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ACMDYB220326

PRODUCT SELECTION MANUAL

MINDIAN ELECTRIC CO., LTD.

MOREDAY

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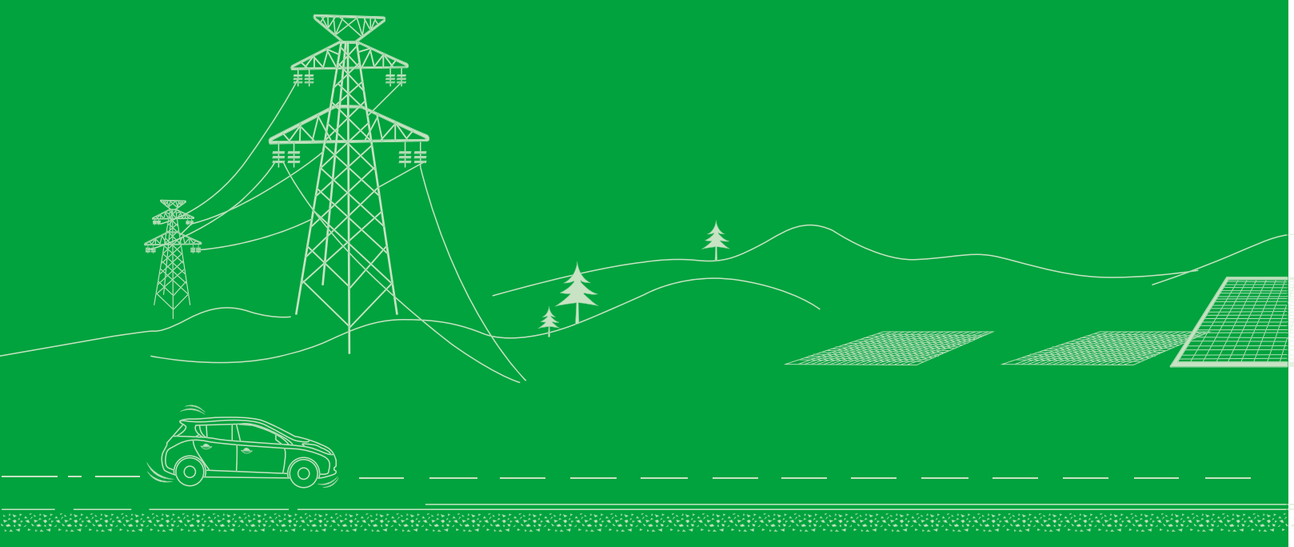
Product Selection Manual

www.cnmindian.com

MINDIAN ELECTRIC CO., LTD.

Mindian Electric Performance Table

- China Energy Construction Group Shanxi Electric Power Construction First Co., Ltd.
- The 48th Research Institute of China Electronics Technology Group Corporation
- Guangxi Lingyuan Electric Power Group Co., Ltd.
- Evergrande Real Estate
- Xinjiang Electric Power Changji Power Supply Company
- Tibet Electric Power Company Shigatse Company
- Hunan Electric Power Company Hengyang Power Supply Company
- Henan Qixian Power Supply Company
- Weifang Financial Center 10KV Power Distribution Project
- Anhui Guogou: Jingshang International Trade City
- Fuyang Jianghuai Vehicle Manufacturing Plant
- Southwest University of Science and Technology Chengdu Branch
- Datong First People's Hospital
- Taiyuan Second Construction Company



Company Profile

Founded in 2009, Moreday Solar is a R&D and manufacturing company integrating photovoltaics and new energy industry. The original intention of Moreday Solar is to bring more clean energy to the world and enjoy a better life.

The company's main products: photovolta-ic convergence and grid-connected prod-ucts, low-voltage electrical, energy storage and application products, solar power transmission and distribution products and solar system manufacturing.

The company takes solar energy sharing as its vision, technological innovation as its driving force, customer-oriented, and has obtained more than 30 national patents. Its products have passed CQC, CE, CB, TUV, ROHS and other certifications, and IS09001 quality system certification, with more than 1,000 services. Customers, the products are exported to more than 50 countries in Europe, America, Southeast Asia, the Middle East and other regions.

We hope to work with more partners to bring solar energy to every region of the world, promote the widespread use of green and clean energy, and leave more day for the earth.

Corporate Advantage

- Perfect enterprise management system
- Twelve years of focusingon combiner boxes products

- Is09001 quality management system
- TUV, CE, CQC, CB, ROHS certifications

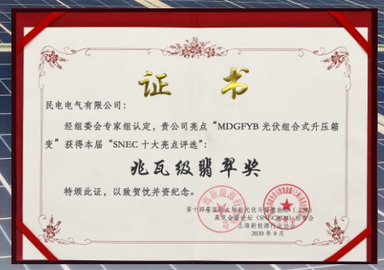
- Professional Life Cycle Management
- Tailor-made services to specific needs
- Customer centered service system
- 12 years technology accumulation, rich experience in project service

- National High-tech Enterprises
- A number of high-tech products and patents
- Continuous Technical Development Capability

- Large-scale production, products shipment
- more than 5 GW capacity
- Exported to more than 50 countries and regions all over the world

MOREDAY

Enterprise honor and qualification



- Member of Asian Photovoltaic Industry Association
- National high-tech enterprise
- Well-known brands in China’ s photovoltaic industry in 2019
- Caring for employees and caring enterprises in 2020
- 2019、2020 SNEC Megawatt jade Award
- 2020 Outstanding Photovoltaic Enterprise
- Chinese technology-based SMEs
- Zhejiang Promise-keeping 3A Enterprise

PATENT FOR INVENTION

UTILITY MODEL PATENT CERTIFICATE

DESIGN PATENT CERTIFICATE

TECHNOLOGY-BASED ENTERPRISE

ISO14001

ISO9001

ISO45001

CE

CQC

Catalogue

MOREDAY

Miniature
Circuit Breaker

DZ47-63 Miniature Circuit Breaker

APPLICATION

☐ DZ47－63 is applicable to a line of AC 50/60Hz,230V in single pole,400V in double,three,four poles for protecting overload and short circuit,and rated current up to 63A.It can also be used for infrequent line conversion under the normal condition.The breaker is applicable to lighting distri-bution system in industrial enterprise,commercially district,high-rise building and dwelling house.
It conforms with the standards of IEC60898.

MAIN TECHNICAL PARAMETER

Type	DZ47-63			
Pole	1P		2P,3P,4P	
Rated current(A)	6,10,16,20,25,32,40,50,63			
Rated voltage(V)	230		400	
Ambient temperature	-5℃~+40℃			
Type of instantaneous release	C	D	C	D
Rated short circuit breaking capacity Icn(kA)	1-32A:6 50-63A:4	4	1-32A:6 50-63A:4	4

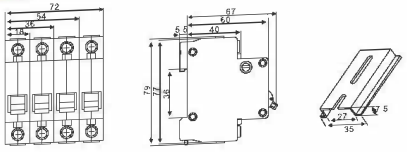
APPLICABLE CONDUCTING WIRE

Rated current(A)	Nominal cross section of wire mm²
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

THE OVER-CURRENT PROTECTION PROPERTY

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2℃	Cold position	1.13In	t≥1h	Non-release	-
	Carried out immediately after previous test	1.45In	t<1h	Release	-
	Cold position	2.55In	1s<t<60s (In≤32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40℃	Cold position	3In	t≥0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t≥0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t≥0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

DIMENSION



MDC8 Miniature Circuit Breaker

Applicable scope

☐ MDC8 series of high－break small circuit breaker has the advantages of advanced structure, reliable performance, high breaking capacity, compact appearance, compact and so on. The shell and other parts are made of high impact resistant material.Applicable to AC 50Hz～60Hz, rated working voltage 400V, rated current from 3A to 63A.Mainly used in office buildings,residential buildings and similar lighting, power distribution lines and equipment overload, short circuit protection;Can also be used in normal circumstances, as the line is not frequently broken down and converted.
This product is in line with the standards: IEC60898 and GB10963.

Model and meaning

MDC8－63□□/□

- The number of poles
- Rated operating current
- Application code:C for power distribution
  D for motor protection
- Shell rated current
- Design serial number
- Miniature circuit breaker

Technical parameters

Rated working voltage (V)	Poles	Rated current (A)	Rated short-circuit breaking capacity	
			Test line current (A)	Power factor
230	1,2	3,6,10,16,20 25,32,40	4000	0.65~0.70
230/400	1,2		4000	0.65~0.70
400	2,3,4		4000	0.65~0.70
230	1,2	50,63	4000	0.75~0.80
230/400	1,2		4000	0.75~0.80
400	2,3,4		4000	0.75~0.80

Note:
Mechanical life: 20000 times (off－pass)
Electrical life: 4000 times
Heat resistance: 2 kind (temperature is 55, the relative humidity is 95%).
The wiring terminal with clip, cable－up to 25mm

The current tripping characteristic table

Type	Test current (A)	Rated current (In)	Stipulated time	Expected results	Initial state	Note appended
C	1.13In	All values	t≥1h	Don't trip	Cold	
	1.45In	All values	t<1h	Trip	Hot state	The current rises to a specified value in 5S.
D	2.55In	In≤32A	1s<t<60s	Trip	Cold	
		In>32A	1s<t<120s	Trip	Cold	
C	5In	All values	t≥0.1s	Don't trip	Cold	Closing auxiliary switch
	10In	All values	t<0.1s	Trip	Cold	Closing auxiliary switch
D	10In	All values	t≥0.1s	Don't trip	Cold	Closing auxiliary switch
	14In	All values	t<0.1s	Trip	Cold	Closing auxiliary switch

