Product Overview

Contactor

HDC3 448
Current: 6-95A
Pole: 3P
Coil Voltage: AC24-440V

HDC6 461
Current: 9-630A
Pole: 3P
Coil Voltage: AC24-440V

HJX2 4P 479
Current: 9-95A
Pole: 4P
Coil Voltage: AC24-440V

HJX2-F 4P 485
Current: 115-800A
Pole: 4P
Coil Voltage: AC110-440V

HDC17K 493
Current: 6~12A
Pole: 3P/4P
Coil voltage: AC24-400V

Thermal Overload Relay

HDR3s 498
Setting Current: 0.1~93A
Trip Class: 10A, 10

HDR6 505
Setting Current: 0.1-630A
Trip Class: 10A,10

HDC3 AC Contactor

Overview
Standard:IEC/EN 60947-4-1

Product Overview

With the new generation of technical platform and automatic production and testing equipment, the new HDC3 AC contactor effectively fits the actual customer application needs which is in a good quality and easy to use.The series includes three major categories, e.g. HDC3 AC contactor, HDR3s thermal overload relay and HDZ3 contactor relay and their accessories.

Product range
- HDC3 AC contactor: 6-95A, totally 12 current specifications
  Accessories: HPCs transparent dust cover, HFD6 top auxiliary contact, HFC6 side auxiliary contact, HFT6 air delayed head and HFR6 mechanical interlock
  Certification: CB,CE, SEMKO
- HDR3s thermal overload relay: setting current covering 0.1~93A
  Accessories: independent mounting base
  Certification: CB,CE, SEMKO
- HDZ3 contactor relay: 2NO+2NC, 3NO+1NC, 4NO+0NC, 1NO+3NC and 0NO+4NC
  Accessories: HPCs transparent dust cover, HFD6 top auxiliary contact and HFT6 air delayed head
  Certification: CE

Standards
- IEC 60947-1 General provisions
- IEC 60947-4-1 Contactors
- IEC 60947-5-1 Relays

Normal installation and operation conditions

Installation position:
The installation site shall be vertical, and inclination at all directions shall not exceed ±22.5°. (inclination of HDR3s is no greater than 5°); installation Class III;

Pollution class:
Class 3

Ambient temperature:
- In normal operation, the ambient temperature range is between -5℃ and +40℃, but average value in 24h is no more than +35℃;
- Storage temperature: -25℃ ~ +55℃; a short time (24h) is allowed with maximum +70℃

Altitude:
Altitude at normal installation position does not exceed 2000m.

Humidity
- The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is +40**°C**. It is allowed to have a relative higher humidity under lower temperature, e.g. up to 90% at +20**°C.**
- For occasional dew due to the temperature change, preventive measures shall be taken.

