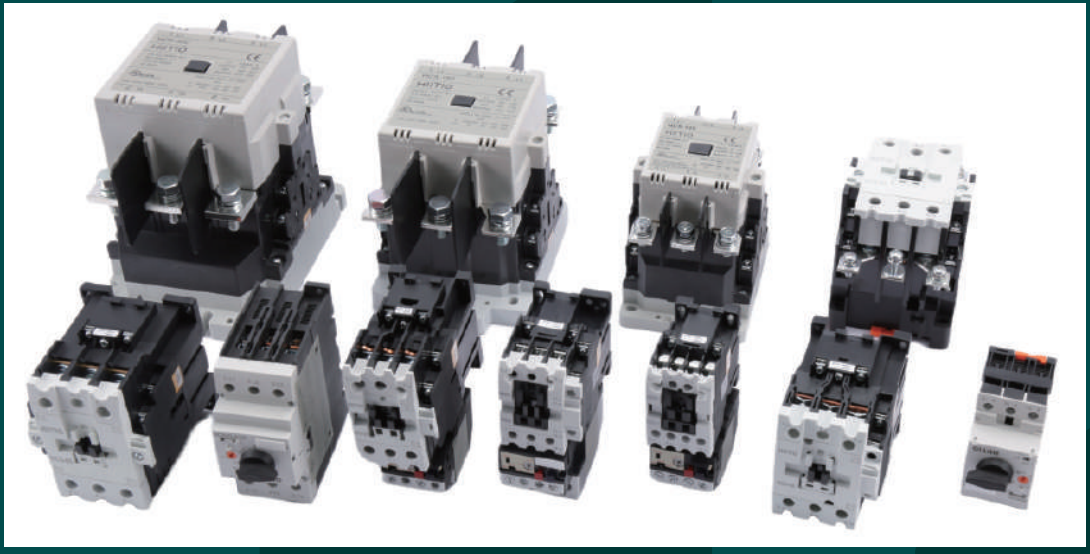
HITIO®



PRODUCT CATALOGUE

HC5 SERIES CONTACTOR

HCR5 SERIES OVERLOAD RELAY

HCMS SERIES MOTOR CIRCUIT BREAKER

ZHEJIANG HECHENG SMART ELECTRIC CO.,LTD.

Electrical suppliers used by the world's top 500

Zhejiang Hecheng Smart Electric Co, Ltd. (referred to as Hecheng Electric) was established in 2004 and is now headquartered at No,1125, Zhixing Road, Xiaoshan Economic and Technological Development Zone, Hangzhou City Zhejiang Province. Hecheng headquarters base 30000 square meters. Hecheng is a leading supplier of new energy industry and industrial control solutions in the world. At present, another large production base of Hecheng Electric isocated in Mingguang, Anhui Province, with an area of 14 acres and a plant area of 20000 square meters. Hecheng Electric focuses on new energy vehicles, photovoltaic, energy storage, HVAC/R, industrial control, etc. Hecheng's main R&D production and operation products include: ceramic high-voltage DC relay/contactor, high-voltage DC fuse, airconditioning contactor, IEC contactor, UL 489 circuit breaker and disconnect box, etc. Hecheng's products all have passed UL, CSA, INTERTEK CE, CCC and other certifications.

Hecheng Electric aims at product research and development, 10% of the company's annual revenue is spent on R&D and 2% on IT penetration. Currently, the proportion of R&D personnel with more than 10 years of working experience in the industry is as high as 35%.

In addition, Hecheng Electric has introduced advanced automatic production lines and advanced laboratory testing equipment. We strictly implemented the IATF16949 system in the whole process. PLM + ERP + MES technology realizesthe digitalization and intellectualization of the factory. The whole process of R&D, production and sales is able to betraced.

APPLICATION AREA

Electrical System

Building Facilities Management

Industrial control

Machinery

HVAC

HIITIO®

AC CONTACTORS

HC5 SERILS AC CONTACTORS

ISO9001 CE cULus RoHS

OVERLOAD RELAY

HCR5 SERILS OVERLOAD RELAY

ISO9001 CE cULus RoHS

MOTOR CIRCUIT BREAKER

HCMS-32/63 SERILS MOTOR CIRCUIT BREAKER

ISO9001 CE cULus RoHS

Certification and Approvals

Certificates

Catalogue number	Canada & U.S.A.	EC Declaration of conformity
	c UL us	CE
Miniature Contactors		
HC5-6	●	●
HC5-6K	●	●
U&N Series IEC Contactors		
HC5-11	●	●
HC5-16	●	●
HC5-18	●	●
HC5-23	●	●
HC5-32	●	●
HC5-38	●	●
HC5-40	●	●
HC5-50	●	●
HC5-65	●	●
HC5-80	●	●
HC5-90	●	●
HC5-100	●	●
HC5-125	●	●
HC5-150	●	●
HC5-180	●	●
HC5-220	●	●
HC5-300	●	●

Certificates

Catalogue number	Canada & U.S.A.	EC Declaration of conformity
	c UL us	CE
Accessories		
HCAU-2R	●	●
HCAU-4R	●	●
HCAU-2T	●	●
HCAU-4T	●	●
HCAU-2V11	●	●
HCAU-2F11	●	●
HCRC5	●	●
HCRC4(K)	●	●
HCAI-18/35	●	●
HCAI-6	●	●
HCAI-18A	●	●
HCAI-100	●	●
HCAZ		

Reliable Quality

- More than 20 years of electrical experience and contactor development has accumulated valuable experience to ensure that we can provide products with the highest quality.
- In order to ensure the highest reliability and safety, comprehensive verification and testing have been carried out, and excellent performance can be achieved under AC-3, AC-4, AC-1

Product Certificated

- Comply with UL 60947-4-1 standards , IEC60947-4-1, GB/T 14048.4 .
- With CCC,CE,CB,SEMKO,UL certification.