MD46 Series Miniature Circuit Breaker

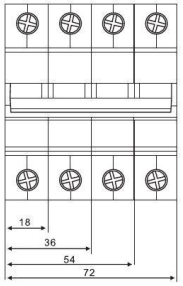
CONSTRUCTION AND FEATURE

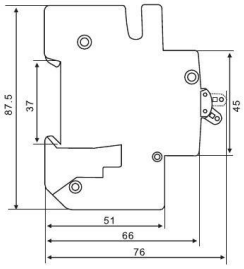
- ☐ Protection against both overload and short circuit
- ☐ High short–circuit capacity
- ☐ Applicable to terminal and pin/fork type busbar connection
- ☐ Easy mounting onto 35mm DIN rail

TECHNICAL DATA

- ☐ Pole No:1,1P+N,2,3,3P+N,4
- ☐ Rated voltage:AC 230/400V
- ☐ Rated current(A):1,2,3,4,6,10,13,16,20,25,32,40,50,63
- ☐ Tripping curve:B,C,D
- ☐ Rated short–circuit capacity (Icn):B,C:10kA D:4.5kA
- ☐ Rated frequency:50/60Hz
- ☐ Energy limiting calss:3
- ☐ Rated impulse withstand voltage:6.2kV
- ☐ Electro–mechanical endurance:6000
- ☐ Contact position indication
- ☐ Connection terminal:
- ☐ Screw terminal
- ☐ Pillar terminal with calmp
- ☐ Connection capacity:Rigid conductor up to 25mm
- ☐ Fastening torque:2.0Nm
- ☐ Installation:
- ☐ On symmetrical DIN rail 35mm
- ☐ Panel mounting
- ☐ Terminal Connection Height :21mm

OVERALL & INSTALLATION DIMENSIONS





MD43-63 Series Miniature Circuit Breaker

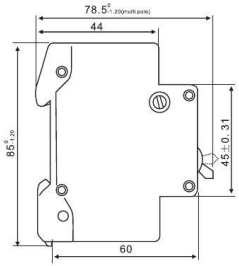
GENERAL

- ☐Application:For protecting cables and equipment against overload and short circuit
- ☐General rules for choosing MCB:
- ☐Technical data of the network at the point considered:The earthing systems(TNS,TNC)short circuit current at the circuit–breaker installation pointm,which must always be less than the breaking capacity of this device,Network normal voltage:
- ☐There are 2 curve characteritics for magnetic operation.
- ☐Curve(3–5In)protection and control of the circuits against overloads and short–circuits:protecti on for people and big lengthcable in TN and IT systems.
- ☐Curve(5–10In)protection and control of the circuits against overloads and short–circuits:protection for resistive and inductiveloads with low inrush.

TECHNICAL DATA

- ☐ Standard:IEC/EN 60898–1
- ☐ Electrical life:4000
- ☐ Mechahical life:10000
- ☐ Protection degree: 2000
- ☐ Reference temperature for setting of thermal element:30℃
- ☐ Rated current In(A):6,10,16,20,25,32,40,50,63
- ☐ Poles:1P,2P,3P,4P
- ☐ Rated voltage Ue:230V/400V
- ☐ Insulation voltage Ui:500V
- ☐ Rated frequency:50/60Hz
- ☐ Rated breaking capacity:6000A
- ☐ Rated impulse withstand voltage(1.2/50)UimpStandard:4000V
- ☐ Dielectric test voltage at ind,Freq,for 1 min:2kv
- ☐ Pollution degree:2
- ☐ Rated breaking capacity:6000A
- ☐ Themo–magnetic release characteristic:B,C

OVERALL & INSTALLATION DIMENSIONS



MD47-63N Series Miniature Circuit Breaker

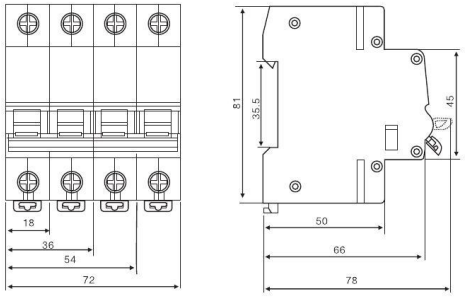
CONSTRUCTION AND FEATURE

- ☐ Protection against both overload and short circuit
- ☐ High short-circuit capacity
- ☐ Applicable to terminal and pin/fork type busbar connection
- ☐ Easy mounting onto 35mm DIN rail

TECHNICAL DATA

- ☐ Pole No:1,1P+N,2,3,3P+N,4
- ☐ Rated voltage:AC 230/400V
- ☐ Rated current(A):1,2,3,4,6,10,13,16,20,25,32,40,50,63
- ☐ Tripping curve:B,C,D
- ☐ Rated short-circuit capacity (Icn):B,C:10kA D:4.5kA
- ☐ Rated frequency:50/60Hz
- ☐ Energy limiting calss:3
- ☐ Rated impulse withstand voltage:6.2kV
- ☐ Electro-mechanical endurance:6000
- ☐ Contact position indication
- ☐ Connection terminal:
- ☐ Screw terminal
- ☐ Pillar terminal with calmp
- ☐ Connection capacity:Rigid conductor up to 25mm²
- ☐ Fastening torque:2.0Nm
- ☐ Installation:
- ☐ On symmetrical DIN rail 35mm
- ☐ Panel mounting
- ☐ Terminal Connection Height :21mm

OVERALL & INSTALLATION DIMENSIONS



MD48-63 Series Miniature Circuit Breaker

APPLICATION

☐ MD48-63 is applicable to a line of AC 50/60Hz,230V in single pole,400V in double,three,four poles for protecting overload and short circuit,and rated current up to 63A.It can also be used for infrequent line conversion under the normal condition.The breaker is applicable to lighting distri-bution system in industrial enterprise,commercially district,high-rise building and dwelling house.
It conforms with the standards of IEC60898.

MAIN TECHNICAL PARAMETER

Type	MD48-63			
Pole	1P		2P,3P,4P	
Rated current(A)	6,10,16,20,25,32,40,50,63			
Rated voltage(V)	230		400	
Ambient temperature	-5℃~+40℃			
Type of instantaneous release	C	D	C	D
Rated short circuit breaking capacity Icn(kA)	1-32A:6 50-63A:4	4	1-32A:6 50-63A:4	4

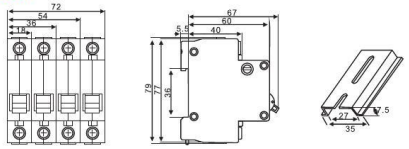
APPLICABLE CONDUCTING WIRE

Rated current(A)	Nominal cross section of wire mm²
1-6A	1
10A	1.5
16,20A	2.5
25A	4
32A	6
40,50A	10
63A	16

THE OVER-CURRENT PROTECTION PROPERTY

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2℃	Cold position	1.13In	t≥1h	Non-release	-
	Carried out immediately after previous test	1.45In	t<1h	Release	-
	Cold position	2.55In	1s<t<60s (In≤32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40℃	Cold position	3In	t≥0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t≥0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t≥0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

DIMENSION



MDN-32 Series Miniature Circuit Breaker

Applicable scope

☐ MDN-32 series of high breaking miniature circuit breakers are suitable for AC 50Hz,The overload and short circuit of the electric circuit are protected under the rated voltage of 230V or lower single phase housing line.The product has high breaking capacity, small size and width of 18mm.Zero, the same time cut off the fire, put an end to the fire, zero line or zero line to the ground potential caused by the human body and fire hazards,Is currently used in the residential areas of the most ideal power distribution protection switch.

☐ This product is in line with the standards: IEC60898 and GB10963.

Model and meaning

M D N 1 -32

- Shell rated current
- Design serial numbe
- Miniature circuit breaker
- Mindian Electric CO., LTD.

Technical parameters

Rated current (A)	Poles	Rated voltage (V)	Shell rated current(A)	Rated short-circuit breaking capacity(A)	Power factor	Mechanical life (secondary)
6,10,16 20,25,32	1+N	230	32	4500	0.45~0.50	2000

NOTE:

☐ Heat resistant type:The 2 kind (temperature 55, relative humidity 95%).

☐ The wiring terminal with clip, using 10mm² or smaller hard wire

The current tripping characteristic table

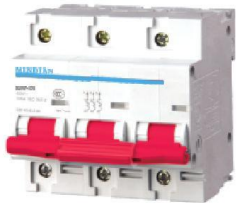
Test current (A)	Rated current (In)	Stipulated time	Expected results	Initial state	Remarks
1.13In	All values	T≤1h	Don't trip	Cold	The current rises to a specified value in 5S.
1.45In	All values	t<1h	Trip	Hot state	
2.55In	All values	1s<t<60s	Trip	Cold	Closing auxiliary switch
5In	All values	t≥0.1s	Don't trip	Cold	Closing auxiliary switch
10In	All values	t<0.1s	Trip	Cold	

DZ47-125 Miniature Circuit Breake

Applicable scope

☐ DZ47-125 series miniature circuit breaker is suitable for AC 50/60Hz,Rated voltage 400V and single phase 230V, rated current 100A and below the line,Used for building and electrical equipment for short circuit, overload protection,Also in normal circumstances, as the line of the non frequent conversion, but also applies to the isolation switch and as the line under voltage protection and remote disconnection. The product has the advantages of beautiful appearance, small volume, light weight,current trip setting is accurate, reliable, high breaking capacity,Tripping rapidly, rail mounted, composite pattern design with auxiliary contact, alarm indicating contact, undervoltage tripping device, shunt tripping device with accessories,Meet the needs of different users, the shell and parts with high flame retardant and impact resistance, long service life.

☐ This product conforms to the standard: LEC60947-2, GB14048.2.



Model and meaning

DZ 47- ☐ ☐☐/☐

- The number of poles(1P~4P)
- Rated operating current
- Application code:C for power distribution
  D for motor protection
- Shell rated current
- Design serial number
- Miniature circuit breaker

Main technical parameters

☐ Main types

☐ The rated current of the circuit breaker is 63A, 80A, 100A

☐ The pole number of circuit breaker is divided into: single pole, two pole, three pole and four pole

☐ The circuit breaker is installed with 35 * 7.5 standard mounting rail.

