

Product introduction

Overview

Product overview

The new CDC6i series motor control and protection products, using a new generation of technology platform, the application of automated production and testing equipment, effectively fit the actual application needs of customers, to achieve convenient use, quality of the country's leading products.

Product range

• CDP6 Motor circuit breaker: Setting current: 0.1~80A
 attachments: AE Formal auxiliary contact, AN Side mounted auxiliary contact, AU Undervoltage release, AS Shunt release, CDP6LJ connector, CDPDB mainboard authentication: CCC、CE、SEMKO

Compliant standard

- GB/T 14048.1 general rules
- GB/T 14048.2 circuit breaker
- GB/T 14048.4 contactor
- GB/T 14048.5 relay
- IEC 60947-1 general rules
- IEC 60947-2
- IEC 60947-4-1 contactor
- IEC 60947-5-1 relay

Normal installation and operation conditions

Installation position

It should be perpendicular to the mounting surface, and the inclination in each direction should not exceed 22.5° (JRS1Ds is not more than 5); The installation category is Class III.

Pollution level

Level 3

Ambient temperature

>When working normally, the ambient air temperature is not higher than +40°C and not lower than -5°C. The 24-hour average does not exceed +35 °C; (The normal operating temperature range of CDC6 and CDR6 is -5~55 °C)
 > The storage temperature is -25°C~ +55°C, and it can reach +70°C in a short time (24h)

altitude

The altitude of the normal installation site does not exceed 2000m.

humidness

> The relative humidity of the atmosphere does not exceed 50% at the highest ambient temperature of +40°C, and can have higher relative humidity at lower temperatures. For example, 90% at 20 °C.
 > Protective measures should be taken for occasional condensation caused by temperature changes.

Product Protection Level

IP20

Functions and features

CDP6 motor circuit breaker



CDP6 Main technical parameters of motor circuit breaker

Mode of operation	push-button
	32A, 80A
Withstand impulse voltage	6000V
Rated operating voltage	690V
Rated insulation voltage	690V
Rated operating frequency	50/60Hz
Trip grade	10A
Tightening torque	1.7N·m
Mechanical life (on/off)	110000
Electrical life AC-3 400V	110000
Overload protection category	Thermal overload, phase break
Short circuit protection	have
Isolation function	have
Temperature compensation function	have

Breaking capacity

Setting current	Ue:230/240V		Ue:400/415V		Ue:500V		Ue:690V	
	Icu	Ics	Icu	Ics	Icu	Ics	Icu	Ics
0.1-0.16A	100	100	100	100	100	100	100	100
0.16-0.25A	100	100	100	100	100	100	100	100
0.4-0.63A	100	100	100	100	100	100	100	100
0.63-1A	100	100	100	100	100	100	100	100
1-1.6A	100	100	100	100	100	100	100	100
1.6-2.5A	100	100	100	100	100	100	3	2.25
2.5-4A	100	100	100	100	100	100	3	2.25
4-6.3A	100	100	100	100	50	50	3	2.25
6-10A	100	100	100	100	10	10	3	2.25
9-14A	100	100	15	7.5	6	4.5	3	2.25
13-18A	100	100	15	7.5	6	4.5	3	2.25
17-23A	50	50	15	6	4	3	3	2.25
20-25A	50	50	15	6	4	3	3	2.25
24-32A	50	50	10	5	4	3	3	2.25
25-40A			20	10			3	2
40-63A			20	10			3	2
56-80A			10	5			1.5	1.5

Functions and features CDP6 motor circuit breaker

Fuse selection **gL/Gg** (When the expected short-circuit current is greater than the rated short-circuit breaking capacity Icu, spare fuses are required)

Setting current	Ue:230/240V	Ue:400/415V	Ue:690V
0.1-0.16A	-	-	-
0.16-0.25A	-	-	-
0.25-0.4A	-	-	-
0.4-0.63A	-	-	-
0.63-1A	-	-	-
1-1.6A	-	-	-
1.6-2.5A	-	-	20
2.5-4A	-	-	32
4-6.3A	-	-	40
6-10A	-	-	40
9-14A	-	80	50
13-18A	-	80	50
17-23A	100	100	50
20-25A	100	100	50
24-32A	100	100	50
25-40A		315	200
40-63A		400	250
56-80A		400	250

Note: "-" indicates that no fuse is required.

