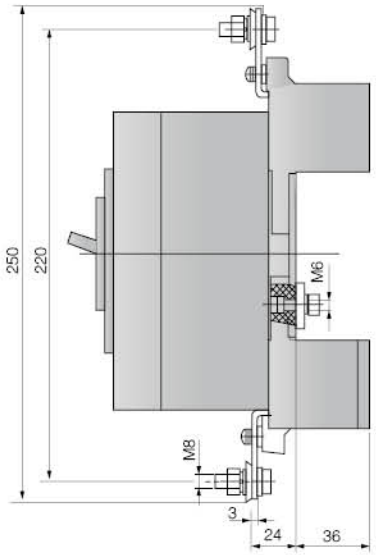
Model	H	H1
LDM9(CM3)-125L	68	86
LDM9(CM3)-125M、H	86	104
LDM9(CM3)-125 4 Poles		

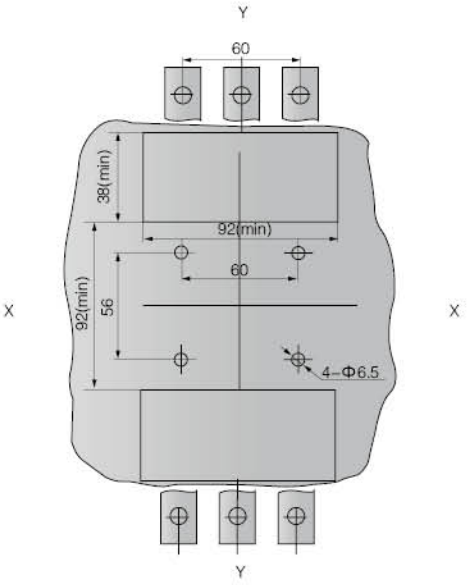
LDM9 Series

CM3 Plastic Molded Case Circuit Breaker(AC400~800V)

Appearance and Installation dimensions (mm)

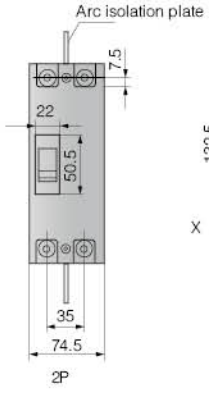
LDM9(CM3)-125(L、M、H) Insertable wiring (3 Poles)　(X-X、Y-Y are the center of three-pole MCCB)

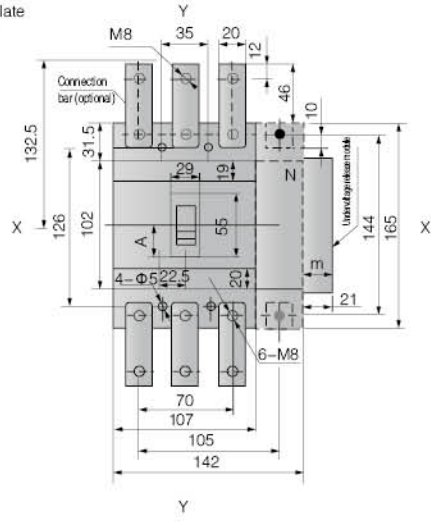


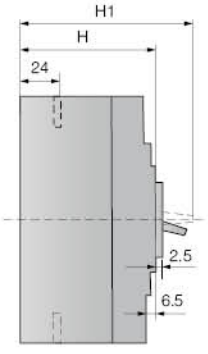


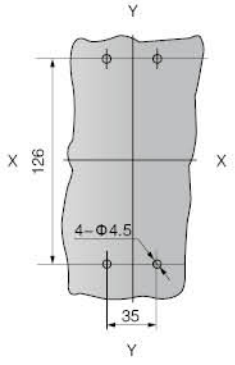
The hole size for the installation board of the insertable back panel wiring.

LDM9(CM3)-250(L、M、H) Front Wiring (3 Poles、4 Poles)　(X-X、Y-Y are the center of three-pole MCCB)







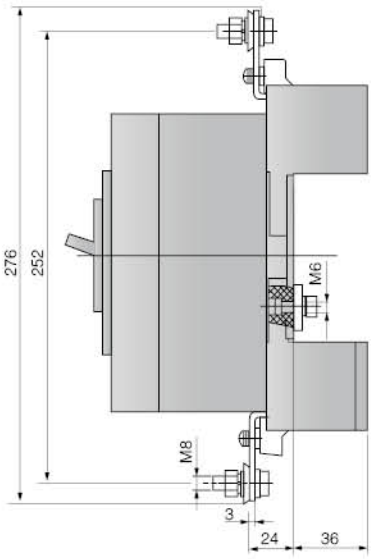


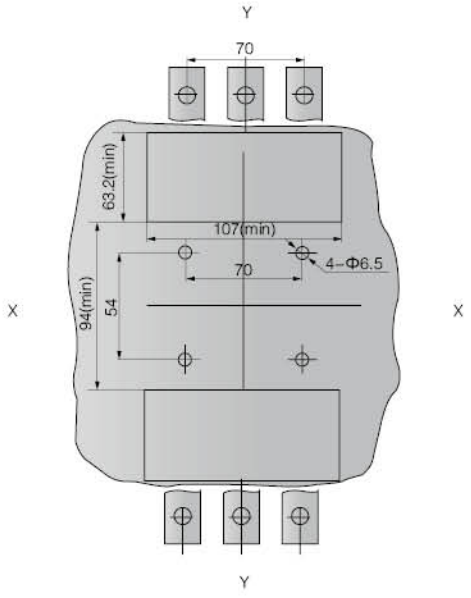
Front wiring installation board hole size

Model	H	H1
LDM9(CM3)-250L	86	110
LDM9(CM3)-250(M、H)	105	127

Appearance and Installation dimensions (mm)

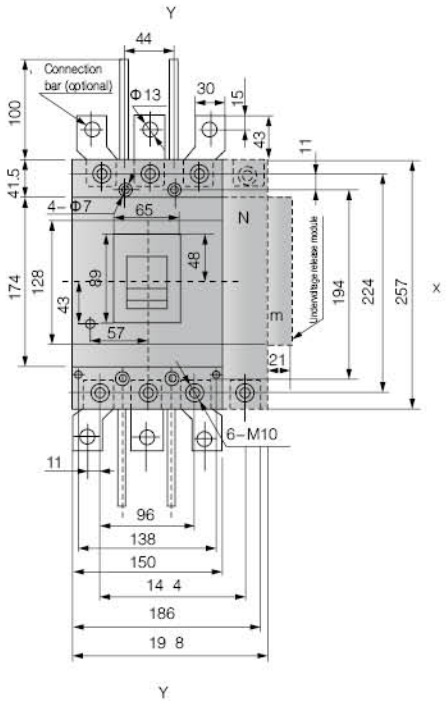
LDM9(CM3)-250(L 、M、H) Insertable wiring (3 Poles)　(X-X、Y-Y are the center of three-pole MCCB)

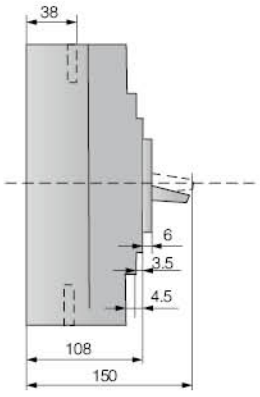


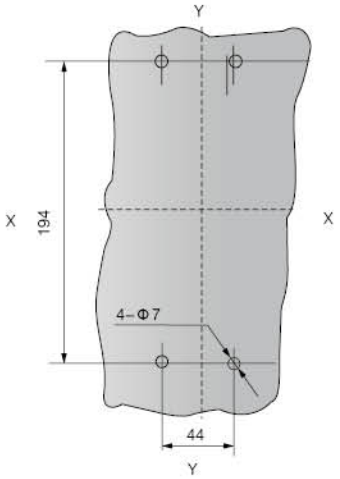


The hole size for the installation board of the insertable back panel wiring.

LDM9(CM3)-400(L、M、H) Front Wiring (3 Poles、4 Poles)　(X-X、Y-Y are the center of three-pole MCCB)







Front wiring installation board hole size

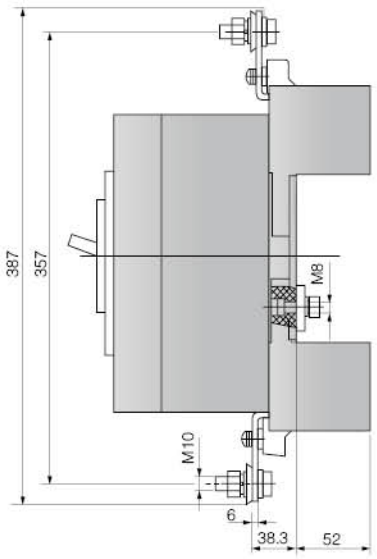
Thickness of undervoltage release：Type A、B: m=12, Type C: m=21

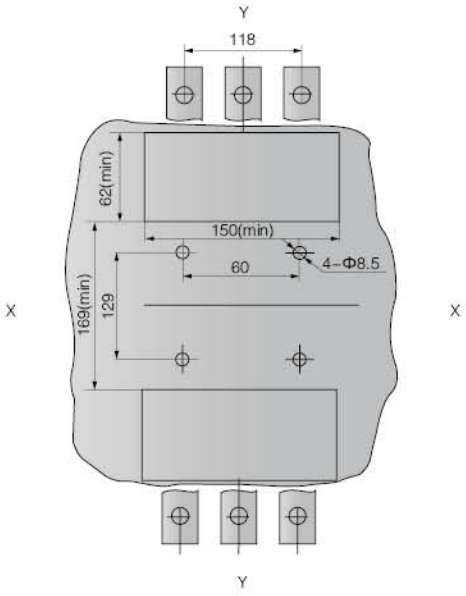
LDM9 Series

CM3 Plastic Molded Case Circuit Breaker(AC400~800V)

Appearance and Installation dimensions (mm)

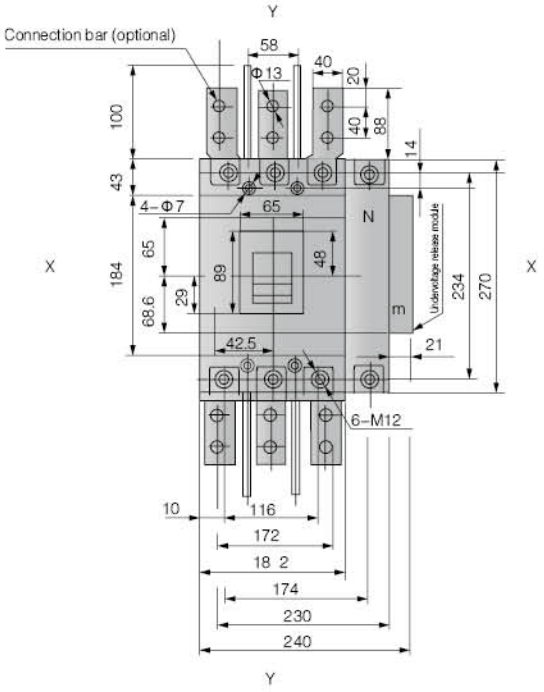
LDM9(CM3)-400(L、M、H) Insertable wiring (3 Poles)　(X-X、Y-Y are the center of three-pole MCCB)

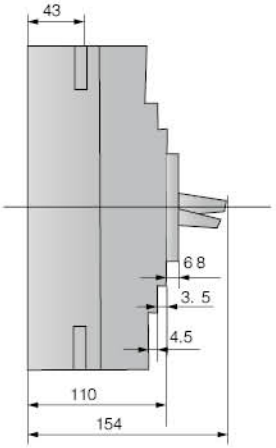


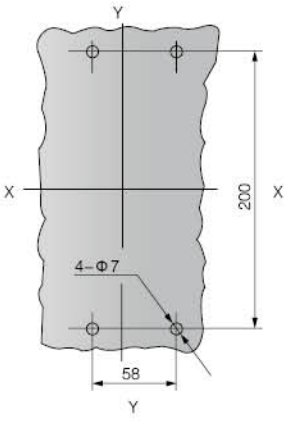


The hole size for the installation board of the insertable back panel wiring.

LDM9(CM3)-630(L、M、H) Front Wiring (3 Poles、4 Poles)　(X-X、Y-Y are the center of three-pole MCCB)





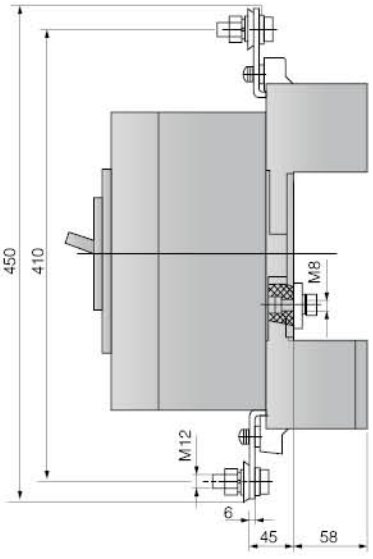


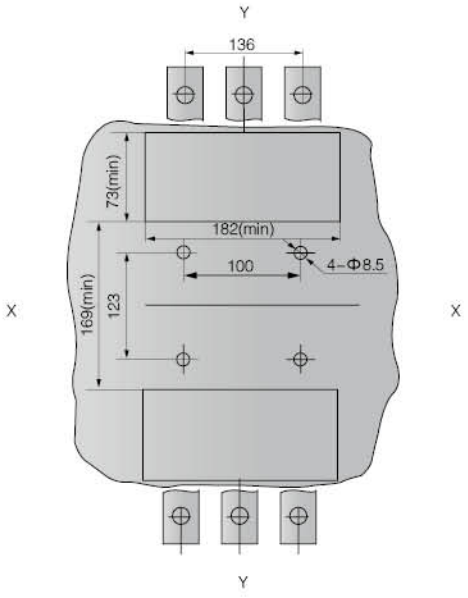
Front wiring installation board hole size

Thickness of undervoltage release：Type A、B: m=12, Type C: m=21

Appearance and Installation dimensions (mm)

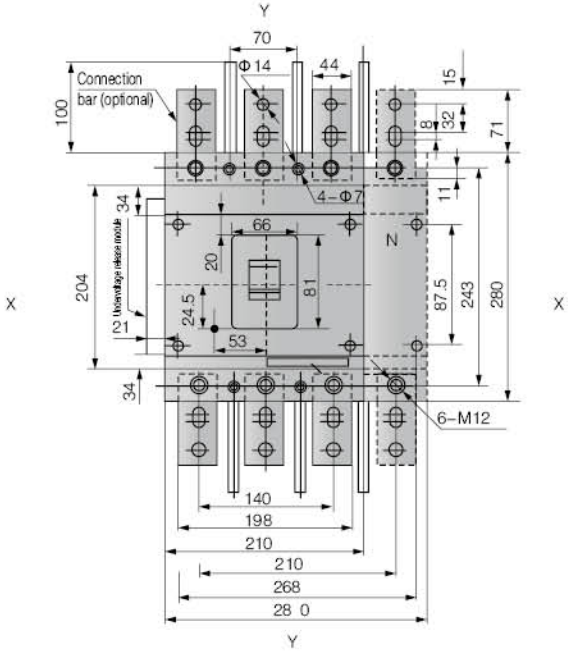
LDM9(CM3)-630(L、M、H) Insertable wiring (3 Poles)　(X-X、Y-Y are the center of three-pole MCCB)

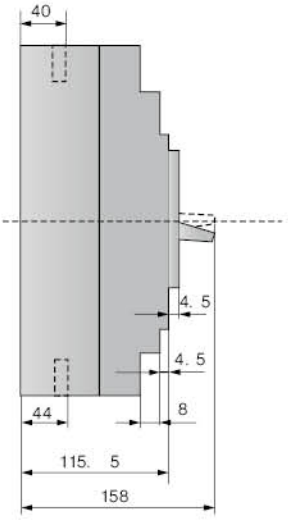


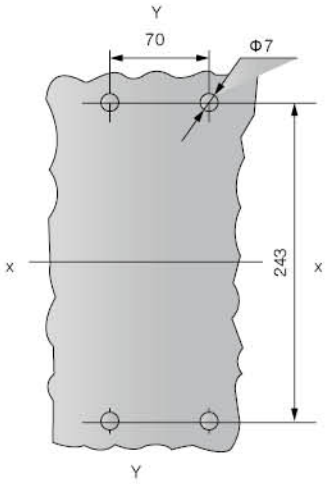


The hole size for the installation board of the insertable back panel wiring.