☐ The rated value of the main circuit breaker is shown in Table 1.

Rated current (A)	Poles	Rated voltage (A)	Rated short-circuit breaking capacity	
			Test line current	Power factor
63,80,100	1,2,3,4	230/400	4000	0.45~0.50

The current tripping characteristic table two

Ambient air humidity	I/In	The expected results of the experiment		Initial state
		In≤63A	In≤63A	
30±0.2℃	1.05	1 hours trip	1 hours trip	Cold start
	1.30	Within 1 hours of the trip	Within 1 hours of the trip	Hot start
	3.0	Return time<3s	Return time<5s	Hot start
-5~45℃	5.0~10.0(0)	≤0.1s internal action		
	10~14.0(D)	≤0.1s internal action		Cold start

☐ Power frequency withstand voltage: in the heat resistance, the circuit breaker should withstand the 2500V power frequency withstand voltage test for 1 minutes without the phenomenon of the breakdown of the flashover.

☐ Mechanical and electrical life: circuit breaker of the mechanical and electrical life is 4000 times, of which 1500 times the electrical life.

DZ47LE-63 Miniature Circuit Breaker

APPLICATION

☐ DZ47LE-63 is applicable to a line of AC 50/60Hz,rated voltage 230V for single pole two-wire,2-pole or 400V for 3-pole,3-pole 4-wire,4-pole and rated current up to 40A.It can protect the line and motor from overload and short circuit.It can also be used for infrequent line conversion and infrequent motor start.It conforms with the standards of IEC61009.

MAIN TECHNICAL PARAMETER

Type	DZ47LE-63	
Pole	1P+N,2P	2P,3P+N,4P
Rated current(A)	6,10,16,20,25,32,40,50,63	
Rated voltage(V)	230	400
Rated short circuit breaking capacity Icn(kA)	6-32A:6 / 40-63:4.5	
Rated residual making/breaking capacity I△m(A)	2000	
Rated residual action current I△n(A)	0.03,0.05,0.1,0.3	
Rated residual non-action current I△no(A)	0.5I△n	

APPLICABLE CONDUCTING WIRE

Rated current(A)	1-6A	10A	16,20A	25A	32A	40,50A	63A
Norminal cross section of wire mm²	1	1.5	2.5	4	6	10	16

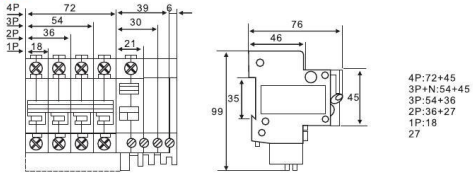
RESIDUAL CURRENT BREAKING TIME

In (A)	I△n (A)	Breaking time(s) when equals to rating following				
		I△n	2I△n	5I△n	5,10,20,50,100,200,500[a](A)	I△n[b]
6-63	0.03,0.05,0.1,0.3	0.1	0.06	0.04	0.04	0.04

THE OVER-CURRENT PROTECTION PROPERTY

Ambient temperature	Initial status	Test current	Test time	Expected result	Note
30±2℃	Cold position	1.13In	t≥1h	Non-release	-
	Carried out immediately after previous test	1.45In	t<1h	Release	-
	Cold position	2.55In	1s<t<60s (In≤32A)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55In	1s<t<120s (In>32A)	Release	
-5~+40℃	Cold position	3In	t≥0.1s	Non-release	Type B
	Cold position	5In	t<0.1s	Release	Type B
	Cold position	5In	t≥0.1s	Non-release	Type C
	Cold position	10In	t<0.1s	Release	Type C
	Cold position	10In	t≥0.1s	Non-release	Type D
	Cold position	20In	t<0.1s	Release	Type D

DIMENSION



4P:72+45
3P+N:54+45
3P:54+36
2P:36+27
1P:18
27

MDNL-32 Miniature Circuit Breake

Applicable scope

☐ MDNL-32 leakage protection circuit breaker is suitable for AC 50Hz or 60Hz, rated voltage to 230V single-phase residential line,As an electric shock protection, and the civilian electrical line of overload and short circuit protection.The product has small size, high breaking capacity:Zero, while the fire and cut off, and in the case of the wire to the ground, still can protect the body electric shock.This product can also be based on user requirements, increase the over-voltage protection function.

☐ This product conforms to the standard: IEC61009-1, GB16917.1

Model and meaning

M D N L-32

- Shell rated current
- Residual current protection
- Design serial number
- Miniature circuit breaker
- Mindian Electric CO., LTD.

Main technical parameters

Rated current(A)	Poles	Rated voltage (V)	Shell rated current(A)	Rated leakage current(mA)	Rated leakage current(mA)	Rated leakage breaking time	Breaking capacity(A)
6,10,16 20,25,32	1+N	230	32	30	15	≤0.1S	3000

Note: the connection with the terminal with clip, the use of 10mm² and hard wire

The current tripping characteristic table

Test current (A)	Rated current (In)	Stipulated time	Expected results	Initial state	Remarks
1.13In	All values	T≤1h	Don't trip	Cold	
1.45In	All values	t<1h	Trip	Hot state	The current rises to a specified value in 5S.
2.55In	All values	1s<t<60s	Trip	Cold	
5In	All values	t≥0.1s	Don't trip	Cold	Closing auxiliary switch
10In	All values	t<0.1s	Trip	Cold	Closing auxiliary switch

Note:

☐ MDNL-32 series of leakage protection circuit breaker filter device, can prevent the instantaneous voltage(line interference, lighting equipment) and instantaneous current (such as large capacitive load circuit malfunction caused by tripping).

☐ The other MDNL electronic leakage and overvoltage protection circuit breaker overvoltage tripping value is 280V + 5%

MDC8LE Miniature Circuit Breaker

Applicable scope

☐ MDC8LE series leakage circuit breaker is suitable for AC 50Hz (or 60Hz), rated voltage 400V and 230V The rated current of 3A on the 63A line, with leakage contacts, overload, short circuit and other protective functions.According to user requirements, increase the overvoltage protection function,Protect personal safety and prevent accidents caused by leakage current, and can be used to protect the overload and short circuit of the line,In normal circumstances, the use of the non frequent breaking and converting of the line is used,The leakage current of the rated residual action current 30mA can provide direct protection to the personal contact.

☐ This product conforms to the standards: GB16917, GB10963, IEC61009, IEC60898.

Model and meaning

MDC8LE–63☐ ☐/☐☐–☐

- Rated residual current
- Neutral pole
- The number of poles
- Working current
- Application code:C for power distribution
  D for motor protection
- Shell rated current
- Residual leakage action type
- Design serial number
- Miniature circuit breaker

Main technical parameters

Voltage (V)	Shell rated current Inm(A)	Poles	Neutral line	Rated leakage current I△n(mA)	Rated leakage current I△n(mA)	Rated leakage action time(S)
230	63	1	+N	30,(50), (100),(300)	15,(25), (50),(150)	<0.1
230/400	63	2				<0.1
230/400	63	3	+N			<0.1
230/400	63	3				<0.1
230/400	63	4				<0.1

Note: the wiring terminal clamp, can connect 25mm² or smaller wire.
Warning users: the rated current of the leakage current of the 30mA has the protection of human body safety.

Structure feature

☐ MDC8LE (DZ47LE) series leakage circuit breaker by DZ47–63 MCB and leakage tripper.Circuit breaker of leakage circuit breaker,Is mainly composed of a zero sequence current transformer,an electronic co–mponent board, leakage circuit breaker tripping and with overload and short circuit protection circuit breaker composition.

DZ47LE-125 Miniature Circuit Breaker

Applicable scope

☐ DZ47LE–125 series leakage circuit breaker is suitable for AC 50Hz,Rated voltage 400V, rated current 100A line, With leakage, over cut, short circuit and other protective functions,According to user's need to increase over voltage, protection function.Mainly used in building lighting and power distribution system protection.

Model and meaning

DZ 47 LE–100 /☐ ☐

- Residual current of rated current
- The number of poles
- Shell rated current
- Electronic residual leakage action type
- Design serial number
- Special type of enterprise

Structure feature

☐ DZ47LE–125 series leakage circuit breaker by DZ47 MCB and leakage tripper.Circuit breaker of leakage circuit breaker,Mainly by the zero sequence current transformer,electronic component board, and leakage release with cut and short circuit protection circuit breaker.