Functions and features CDP6 motor circuit breaker

Standard rated power of three-phase motor, **50/60Hz, AC-3 class**

Setting current	Ue:230/240V	Ue:400/415V	Ue:690V
0.1-0.16A	-	-	-
0.16-0.25A	-	0.06KW	-
0.25-0.4A	-	0.09KW	-
0.4-0.63A	-	0.12KW	0.37KW
0.63-1A	-	0.25KW	0.55KW
1-1.6A	-	0.37KW	1.1KW
1.6-2.5A	0.37KW	0.75KW	1.5KW
2.5-4A	0.75KW	1.5KW	3KW
4-6.3A	1.1KW	2.2KW	4KW
6-10A	2.2KW	4KW	7.5KW
9-14A	3KW	5.5KW	9KW
13-18A	4KW	7.5KW	11KW
17-23A	5.5KW	9KW	15KW
20-25A	5.5KW	11KW	18.5KW
24-32A	7.5KW	15KW	22KW
25-40A		18.5KW	33KW
40-63A		30KW	55KW
56-80A		40KW	63KW

Functions and features CDP6 motor circuit breaker

Action characteristic

CDP6-32

number	Set current multiple	action time	Initial condition	ambient temperature
The operating characteristics of load balancing in each phase				
1	1.05	No action for two hours	cold	+20 °C
2	1.2	Move in two hours	hot (After the experiment with No 1)	+20 °C
3	1.5	Move in two hours	hot(After the experiment with No 1)	+20 °C
4	7.2	Move in 2 to 10 seconds	cold	+20 °C
The operating characteristics when the load of each phase is unbalanced (out of phase)				
	Any two phases	Third phase		
1	1.0	0.9	no action for two hours	cold +20 °C
2	1.15	0	move in two hours	hot (After the experiment with No 1) +20 °C
Temperature compensation performance				
1	1.0	no action for two hours	cold	+40 °C
2	1.2	move in two hours	hot (After the experiment with No 1)	+40 °C
3	1.05	no action for two hours	cold	-5 °C
4	1.3	move in two hours	hot (After the experiment with No 3)	-5 °C

CDP6-80

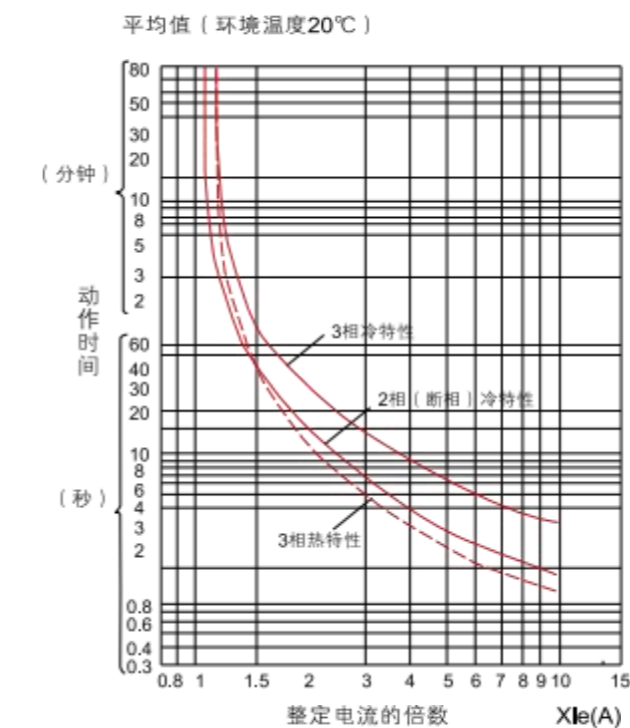
Table 1 The action characteristics of the motor circuit breaker when the load of each phase is balanced

