HUANYU ELECTRIC

Industrial Control & Protection Devices

PRODUCT CATALOG

HUANYU HIGH TECH CO.,LTD.
HUYUELECTRIC.COM

EXC3
Series AC Contactor

Product description

Applicationrange

The Explorer EXC3 series AC Contactor (herineafter referred to as Contactor) is mainly used for circuit of AC 50Hz (or 60Hz), rated voltage up to 690V, and rated operating current up to 95A under the AC-3 usage category. It is mainly used for frequent start and control of AC motor, closing and breaking the circuit remotely, and can be assembled as an electromagnetic AC motor, closing and breaking the circuit remotely, and can be assembled as an electromagnetic starter with an appropriate thermal overload relay to protect the circuit from possible overload.

Product standards

Conform to standard：GB/T 14048.1/IEC 60947-1、GB/T 14048.4/IEC 60947-4-1

Overview

Rated operating current Ie: 6A~800A
Rated working voltage Ue: AC220V~660V
Rated insulation voltage Ui: AC690V (EXC3-06~95), AC1000V (EXC3-F115~800)
Number of poles: 3P, 4P (EXC3-115~800 only)
Coil control mode: AC
Installation methods: EXC3-06-95 guide rail and screw installation, EXC3-115-800 screw installationApplication scenario: Suitable for motor control, lighting control, HVAC system, elevator control and other industrial and civil power systems, for frequent switching or disconnecting AC circuit.

Product features

1. A variety of product specifications, rated current up to 800A, fully covering 6~ 800A main model.
2. Complete accessories, including auxiliary contact, delay, etc., can be applied to a variety of control requirements.
3. 6~95A standard with 1NO+1NC auxiliary contact, no need to add accessories.
4. Coil suction voltage is 70%~120%Us, anti-grid fluctuations, low voltage occasions can also be reliable suction, stable and safe and reliable operation.
5. Large current contactor contact system for direct action, double breakpoint arrangement, coil and yoke can be directly loaded or removed, easy to use and maintenance.

Operating Conditions

1.Ambient air temperature: -5°C to +40°C;
2.Altitude: Not exceeding 2000 m;
3.Atmospheric conditions: The relative humidity of air at the installation location shall not exceed 50% at +40°C, with higher relative humidity permissible at lower temperatures (e.g., up to 90% at 20°C). Appropriate measures shall be taken for occasional condensation caused by temperature variations.
4.Pollution degree: Level 3;
5.Enclosure protection rating: Ip20;
6.Installation category: Category III;
7.Installation condition: The mounting surface shall have an inclination within ±5° from the vertical plane;
8.Shock and vibration: Shall be installed in locations without significant shaking, impact, or vibration.
9.Transportation and storage: The contactor shall not be subjected to severe collisions or vibrations during transportation and shall be protected from rain and snow during both transportation and storage.
10.The contactor is suitable for storage and transportation within a temperature range of -25°C to +55°C, with short-term exposure (within 24 hours) up to +70°C.

Product description

EXC3	–	□	□	□
Model number		Rated working current	Number of NO auxiliary contacts	Number of NC auxiliary contacts
EXC3		Rated operating current at 440V in the category of use of AC-3: 06 to 95		

EXC3
Series AC Contactor

Technical data

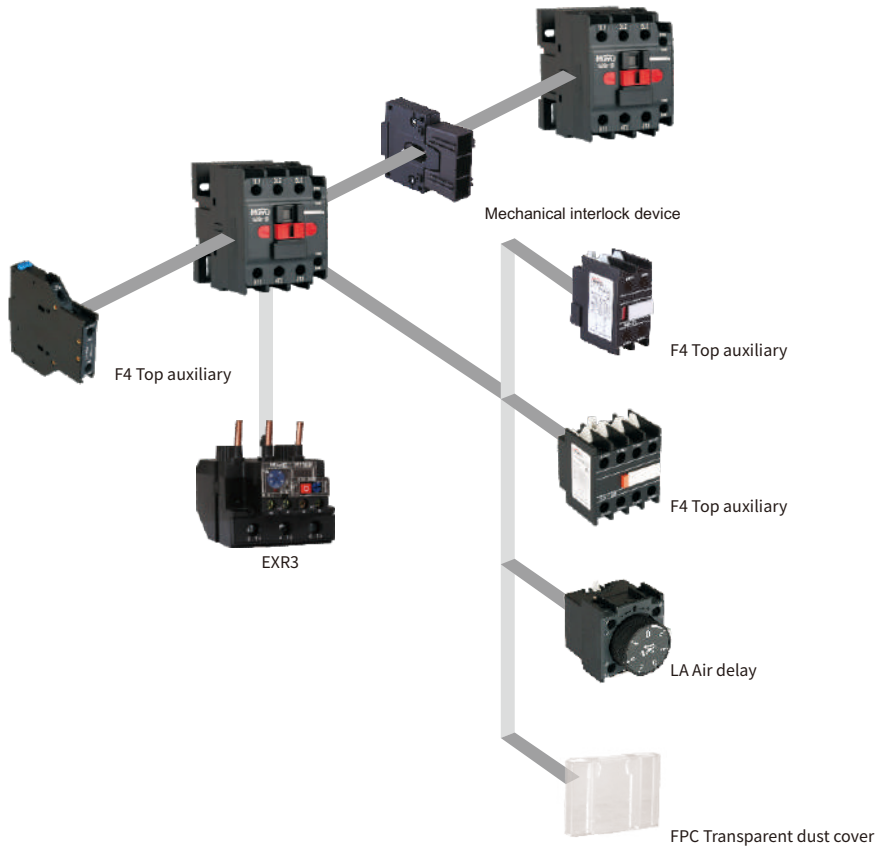
AC Contactor model			EXC3											
			06	09	12	18	25	32	38	40	50	65	80	95
Main circuit characteristics														
Rated Insulation voltage Ui(V)			690											
Conventional thermal current Ith(A)			20			32	40	50		60	80		125	
Rated operating current Ie (A)	220V (230V)	AC-3	6	9	12	18	25	32	38	40	50	65	80	95
	380V	AC-3	6	9	12	18	25	32	38	40	50	65	80	95
	(400V)	AC-4	2.6	3.5	5	7.7	8.5	12	14	18.5	24	28	37	44
	660V	AC-3	3.8	6.6	8.9	12	18	21	22	34	39	42	49	55
	(690V)	AC-4	1	1.5	2	3.8	4.4	7.5	8.9	9	12	14	17.3	21.3
Controllable three-phase squirrel cage motor power Pe (AC-3) kW	220V		1.5	2.2	3	4	5.5	7.5	9	11	15	18.5	22	22
	380V		2.2	4	5.5	7.5	11	15	18.5	18.5	22	30	37	45
	660V		3	5.5	7.5	9	15	18.5	18.5	30	33	37	45	55
Recommended fuse SCPD			RT16-00 16A	RT16-00 20A		RT16-00 32A	RT16-00 40A	RT16-00 50A	RT16-00 63A	RT16-00 63A	RT16-00 80A	RT16-00 80A	RT16-00 100A	RT16-00 125A
Operating Frequency (Times/H)	AC-3		1200						600					
	AC-4		300											
Electrical life ($1x10^4$ times)	AC-3		120						100				85	
	AC-4		20						15				10	
Mechanical life ($1x10^4$ times)			1200						900					
Coil														
Rated control circuit voltage (US)	50Hz		24V、36V、110V、127V、220V、380V，For other specification please discuss with Huanyu											
Permissible control circuit voltage(US)	Operating		85%～110%Us											
	Release		20%～75%Us											
Coil power	Pull in VA		50～70							190～220				
	Hold on		7～11.4							19～25				
	Power consumption		1.8～4							6～10				
Terminal wiring capacity														
Flexible wire without terminal	1 PCS(mm^2)		1～4				1.5～10			2.5～25			4～50	
	2 PCS(mm^2)		1～4				1.5～6			2.5～16			4～25	
Flexible wire with terminal	1 PCS(mm^2)		1～4				1～6			2.5～25			4～50	
	2 PCS(mm^2)		1～2.5				1～4			2.5～10			4～16	
Hard wire without terminal	1 PCS(mm^2)		1～4				1.5～6			2.5～25			4～50	
	2 PCS(mm^2)		1～4				1.5～6			2.5～16			4～25	
Terminal screw specification			M3.5×9.5				M4×15.5			M8×16			M10×20	
Fastening Torque N·m			0.8				1.8			5			9	

EXC3
Series AC Contactor

EXC3-N Series Mechanical interlock contactor technical parameters and performance

Model	Ui（V）	Ith (A)	Ie @ AC-3 (A)		Pe @ AC-3（kW）			Ie @ AC-4 (A)		Pe @ AC-4（kW）	
			380V	660V	220V	380V	660V	380V	660V	380V	660V
EXC3-06N	690	20	6	3.8	1.5	2.2	3	2.6	1	1.1	0.75
EXC3-09N		20	9	6.6	2.2	4	5.5	3.5	1.5	1.5	1.1
EXC3-12N		20	12	8.9	3	5.5	7.5	5	2	2.2	1.5
EXC3-18N		32	18	12	4	7.5	9	7.7	3.8	2.2	1.5
EXC3-25N		40	25	18	5.5	11	15	8.5	4.4	4	4
EXC3-32N		50	32	21	7.5	15	18.5	12	7.5	5.5	5.5
EXC3-38N		50	38	22	9	18.5	18.5	14	8.9	5.5	6

AC Contactor accessories and mounting position



1.FPC Transparent dust cover

2.F4 top auxiliary contacts: The model has 2 contacts and 4 contacts choice

2 contacts choice: 2NO+0NC，1NO+1NC，0NO+2NC

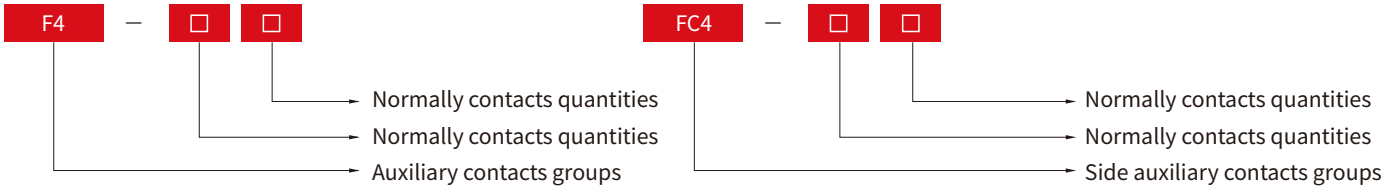
4 contacts choice: 2NO+0NC，1NO+1NC，0NO+2NC

3.FC4 Side auxiliary contacts: 2 Contacts , choice of 2NO，1NO+1NC，2NC

4.LA series air delay : There are two selections of power-on delay LA2 and power-off delay LA3,
1NC+1NO contacts time adjustable range: 0.1~3s, 0.1~30s, 10~180s

Accessories main parameters and technical performance

1、Auxiliary contacts

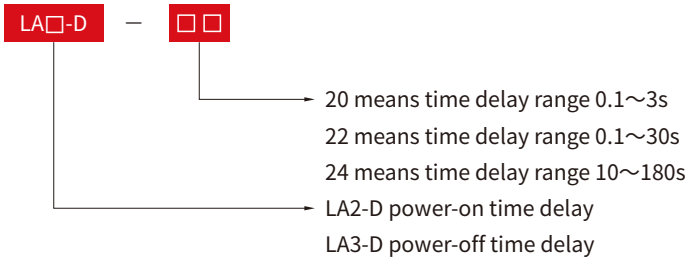


Auxiliary contacts model	F4-02	F4-11	F4-20	F4-22	F4-40	F4-04	F4-13	F4-31	FC4-02	FC4-11	FC4-20
Contacts quantities	2NC	1NO+1NC	2NO	2NO+2NC	4NO	4NC	1NO+3NC	3NO+1NC	2NC	1NO+1NC	2NO

Auxiliary contacts basic parameters

Usage category	Rated operating voltage (V)	Conventional thermal current(A)	Rated operating current (A)	Control capacity	
				Closing	Breaking
AC-15	380	10	0.95	3600VA	360VA
DC-13	220	10	0.15	33W	33W

2、Air delay



Model	Time delay range	Time delay contacts quantities
LA2-D20	0.1～3s	1NO+1NC
LA2-D22	0.1～30s	
LA2-D24	10～180s	
LA3-D20	0.1～3s	
LA3-D22	0.1～30s	
LA3-D24	10～180s	

Air delay basic parameters

Usage category	Rated operating voltage(V)	Rated Insulation voltage Ui(V)	Conventional thermal current(A)	Control capacity
AC-15	Up to 660	660	10	360VA
DC-13	Up to 660	660	10	33W

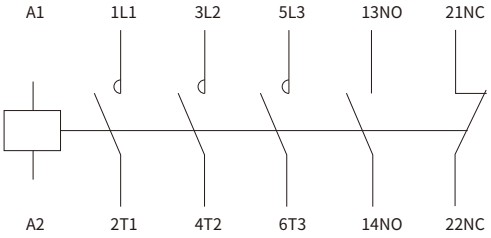
3、FPC Transparent dust cover

Model FPC, universal to the whole series.

4、The contactor pull- in coil power consumption and energy efficiency index

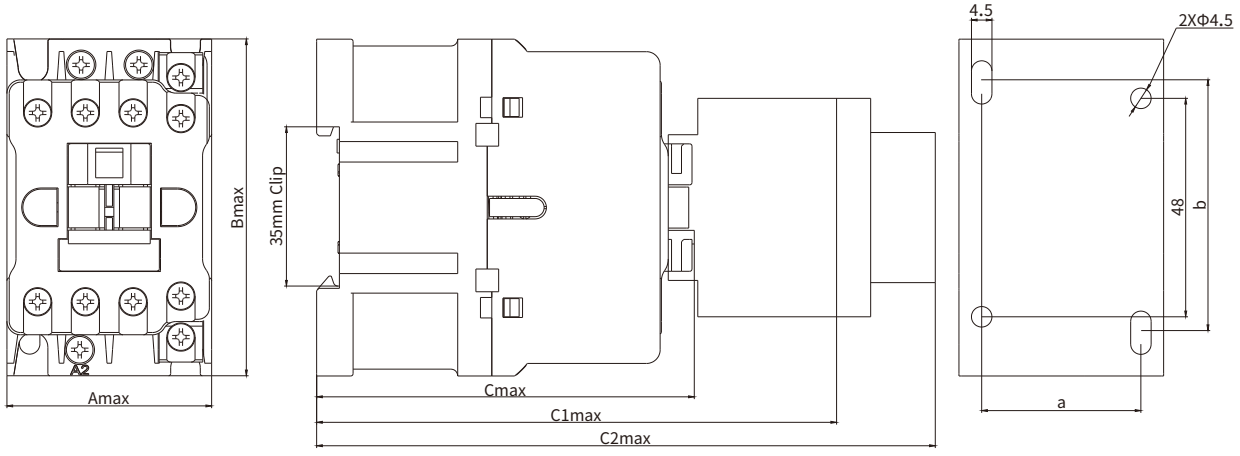
Model	EXC3-06～18	EXC3-25～38	EXC3-40～95	Remark
Holding power/VA	9.0	11.4	36.6	Conformity to GB 21518-2008
Energy Efficiency Index	3	2	2	Conformity to GB 21518-2008