LDM9(CM3)-800(L、M、H) Front Wiring (3 Poles、4 Poles)　(X-X、Y-Y are the center of three-pole MCCB)







Front wiring installation board hole size

Thickness of undervoltage release：Type A、B: m=12, Type C: m=21

LEIDUN ELECTRIC

New Energy·New Power

Photovoltaic

Energy Storage

Electrical grid

Industry

Molded Case Circuit Breaker (AC415~1140V / DC250~1500V)

LDM9 Series

Product Overview

With the recent surge in market investment, the new energy sectors, including photovoltaic and wind power generation, are witnessing significant growth. Our company has developed the LDM9 (DC) series of high-voltage special Molded Case Circuit Breakers (MCCB), a result of extensive research into the operational conditions of both domestic and international new energy systems, as well as an assessment of customer requirements.

The LDM9 (DC) MCCB series are designed to operate at a rated working voltage of up to DC1500V and a rated current of up to 800A. Furthermore, the breaking capacity at DC 1500V can reach up to 50 kA, reliably providing short-circuit protection for the system.

Model Description

LD	M	9	DC	-	□	H·R	/	□	□	□	□	□
↓	↓	↓	↓		↓	↓		↓	↓	↓	↓	↓
①	②	③	④		⑤	⑥		⑦	⑧	⑨	⑩	⑪

① LEIDUN

② MCCB

③ Design No.

④ DC: Direct Current; AC: Alternating Current

⑤ Ampere Frame Rating (A): 120, 250, 320, 400, 630, 800

⑥ Breaking Capacity: H: High; R: Current limiting;

⑦ 2 Poles; 3 Poles

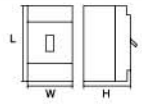
⑧ Tripping method and accessory code

⑨ D: Electric Operation; Z: Manual Operation

⑩ Rated Voltage: AC: 415V, 550V, 690, V800, V1000, V1140V DC: 250V, 500V, 750V, 1000V, 1250V, 1500V

⑪ Rated Current: 63~800A

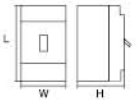
LDM9–AC Main technical parameters

Frame–size rating		LDM9–320(AC)				LDM9–400(AC)			
No. of poles		3				3			
Rated working voltage (V) Ue		415	500/690	800	1000/1140	415	500/690	800	1000/1140
Rated insulation voltage (V) Ui		AC1150							
Rated impulse withstand voltage (kV) Uimp		8				12			
Rated Current (A) In		63, 80, 100, 125, 140, 160, 180, 200 225, 250, 280, 315, 320				250, 280, 315, 320, 350, 400			
Ultimate short circuit breaking capacity (kA) Icu	type H	120	65	36.5	15	120	65	36.5	20
	type R	/	/	/	/	150	85	50	25
Operating short circuit breaking capacity (kA) Ics	type H	85	50	36.5	15	85	50	36.5	15
	type R	/	/	/	/	100	65	50	20
Use Category		A							
Isolation Function		equipped							
Operating ambient temperature		–35℃ ~ +70℃℃							
Mechanical endurance (Cycles)		20000				10000			
Electrical endurance (Cycles)		3000	3000	3000	2000	1000	1000	1000	700
Standards Compliant		IEC/EN 60947–2、GB/T 14048.2							
Accessories		Shunt Release、Auxiliary Contacts、Alarm Contacts、Manual Operation、Electric Operation							
Size 		180×107×126 (L×W×H)				250×182×165 (L×W×H)			

LDM9 Series

Molded Case Circuit Breaker(AC415~1140V / DC250~1500V)

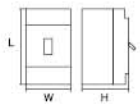
LDM9–AC Main technical parameters

Frame–size rating		LDM9–630(AC)				LDM9–800(AC)			
No. of poles		3				3			
Rated working voltage （V） Ue		415	500/690	800	1000/1140	415	500/690	800	1000/1140
Rated insulation voltage （V） Ui		AC1150							
Rated impulse withstand voltage（kV）Uimp		12				12			
Rated Current（A）In		500，630				700，800			
Ultimate short circuit breaking capacity（kA） Icu	type H	120	65	36.5	20	120	65	36.5	20
	type R	150	85	50	25	150	85	50	25
Operating short circuit breaking capacity（kA） Ics	type H	85	50	36.5	15	85	50	36.5	15
	type R	100	65	50	20	100	65	50	20
Use Category		A							
Isolation Function		equipped							
Operating ambient temperature		–35℃ ~ +70℃℃							
Mechanical endurance (Cycles)		5000				5000			
Electrical endurance (Cycles)		1000	1000	1000	700	1000	1000	1000	700
Standards Compliant		IEC/EN 60947–2、GB/T 14048.2							
Accessories		Shunt Release、Auxiliary Contacts、Alarm Contacts、Manual Operation、Electric Operation							
Size 		250×182×165（L×W×H）				250×182×165（L×W×H）			

LDM9 Series

Molded Case Circuit Breaker(AC415~1140V / DC250~1500V)

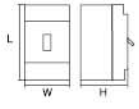
LDM9–DC Main technical parameters

Frame–size rating		LDM9–125 (DC)		LDM9–320 (DC)			LDM9–400 (DC)			
No. of poles		2		2		3	2			3
Rated working voltage (V) Ue		250	500	500	1000	1500	250/500	750/1000	1250/1500	1250/1500
Rated insulation voltage (V) Ui		750		1250		1500	1500			
Rated impulse withstand voltage (kV) Uimp		8		8		12	12			
Rated Current (A) In		50, 63, 80, 100, 125		63, 80, 100, 125, 140, 160, 180 200, 225, 250, 280, 315, 320			225, 250, 315, 350, 400			
Ultimate short circuit breaking capacity (kA) Icu	type H	40	40 (5ms)	50	20	20	70	40	20	20 (2P string) 40 (3P string)
	type R	/	/	/	/	/	85	60	40	40 (2P string) 50 (3P string)
Operating short circuit breaking capacity (kA) Ics	type H	Ics=100%Icu								
	type R	Top in, bottom out. Bottom in, top out (2P, 320/3P) , Bottom in, bottom out. Top in, top out. (3P)								
Use Category		A								
Isolation Function		equipped								
Operating ambient temperature		–35℃ ~ +70℃℃								
Mechanical endurance (Cycles)		20000		20000			10000			
Electrical endurance (Cycles)		5000	3000	3000	2000	1500	1000	1000	700	500
Standards Compliant		IEC/EN 60947–2、GB/T 14048.2								
Accessories		Shunt Release、Auxiliary Contacts、Alarm Contacts、Manual Operation、Electric Operation								
Size 		150×64×95 (L×W×H)		180×76×126 (2P) (L×W×H) 180×107×126 (3P) (L×W×H)			250×124×165 (2P) (L×W×H) 250×182×165 (3P) (L×W×H)			

LDM9 Series

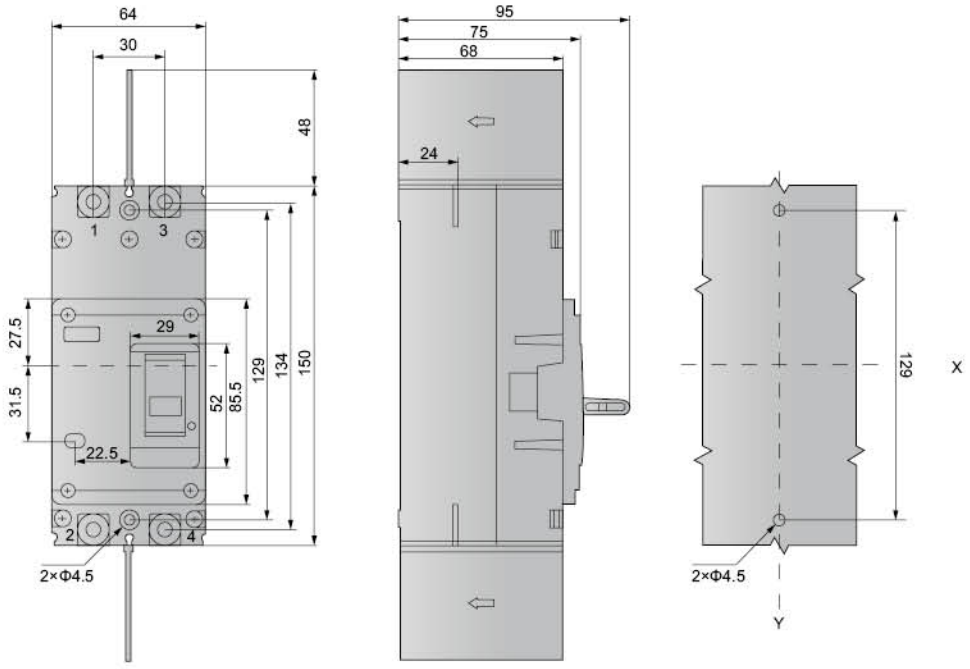
Molded Case Circuit Breaker(AC415~1140V / DC250~1500V)

LDM9-DC Main technical parameters

Frame-size rating		LDM9-630 (DC)				LDM9-800 (DC)			
No. of poles		2			3	2			3
Rated working voltage (V) Ue		250/500	750/1000	1250/1500	1250/1500	250/500	750/1000	1250/1500	1251500
Rated insulation voltage (V) Ui		1500							
Rated impulse withstand voltage (kV) Uimp		12				12			
Rated Current (A) In		500 630				700 800			
Ultimate short circuit breaking capacity (kA) Icu	type H	70	40	20	20 (2P String) 40 (3P String)	70	40	20	20 (2P String) 40 (3P String)
	type R	85	60	40	40 (2P String) 50 (3P String)	85	60	40	40 (2P String) 50 (3P String)
Operating short circuit breaking capacity (kA) Ics	type H	Ics=100%Icu							
	type R	Top in, bottom out. Bottom in, top out (2P，320/3P) ， Bottom in, bottom out. Top in, top out. (3P)							
Use Category		A							
Isolation Function		equipped							
Operating ambient temperature		-35℃ ~ +70℃℃							
Mechanical endurance (Cycles)		5000				5000			
Electrical endurance (Cycles)		1000	1000	700	500	1000	1000	700	500
Standards Compliant		IEC/EN 60947-2、GB/T 14048.2							
Accessories		Shunt Release、Auxiliary Contacts、Alarm Contacts、Manual Operation、Electric Operation							
Size		250×124×165 (2P) (L×W×H) 250×182×165 (3P) (L×W×H)				250×124×165 (2P) (L×W×H) 250×182×165 (3P) (L×W×H)			

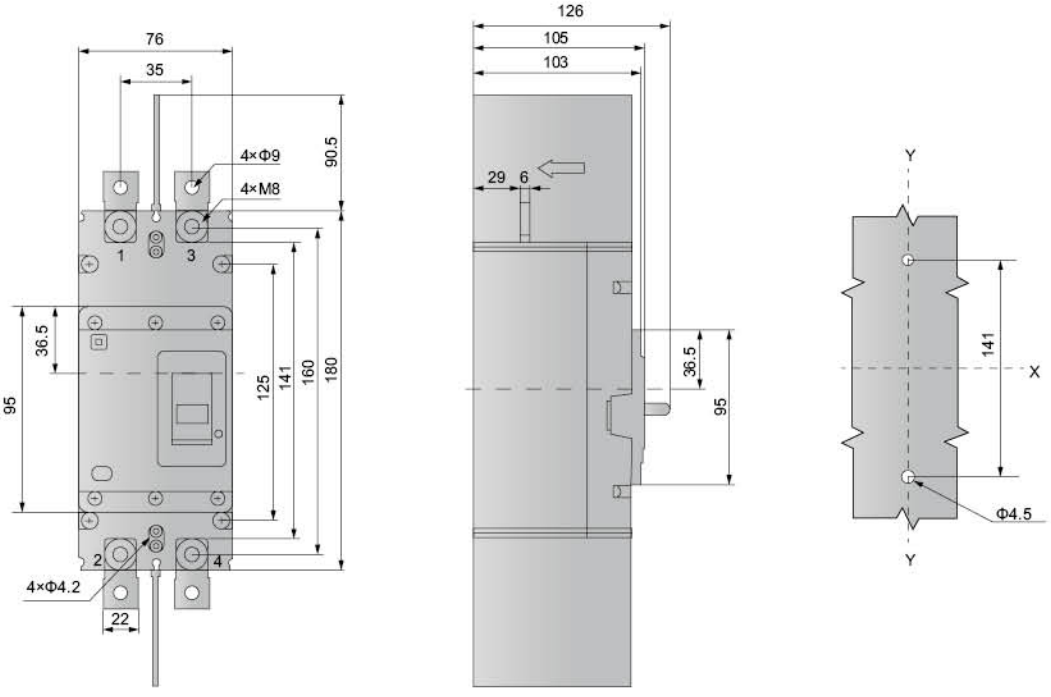
Appearance and Installation dimensions (mm)

LDM9-125（DC）2P



Appearance and Installation dimensions (mm)

LDM9-250/320（DC）、LDM9-320（AC）2P

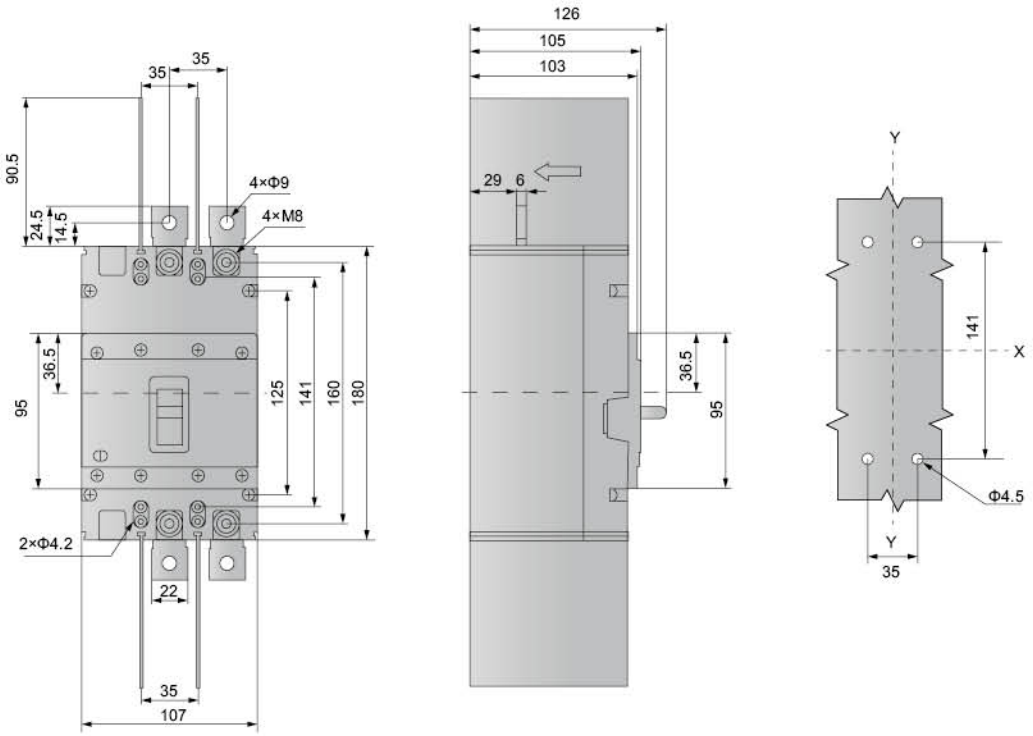


LDM9 Series

Molded Case Circuit Breaker(AC415~1140V / DC250~1500V)