Product protection grade:
IP20

HDC3 AC contactor

Functions and features
Standard:IEC/EN 60947-4-1

Main Technical Parameters of HDC3

Contactor model			HDC3-06	HDC3-09	HDC3-12	HDC3-18	HDC3-25	HDC3-32	HDC3-38	HDC3-40	HDC3-50	HDC3-65	HDC3-80	HDC3-95
Main circuit characteristics														
Number of poles			3 poles											
Rated insulation voltage(Ui)		V	690											
Maximum rated operating voltage(Ue)		V	660/690											
Conventional thermal current(Ith)			25	25	25	32	40	50	50	60	80	80	125	125
Rated operating current(Ie)	AC-3,380/400V	A	6	9	12	18	25	32	38	40	50	65	80	95
	AC-3,660/690V	A	3.8	6.6	8.9	12.0	18.0	22.0	22.0	34.0	39.0	42.0	49.0	49.0
	AC-4,380/400V	A	2.6	3.5	5.0	7.7	8.5	12.0	14.0	18.5	24.0	28.0	37.0	44.0
	AC-4,660/690V	A	1	1.5	2.0	3.8	4.4	7.5	8.9	9.0	12.0	14.0	17.3	21.3
Rated operating power (Pe)	AC-3,380/400V	kW	2.2	4.0	5.5	7.5	11.0	15.0	18.5	18.5	22.0	30.0	37.0	45.0
	AC-3,660/690V	kW	3	5.5	7.5	10.0	15.0	18.5	18.5	30.0	33.0	37.0	45.0	45.0
	AC-4,380/400V	kW	1.1	2.2	3.0	4.0	5.5	7.5	7.5	7.5	11.0	15.0	18.5	22.0
	AC-4,660/690V	kW	0.75	1.1	1.5	3.7	4.0	5.5	7.5	7.5	11.0	11.0	15.0	18.5
Mechanical durabilities		10,000 times	1200				1000			900			650	
Electrical durabilities	AC-3	10,000 times	110					90					65	
	AC-4	10,000 times	22					22		17			11	
Operation frequency	AC-3	Time/hour	1200					600						
	AC-4	Time/hour	300					300						
Coil														
Rated control circuit voltage (Us)	50Hz	V	24、36、48、110、127、220/230、240、380/400、415、440											
	50/60Hz	V	24、36、48、110、127、220/230、240、380/400、415、440											
Allowable control circuit voltage(Us)	Operation	V	85%~110% Us(installing angle of ±22.5°); 70%~120% Us(installing angle of ±5°)											
	Drop-out	V	20%~75% Us(installing angle of ±22.5°); 20%~65% Us(installing angle of ±5°)											
Coil power	Actuation	VA	50	60			70			200			200	
	Holding	VA	6~9.5	6~9.5			6~9.5			15~20			15~20	
	Heat dissipation	W	1~3	1~3			1~3			6~10			6~10	
Main circuit terminal wiring capability														
Soft wire	1 wire	mm²	1...4				1.5...6			2.5...25			4...50	
Without terminal	2 wires	mm²	1...4				1.5...6			2.5...16			4...25	
Soft wire	1 wire	mm²	1...4				1...6			2.5...25			4...50	
With terminal	2 wires	mm²	1...2.5				1...4			2.5...10			4...16	
Hard wire	1 wire	mm²	1...4				1.5...6	1.5...10		2.5...25			4...50	
Without terminal	2 wires	mm²	1...4				1.5...6	1.5...6		2.5...10			4...25	
Auxiliary contact														
Conventional thermal current (Ith)		A	10											
Rated operating voltage (Ue)	AC	V	380											
	DC	V	220											
Rated control capacity	AC-15	VA	360											
	DC-13	W	33											
Certification			CB、CE、SEMKO											

HDC3 AC contactor

Functions and features
Standard:IEC/EN 60947-4-1

Main Technical Parameters of HDC3-N

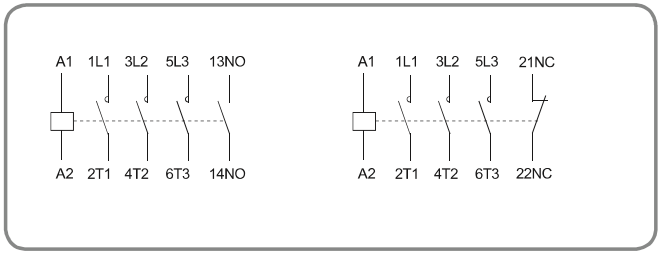
Contactor model	Rated insulation voltage	Rated operating voltage	Conventional thermal current	Intermittent periodic duty AC-4	
	Ui(V)	Ue(V)	Ith(A)	Ie(A)	Pe(kw)
HDC3-09N	690	380/400	20	3.5	1.5
		660/690		1.5	1.1
HDC3-12N	690	380/400	20	5	2.2
		660/690		2	1.5
HDC3-18N	690	380/400	25	7.7	3.3
		660/690		3.8	3
HDC3-25N	690	380/400	32	8.5	4
		660/690		4.4	4
HDC3-32N	690	380/400	40	12	5.4
		660/690		7.5	5.5
HDC3-38N	690	380/400	40	14	5.5
		660/690		8.9	6
HDC3-40N	690	380/400	50	18.5	7.5
		660/690		9	7.5
HDC3-50N	690	380/400	60	24	11
		660/690		12	10
HDC3-65N	690	380/400	80	28	15
		660/690		14	11
HDC3-80N	690	380/400	110	37	18.5
		660/690		17.3	15
HDC3-95N	690	380/400	110	44	22
		660/690		21.3	18.5

HDC3 AC contactor

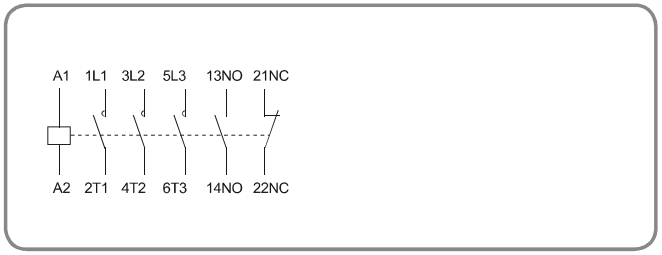
Functions and features
Standard:IEC/EN 60947-4-1

Wiring diagram

HDC3 6~38(1NO, or 1NC)



HDC3 9~95(1NO1NC)