Wring Diagram

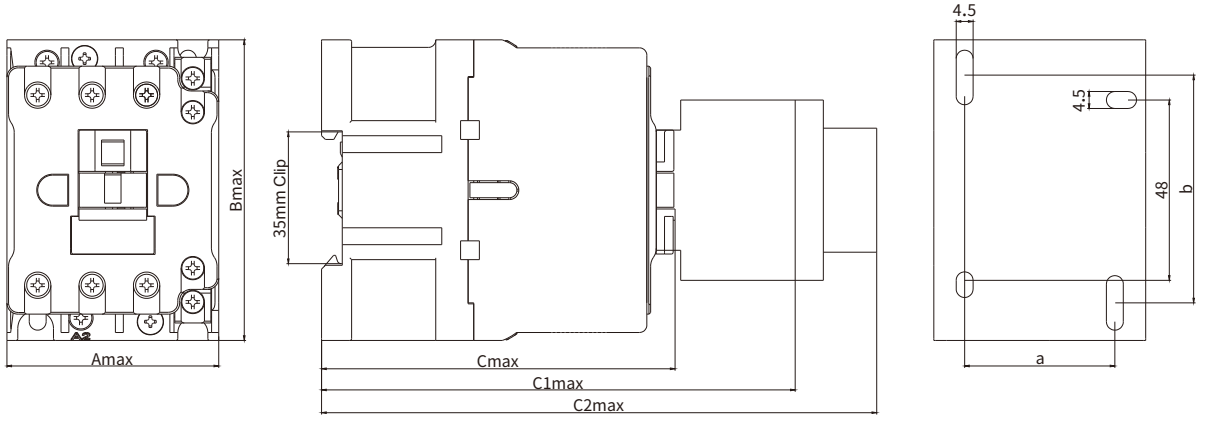


Overall and mounting dimensions

EXC3-06~18

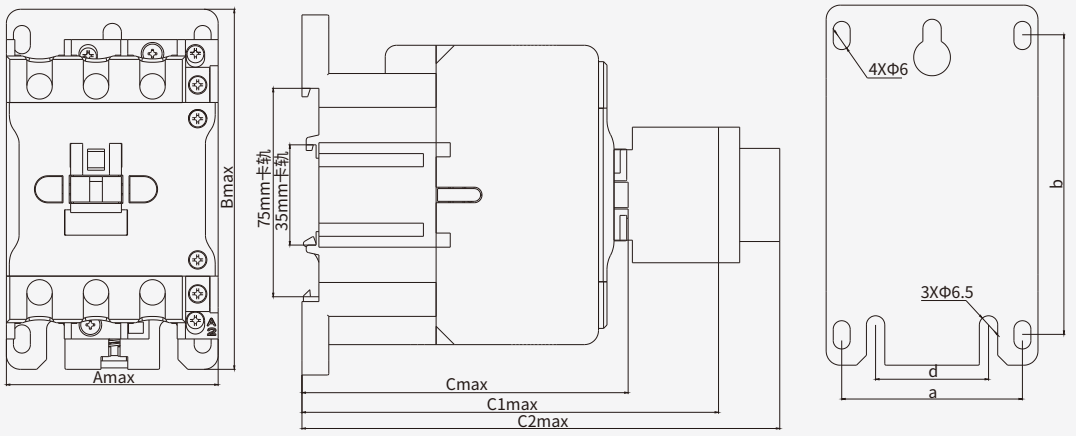


EXC3-25~38



EXC3
Series AC Contactor

EXC3-40～95



Model	Amax	Bmax	Cmax	C1max	C2max	a	b	d
EXC3-6～18	45.5	74.5	83	115	137	35	50/60	–
EXC3-25～38	57	80.5	94.5	127	149	40	50/70	–
EXC3-40～65	75.5	128.5	116	148	170	58.5	100/110	40
EXC3-80、95	85.5	128.5	118.5	150.5	172.5	64	100/110	40

Note：C1max-Contactor+F4　C2max-Contactor+LA2/LA3

EXC3
Series AC Contactor

Product description

EXC3	–	F	□	□
Model number		Improved Type	Rated working current	Derivative Code
EXC3			Rated operating current at 440V in the category of use of AC-3: 115 to 800	If N is present, it indicates reversibility.

F4 – □ □

- Normally contacts quantities
- Normally contacts quantities
- Auxiliary contacts groups

LA□-D – □□

- 20 indicates a delay range of 0.1 to 3 s
- 22 indicates a delay range of 0.1 to 30 s
- 24 indicates a delay range of 10 to 180 s
- LA2-D is for energizing delay
- LA3-D is for de-energ delay

The contactor can be assembled with any one of the auxiliary contact groups in the table

Model	F4-02	F4-11	F4-20	F4-22	F4-40	F4-04	F4-13	F4-31
Contacts quantities	2NC	1NO+1NC	2NO	2NO+2NC	4NO	4NC	1NO+3NC	3NO+1NC

Air delay head

Model	Delay range	Number of delayed contacts
LA2-D20	0.1～3s	1NO+1NC
LA2-D22	0.1～30s	
LA2-D24	10～180s	
LA3-D20	0.1～3s	
LA3-D22	0.1～30s	
LA3-D24	10～180s	

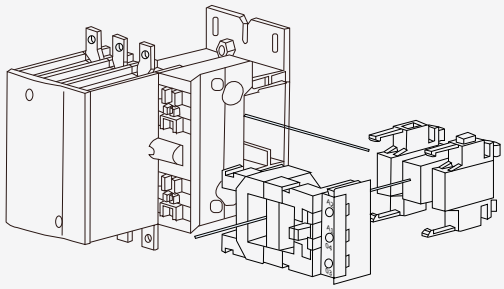
EXC3
Series AC Contactor

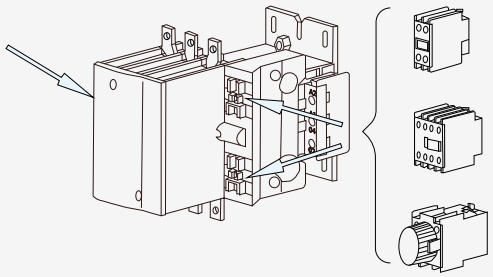
Technical data

AC Contactor model			EXC3									
			115	150	185	225	265	330	400	500	630	800
Main circuit characteristics												
Rated Insulation voltage Ui(V)			1000									
Conventional thermal current Ith(A)			200	200	275	275	315	380	450	630	800	800
Rated operating current Ie (A)	380V	AC-3	115	150	185	225	265	330	400	500	630	800
	660V	AC-3	86	107	118	137	170	235	305	355	462	486
Controllable three-phase squirrel cage motor power Pe (AC-3) kW		380V	55	75	90	110	132	160	200	250	335	450
		660V	80	100	110	129	160	220	280	335	450	475
Operating Frequency (Times/H)		AC-3	600						300			
Electrical life ($1x10^4$ times)		AC-3	60		50				30			
Mechanical life $1x10^4$ times)			200						100			
Coordination Type with SPCD			"2" type Coordination And Fit									
Recommended Fuse Model			RT16-1/250		RT16-2/250	RT16-2/400		RT16-3/400	RT16-3/500	RT16-3/630	RT16-4/800	RT16-4/1000
Coil	Rated control voltage Us(V)		AC 48V,110V,220V,380V (50Hz)									
	Working voltage (V)		AC 0.85Uc～1.1Uc									
	Drop-out Voltage (V)		AC0.20Uc～0.60Uc									
Auxiliary contact	Rated working voltage		AC 380V、DC 220V									
	Rated working current (A)	AC-15(360VA)	0.95									
		DC-13(33W)	0.15									
	Minimum make/break load		24V 10mA									
	Note: The product does not come with auxiliary contacts. It can be equipped with up to two F4 supplementary contact blocks (available as either two or four contacts each), allowing for a maximum installation of eight auxiliary contact sets in total.											

3):Contactor pull-in voltage: 85% Us～110% Us; release voltage: 20% Us～75% Us for and 10% Us～75% Us for DC.

Coil and auxiliary assembly schematic diagram

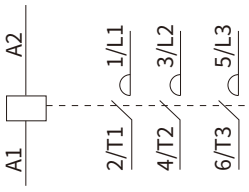




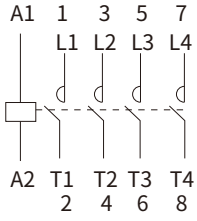
The following auxiliary block is recommended to be used:

Auxiliary contact group:	Two pairs: F4-11 02 20 Four pairs: F4-22 13 04 31 40
Air delay head:	Suction delay: LA2-D20 LA2-D22 LA2-D24 Release delay: LA3-D20 LA3-D22 LA3-D24

Wring Diagram



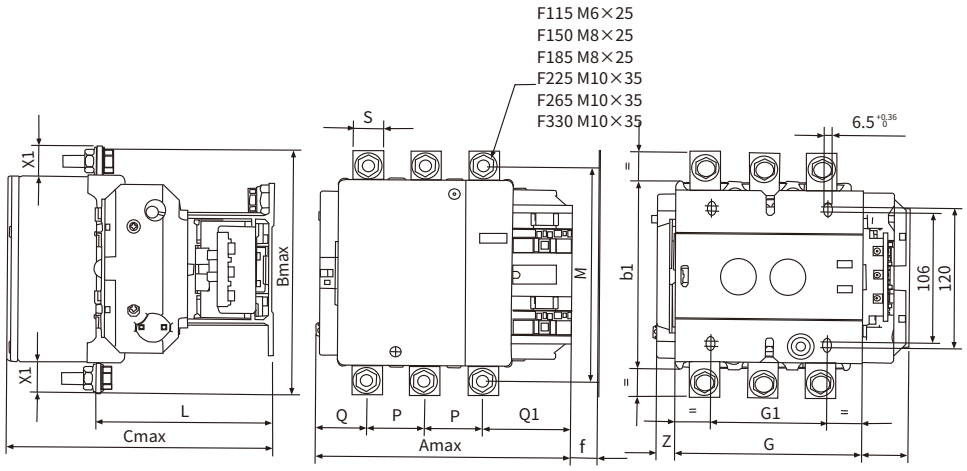
EXC3-115、150、185、225、
265、330、400、500、630



EXC3-1154、1504、1854、2254、
2654、3304、4004、5004、6304

Overall and mounting dimensions

EXC3-115～330



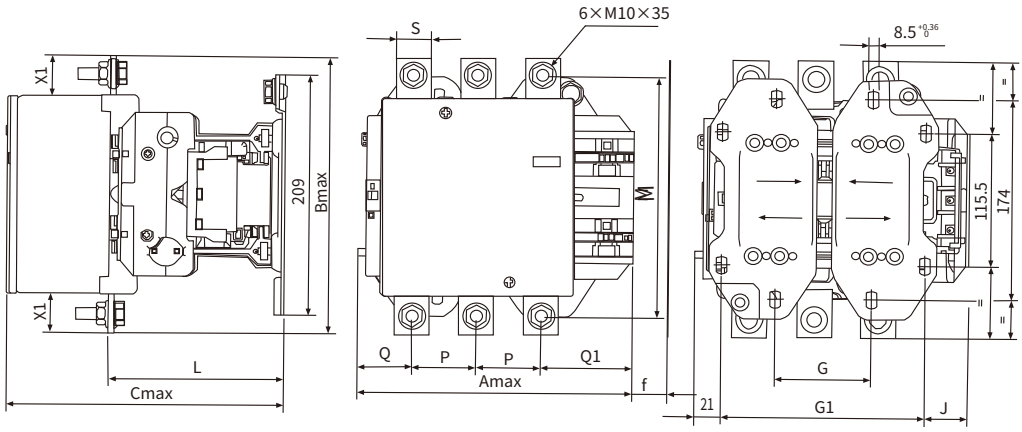
Unit：mm

Model	Amax	Bmax	Cmax	G	L	M	P	Q	Q1	S	Y	Z	b1	G1	f	X1
EXC3-115	170	166	172	106	108	147	36.5	32	62	20	46	14	124	80	133	18
EXC3-150	170	173	172	106	108	150	40.5	29	58	20	46	15	124	80	133	23
EXC3-185	172	175	183	111	115	154	40	31	59	20	46	17	127	80	133	23
EXC3-225	174	198	183	111	116	172	48	26	52	25	46	17	127	80	133	34
EXC3-265	204	203	213	142	141	172	48	39	67	25	36	24	145	80	146	30
EXC3-330	213	213	220	155.5	150	186	48	41	75	25	36	20.5	159	96	146	26

Note: f is the minimum distance required to dismantle the coil；

X1 is the minimum electrical distance determined by the operating voltage and the breaking capacity。

EXC3-400～500

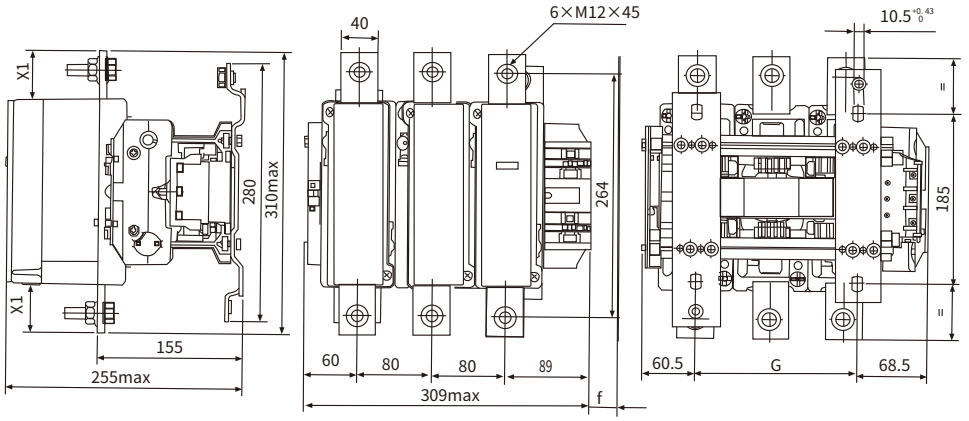


Unit：mm

Model	Amax	Bmax	Cmax	G	L	M	P	Q	Q1	S	G1	Y	f	X1
EXC3-400	218	212	219	80	149	186	48	47	74	25	170	26	146	26.5
EXC3-500	235	240	232	80	150	208	55	46	77	30	171	41	150	34

EXC3
Series AC Contactor

EXC3-630~800



Unit：mm

Model	G	f	X1
EXC3-630	180	181	50
EXC3-800	180	181	50

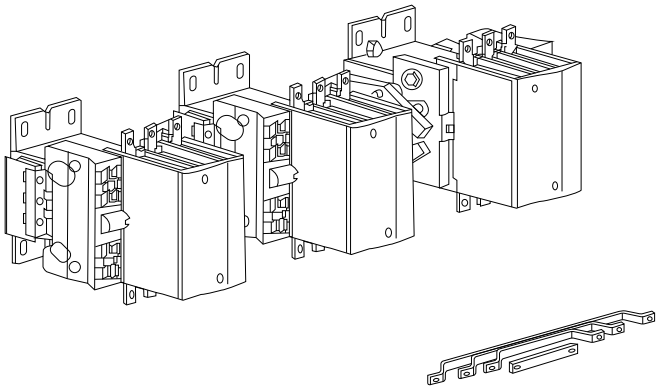
Note: f is the minimum distance required to dismantle the coil；

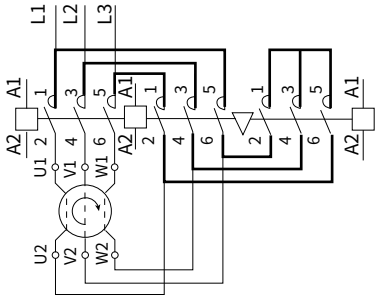
X1 is the minimum electrical distance determined by the operating voltage and the breaking capacity。

Combination

Star-delta starter

EXC3-115Y～330Y





CJ19
Series AC Contactor

Product description

Overview

Rated working voltage Ue: AC220V，380V
Rated insulation voltage Ui: AC500V
Application scenario: Applicable to industrial facilities, commercial buildings, power distribution systems, data centers and other power transmission and distribution facilities, used to manage large-capacity capacitor banks to maintain the stability and efficiency of the power grid.
Standard: GB14048.4、IEC60947-4-1
Certificate: CCC

Product features

1.high rated working current and the ability to withstand short-term overload.
2.Specially designed arc extinguishing system to cope with the arc generated when the capacitor is switched.
3.fast operation speed, in order to quickly respond to changes in power demand.
4.long life and reliability to support frequent operations

Operating Conditions

1.Ambient air temperature: -5°C to +40°C;
2.Altitude: Not exceeding 2000 m;
3.Atmospheric conditions: The relative humidity of air at the installation location shall not exceed 50% at +40°C, with higher relative humidity permissible at lower temperatures (e.g., up to 90% at 20°C). Appropriate measures shall be taken for occasional condensation caused by temperature variations.
4.Pollution degree: Level 3;
5.Enclosure protection rating: Ip20;
6.Installation category: Category III;
7.Installation condition: The mounting surface shall have an inclination within ±5° from the vertical plane;
8.Shock and vibration: Shall be installed in locations without significant shaking, impact, or vibration.
9.Transportation and storage: The contactor shall not be subjected to severe collisions or vibrations during transportation and shall be protected from rain and snow during both transportation and storage.
10.The contactor is suitable for storage and transportation within a temperature range of -25°C to +55°C, with short-term exposure (within 24 hours) up to +70°C.