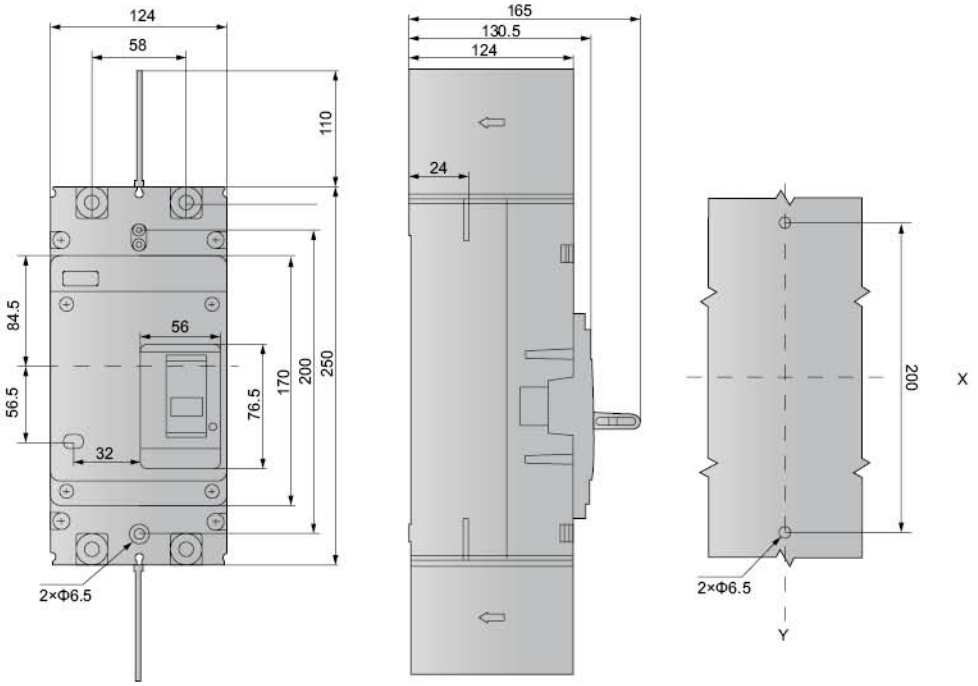
Appearance and Installation dimensions (mm)

LDM9-250/320（DC）、LDM9-320（AC）3P



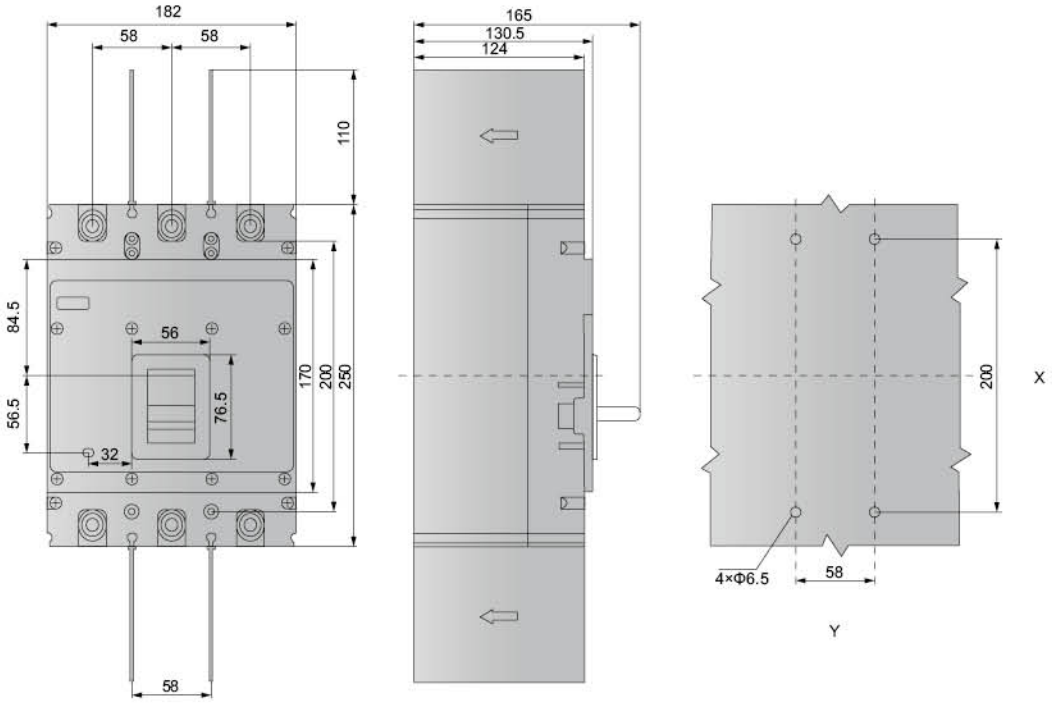
Appearance and Installation dimensions (mm)

LDM9-400/630/800（DC）2P



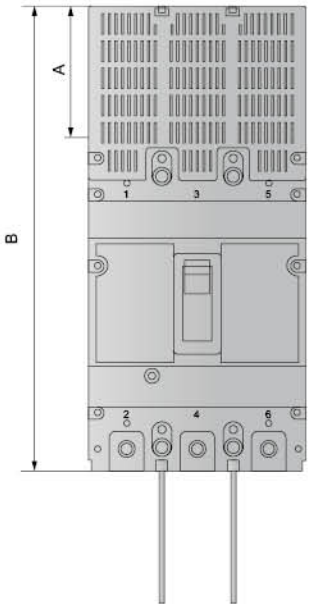
Appearance and Installation dimensions (mm)

LDM9-400/630/800（DC）、LDM9-400/630/800（AC）3P



Appearance and Installation dimensions (mm)

LDM9 Installation drawing with Arc Chute



Model	Arc Chute length A	Total length B
LDM9–320	64	245
LDM9–400/630/800	64	314

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Industry

Smart Molded Case Circuit Breaker

LDM9EL Series

Product Overview

The Smart MCCB integrates a residual current relay, contactor, and MCCB into one device. It is suitable for three-phase four-wire power supply systems with a grounded neutral point, providing protection against grounding faults, overcurrent, short circuits, phase loss, and overvoltage for circuits or electrical equipment. It can also prevent electrical fires and damage to electrical equipment caused by grounding faults, as well as provide indirect contact protection against electric shock hazards to individuals.

The product complies with the standards GB14048.2-2008 and GB/T22387-2008.

The overcurrent release is electronic, and the rated current can be adjusted according to the load conditions of the circuit. The three-stage protection curve is adjustable and can work in conjunction with lower-level circuit breakers to achieve graded protection. The electronic overcurrent trip unit offers high protection accuracy and is less affected by environmental temperature and installation position, serving as an upgraded product compared to thermal-magnetic overcurrent trip units (this product is available in both economical and standard types).

It is equipped with an RS485 serial interface, allowing the setting of protection characteristic parameters through a programmer, while also meeting the requirements for communication networking.

Model Description

LD	M	9	E	L	-	□	/	3N	□	□
↓	↓	↓	↓	↓		↓		↓	↓	↓
LEIDUN	RCCB	Design No.	Residual current protection	Automatic reclosing function		Ampere Frame Rating		3P、4P	Rated Current (A)	Standard electronic type

Main technical parameters

Common Features	
Rated working voltage (V) Ue	AC400V Three-phase four-wire
Rated working voltage (Hz)	50Hz
Rated insulation voltage (V) Ui	1000V
Rated impulse withstand voltage (V) Uimp	6000V
Reclosing time (s)	20s~60s
Action characteristics	Category AC
Use Category	A
Standards Compliant	GB14082.2-2008

Model	LDM9EL-100	LDM9EL-250	LDM9EL-400	LDM9EL-630	LDM9EL-800
Ampere Frame Rating (A) In	100	250	400	630	800
Rated Current (Standard) Ir	40、63、80、100	100、160、200、250	250、315、350、400	400、500、630	630、700、800
Rated Current (Electronic) Ir	(0.4-1.0)xIn+off(Adjustable in 0.1In steps)				
Ultimate short circuit breaking capacity (KA) Icu	30	35	50	65	65
Operating short circuit breaking capacity (KA) Ics	15	22	35	42	42
Rated residual short-circuit making (breaking) capacity (kA) I △ m	7.5	8.75	12.5	16.25	16.25
Rated residual operating current (Standard) I △ n	75mA/150mA/300mA/ 500mA		100mA/200mA/ 300mA/500mA	100mA/300mA/500mA/ 800mA	
	Leakage Alarm, Automatic Tracking				
Rated residual operating current (Electronic) I △ n	50mA/100mA/300mA/500m A/800mA/1000mA/ Leakage Alarm, Automatic Tracking				
Rated residual non-operating current	0.5 I △ n				
Residual current breaking time	≤ 0.2S S Type 0.5S 1S				
Limit non-start time	△ t>0.06s(2 I △ n)(S Type)				
Undervoltage action value (Standard)	145V ± 5% (Automatically turns on after voltage is restored)				
Overvoltage action value (Standard)	280V ± 5% (Automatically turns on after voltage is restored)				

Terms of use

- Ambient Air Temperature：−20℃ ~+60℃；
- Atmospheric Conditions：At lower temperatures, higher relative humidity is acceptable, such as reaching 90% at 25℃ . It is important to consider the condensation on the product surface due to temperature changes.
- Installation Location：The altitude should not exceed 2000 meters. Otherwise, it needs derating operation
- Pollution Level：III
- Installation Category：III
- The power supply sine wave distortion is less than 5%.

Interface Display

Operating Method	5−digit digital tube display					Description
Normally, the display will be cycled and protected for 2 seconds for each state.	U	A	○	○	○	Real−time voltage value of phase A
	U	B	○	○	○	Real−time voltage value of phase B
	U	C	○	○	○	Real−time voltage value of phase C
	I	A	○	○	○	Real−time current value of phase A
	I	B	○	○	○	Real−time current value of phase B
	I	C	○	○	○	Real−time current value of phase C
	L	D	○	○	○	The real−time residual current value

Fault analysis and troubleshooting

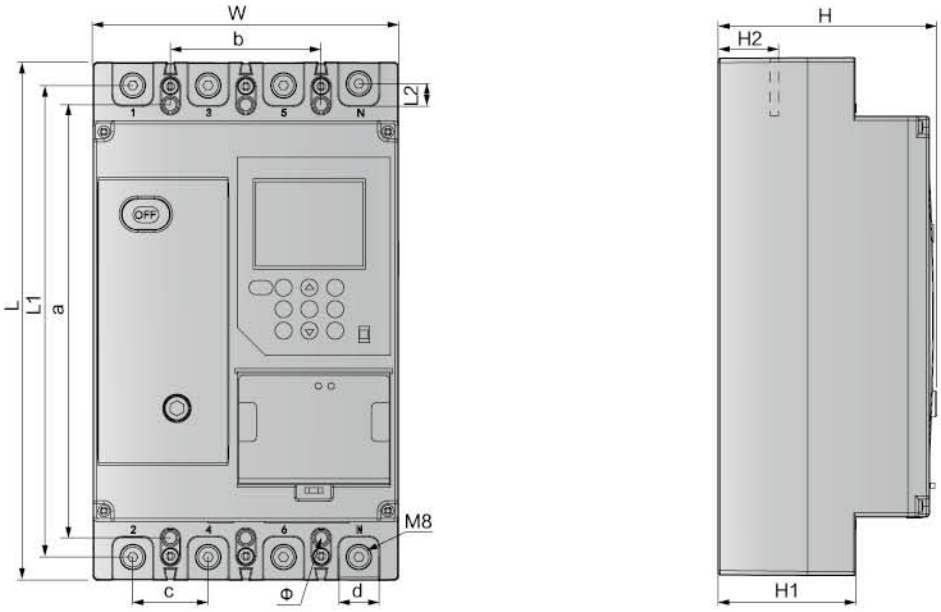
Failure Phenomenon	Cause Analysis	Troubleshooting Methods
Turn on the power switch, no digital display	The leakage protector is broken	Replace the leakage protector
When the power switch is turned on, the digital display is on, but the circuit breaker cannot be closed automatically.	The motor is broken or the mechanism is stuck	
The motor runs but cannot be closed	Electric operating mechanism is broken	
The power indicator light flashes and the switch cannot be closed.	Abnormal power supply.	Check the three−phase four−wire voltage
Tripping immediately after closing, digital display of current value over limit	Too much leakage from the wire or load or repeated grounding of the zero wire, or the lines are mixed	Check the wire and electrical equipment
No reclosing after tripping by pressing the test button	The time between pressing the test button and the last leakage trip automatic opening is too short, causing the leakage protector to lock itself	If the circuit breaker is reclosed after a leakage trip, the test button must be pressed after the circuit breaker is closed.
Pressing the test button does not trip	The main circuit voltage is too low or the leakage circuit breaker is broken	Check the circuit or replace the leakage circuit breaker
Pressing the test button can trip the circuit breaker, but the on−site bulb test will not trip the circuit breaker.	The neutral point grounding wire of the distribution transformer is not grounded or has poor contact. The test current cannot reach the operating current value.	Check whether the neutral point grounding wire or measure the grounding resistance meets the requirements, increase the power of the test bulb or check whether the grounding is good.

If you encounter other faults, please contact us and we will give you guidance and reply as soon as possible.

Communication Function

Communication interface	Interface Type	Communication Protocol
RS485	External terminals	'Residual current operated protective device communication protocol', can be customized according to customer requirements
RS232	External terminals	
GPRS	External modules	Q/GDW376.1–2009 'Master Station and Collection Terminal Communication Protocol', can also be customized according to customer requirements
Ethernet	External modules	

Appearance and Installation dimensions (mm)



Model	External Dimensions				Installation Dimensions						Terminal center distance	In and out dimensions
	L	W	H	H1	a	b	Φ	L1	L2	H2	c	d
125	240	142	101	64	201	70	6*Φ4	219	7	26	35	22
250	240	142	101 (*)	64	201	70	6*Φ4	219	10	26	35	22
400	335	196	177	99	272	96	6*Φ6	305	15	36	48	36
630	335	196	177	99	272	96	6*Φ6	305	15	38	48	36
800	335	240	179	110	271	116	6*Φ6	300	14	38	58	44

Note: (*) is the HPlc product with carrier frequency, H=101. The product without carrier frequency is H=132

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Industry

Auto Recloser Circuit Breaker(AC)

LDB8-125 Series

Product Overview

The LDB8–125 (AC) Auto Recloser Circuit Breaker series is compatible with AC 50Hz or 60Hz, rated voltage of 230–400V, and rated current of up to 125A.