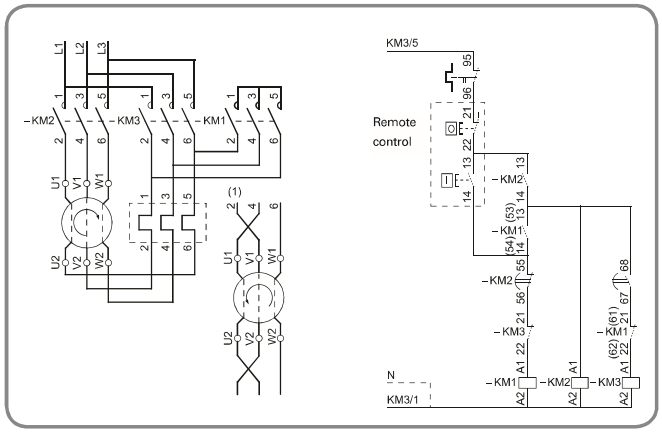


HDC3 AC contactor

Functions and features
Standard:IEC/EN 60947-4-1

Wiring diagram

Wiring diagram for star-delta starter



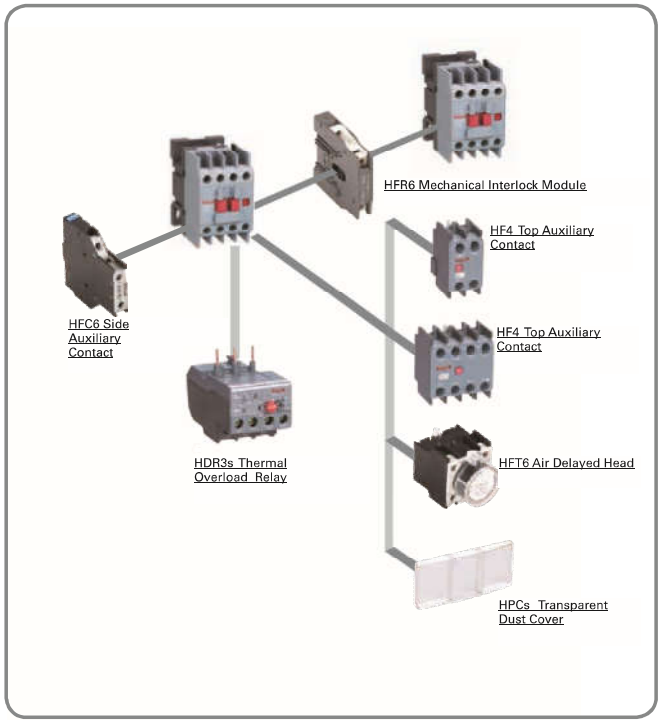
Motor Control and Protection

HDC3 AC contactor

Functions and features
Standard:IEC/EN 60947-4-1

Schematic Diagram of Accessory Installation

HDC3 schematic diagram of accessories



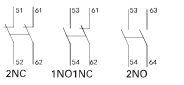
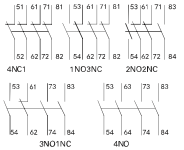
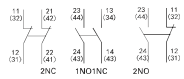
Transparent cover

Contactor Type	Reference
HDC3-6~38A/HDZ3	HPCs38
HDC3-40~65A	HPCs65
HDC3-80~95A	HPCs95

HDC3 AC Contactor

Accessories
Standard:IEC/EN 60947-4-1

Auxiliary Contact

Installation Position	Pole	Auxiliary Contact NO	Auxiliary Contact NC	Contact Point Layout	Reference
Top	2	0	2		HF4 02
		1	1		HF4 11
		2	0		HF4 20
	4	0	4		HF4 04
		1	3		HF4 13
		2	2		HF4 22
		3	1		HF4 31
		4	0		HF4 40
Side	2	0	2		HFC6 02
		1	1		HFC6 11
		2	0		HFC6 20

HFT6 Air Delayed Head

Installation Position	Delay Type	Wiring Diagram	Delay Range	Reference
Top	Making time-delay		0.1-3s	HFT6 20
			0.1-30s	HFT6 22
			10-180s	HFT6 24
	Breaking time-delay		0.1-3s	HFT6 30
			0.1-30s	HFT6 32
			10-180s	HFT6 34

HDC3 AC Contactor

Accessories

Standard:IEC/EN 60947-4-1

Mechanical Interlock Module

Horizontal Installation		
Interlock Method	Contact Type	Reference
Mechanical interlock with electrical interlock	HDC3-9~32	HFR6 32 H
	HDC3-40~95	HFR6 95 H
Mechanical interlock without electrical interlock	HDC3-9~32	HFR6 32 HX

