

# RDC5 series AC Contact



## Introduction

RDC5 series AC Contactor is mainly applied to circuit of AC50/60Hz, Rated operate voltage 690V, Rated current up to 95A, for remote connecting and breaking circuit, and assemble with relay to be electromagnetic starter for protecting the overload circuit. And Contactor can assemble with Block type auxiliary contact group, timer-delay, mechanical interlock to be delay contactor, reversible contactor, star-delta starter.

Standard: IEC60947-4-1, GB14048.4

## Type selection

RDC5	09	10	N	B
Model No.	Rated current	self-carried Auxiliary contactor	special options	control circuit voltage
RDC5: AC Contactor	06、09、 12、18、 25、32、 38、40、 50、65、 80、95	10: 32A and below 3P+NO 01: 32A and below 3P+NC 11: 40A and above 3P+NO+NC 04: 25A and below 4P 08: 25A and below 2P+2R P: NO contactor R: NC contactor NO: Normally open auxiliary contactor. NC: Normally closed auxiliary contactor	Non: normal type N: reversible type PC: with clear dustproof	B: 24V C: 36V E: 48V F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V

## Accessory

F5	20
Model No.	Auxiliary contact
Top-Auxiliary contact	20: 2NO 11: 1NO+1NC 02: 2NC 40: 4NO 31: 3NO+1NC 22: 2NO+2NC 13: 1NO+3NC 04: 4NC NO:NO auxiliary contactor NC:NC auxiliary contactor

LA8	20
Model No.	Auxiliary contact
LA 8: side-auxiliary contact	20: 2NO 11: 1NO+1NC 02: 2NC NO:NO auxiliary contactor NC:NC auxiliary contactor

LA2	D20
Model No.	Auxiliary contact
LA2: power-on delay timer block LA3: power-off delay timer block	20: delay 0.1-3s 22: delay 0.1-30s 24: delay 10-180s

Normal operating condition and installation condition

- 3.1 Ambient temperature: +5℃~+40℃, average temperature within 24h does not exceed +35℃
- 3.2 Altitude: does not exceed 2000m
- 3.3 Atmospheric condition: when the highest temperature is +40℃, the relatively humidity does not exceed 50%; it can allow relatively high humidity when it is at relatively low temperature, for instance, it reaches 90% when it is at +20℃, it should take measurement when there have condensation occurred due to the temperature variation.
- 3.4 Pollution grade: 3
- 3.5 Installation category: III
- 3.6 Installation position: the gradient of the mounting surface to the vertical surface does not exceed ±5°
- 3.7 Impact and vibration: product should be installed and used at the places without obvious shake, impact and vibration.

Main technical parameter

表1

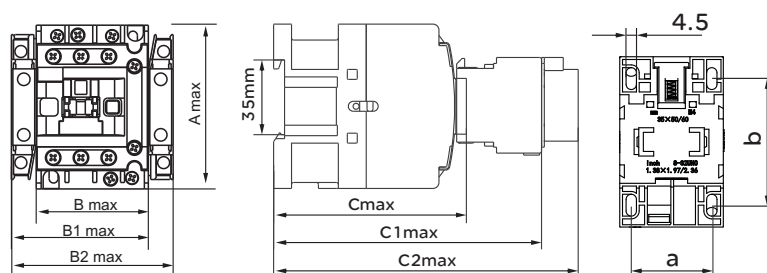
Model No.	Ith A	AC-3						AC-4					
		IeA			PekW			IeA			PekW		
		220/ 230V	380/ 400V	660/ 690V	220/ 230V	380/ 400V	660/ 690V	220/ 230V	380/ 400V	660/ 690V	220/ 230V	380/ 400V	660/ 690V
RDC5-06	16	6	6	3.8	1.5	2.2	3	2.6	2.6	1	0.55	1.1	0.75
RDC5-09	25	9	9	6.6	2.2	4	5.5	3.5	3.5	1.5	0.6	1.5	1.1
RDC5-12		12	12	8.9	3	5.5	7.5	5	5	2	1.1	2.2	1.5
RDC5-18	32	18	18	12	4	7.5	10	7.7	7.7	3.8	1.5	3.3	3
RDC5-25	40	25	25	18	5.5	11	15	8.5	8.5	4.4	2.2	4	3.7
RDC5-32	50	32	32	22	7.5	15	18.5	12	12	7.5	3	5.4	5.5
RDC5-38		38	38	22	9	18.5	18.5	14	14	8.9	4	5.5	6
RDC5-40	50	40	40	34	11	18.5	30	18.5	18.5	9	5.5	7.5	7.5
RDC5-50	60	50	50	39	15	22	33	24	24	12	6	11	10
RDC5-65	80	65	65	42	18.5	30	37	28	28	14	7.5	15	11
RDC5-80	110	80	80	49	22	37	45	37	37	17.3	11	18.5	15
RDC5-95		95	95	49	25	45	45	44	44	21.3	14	22	18.5

Intermittent cycle operation with a load factor of 40% of the rated operating frequency

RDC5-06-25	AC-3	220/380V:1200times/h 660V:300times/h	AC-4	220/380V:300times/h 660V:120times/h
RDC5-32-95		220/380V : 600times/h 660V : 300times/h		