Environmental Protection

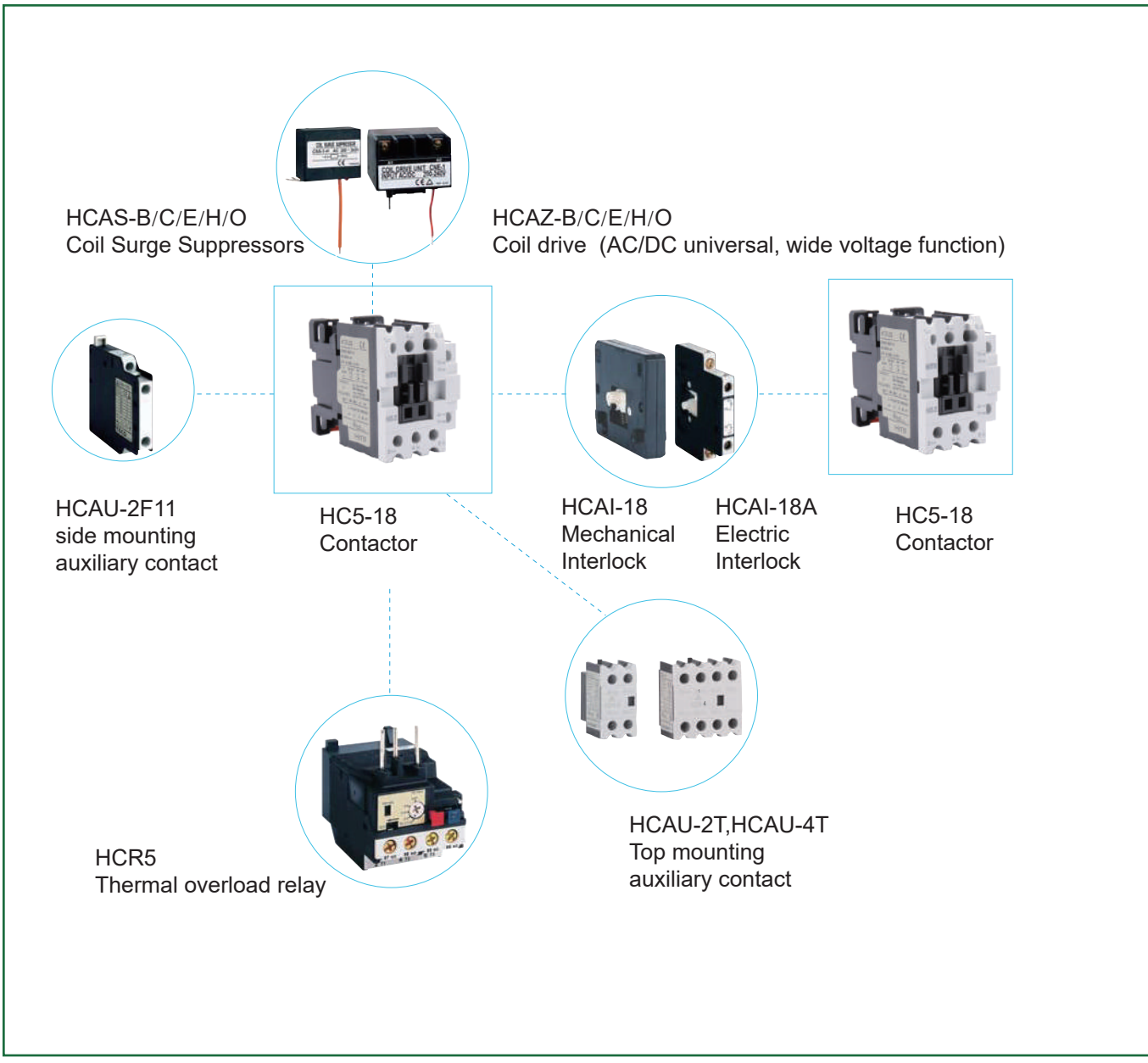
- Energy efficient

In line with the high emphasis on protecting the environment, the newly designed HC5 series contactors fully meet the national energy efficiency standards.

- Material

In order to reduce the impact on the environment, we choose product materials that comply with the RoHS directive and relevant domestic regulations.

Contactor Family(Take HC5~18 for example)



HC5-18:Contactors

HCAU-4T:Top-mounted Aux. Contacts

HCAU-2F11:Side-Mounted Aux. Contacts

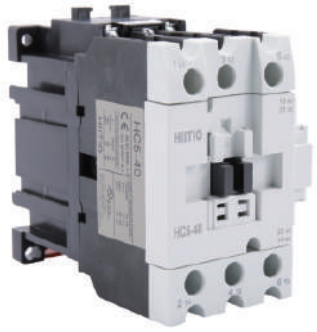
HCR5:Thermal overload relay

HCAI:Mechanical Interlocks

HCAS:Coil Surge Suppressors

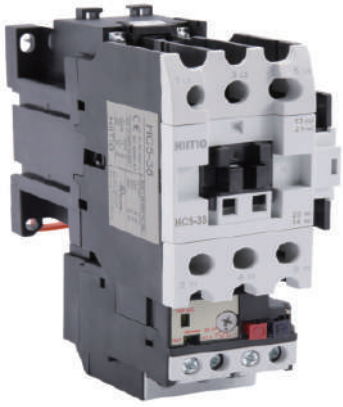
HCAZ:Coil Drivers

Product Features



Long lifespan, fully functional

- The silver contact contains more than 85% silver, ensuring that its electrical life can reach more than 1 million cycles under AC-3 conditions.
- Operating temperature: -50°C to +60°C, without any decrease in performance at altitudes below 3000 meters.
- With a comprehensive range of models, the a rated current ranging from 6 to 300 A,
- Complete coverage of control coil voltage, with 34 options for voltage and frequency.
- The control coil is universal for both AC and DC, with a wide control voltage range from 24V to 250V, and minimum power consumption of 3W.