CJ19
Series AC Contactor

Product description

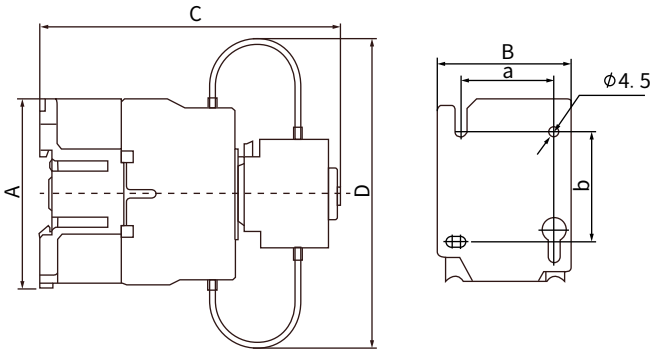
CJ19	-	□	□	□
Model number		Basic specification code	Number of NO auxiliary contacts	Number of NC auxiliary contacts
CJ19		Expressed with rated operating current（A）	(The sum of NO auxiliary contacts and NC auxiliary contacts must not exceed 2.)	

Technical data

Model		CJ19-25	CJ19-32	CJ19-43	CJ19-63	CJ19-80	CJ19-95
Controllable capacitor capacity (kvar)	220V	6	9	10	15	23	28.8
	380V	12	18	20	30	40	50
Rated insulation voltage Ui(V)		500					
Rated working voltage Ue(V)		220、380					
Conventional thermal current Ith(A)		25	32	43	63	80	95
AC-6b Rated working current(A)	380V	17	26	29	44	54	72
Ability to suppress surge current		20Ie					
Control coil voltage Us(V)		36、110、127、220、380					
Auxiliary contact rated heating current(A)		10			10		
Operating frequency(times/h)		120					
Electric life(1x10^{4}cycles)		100			80	60	60
Mechanical life(1x10^4 times)		1000			800	600	600

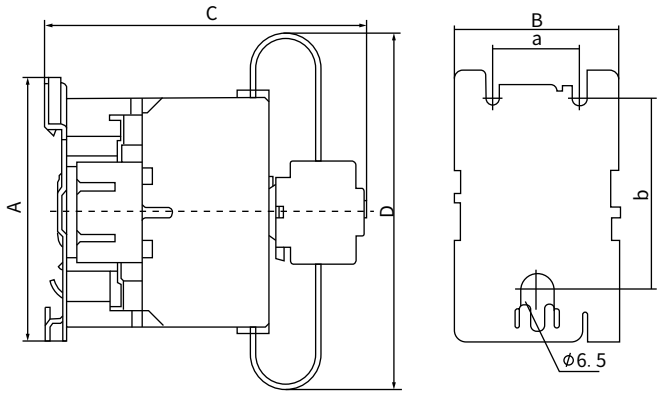
Overall and mounting dimensions

CJ19-25、32、43



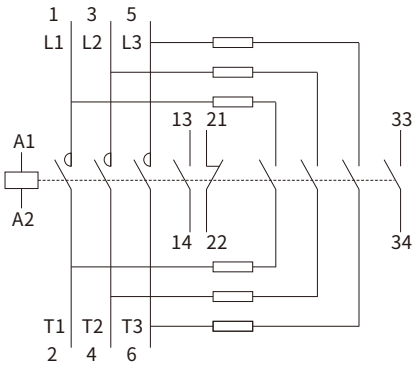
CJ19
Series AC Contactor

CJ19-63、80、95



Size / Model	Dimensions				Installation size		
	A	B	C	D	a	b	Note
CJ19-25	76	47	125	120	35	50/60	Other than screw mounting, it can also be installed with a 35mm mounting rail.
CJ19-32	86	58	135	130	40	50/60	
CJ19-43	86	58	135	130	40	50/60	
CJ19-63	128	79	156	150	40	100/110	Other than screw mounting, it can also be mounted with 35mm, 75mm mounting tracks
CJ19-80	128	87	160	200	40	100/110	
CJ19-95	128	87	160	200	40	100/110	

Wiring diagram



Ordering Instructions

1、The full name and model number of the contactor;
2、The rated working voltage and frequency of the coil;
3、The quantity to be;
4、If standard track should be ordered, it should be noted separately;
5、Order example: CJ19-25/11 coil voltage 20V 50Hz 10 sets.

HUC1
Series AC Contactor

Product description

Overview

Rated operating current Ie: 6A~800A
Rated working voltage Ue: AC230V~690V
Rated insulation voltage Ui: AC690V
Number of poles: 3P, 4P (only 40~75A, 100~210A, 370~550A)
Coil control mode: AC
Installation method: HUC1-06~75A guide rail and screw installation, HUC1-80~800A screw installation
Application scenario: Suitable for motor control, lighting control, HVAC system, elevator control and other industrial and civil power systems, for frequent switching or disconnecting AC circuit.
Standard:GB/T 14048.4
Certificate:CCC

Product features

1、Various product specifications, rated current up to 800A, accessories and derivative products are complete.
2、 HUC1-6 to 30 for closed natural arc extinguishing, HUC1-80 and above products arc extinguishing system using high-strength arc resistant plastic, to achieve the purpose of rapid arc extinguishing, improve the life of plastic arc extinguishing cover.
3、 Rated current 175A and above specifications of the electromagnetic core using a permanent air gap form, to ensure reliable release under high life.
4、The contact system of products with rated current 370A and above adopts a separate structure of arc contact and conductive contact, which greatly enhances the reliability of connecting and breaking.
5、The whole series of products with mechanical interlocking structure, can be applied to various control requirements.

Operating Conditions

1、Ambient air temperature：The limit temperature is -35℃ ~ +70℃, the normal working temperature is -5℃ ~ +40℃, and the average value within 24 hours does not exceed +35℃.
2、Altitude：Not more than 2000m
3、Atmospheric conditions：The relative humidity of the air at the installation site does not exceed 50% at +40 ° C, and higher temperatures can be allowed at lower temperatures Relative humidity, such as 90% at 20 ° C, should take special measures for the occasional condensation due to temperature changes.
4、Pollution degree：3 class
5、Installation category：III
6、Enclosure protection class：IP20
7、Installation condition：The vertical inclination of the mounting surface is not greater than ±5°
8、Shock vibration：Contactors should be installed and used where there is no significant shaking, shock or vibration.
9、Transportation and storage：Contactors should not be subjected to violent collision and vibration during transportation, and should not be subjected to rain and snow during transportation and storage Invasion. The contactor is suitable for transport and storage between -25 ° C and +55 ° C and at a temperature of +70 ° C for a short time (within 24 hours)

Technical data

1、The type, quantity and basic parameters of the auxiliary circuit contacts

Auxiliary contact number	Ith A	Ui A	Ue V		Ie A		Type of contact and quantity	Rated control capacity		Type of contactor to be supplied
			AC	DC	AC	DC		AC VA	DC W	
Ca7	10	690	127	48	0.8	0.63	- NO or- NC	100	30	HUC1-9～75A (Hang up)
			220	60	0.45	0.5				
HUF2 HUF3 HUF5			400	110	0.26	0.27	- NO - NC			HUC1-40～75A HUC1-80～800A HUC1-9～30A (side-mounted)
			690	220	0.15	0.14				

2、 Main circuit rated insulation voltage (Ui), rated operating voltage (Ue), conventional heating current (Ith) and rated operating current (Ie) and rated control power (Pe) under the corresponding class of the corresponding working system, basic parameters of the main circuit (three poles and four poles are the same)

HUC1-		6/30	9/30	12/30	16/30	25/30	30/30	40/$\frac{30}{40}$	50/$\frac{30}{40}$	63/$\frac{30}{40}$	75/$\frac{30}{40}$
Ui V		690									
Ith A		20	26	28	28	45	65	100	125	125	125
Ue V		230	230	230	230	230	230	230	230	230	230
		400	400	400	400	400	400	400	400	400	400
		690	690	690	690	690	690	690	690	690	690
on Intermittent cycle condition Ie(A)	AC-1	20	22	24	28	45	55	70	100	115	125
	AC-3	6	9	12	16	25	30	40	50	63	75
		6	9	12	16	25	30	40	50	63	75
		3	3.5	4.9	6.7	13	17.5	25	35	43	45
	AC-4	6	9	12	16	25	30	40	50	63	75
		6	9	12	16	25	30	40	50	63	75
			3.5	4.9	6.7	13	17.5	25	35	43	45
AC-3's Pe kW		1.5	2.2	3	4	6.5	9	11	15	18.5	22
		2.2	4	5.5	7.5	11	15	18.5	22	30	37
		3	4	5.5	5.5	11	15	22	30	37	40
Uninterrupted work Ie(A)		20	22	24	28	45	55	70	100	115	125
Coil power (VA)	Maintain	9				12		22			
	Pull-in	60				122		242			
Recommending choose the matching thermal overload relay		JRS2-25F				JRS2-32F		JRS2-80F			

HUC1
Series AC Contactor

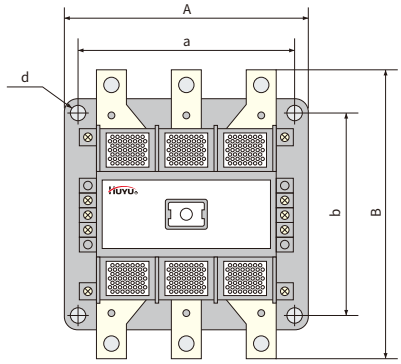
Continued table

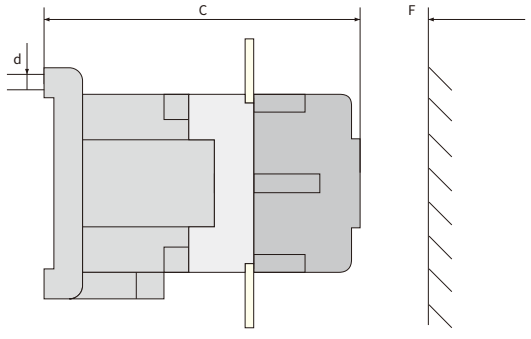
HUC1-		80/30	90/30	100/$\frac{30}{40}$	145/$\frac{30}{40}$	175/$\frac{30}{40}$	210/$\frac{30}{40}$	260/30	300/30	370/$\frac{30}{40}$	550/$\frac{30}{40}$	700/30	800/30
Ui V		690											
Ith A		145	160	200	230	260	300	400	445	550	800	1000	1000
Ue V		230	230	230	230	230	230	230	230	230	230	230	230
		400	400	400	400	400	400	400	400	400	400	400	400
		690	690	690	690	690	690	690	690	690	690	690	690
on Intermittent cycle condition Ie(A)	AC-1	145	160	200	230	260	300	400	445	550	800	1000	1000
	AC-3	80	90	100	145	175	210	260	300	370	550	700	800
		80	90	100	145	175	210	260	300	370	550	700	800
		65	70	100	120	170	210	250	280	370	550	700	750
	AC-4	80	80	117	125	146	175	250	250	350	450	630	630
		80	80	117	125	146	175	250	250	350	450	630	630
		30	35	47	55	66	75	95	95	117	140	185	185
AC-3's Pe kW		22	22	30	45	55	59	80	90	110	160	220	220
		40	45	55	75	90	110	140	160	200	280	370	400
		45	59	110	110	132	160	200	250	355	500	600	650
Uninterrupted work Ie(A)		145	160	200	230	260	300	400	445	550	800	1000	1000
Coil power (VA)	Maintain	22		38		40		45		130		130	
	Pull-in	360		570		800		1050		2100		3160	
Recommending choose the matching thermal overload relay		JRS2-180/F					JRS2-400F				JRS2-630F		
Method of installation		Stand-alone											

Note: When reading the above table, please pay attention to the color system, the same color of multiple models indicates the current value and power at the same voltage

Overall and mounting dimensions

1、HUC1 series 3P

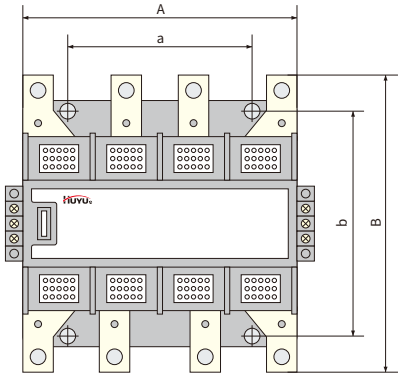


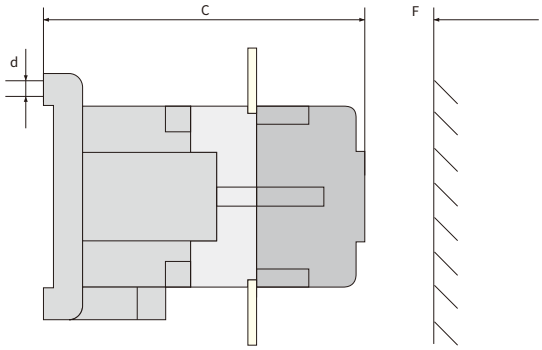


HUC1
Series AC Contactor

Basic specifications	A max	B max	C max	a	b	ϕ	F
HUC1-6～16	46	75	75	35、46	50	4.5	
HUC1-25	55	92	95	45	80、75、70	4.3	
HUC1-30	55	92	110	45	80、75、70	4.3	
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	15	40
HUC1-700	245	296	227	220	200	15	40
HUC1-800	245	346	227	220	200	15	40

2、HUC1 series 4P





Basic specifications	A max	B max	C max	a	b	d	F
HUC1-40～75	92	112	110	60	100、90	6	20
HUC1-100	165	158	154	120	140	5.5	40
HUC1-145	165	172	154	120	140	5.5	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	15	40
HUC1-550	270	273	227	220	200	15	40

Ordering Instructions

It must be stated at the time of ordering:
1、The full name and model of the contactor;
2、The rated working voltage and frequency of the coil, the number of poles;
3、Order quantity;
4、For standard card guide, please mention separately.
5、Order example: HUC1-9/10 coil voltage 220V, frequency 50Hz, 3-phase, quantity 1 units, expressed as HUC1-9/10 Us: 220V 50Hz 3P 10 units.