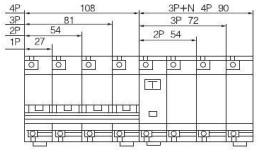
Main technical parameters

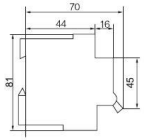
Voltage (V)	Shell rated current Inm(A)	Poles	Neutral line	Rated current In(A)	Rated short circuit breaking capacity IcuA	Rated short circuit breaking capacity COSΦ	Rated leakage current InmA	Rated leakage current InmA	Leakage action time (A)	Tripping type
230	100	1	+N	40	10000	0.5	30	15	<0.1	C
230	100	2		50	10000	0.5	50	25	<0.1	C
400	100	3		63	6000	0.5	100	50	<0.1	C
230/400	100	3	+N	80	6000	0.5	300	150	<0.1	C
230/400	100	4		100	6000	0.5	500	250	<0.1	C
230	100	1	+N	40	10000	0.5	30	15	<0.1	D
230	100	2		50	10000	0.5	50	25	<0.1	D
400	100	3		63	6000	0.5	100	50	<0.1	D
230/400	100	3	+N	80	6000	0.5	300	150	<0.1	D
230/400	100	4		100	6000	0.5	300	250	<0.1	D

Note:①Rated leakage current: 30mA, 50mA, 100mA, 300mA.
②The wiring terminal with clip, hard cable can be connected with 50mm² or smaller hard wire

Dimensions and installation dimensions

1P+N:27+54
2P:54+54
3P:81+72
3P+N:81+90
4P:108+90





MOREDAY

Moulded Case Circuit Breaker Series

Applicable scope

☐ MDM1 series of Moulded case circuit breakers (hereinafter referred to as circuit breakers), suitable for AC 50Hz (or 60Hz), Its rated insulation voltage of 800V (MDM1–63 type 500V), rated working voltage 690V (400V for RMM8–63 or lower), The circuit rated current to 1250A in not frequently switch and motor is non frequent starting with (Inm ≤ 630A or lower). The circuit breaker has the function of overload, short circuit and under voltage protection. It can protect the circuit and the power equipment from damage.
☐ In accordance with its rated limit short–circuit breaking capacity, the circuit breaker is divided into three types of L (standard), M (high breaking type) and H (high breaking type). The circuit breaker has the c–haracteristics of small size, high breaking capacity, short flight, and anti vibration.
☐ The circuit breaker can be installed vertically (i.e., vertical), Also horizontal loading (i.e., horizontal).
☐ Circuit breaker with isolation function, the corresponding symbol for: "—⌿—" 。
☐ Circuit breaker symbol: IEC60947–2 and GB14048.2.

Model and meaning

MD M 1 – □□□/□□□□

- N pole type ABCD (Note 4)
- Code of the month (Note 3)
- Trip mode and accessory code (see Table 5)
- The number of poles
- Operation mode (Note 2)
- Rated limit for short circuit breaking capacity (Note 1)
- Shell rated current
- Design code
- Moulded case circuit breaker
- Mindian Electric CO., LTD.

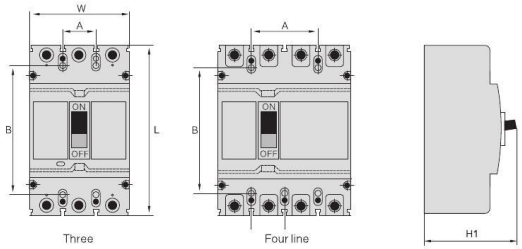
Note:
1、L type (standard type), M type (high breaking type), H type (high breaking type) are classified into the high and low short–circuit breaking capacity.
2、The handle is directly operated without code: the electric operation is indicated by P; the rotating han–dle is expressed by Z.
3、Power distribution circuit breaker without code: protection of the motor with 2 said.
4、According to the number of products are divided into three pole, quadrupole, quadrupole products in the form of neutral polar (N) four:
Type A: N is not installed over current release, and N is always on, not together with other three points.
Type B: N is not installed over current release, and N together with other three points (N first and then).
TypeC : N install over–current release, and N together with other three points (N first and then).
TypeD : N install over–current release, and N is always on, not together with other three points.

Normal working environment

☐ Altitude: ≤2000m
☐ Ambient temperature: –5℃–+40℃
☐ Can withstand humid air
☐ Can tolerate salt spray, oil mist effect
☐ Pollution level is 3
☐ The maximum inclination angle is 22.5 degrees.
☐ In the absence of explosive hazardous medium, and the medium is not sufficient to corrosion of metal and damage the insulation of the gas and electricity
☐ In the absence of rain and snow
☐ Installation category Ⅲ

MDM1 Series Moulded Case Circuit Breaker

Dimension of configuration



Model	Dimensions			Installation dimensions	
	W	L	H	A	B
MDM1-63L/3300	78	136	88	25	116
MDM1-63M/3300	78	136	94	25	116
MDM1-63/4300	101	136	94	50	116
MDM1-100L/3300	92	150	90	30	129
MDM1-100M/3300	92	150	104	30	129
MDM1-100/4300	121	150	90	60	129
MDM1-225L/3300	107	165	110	35	125
MDM1-225H/3300	107	165	110	35	125
MDM1-225M/3300	107	165	124	35	125
MDM1-225/4300	142	165	110	70	125
MDM1-400L/3300	148.5	257	152	45	194
MDM1-400H/3300	148.5	257	152	45	194
MDM1-400M/3300	148.5	257	152	45	194
MDM1-400/4300	197	257	152	95	194
MDM1-630L/3300	182	271	150	58	200
MDM1-630H/3300	182	271	150	58	200
MDM1-630M/3300	182	271	150	58	200
MDM1-630/4300	240	271	150	116	200
MDM1-800/3300	209	279.5	148	70	243
MDM1-800/4300	278	279.5	148	140	243
MDM1-1250/3300	210	545	176	70	375
MDM1-1250/4300	280	545	176	140	375

MDLG Series Moulded Case Circuit Breaker

Application

☐ MDLG series moulded case circuit breaker is suitable for industrial or commercial power and lighting with AC 50/60Hz, rated working voltage upto AC 600V/DC250V, rated current up to 1200A.It' s a kind of economical breaker with the characters of stable and reliable function, beautiful appea rance, small size and long life It can be used for conversion of line and infrequent starting motor. It can also be attached to install the accessories which have protection function for avoiding loss-voltage Under voltage, The product can in stall conne ction line with front board and back board, it also can be equipped hand operating apparatus of motor-operating apparatus to control in a remote distance.

Main Technical Specifications

Frame current 1 mm(A)		400		600		800	
Type	2P	MDLG-402E	MDLG-402E	MDLG-602S	MDLG-602S	MDLG-802E	MDLG-802S
	3P	MDLG-403E	MDLG-403E	MDLG-603S	MDLG-603S	MDLG-803E	MDLG-803S
	4P	MDLG-404E	MDLG-404E	MDLG-604S	MDLG-604S	MDLG-804E	MDLG-804S
Rated current In(A)		250,300,350,400		500,600		600,710,800	
Rated working voltage Ue(V)		AC600,DC250		AC600,DC250		AC600,DC250	
Rated insulation voltage Ui(V)		600		600		600	
Rated impulse wishstand voltage Uimp(V)		6000		6000		6000	
Ics(kA)O-t-CO	AC220V/AC240V	35	50	50	85	50	100
	AC380V	30	42	42	65	42	65
	AC415V	25	35	35	50	35	50
	AC440V/AC460V	25	35	35	50	35	50
	AC480V/AC500V	18	25	25	35	25	45
	AC600V	18	22	22	25	22	25
	DC125V	20	30	30	50	30	50
	DC250V	10	20	20	40	20	40
Ics(%Icu)O-t-CO-t-CO		100	100	100	100	100	50
Arc-over distance(mm)		≯100		≯100		≯100	
Rated residual working current I△n(A)	Fixed						
	Unfixed						
Rated residual working current I△n(A)							
Breaking time at I△n(A)							
Over-current tripping device		Thermal-magnetic		Thermal-magnetic		Thermal-magnetic	
Operational performance: electrica life (times)		1000		1000		500	
Operational performance: mechanica life(times)		4000		2500		2500	
Outline dimecsions L x W x H	2P	257 x 140 x 113		280 x 210 x 113		280 x 210 x 113	
	3P	257 x 140 x 113		280 x 210 x 113		280 x 210 x 113	
	4P	257 x 185 x 113		280 x 280 x 113		280 x 280 x 113	

MDLG Series Moulded Case Circuit Breaker

Main Technical Specifications

Frame current 1 mm(A)		100				800	
Type	2P	MDLG-63-102E	MDLG-63-102E	MDLG-63-102S	MDLG-63-102S	MDLG-63-202E	MDLG-63-202S
	3P	MDLG-63-103E	MDLG-63-103E	MDLG-63-103S	MDLG-63-103S	MDLG-63-203E	MDLG-63-203S
	4P	MDLG-63-104E	MDLG-63-104E	MDLG-63-104S	MDLG-63-104S	MDLG-63-204E	MDLG-63-204S
Rated current In(A)		10,15,20,30,40,50,60,75,100	10,15,20,30,40,50,60,75,100	10,15,20,30,40,50,60,75,100	10,15,20,30,40,50,60,75,100	10,15,20,30,40,50,60,75,100	10,15,20,30,40,50,60,75,100
Rated working voltage Ue(V)		AC600,DC250	AC380-460(3P,4P) AC220/240(2P)	AC600,DC250	AC380-460(3P,4P) AC220/240(2P)	AC600,DC250	AC600,DC250
Rated insulation voltage Ui(V)		600	600	600	600	600	600
Rated inpulse wishstang voltage Uimp(V)		6000	6000	6000	6000	6000	6000
Ics(kA)O-t-CO	AC220V/AC240V	25	25	25	25	25	25
	AC380V	14	14	14	14	14	14
	AC415V	10	10	10	10	10	10
	AC440V/AC460V	10	10	10	10	10	10
	AC480V/AC500V	7.5		7.5		7.5	
	AC600V	5		5		5	
	DC125V	10		10		10	
	DC250V	5		5		5	
Ics(%Icu)O-t-CO-t-CO		50	50	50	50	50	50
Arc-over distance(mm)		≯50	≯50	≯50	≯50	≯50	≯50
Rated residual working	Fixed		0.03,0.1,0.3		0.03,0.1,0.3		
current IΔn(A)	Unfixed		0.03,0.1,0.3		0.03,0.1,0.3		
Rated residual working current IΔn(A)			0.5×IΔn		0.5×IΔn		
Breaking time at IΔn(A)			≤0.1sec		≤0.1sec		
Over-current tripping device		Thermalmagnetic	Thermalmagnetic	Thermalmagnetic	Thermalmagnetic	Thermalmagnetic	Thermalmagnetic
Operational performance: electrica life (times)		1500	1500	1500	1500	1500	1500
Operational performance: mechanica life(times)		8500	8500	8500	8500	8500	8500
Outline dimecsions L×W×H 	2P	130×50×60	130×50×60	155×60×60	155×60×60	165×105×60	165×105×60
	3P	130×75×60	130×75×60	155×90×60	155×90×60	165×105×60	165×105×60
	4P	130×90×60	130×90×60	155×120×60	155×120×60	165×140×60	165×140×60