No.	Set current multiple	Set time	Initial state	Ambient air temperature
1	1.05I _n	≥2h without tripping	Cold	+20°C±2°C
2	1.3I _n	Tripping within 2h	Proceed in sequence 1	
3	10I _n	< 0.2s trip	cold	Any suitable temperature

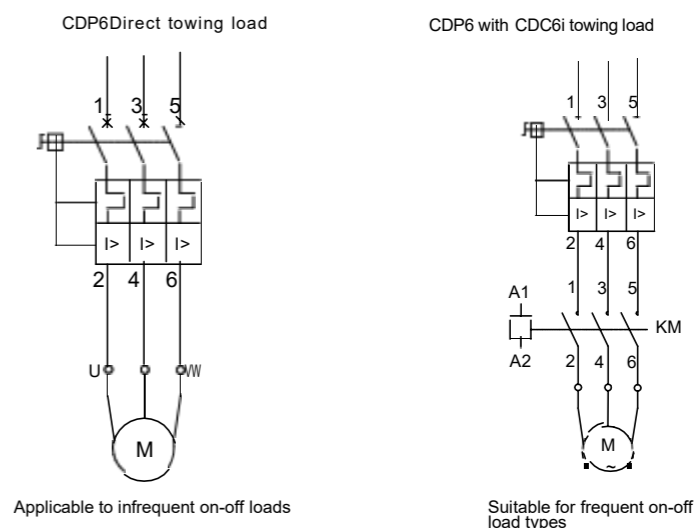
Table 2 The action characteristics of the motor circuit breaker when the load of each phase is balanced

No.	Set current multiple	Set time	Initial state	Ambient air temperature
1	1.05I _n	≥2h without tripping	cold	
2	1.2I _n	Tripping within 2h	Proceed in sequence 1	
3	1.5I _n	≤3min trip	1 times the setting current to reach thermal equilibrium	+20°C±2°C
4	7.2I _n	2~10s trip	cold	
5	9.6I _n	0.2s without tripping	cold	Any suitable temperature
6	14.4I _n	0.2s trip	cold	