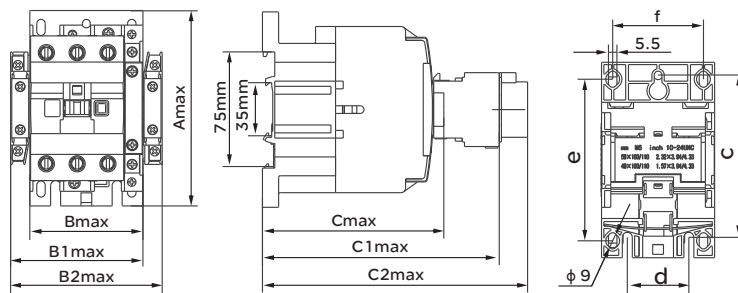
Outline and mounting dimensions

Contactor shape and installation dimensions are shown in Figure 5, Figure 6 and Table 2



Picture 5 RDC5-06 ~ 38

# RDC5 series AC Contact



Picture 6 RDC5-40 ~ 95

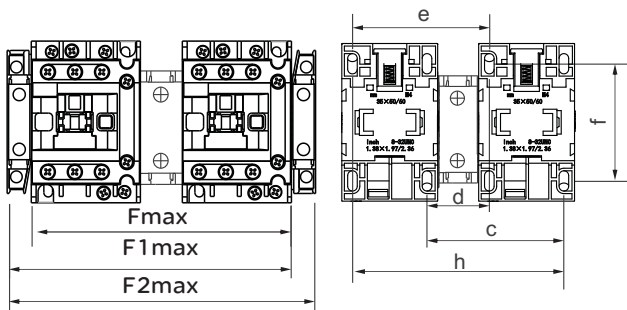
Table 2 RDC5-06 ~ 95 AC Contactor External Mounting Dimensions

unit: mm

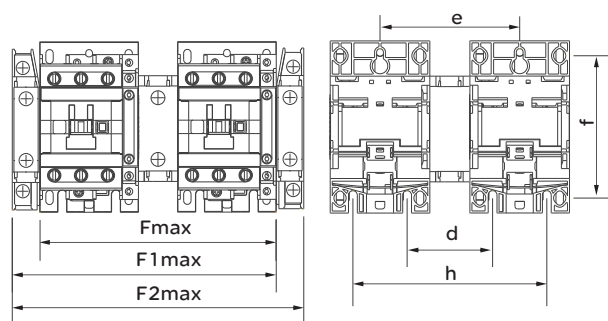
Model No.	Auxiliary contact	Amax	Bmax	B1max	B2max	Cmax	C1max	C2max	a	b	c	d	e	f
RDC5-06、09、12、18	01、10	74.5	45.5	58	71	82.5	114.5	139.5	35	50/60	-	-	-	-
	11	74.5	45.5	58	71	85.5	117.5	142.5	40	50/60	-	-	-	-
RDC5-25、32、38	01、10、11	83	56.5	69	82	97	129	154	-	-	-	-	-	-
RDC5-40、50、65	11	127.5	74.5	88	101	117	148.5	173.5	-	-	105	40	100/110	59
RDC5-80、95	11	127.5	85.5	99	112	125.5	157	182	-	-	105	40	100/110	67

Note: B1max–contactor+LA8 B2max–contactor+2 \* LA8 C1max–contactor+F4 C2max–contactor+LA2(3)D

The shape and mounting dimensions of the invertible AC contactor are shown in Figure 7, Figure 8 and Table 3