MDM1LE Series Moulded case circuit breaker with residual current protection

Applicable scope

☐ MDM1LE series with residual current protection Moulded case circuit breakers (hereinafter referred to as leakage circuit breakers).Suitable for AC 50Hz (or 60Hz), its rated insulation voltage is 800V, rated working voltage 400V,Rated operating current to 630A (800A) of the circuit for the conversion and the motor is not frequently used to start the motor.Circuit breaker with overload, short circuit and under voltage protection function, can protect the line and power equipment is not damaged;At the same time, it can provide indirect contact protection, and can protect the fire danger caused by the long-term existence of the current protection can not be detected.In other protection devices, the rated residual current is 30mA of the RMM8L leakage circuit breaker can be directly from the additional protection.
☐ Circuit breaker in accordance with its rated limit short-circuit breaking capacity,Divided into two types of M (high breaking), H type (high breaking type, no H type).The circuit breaker has the characteristics of small size, high breaking capacity, short flight, and anti vibration.
☐ Circuit breakers can be installed vertically (i.e., vertical), and can be horizontally mounted (i.e., horizontal).
☐ Circuit breaker with isolation function, the corresponding symbol for: "——/——" 。
☐ Circuit breaker symbol standard: IEC60947-2 and GB14048.2 and appendix B with residual current protection.
☐ Circuit breakers can not fall into the line, that is, only 1, 3, 5 power supply lines, 2, 4, 6 load line.

Model and meaning

MD M 1 LE - □□□/□□□□/□□

- Leakage alarm module (Note 6)
- Residual current release type (Note 5)
- N pole type AB (Note 4)
- Purpose code (Note 3)
- Trip mode and accessory code (see Table 6)
- The number of poles
- Operation mode (Note 2)
- Rated limit for short circuit breaking capacity (Note 1)
- Shell rated current
- Residual current protection
- Design code
- Moulded case circuit breaker
- Mindian Electric CO., LTD.

Note:
1、According to the rated ultimate short-circuit breaking capacity of the high and low into M type (high breaking type), H type (high breaking type).
2、The handle is directly operated without code: the electric operation is indicated by P; the rotating handle is expressed by Z.
3、Power distribution circuit breaker without code: protection of the motor with 2 said.
4、According to the number of products are divided into three pole, quadrupole, quadrupole products in the form of neutral polar (N) two:
Type A: N is not installed over current release, and N is always on, not together with other three points.
Type B: N is not installed over current release, and N together with other three points (N first and then).
5、The residual current release model is divided into type I, type II (see table four) as the standard type of type I, II type please indicate.
6、The module without alarm unit has no code, and the module with alarm unit should be stated in the order.

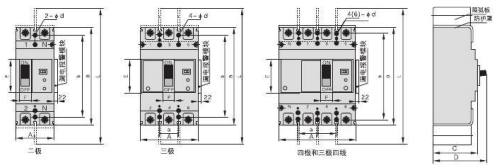
Normal working environment

☐ Altitude:≤2000m
☐ Ambient temperature:-5℃~+40℃
☐ Can withstand humid air
☐ Can tolerate salt spray, oil mist effect
☐ The maximum inclination angle is 22.5 degrees.
☐ In the absence of explosive hazardous medium, and the medium is not sufficient to corrosion of metal and damage the insulation of the gas and electricity
☐ In the absence of rain and snow

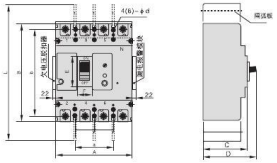
MDM1LE Series Moulded Case Circuit Breaker

Dimension of configuration

Front connection



Outline and installation dimensions of standard type leakage circuit breaker



High type leakage circuit breaker appearance and installation size chart

Model	Poles	Dimensions (max)							Installation dimensions		Mountinghole
		A	B	C	D	E	F	L	a	b	Φd
MDM1LE-100	2	60.5	155.5	73.5	86.5	51	18	270	--	132±0.32	$2-\Phi5^{+0.32}_{0}$
	3	90.5	148	73.5	86.5	51	18	270	30±0.14	132±0.32	$4-\Phi5^{+0.32}_{0}$
MDM1LEL-100H	3N	125	148	73.5	86.5	51	18	270	60±0.20	127±0.32	$4-\Phi5^{+0.32}_{0}$
	4	125	148	73.5	90	51	23	256	60±0.20	127±0.32	$4-\Phi5^{+0.32}_{0}$
MDM1LE-225	3	105.5	166	93	111	51	18	375	35±0.16	126±0.32	$4-\Phi5^{+0.32}_{0}$
	3N	140.5	166	93	111	51	18	375	75±0.23	125±0.32	$4-\Phi5^{+0.32}_{0}$
MDM1LE-225H	4	140.5	166	73.5	92	63	23	370	75±0.23	125±0.32	$4-\Phi5^{+0.32}_{0}$
MDM1LE-400	3N	197	259	111	156	100	45	460	97±0.26	196±0.43	$6-\Phi5^{+0.32}_{0}$
MDM1LE-400H	4	197	259	111	156	90	51	460	97±0.36	196±0.5	$2-\Phi5^{+0.32}_{0}$
MDM1LE-630H	4	280	280	111	156	92	53	485	140±0.23	243±0.43	$4-\Phi5^{+0.32}_{0}$
MDM1LE-800H	4	280	280	116	156	81	66	490	140±0.23	243±0.43	$4-\Phi5^{+0.32}_{0}$
	3	210	280	116	156	81	66	490	70±0.23	243±0.43	$4-\Phi5^{+0.32}_{0}$

MOREDAY

Double Power Source Automatic Switch Series

HGL Series Isolating Switch

Summary

☐ HGL series – isolating switch from 125–3150A to 18 specificationsis a modular design basis,With three pole, four pole(pole + can be cut off), suitable for circuit and connected with the separation or electrical isolation,1000A above only for electrical isolation.

☐ The front side is provided with a marking window indicating the contact state of the contact.

☐ According to the need to provide the back observation window, the direct observation of the contact state, Window style see 25–1600A/H HGL–1 cabinet after the operation load of a separate switch.

Applicable scope

☐ HGL series load isolation switch is suitable for AC 50Hz, rated voltage to 660V,DC rated voltage to 440V, rated current to 1600A circuit.For less frequent connection and disconnection circuit.

Model and meaning

HGL ☐ – ☐A/☐J K ☐ B H

- Cabinet after the operation, do not need not to note.
- After the board, the board is not connected.
- Auxiliary contact function code (see table), do not need not note
- Direct observation of the contact window, do not need not to note.
- Cabinet operation, the operation is not injection.
- Pole number 3 pole, 4 pole (3 pole + can be broken through the neutral pole)
- Rated current
- C side operation a separate switch
- Z switch to a separate switch
- Mindian Electric CO., LTD.

One often closed	11	NO+NC
Two normally open two normally closed	22	2NO+2NC

Normal working condition and installation condition

☐ HGL series – isolating switch can work reliably under the following conditions

☐ No more than 2000 meters above sea level;

☐ The ambient temperature is not higher than 40℃, not less than –5℃;

☐ Relative humidity is not more than 90%;

☐ No explosion hazard;

☐ No snow rain attack environment;

Note: when the ambient air temperature is higher than the +40℃ or below the–5℃ ~–45℃, the user's order should be explained to the manufacturer.

Dual Power Automatic Transfer Switch

Summary

☐ MDQ8P automatic transfer switch (ATSE), is a set of switches and logic control in one, the real realization of the automatic conversion of mechanical and electrical integration,With voltage detection, frequency detection, communication interface, electrical, mechanical interlocking and other functions, can realize automatic, electric remote, emergency manual control.

☐ Operation is a logic control board with various logic commands to manage the operation of the motor, gearbox operation to achieve,The motor drives the switch spring energy storage, the instantaneous release of the acceleration mechanism, the fast switching circuit or the circuit conversion,Through the obvious visible state to achieve safe isolation, greatly improving the electrical performance and mechanical properties.

Accord with standard

☐ IEC60947–1/GB/T4048.1 "low voltage switchgear and control equipment for the first part of the general"

☐ IEC60947–3/GBI4048.3 "low voltage switchgear and control equipment Part 3: switches, disconnectors, isolation switch and fuse combined electrical apparatus"

☐ IEC60947–6/GBI4048.11 "low voltage switchgear and control equipment – Part 6–1: multi – functional electrical appliances switch electrical appliances"

Model and meaning

MDQ8P – ☐ ☐ / ☐☐

- Function code: R– from the cast, S– since the vote is not from the complex
- Rated current
- F– power grid
- 3P/4P
- A1– integrated, with R function
- Current rating (A):100、160、250、400、630、1000 1250、1600、2000、2500、3200
- Mindian Electric CO., LTD.

Product use

☐ MDQ8P series automatic transfer switch is mainly used for communication 50Hz,Rated voltage 380V, rated voltage 220V, rated current 16 to Rated voltage 380V, rated voltage 220V, rated current 16 to3 200A power distribution or motor network in a master standby power switching system and the power switch system and the power plant load switching.At the same time can be used for the isolation of the circuit and the circuit without frequent connection.

☐ Products are widely used in fire fighting, hospitals, banks, high–rise buildings, and other important power supply is not allowed to power off the transmission, distribution systems and automation systems.