Functions and features CDP6 motor circuit breaker

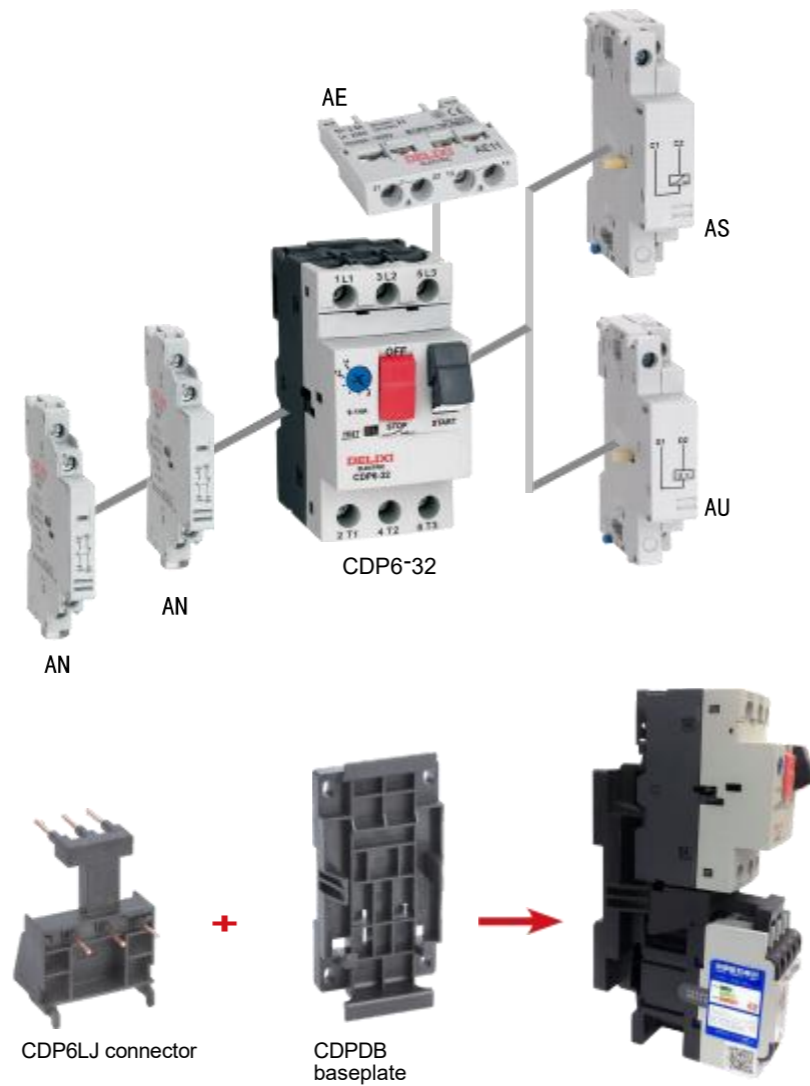


Wiring diagram



Functions and features CDP6 motor circuit breaker

Attachment installation diagram



Description: Only provide accessories, do not provide combined products.

model	name	Installation position	Maximum installed capacity
AE	Auxiliary contact (formal)	Right above	1
AN	Auxiliary contacts (side mounted)	Left side	2
AU	Undervoltage release	Right side	1
AS	Shunt release	Right side	1
CDP6LJ	connector	below	1
CDPDB	baseplate	bottom	1

Note: The accessories of CDP6-80 specifications only have 1NO+1NC and 2NO auxiliary contacts. The order code is CDP680F11, CDP680F20.

Product selection CDP6 motor circuit breaker



CDP6 motor circuit breaker

Product model	Frame current	Setting current	Special testing
CDP6	32	P16	
	32: 32A 80: 80A	P16: 0.1-0.16A ... 32: 24-32A P is the decimal point	acquiesce: Compliance with RoHS Test standard

Thermal trip	Magnetic trip	400/415V, 50/60Hz, AC-3	Recommended combination	Order code
Set current range	current Id	Standard rated power of three-phase motor	Contactor type number	
0.1-0.16A	1.5A	-	CDC6i-09	CDP6 32 P16
1.06-0.25A	2.4A	0.06KW	CDC6i-09	CDP6 32 P25
0.25-0.4A	5A	0.09KW	CDC6i-09	CDP6 32 P4
0.4-0.63A	8A	0.12KW	CDC6i-09	CDP6 32 P63
0.63-1A	13A	0.25KW	CDC6i-09	CDP6 32 1
1-1.6A	22.5A	0.37KW	CDC6i-09	CDP6 32 1P6
1.6-2.5A	33.5A	0.75KW	CDC6i-09	CDP6 32 2P5
2.5-4A	51A	1.5KW	CDC6i-09	CDP6 32 4
4-6.3A	78A	2.2KW	CDC6i-09	CDP6 32 6P3
6-10A	138A	4KW	CDC6i-09	CDP6 32 10
9-14A	170A	5.5KW	CDC6i-12	CDP6 32 14
13-18A	223A	7.5KW	CDC6i-18	CDP6 32 18
17-23A	327A	9KW	CDC6i-25	CDP6 32 23
20-25A	327A	11KW	CDC6i-25	CDP6 32 25
24-32A	416A	15KW	CDC6i-32	CDP6 32 32
24-40A	480A	18.5KW	CDC6i-40	CDP6 80 40
24-63A	756A	30KW	CDC6i-65	CDP6 80 63
24-80A	960A	40KW	CDC6i-80	CDP6 80 80

Product selection
attachments

attachments



Auxiliary contact

position	No.	constitute		Contact layout	Order code	Applicable product
		NO	NC			
apex	2	0	2		FD6 02	
		1	1		FD6 11	
	4	2	0		FD6 20	
		0	4		FD6 04	CDC6i 06-95
		1	3		FD6 13	CDC6 115-630
		2	2		FD6 22	CDZ6i
side	2	0	2		FC6 02	
		1	1		FC6 11	CDC6i 09-95
	4	0	0		FD6 40	
		2	0	2		FC6 20