Picture 7 RDC5-06N~38N



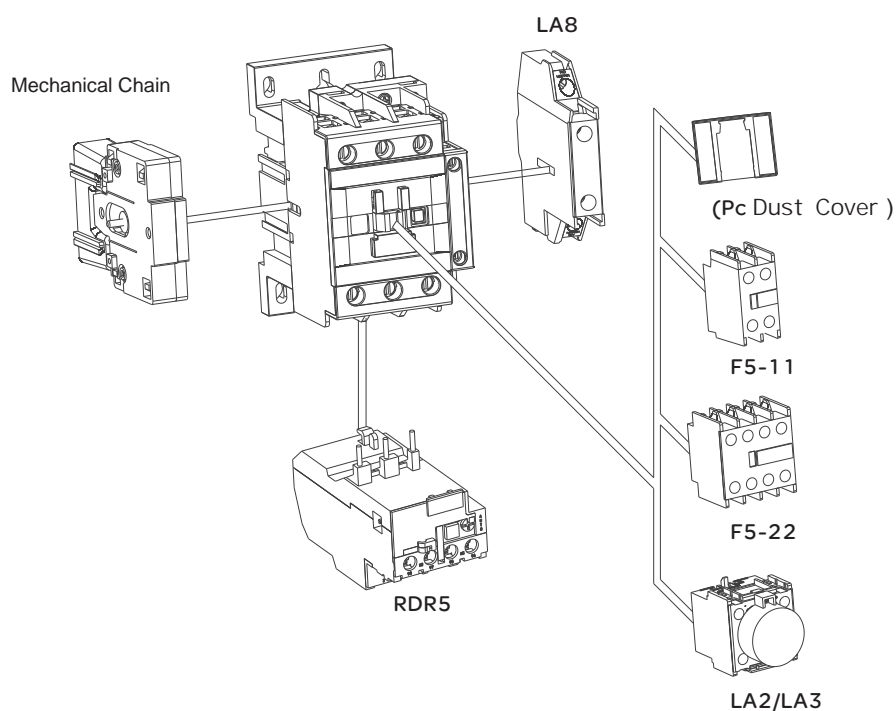
Picture 8 RDC5-40N ~ 95N

Table 3 RDC5-06N~95N invertible AC contactor shape and mounting dimensions

unit: mm

Model No.	fmax	f1max	f2max	c	d	e	f	h
RDC5-06N、09N、12N、18N	107	120	131	60	25	60	50/60	95
RDC5-25N、32N、38N	129	142	153	71	31.5	71	50/60	111.5
RDC5-40N、50N、65N	163	180	193	-	50	90	100/110	130
RDC5-80N、95N	186	202	215	-	60	100	100/110	140

## Accessory Installation



Picture 9 schematic diagram of accessory installation

### Auxiliary contacts

RDC5-6~38 contactor body has a pair of normally open or a pair of normally closed auxiliary contact sets or a pair of normally open and a pair of normally closed auxiliary contacts, RDC5-40~95 contactor body has a pair of normally open and a pair of normally closed auxiliary contacts.

Table 4 Main parameters of auxiliary contacts

Use Category	Rated insulation voltage $U_i$	Approximate free air heating current $I_{th}$	Control capacity		Rated operating current $I_e$	
			Connected	Segmented	220V	380V
AC-15	690V	10A	3600VA	360VA	1.6A	0.95A
DC-13			33W		0.15A	-

The contactors can all be retrofitted with independent auxiliary contact modules with model specifications and normally open and normally closed combinations.

Table 5 Auxiliary contact combination types

type specification	F5-20	F5-11	F5-02	F5-40	F5-31	F5-22	F5-13	F5-04
Normally open (NO) number normally closed	2	1	0	4	3	2	1	0
(NC)number	0	1	2	0	1	2	3	4

# RDC5 series AC Contact

## Air delay head

The contactors can be combined with LA2D air delay heads to form a time delay contactor with the delay range shown in Table 6.

Model No.	Range of delay	Number of delay contacts	Delay Type
LA2-D20	0.1-0.3s	1NO+1NC	Power on delay
LA2-D22	0.1-30s		
LA2-D24	10-180s		
LA3-D20	0.1-0.3s		Power failure delay
LA3-D22	0.1-30s		
LA3-D24	10-180s		

Note: The air delay head is factory adjusted at the minimum value

### Electromagnetic Starters

The contactor can be combined with the RDR5 series thermal overload relay installation to form an electromagnetic starter. Commissioning, operation

- Check whether the technical parameters of the product meet the requirements of use.
- Turn on the control circuit first and conduct no-load operation test. No abnormalities before connecting the load.
- Do not allow foreign objects to fall into the product.
- Recommend to choose SCPD according to type 1 coordinated protection with the fuse model shown in Table 7.

表7

Model No.	RDC5-06	RDC5-09	RDC5-12	RDC5-18	RDC5-25	RDC5-32
Main Circuit	RT16-00 16A	RT16-00 20A	RT16-00 20A	RT16-00 32A	RT16-00 40A	RT16-00 50A
Model No.	RDC5-38	RDC5-40	RDC5-50	RDC5-65	RDC5-80	RDC5-95
Main Circuit	RT16-00 63A	RT16-00 63A	RT16-00 80A	RT16-00 80A	RT16-00 100A	RT16-00 125A
Auxiliary circuit	RT16-00 10A					

## Wiring capacity and tightening torque

表8.

Current specification		06/09/12	18	25	32	38	40/50/65	80/95
Main circuit wiring								
Soft wire without terminals	1 wire(mm)	1...4	1...4	1.5...6	1.5...6	1.5...6	2.5...25	4...50
	2 wires(mm)	1...4	1...4	1.5...6	1.5...6	1.5...6	2.5...16	4...25
Flexible Wire Strips Wiring Terminals	1 wire(mm)	1...4	1...4	1...6	1...6	1...6	2.5...25	4...50
	2 wires(mm)	1...2.5	1...2.5	1...4	1...4	1...4	2.5...10	4...16
Soft wire without terminals	1 wire(mm)	1...4	1.5...6	1.5...6	1.5...10	1.5...10	2.5...25	4...50
	2 wires(mm)	1...4	1.5...6	1.5...6	1.5...6	1.5...6	2.5...10	4...25
Tightening torque(N.m)		1.2	1.2	1.8	1.8	1.8	5	9
Control and auxiliary circuit wiring								
Soft wire without terminals	1 wire(mm)	1...4						
	2 wires(mm)							
Soft wire with connector Wire terminals	1 wire(mm)	1...2.5						
	2 wires(mm)							
Hardwire without terminals	1 wire(mm)	1...4						
	2 wires(mm)							
Tightening torque(N.m)		1.2						