JYC8
Series household contactor

Product description

Overview

Rated operating current Ie: 16A to 63A
Rated working voltage Ue: AC230/400V
Rated insulation voltage Ui: AC500V
Pole: 1P、2P、3P、4P
Coil control mode: AC
Installation method: guide rail installation
Application scenario: Suitable for industrial automation, construction and infrastructure, household appliances and other industrial and commercial and household appliances requiring high reliability and flexibility.
Standard: GB/T 17885、IEC61095
Certificate: CCC

Product features

1、 A variety of pole selection, you can flexibly choose the most suitable model according to the actual application needs, adapt to different circuit configuration
2、Smaller volume, lighter weight, especially suitable for limited space applications, such as small control cabinet or compact equipment
3、 Support rail installation, through simple insertion and removal operation can complete the installation, convenient and fast, It reduces the construction time and difficulty
4、100,000 times of electrical life, reduces the replacement frequency, and reduces the maintenance cost

Operating Conditions

1、Ambient air temperature：Ambient air temperature: -5℃ ~ +40℃. Its average value does not exceed +35℃ in 24 hours
2、Altitude：Not more than 2000m
3、Atmospheric conditions：The relative humidity of the air at the installation site does not exceed 50% at +40 ° C, and higher temperatures can be allowed at lower temperatures Relative humidity, such as 90% at 20 ° C, should take special measures for the occasional condensation due to temperature changes
4、Pollution degree：2 class
5、Installation category： II
6、Enclosure protection class：Ip20
7、Installation condition：The vertical inclination of the mounting surface is not greater than ±5°
8、Installation Method：TH35-7.5 type mounting guide rail is adopted

JYC8
Series household contactor

Product description

JYC8 - □	□	□	□	□
Model number	Rated operating current (A)	Number of poles	Number of contact group	Rated control power supply voltage (V)
JYC8	16～63	1P 2P 3P 4P	Normally open Normally closed	24V 48V 110V 230V

Technical data

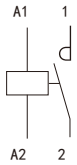
1、Technical parameters are shown in Table 1 and Table 2

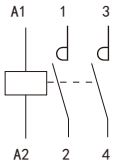
Model			16A	20A	25A	32A	40A	63A
Rated current(A)	AC-7a		16	20	25	32	40	63
	AC-7b		6	7	9	12	18	25
Conventional thermal current Ith(A)			25	25	25	63	63	63
Rated insulation voltage Ui(V)			500					
Rated working voltage Ue(V)			250V(1P/2P)、400V(3P/4P)					
Number of main contacts	1P		1NO、1NC					
	2P		1NO1NC、2NO、2NC					
	3P		3NO、3NC					
	4P		2NO2NC、3NO1NC、4NO、4NC					
Control power (KW)	AC-7a (AC-1)	250V	3.6	4.6	5.7	8	9.2	14.4
		400V	6.3	7.6	16.4	12	26.2	41.4
	AC-7b (AC-3)	250V	1.3	1.6	2	3	4.1	5.7
		400V	3.9	4.3	5.9	4.5	11.8	16.4

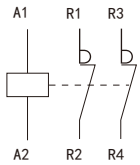
2、Contactor coil working voltage Us: AC (50Hz) : 24V, 48V, llOV, 230V, other specifications can be negotiated with the
3、Operating characteristics: When the ambient air temperature is -5°C ~ +40°C, the rated control power supply voltage Us is applied to the contactor suction coil, so that it is heated to a stable state, the contactor can be closed under any electrical pressure within the (85%-110%) Us range. The release voltage is neither higher than 75%Us, nor lower than 20%Us(two poles), and the release voltage is not lower than lO%Us(four poles).
4、Mechanical life: The mechanical life of the contactor is not less than lOO million times.
5、Electrical life: The electrical life of the contactor is not less than lO million times.

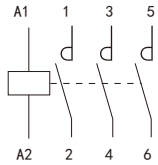
JYC8
Series household contactor

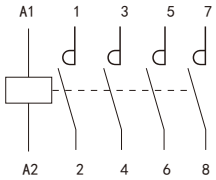
Wiring diagram

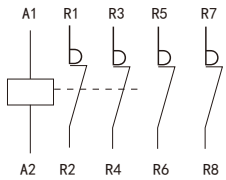


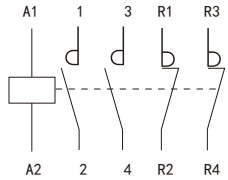








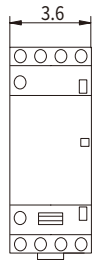




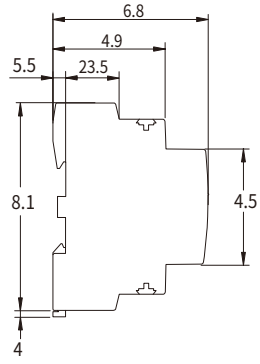
Overall and mounting dimensions

JYC8-16、20、25

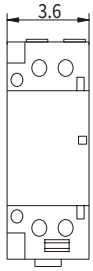
1P/2P



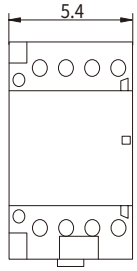
3P/4P



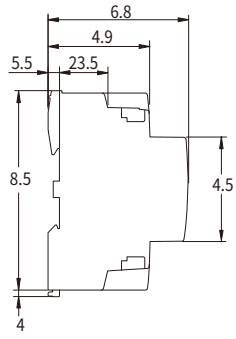
JYC8-32、40、63



1P/2P



3P/4P



DZ108
Series Motor Protection Circuit Breaker

Product description

Overview

Frame current: 20, 32, 63A
Rated working voltage Ue: AC380V
Rated insulation voltage Ui: AC660V
Rated impulse withstand voltage Uimp: 6kV
Number of poles: 3P
Application scenario: Suitable for pumps, fans, elevators, cranes, lifts and other industrial, commercial and civil buildings in the power system, to ensure the safety of the motor under various operating conditions.

Standard：GB/T 14048.2
Certificate：CCC

Product features

1、 Built-in temperature compensation device, can automatically adjust the trip characteristics according to the change of ambient temperature, to ensure that the accurate operating performance can be maintained under different temperature conditions.
2、The board front wiring design, easy to install and maintain, reduce wiring complexity, improve work efficiency.
3、Has a strong ability to resist electromagnetic interference, can work stably in complex industrial environments, reduce the possibility of misoperation.
4、Some specifications with mounting plate, can be directly embedded in the 35mm wide standard guide rail, easy to integrate into the distribution box or control cabinet.

Operating Conditions

1、Ambient air temperature：The normal operating temperature is -5°C ~ +40°C, and the average value within 24 hours does not exceed +35°C
2、Altitude：Not more than 2000m
3、 Atmospheric conditions： The relative humidity of the air at the installation site does not exceed 50% at +40 ° C, and a higher relative humidity can be allowed at lower temperatures, such as 90% at 20 ° C. Special measures should be taken for condensation occasionally caused by temperature changes
4、Pollution degree：3 class
5、Installation category：III
6、Installation condition：The vertical inclination of the mounting surface is not greater than ± 5°
7、 Shock vibration： Contactors should be installed and used where there is no significant shaking, shock or vibration.

DZ108
Series Motor Protection Circuit Breaker

Product description

DZ108	– □	□	□□
Model number	Bracket rating currentDesign	Use Class code (Table 2)	Auxiliary contact combination code (Table 1)
DZ108	1P 2P 3P 4P	Normally open Normally closed	

Table 1

Auxiliary contact assembly code	Represents the type of auxiliary contact	Notes
00	NO	The auxiliary contact combination code has two digits, the first digit is the number of normally open contacts (NO), the second digit is the number of normally closed contacts (NC), and only DZ108-20 has two normally open or two normally closed
11	1NO and 1NC	
20	2NO	
02	2NC	

Table 2

Use category code	The usage type of the representative
1	Distribution protection circuit breaker
2	Motor protection circuit breaker

Table3 Setting range of overcurrent release

Model	Rated current(A)	Trip current Setting Range Ir(A)
DZ108-20	0.16	0.1～0.16
	0.25	0.16～0.25
	0.4	0.25～0.4
	0.63	0.4～0.63
	1	0.63～1
	1.6	1～1.6
	2.5	1.6～2.5
	3.2	2～3.2
	4	2.5～4
	5	3.2～5
	6.3	4～6.3
	8	5～8
	10	6.3～10
	12.5	8～12.5
	16	10～16
	20	14～20

Model	Rated current(A)	Trip current Setting Range Ir(A)
DZ108-32	1.6	1～1.6
	2.5	1.6～2.5
	4	2.5～4
	6.3	4～6.3
	10	6.3～10
	12.5	8～12.5
	16	10～16
	20	12.5～20
	25	16～25
	32	22～32
DZ108-63	10	6.3～10
	16	10～16
	25	16～25
	32	22～32
	40	28～40
	50	36～50
	63	45～63

DZ108
Series Motor Protection Circuit Breaker

Technical data

1、The main technical data of DZ108 circuit breaker are shown in Table 4

Table 4

Model	DZ108-20		DZ108-32		DZ108-63	
Rated insulation voltage Ui(V)	660		660		660	
Number of poles	3		3		3	
Rated short-circuit breaking capacity Icu(kA)	1.5		10		22	
(effective value)o-t-co-t-co						
380V kA/cosφ						
660V kA/cosφ	1.5/0.95		10/0.5		22/0.25	
Rated short-circuit closing capacity Icm(kA)	1.0/0.95		3/0.9		7.5/0.5	
380V Icm/cosφ						
660V Icm/cosφ	2.2/0.95		17/0.5		46/0.25	
Maximum power of control motor AC-3(kW)	1.4/0.95		4.2/0.8		12.8/0.3	
220V						
380V	5.5		9		18	
690V	10		16		32	
Auxiliary contact	16		26		28	
Rated heating current (A)	6		6		6	
AC-15 Rated operating Voltage (V)	220	380	220	380	220	380
AC-15 Rated Operating Current (A)	1.4	0.8	1.4	0.8	1.4	0.8
AC-15 Rated Switching Capacity (A)	14	8	14	8	14	8
AC-15 Rated Breaking Capacity (A)	14	8	14	8	14	8

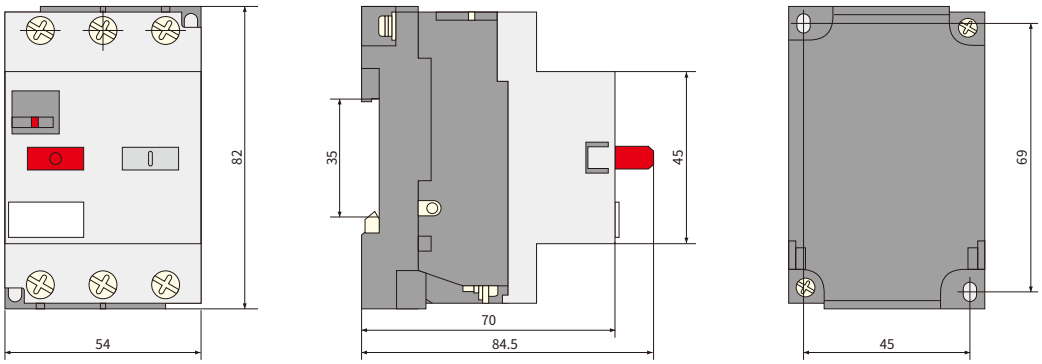
2、The protection characteristics are shown in Table 5

Table 5

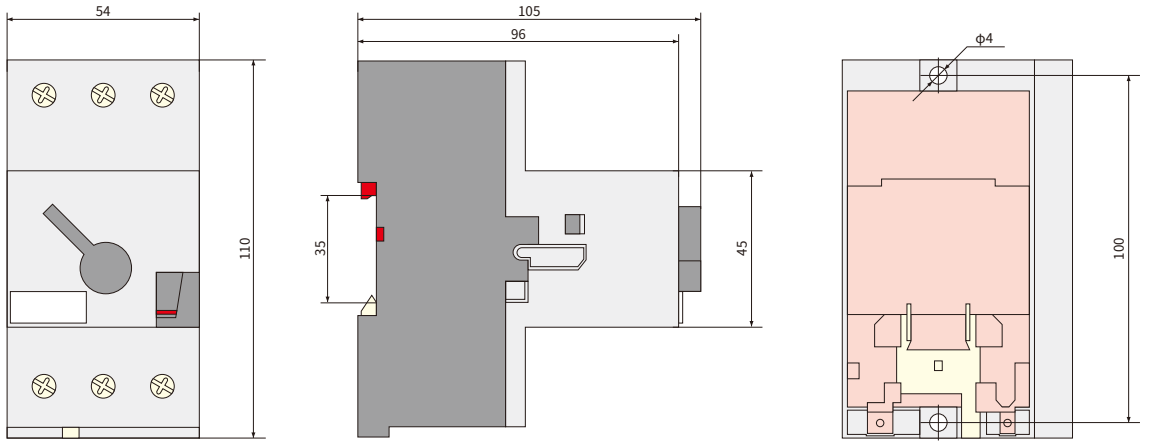
Motor protection type	Tripping current multiple	1.05In	1.2In	1.5In	7.2In	12In±20%
	Operation time	No trip within 2 hours	Trip within 2 hours	Trip in 2 minutes	The returnable time is less than 1s	Trip in 0.2s
Distribution protection type		1.05In	1.3In	10In±20%		
		No trip within 1 hours	Trip within 1 hours	Trip in 0.2s		

Overall and mounting dimensions

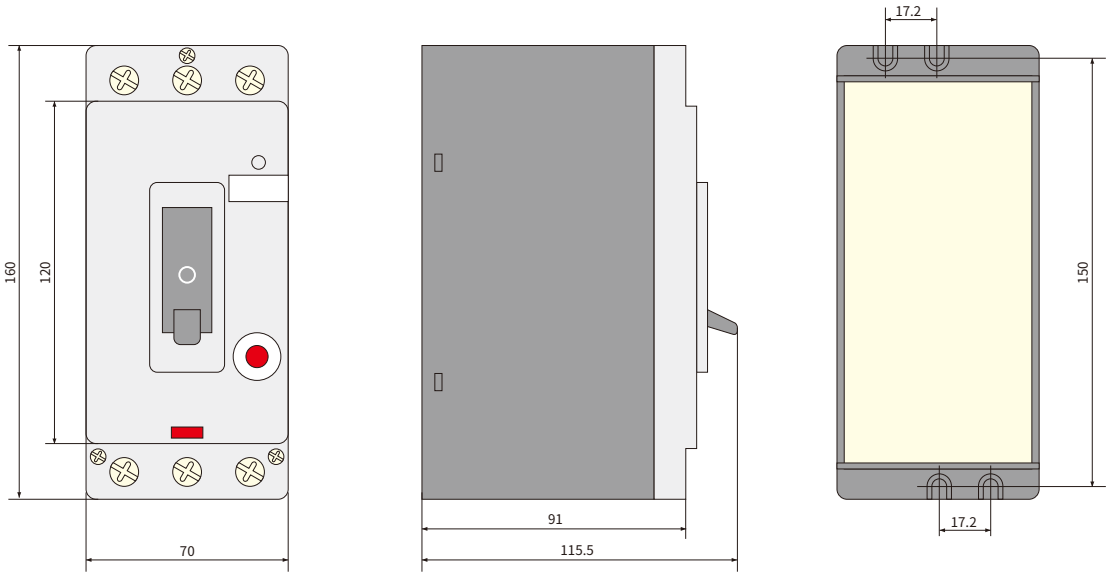
1、DZ108-20



2、DZ108-32



3、DZ108-63



EXR3
Series Thermal Relay

Product description

Overview

Rated working voltage Ue: AC660V
Rated insulation voltage Ui: AC690V
Number of poles: 3P
Trip level: 10A
Installation mode: plug-in, independent
Application scenario: Suitable for industrial manufacturing, head heating system, mining equipment and other industrial and commercial environment, can effectively extend the service life of the motor, reduce the occurrence of failures, to ensure the stable operation of the system.

Standard：GB/T 14048.4、IEC60947-4-1
Certificate：CCC

Product features

1、Rated operating voltage up to 690V, to meet the needs of different application scenarios.
2、Suitable for current from 0.1A to 630A circuit, covering a variety of applications from small motor to large industrial equipment.
3、Bimetal structure optimization and upgrading, more accurate positioning, more reliable action in special environments.
4、Normally closed normally open auxiliary contact insulation separate, combined installation can prevent finger electric shock, safer use.