This product is designed to be controlled by the signal of an energy meter or a remote signal, allowing for intelligent opening and closing of the circuit. Additionally, it provides protection against overload and short circuit. It can also be used for infrequent operation of the line under normal circumstances, and is widely used in the intelligent transformation of power grids.

It complies with standards: GB10963.1, IEC60898–1.

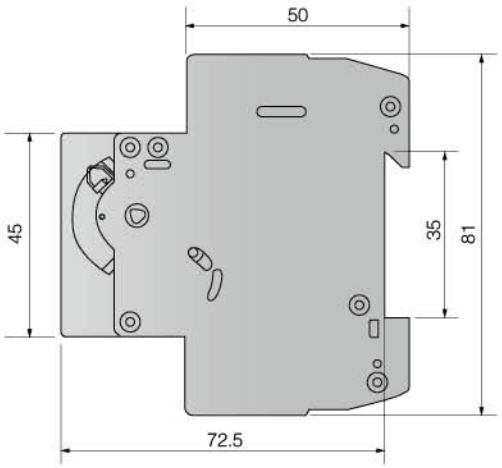
Model Description

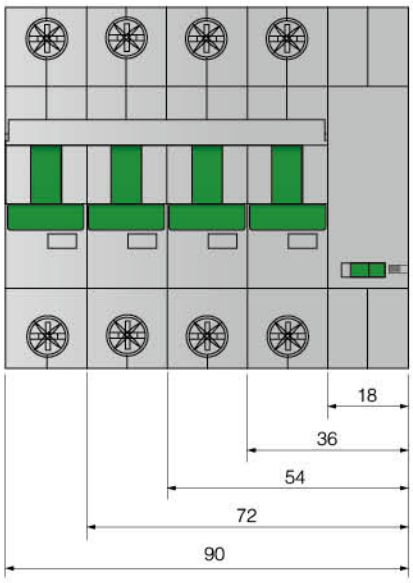
LD	B	8	-	□	□	+	SR
↓	↓	↓		↓	↓		↓
LEIDUN	Miniature Circuit Breaker	Design No.		Ampere Frame Rating	2P、3P、4P		With prepaid automatic closing and opening function

Main technical parameters

Rated Current	40A、50A、63A、80A、100A、125A
Rated Voltage	230V、400V
No. of poles	1P+N、3P+N
Frequency	50Hz
Rated breaking capacity	6000A
Energy limitation class	3
Remote automatic closing time	<2s
Power-on delay	≥ 4S
Electric level control current	≤ 1mA
Phase leakage current	<0.2mA
Mechanical endurance (Cycles)	≥ 10000
Electrical endurance (Cycles)	≥ 4000
Rated impulse withstand voltage	6KV
Instantaneous trip type	C
Tightening torque (N. m)	2.5

Appearance and Installation dimensions (mm)





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Industry

Miniature Circuit Breaker(AC / DC)

LDB9-63 Series

Product Overview

The LDB9–63 Miniature Circuit Breaker (MCB) is designed for use in lighting distribution systems (type C) or motor distribution systems (type D). It is primarily used for protecting against overload and short circuits in AC 50Hz with a rated voltage of up to 230V or 400V and a rated current of 1A to 63A. It can also disconnect electrical devices and lighting lines infrequently under normal circumstances.

Standards compliant : GB10963.1, IEC 60898–1.

Ambient temperature: –5℃ ~+40℃ ; average value within 24h does not exceed 35℃ .

Installation location: altitude does not exceed 2000m.

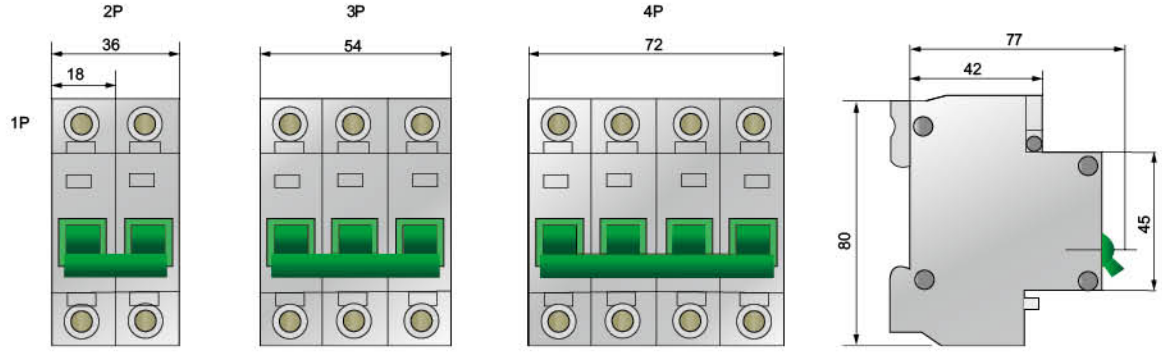
Model Description

LD	B	9	-	63	□	□	DC
↓	↓	↓		↓	↓	↓	↓
LEIDUN	Miniature Circuit Breaker	Design No.		Ampere Frame Rating (A)	Rated Current (A)	1P、2P、3P、4P	Director Current

Main technical parameters

	AC	DC
Rated Voltage (V)	1P：AC230V、400V；2P、3P、4P：400V	1P：DC250V；2P：DC500V；3P：DC750V；4P：DC1000V
Rated insulation voltage (V) Ui	AC500V	DC1000V
Rated impulse withstand voltage (V) Uimp	AC4000V	DC4000V
Rated Current (A)	1~63A	1~63A
Ultimate short circuit breaking capacity (kA)	6kA	6kA
Operating short circuit breaking capacity (kA)	6kA	6kA
No. of poles	1P、2P、3P、4P	1P、2P、3P、4P
Instantaneous trip type	C：5In~10In；D：10In~16In	B：4In±20%；C：8In±20%；D：12In±20%
Mechanical endurance (Cycles)	20000	20000
Electrical endurance (Cycles)	10000	10000
Wiring Capacity	≤ 25mm²	≤ 25mm²
Tightening torque (N • m)	3.0	3.0
Protection level	IP20	IP20
Standards compliant	GB/T10963.1、IEC60898-1	IEC60947-2

Appearance and Installation dimensions (mm)



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Energy Storage

Electrical grid

Industry

T1 Surge Protector Devices(AC)

LD-MD Series

Product Overview

The LD-MD T1 Class Surge protector Device (SPD) series have several key features, including a large discharge energy, no leakage current, no follow-up current, modular installation, high safety factor, long service life, strong environmental resistance, and a voltage protection level of less than 2500V.

This SPD is designed in accordance with both IEC and GB standards. It is specifically used for the first-level surge protection of the power supply systems and easily installed on a standard 35mm rail.

It has a high lightning current discharge capacity, with a maximum impact current of a single module can reach 50kA (10/350 μ s). This makes it highly effective in preventing various surges, including direct lightning strikes. It is particularly useful for first-level surge protection of power supply systems in areas with a high risk of lightning, and can be combined for use in both single-phase and three-phase power supply lines.

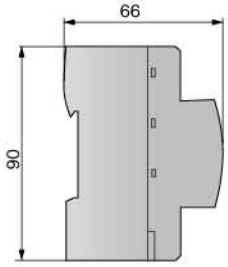
Model Description

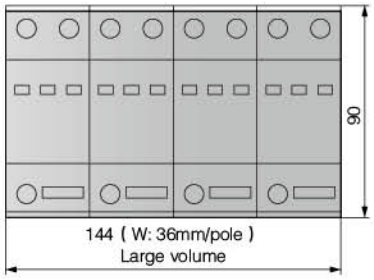
LD	MD	-	□	/	□	R	□
↓	↓		↓		↓	↓	↓
Model Description	Surge protector Device (SPD)		Maximum discharge current		1P、2P、3P、4P	With remote signaling or communication and remote alarm	Lightning protection level (T1)

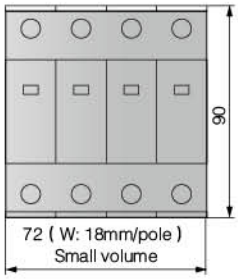
Main technical parameters

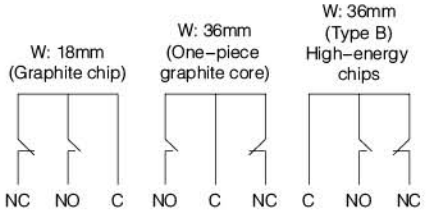
Model		LD-MD-A12.5	LD-MD-A15	LD-MD-A25	LD-MD-A50
SPD Ports		1	1	1	1
SPD Category		Voltage limiting type/Voltage switching type	Voltage limiting type/Voltage switching type	Voltage switching type	Voltage switching type
Test Category		I	I	I	I
Rated Voltage Un		220V AC50~60Hz	220V AC50~60Hz	220V AC50~60Hz	220V AC50~60Hz
Maximum continuous operating voltage (AC) Uc		275V、320V、385V、420V、440V	275V、320V、385V、420V、440V	275V、320V、385V、420V、440V	275V、320V、385V、420V、440V
Insulation resistance		> 100MΩ	> 100MΩ	> 100MΩ	> 100MΩ
Impulse discharge current (10/350μs) Iimp		12.5kA	15kA	25kA	50kA
Voltage protection level (1.2/50μs) Up		2.2kV	2.2kV	2.5kV	2.8kV
Response time tA		≤ 100ns	≤ 100ns	≤ 100ns	≤ 100ns
Size mm	P36mm/ large volume	144×90×66	144×90×66	144×90×66	144×90×66
	P18mm/ small volume	72×90×66	72×90×66	72×90×66	/
Installation wire cross-sectional area mm²		6~25	6~25	6~25	6~25
Installation method		Standard rails 35mm (EN50022/DIN46277-3)			
Operating temperature		-40~85℃			
Shell material		PA66 (small volume) 、Plastic (large volume) , Comply with UL94 V-0			
Class of protection		IP20			

Appearance and Installation dimensions (mm)









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Industry

T2 Surge Protector Device(AC)

LD-MD Series

Product Overview

The AC T2 Class Surge Protector Device (SPD) is installed in IPZ0–1 and above to protect low voltage equipment from lightning strike and surge damage. Applicable to PSD I+II class (B+C class) of various power supply systems. Designed according to IEC 61643–1/GB/T18802.1.

This product has the following features: 10/350 μ s, 8/20 μ s spark gap. It adopts sealed GDT technology, high discharge current capacity, extremely low voltage protection level, double terminals in parallel or series, multifunctional connection of conductors and busbars. In the event of a fault, the green window will turn red and a remote alarm terminal is provided. It uses high–performance MOV and can handle a maximum of up to 10/350 7kA.

LD-MD Series

T2 Surge Protector Device(AC)

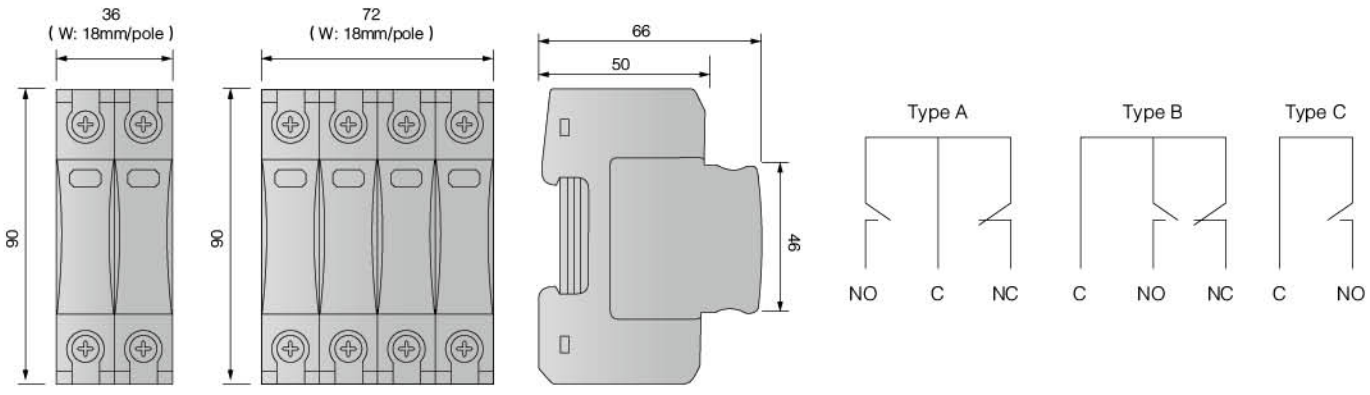
Model Description

LD	MD	-	□	/	□	R	□
↓	↓		↓		↓	↓	↓
LEIDUN	Surge protector Device (SPD)		Maximum discharge current		1P、2P、3P、4P	With remote signaling or communication and remote alarmand remote alarm	Lightning protection level (T2)

Main technical parameters

Model	LD-MD-A20	LD-MD-A40	LD-MD-A60	LD-MD-A80	LD-MD-A100
Maximum continuous operating voltage	275V/385V/420V	275V/385V/420V	275V/385V/420V	275V/385V/420V	275V/385V/420V
SPD Category	Voltage limiting type	Voltage limiting type	Voltage limiting type	Voltage limiting type	Voltage limiting type
Nominal discharge current (In)	10kA	20kA	30kA	40kA	60kA
Maximum discharge current (Imax)	20kA	40kA	60kA	80kA	100kA
Voltage protection level (Up)	⩽ 1.5kV	⩽ 1.8kV	⩽ 2.0kV	⩽ 2.2kV	⩽ 2.5kV
Response time	⩽ 25ns				
Maximum spare fuse	125A gL/gG				
Operating temperature range (Parallel Circuits)	-40℃ ~+80℃				
Installation wire cross-sectional area	1.5~25mm² Solid/ 35mm² Flexibility				
Installation method	35mm DIN rail				
Shell material	RED / WHITE (Modules) / Dark Gray (Base) Thermoplastics, UL94-V0				
Test standards	IEC 61643-1; GB/T18802.11-2020				
Remote signal installation connection type	Switch contacts				

Appearance and Installation dimensions (mm)



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T2 Surge Protector Device(DC)

LD-MD Series

Product Overview

The DC T2 Class Surge Protector Device has several impressive features, including a pluggable module for easy installation and maintenance, a large discharge capacity, and a fast response time. Additionally, it is equipped with a double thermal disconnect device for enhanced protection and multifunctional terminals for both wire and busbar connections. In the event of a fault, the device's green window will turn red and a remote alarm terminal is included for added convenience.

It is installed in IPZ0–1 and above, providing reliable protection against lightning strikes and surge damage to low voltage equipment. Applicable to PSD I+II class (B+C class) of various power supply systems. Designed according to IEC 61643–1/GB/T18802.1.