FT6 air delay head

position	Delay type	Wiring diagram	Delay range	Order code	Applicable product
apex	Power-on delay		0.1-3 s	FT6 20	
			0.1-30 s	FT6 22	CDC6i 06-95
			10-180 s	FT6 24	CDC6 115-630
	Blackout delay		0.1-3 s	FT6 30	CDZ6i
			0.1-30 s	FT6 32	
			10-180 s	FT6 34	

Mechanical interlocking device

Horizontal installation		
Interlock mode	order code	applicable product
Mechanical interlock, with electrical interlock	FR6 32 H	CDC6i 09~38
	FR6 95 HS	CDC6i 40~95
Mechanical interlock, no electrical interlock	FR6 32 HX	CDC6i 09~38
	FR6 95 HXS	CDC6i 40~95

FN Invertible row

Way to install	Order code	Applicable product
----------------	------------	--------------------

it is installed in the main loop of the contactor inlet and outlet line,

which is divided into inlet line and outlet line.

FN-18 CDC6i-9~18

(Invertible rows labeled A1 are incoming lines and A2 are outgoing lines)

Product selection
attachments

FS Surge suppressor



Way to install	Order code	Applicable product	Control circuit voltage range
Connect to the contactor A1 and A2 terminals	FS061RC	CDC6i-6	24~48V
	FS062RC		110~240V
	FS063RC		380~440V
	FS181RC	CDC6i-9~18	24~48V
	FS182RC		110~240V
	FS183RC		380~440V
	FS381RC	CDC6i-25~38	24~48V
	FS382RC		110~240V
	FS383RC		380~440V
	FS651RC	CDC6i-40~65	24~48V
FS652RC	110~240V		
FS653RC	380~440V		
FS951RC	CDC6i-80~95	24~48V	
FS952RC		110~240V	
FS953RC		380~440V	

Mechanical interlocking device

Horizontal installation		
Interlock mode	Contact type No	order code
	CDC6-115~150	FR6 FF H
	CDC6-185~225	FR6 GG H
Mechanical interlock	CDC6-265~330	FR6 HH H
	CDC6-400~500	FR6 KK H
No electrical interlocking	CDC6-630	FR6 LL H

Product selection attachments



水平安装



垂直安装

Vertical mounting (mechanical interlocking without electrical interlocking)		
Contactor type number		
bottom	top	Model number of
CDC6-115	CDC6-115	FR6 FF V
or	CDC6-150	FR6 FF V
CDC6-150	CDC6-185	FR6 FG V
	CDC6-225	FR6 FG V
	CDC6-265	FR6 FH V
	CDC6-330	FR6 FH V
	CDC6-400	FR6 FH V
	CDC6-500	FR6 FH V
	CDC6-630	FR6 FL V
CDC6-185	CDC6-185	FR6 GG V
or	CDC6-225	FR6 GG V
CDC6-225	CDC6-265	FR6 GK V
	CDC6-330	FR6 GK V
	CDC6-400	FR6 GK V
	CDC6-500	FR6 GK V
	CDC6-630	FR6 GL V
CDC6-265	CDC6-265	FR6 HK V
or	CDC6-330	FR6 HK V
CDC6-330	CDC6-400	FR6 HK V
	CDC6-500	FR6 HK V
	CDC6-630	FR6 HL V
CDC6-400	CDC6-400	FR6 HK V
	CDC6-500	FR6 HK V
	CDC6-630	FR6 HL V
CDC6-500	CDC6-500	FR6 HK V
	CDC6-630	FR6 HL V
CDC6-630	CDC6-630	FR6 LL V

Note: Vertically mounted mechanical interlocks do not have electrical interlocks.

Product selection attachments



X6 coil

Applicable to CDC6	voltage	code
110~150A	220V	X6 150 M
	380V	X6 150 Q
185~225A	220V	X6 225 M
	380V	X6 225 Q
265~330A	220V	X6 330 M
	380V	X6 330 Q
400A	220V	X6 400 M
	380V	X6 400 Q
500A	220V	X6 500 M
	380V	X6 500 Q
630A	220V	X6 630 M
	380V	X6 630 Q