HDC3 AC Contactor

Order Information

Standard:IEC/EN 60947-4-1

HDC3 AC Contactor

Product Name	Current Specification	Auxiliary Contact	Coil Voltage	Coil frequency
HDC3	06	10	M	5
	↓	↓	↓	↓
	06:6A … 95:95A	10:1NO+0NC 01:0NO+1NC 11:1NO+1NC	B:24V … M:220V/230V … Q:380V/400V …	5:50Hz 7:50/60Hz

Motor power Pe(KW AC-3,380V)	Rated current Ie(A)	Auxiliary contact		Reference
		NO	NC	
2.2	6	1	0	HDC3 06 10 *
		0	1	HDC3 06 01 *
4	9	1	0	HDC3 09 10 *
		0	1	HDC3 09 01 *
		1	1	HDC3 09 11 *
5.5	12	1	0	HDC3 12 10 *
		0	1	HDC3 12 01 *
		1	1	HDC3 12 11 *
7.5	18	1	0	HDC3 18 10 *
		0	1	HDC3 18 01 *
		1	1	HDC3 18 11 *
11	25	1	0	HDC3 25 10 *
		0	1	HDC3 25 01 *
		1	1	HDC3 25 11 *
15	32	1	0	HDC3 32 10 *
		0	1	HDC3 32 01 *
		1	1	HDC3 32 11 *
18.5	38	1	0	HDC3 38 10 *
		0	1	HDC3 38 01 *
		1	1	HDC3 38 11 *
18.5	40	1	1	HDC3 40 11 *
22	50	1	1	HDC3 50 11 *
30	65	1	1	HDC3 65 11 *
37	80	1	1	HDC3 80 11 *
45	95	1	1	HDC3 95 11 *

Note: Only 3-pole is available

* means coil voltage code + frequency code

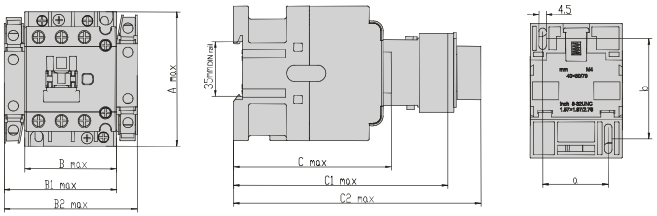
Coil voltage code & coil frequency code										
Coil Voltage(V)	24	36	48	110	127	220/230	240	380/400	415	440
50Hz	B5	C5	E5	F5	S5	M5	U5	Q5	L5	X5
50/60Hz	B7	C7	E7	F7	S7	M7	U7	Q7	L7	X7

HDC3 AC Contactor

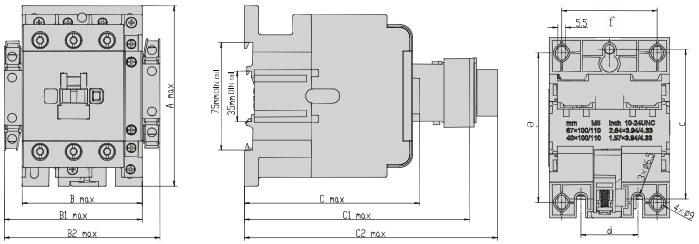
Standard:IEC/EN 60947-4-1

Overall and installation dimensions

HDC3 06-38A



HDC3-40-95A



HDC3 AC Contactor

Standard:IEC/EN 60947-4-1

Overall and installation dimensions

Overall Dimension of HDC3 06-95A AC contactor

Model	Auxilliary contacts	Amax	Bmax	B1max	B2max	Cmax	C1max	C2max
HDC3-06	01,10	74.5	45.5	-	-	75	107	132
HDC3-09, 12, 18	01,10	74.5	45.5	58	71	82.5	114.5	139.5
	11	74.5	45.5	58	71	85.5	117.5	142.5
HDC3-25, 32, 38	01,10,11	83	56.5	69	82	97	129	154
HDC3-40, 50, 65	11	127.5	74.5	88	101	117	148.5	173.5
HDC3-80,95	11	127.5	85.5	99	112	125.5	157	182

Note: B1max-contactor+HFC6 B2max--Contactor+2 pieces of HFC6 C1max--Contactor+HF4 C2max--Contactor+HFT6

For HDC3-09~18, the height with 11 auxiliary contacts is 3mm higher than those with 01 or 10 auxiliary contacts.

Model	Auxilliary contacts	a	b	c	d	e	f
HDC3-06	01,10	35	50/60	-	-	-	-
HDC3-09, 12, 18	01,10,11	35	50/60	-	-	-	-
HDC3-25, 32, 38	01,10,11	40	50/70	-	-	-	-
HDC3-40, 50, 65	11	-	-	105	40	100/110	59
HDC3-80,95	11	-	-	105	40	100/110	67

Motor Control and Protection