

Product introduction

Overview

Product overview

The new CDC6i series motor control and protection products adopt a new generation of technology platform, apply automated production and testing equipment, effectively meet the actual application needs of customers, and achieve convenient use and leading quality products in the country.

Product range

• CDP6 motor circuit breaker: setting current: 0.1 ~ 80 A
Accessories: AE forward auxiliary contact, AN side auxiliary contact, AU undervoltage release, AS shunt release, CDP6LJ connector, CDPDB baseplate
Certification: CCC, CE, SEMKO

Meet the standard

- | | |
|--------------------------------|---------------------------|
| • GB/T 14048.1 General | • IEC 60947-1 General |
| • GB/T 14048.2 Circuit Breaker | • IEC 60947-2 |
| • GB/T 14048.4 Contactor | • IEC 60947-4-1 Contactor |
| • GB/T 14048.5 Relay | • IEC 60947-5-1 Relay |

Normal installation and operating conditions

Installation position

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

Pollution level

Level 3

Ambient temperature

- > During normal operation, the ambient air temperature is not higher than + 40°C and not lower than -5°C , and the average value of 24 hours is not more than + 35°C ;
(Normal operating temperature range of CDC6 and CDR6 is -5 ~ 55°C)
- > Storage temperature is -25°C ~+ 55°C , which can reach + 70°C in a short time (24h)

Elevation

The altitude of the installation site for normal work shall not exceed 2000 m.

Humidity

- > The relative humidity of the atmosphere does not exceed 50% at a maximum ambient temperature of + 40°C. At lower temperatures there may be a higher relative humidity, for example 90% at 20°C.
- > Protective measures shall be taken for occasional condensation due to temperature change.

Product protection grade

IP20

Functions and features

CDP6 Motor Circuit Breaker



Main technical parameters of CDP6 motor circuit breaker

Mode of operation	Button type
Shell frame current	32A, 80A
Withstand impulse voltage	6000V
Rated operating voltage	690V
Rated insulation voltage	690V
Rated operating frequency	50/60Hz
Trip rating	10A
Tightening torque	1.7N • m
Mechanical life (closed/open)	110000
Electrical life AC-3 400V	110000
Overload protection category	Thermal overload and loss of phase
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
0.25-0.4A	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

Select gL/Gg for the fuse (Need spare fuse when the expected short-circuit current is greater than the rated limit Icu)

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 the fuse is not required

Functions and features

CDP6 Motor Circuit Breaker

Standard power rating of three-phase motor, 50/60Hz, AC-3

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 characteristics

CDP6-32

Serial number	Setting current multiple	Action time	Initial condition	Ambient temperature
Operation characteristics when each phase load is balanced				
1	1.05	No action within 2 hours	Cold state	+20 °C
2	1.2	Action within 2 hours	Hot state (connection No.1 Post-test)	+20 °C
3	1.5	Action within 2 hours	Hot state (connection No.1 Post-test)	+20 °C
4	7.2	Action in 2 to 10 seconds	Cold state	+20 °C
Operating characteristics when the load of each phase is unbalanced (phase failure)				
	Any two phases	The third phase		
1	1.0	0.9	No action within 2 hours	Cold state +20 °C
2	1.15	0	Action within 2 hours	Hot state (connection No.1 Post-test) +20 °C
Temperature compensation performance				
1	1.0	No action within 2 hours	Cold state	+40 °C
2	1.2	Action within 2 hours	Hot state (connection No.1 Post-test)	+40 °C
3	1.05	No action within 2 hours	Cold state	-5 °C
4	1.3	Action within 2 hours	Hot state (connection No.3 Post-test)	-5 °C

CDP6-80

Table 1 Operating characteristics of motor circuit breaker under balanced load of each phase