Operating Conditions

1、Atmospheric conditions：The limit temperature is -35°C ~ +70°C , the normal working temperature is -5°C ~ +40°C, and the average value within 24 hours does not exceed +35°C
2、Altitude：Not more than 2000m
3、Atmospheric conditions：The relative humidity of the air at the installation site does not exceed 50% at +40 ° C, and a higher relative humidity can be allowed at lower temperatures, such as 90% at 20 ° C. Special measures should be taken for condensation occasionally caused by temperature changes
4、Pollution degree：3 class
5、Installation category：III
6、Installation condition：The vertical inclination of the mounting surface is not greater than ± 5°
7、Shock vibration：Contactors should be installed and used where there is no significant shaking, shock or vibration.

Product description

EXR3	–	□	□
Model number		Frame current (A)	Installation code
EXR3		25 36 93	Z: Composite installation F: Independent installation(with base required)

EXR3
Series Thermal Relay

The thermal overload relay adjusting current and matching product

Product Model	Rated insulation voltage (Ui)	Trip Class		Matched Contactor Model	Fuse Rated Current, Imax (A)
		Rated Set Current (A)	Adjusting current (A)		
EXR3-25	660	0.16	0.1～0.16	EXC3-06～18	4
		0.25	0.16～0.25		4
		0.4	0.25～0.40		4
		0.63	0.40～0.63		4
		1	0.63～1		4
		1.6	1～1.6		4
		2.5	1.6～2.5		6
		4	2.5～4		10
		6	4～6		16
		8	5.5～8		20
		10	7～10		20
		13	9～13		25
		18	12～18		35
		25	17～25		50
EXR3-36	660	32	23～32	EXC3-25～38	63
		40	30～40		80
EXR3-93	660	32	23～32	EXC3-40～95	63
		40	30～40		80
		50	37～50		100
		65	48～65		100
		70	55～70		125
		80	63～80		125
		93	80～93		160
EXR3-180	690	80	55～80	EXC3-115～185	125
		90	63～90		125
		110	80～110		200
		120	90～120		200
		135	110～135		200
		150	120～150		200
		160	135～160		250
		180	150～180		250
EXR3-400	690	125	80～125	EXC3-F125～400	200
		200	125～200		400
		250	160～250		400
		320	200～320		500
		400	250～400		500

EXR3
Series Thermal Relay

Products parameters

Usage ambient	~5°C～+40°C
Tripping grade	10A
Rated insulation voltage Ui（V）	660
Product Features	
Overload protection	YES
Open phase protection	YES
Manual reset	YES
Auto reset	YES
Stop button	YES
Test button	YES
Tripping indication	YES

Auxiliary circuits parameter

Auxiliary circuits				
Usage category	AC-15		DC-13	
Rated insulation voltage Ue（V）	500		500	
Rated operating voltage Ue（V）	380	220	220	110
Rated operating voltage Ue（V）	0.95	1.64	0.15	0.3
Conventional thermal current Ith (A)	6		6	
Auxiliary contacts type	1NO+1NC		1NO+1NC	

Operating characteristic

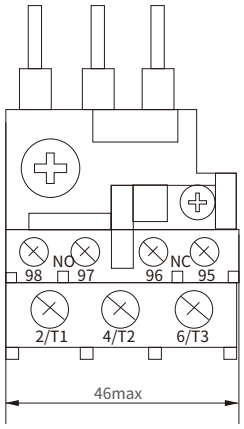
State	No.	Adjusting current times	Operating time			Initial condition	Ambient air temperature (°C)
Load balance in each phase	1	1.05	＞2H			Start at cold state	+20
	2	1.20	＜2H			Heat state (Start after No. 1 test)	
	3	1.50	Tripping range	10A	＜2minutes		
				10	＜4minutes		
	4	7.2		10A	2s＜TP≤10s	Start at cold state	
				10	4s＜TP≤10s		
Load un-balance in each phase (open phase)	5	Any two phase 1.0 another phase 0.9	＞2H			Start at cold state	
	6	Any two phase 1.15 another phase 0	＜2H			Heat state (Start after No. 5 test)	
Temperature compensation performance	7	1.0	＞2H			Start at cold state	+40
	8	1.20	＜2H			Heat state (Start after No. 7 test)	
	9	1.05	＞2H			Start at cold state	-5
	10	1.3	＜2H			Heat state (Start after No. 9 test)	

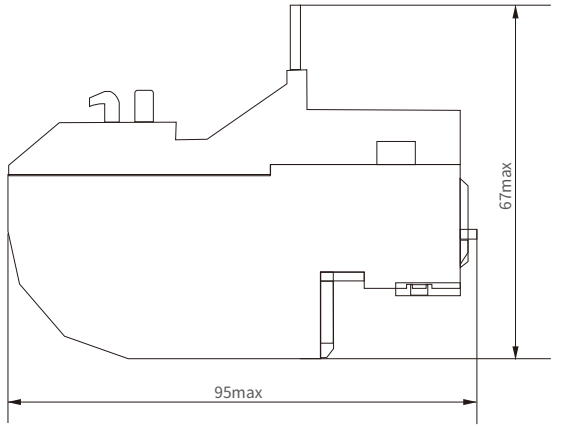
Accessories

No.	Name
1	EXR3-25 Mounting base
2	EXR3-36 Mounting base
3	EXR3-93 Mounting base

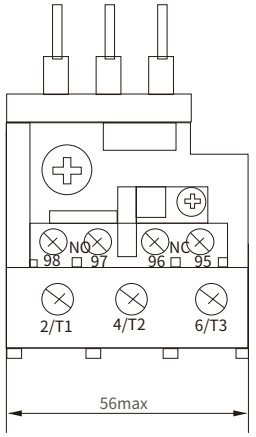
Overall and mounting dimensions

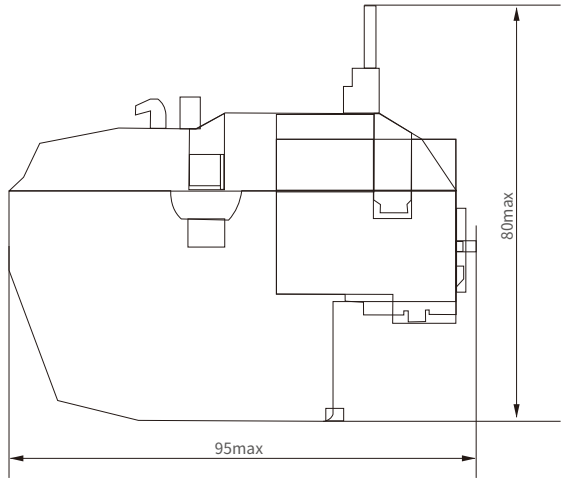
1、EXR3-25 Overall and mounting dimensions（mm）



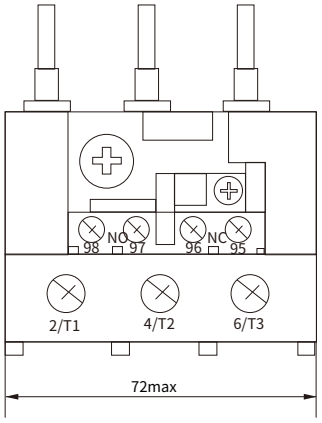


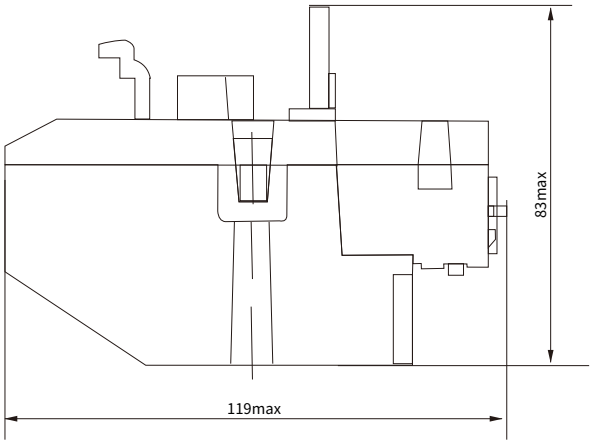
2、EXR3-36 Overall and mounting dimensions（mm）





3、EXR3-93 Overall and mounting dimensions（mm）





JS14P
Series Time Relay

Product description

Overview

Action form: power delay, power delay
Rated working voltage Ue: AC24~380V, DC24V
Installation method: device type or rail type
Application scenario: Suitable for industrial and civil applications such as automatic production lines, lighting control systems, HVAC systems, household appliances, etc., which require precise time control.

Standard：GB/T 14048.5、IEC 60947-5-1
Certificate：CCC

Product features

1、small size, light weight, easy to install in space limited places.
2、the use of dip switch for time setting, wide range, intuitive setting, easy to use.
3、provide a variety of delay forms, including power delay, power delay, etc., users can choose according to demand.
4、with strong anti-interference ability, can work stably in industrial environment.

Operating Conditions

1、Atmospheric conditions：Normal operating temperature -5°C ~ +40°C
2、Altitude：Not more than 2000m
3、Atmospheric conditions：When the maximum temperature of the installation site is 40 ° C, the relative humidity of the air is less than 50%, and a higher relative humidity is allowed at a lower temperature, such as 90% at 20 ° C. Special measures should be taken for occasional condensation due to temperature changes
4、Pollution degree：3 class
5、Storage：In the medium without serious vibration and explosion danger, and in the medium without gas and dust sufficient to corrode metal and destroy insulation; Where rain and snow don't come

Product description

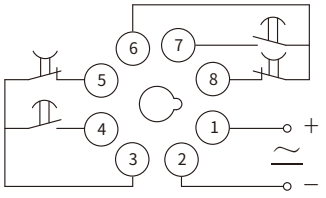
JS14P	- □	□	□	□
Model number	Code (Nominal delay value)	Control the power supply voltage	Voltage	Installation method
JS14P	1P 2P 3P 4P		Not marked AC, Z-DC	Device type without marking, M-panel type

JS14P
Series Time Relay

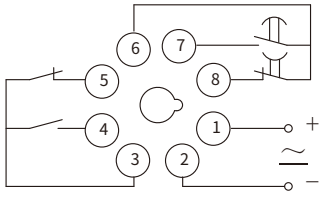
Technical data

Model	JS14P	JS14PC	JS14PF
Working voltage	AC380V，AC220V，AC110V，AC36V，AC24V 50Hz; DC24V，the allowable voltage fluctuation range is (85% ~ 110%)Ue		
Action form	Power-on time delay		power-off time delay
Number of contacts	Delay 2 conversion	Delay 1 conversion, instantaneous 1 conversion	2 groups of delay conversion
Contact capacity	3A AC250V (Resistive)		
Time range	0.01s～0.99s；0.1s～9.9s；1s～99s；0.1s～99.9s；1s～999s；0.1m～9.9m；1m～99m；1h～99h；		0.1s～9.9s；1s～99s；1s～199s；
Repeat error	When the delay range is greater than 1S, Er≤1%; If the delay range is less than 1S, the Dr≤50ms		If the delay range is less than 1S, the Dr≤100ms When the delay range is greater than 1S, Er≤5%;
Electrical life	$1x10^5$ times		
Ambient temperature	-5°C～40°C		
Altitude	≤2000m		
Humidity	For example, 90% at 20°C. Special measures should be taken for occasional condensation due to temperature changesWhen the maximum temperature of theinstallation site is 40°C, the relative humidity of the air is less than 50%, and a higher relative humidity can be allowed ata lower temperature.		
Installation way	Device type or rail type		

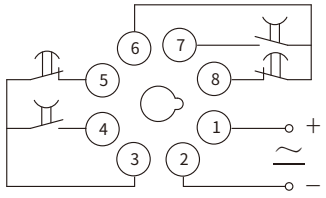
Wiring diagram



JS14P

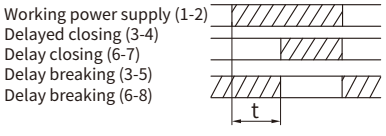


JS14PC

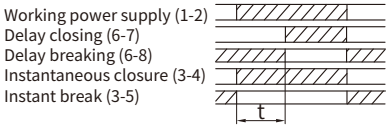


JS14PF

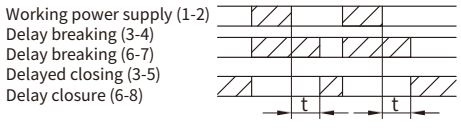
Working sequence diagram



JS14P

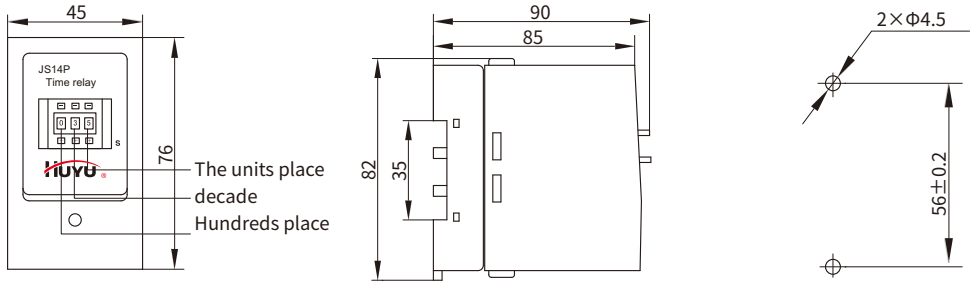


JS14PC



JS14PF

Overall and mounting dimensions



Device type, guide type: JS14P, JS14PC, JS14PF

AD26B
Series Signal Lamp Button

Product description

Overview

Frame current: 20, 32, 63A
Rated working voltage Ue: AC380V
Rated insulation voltage Ui: AC660V
Rated impulse withstand voltage Uimp: 6kV
Number of poles: 3P
Application scenario: Suitable for pumps, fans, elevators, cranes, lifts and other industrial, commercial and civil buildings in the power system, to ensure the safety of the motor under various operating conditions.

Standard：GB/T 14048.2
Certificate：CCC

Product features

1、Built-in temperature compensation device, can automatically adjust the trip characteristics according to the change of ambient temperature, to ensure that the accurate operating performance can be maintained under different temperature conditions.
2、 The board front wiring design, easy to install and maintain, reduce wiring complexity, improve work efficiency.
3、 Has a strong ability to resist electromagnetic interference, can work stably in complex industrial environments, reduce the possibility of misoperation.
4、 Some specifications with mounting plate, can be directly embedded in the 35mm wide standard guide rail, easy to integrate into the distribution box or control cabinet.

