HUC1 series AC contactor

Summarization

To meet the demands of market with multi-layers and social beneficial results, we have researched and developed updating products at no cease, HUC1 series AC contactors are the updating products which absorb and digest advanced technology of excellent products at home and in the abroad. Each property and guideline of this product has reached advanced technology level in the world. It has characteristics of being reasonable and simple in structure, compact in size, light in weight,high in performance, etc. It is one of the ideal products for updating purpose.

Confirmed code number of HUC1 series AC contactors is derived from CJ48 series AC contactors, and its technical standard is Q/HY008-1997, CJ48 series AC contactors, which is audited and confirmed by the national low-voltage standardization technology committee. The serial number of the certificate is "standard-confirmed A72". HUC1 is the mode number of our company which was registered legally. This series of products are in accordance with GB14048(low-voltage switching devices and controlling devices, low-voltage electrical type contactor and electrical starter) and IEC947-4-1 standard(chapter 1, low-voltage electrical type contactor and electrical starter, part 4 contactors and electrical starter,low-voltage switch devices and controlling devices).

Model designation

HU C 1 - □□ / □□

- Auxiliary contact code: first digit is for the quantity of NO contact, second digit is for the quantity of NC contact
- Main contact code
- Derived code: C is for switchable capacitor contactor; D is for machanical-interlocking contactor
- Basic specification code is indicated by AC-3 rated operating current value
- Design code
- AC contactor
- Huanyu Group Co.,Ltd.

Application

HUC1 series AC contactors are mainly used in the electrical power circuit of AC 50Hz or 60Hz, rated voltage to 660V, current to 880A for making and breaking the circuit, and it can be formed into motor starter with thermal relay or electronic protector for protecting the overload circuit.

Main technical parameter

Model	Utilization Category	Rated insulation voltage Ui(V)	Rated working current Ie(A)	Conventional heating current Ith(A)	Rated control capacity(kvar)
HUC1-25C	AC-6b	500	25	40	15
HUC1-30C			30	45	20
HUC1-40C			40	85	25
HUC1-50C			50	85	30
HUC1-63C			63	85	40
HUC1-75C			75	85	50

HUC1-		9	12	16	25	32	40	50	63	75	80	90
Ui V		690	690	690	690	690	690	690	690	690	690	690
Ith A		26	28	28	45	65	100	125	125	125	145	160
Ue V		220	220	220	220	220	220	220	220	220	220	220
		380	380	380	380	380	380	380	380	380	380	380
		660	660	660	660	660	660	660	660	660	660	660
Under interruption period operation system Ie (A)	AC-1	22	24	28	45	55	70	100	115	125	145	160
	AC-3	9	12	16	25	30	40	50	63	75	80	90
		9	12	16	25	30	40	50	63	75	80	90
		5.5	7	7	15	17.5	28	38	46	55	65	70
	AC-4	9	12	16	25	30	40	50	63	75	80	80
		9	12	16	25	30	40	50	63	75	80	80
		5.5	7	7	15	17.5	28	38	46	55	30	35
AC-3 Pe kW		2.2	3	4	6.5	9	11	15	18.5	22	22	22
		4	5.5	7.5	11	15	18.5	22	30	37	40	45
		4	5.5	5.5	11	15	22	30	37	45	45	59
Non-interrupt operation Ie (A)		22	24	28	45	55	70	100	115	125	145	160
Winding power (VA)	Holding	9			12		22				22	
	Closing	60			122		242				360	