LD-MD Series

T2 Surge Protector Device(DC)

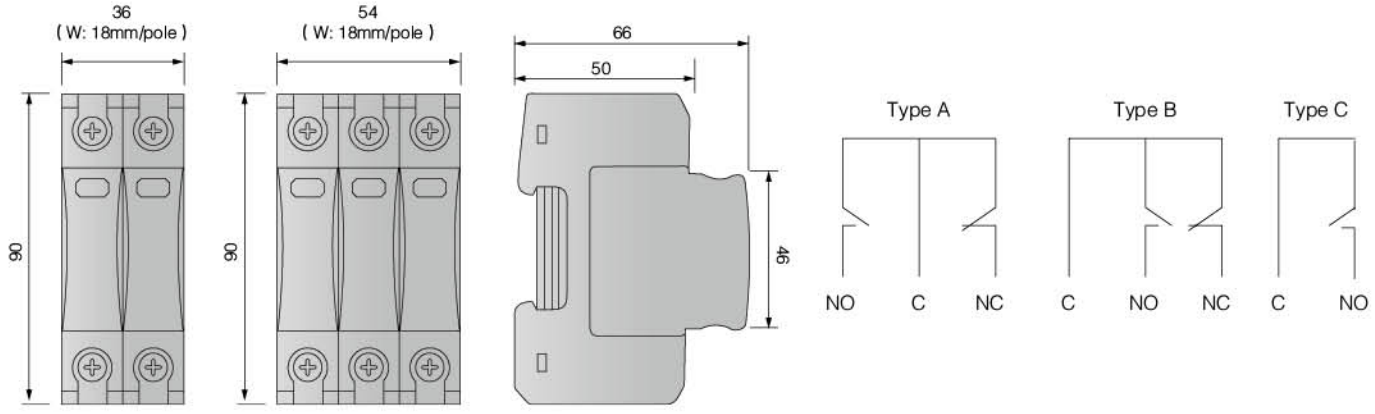
Model Description

LD	MD	-	□	/	□	R	□
↓	↓		↓		↓	↓	↓
LEIDUN	Surge protector Device (SPD)		Maximum discharge current		2P、3P	With remote signaling or communication and remote alarm	Lightning protection level (T2)

Main technical parameters

Model	LD-MD(DC) / 2P	LD-MD(DC) / 3P
Maximum continuous operating voltage	800VDC / 1000VDC / 1200VDC / 1500VDC	
SPD Category	Voltage limiting type	
Nominal discharge current	20kA	
Maximum discharge current	40kA	
Voltage protection level	3.2kV / 4.0kV / 4.4kV	
Response time	≤ 25ns	≤ 25ns
Maximum spare fuse	125A gL/gG	125A gL/gG
Operating temperature range (Parallel Circuits)	-40℃ ~+80℃	-40℃ ~+80℃
Installation wire cross-sectional area	1.5~25mm² Solid/ 35mm² Flexibility	
Installation method	35mm DIN rail	
Shell material	RED / WHITE (Modules) / Dark Gray (Base) Thermoplastics，UL94-V0	
Test standards	IEC 61643-1; GB/T18802.31	
Remote signal installation connection type	Switch contacts	
Cross-sectional area of remote signal terminal conductor	Max. 1.5mm² Solid/ Flexibility	

Appearance and Installation dimensions (mm)



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Smart Multi-function Power Meter

LD19 Series

Product Overview

LD19 series Smart Multi-function Power Meter is designed to cater to the needs of industrial and mining enterprises, public facilities, and intelligent power monitoring. It is a versatile product that is suitable for various applications such as energy management systems, substation automation, distribution network automation, industrial automation, community power monitoring, and intelligent distribution cabinets.

This power meter is capable of measuring all common power parameters, and has the advantages of intuitive display, high accuracy, and vibration resistance. Additionally, it features a pulse output and RS485 communication interface, allowing for remote transmission of data. It also offers optional functions such as switch input and output, analog output, harmonic content analysis, and multi-rate power statistics.

It complies with GB/T17215.322-2008 AC measuring equipment-Special requirements-Part 22: Static active energy meter (0.2S level and 0.5S level), GB/T17215.323-2008 AC measuring equipment-Special requirements-Part 23: Static reactive energy meter (level 2 and level 3)

Model Description

LD	19	-	□	□	□	-	□	□	□	□
↓	↓	↓	↓	↓	↓		↓	↓	↓	↓
①	②		③	④	⑤		⑥	⑦	⑧	⑨

① LEIDUN

② 192: single-phase AC signal input， 194: three-phase AC signal input， 195: DC signal input

③ Function code: A: Current, V: Voltage, F: Frequency, H: Power factor, P: Active power, Q: Reactive power, E: Active electric energy, RE: Reactive electric energy, I/U: current and voltage combination, D: full electric quantity Multi-function Power Meter, FD: full electric quantity measurement + time-of-use (TOU) metering, HD: full electric quantity measurement + harmonic detection, FHD: full electric quantity measurement + TOU metering + harmonic detection

④ External dimensions：

Code	Corresponding pointer gauge model	Frame size (mm)	Installation size (mm)
2	42 Square	120×120	111×111
3	6 Square	80×80	76×76
5	5 With groove	96×48	92×45
9	9 Square	96×96	92×92
A	72 Square	72×72	68×68
D	Squircle	48×48	45×45

⑤ Display mode：1 – single row display, 3 – three rows display, 5 – five rows display, Y – LCD

⑥ nI : Switch input (n=1-way, 2-way, 3-way.....)

⑦ nO: Alarm switch quantity output (n=1-way, 2-way, 3-way...)

⑧ nT-RS485 communication (n=1-way, 2-way)

⑨ (omitted)- No analog converter output function, nD- analog converter output (n=1, 2, 3.....)

Note:

1. Three-phase full electric quantity measurement includes three-phase current, voltage, three-phase active power, three-phase reactive power, power factor, and forward active and reactive power display.
2. If you have special ordering requirements, please consult with our technical department.

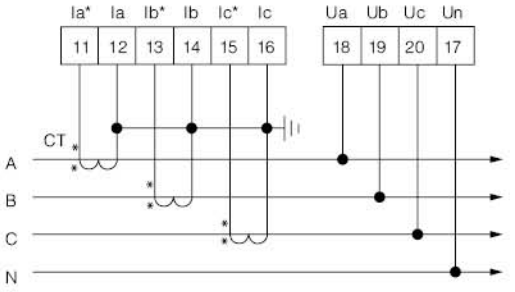
Models and Functions

Model		Extended function (optional)						Installation size (mm)
	Three-phase full electric quantity measurement	Switching input	Switching output	Changeover output	Communication interface	LED	ICD	
LD192-D2	√	4	4	4	1	√	-	111×111
LD192-D2Y	√	4	4	4	1	-	√	
LD194-FD2Y	√	4	4	4	1	-	√	
LD194-HD2Y	√	4	4	4	1	-	√	
LD192-D3	√	-	-	-	1	√	-	76×76
LD192-D3Y	√	-	-	-	1	-	√	
LD192-D9	√	4	4	4	1	√		92×92
LD192-D9Y	√	4	4	4	1		√	
LD194-FD9Y	√	4	4	4	1	-	√	
LD194-HD9Y	√	4	4	4	1	-	√	
LD192-DA	√	-	-	-	1	√	-	68×68
LD192-DAY	√	-	-	-	1	-	√	

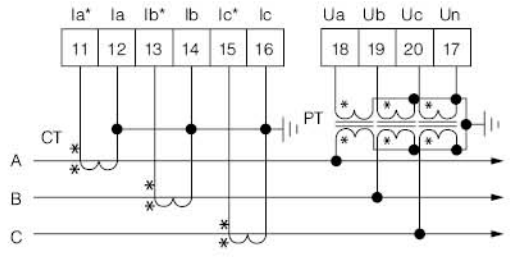
LD19 Series

Smart Multi-function Power Meter

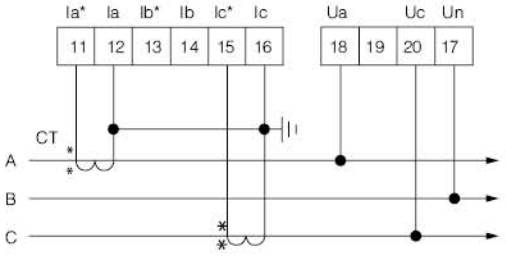
Typical signal wiring diagram



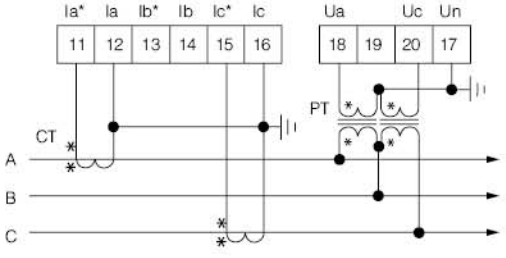
Low voltage: three-phase four-wire



High voltage: three-phase four-wire



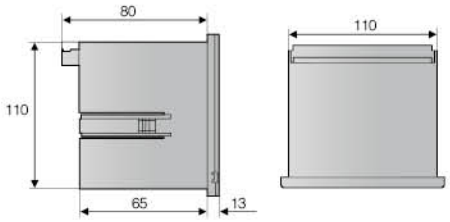
Low voltage: three-phase two-wire



High voltage: three-phase three-wire

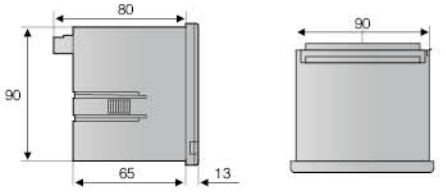
Appearance and Installation dimensions (mm)

Frame size(mm)：120×120 Installation dimension(mm)：111×111



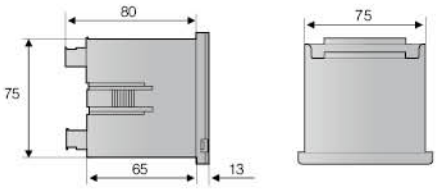
Side View Top view

Frame size(mm)：96×96 Installation dimension(mm)：92×92



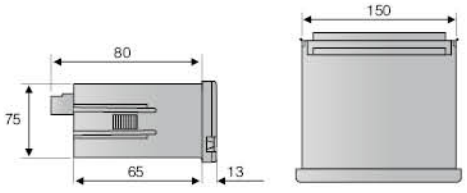
Side View Top view

Frame size(mm)：80×80 Installation dimension(mm)：76×76



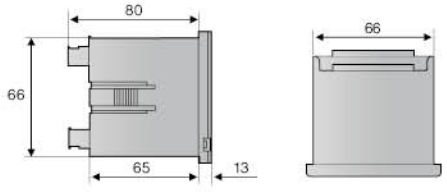
Side View Top view

Frame size(mm)：160×80 Installation dimension(mm)：152×76



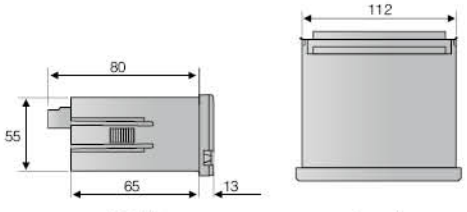
Side View Top view

Frame size(mm)：72×72 Installation dimension(mm)：68×68



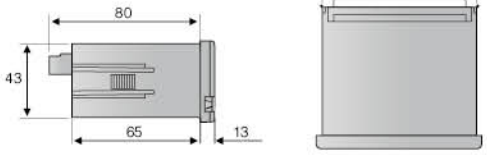
Side View Top view

Frame size(mm)：120×60 Installation dimension(mm)：114×56



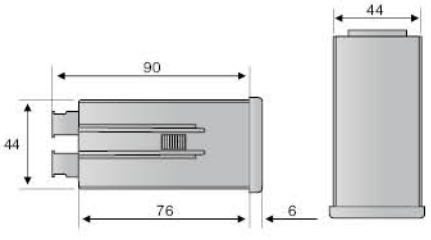
Side View Top view

Frame size(mm)：96×48 Installation dimension(mm)：92×45



Side View Top view

Frame size(mm)：48×48 Installation dimension(mm)：45×45



Side View Top view

LEIDUN ELECTRIC

New Energy·New Power

Photovoltaic

Energy Storage

Electrical grid

Industry

(PV) Photovoltaic Energy Meter

DTSD3288 Series

Product Overview

DTSD3288 (PV) Photovoltaic Energy Meter in line with the performance indicators outlined in the technical requirements of GB/T17215.321–2008 "1 and 2 and static AC active energy meter", GB/T 17215322–2008 "0.2s and 0.5s static AC active energy meter" and DL/T614–2007 "Multi–function energy meter" national standards for multi–function energy meter.

Additionally, its communication capabilities comply with the requirements of DUT645–1997/2007 "Multi–function meter communication protocol". This meter is capable of time–of–use (TOU) measurement of forward and reverse active power, forward and reverse reactive power, Four–quadrant reactive power and maximum demand, and maximum demand occurrence time.

DTSD3288 Series

(PV) Photovoltaic Energy Meter

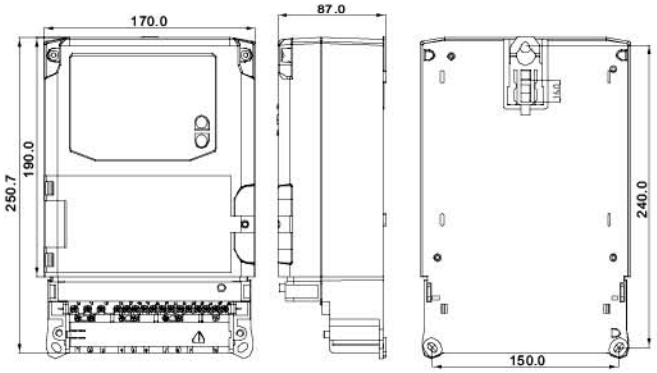
Product Features

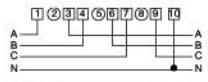
- Measuring phase electricity, recording loss of voltage and current.
- Infrared remote control to call up display items, infrared meter reading during power outages.
- 3 meter reading cycle data, data can be automatically locked, 12 months of meter reading data.
- With programming prohibition function, demand reset function, power failure button wake-up function.
- Display the operating status of the meter and various parameter settings and various metering data through LCD.
- TOU metering active positive and reverse electric energy, which can be divided into 4 rates, 12 time periods, and 8 time zones.
- Real-time measurement of the effective values of voltage, current, power and current frequency of the three phases A, B and C.
- Forward active and reverse active pulse output, four-quadrant reactive pulse output, pulse width can be set by infrared or RS485.
- With the event recording function of loss of voltage, loss of current, overpower, power outage, incoming call, programming, demand clearing, broadcast calibration, etc.
- RS485 wired communication and infrared wireless communication, in line with DL/T645-1997/2007 standard event record (such as total clearing, demand clearing).