Performance and features

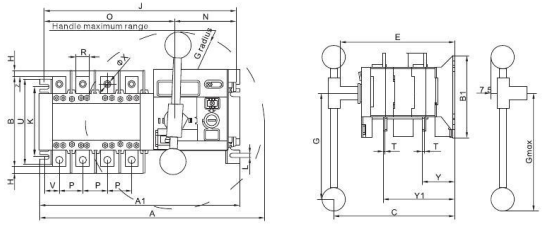
☐ Double row composite contact, transverse pull type mechanism, micro electric energy storage and micro electronic control technology, the basic realization of zero flying arc (no arc shield);
☐ The use of reliable mechanical interlocking and electrical interlocking, the implementation of the use of independent load isolation switch, the use of safe and reliable;
☐ The use of zero position technology, the case can be forced to zero (at the same time cut off the power supply), to meet the needs of fire linkage;
☐ The load isolation switch is switched by a single motor driver, and the switch is reliable and stable, no noise and small impact force;
☐ The actuator drives the motor only in the implementation of the load isolation switch to switch the insta－ntaneous current, the steady state does not need to provide working current, energy saving significant
☐ Perform load isolation switch with mechanical interlocking device to ensure that the common and standby power supply is reliable;
☐ Has the obvious on－off position indicator, and other functions to achieve reliable padlock, isolation between the power supply and the load;
☐ Good safety performance, high degree of automation, high reliability, service life of more than 8000 times;
☐ Mechanical and electrical integration design, the switch is accurate, flexible and smooth, the use of international advanced logic control technology, strong anti－interference ability, no interference;
☐ With the main power supply, standby power supply, the main power supply, standby power supply, the main power supply is disconnected three kinds of stability (I－O－ II);
☐ Easy to install, the control loop is connected with the plug and socket;
☐ Four kinds of operation functions: emergency manual operation, electric remote control operation, automatic control state of emergency operation, automatic control operation.

Electrical performance and mechanical properties

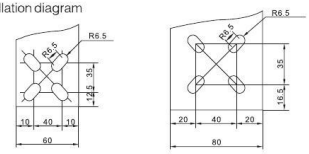
Rated current Ith		20 A	40 A	60 A	80 A	100 A	125 A	160 A	250 A	400 A	630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A
Rated insulation voltageUi		750V								1000V								
Rated impulse withstand voltageUimp		8KV								12KV								
Rated working voltageUe		AC440V																
Rated operating current Ie	AC－31A	20	40	63	80	100	125	160	250	400	630	800	1000	1250	1600	2000	2500	3200
	AC－35A	20	40	63	80	100	125	160	250	400	630	800	1000	1250	1600	2000	2500	3200
	AC－33A	20	40	63	80	100	125	160	250	400	630	800	1000	1250	1600	2000	2500	3200
Rated connected capacity		10Ie																
Rated breaking capacity		8Ie																
Rated short－circuit current Is		50kA								70kA				100kA	120kA			
Rated short－time withstand currentIs		7kA						9kA		13kA		26kA		50kA				55kA
Conversion time I－ II or －I		2s					0.6s			0.6s		1.2s			1.8s			2.4s
Control voltage		DC24V、48V、110V AC220V																
Motor energy consumption																		
Rated power consumption	Start	300W						325W		355W	400W	440W			600W			
	Normal	55W						62W		74W	90W	98W			120W			
Weight(4kg)4 pole		7.0	7.2	7.2	7.2	7.5	7.5	8.8	9.0	16.5	17	32	36	40	43	50	53	75

[G]Dual power automatic transfer switch

Dimension diagram 20~1600A



1000A~1600A Installation diagram

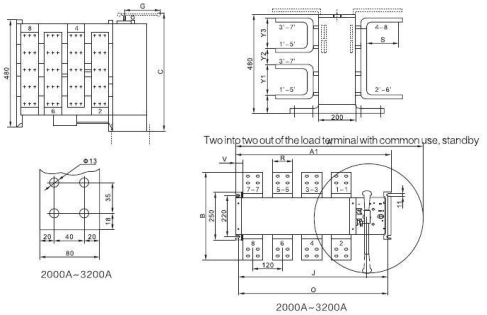


800A~1000A　　1250A~1600A

20A~1600A Installation dimensions

Specifications	Total size								Switch installation										Terminal block				
	A	A1	B	B1	C	E	G	H	J	K	L	N	O	P	R	S	T	U	V	ΦX	Y	Y1	Z
20~100 A	280	244	107	103	150	140	115	19	226	84	7	83.5	142.5	30	14	18	2.5	103	13	6	41.5	93	2
125~160 A	360	303	135	142	213	200	145	10	285	117	7	93	192	36	20	25	3.5	127	21	9	55.5	127.5	4
250 A	420	362	159	142	213	200	145	6	343	103	7	93	250	50	25	28	3.5	141	29	11	58	131.5	9
400 A/3P	530	370	234	222	286	275	245	20	365	179	9	97	268	65	32	37	5	222	38	11	83	193	6
400 A/4P	590	430	234	222	286	275	245	20	425	179	9	97	328	65	32	37	5	222	38	11	83	193	6
630 A/3P	530	370	250	222	286	275	245	20	365	179	9	97	268	65	40	45	6	222	38	11	83.5	193.5	14
630 A/4P	590	430	250	222	286	275	245	20	425	179	9	97	328	65	40	45	6	222	38	11	83.5	193.5	14
800~1000 A/3P	785	520	328	250	351	340	360	20	503	220	11	88	415	120	60	64	8	250	59	13	109	254	39
800~1000 A/4P	1080	634	328	250	351	340	540	20	617	220	11	88	529	120	60	64	8	250	59	13	109	254	39
1250 A/3P	785	520	336	250	351	340	360	20	503	220	11	88	415	120	80	68	8	250	59	13	109	254	43
1250 A/4P	1080	634	336	250	351	340	540	20	617	220	11	88	529	120	80	68	8	250	59	13	109	254	43
1600 A/3P	785	520	336	250	351	340	360	20	503	220	11	88	415	120	80	68	10	250	59	13	110	255	43
1600 A/4P	1080	634	336	250	351	340	540	20	617	220	11	88	529	120	80	68	10	250	59	13	110	255	43

2000A~3200A two into the installation diagram



2000A~3200A

2000A~3200A Installation dimensions

规格	A	A1	B	C	G	J	O	R	S	T	V	Y1	Y2	Y3
2000A/3P	785	535	423	560	360	408	490	80	81	10	30	113	121	113
2000A/4P	1080	650	423	560	540	523	605	80	81	10	30	113	121	113
2500A/3P	785	535	433	560	360	408	490	80	81	15	30	118	116	118
2500A/4P	1080	650	433	560	540	523	605	80	81	15	30	118	116	118
3200A/3P	785	535	433	560	360	408	490	80	81	20	30	123	111	123
3200A/4P	1080	650	433	560	540	523	605	80	81	20	30	123	111	123

Product overview

☐ MDQ2 series dual power supply is a new product for the market withdrawal, which effectively solves the problem of the dual power supply of micro cut off, and the reliability is poor, Replacement is not convenient and other defects, the series of products have been obtained three patents (invention patents, utility models, the appearance of patents).

Model and meaning

MD Q 2 – ☐ / ☐ – ☐

- Rated current
- Pole number 3P/4P
- Shell frame
- Design code
- Dual power automatic transfer switch
- Mindian Electric CO., LTD.

Technical parameters

Working environment temperature:-30 ~+60
Operating supply voltage range:AC85~300V
Power waste: ≤5W
Conversion delay: 0.2Seconds
Return delay: 0.2 seconds

Controller features and functions

☐ The automatic conversion switch according to the voltage state of the working power supply, and the working mode of the user, Decide whether to turn from one source to another. Its function depends on the controller, including A and B two models, The main functions and characteristics of the following table are shown in the following table:

Controller	RCX-A type controller	RCX-B type controller
Working power source	AC120~300V 50/60Hz	AC120~300V 50/60Hz
Installation method	Integral type	Integral type
Working position	Two working position	Three working position
Operation mode	Automatic and manual	Automatic and manual
Generator control	No	A set of 5A relay dry contact
Fire linkage control	No	Passive contact input, with a group of normally open source signal feedback contact
Conversion mode	Self cast	Can provide self - InvestmentSelf 、switching and power grid generator model
Conversion delay function	Fixed 0.2 seconds	0~30 seconds continuous adjustable
Return delay function	Fixed 0.2 seconds	0~30 seconds continuous adjustable

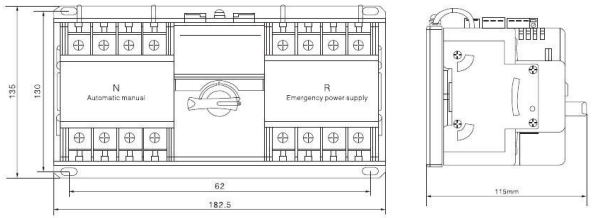
MOREDAY

Dual Power Automatic
Transfer Switch

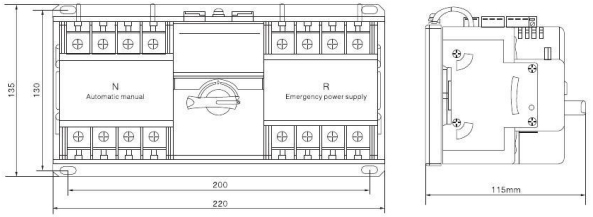
Terminals and wiring instructions

①: 101, 102 pole switching power supply zero line terminal;
②: 201, 202 pole switch standby power zero line terminal;
③: 301~303 signal output (0.5A AC220V) of the power supply used in external power supply
301~ signal lamp
302~ common power supply signal output
303~ commonly used power switch signal output
④: 401~403 standby power supply external status indicator signal output (0.5A AC220V)
401~ signal lamp
402~ common power supply signal output
403~ commonly used power switch signal output

Dimensions and installation dimensions



MDQ2-63/3P Dimensions and installation dimensions



MDQ2-63/4P dimensions and installation dimensions

Product overview

☐ MDQ2 CB series intelligent dual power automatic switching system is suitable for AC 50/60Hz, rated voltage 400V,Double power supply system with rated current 2000A,Power supply (N) and standby power (R) can be achieved automatically switch (also can be set to manually switch) to double power supply users to achieve unattended substation.This product is applicable to special classes,class power system, high-rise buildings, residential quarters, military facilities, hospitals, airports,docks, hopping malls, communications, fire, metallurgy, chemical, textile, oil, coal and other important places to allow power outages.