Operating Conditions

1、Atmospheric conditions： The normal operating temperature is -5°C ~ +40°C, and the average value within 24 hours does not exceed +35°C
2、Altitude： Not more than 2000m
3、 Atmospheric conditions： The relative humidity of the air at the installation site does not exceed 50% at +40 ° C, and a higher relative humidity can be allowed at lower temperatures, such as 90% at 20 ° C. Special measures should be taken for condensation occasionally caused by temperature changes
4、Pollution degree：3 class
5、Installation category： II
6、Enclosure protection class：IP65

AD26B

Series Signal Lamp Button

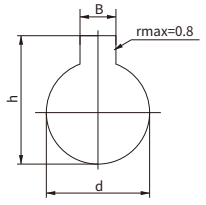
Product description

AD26B	–	22	□	□	□	□
Model number		Neck size	Derived code	AD26B series	Voltage code	Color code
AD26B		22-ϕ22	P-round flat button housing CM-long with no light CML-long with light SM- interval with no light SML- interval with light	No letters - standard S- ultra short	AC AC/DC(6V, 12V, 24V, 36V, 48V, 110V,220V, 380V)	R-Red Y-Yellow G-Green B-Blue W-White

Technical data

Rated insulation voltage Ui	AC 660V	
Rated operating voltage Ue	48、110、220、380V	110、220、380V
Power Device Type	AC/DC	AC
Rated operating voltage le	⩽20mA	⩽20mA
Insulation Resistance	⩾20MΩ	
Brightness	⩾60cd/m	
Relative leakage marking index (CTI)	⩾100	
Power frequency withstand voltage	1890V	
operating life	⩾30000h	
Emitting Color	White, green, red, yellow, blue, orange	
Protection class	IP65	

3、The diameter of the mounting hole and the dimensions of the keyway of the signal lamp mounting plate



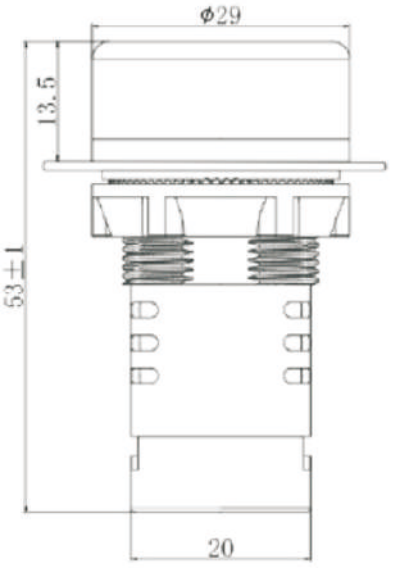
Symbols and designations of dimensions	d	h	c	r
D22	$22.3^{+0.4}_{0}$	$24.1^{+0.4}_{0}$	$3.2^{+0.2}_{0}$	⩽0.8

4、 When several signal lights are installed side by side on the same installation panel, the distance between the center of the same row of mounting holes "a" and the center line of each row "b" shall comply with the provisions of the following table.
5、The thickness range of the installation panel, all the lights should be able to load the thickness of 1-6mm on the board.
6、The standard position of the installation plate keyway is on the upper position (that is, 12 o 'clock).
7、The limit range of voltage between the terminal of the signal lamp is 0.85-1.1 times of the rated operating voltage of the signal lamp.

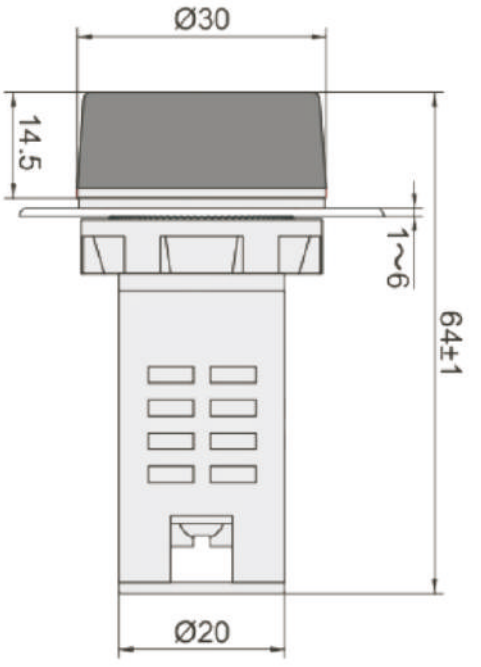
Size	a	b
D22	30	50

Note: Distances "a" and "b" are interchangeable

Overall and mounting dimentions



PS扣式短壳体



CM/CML/SM/SML蜂鸣器

LA4
Series Button switch

Product description

Overview

Rated working current Ie：AC1.36，0.79A，DC0.27A
Rated working voltage Ue：AC220，380V，DC220V
Rated insulation voltage Ui：AC380V
Rated impulse withstand voltage Uimp：2.5kV
Application scenario: Applicable to industrial automation, construction equipment，cranes，elevators and other manual control occasions

Standard：GB/T 14048.5
Certificate：CCC

Product features

1、Modular design, can be selected according to the actual needs of different numbers and types of buttons for combination, such as start, stop, reset, emergency stop, etc.
2、Can withstand strong vibration and mechanical shock, suitable for heavy equipment and dynamic working environment.
3、The connection between the button and the panel adopts anti-loosening design to ensure that it will not be loosened due to vibration during long-term use.
4、With a high IP protection level, can work normally in wet, dusty environment, adapt to harsh industrial environment.
5、The button box adopts double insulation design to provide higher electrical safety and prevent leakage and electric shock accidents.

Operating Conditions

1、Atmospheric conditions：The normal operating temperature is -5°C ~ +40°C, and the average value within 24 hours does not exceed +35°C
2、Altitude：Not more than 2000m
3、Atmospheric conditions：The relative humidity of the air at the installation site does not exceed 50% at +40 ° C, and a higher relative humidity can be allowed at lower temperatures, such as 90% at 20 ° C. Special measures should be taken for condensation occasionally caused by temperature changes
4、Pollution degree：3 class
5、Installation category：II
6、Enclosure protection class：IP40

LA4

Series Button switch

Product description

LA4	-	□	□
Model number		Number of buttons	Protection mode
LA4		2-2 sets 3-3 sets	K-open H-protected

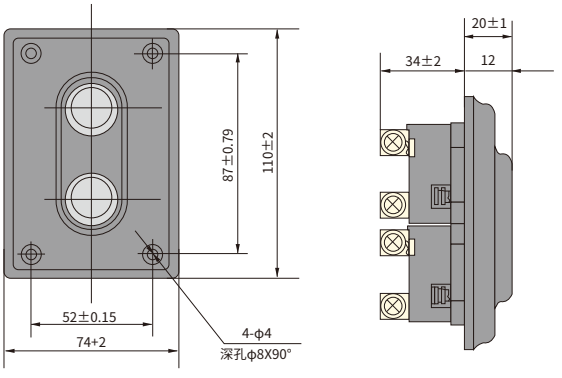
Technical data

Model	Rated operating voltage (V)		Conventional heating current Ith(A)	Number of contacts		Overall dimensions (mm)			installation dimension	Button color
	AC	DC		Normal Open	Normal close	length	wide	high		
LA4	380	220	5	1	1	40	40	55	Φ30	Red, green, yellow and blac

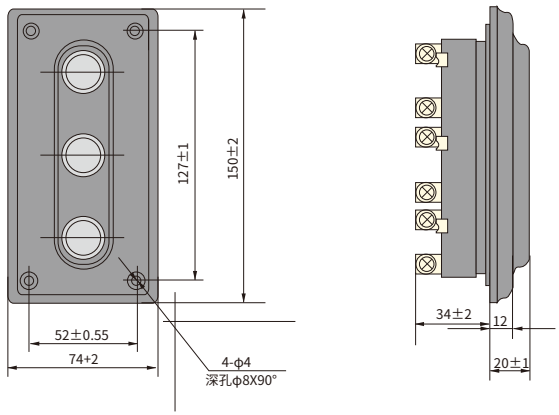
AC-15	380V/0.79A 220V/1.36A
DC-13	220V/0.27A

Overall and mounting dimentions

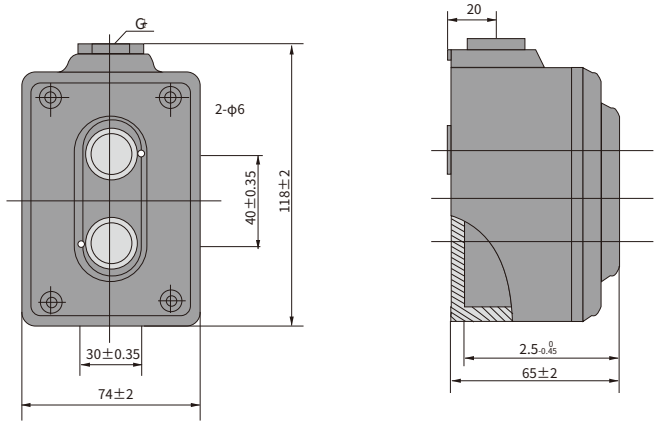
1.LA4-2K



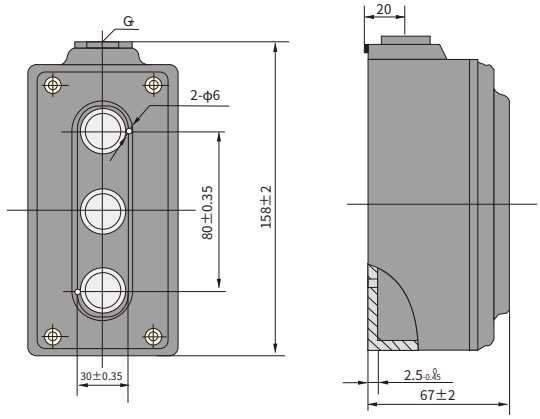
2.LA4-3K



3.LA4-2H



4.LA4-3H



LA118
Series Button switch

Product description

Overview

Rated working current Ie：AC4.5A，2.5A，DC0.6，0.3A
Rated working voltage Ue：AC220，380V，DC110，220V
Rated insulation voltage Ui：AC380V
Rated impulse withstand voltage Uimp：20.5kV
Mounting aperture：ϕ22mm
Application scenario: Suitable for industrial automation, mechanical equipment, elevators, cranes and other simple and reliable human-machine interaction occasions.

Standard：GB/T 14048.5
Certificate：CCC

Product features

1、The contact can be any combination, easy to install and replace, improve the convenience and flexibility of maintenance.2、with self-cleaning function to ensure reliable on-off, reduce the risk of contact adhesion
3、The base is made of PC material: provide good insulation performance and high temperature resistance
4、The contact adopts copper matrix composite material: to ensure low resistance and high conductivity, while increasing wear resistance and corrosion resistance
5、The standard configuration is equipped with anti-rotation positioning and anti-loosening installation gaskets, to ensure the stability of the button after installation, to prevent vibration or external force caused by loosening

Operating Conditions

1、Atmospheric conditions：The normal operating temperature is -5°C ~ +40°C, and the average value within 24 hours does not exceed +35°C
2、Altitude：Not more than 2000m
3、Atmospheric conditions：The relative humidity of the air at the installation site does not exceed 50% at +40 ° C, and a higher relative humidity can be allowed at lower temperatures, such as 90% at 20 ° C. Special measures should be taken for condensation occasionally caused by temperature changes
4、Pollution degree：3 class
5、Installation category：III
6、Enclosure protection class：IP40

LA118
Series Button switch

Product description

LA118	□	□	□	□	□
Model number	Shape structure code	Contact normally open logarithm	Contact normally closed logarithm	Derived code	Color code
LA118	A-metal structure; M- Nut structure	represented by the numbers 0, 1, 2	represented by the numbers 0, 1, 2	See Table 1 for details	White black green red yellow blue

Table 1

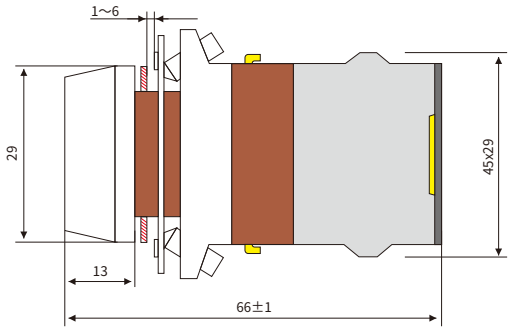
Derived code	Meaning	Button color		Lamp voltage
BN	Self-flattening knob	White, black, green, red, yellow, blue		/
BNZS	Self-locking flat button			
M	Self-resetting push button	Black, red, green		
MZS	Self-locking push button			
ZS	Scram button	Red and green		
X	Short handle knob	X21: two-position lock	Red and green	
		X31: three-position lock		
XB	Knob with long handle	XB21: two-position lock		
		XB31: three-position lock		
		XB31: three-position lock		
Y	Key butto	Y21: two-position lock	/	
		Y31: three-position lock		
D	Flat button with light	White, green, red, yellow, blue		AC/DC 6V AC/DC 12V AC/DC 24V AC/DC 36V AC/DC 48V AC/DC 110V AC/DC 220V AC 110V AC 220V AC 380V
DZS	Self-locking button with light			
MD	Push button with light	Green, red, yellow		
MDZS	Self-locking Push button with light			
XD	Knob with light	XD21: two-position lock	Green, red, yellow	
		Xd31: three-position lock		

Technical data

Rated insulation voltage Ui		AC380V		
Convention free heating current lth		10A		
Rated operating voltage Ue (V)				
Rated operating current le (A)	AC-15	2.5	4.5	-
	DC-13	-	0.3	0.6
Mechanical life		3 million times (flat button, button with light) 300,000 times (knob) 50,000 times (key button, self-locking button)		
Electrical Life		600,000 times (flat button, button with light) 100,000 times (knob) 50,000 times (key button, self-locking button)		
Operation frequency		1200 time/h		
Contact resistance		⩽50mΩ		
Protection class		Ip40		

Overall and mounting dimentions

1、LA118A-BN



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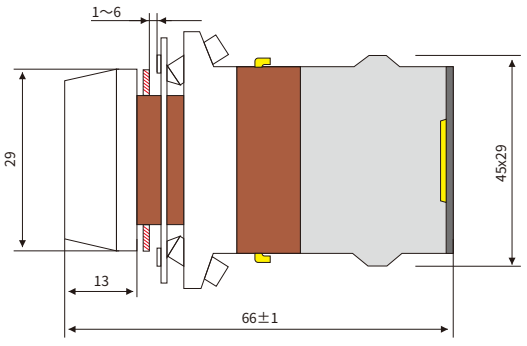

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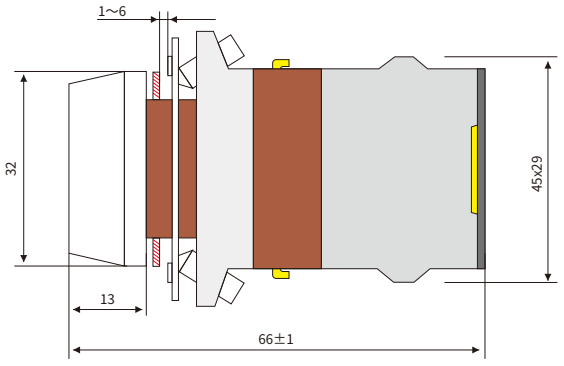

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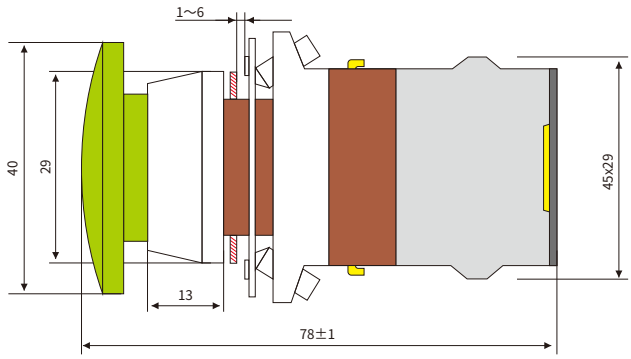

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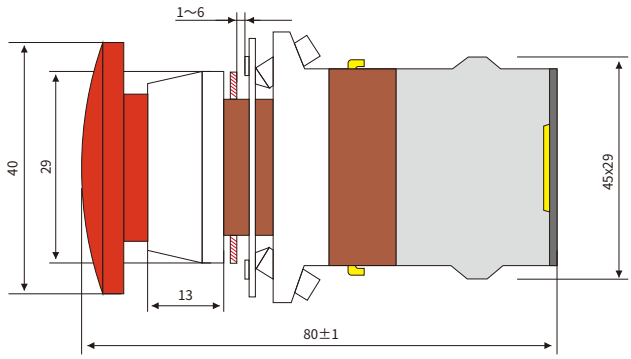

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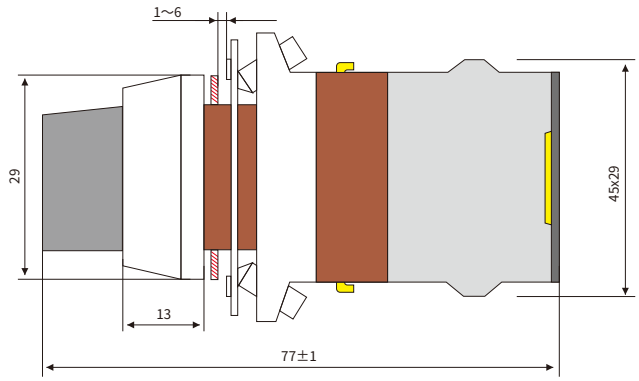