Main technical parameters

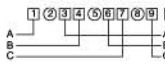
Rated Current (A)	1.5(6)、5(20)、10(40)、15(60)、20(80)、30(100)
Rated Voltage (V)	3×220/380V　3×57.7/100V　3×380V　3×100V
Rated Frequency (Hz)	50 or 60
Accuracy level	Active power 0.2 level, Reactive power 2 level / Active power 0.5 level, Reactive power 2 level

Appearance and Installation dimensions (mm)

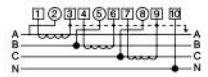




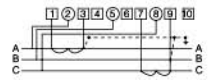
DTSD Three-phase four-wire direct access wiring diagram



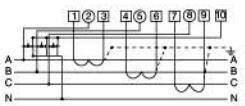
DSSD Three-phase three-wire direct access wiring diagram



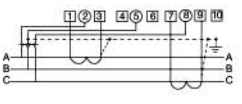
DTSD Three-phase four-wire current transformer access wiring diagram



DDSD Three-phase three-wire current transformer access wiring diagram



DTSD Three-phase four-wire current and voltage transformer access wiring diagram



DTSD Three-phase three-wire current and voltage transformer access wiring diagram

Microcomputer Anti-Island Protection

LDGD Series

Product Overview

Islanding is a phenomenon where a photovoltaic power station continues to supply power to a part of power grid that has lost voltage. For small photovoltaic power stations, it is important to have the ability to quickly monitor and immediately disconnect from the grid in the event of islanding. While most photovoltaic inverters have anti-islanding protection, it is recommended to install an additional anti-islanding protection device at the grid connection point for safe, stable, and reliable operation of the power system. It can quickly cut off the distributed island power supply.and also has the capability to automatically close when the system voltage is normal, according to user requirements

LDGD-800 Microcomputer Anti-Island Protection series utilizes a specially designed microcomputer device and control circuit to ensure rapidity protection action and accurate control. It can be centrally grouped into panels or installed in switch cabinets in a decentralized manner, with communication achieved through a 485 bus.

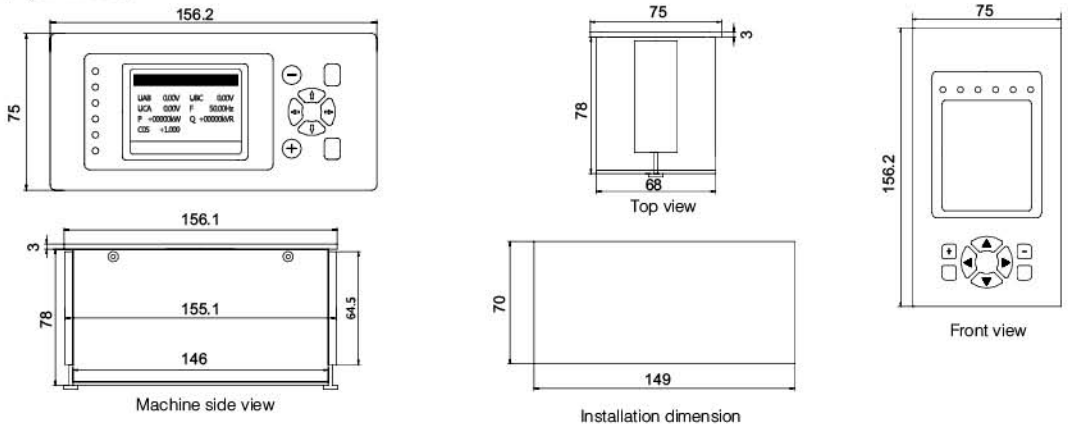
This device monitors the low-voltage side of the distribution transformer in real time, performs necessary control on the clean power supply, and prevents unplanned islanding..

Main technical parameters

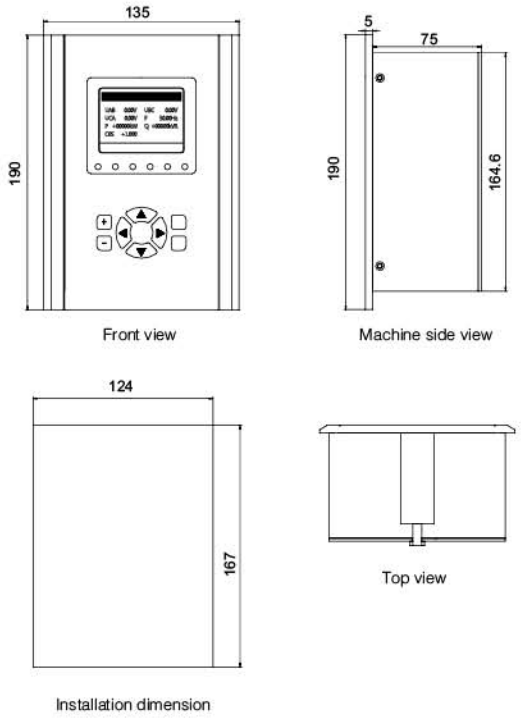
- Device power supply: DC or AC 220V or 110V
- AC: Circuit voltage 380V, Current 5A or 1A, Frequency 50Hz
- Power consumption: Power circuit not more than 10W, AC circuit not more than 0.5 VA/phase
- Setting range: Current: 0.1In ~ 16In (In: rated current). Voltage: 10V ~ 800V
- Protection error range: Current (voltage): When the set value is lower than the rated value, the error does not exceed 0.02In (Un). When the set value is higher than the rated value, it does not exceed ±2%. Time: the action error time is not more than ±20ms, when the action time is set to Os, the action time is not more than 40ms

Appearance and Installation dimensions (mm)

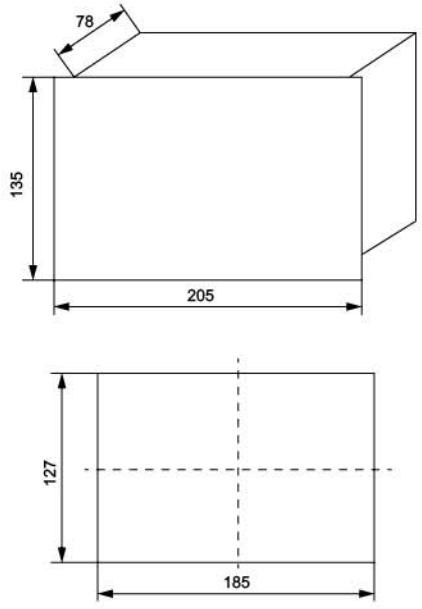
LDGD-800H/V (Small size)



LDGD-800V (Large size)



LDGD-800H(Large size)



Power Meter

Microcomputer Protection Device

LDR Series

Product Overview

LDR microcomputer protection device is a new generation of relay protection equipment developed by our company specifically for power plants, substations, distribution stations, etc. in the power system. It offers comprehensive protection for primary equipment such as overhead lines, cable lines, transformers, motors, and capacitors at voltage levels of 35kV and below.

This device consists of a single-chip microcomputer with high integration and a bus without chip, high-precision current and voltage transformers, high-insulation strength export intermediate relays, and reliable switching power supply modules. Its advantages include high integration, complete protection configuration, strong anti-interference ability, low power consumption, and resistance to harsh environments. It is particularly suitable for direct and decentralized installation on switch cabinets.

Main technical parameters

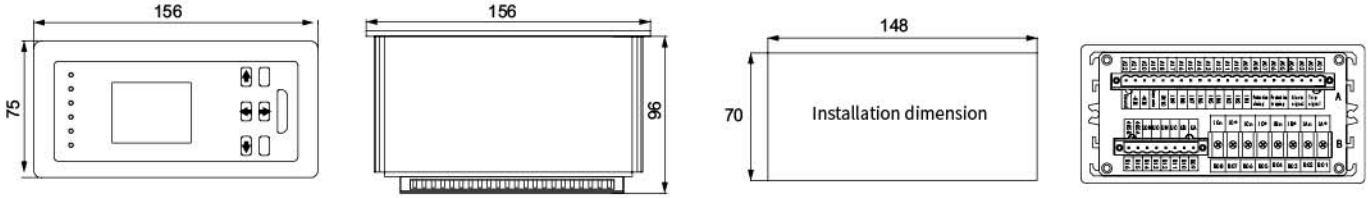
- Rated frequency: 50Hz
- AC voltage: 100V (circuit voltage or VV wiring)
- Open circuit: DC 24V, 5mA (provided internally by the device)
- Open contact: It can continuously connect DC220V, 5A current (pure resistive load)
- Power consumption: DC circuit is not more than 5W, AC circuit is not more than 0.5VA
- Protection action time: All protection inherent action time is not more than 35ms at 1.5 times the set value
- Accurate measurement range: Phase current 0.1In~20In. Zero sequence current 0.1A~6.25A. Voltage 5V~150V

Conditions of use

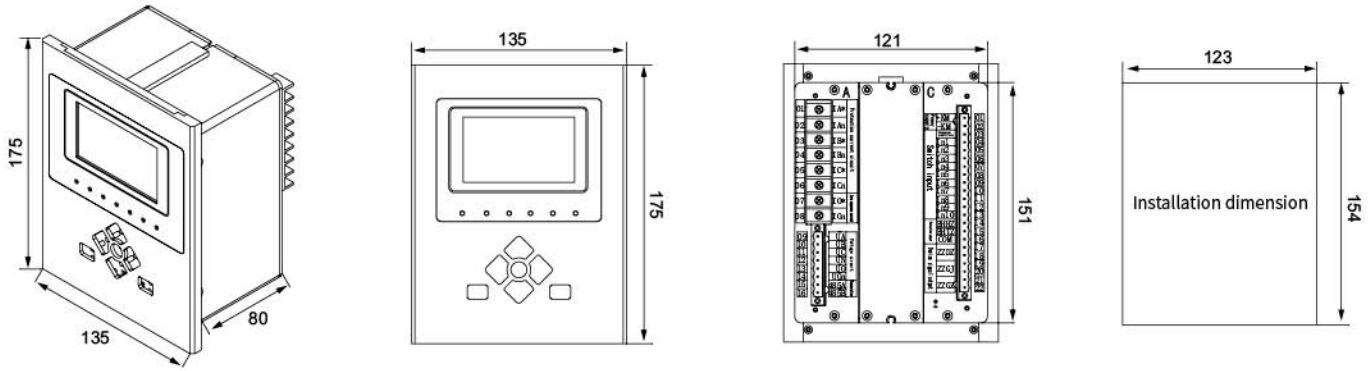
- Relative humidity: 45%~90%
- Atmospheric pressure: 80~110kpa
- Normal operating temperature: The variation of the operating value due to temperature change within the range of –10℃ ~55℃ is no more than ± 1%

Appearance and Installation dimensions (mm)

LDR-310H/V



LDR-610



Photovoltaic

Energy Storage

Electrical grid

Industry

Power Quality Meter

LDDN-F335X Series

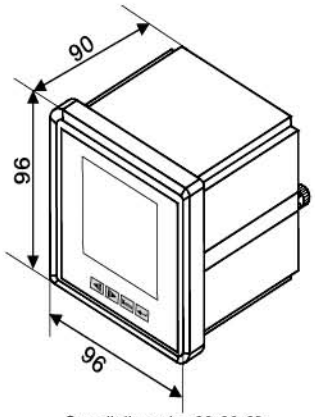
Product Overview

The Power Quality Meter is a versatile device that offers programmable measurement, display, harmonic power quality analysis, digital communication, and power pulse output.

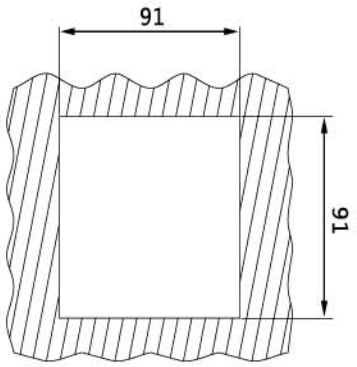
It is capable of accurately measuring and displaying power data, as well as collecting and transmitting it. This device has a wide range of applications, including substation automation, distribution automation, intelligent buildings, and enterprises.

It boasts a high level of accuracy in power measurement, management, and assessment, with a precision of 0.5S. Additionally, it features LCD display for on-site viewing and a remote RS-485 digital communication interface, utilizing the MODBUS-RTUDL-T645 dual communication protocol.

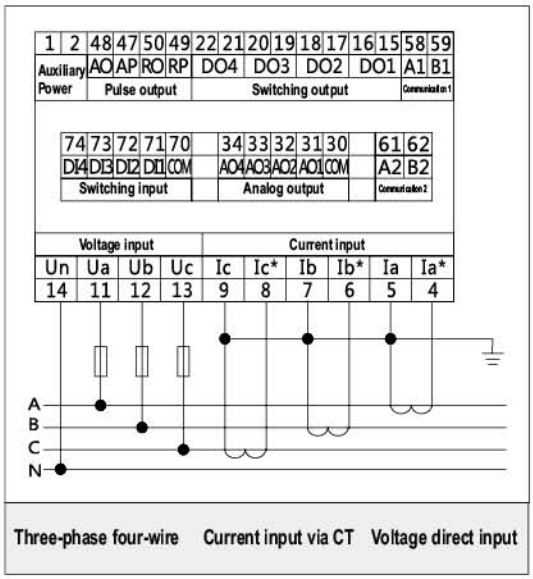
Appearance and Installation dimensions (mm)



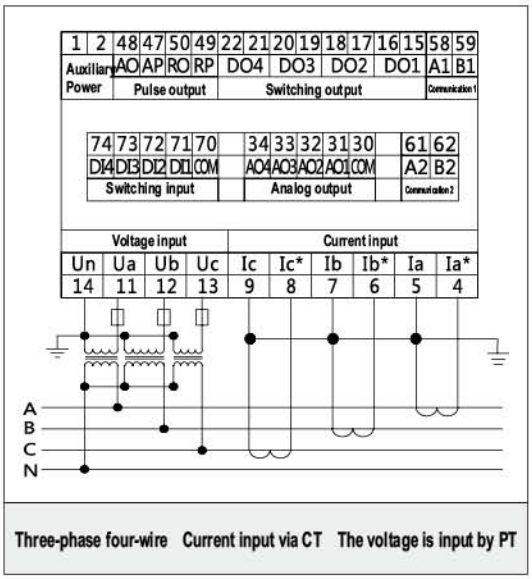
Overall dimension:96x96x90



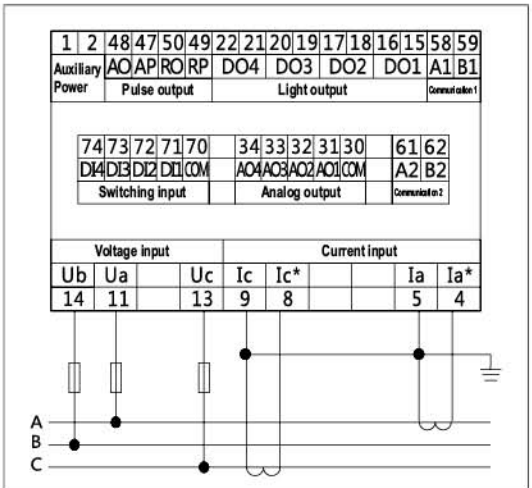
Installation dimension:91x91(selectable 88x88)



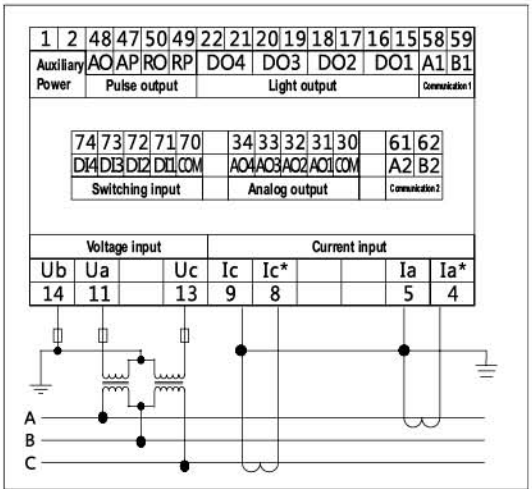
Three-phase four-wire Current input via CT Voltage direct input



Three-phase four-wire Current input via CT The voltage is input by PT



Three-phase three-wire Current input via CT Voltage direct input



Three-phase three-wire Current input via CT The voltage is input by PT

Photovoltaic

Energy Storage

Electrical grid

Industry

Class A Power Quality Device

LDDN-F335 Series

Product Overview

The Class A Power Quality Device (F335) is primarily utilized for real-time monitoring of power quality parameters in power grids. It serves as a reliable tool for grid to evaluate and enhance overall power quality with accurate data.