HUC1-		100	145	175	210	260	300	370	550	700	800	1200
Ui V		690	690	690	690	690	690	690	690	690	690	1000
Ith A		200	230	260	300	400	445	550	800	1000	1000	1200
Ue V		220	220	220	220	220	220	220	220	220	220	220
		380	380	380	380	380	380	380	380	380	380	380
		660	660	660	660	660	660	660	660	660	660	660
Under interruption period operation system Ie (A)	AC-1	200	230	260	300	400	445	550	800	1000	1000	1200
	AC-3	120	145	185	210	260	305	400	550	700	750	750
		120	145	185	210	260	305	400	550	700	750	750
		120	120	170	210	250	280	370	550	700	750	750
	AC-4	117	125	146	175	250	250	350	450	630	630	630
		117	125	146	175	250	250	350	450	630	630	630
		47	55	66	75	95	95	117	140	185	185	185
AC-3 Pe kW		30	45	55	59	80	90	110	160	220	220	220
		55	75	90	110	140	160	200	280	370	400	400
		110	110	132	160	200	250	355	500	600	650	650
Non-interrupt operation Ie (A)		200	230	260	300	400	445	550	800	1000	1000	1000
Winding power (VA)	Holding	35		40		45		130		130		130
	Closing	570		800		1050		2100		3160		3160

Auxiliary contacts code	Ith A	Ui A	Ue V		Le A		Contacts type & quantity	Rated controlling capacity	
			AC	DC	AC	DC		AC(VA)	DC(W)
HUF1	10	690	127	48	0.8	0.63	NO1 or NC1	100	30
			220	60	0.45	0.5			
HUF2 HUF3 HUF5			380	110	0.26	0.27	NO1 NC1		
			660	220	0.15	0.14			

Structural feature

HUC1 series AC contactors are the updating products which absorb and digest advanced technology of excellent products at home and in the abroad. It has characteristics of reasonable and simple in structure, compact in size, light in weight, high in performance, etc. It is one of the ideal products for updating purpose. Entire series of contactors are vertically front type, HUC1-6-75 has the structure of bi-steps, while HUC1-80-800 has the structure of tri-steps. Totally there are 11 frames, 22 specifications and rich in general accessories which have brought much convenience for users.Main structural features are as follows:

Structural Features

1. HUC1 AC contactor is derived from 4-pole AC contactor, and its rated values and accessories are in accordant with 3-pole, which is mainly applied. In the switchover of neutral lines in the power transmission networks,reserved motor for EM purpose, load for resistance property, lighting,and etc.

2. HUC1-6~75 averagely adopts sealing type contact systems, except traditional screwing installation type, 35mm rail-guide installation is applied as well, which is for the users convenience .

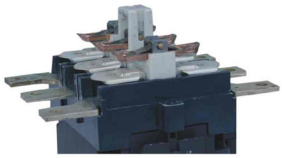
3.Controlling coils of products above HUC1-80 adopt secondary sealing mode in average which improves property of heat conduction and insulation strength for the coil to prevent creepage among turns from short circuit owing to electrodynamics' force, accordingly reliability of contactors can be enhanced greatly.

4. Whole series of products have surging protection accessories of controling voltage which enhances reliability of controlling circuit and lifetime of coil.

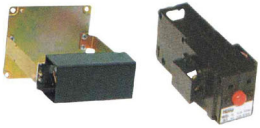
5. Coils of HUC1-175-300 adopt plug-in type installation for the convenience of replacement.

6. Electromagnet core of products with rated current above 175A adopt permanent air gap for reliability of energy releasing under high electrical lifetime.

7. HUC1-6 to 32 adopting natural arc extinction with sealing type, products above HUC1-80 absorb design ideas of circuit breaker, and its arc extinction system adopts high -strengthened arc resistance plastic, on each contact there is independent grilling type arc-chamber for a sake of eliminating the electro-arc instantly, preventing burning from the cover simultaneously.



8. Contact systems of products above 370A adopt mechanism with arc isolation contacts and conductive contacts.



9. HUC1 AC contactors also are derived for mechanical interlocking type contactors for the purpose of noise-free and energy-saving.

10. HUC1 series contactors and HUC1 series thermal overload relays consist of starter for the motor.

11. Some specifications are derived from DC control.

12. Whole series of products have mechanical interlocking mechanism which is applied in the demand of different controls.

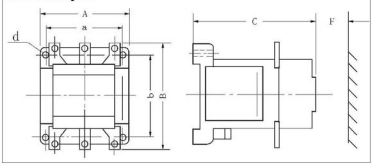
13. C type changeover capacitor type contactor of HUC1-25-75, which is applied for the purpose of watt-less power compensation of changeover capacitors in the circuit of 50Hz and rated voltage up to 380V, and controls upwelling current effectively.