• Compact installation and flexible integration

Top-mounting auxiliary contact and side-mounting auxiliary contact is available for optional purchase, tool-free disassembly.

Narrowed width by 20%, reversible contactor with zero gap.

Dust cover, sealed base, to prevent accidental contactor engagement and enhance dustproof, for greater stability and reliability.

HC5 Series Contactors

Product Features

Modular design, compact product structure

Safe and reliable operation performance

The special process of the contacts ensures continuous and reliable conduction

Convenient installation without tools to install and remove accessories

A variety of connection wire terminal options, wide range of wiring capabilities

Better impact resistance and seismic performance

Low power consumption coil

Dustproof performance, optional dustproof accessories can be added

Complete accessories

Main Parameters

Rated operational current (Ie): 6-300A

Rated operational voltage (Ue): Up to 1000V

Rated insulation voltage (Ui): 1000V

Number of Poles: 3P,4P

Coil control type: AC,DC

Normal service conditions and mounting conditions

Item	Description
Installation Category	III
Pollution Degree	3
Enclosure Protection Degree	IP20/IP00
Ambient Air Temperature	Normal operational temperature -13°F~ +140°F (-25°C~+60°C)
Atmospheric Conditions	The relative air humidity does not exceed 50% at a maximum temperature of +140°F (+60°C). Higher relative humidity may be permitted at lower temperatures, Such as 90% at +68°F (+20°C).
Mounting Condition	The inclination of mounting surface and vertical plane is not more than±30°.
Mounting:	DIN Rail, Plate

Type Description

HC5	–	11	K	220V	50/60Hz	10
Company Code 5 series		rated current	Operational Characteristics	Coil voltage	Voltage frequency	Auxiliary contact
		6=6A 9=9A 11=11A 16=16A 18=18A 23=23A 32=32 38=38A 40=40A 50=50A 65=65A 80=80A 90=90A 100=100A 125=125A 150=150A 180=180A 220=220A 300=300A	Blank: Main circuit 3 normally open A: Main circuit 4 normally open(a) AB: Main circuit 2 normally open 2 normal close K: DC Operaton (For HC5-6K)	24V 36V 48V 110V 220V 230V 380V	50/60Hz 50Hz 60Hz DC AC/DC	Auxiliary contact description 10:1NO(HC5-6,9,11,16) 01:1NC(HC5-6,9,11,16) 11:1NO1NC(HC5-18,23,32,38,40) 20:2NO(HC5-18,23,32) 02:2NC(HC5-18,23) 22:2NO2NC(HC5-50,65,80,90,100,125,150,180,220,300) Blank:A/AB:No auxiliary contact (HC5-11,16,18,23)

HCAS	–	B
Coil Surge Suppressors		Type
		B:22~24V (b) C:45-50V E:100~120V H:200~240V O:380-440V

HCAZ	–	B
Coil Driver		Type
		B :22~24V (C) C:45~50V E:100~120V H:200~240V O:380-440V

(a):Main circuit 4 normally open, or main circuit 2 normally open 2 normally closed, no auxiliary circuit
(b):The Coil Surge Suppressors module corresponds to the AC contactor control coil voltage
(c):The AC/DC universal + wide voltage module corresponds to the AC contactor control coil voltage

Type Description

HCAU	–	2T	11
Auxiliary Contacts		Type	Auxiliary Contact Type
		2R,4R:Top-mounting auxiliary contacts(HC5-6) 2T,4T:Top-mounting auxiliary contacts (HC5-9~300) 2F11:1NO1NC Side-mounting auxiliary contacts (HC5-11~90) 2V11:1NO1NC Side-mounting auxiliary contacts (HC5-100~300)	11:1NO+1NC 20: 2NO 02: 2NC 22: 2NO+2NC 13: 1NO+3NC 31: 3NO+1NC 04: 4NC 40: 4NO

HCAI	–	18	A
Mechanical Interlock		Type	Auxiliary Contact Type
		Mechanical Interlock 6(For HC5-6) 18(For HC5-9~38) 35(For HC5-100~300) 100(For HC5-100~300) Electric Interlock 18A(For HC5-9~38)	A:1 NO+1 NC

Main circuit technical parameters

Motor operational power pe KW (140) AC-3

HC5-11~300

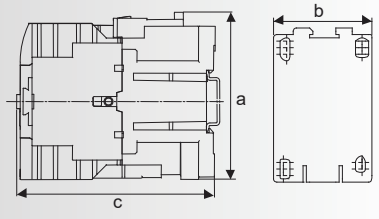
Motor operational power Pe kW θ≤60℃ (140°F) AC-3					Auxiliary contact composition		Contactor type
220/230V(kW)	380/400V(kW)	415/440V(kW)	500V(kW)	660V(kW)	NO	NC	
10.1	9	8.5	6.5	5	1N/O or 1N/C		HC5-6
12	12	11	9	7	1N/O or 1N/C		HC5-11
16	16	15	13	10	1N/O or 1N/C		HC5-16
23	22	21	19	14	1N/O	1N/C	HC5-18
27	26	21	19	14	1N/O	1N/C	HC5-22
32	32	32	30	22	1N/O	1N/C	HC5-32
39	38	38	33	25.2	1N/O	1N/C	HC5-38
42	40	40	35	26	2N/O	2N/C	HC5-40
55	55	52	45	35	2N/O	2N/C	HC5-50
65	64	64	55	45	2N/O	2N/C	HC5-65
75	72	70	65	60	2N/O	2N/C	HC5-80
85	85	85	65	60	2N/O	2N/C	HC5-90
115	115	105	93	75	2N/O	2N/C	HC5-100
138	138	135	105	85	2N/O	2N/C	HC5-125
150	147	131	129	107	2N/O	2N/C	HC5-150
182	179	178	156	118	2N/O	2N/C	HC5-180
225	225	220	190	140	2N/O	2N/C	HC5-220
300	300	300	250	220	2N/O	2N/C	HC5-300