Model and meaning

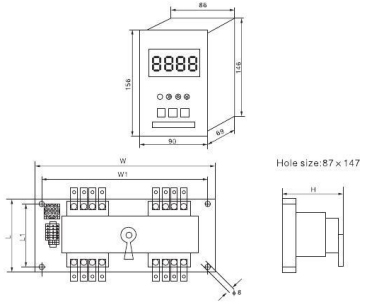
MD Q 2 – □ □– □ □ □

- R:Self cast / S:Not self – Investment / F:Grid – power generation
- Pole number (3P or 4P)
- Rated operating current
- Shell current
- B [A as split type / B as one type] Under voltage, lack of phase, Two points / fire function
- Design code
- Dual power automatic transfer switch
- Mindian Electric CO., LTD.

Technical parameters

☐ Working environment temperature:–30℃~+60℃
☐ Operating supply voltage range:AC85~300V
☐ Power waste: ≤5W
☐ Conversion delay: 0.2Seconds
Return delay: 0.2 seconds

Dimensions and installation dimensions



MOREDAY

Dual Power Automatic
Transfer Switch

RMQ8 Configuration and installation dimensions of dual power switching device for split type

Model	Series	Dimensions			Installation dimensions	
		W	L	H	W1	L1
		3P/4P	3P/4P	3P/4P	3P/4P	3P/4P
MDQ2 –63	MDM1 Series	340/360	180/180	170/170	310/310	150/150
MDQ2 –100		390/420	200/200	180/180	390/390	170/170
MDQ2–225		430/470	210/210	200/200	400/440	180/180
MDQ2–400		580/630	320/320	230/230	550/600	180/180
MDQ2–630		660/720	330/330	230/230	630/690	180/180
MDQ2–800	TM30 Series	660/780	330/330	230/230	630/750	180/180
MDQ2–1250		720/800	450/450	260/260	690/770	180/180
MDQ2–2000		1000	450	370	970	180

RMQ8Integrated intelligent dual power switching device and its configuration and installation dimensions

Model	Series	Dimensions			Installation dimensions	
		W	L	H	W1	L1
		3P/4P	3P/4P	3P/4P	3P/4P	3P/4P
MDQ2–63	MDM1 Series	440/460	180/180	170/170	430/430	150/150
MDQ2–100		490/520	200/200	180/180	460/460	170/170
MDQ2–225		530/570	210/210	200/200	500/540	180/180
MDQ2–400		580/630	320/320	230/230	550/600	290/290
MDQ2–630		660/720	330/330	230/230	630/690	300/300
MDQ2–800	TM30 Series	660/780	330/330	230/230	630/750	300/300
MDQ2–1250		720/800	450/450	260/260	690/770	420/420
MDQ2–2000		1000	450	370	970	420

Frame-Type
Uniersal Breaker Series

Summary

MDW1 series intelligent universal circuit breaker (hereinafter referred to as circuit breaker),Suitable for AC 60Hz, rated voltage to 400V (690V) or lower, rated current 630A–6300A in power distribution n–etwork,Used to distribute power and protect line and power supply equipment from overload, under voltage, short circuit, single phase grounding fault and so on.Circuit breaker with intelligent protection, selective protection is accurate, can improve the reliability of power supply, to avoid unnecessary power failure.At the same time with open communication interface, can be "four remote" to meet the requirements of the control center and the automation system.The circuit breaker can be widely used in power plants, factories, mines (especially 690V) and modern elevation buildings, especially in intelligent buildings in the power distribution system,In wind power, solar power and other green energy projects also have a wide range of applications.

Circuit breakers in accordance with GB14048.2 "low voltage switchgear and control equipment and low voltage circuit breakers" and IEC60947–2 "low voltage switchgear and control equipment breakers" and other standards.

(Fixed type)

Model and meaning

MD W 1 – □ / □

- The number of poles (Quadrupole pole marked 4,not show three pole)
- The rated current of the breaker's shell frame
- Design serial number
- Universal circuit breaker
- Mindian Electric CO., LTD.

(Drawer type)

Classification

1 By installation method
  a.Fixed type
  b.Drawer type
2 Press pole number: three pole, four pole
3 By way of operation
  a.Electric operation
  b.Manual operation (inspection and maintenance)
4 According to the release types
  Intelligent controller, undervoltage instantaneous (or delay) rele–ase, shunt release.

Use environmental conditions

1 The upper limit value of ambient air temperature is no more than +40℃, and the lower limit is not less than –5℃, and the average value of 24h is no more than +35℃.
  Note: 1.The lower limit is –10℃ or –25℃, and the user should declare it with the company.
  2.The upper limit value exceeds the working condition of –25℃, the user should consult with the company +40℃.
2 The altitude of the installation location is no more than 2000m.
3 Atmospheric condition
  The relative humidity of the atmosphere is not more than 50% when the ambient air temperature is +40℃; At a lower temperature, the relative humidity can be relatively high, and the average relativehumidity is 90%.At the same time, the average minimum temperature is +25℃.Taking into account the temperature change on the surface of the product. Exceed the specified requirements shall be negotiated by the company.
4 Protection level: IP30
5 Pollution level: 3.
6 Class: B class
7 Installation category
  The rated working voltage of 400V (660V) and the circuit breaker and under voltage release,Power transformer primary coil is used for the installation of class IV; auxiliary circuit and control circuit are arranged in the category of.
8 Installation condition
  The circuit breaker shall be installed in accordance with the requirements of this book, and the vertical inclination of the circuit breaker is no more than 5 degrees (no more than 15 degrees) of the slope of the mine breaker.

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MDW1 Series Frame-Type Uniersal Breaker

Technical data and performance

1 Rated current of circuit breaker

Table1

Shell rated current InmA	Rated current In A
2000	630、800、1000、1250、1600、2000
3200	2000、2500、2900、3200
4000	3200、3600、4000
6300	4000、5000、6300

2 The rated short circuit breaking capacity of circuit breakers and the short time withstand current, the distance of the circuit breaker is "zero" (that is, outside the circuit breaker).

Table 2

Shell rated current InmA		2000	3200	4000	6300
Rated ultimate short-circuit breaking capacity Icu(kA)O-CO	400V	80	100	100	120
	690V	50	65	65	80
Rated short-circuit capacity nxIcu(kA)/COSΦ	400V	176/0.2	220/0.2	220/0.2	264/0.2
	690V	105/0.25	143/0.2	143/0.2	187/0.2
Rated running short circuit breaking capacity Ics(kA)O-CO-CO	400V	50	65	65	80
	690V	40	50	50	70
Rated short-time withstand current Icw(kA)1S,Time delay0.4s,O-CO	400V	50	65	65/80(MCR)	85/100(MCR)
	690V	40	50	50/65(MCR)	65/75(MCR)

Note: the same is the same as in the table.

3 The maximum power consumption of the circuit breaker 360W. Circuit breakers rated at different ambient temperatures for continuous current

Table 3

MDW1 / Ambient temperature℃	630A	800A	1000A	1250A	1600A	2000A
40	630A	800A	1000A	1250A	1600A	2000A
50	630A	800A	1000A	1250A	1550A	1900A
60	630A	800A	1000A	1250A	1550A	1800A

Note: the 2500A and the above reduced capacity factor is 0.9, and the 4000A in 6300A is not reduced.

4 Intelligent overcurrent control protection and function

Over current controller protection

4.1 Setting Ir (I/In) and error of controller

Table 4

Long delay	Short delay		Instantaneous		Earth fault		
Ir1	Ir2	Error	Ir3	Error	Ir4		Error
(0.4-1)In	(0.4-15)In	± 10%	In~50kA(Inm=2000A) In~75kA(Inm=3200~4000A) In~100kA(Inm=6300A)	± 15%	Inm=2000~4000A (0.2-0.8)In Max1200A Min160A	Inm=6300A (0.2-1.0)In	± 10%

Note: when the three period of time has (requirements), the setting value can not cross.

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AC Contactor Series

CJX2 Series of AC Contactor

Applicable scope

☐ CJX2 series AC contactor is mainly used for AC 50Hz (or 60Hz), the rated insulation voltage is 690V,In the circuit of rated operating current to 380V with the use of AC-3 under the category of 95A,For remote connection and break circuit,The circuit consists of an electromagnetic starter with appropriate thermal overload relay to protect potential overload.

Model and meaning

CJX2 □□ □

- Nsaid interlocking contactor:C Common product code; GExpress Plateau
- Type product code
- Number of auxiliary contact of three stage contactor:With two digits, the first digit indicates the number of auxiliary contacts;After a digital representation of the number of auxiliary contacts;Main quantity of four pole contactor:004Indicates that four of the main contact;008Express two to often open contact head and two pair of normally closed main contacts
- AC contactor

Model	Power frequency Hz	Coil voltage V				
		24	48	110	220	380
CJX2-09-95	50/60	B7	E7	F7	M7	Q7

Note: special order is required for other voltage specifications.

Structure characteristic

☐ Motion machine is a straight, touch should be double power;
☐ Combination function, in addition to the installation surface, the rest of the surface can be equipped with accessories;
☐ On both sides can be equipped with auxiliary contact group (EKF8) or interlocking mechanism;
☐ Can be equipped with auxiliary contact (EKF4) air to extend the head (2-TR EKLA3);
☐ The coil terminal can be installed with time delay and other functional modules.