14. HUC1-9-32, is equipped with auxiliary contacts of HUF1 and HUF5 up to 4 groups, HUC1-40-75 is equipped with HUF1 to 6 and HUF3 and auxiliary contact up to 2 groups, HUC1-80-800 is equipped with HUF3 up to 4 groups; all auxiliary contacts averagely are separated electrically, free for mounting and equipping.

15. Whole series of HUC1-9-800 can be assembled as N type mechanical interlocking contactors on average.

Contour and installation dimension

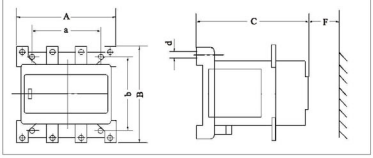
HUC1 three poles



mm

Specification	A max	B max	C max	a	b	d	F
HUC1-6	54	58	48	35,46	50	4.5	
HUC1-9~16	46	75	82	35	60,55,50	4.5	15
HUC1-25	55	92	95	45	80,75,70	4.5	15
HUC1-32	55	92	110	45	80,75,70	4.5	15
HUC1-40~75	71	112	110	60	100,90	6	20
HUC1-80~90	103	132	138	90	100	5.5	30
HUC1-100	125	158	144	110	120	5.5	40
HUC1-145	125	174	144	110	120	5.5	40
HUC1-175~210	137	200	170	120	140	6.5	15
HUC1-260~300	177	210	176	160	140	6.5	30
HUC1-370~550	200	273	227	170	200	6.5	40
HUC1-700	245	296	227	220	200	6.5	40
HUC1-800	245	346	227	220	200	6.5	40

HUC1 four poles



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HUC1-9~16	46	75	82	35	60,55,50	4.5	15
HUC1-25	55	92	95	45	80,75,70	4.5	15
HUC1-40~75	92	112	110	60	100,90	6	20
HUC1-100	165	158	154	120	140	6.5	40
HUC1-145	165	172	154	120	140	6.5	40
HUC1-175	201	198	175	160	140	6.5	15
HUC1-210	201	198	175	160	140	6.5	15
HUC1-370	270	273	227	220	200	6.5	40
HUC1-550	270	273	227	220	200	6.5	40

Auxiliary contacts code	Ith A	UI V	Ue V		Le A		Contact type & quantity	Rated control capacity	
			AC	DC	AC	DC		AC(VA)	DC(W)
HUF1	10	690	127	48	0.8	0.63	NO 1 or NC 1	100	30
			220	60	0.45	0.5			
HUF2			380	110	0.26	0.27	NO1 NC1		
HUF3			660	220	0.15	0.14			

Comparison and contrast to domestic and foreign similar products

1. Available maximum current classes of AC contactor available in domestic is in CJ20-630 AC contactor with max.Rated current 630A, whereas HUC1-700 and HUC1-800 bridge a gap of domestic contactor with large capacity, the Ith. is 10000A on average.

2. This series of contactors averagely adopt plastic arc chute without exception; each breakpoint is equipped with independent grilled arc chamber in order to meet an objective of quick arc extinction, improving electrical lifetime of contactor simultaneously.Domestic contactors are impossible to compare with HUC1 series contactors.

3. Controlling coils of this series of contactors adopt plastic secondary enclosure for the sake of improving abstraction of heat for the coil, and preventing creepage among turns from short circuit owing to electrodynamics' force, accordingly reliability of contactors can be enhanced greatly.

4. Complete accessories and derivative products, for example auxiliary contact groups, mechanical interlocking mechanism, air timedelay, voltage surging suppressor, switchover capacitive contactors, 4pole contactors,etc., Of which can meet different requirements of various users.

5. Developing trend of international AC contactors is large capacity and derivation. There is no lack of excellent products for overseas brands, whereas, costliness has caused much inconvenience for replacements. HUC1 series AC contactors are updating products which are researched and developed on the basis of absorbing advanced technology of excellent products in the abroad. It not only possesses equivalent technological properties of product in the abroad, but also ideal renewed products for imported substitutes by reason of low in domestic cost, and high in quality grades.