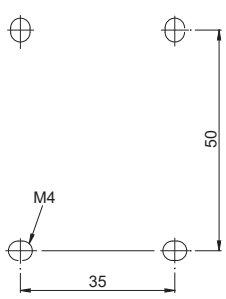
Main circuit technical parameters

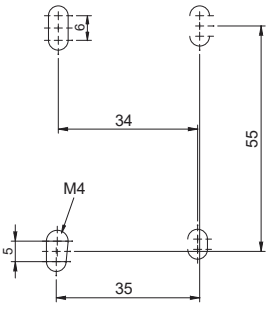
HC5 Series UL/IEC Contators
AC-1/AC-2/AC-3/AC-4

cULus CE RoHS

Model/Cat				HC5-6			HC5-11			HC5-16		
Main Contacts	Rated insulation voltage(Ui)IEC/UL			690/660			690/660			690/660		
	Continuous energized current			20/20			25/24			25/32		
	Rated current Ie Rated capacity AC-3 IEC 60947-4-1	3P		A	kW	Hp	A	kW	Hp	A	kW	Hp
			220/230V	10.1	2.2	3	12	3	4	16	4	5.5
			380/400V	9	4	5.5	12	5.5	7.5	16	7.5	10
			415/440V	8.5	4	5.5	11	5.5	7.5	15	7.5	10
			500V	6.5	4	5.5	9	5.5	7.5	13	7.5	10
			660V	5	4	5.5	7	5.5	7.5	10	7.5	10
	Rated current Ie Rated capacity UL 60947-4-1 CSA C22.2	1P	120V	-	-	-	16	-	1	20	-	1.5
			230V	-	-	-	12	-	2	17	-	3
		3P	200/280V	11	-	3	18	-	5	18	-	5
			240V	9.6	-	3	15.2	-	5	15.2	-	5
			480V	7.6	-	5	11	-	7.5	14	-	10
			600V	6.1	-	5	11	-	10	11	-	10
Aux. Contacts	Rated insulation voltage Ui			690			690			690		
	Continuous energized current Ith(AC/DC)			10/2.5			10/2.5			10/2.5		
	Rated current Ie IEC 60947-5-1 UL 60947-4-1	AC 15	120V	6			6			6		
			240V	3			3			3		
			380V	1.9			1.9			1.9		
Power Consumption		Inrush(VA)		27			70			70		
		Sealed(VA)		7			9			9		
		Dissipated(W)		2			4			4		
Operational Frequency		OPS/hn		1200			1200			1200		
Electrical Durability(Ops)		Mio.OPS		100			100			100		
Mechanical Durability		Mio.OPS		1000			1000			1000		
Contact Configuration				1NO，1NC			1NO，1NC A/AB:No auxiliary contact			1NO，1NC A/AB:No auxiliary contact		
Weight(Kg)				0.18			0.3			0.3		
Dimensions(mm) a*b*c				58*45*54			70*45*82					







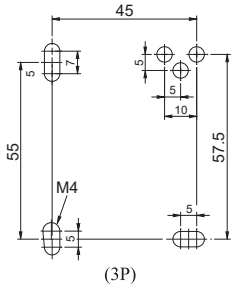
Main circuit technical parameters

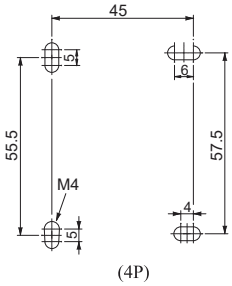
HC5 Series UL/IEC Contators
AC-1/AC-2/AC-3/AC-4