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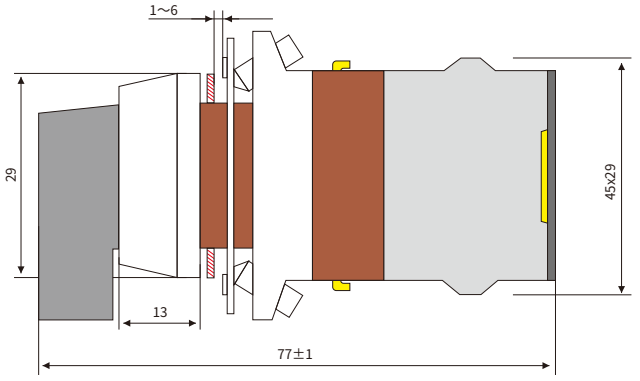

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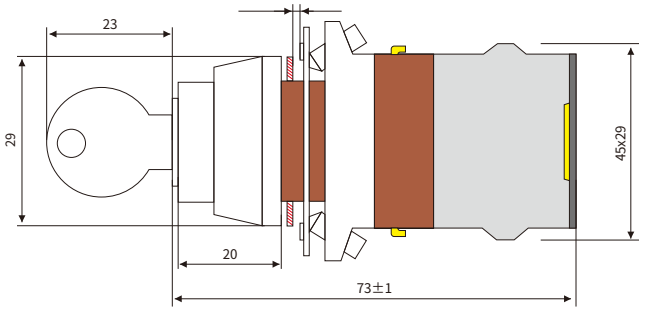

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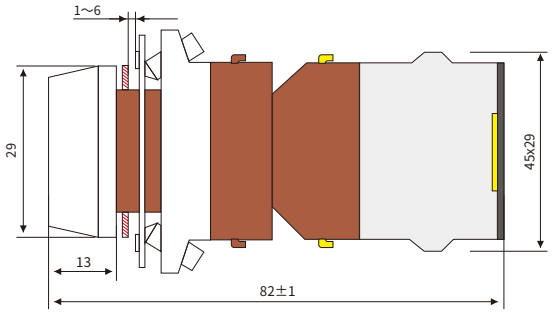

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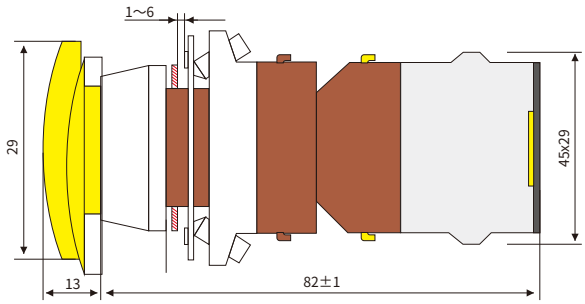

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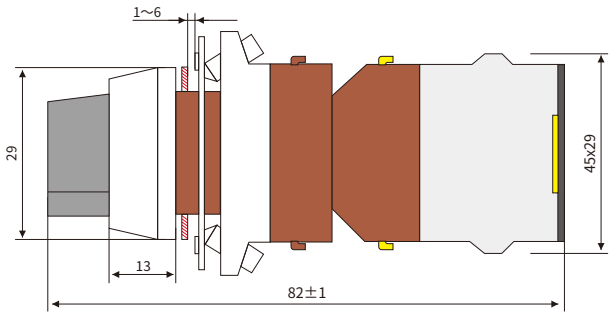

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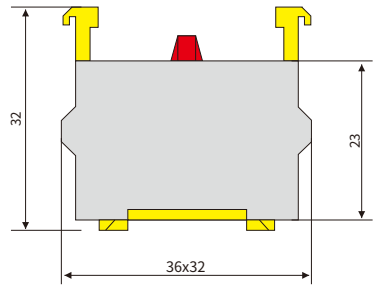

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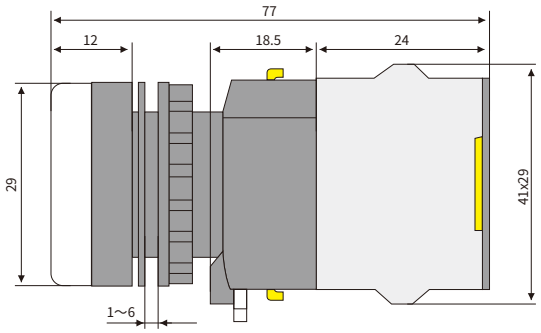

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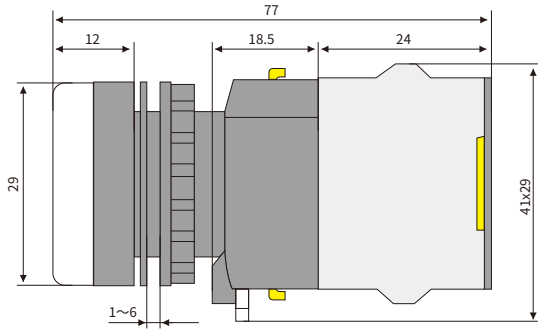

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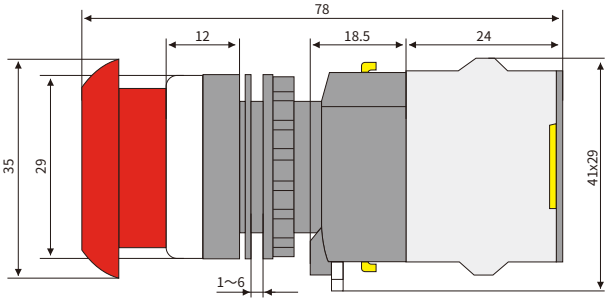

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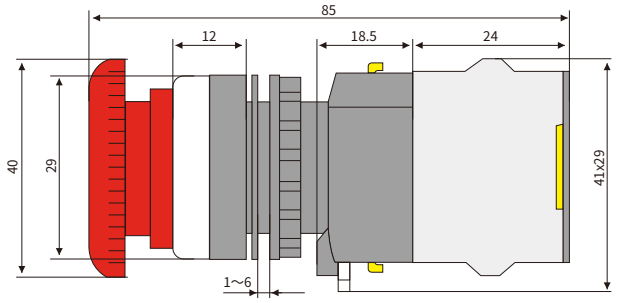

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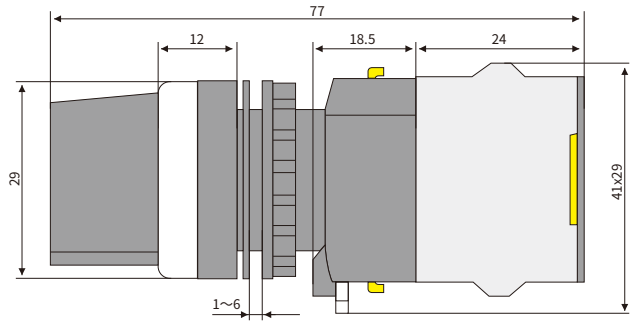

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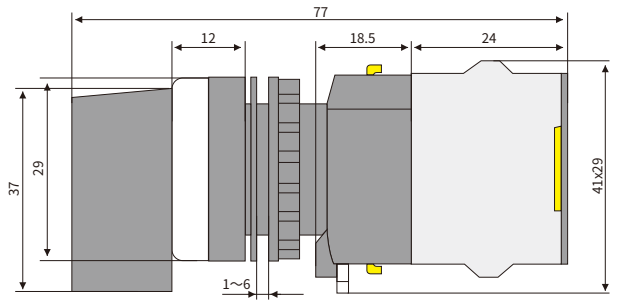

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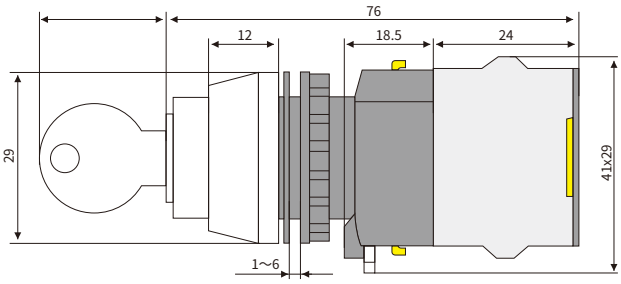

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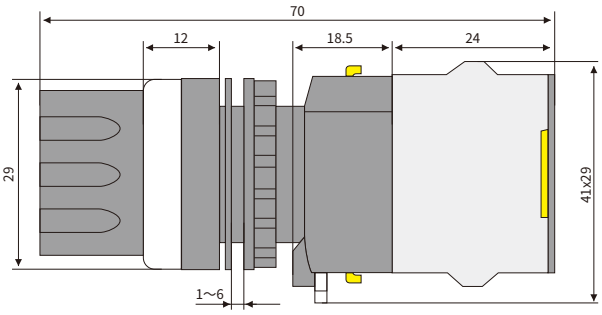

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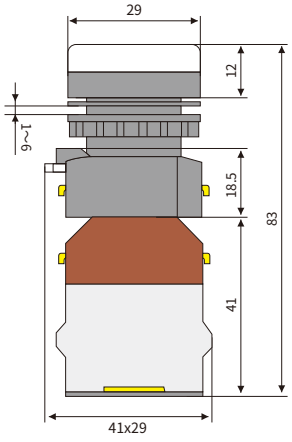

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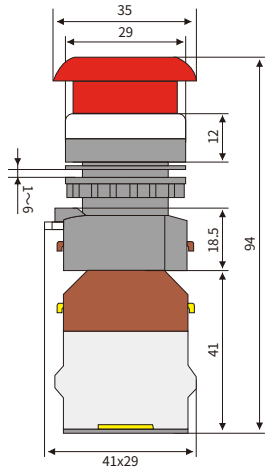

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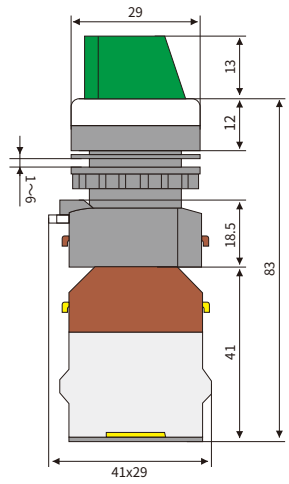


HYB3
Series Vector Inverter

Product description

Overview

Rated working voltage：single-phase AC220V，three-phase 380V
Power range：0.4～350KW
Input frequency range：47 to 63Hz
Output frequency：0～300Hz
Overload capacity：110% rated current long-term，150% rated current 1 minute，180% rated current 5 seconds (heavy duty)
105% rated current long-term， 120% rated current 1 minute， 150% rated current 1 second(light load)
Control mode：SVC control，V/F control，torque control
Starting torque：150% rated torque at 3.0Hz (VF control)
180% rated torque at 0.5Hz (SVC)
180% rated torque at 0.05Hz(with PG current vector control)
Application scenario: Suitable for fan, water pump, air compressor, injection molding machine, winding machine and other mechanical equipment, to control the magnetic field and torque of the motor to achieve accurate control of the speed and position of the motor.

Standard：GB/T 12668.2

Technical Features

1、Multi-stage swing frequency operation;
2、Three control modes: no PG vector control (SVC), V/F control, torque control
3、Starting torque: no PG vector control: 0.5Hz/150%(SVC);
4、0.75KW ~ 15kW each specification built-in brake unit, if you need to stop quickly, you can directly connect the brake resistance;
5、Support a variety of frequency setting methods: digital setting, analog setting, PID setting, communication setting, etc
6、Support start, stop DC braking;
7、Input and output terminals are free programming, users can combine a variety of working modes according to needs;
8、With jumping frequency control function, avoid mechanical resonance, make the system more stable and reliable;
9、With instantaneous power failure without stopping function;
10、With sleep wake up delay setting function;
11、With over torque detection function;
12、Low noise, automatic voltage regulation, low frequency high torque;
13、Multiple upper limit frequency setting source selection;
14、Real-time parameters can be viewed through the shift key with bidirectional shift function;
15、Real-time parameters can be viewed through the shift key with bidirectional shift function;
16、With speed tracking and restart function: to realize the smoothstart of the rotating motor without impact;
17、QulCK/JOG function: Users can freely define multi-functional shortcut keys. By setting this parameter, you can quickly browse the related function code that is different from the factory default value after modification;
18、With automatic voltage adjustment function: when the power grid voltage changes, automatically keep the output voltage constant;
19、With oscillation suppression function: effectively solve the problem of low-frequency oscillation of high-power motor;
20、Provide a variety of fault protection functions: over current, over voltage, under voltage, over temperature, phase loss, overload and other protection functions

Application industry
HYB3 inverter is widely used in fans, pumps, air compressors, injection molding machines, winding machines, central air conditioners, textile machines, chemical, metallurgy, mining, pharmaceutical, ceramics, paper making, oil fields, plastics, printing, thermoelectricity, tobacco, food and other mechanical equipment.

HYB3
Series Vector Inverter

Operating Conditions

1、Atmospheric conditions：-10 ° C to +40 ° C (Ambient temperature is 40 ° C to 50 ° C, please use the reduced rate)
2、Altitude：For derating over 1000 meters, 10% derating for each increase of 1000 meters
3、Humidity：5% ~ 95% RH, no condensation
4、Storage environment：Indoor (no direct sunlight, no corrosion, flammable gas, no oil mist, dust, etc
5、Enclosure protection class：IP20
6、Installation condition：Wall-mounted, cabinet type

Product description

HYB3	-	4D0G/5D5P		4
↓		↓		↓
Model number		adaptive power (KW)		Voltage level
HYB3		4D0G means 4.0KW heavy load 5D5P means 5.5KW light load G: Heavy load P: Light load Product serie		1 Single-phase 220V, 50/60Hz 4 Three-phase 380V, 50/60Hz

Technical data

voltage classes	Rated power (KW)	Rated output current (A)	Adaptive motor (KW)
220V single phase	0.4	2.4	0.4
	0.75	4.5	0.75
	1.5	7	1.5
	2.2	10	2.2

voltage classes	Rated power (KW)	Rated output current (A)	Adaptive motor (KW)
380V three-phase	0.4	1.2	0.4
	0.75	2.5	0.75
	1.5	3.7	1.5
	2.2	5.0	2.2
	4	9/13	4/5.5
	5.5	13/17	5.5/7.5
	7.5	17/25	7.5/11
	11	25/32	11/15
	15	32/37	15/18.5
	18.5	37/45	18.5/22
	22	45/60	22/30
	30	60/75	30/37
	37	75/90	37/45
	45	90/110	45/55
	55	110/150	55/75
	75	150/176	75/90
	90	176/210	90/110
	110	210/250	110/132
	132	250/300	132/160
	160	300/340	160/185
	185	340/380	185/200
	200	380/415	200/220
	220	415/470	220/250
	250	470/520	250/280
	280	520/600	280/315
	315	600/640	315/350
	350	640	350

Input	Rated voltage, frequency	Three-phase (4# series) 380V; 50/60Hz
		Single-phase (1# series) 220V; 50/60Hz
	Allowable range of voltage variation	Three-phase (4# series) 320V ~ 460V
		Single-phase (1# series) 160V ~ 260V
Output	Voltage	4# series; 0 to 460V
		1# series; 0 to 260V
	Frequency	Low frequency mode: 0 to 300Hz High frequency mode: 0 to 3000Hz
	Overload capacity	Model G: 110% long-term 150% 1 minute 180% 5 seconds
		P-type machine: 105% long-term 120% 1 minute 150% 1 second