Its key features include data display, data storage, remote communication, and over-limit alarms for monitoring items.

Key Features

● Basic monitoring indicators:

○ Grid frequency, three-phase fundamental voltage, current effective value, fundamental active power, reactive power, power factor, phase, etc.

○ Voltage deviation, frequency deviation, three-phase voltage imbalance, three-phase current imbalance, negative sequence voltage, current, voltage DC component.

○ Harmonics (2-65times): including total harmonic distortion rate of voltage and current, harmonic content rate, amplitude, and phase.

○ Advanced monitoring indicators: interharmonics, voltage fluctuation, flicker, voltage surge, sag, short-term interruption, temporary overvoltage.

● Display function:

○ The device panel is equipped with a large-screen color LCD display screen to display the data of power quality monitoring indicators in real time.

○ Setting function: Set, modify and view basic parameters and over-limit parameters of the device, and password protection.

● Record storage function:

○ The device has a built-in TF card, which can save basic monitoring indicators and advanced monitoring indicators in real time. The real-time data can be saved on the device for up to 1 year, and then updated according to the "first in, first out" principle.

● Statistical function:

○ The device has an online statistical function for the main monitoring indicators, and can calculate the three-second average of the monitoring indicators within a minute.

● Communication function:

○ The device provides a variety of communication interface methods to realize real-time transmission of monitoring data or timed extraction and storage records. It can communicate with the remote power quality management center through the industrial Ethernet interface, and can also communicate with the remote through the RS232C/RS485 interface in GPRS mode (customized).

● Time synchronization function:

○ The monitoring device has a network time synchronization function, which can keep the clock consistent with the remote management center. At the same time, it has a B code time synchronization function to ensure the accuracy of the device clock.

● Event trigger recording function:

○ The event trigger threshold can be set according to customer requirements, and the real-time data and waveform before and after the event trigger can be recorded, and the event log can be saved for query.

LDDN-F335X Series

Power Quality Meter

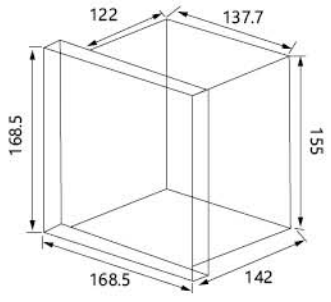
Main technical indicators

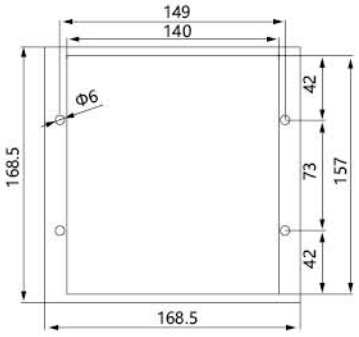
- Max. flicker error: ±5%
- Max. voltage error: ±0.1%
- Max. voltage fluctuation error: ±5%
- Max. current error: ±0.1%
- Max. frequency error: ±0.01Hz
- Frequency measurement range: 42.5Hz~57.5Hz
- Max. harmonic error: Class A
- Max. interharmonic error: Class A
- Max. three-phase current unbalance error: ±1%
- Max. three-phase voltage negative sequence unbalance error: ±0.15%

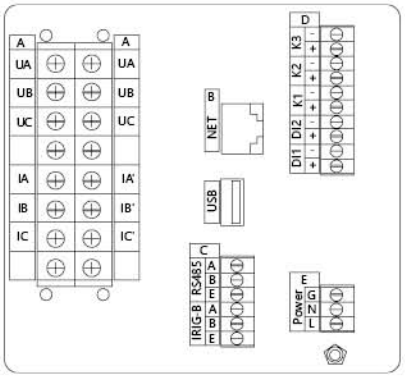
Conditions of use

- Normal operating temperature: -10℃~ +55℃
- Extreme operating temperature: -25℃~ +65℃
- Relative humidity: 5%~ 95%
- Atmospheric pressure: 86kPa ~ 106kPa
- Altitude: ≤ 3000 m
- Protection level: IP50

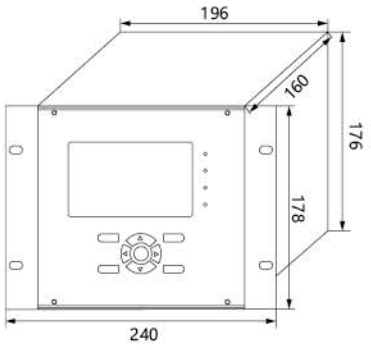
LDDN-F335D Dimensions and wiring diagram(mm)

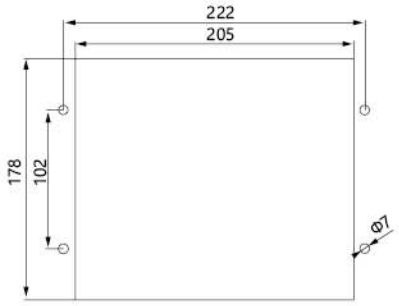


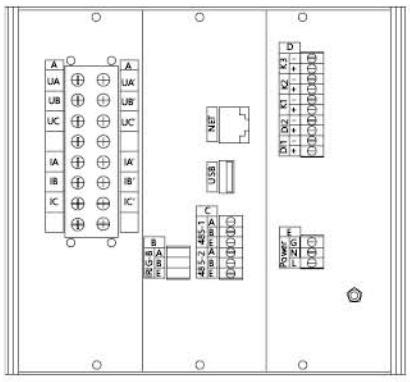




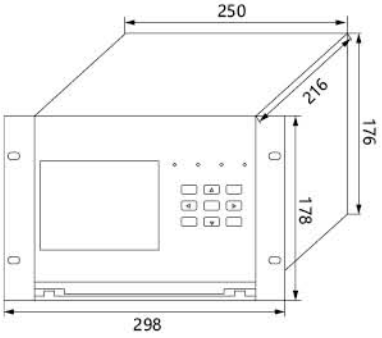
LDDN-F335GP Dimensions and wiring diagram(mm)

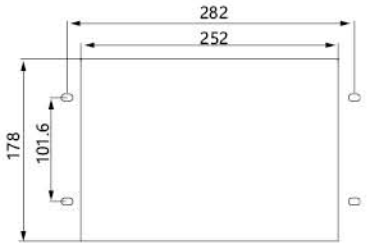


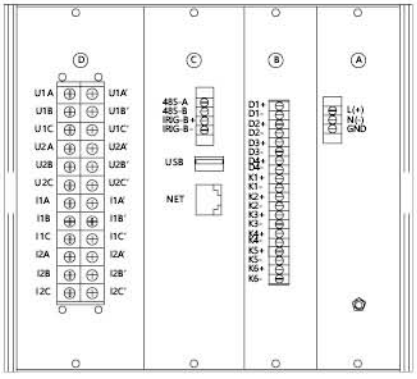




LDDN-F335S Dimensions and wiring diagram(mm)







Switchgear Intelligent Control Device

LDCK Series

Product Overview

The Switchgear Intelligent Control Device can directly replace existing primary circuit simulation diagram, temperature and humidity controller, live display and other products. This will effectively enhance the quality of the switch cabinet. The device is made of insulating flame-retardant engineering materials, making it compact and easy to install in various positions. Its ultra-thin design allows it to be installed on the door of the circuit breaker room, making it a cost-effective option. The product is suitable for used in 3~35KV indoor switch cabinets, such as central cabinets, trolley cabinets, fixed cabinets and ring network cabinets.

It is controlled by a microprocessor, ensuring stability, reliability, a long lifespan, and a strong anti-interference capability. The product offers various functions such as dynamic simulation display diagrams, temperature and humidity control in the cabinet, grounding switch indication, high-voltage live display and locking function, voice anti-error prompts, opening and closing state indication, energy storage indication, trolley position indication, remote/local operation, opening/closing operation, lighting operation, and RS-485 communication.

Its integrated layout simplifies the switch cabinet panel structure design, enhances the switch cabinet panel layout, and improves the switch status indication function and safety performance.

Main technical indicators

- Working power supply: AD/DC 100~265V, DC48V (optional)
- Power consumption: ≤ 10W
- Measurement accuracy: ±2℃ (temperature); ±5%RH (humidity)
- Working mode: cooling type
- Temperature control: 40℃
- Temperature hysteresis: 5℃
- Humidity control: 88%RH
- Humidity hysteresis: 5%RH
- Anti-electromagnetic interference ability: in accordance with IEC255-22 standards
- Contact capacity: 5A/AC, 250V resistive
- Operating environment: -20℃ ~+65℃ , ≤ 95%RH
- Dielectric strength: ≥ AC2000V
- Insulation performance: ≥ 100MΩ
- Dynamic flashing frequency: twice/second
- Relationship between switch input and LED digital display: dynamic configuration
- Communication method: RS485, MODBUS-RTU

Main function

This product can realize the functions of primary circuit equipment switch status indication, temperature and humidity intelligent control and circuit breaker operation according to user requirements. The device is equipped with an integrated layout in the switch cabinet, which simplifies the previous panel structure design of the switch cabinet, beautifies the panel layout, and replaces the existing primary circuit analog indicator, electromagnetic switch status indicator, grounding indicator, energy storage switch, circuit breaker switch/switch and other control and indicating devices. The device is easy to install and has a long service life, which can fully meet the needs of the power industry and ensure the safe and reliable operation of electricity.

Appearance and Installation dimensions (mm)

Model	External dimensions(mm)	Installation dimensions (mm)(mm)
LDCK-1200A	W:232, H:180, thickness:71	W:220, H:165
LDCK-1200S	W:232, H:180, thickness:71	W:220, H:165
LDCK-1200Y	W:262, H:185, thickness:71	W:246, H:166

Photovoltaic

Energy Storage

Electrical grid

Industry

Mini Dual Power Automatic Transfer Switch

LDQ3-63 Series

Product Overview

LDQ3-63 series Mini Dual Power Automatic Transfer Switch (ATS) is designed to efficiently switch between two power sources as needed. It is specifically suitable for dual power supply systems with an AC 50Hz, a rated working voltage of 220V (2P), 380V (3P, 4P) and a rated working current of up to 63A.

This product is equipped with overload and short circuit protection, as well as the ability to output closing signals. It is particularly well-suited for use in lighting circuits in various settings such as office buildings, shopping malls, banks, and high-rise buildings.

It complies with IEC60947-6-1 and GB/T14048.11 standards.

LDQ3-63 Series

Mini Dual Power Automatic Transfer Switch

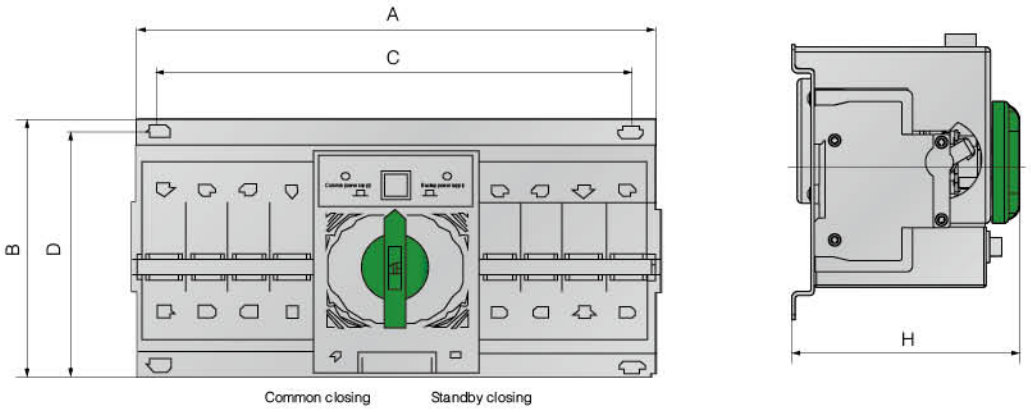
Model Description

LD	Q	3	-	□	-	□	/	□
↓	↓	↓		↓		↓		↓
LEIDUN	Dual Power Automatic Transfer Switch	Design No.		Ampere Frame Rating		2P、3P、4P		Rated Current (A)

Conditions of Use

- Ambient Air Temperature: -5℃ to +40℃，the average temperature for 24 hours does not exceed +35℃ .
- Installation Location: The altitude shall not exceed 2000m.
- Atmospheric Conditions: The relative humidity of the air should not exceed 50% at a maximum temperature of +40 ℃ . At lower temperatures, higher relative humidity is acceptable, such as reaching 90% at 25℃ . It is important to consider the condensation on the product surface due to temperature changes.
- Pollution Level：III
- Installation environment: The operating location should be free from strong vibration and impact, no harmful gases that corrode and damage insulation, no severe dust, no conductive particles and explosive hazardous substances, and no strong electromagnetic interference.
- 使用类别：AC-33iB。

Appearance and Installation dimensions (mm)



Model / Dimensions	A	B	C	D	H
LDQ3-63 / 2P (DZ47) (Mini)	154	135	135	125	110
LDQ3-63 / 3P (DZ47) (Mini)	190	135	173	125	110
LDQ3-63 / 4P (DZ47) (Standard)	225	135	205	125	110

Photovoltaic

Energy Storage

Electrical grid

Industry

DIN Rail Dual Power Automatic Transfer Switch

LDQ5-63 Series

Product Overview

DIN Rail Dual Power Automatic Transfer Switch (ATS) is a device that can automatically switches power in a power grid system. It is primarily used to switch to backup power when the normal power fails, ensuring continuous operation of equipment. This product is widely used in situations where power outages are not allowed and can be operated electrically or manually.

It is suitable for AC 50 or 60Hz rated voltage 400V distribution or generator networks. The ATS has a solid structure, easy installation and maintenance, with a long lifespan and fast switching speed. It also offers safety and reliable conversion, overload protection, and energy-saving features. It is specially designed for DIN rail installation and is compatible with PZ30 distribution boxes.

It consists of a TSE and controller, and can be installed vertically in a control cabinet or distribution cabinet.