Working condition and installation condition

☐ Ambient air temperature:-5℃~+40℃
☐ Installation location is not more than 2000m;
☐ The highest temperature is +40℃,The relative humidity of the air is no more than 50%;At lower temperatures, there is a relatively high relative humidity,For example, when the +20℃ is 90%,Take special measures due to temperature change should occasionally produce.
☐ Pollution level: 3.
☐ Installation category: class III.
☐ In addition to the installation of screws, but also the use of 75mm, 35mm standard rail installation.
☐ Marine AC contactor
☐ Ambient air temperature-25℃~+45℃
☐ Atmospheric conditions: there exist condensation, salt fog, mist, mildew, moist air sea etc.;
☐ The direction of tilt is not more than 22.5 degrees, the direction of swing gets 22.5 degrees, period of 10 seconds;
☐ Vibration: can be installed and used in frequency 2-13.2Hz,The amplitude is below 1mm or less, and can be used in frequency 13.2~100Hz,The acceleration is less than 7m/S.

MOREDAY

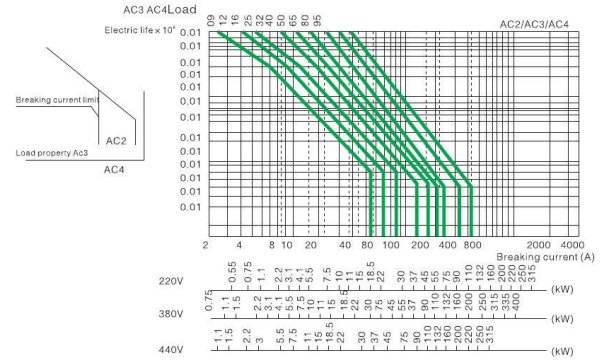
CJX2 Series of AC Contactor

Main technical parameters

Main parameters and technical performance indicators (see table below)

Model			CJX2-09	CJX2-12	CJX2-18	CJX2-25	CJX2-32	CJX2-40	CJX2-50	CJX2-65	CJX2-80	CJX2-95
Rated operating current (A) 380V		AC-3	9	12	18	25	32	40	50	65	80	95
		AC-4	3.5	5	7.7	7.7	12	18.5	24	28	37	44
	660V	AC-3	6.6	8.9	12	12	21	34	39	42	49	49
		AC-4	1.5	2	3.8	4.4	7.5	9	12	14	17.6	21.3
Free air heating current (A)			20	20	32	40	50	60	80	80	95	95
Rated insulation voltage (V)			690	690	690	690	690	690	690	690	690	690
Controllable three-phase squirrel cage Motor power(AC-3)kW		220V	2.2	3	4	5.5	7.5	11	15	18.5	22	25
		380V	4	5.5	7.5	11	15	18.5	22	30	37	45
		660V	5.5	7.5	10	15	18.5	30	37	37	45	45
Operating frequency (Time/h)	Electric life	AC-3	1200	1200	1200	1200	600	600	600	600	600	600
		AC-4	300	300	300	300	300	300	300	300	300	300
	Mechanical life		3600	3600	3600	3600	3600	3600	3600	3600	3600	3600
Electric life (Million times)	AC-3		100	100	100	100	80	80	60	60	60	60
	AC-4		20	20	20	20	20	15	15	15	10	10
Mechanical life(Million times)			1000	1000	1000	1000	800	800	800	800	600	600
Equipped with a fuse type			RT16-20		RT16-32	RT16-40	RT16-50	RT16-63	RT16-80		RT16-100	RT16-125
Cold end head		Root	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
	Non prefabricated end cords	m2	1/2.5 1/2.5	1/2.5 1/2.5	1.5/4 1.5/4	1.5/4 1.5/4	2.5/6 2.5/6	6/25 4/10	6/25 4/10	6/25 4/10	10/35 6/16	10/35 6/16
	Prefabricated end cord Non-and end-head hard line		1/4 1/2.5	1/4 1/2.5	1.5/6 1.5/4	1.5/10 1.5/6	2.5/10 2.5/6	6/25 4/10	6/25 4/10	6/25 4/10	10/35 6/16	10/35 6/16
		Pull(VA)	1/4 1/4	1/4 1/4	1.5/6 1.5/6	1.5/6 1.5/6	2.5/102.5/10	6/25 4/10	6/25 4/10	6/25 4/10	10/35 6/16	10/35 6/16
AC coil power	50Hz	Keep(VA)	70	70	70	110	110	200	200	200	200	200
		Power(W)	8	8	8	11	11	20	20	20	20	20
			1.8~2.7	1.8~2.7	3~4	3~4	3~4	6~10	6~10	6~10	6~10	6~10
Range of motion			Pull in voltage: 85%Us~110%Us; Release voltage: 20%Us~75Us									
Basic parameters of auxiliary contact			AC-15: 360VA DC-13: 33W Ith:10A									

Electric life curve



CJ20 Series of AC Contactor

Applicable scope

☐ CJ20 series AC contactor (hereinafter referred to as the contactor), mainly for the exchange of 50Hz (or 60Hz). Rated working voltage to 660V, rated working current to 630A circuit. For remote connection and the use of sub – off circuit, and can be combined with the appropriate thermal overload relay to protect the circuit may occur.

☐ Contactor is in accordance with GB14048.4 standard.

Model and meaning

CJ 20 – □

- (AC–3380V) rated operating current (A)
- Design serial number
- AC contactor

Normal working condition and installation condition

☐ Ambient air temperature: –5℃~+40℃，Within 24 hours, the average value is no more than+35℃。

☐ Altitude: not more than 2000m.

☐ Air condition: the relative humidity of the air is not more than 50% when the maximum temperature is +40℃; At lower temperatures, there is a relatively high relative humidity. For example, +20℃ 90%, take special measures due to temperature change should occasionally produce.

☐ Pollution level: 3.

☐ Installation category: class III.

☐ Installation conditions: the installation surface and the vertical surface of the slope is not greater than 5 degrees

☐ Impact vibration: the product should be installed and used in a place where there is no significant vib–ration, shock and vibration.

Main parameters and technical performance

☐ Coil rated control supply voltage Us for: AC 50Hz:36V、110V、127V、220V、380V;

☐ Mechanical life: CJ20–10, 16, 25, 40, 63, 160, 10000000 for 100 times. CJ20–250, 630, 6000000 for the 400 time.

☐ Main parameters and technical performance indicators (see Table 2).

Contactor type	Rated insulation voltage Ui(V)	Free air heating current Ith(A)	The maximum power of three–phase squirrel cage induction motor with the use of kW			Operating cycles per hour /h (AC–3)	AC–3 Electric life (Million times)	Coil power Start/hold VA/VA	Selection of fuses (SCPD) Model
			220V	380V	660V				
CJ20–10	690	10	2.2	4	4	1200	100	65/8.3	RT16–20
CJ20–16		16	4.5	7.5	11			62/8.5	RT16–32
CJ20–25		32	5.5	11	13			93/14	RT16–20
CJ20–40		55	11	22	22			175/19	RT16–80
CJ20–63		80	18	30	35		120	480/57	RT16–180
CJ20–100		125	28	50	50			570/61	RT16–250
CJ20–160		200	48	85	85			855/85.5	RT16–315
CJ20–250	690	315	80	132	–	600	60	1710/152	RT16–400
CJ20–400		400	115	200	220			1710/152	RT16–500
CJ20–630		630	175	300	–			3578/250	RT16–630

CJ19 Series of AC Contactor

Applicable scope

☐ CJ19 series switched capacitor contactor (hereinafter referred to as the contactor) is mainly used for AC 50Hz ~ 60Hz, Rated working voltage to 400V power line, For low voltage reactive power compensation equipment in put or removal of low voltage shunt capacitor. Contactor with rejectinrush current device, can effectively reduce the impact of capacitor switching inrush current and Over–voltage Suppression on off.

Model and meaning

CJ 19 – □□ / □□

- Auxiliary contact number, using digital representation
  20Express two normally open，11Open and normally closed
  02Two normally closed(25A~43A)
  21Express two normally open, 12Open two normally closed
  (63A~95A)
- Basic specification code, in order to agree that the heat current
- Design serial number
- Switching capacitor contactor

Working condition and installation condition

☐ Ambient air temperature: –5℃~+40℃，Within 24 hours, the average value is no more than+35℃。

☐ Installation location is not more than 2000m;

☐ Atmospheric condition: At 40℃, the relative temperature of the atmosphere is no more than 50%, At lower temperatures, the relative humidity can be allowed, 90% for example 20℃ degrees, take special me–asures due to temperature change should occasionally produce.

☐ Pollution level: 3.

☐ The inclination of the ground and the vertical plane is not more than 5°.

☐ In the absence of explosive hazardous medium, and the medium is not sufficient to corrosion of metal and damage to the insulation of the gas and electricity in the presence of dust.

☐ In the rain and snow prevention equipment and is not a place full of steam.

☐ In a place where there is no significant shake, shock and vibration.

Main parameters and technical performance

Project		CJ19–25	CJ19–32	CJ19–43	CJ19–63	CJ19–95
Electric life(Million times)		10	10	10	10	10
Rated currentle(380V)A		17	23	29	43	63
Controllable capacitor	220V	6	9	10	15	22
Capacity(kwar)	380V	12	18	20	30	40
Rated insulation voltage(V)		500	500	500	500	500
Restraining inrush current capability		20Ie	20Ie	20Ie	20Ie	20Ie
Action condition		Pull: (85%~110%)Us Release: (20%~75%)Us				
Coil function(VA) Start/hold		70/8	110/11	110/11	200/20	200/20
Auxiliary contact control capacity		AC–15 360VA; DC–13 33W				
Weight(kg)		0.44	0.63	0.64	1.4	1.5