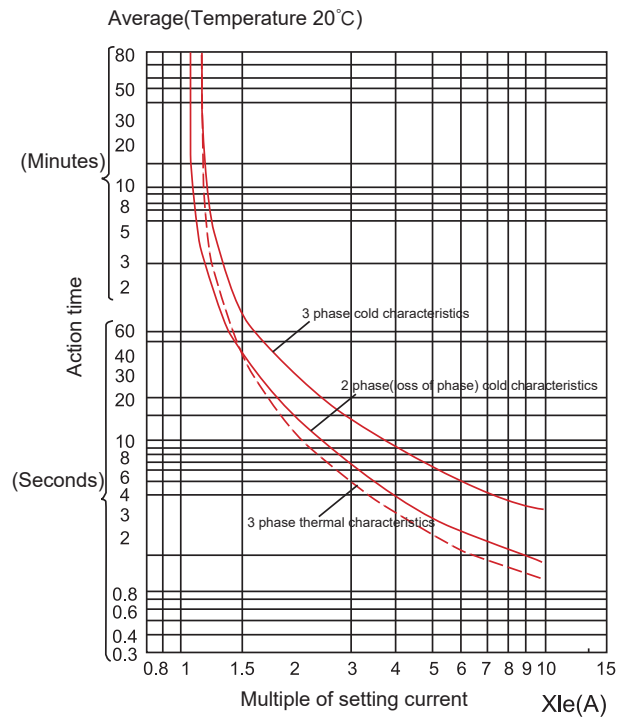
Serial number	Circuit breakers for power distribution			Ambient air temperature
	Setting current multiple	Specified time	Initial state	
1	1.05I _n	No tripping within ≥ 2h	Start cold	+20°C±2°C
2	1.3I _n	Tripping within < 2h	Proceed with sequence 1	
3	10I _n	< 0.2s trip	Start cold	Any suitable temperature

Table 2 Operating characteristics of motor circuit breaker under balanced load of each phase

Serial number	Circuit break for protecting motor			Ambient air temperature
	Setting current multiple	Specified time	Initial state	
1	1.05I _n	No tripping within ≥ 2h	Start cold	+20°C±2°C
2	1.2I _n	Tripping within < 2h	Proceed with sequence 1	
3	1.5I _n	Tripping within ≤ 3 min	1 time of setting current up to Start after thermal equilibrium	
4	7.2I _n	2 ~ 10s tripping	Start cold	Any suitable temperature
5	9.6I _n	No tripping for 0.2s	Start cold	
6	14.4I _n	0.2s trip	Start cold	