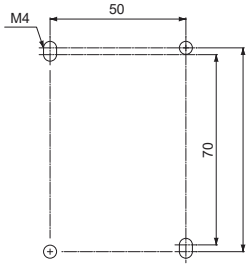


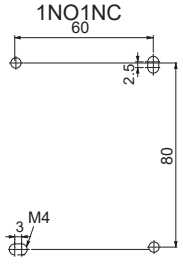
cULus CE RoHS

HC5-18			HC5-23			HC5-32			HC5-38			HC5-40		
1000/600			1000/600			1000/600			1000/600			1000/600		
32/35			35/40			50/50			60/55			60/60		
A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp
23(35)	5.5(13)	7.5(-)	27(40)	7.5(15)	10(-)	32	7.5	10	39	11	15	42	11	15
22(35)	11(23)	15(-)	26(40)	11(26)	15(-)	32	15	20	38	18.5	25	40	20	27
21(35)	11(27)	15(-)	21(40)	11(29)	15(-)	32	15	20	38	22	30	40	22	30
19(-)	11(-)	15(-)	19(-)	11(-)	15(-)	30	18.5	25	33	22	30	35	22	30
14(-)	11(-)	15(-)	14(-)	11(-)	15(-)	22	18.5	25	25.2	22	30	26	22	30
24	-	2	24	-	2	34	-	3	34	-	3	34	-	3
17	-	3	28	-	5	28	-	5	40	-	7.5	40	-	7.5
26	-	7.5	26	-	7.5	32.2	-	10	32.2	-	10	49	-	15
22	-	7.5	28	-	10	42	-	15	42	-	15	42	-	15
21	-	15	27	-	20	34	-	25	40	-	30	40	-	30
17	-	15	22	-	20	32	-	30	32	-	30	41	-	40
690			690			690			690			690		
10/2.5			10/2.5			10/2.5			10/2.5			10/2.5		
6			6			6			6			6		
3			3			3			3			3		
1.9			1.9			1.9			1.9			1.9		
70			70			70			150			215		
8.3			8.3			8.3			19			19		
4			4			4			5			6		
1200			1200			1200			1200			1200		
100			100			100			100			100		
1000			1000			500			500			500		
1NO1NC,2NO,2NC 4P(2A2B)			1NO1NC,2NO,2NC A:No auxiliary contact			1NO1NC,2NO			1NO1NC			1NO1NC		
0.4			0.4			0.4			0.7			0.8		
72*55*92						75*55*92			94.3*58*111.7			99*69*111.7		







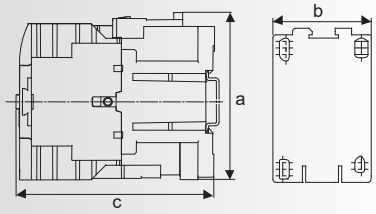


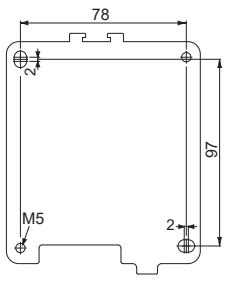
Main circuit technical parameters

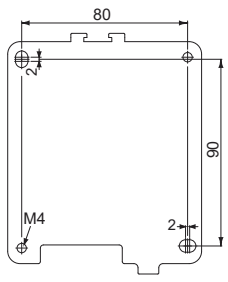
HC5 Series UL/IEC Contators
AC-1/AC-2/AC-3/AC-4

cULus CE RoHS

Model/Cat				HC5-50			HC5-65			HC5-80			HC5-90		
Main Contacts	Rated insulation voltage(Ui)IEC/UL			1000/600			1000/600			1000/600			1000/600		
	Continuous energized current			80/80			100/100			100/104			135/120		
	Rated current Ie Rated capacity AC-3 IEC 60947-4-1	3P		A	kW	Hp	A	kW	Hp	A	kW	Hp	A	kW	Hp
			220/230V	55	15	20	65	18.5	25	75	22	30	85	25	35
			380/400V	55	25	35	64	30	40	72	37	50	85	45	60
			415/440V	52	30	40	64	37	50	70	40	54	85	45	60
			500V	45	30	40	55	37	50	65	45	60	80	55	75
			660V	35	30	40	45	37	50	60	45	60	65	55	75
	Rated current Ie Rated capacity UL 60947-4-1 CSA C22.2	1P	120V	56	-	5	56	-	5	80	-	7.5	80	-	7.5
			230V	50	-	10	68	-	15	68	-	15	65	-	15
		3P	200/280V	49	-	15	63	-	20	79	-	25	79	-	25
			240V	54	-	20	68	-	25	80	-	30	80	-	30
			480V	54	-	40	65	-	50	77	-	60	77	-	60
			600V	51	-	50	52	-	50	62	-	60	77	-	75
Aux. Contacts	Rated insulation voltage Ui			690			690			690			690		
	Continuous energized current Ith(AC/DC)			10/2.5			10/2.5			10/2.5			10/2.5		
	Rated current Ie IEC 60947-5-1 UL 60947-4-1	AC 15	120V	6			6			6			6		
			240V	3			3			3			3		
			380V	1.9			1.9			1.9			1.9		
Power Consumption			Inrush(VA)	260			260			280			280		
			Sealed(VA)	30			30			25			25		
			Dissipated(W)	6.8			6.8			7.5			7.5		
Operational Frequency			OPS/hn	1200			1200			1200			1200		
Electrical Durability(Ops)			Mio.OPS	100			100			100			100		
Mechanical Durability			Mio.OPS	500			500			500			500		
Contact Configuration				2NO2NC			2NO2NC			2NO2NC			2NO2NC		
Weight(Kg)				1.05			1.05			1.3			1.3		
Dimensions(mm) a*b*c				119.4*88*108.7						150*93.5*123					

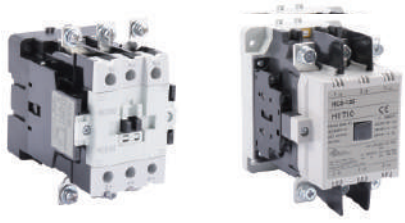






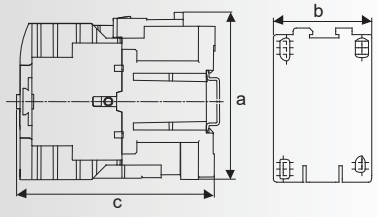
Main circuit technical parameters

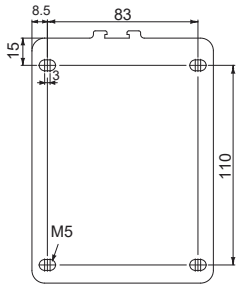
HC5 Series UL/IEC Contators
AC-1/AC-2/AC-3/AC-4