MC6 Main contact

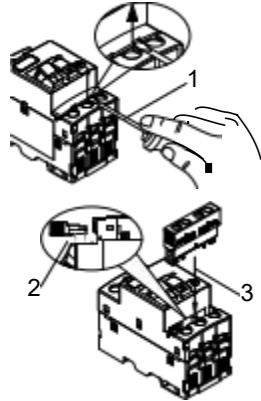
Number of poles	Contactor current specification	Order code
3 -pole	115A	MC6 115
	150A	MC6 150
	185A	MC6 185
	225A	MC6 225
	265A	MC6 265
	330A	MC6 330
	400A	MC6 400
	500A	MC6 500
	630A	MC6 630



name	model	specification	Order code	Product of fit
Undertrip	AU	110-127V	AU110	
		220-240V	AU220	
		380-400V	AU380	
		415V	AU415	
Shunt release	AS	110-127V	AS110	CDP6
		220-240V	AS220	
		380-400V	AS380	
		415V	AS415	
Auxiliary contact	formal	AE	2NO	AE20
			1NC+1NO	AE11
	Side mount	AN	2NO	AN20
			1NC+1NO	AN11
Water proof shell	CDP6-32MC	IP55	CDP632MC	

Product selection attachments

AE11 or AE20 install



1. Pry the top auxiliary guard up ;
2. Attach the top auxiliary flat side to the circuit breaker ;
3. Align it with the installation position and insert it downward.

Basic parameters of instantaneous auxiliary contacts

name	Rated insulation voltage UI	Category of use	Rated operating voltage	Rated working current	Agreed heating current
formal auxiliary contact	250V	AC-15	24V	2A	2.5A
			48V	1.25A	2.5A
			110V	1A	2.5A
			230V	0.5A	2.5A
Side auxiliary mount contact	690V	AC-15	48V	6A	6A
			110V	4.5A	6A
			230V	3.3A	6A
			380V	2.2A	6A
		DC-13	24V	1A	2.5A
			48V	0.3A	2.5A
			24V	6A	6A
			48V	5A	6A
			220V	0.5A	6A

CDR6 pedestal

name	Order code
CDR6-18 pedestal	CDR6 18 J
CDR6-32 pedestal	CDR6 32 J
CDR6-95 pedestal	CDR6 95 J

CDP6 connector

name	Order code
CDP6-18 connector	CDP6LJ18
CDP6-38 connector	CDP6LJ38

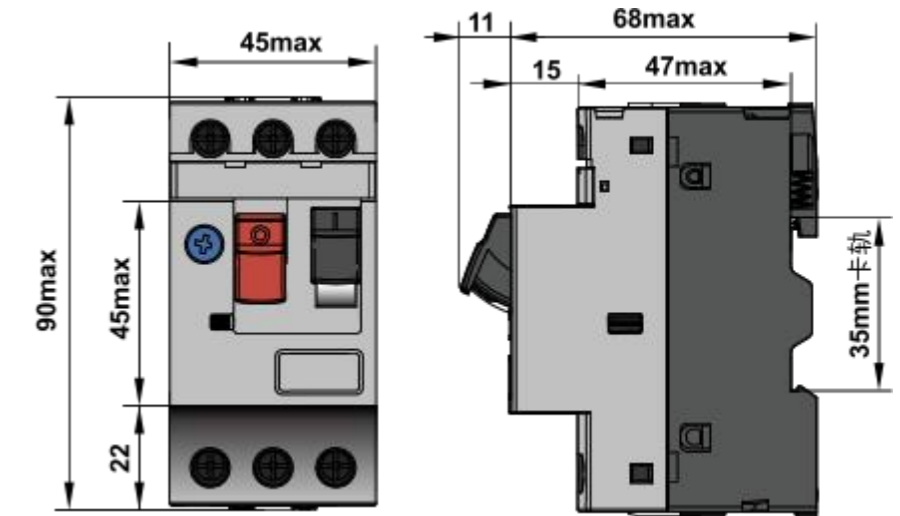
CDP6 baseplate

name	Order code
CDPDB-18 baseplate	CDPDB18
CDPDB-38 baseplate	CDPDB38

Outline and mounting dimensions CDP6 motor circuit breaker

CDP6 motor circuit breaker

CDP6-32



CDP6-80