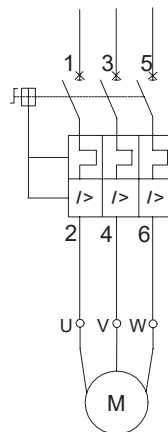
Functions and features

CDP6 Motor Circuit Breaker



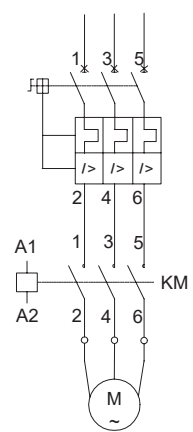
Wiring diagram

CDP6 Direct Tow Load



Suitable for load types with infrequent switching

CDP6 with CDC6i towed load

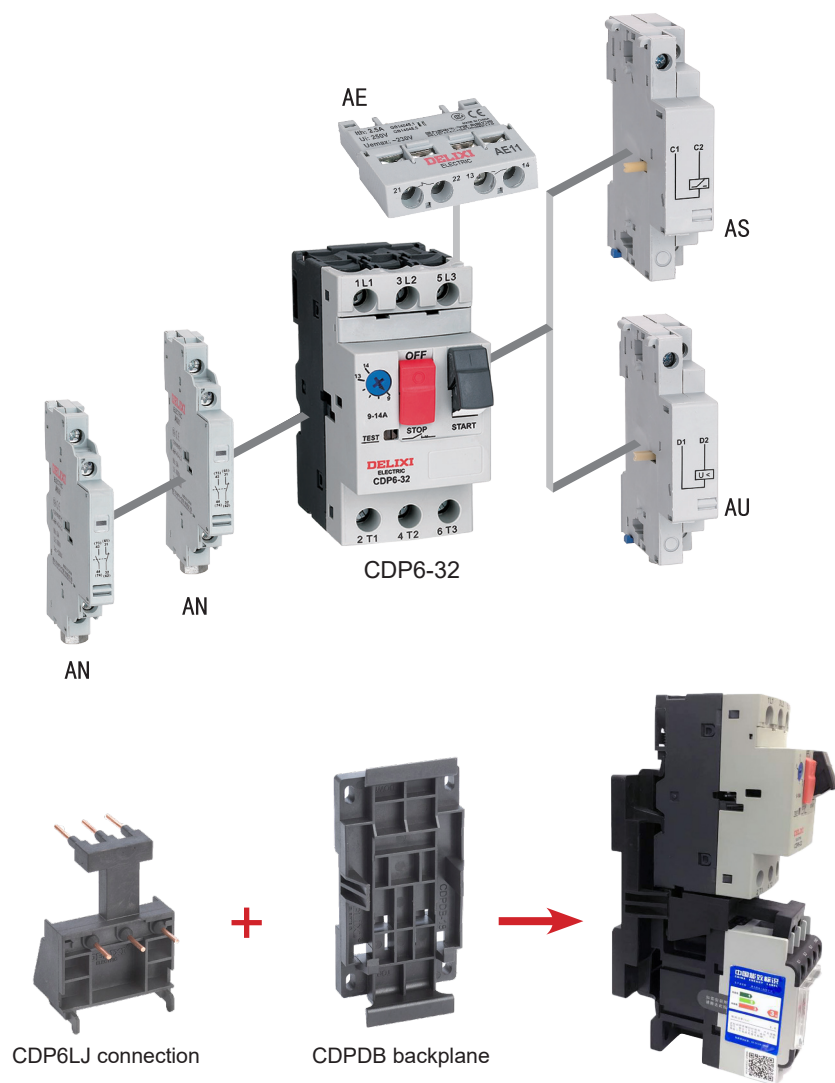


Load type suitable for frequent on-off

Functions and features

CDP6 Motor Circuit Breaker

Schematic diagram of accessory installation



Description: Accessories only, no combination product

Model	Name	Installation position	Maximum installation
AE	Auxiliary contact (normal installation)	Right above	1
AN	Auxiliary contact (side mounted)	Left side	2
AU	Undervoltage release	Right side	1
AS	Shunt release	Right side	1
CDP6LJ	Connector	Below	1
CDPDB	Bottom plate	Bottom	1

Note: The accessories of CDP6-80 specification only include 1 NO + 1 NC and 2 NO auxiliary contacts, and the ordering codes are CDP680F11 and CDP680F20.

Product selection

CDP6 Motor Circuit Breaker



CDP6 Motor Circuit Breaker

Product model	Shell frame current	Setting current	Special tests
CDP6	32	P16	
	32: 32A 80: 80A	P16: 0.1-0.16A ... 32: 24-32A P denotes a decimal point	Default: RoHS compliant Testing standards

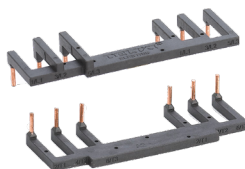
Thermal trip	Magnetic trip	400/415V, 50/60Hz, Class AC-3	Recommended for use with	Order code
Setting current range	Current Id	Standard rated power of three-phase motor	Contactor model	
0.1-0.16A	1.5A	-	CDC6i-09	CDP6 32 P16
1.06-0.25A	2.4A	0.06KW	CDC6i-09	CDP6 32 P25
0.25-0.4A	5A	0.09KW	CDC6i-09	CDP6 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

Accessory



Horizontal installation



Accessory

Auxiliary contact

Installation position	Number of poles	Composition		Contact layout	Order code	Applicable products
		NO	NC			
Top	2	0	2		FD6 02	CDC6i 06-95 CDC6 115-630 CDZ6i
		1	1		FD6 11	
		2	0		FD6 20	
	4	0	4		FD6 04	
		1	3		FD6 13	
		2	2		FD6 22	
		3	1		FD6 31	
		4	0		FD6 40	
	2	0	2		FC6 02	
		1	1		FC6 11	
		2	0		FC6 20	

FT6 air delay head

Installation position	Delay type	Wiring diagram	Delay range	Order code	Applicable products
Top	Power-on delay		0.1-3 seconds	FT6 20	CDC6i 06-95 CDC6 115-630 CDZ6i
			0.1-30 seconds	FT6 22	
			10-180 seconds	FT6 24	
	Power off delay		0.1-3 seconds	FT6 30	
			0.1-30 seconds	FT6 32	
			10-180 seconds	FT6 34	

Mechanical interlocking device

Horizontal installation		
Interlock mode	Order code	Applicable products
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 reversible row

Installation method	Order code	Applicable products
Installed on the incoming and outgoing lines of the main circuit of the contactor, and is divided into incoming line row and outgoing line row. (Reversible row superscript A1 is incoming line, A2 is outgoing line)	FN-18	CDC6i-9~18

Product selection

Accessory



FS surge suppressor

Installation method	Order code	Applicable products	Voltage range of control circuit
Connect to the contactor On A1 and A2 wiring 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	Contactor model	Order code
Mechanical interlock No electrical interlock	CDC6-115~150	FR6 FF H
	CDC6-185~225	FR6 GG H
	CDC6-265~330	FR6 HH H
	CDC6-400~500	FR6 KK H
	CDC6-630	FR6 LL H