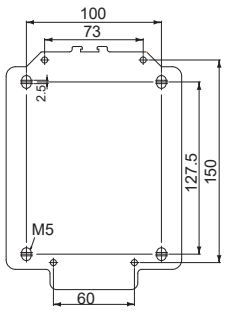


cULus CE RoHS

Model/Cat				HC5-100			HC5-125			HC5-150		
Main Contacts	Rated insulation voltage(Ui)IEC/UL			1000/600			1000/600			1000/600		
	Continuous energized current			135/130			150/150			200/200		
	Rated current Ie Rated capacity AC-3 IEC 60947-4-1	3P		A	kW	Hp	A	kW	Hp	A	kW	Hp
			220/230V	115	30	40	138	40	54	150	45	60
			380/400V	115	60	80	138	75	100	147	80	110
			415/440V	105	60	80	135	75	100	131	80	110
			500V	93	65	85	105	75	100	129	90	125
			660V	75	65	85	85	75	100	107	100	136
	Rated current Ie Rated capacity UL 60947-4-1 CSA C22.2	1P	120V	100	-	10	-	-	-	-	-	-
			230V	68	-	15	-	-	-	-	-	-
		3P	200/280V	92	-	30	120	-	40	150	-	50
			240V	104	-	40	130	-	50	154	-	75
			480V	96	-	75	124	-	100	156	-	125
			600V	99	-	100	99	-	100	125	-	125
Aux. Contacts	Rated insulation voltage Ui			690			690			690		
	Continuous energized current Ith(AC/DC)			10/2.5			10/2.5			10/2.5		
	Rated current Ie IEC 60947-5-1 UL 60947-4-1	AC 15	120V	6			6			6		
			240V	3			3			3		
			380V	1.9			1.9			1.9		
	Power Consumption		Inrush(VA)	560			560			700		
			Sealed(VA)	63			63			70		
			Dissipated(W)	12			12			35		
	Operational Frequency		OPS/hn	1200			1200			1200		
	Electrical Durability(Ops)		Mio.OPS	100			100			100		
	Mechanical Durability		Mio.OPS	1000			1000			1000		
	Contact Configuration			2NO2NC，Max 4NO4NC			2NO2NC，Max 4NO4NC			2NO2NC，Max 4NO4NC		
	Weight(Kg)			2.2			2.2			4.1		
	Dimensions(mm) a*b*c			150*100*133						222.4*130*157.2		





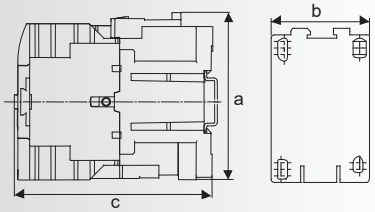


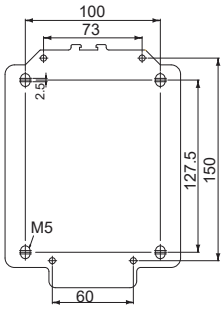
Main circuit technical parameters

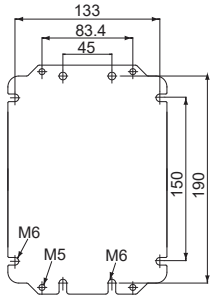
HC5 Series UL/IEC Contators
AC-1/AC-2/AC-3/AC-4

cULus CE RoHS

Model/Cat				HC5-180			HC5-220			HC5-300		
Main Contacts	Rated insulation voltage(Ui)IEC/UL			1000/600			1000/600			1000/600		
	Continuous energized current			240/240			260/240			350/300		
				A	kW	Hp	A	kW	Hp	A	kW	Hp
	Rated current Ie Rated capacity AC-3 IEC 60947-4-1	3P	220/230V	182	55	75	225	65	85	300	90	120
			380/400V	179	95	125	225	120	160	300	160	220
			415/440V	178	100	136	220	132	180	300	160	220
			500V	156	110	150	190	132	180	250	160	220
			660V	118	110	150	140	132	180	220	220	270
	Rated current Ie Rated capacity UL 60947-4-1 CSA C22.2	1P	120V	-	-	-	-	-	-	-	-	-
			230V	-	-	-	-	-	-	-	-	-
		3P	200/280V	177	-	60	221	-	75	285	-	100
			240V	192	-	75	248	-	100	312	-	125
			480V	180	-	150	240	-	200	302	-	250
			600V	144	-	150	192	-	200	242	-	250
Aux. Contacts	Rated insulation voltage Ui			690			690			690		
	Continuous energized current Ith(AC/DC)			10/2.5			10/2.5			10/2.5		
	Rated current Ie IEC 60947-5-1 UL 60947-4-1	AC 15	120V	6			6			6		
			240V	3			3			3		
			380V	1.9			1.9			1.9		
Power Consumption			Inrush(VA)	700			1050			1050		
			Sealed(VA)	70			70			70		
			Dissipated(W)	35			15			15		
Operational Frequency		OPS/hn		1200			1200			1200		
Electrical Durability(Ops)		Mio.OPS		100			100			100		
Mechanical Durability		Mio.OPS		500			500			500		
Contact Configuration				2NO2NC，Max 4NO4NC			2NO2NC，Max 4NO4NC			2NO2NC，Max 4NO4NC		
Weight(Kg)				4.1			6.7			6.7		
Dimensions(mm) a*b*c				222.4*130*157.2			228.4*146*183.2					







Accessories Mechanical Interlocks

Model/Cat	HCAI-6	HCAI-18	HCAI-18A	HCAI-35	HCAI-100
For Use With	HC5-6	HC5-9~38	HC5-9~38	HC5-40~90	HC5-100~300
Operational Type	Mechanical	Mechanical	Mechanical+Electrical (AC13+DC15)	Mechanical	Mechanical