LDQ5-63 Series

DIN Rail Dual Power Automatic Transfer Switch

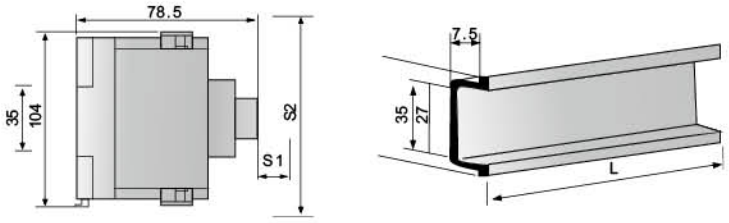
Model Description

LD	Q	5	–	□	/	□	□	□
↓	↓	↓		↓		↓	↓	↓
LEIDUN	Dual Power Automatic Transfer Switch	Design No.		Ampere Frame Rating (A)		2P 3P 4P	Dry Contact, Z：With power indicator Blank：With closing indicationWith closing indication	II：Black

Main technical parameters

Rated Current (Ie)	16A 25A 32A 40A 50A 63A		
Insulation voltage(Ui)	AC690V 50Hz		
Rated voltage (Ue)	AC400V 50Hz		
Grade	PC grade: switches and carries normal and fault currents without generating short-circuit currents		
Use Category	AC-33iB	AC-31B	
Poles	2P	3P	4P
Weight (kg)	0.62	0.71	0.81
Electrical endurance	2000 cycles / Manual operation 5000 cycles		
Rated short circuit current (Iq)	50kA		
Short circuit protection device (fuse)	RT16-00-63A		
Rated impulse withstand voltage	8kV		
Control Circuit	Rated control voltage (Us)：AC220V，Normal working conditions 50Hz ：85%Us-110%Us		
Auxiliary circuit	AC220V 50Hz Ie=5A		
Contactor switching time	<80ms		
Operation conversion time	<80ms		
Return conversion time	<80ms		
Power off time	<80ms		

Appearance and Installation dimensions (mm)



Dimensions / Poles	Length	Height	Width	Rail width
2P	107.5	78.5	104	35
3P	125	78.5	104	35
4P	144	78.5	104	35

Safe distance S1：≥ 30mm S2：≥ 203mm

Photovoltaic

Energy Storage

Electrical grid

Industry

Photovoltaic knife switch

HD11F Series

Product Overview

HD11F series photovoltaic knife switch offers several convenient features. Firstly, it solves the issue of difficult installation commonly associated with traditional knife switches by providing two installation options: rail and base plate. Secondly, it eliminates the need for for opening the cover when wiring, making the process easier. Additionally, the full copper parts are thickened and a fastening ring design is added to ensure tight contact and prevent looseness. Arc isolation plates can also be installed for added safety.

This switch is applicable to control circuits with AC 50Hz, rated voltage up to 400V, and a rated impulse withstand voltage of 6kV. It can be used as an infrequent manual connection and disconnection circuit, as well as an isolation circuit in the power distribution systems of household appliances and industrial enterprises. This greatly improves the personal safety protection performance and prevents accidental electric shock.

It complies with GB/T14048.3 and IEC60947-3 standards.

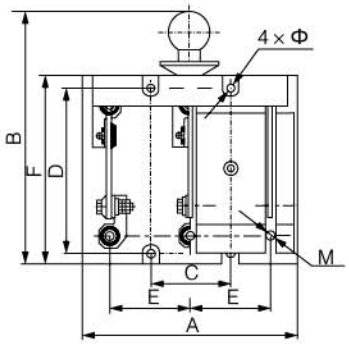
Model Description

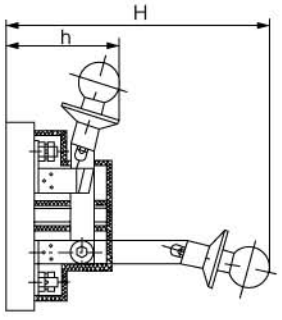
HD	11	F	-	□	/	3	□	□
↓	↓	↓		↓		↓	↓	↓
Isolator	Central handle	Anti–misoperation		Rated working current		3P	8：Front panel wiring 9：Rear panel wiring	0：Without auxiliary contact 1：With auxiliary contact

Main technical parameters

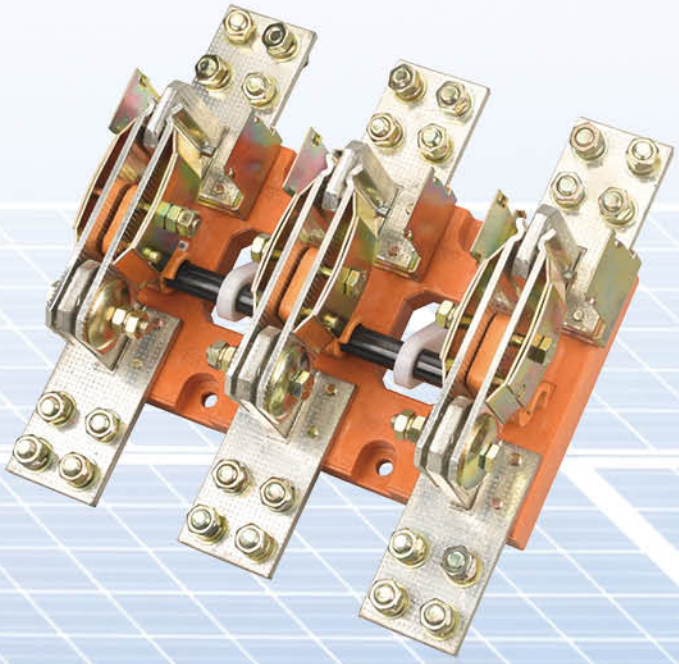
Rated working current (Ie)	200A	400A	600/630A	1000A	1500/1600A
Rated insulation voltage (Ui)	660V				
Rated working voltage (Ue)	AC380V、DC220V				
Rated frequency	50Hz				
Use category	AC–20				
1s short–time withstand current (r.m.s)	10kA	20kA	20kA	2SkA	32kA
Mechanical endurance (Cycles)	10000	10000	5000	5000	3000
Operating force	≤ 250N	≤ 300N	≤ 350N	S400N	≤ 450N

Appearance and Installation dimensions (mm)





Model		100			200			400			600	1000	100–I
		2P	3P	4P	2P	3P	4P	2P	3P	4P	3P	3P	4P
HD Protective front panel wiring knife switch	A	90	130	270	92	200	270	200	220	300	290	322	200
	B	210	210	230	210	210	230	270	270	300	330	350	210
	C	–	40	140	140	70	140	160	80	160	100	115	100
	D	140	140	140	140	140	140	190	190	190	160	140	140
	E	50	50	70	50	70	70	80	80	80	100	115	50
	F	165	165	165	165	165	165	215	215	215	260	275	158
	H	220	220	240	220	220	240	270	270	300	305	335	210
	h	110	120	120	120	120	120	135	135	145	125	160	110
	M	8	8	8	8	8	8	12	12	12	16	12	8
	Φ	7	7	7	7	7	7	7	7	7	9	9	8



Photovoltaic

Energy Storage

Electrical grid

Industry

Open Type Knife Switch

HD13BX Series

Product Overview

The open-type knife switch series produced by our company can greatly improve the performance of personal safety protection and prevent accidental electric shock.

This series of products is mainly used in low-voltage power distribution equipment for infrequent manual connection and disconnection and isolation of power supply.

Comply with standards: GB/T14048.3, IEC60947-3.

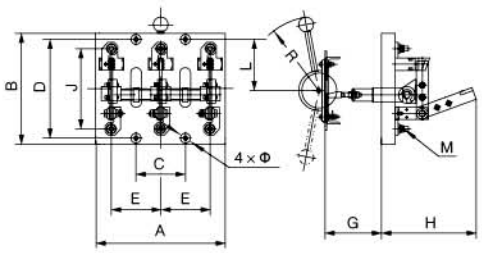
Model Description

H	□	□	-	□	/	□	□
↓	↓	↓		↓		↓	↓
"HD" means single throw knife switch, "HS" means double throw knife switch	"11" indicates central handle type, "12" indicates side front lever operating mechanism "13" indicates central lever operating mechanism type, "14" indicates side lever operating mechanism type	"BX" indicates rotary operation, while "no BX" indicates lever operation		Rated current: 200A、400A、600A、1000A、1500A、2000A、3000A、4000A		1P、2P、3P、4P	"0" means without isolation cover, "1" means with isolation cover, "8" means front wiring, "9" means back wiring, and blank means front wiring

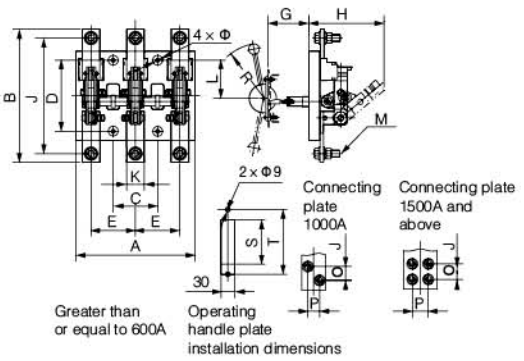
Main technical parameters

Item	Unit	Parameters							
Conventional heating current	A	100	200	400	600	1000	1500	2000	3000
Rated working current	A	100	200	400	600	1000	1500	2000	3000
Mechanical endurance	cycles	10000	10000	10000	5000	3000	5000	3000	3000
1S short–time withstand current	kA	4	4	20	25	30	40	50	50
Dynamic stable current peak	kA	15	20	30	40	50	80	100	1000
Operating force	N	⩽ 300	⩽ 300	⩽ 400	⩽ 400	⩽ 450	⩽ 450	⩽ 450	⩽ 450

Appearance and Installation dimensions (mm)



Less than or equal to 400A



Greater than or equal to 600A

Operating handle plate installation dimensions

Model		100A、200A			400A			600A、630A			1000A		
		2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P
HD13 Central lever operating mechanism knife switch	A	190	210	300	220	245	335	240	260	360	280	320	460
	B	200	200	200	210	210	210	294	294	294	314	314	314
	C	160	80	160	180	90	180	200	100	200	240	120	240
	D	160	160	160	160	160	160	160	160	160	160	160	160
	E	80	80	80	90	90	90	100	100	100	120	120	120
	G front		350~370			350~370			350~370			350~370	
	G back		245–265			245~265			245~265			245~265	
	H	160	160	160	185	185	185	190	190	190	230	230	230
	J	130	130	130	166	166	166	254	254	254	238	238	238
	K	–	–	–	–	–	–	40	40	40	50	50	50
	L	75	75	75	75	75	75	80	80	80	80	80	80
	O	–	–	–	–	–	–	–	–	–	25	25	25
	P	–	–	–	–	–	–	–	–	–	25	25	25
	R	180	180	180	180	180	180	180	180	180	230	230	230
	S	100	100	100	100	100	100	100	100	100	100	100	100
	T	146	146	146	146	146	146	146	146	146	146	146	146
	M	8	8	8	12	12	12	16	16	16	12	12	12
	Φ	8.5											

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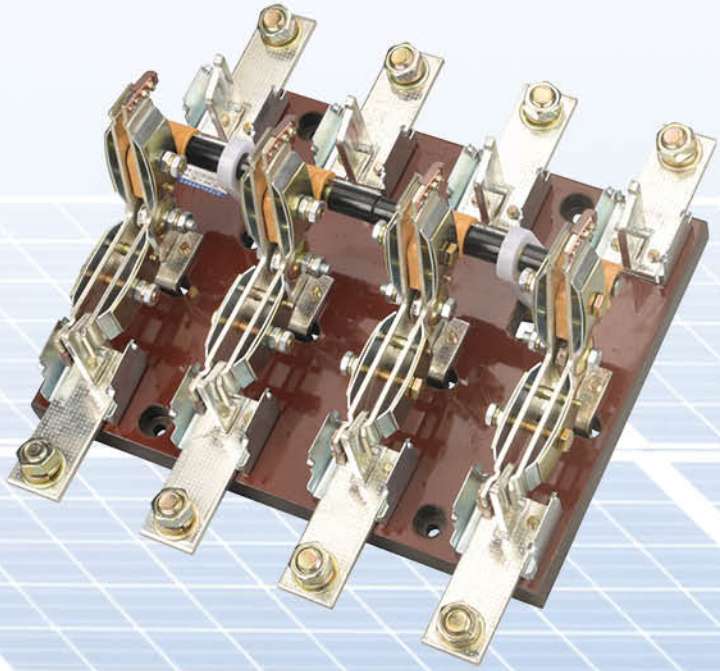


Knife Transfer Switch

HS13BX Series

Product Overview

The Knife Transfer Switch is designed for power lines with AC 50Hz and a voltage up to 1000V, or DC 1200V. It can handle a rated working current of 6000A or below, providing uninterrupted operation and isolation of the power supply.

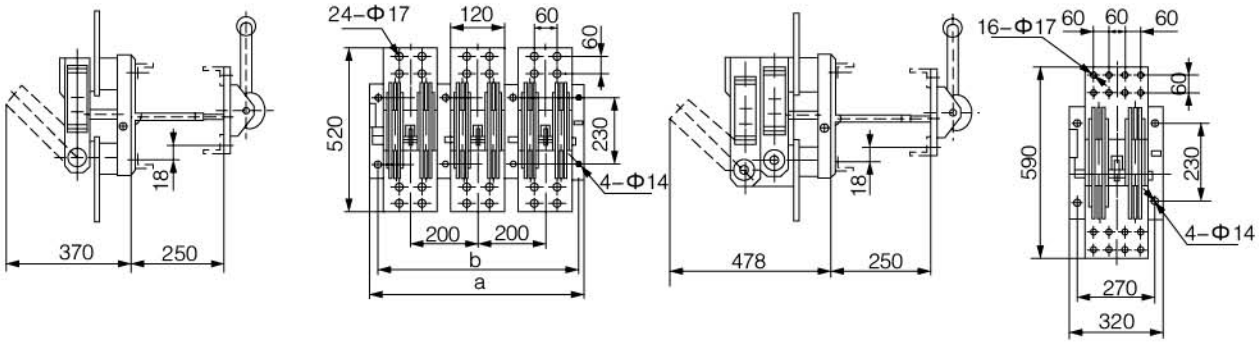
This knife switch features double blades distributed on both sides of the static contact, which are secured with leaf springs and screws. In the event of a short circuit in the power grid, the electromagnetic locking force created by two parallel blades and spring sheet compensates for contact repulsion, resulting in improved electrical stability.

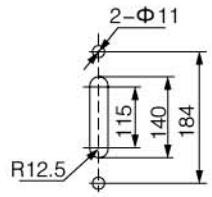
The conductive parts of the knife switch are attached to the base using an insulating bottom plate made of glass fiber pressed plastic, which offers high insulation strength and mechanical strength. Additionally, the pull rod is also made of glass fiber pressed plastic, ensuring a long mechanical life for the knife switch.

Main technical parameters

Rated working voltage (V)	Rated working current (A)	No. of poles	Dynamic stable peak current (kA)	Thermal stability current (effective value) Is (kA)	Auxiliary switch
AC 1000	3000	1P	100	50	AC380V5A
		2P			
		3P			
	4000	1P			
		2P			
		3P			
	6000	1P			

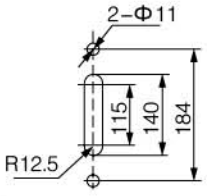
Appearance and Installation dimensions (mm)



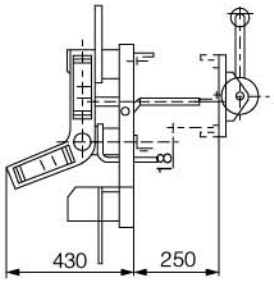


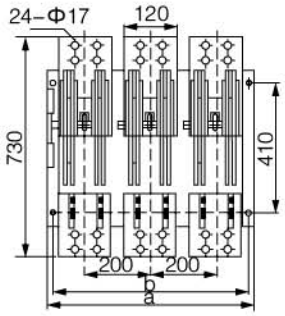
Open type high current 3000A,4000A

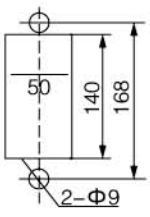
Number of poles	a	b
One pole	220	170
Dipolar	410	360
Tripolar	620	570



Operating mechanism plate installation dimensions







Knife conversion high current 3000A,4000A