Product selection

Accessory

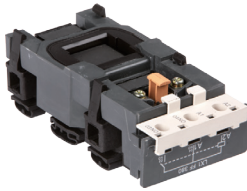


Vertical installation (mechanical interlock without electrical interlock)		
Contactor model		Interlock type
Bottom	Top	
CDC6-115	CDC6-115	FR6 FF V
Or	CDC6-150	FR6 FF V
CDC6-150	CDC6-185	FR6 FG V
	CDC6-225	FR6 FG V
	CDC6-265	FR6 FH V
	CDC6-330	FR6 FH V
	CDC6-400	FR6 FH V
	CDC6-500	FR6 FH V
	CDC6-630	FR6 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 are not electrically interlocked

Product selection

Accessory



X6 Coil

Applicable CDC6 current specification	Coil voltage	Order 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

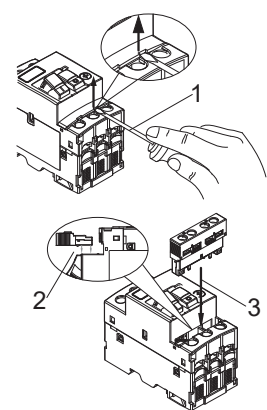


Name	Model	Specification	Order code	Adapt the product
Underrelease	AU	110-127V	AU110	CDP6
		220-240V	AU220	
		380-400V	AU380	
		415V	AU415	
Shunt release	AS	110-127V	AS110	
		220-240V	AS220	
		380-400V	AS380	
		415V	AS415	
Auxiliary contact	Formal dress	AE	2NO	
			1NC+1NO	
	Side-mounted	AN	2NO	
			1NC+1NO	
Waterproof housing	CDP6-32MC	IP55	CDP632MC	

Product selection

Accessory

AE11 or AE20 installation



1. Pry the top auxiliary shield up and down;
2. The flat side of the top auxiliary is closely attached to the circuit breaker;
3. Align with the installation position and insert downward.



Basic parameters of transient auxiliary contact

Name	Rated insulation voltage UI	Use categories	Rated operating voltage	Rated operating current	Agreed heating current
Forward-mounted auxiliary contacts	250V	AC-15	24V	2A	2.5A
			48V	1.25A	2.5A
			110V	1A	2.5A
			230V	0.5A	2.5A
		DC-13	24V	1A	2.5A
			48V	0.3A	2.5A
Side-mounted auxiliary contact	690V	AC-15	48V	6A	6A
			110V	4.5A	6A
			230V	3.3A	6A
			380V	2.2A	6A
		DC-13	24V	6A	6A
			48V	5A	6A
			220V	0.5A	6A

CDR6 base

Name	Order code
CDR6-18 Base	CDR6 18 J
CDR6-32 Base	CDR6 32 J
CDR6-95 Base	CDR6 95 J

CDP6 connection

Name	Order code
CDP6-188 connector	CDP6LJ18
CDP6-388 connector	CDP6LJ38

CDP6 backplane

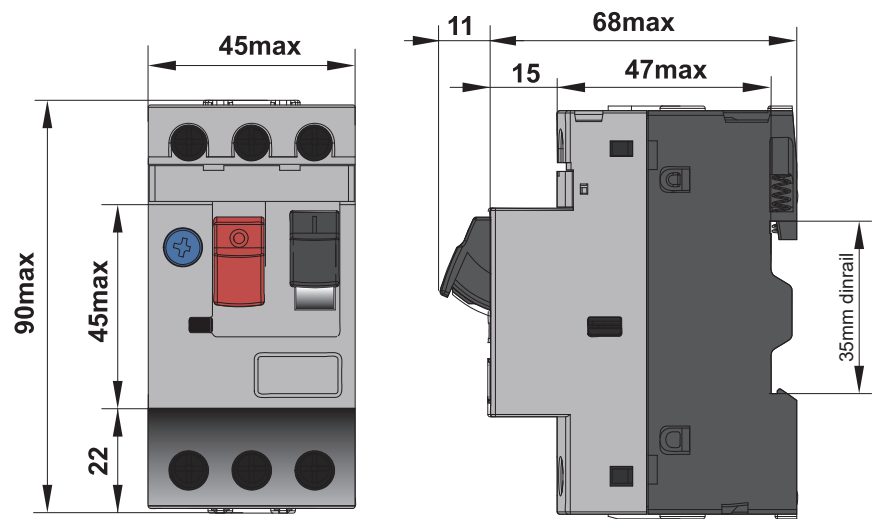
Name	Order code
CDPDB-18 base plate	CDPDB18
CDPDB-38 base plate	CDPDB38

Appearance and installation dimension

CDP6 Motor Circuit Breaker

CDP6 Motor Circuit Breaker

CDP6-32



CDP6-80