Aux. Contacts

Model/Cat			HCAU-2T	HCAU-4T	HCAU-2F11	HCAU-2V11
Rated insulation voltage Ui						660
Rated operating voltage Ue						660
Continuous energized current Ith(AC/DC)						10/12.5
Rated operating current Ie(A)	AC 15	120V	6	6	6	6
		240V	3	3	3	3
		380V	1.9	1.9	1.9	1.9
		480V	1.5	1.5	1.5	1.5
		500V	1.4	1.4	1.4	1.4
		600V	1.2	1.2	1.2	1.2
	DC 13	125V	0.55	0.55	0.55	0.55
		250V	0.27	0.27	0.27	0.27
Operational Frequency	OPS/hn		1200	1200	1200	1200
Electrical Durability(Ops)	Mio.OPS		100	100	100	100
Mehanical Drability	Mio.OPS		500	500	500	500
Contact Configuration			2NO,2NC, 1NO1NC	4NO,3NO1NC, 2NO2NC, 1NO3NC, 4NC	NO1NC	NO1NC
For Use with			HC5-11~300	HC5-11~300	HC5-11~90	HC5-100~300

HCAZ Coil Drivers

Model/Cat	Rated Operational Volt.	Fit contactor	Minimum pick-up voltage	Maximum release voltage	Power consumption	Action Delay (MSEC)	
						Pick-up	Drop-out
HCAZ-B	AC 22~24V(50/60Hz) DC 22~24V	HC5-6	16~18.5	12~15	0.8~0.85	30~70	17~27
		HC5-11~32	19~22	12~16	0.8~1.5	30~70	17~27
		HC5-38	17~20	12~15	1~1.6	30~70	17~27
		HC5-40	18~21.1	10~15	1.5~2	30~70	17~27
		HC5-50~90	18~22.1	10~13	1.6~2.1	30~70	17~27
HCAZ-C	AC 45~50V(50/60Hz) DC 45~50V	HC5-6	32~36	16~30	0.86~0.92	26~33	20~24
		HC5-11~32	32~40	16~30	0.6~1.3	45~55	30~40
		HC5-38	34~40	16~30	0.8~2.6	25~60	20~35
		HC5-40	34~40	16~30	0.8~2.6	25~35	30~40
		HC5-50~90	34~40	16~30	0.8~2.6	25~35	30~40
HCAZ-E	AC 100~120V(50/60Hz) DC 100~120V	HC5-6	70~80	45~61	1.3~1.6	24~32	18~23
		HC5-11~32	70~80	45~60	1.3~2.8	20~30	30~40
		HC5-38	70~80	45~60	1.6~3.1	30~50	30~50
		HC5-40	70~80	45~60	1.6~3.1	25~35	30~40
		HC5-50~90	70~80	45~60	2.5~4.0	30~40	45~50
HCAZ-H	AC 200~240V(50/60Hz) DC 200~240V	HC5-6	132~143	90~110	2~2.2	20~30	25~35
		HC5-11~32	131~143	90~110	2.1~3.4	20~30	25~35
		HC5-38	131~143	83~110	2.1~3.4	21~30	27~37
		HC5-40	131~143	90~110	2.5~4.3	21~31	27~37
		HC5-50~90	131~143	90~110	2.8~4.5	25~35	35~45

Instructions for use in abnormal environment

Description of correction factor used in high altitude areas:

● The following table shows the correction factors for rated impulse withstand voltage and rated working current when the altitude is > 2000m and the rated working voltage remains unchanged.

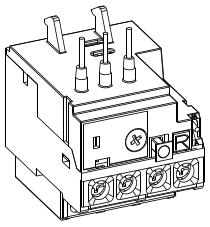
Altitude m	2000	3000	4000
Derating factor of rated impulse withstand voltage	1	0.88	0.78
Derating factor of rated operational current	1	0.92	0.9

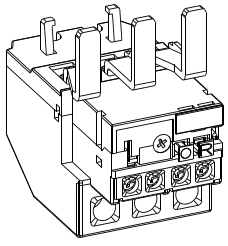
Instructions for use in abnormal temperature environment:

● +140°F~+167°F (+60°C~+75°C), the pull-in voltage range of AC contactor is (85% – 110%) Us, (70% – 120%) Us is the test result under normal temperature and +104°F (+40°C) cold state.

Ambient temperature °F (°C)	131（55）	140（60）	149（65）	158（70）
Derating factor	1	0.93	0.875	0.75

HCR5 Overload Relay





HCR5 Overload Relay

Structure Features

Three phase bimetallic chip.

With phase failure protection.

Continuous adjustable device with setting current.

With temperature compensation.

With action indication.

With testing organization.

With stop button.

With manual and automatic reset buttons.

Separable normally open and normally closed contacts.

Installation method: plug-in installation with contactor, independent installation.

Normal service conditions and mounting conditions

Item	Description
Installation Category	Ⅲ
Pollution Degree	3
Standard	UL 60947-4-1; GB/T 14048.5/IEC 60947-5-1 GB/T 14048.4/IEC 60947-4-1
Certificates	UL/CE/CB/CCC
Enclosure protection class	IP20/IP00
Ambient Air Temperature	Normal of working temperature -13~+140°F (-25°C~+60°C), its average over a period of 24 h does not exceed +95°F (+35°C).
Atmospheric Conditions	The relative humidity of the air does not exceed 50% at a maximum temperature of +104°F (+40°C). Higher relative humidity may be permitted at lower temperatures, Such as 90% at +68°F (+20°C).
Mounting Conditions	The inclination of mounting surface and vertical plane is not more than±22.5°.

Type Description

Model description

HC5 series overload relay

HCR5	-	5	L	/	0.16	A	P
Relay model		Model Names	Installation		Curent Range	Protection Functions	Back Cover
		6 38 100 300	Blank: Screw type L: LUG type terminal blocks		0.16~336	A:3 poles, with out-of-phase protection M:3 poles, no out-of-phase protection K:2 poles, no out-of-phase protection	1:With no accessries 2:With Panel Mounting Adapter

Model/Cat	HCR5-6/□□	HCR5-38/□□	HCR5-38L/□□	HCR5-100/□□1	HCR5-100/□□2	HCR5-100/□□3	HCR5-100/□□4	HCR5-100/□□5	HCR5-80/□□P	HCR5-300/□□
Current Range ()Max.Setting Current	0.1~0.16(0.16) 0.1~0.25(0.25) 0.25~0.4(0.4) 0.35~0.5(0.5) 0.45~0.63(0.63) 0.55~0.8(0.8) 0.75~1(1) 0.9~1.3(1.3) 1.1~1.6(1.6) 1.4~2(2) 1.8~2.5(2.5) 2.3~3.2(3.2) 2.9~4(4) 3.5~4.8(4.8) 4.5~6.3(6.3) 5.5~7.5(7.5) 7.2~10(10) 9~12.5(12.5)	0.1~0.16(0.16) 0.1~0.25(0.25) 0.25~0.4(0.4) 0.35~0.5(0.5) 0.45~0.63(0.63) 0.55~0.8(0.8) 0.75~1(1) 0.9~1.3(1.3) 1.1~1.6(1.6) 1.4~2(2) 1.8~2.5(2.5) 2.3~3.2(3.2) 2.9~4(4) 3.5~4.8(4.8) 4.5~6.3(6.3) 5.5~7.5(7.5) 7.2~10(10) 9~12.5(12.5) 11.3~16(16) 15~20(20) 17.5~21.5(21.5) 21~25(25) 24.5~30(30) 29~36(36)	15~20(20) 17.5~21.5(21.5) 21~25(25) 24.5~30(30) 29~36(36) 33~38(38)	17~25(25) 24.5~36(36)	17~25(25) 24.5~36(36) 35~47(47)	24.5~36(36) 35~47(47) 45~60(60) 58~75(75) 72~90(90)	17~25(25) 24.5~36(36) 35~47(47)	58~75(75) 72~90(90) 77~97(97)	17~25(25) 24.5~36(36) 35~47(47) 45~60(60) 58~75(75) 72~90(90) 77~97(97)	87~120(120) 105~144(144) 145~200(200) 175~240(240) 203~280(280) 245~336(336)
For Use With Contactors	HC5-6(K)	HC5-11/16/18/23/32	HC5-38	HC5-18/23/32	HC5-40	HC5-50/65/80/90	HC5-38	HC5-100/HC5-125	Stand-alone mounted	HC5-100/125/150/180/220/300
Panel mounting Adapter	-	RP-10	RP-10	-	-	-	-	-	Comes your own	Comes your own

HCMS Series Motor Circuit Breaker

HCMS	-	32	S	10
MOTOR CIRCUIT BREAKER		Frame	Model type	Accessories
		32 63	S: Standard	

HCMS-32S	HCMS-32S	HCMS-63S
0.16:0.1~0.16A	6:4~6A	10:6.3~10A
0.25:0.16~0.25A	8:5~8A	13:9~13A
0.4:0.25~0.4A	10:6.3~10A	16:11~16A
0.63:0.4~0.63A	13:9~13A	20:14~20A
1:0.63~1A	16:11~16A	26:18~26A
1.6:1~1.6A	20:14~20A	32:22~32A
2.5:1.6~2.5A	25:19~25A	40:28~40A
4:2.5~4A	32:24~32A	50:35~50A
		63:45~63A

Features

- Overload, underphase and high breaking protection;
- Short-circuit electromagnetic tripping value 13 times Ie;
- Thermodynamic adjustable tripping, Class10 tripping grade;
- Miniaturized device integrating the functions of molded case circuit breaker and thermal overload relay;
- Excellent performance, space-saving, can be a perfect replacement for circuit breaker and contactor heating relay scheme in industrial control applications.

Circuit breaker function

- Short-circuit protection
- Overcurrent protection
- Line protection

Thermal overload relay function

- Overload protection
- Phase-loss protection flow protection
- The rated current is adjustable
- Ambient temperature compensation

Main circuit technical parameters

Technical parameters

Model	HCMS-32S	HCMS-63S
Compliant with specifications	IEC 60947-1,60947-2,60947-4-1 EN 60947-1,60947-2,60947-4-1 GB/T 14048.1,14048.2,14048.4 UL 60947-4-1	
Maximum Rated Current (A)	32	63
Rated insulation voltage (V/AC)	1000V/AC	
Rated Operating Voltage (V/AC)	690V/AC	690V/AC
Trip level	IEC 10A/UL 10	10
Operating Frequency (Hz)	50/60Hz	
Temperature compensation function	Yes	
Under-phase protection	Yes	
Degree of protection	IP 20	
Mechanical Life (Ops)	100000	50000
Electrical Life (Ops)	100000	25000
Allowable Operating Ambient Temperature (°C)	-25℃~+60℃	
Permissible Storage Ambient Temperature (°C)	-40℃~+80℃	
Permissible Storage Ambient Temperature (°C)	3000	
Rated withstand impulse voltage (KV)	6kV	

HIITIO®

ZHEJIANG HECHENG SMART ELECTRIC CO.,LTD.

NO.1125 Zhixing Road,Qiaonan District,Xiaoshan
Economic and Technological Development Zone,
Hangzhou,Zhejiang

T 400-667-9977

E sales@hiitio.com

W www.hecheng.com.cn
www.hiitio.com