Control method			V/F control, advanced V/F control, V/F separation control, current vector control
Control Feature	Frequency setting resolution	Analog input	0.1% of the maximum output frequency
		Numeric setting	0.01Hz
	Frequency accuracy	analog input	Within 0.2% of the maximum output frequency
		digital input	Set within 0.01% of the output frequency
	V/f control	V/F curve	The reference frequency is arbitrarily set at 5 ~ 600Hz,and the multi-point V/F curve is arbitrarily set.Can also choose constant torque, low torque reduction 1, low torque reduction 2, square torque and other fixed curves
		Torque compensation	Manual setting: 0.0 ~ 30.0% of rated output Automatic lifting: the lifting torque is automatically determined according to the output current and combined with the motor parameters
		Automatic current and voltage limiting	Whether during acceleration, deceleration or stable operation, the stator current and voltage of the motor are automatically detected and suppressed within the permissible range according to a unique algorithm, minimizing the possibility of system failure tripping

Voltage-frequency characteristic			The output voltage frequency ratio is automatically adjusted according to the motor parameters and unique algorithm
Control Feature	Noninductive vector control	Torque characteristics	Starting torque: 150% rated torque at 3.0Hz (VF control) 180% rated torque at 0.5Hz (no PG current vector control, flux vector control) 180% rated torque at 0.05Hz (with PG current vector control) Running speed Steady state accuracy: ⩽± 0.2% rated synchronous speed Speed fluctuation: ⩽± 0.5% rated synchronous speed Torque response: ⩽50ms with PG vector control, no PG vector control, flux Vector control ⩽20ms
		Motor parameters selfdetermination	Without any restrictions, the automatic detection of parameters can be completed under the static and dynamic conditions of the motor to obtain the best control effect
		Current and voltage suppression	Full current closed-loop control, completely avoid current shock, with perfect overcurrent and overcurrent suppression function
	Undervoltage suppression in operation		Especially for users with low grid voltage and frequent fluctuations in grid voltage, even at belowWithin the allowable voltage range, the system can also maintain the longest possible operating time based on unique algorithms and residual energy allocation

Typical Function	Multispeed and swing frequency operation		16 programmable multi-speed control, a variety of operating modes can be selected. Swing frequency operation: preset frequency, center frequency can be adjusted, state memory and recovery after power failure
	PID control RS485 communication		Built-in PID controller (preset frequency). RS485 communication function is standard configuration, multiple communication protocols are optional, with linkage synchronization control function
	Frequency setting	Analog input	Dc voltage 0 ~ 10V, DC current 0 ~ 20mA (upper and lower limits optional)
		Digital input	Operation panel setting, RS485 interface setting, UP/DW terminal control, can also be set with analog input in a variety of combinations
	Output signa	Digital Out	2 OC outputs and 1 fault relay output (TA,TB,TC) for up to 16 meaning choices
		Analog output	2 analog signal output, the output range is between 0 ~ 20mA or 0 ~ 10V flexible setting, can achieve the set frequency, output frequency and other physical quantity output
	Automatic voltage regulation operation		According to the need can choose dynamic voltage, static voltage, unstable voltage three ways to obtain the most stable operation effect
	Acceleration and deceleration time setting		0.1s ~ 3600min can be set continuously, S type, linear mode is optional
	Braking	Energy consumption brake	The energy consumption braking starting voltage, back difference voltage and energy consumption braking rate can be adjusted continuously
		DC braking	DC braking starting frequency: 0.00 ~ [F0.16] upper frequencyBraking time: 0.0 ~ 100.0s; Braking current: 0.0% ~ 150.0% rated current
		Magnetic braking	0～100 0：The value is invalid
	Low noise operation		Carrier frequency continuously adjustable from 1.0 kHz to 16.0 kHz, minimizing motor noise to the maximum extent.
	Speed tracking speed restart function		Can achieve the smooth restart and instantaneous stop restart functions of the motor in operation.
	Counter		An internal counter to facilitate system integration
	Movement function		Upper and lower frequency setting, frequency jump operation, reverse operation limit, slip frequency compensation, RS485 communication, frequency increase and decrease control, fault self-recovery operation, etc
Display	Operation panel display	Operation conditions	Output frequency, output current, output voltage, motor speed, set frequency, module temperature, PID setting, feedback amount, analog input/output, etc
		Alarm content	Record the last six failures. Record six operating parameters, including output frequency, set frequency, output current, output voltage, DC voltage, and module temperature, during the last failure trip
Protection function			Over current, over voltage, under voltage, module failure, electronic thermal relay, overheat, short circuit, input and output phase loss, motor parameter tuning abnormality, internal memory failure, etc

Environment	Ambient temperature	-10 ° C to +40 ° C (Ambient temperature is 40 ° C to 50 ° C, please use the reduced rate)
	Ambient humidity	5% ~ 95% RH, no condensation
	Ambient enviroment	Indoor (no direct sunlight, no corrosion, flammable gas, no oil mist, dust, etc.)
	Altitude	Indoor (no direct sunlight, no corrosion, flammable gas, no oil mist, dust, etc.)
Structure	Protection class	IP20
	Cooling Type	Air cooled with fan control
Installation Method		Wall mounted, cabinet type

Overall and mounting dimentions

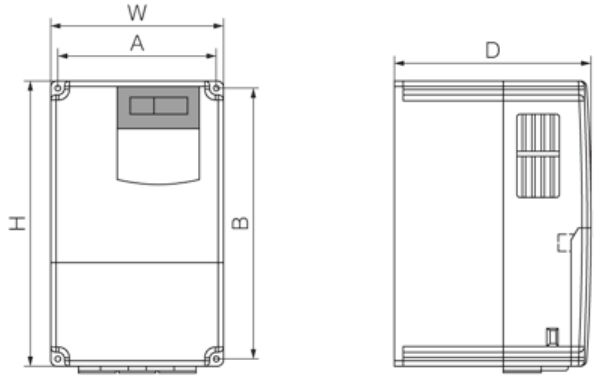


Figure A-1 Dimensions of A 7.5kW or smaller model

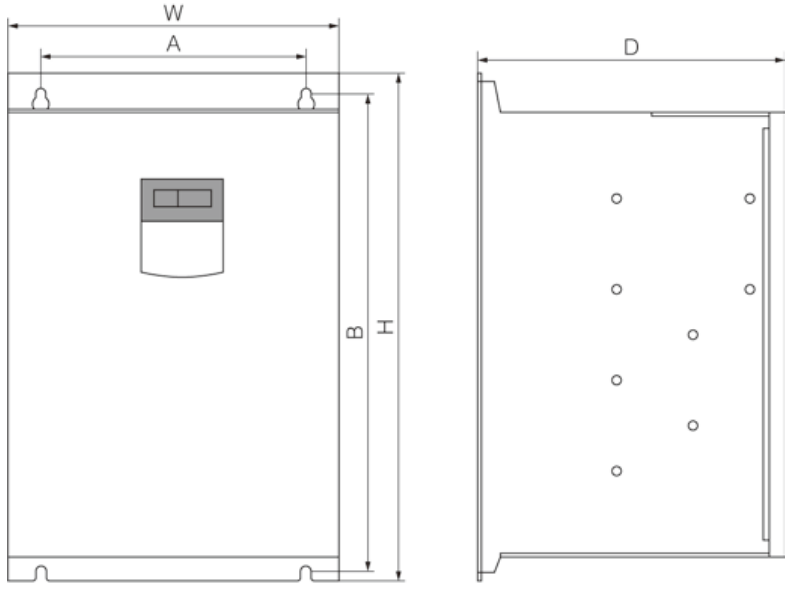


Figure A-2 Dimensions of the 22 to 132kW model (380V)

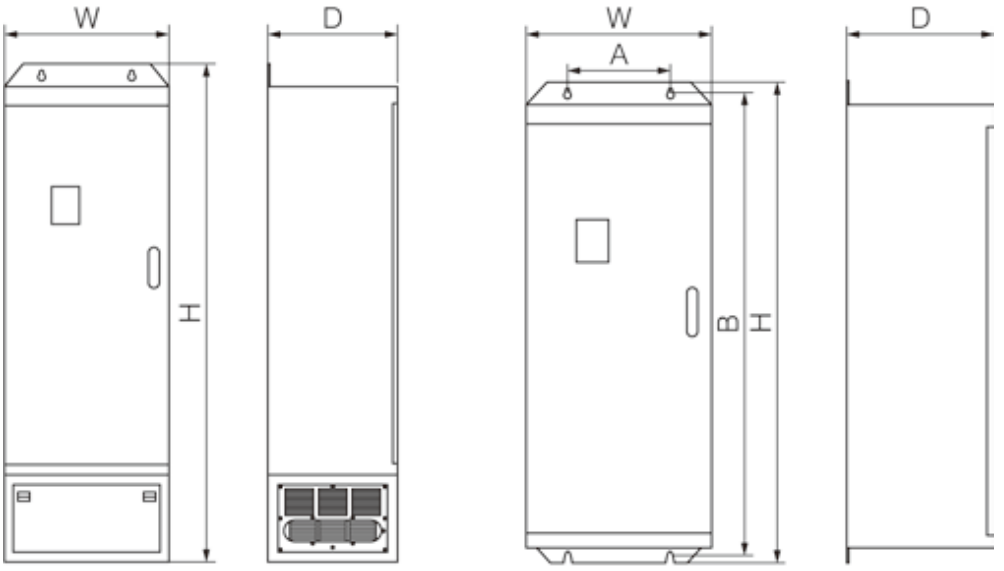


Figure A-3 Dimensions of the 160 to 350kW model (380V)

Power (kw)	Installation size		Overall dimensions			Diameter Of Mounting Recess	Notes
	A(mm)	B(mm)	H(mm)	W(mm)	D(mm)	(mm)	
0.75 ~ 2.2	115	175	185	125	160	4	—
4.0 ~ 7.5	136	230	246	150	179	5	—
11 ~ 18.5	201	306	320	218	218	5	—
22	150	404	420	235	210	6.5	—
30 ~ 37	195	433	460	270	220	8	—
45 ~ 55	240	537	565	320	275	8	—
75 ~ 110	274	642	670	380	272	8	—
132	320	738	756	460	345	8	—
160~220	270	1233	1275	490	405	12	baseless
			1448	490	405		pedestal
250~350	500	1325	1362	750	415	12	baseless
			1670	750	415		pedestal

Product description

Application Scope

The HURV series AC motor starter is suitable for circuits with AC voltage up to 690V and current up to 80A. It is used for overload, phase failure, short circuit protection, and infrequent starting control of three-phase squirrel cage asynchronous motors. It can be used for distribution line protection and infrequent load switching, and can also be used as an isolator.

Overview

-Rated insulation voltage Ui (V): 690
-Rated operating voltage Ue (V): AC230/240, AC400/415, AC440, AC500, AC690
-Rated frequency (Hz): 50/60
-Rated current Inm (A) of frame class: 25 (SCRV-25, 25X), 32 (SCRV-32, 32X SCRV-32H), 80 (SCRV-80)
-Rated current In (A) of the release: (See Table 1)
-Adjustable current setting range: (See Table 1)
-Rated ultimate short-circuit breaking capacity Icu (kA): (See Table 1)
-Rated service short-circuit breaking capacity Ics (kA): (See Table 1)
-Rated impulse withstand voltage Uimp (V): 8000
-Utilization category (Class A and B) and application category: Class A, AC-3
-Conductor (single-core/multi-core) insulation stripping length before insertion (mm): 10, 15 (SCRV-80)
-Conductor (single-core/multi-core) cross-sectional area mm^2: 1~6，2.5~25 (SCRV2-80)
-Maximum number of conductors per terminal (single-core/multi-core): 2, 1 (SCRV-80)
-Terminal tightening torque (or screw size): M4, M8 (SCRV-80)
-Terminal screw tightening torque (N·m): 1.7, 6 (SCRV-80)
-Operating frequency (times/hour): ⩽30, ⩽25 (SCRV-80)

Operating Conditions

1、The altitude of the installation site generally does not exceed 2000m.
2、 The lower limit of the ambient air temperature is generally not lower than -5 °C , the upper limit is generally not higher than+40°C , and its average value within 24 hours does not exceed+35°C.
3、The relative humidity of the air shall not exceed 90% (at+25°C±5°C).
4、The pollution level of the surrounding environment is pollution level 3.
5、The installation category of the starter is installation category I.
6、The inclination between the starter and the vertical installation surface shall not exceed±5 °.
7、Tripping level: HURV-25 (X), HURV-32 (X), HURV-32H,HURV-80:10A;
8、Rated working hours: uninterrupted working hours, eight hour working hours.

Technical data

Table 1

Product number	Rated current of release In (A)	Setting current Adjustment range(A)	Rated ultimate short-circuit breaking capacity Icu, rated operating short-circuit breaking capacity Ics kA				Flying arc distance (mm)
			AC 400/415V		AC 690V		
			Icu	Ics	Icu	Ics	
HURV-25(X)	0.16	0.1~0.16	100	100	100	100	40
	0.25	0.16~0.25	100	100	100	100	40
	0.4	0.25~0.4	100	100	100	100	40
	0.63	0.4~0.63	100	100	100	100	40
	1	0.63~1	100	100	100	100	40
	1.6	1~1.6	100	100	100	100	40
	2.5	1.6~2.5	100	100	3	2.25	40
	4	2.5~4	100	100	3	2.25	40
	6.3	4~6.3	100	100	3	2.25	40
	10	6~10	100	100	3	2.25	40
	14	9~14	15	7.5	3	2.25	40
	18	13~18	15	7.5	3	2.25	40
	23	17~23	15	6	3	2.25	40
SCRV-32(X)	25	20~25	15	6	3	2.25	40
	32	24~32	10	5	3	2.25	40
HURV- 32H	0.16	0.1-0.16	100	100	100	100	40
	0.25	0.16~0.25	100	100	100	100	40
	0.4	0.25~0.4	100	100	100	100	40
	0.63	0.4~0.63	100	100	100	100	40
	1	0.63~1	100	100	100	100	40
	1.6	1~1.6	100	100	100	100	40
	2.5	1.6~2.5	100	100	4	4	40
	4	2.5~4	100	100	4	4	40
	6.3	4~6.3	100	100	4	4	40
	10	6-10	100	100	4	4	40
	14	9~14	25	15	4	4	40
	18	13~18	25	15	4	4	40
	23	17-23	25	15	4	4	40
	25	20~25	25	15	4	4	40
	32	24~32	25	15	4	4	40

Table 2

Product number	Rated current of release In (A)	Setting current Adjustment range(A)	Rated ultimate short-circuit breaking capacity Icu, rated operating short-circuit breaking capacity Ics kA				Flying arc distance (mm)
			AC 400/415V		AC 690V		
			Icu	Ics	Icu	Ics	
HURV-32S HURV-32X	0.16	0.1~0.16	100	100	100	100	40
	0.25	0.16~0.25	100	100	100	100	40
	0.4	0.25~0.4	100	100	100	100	40
	0.63	0.4~0.63	100	100	100	100	40
	1	0.63~1	100	100	100	100	40
	1.6	1~1.6	100	100	100	100	40
	2.5	1.6~2.5	100	100	4	4	40
	4	2.5~4	100	100	4	4	40
	6.3	4~6.3	100	100	4	4	40
	10	6~10	100	100	4	4	40
	14	9~14	10	5	4	4	40
	18	13~18	10	5	4	4	40
	23	17~23	10	5	4	4	40
	25	20~25	10	5	4	4	40
	32	24~32	25	15	4	4	50

Table 2

Product number	Rated current of release In (A)	Setting current Adjustment range(A)	Rated ultimate short-circuit breaking capacity Icu, rated operating short-circuit breaking capacity Ics kA				Flying arc distance (mm)
			AC 400/415V		AC 690V		
			Icu	Ics	Icu	Ics	
HURV- 80S	25	20~25	50	17.5	4	2	50
	32	23~32	50	17.5	4	2	50
	40	30~40	50	17.5	4	2	50
	50	37~50	50	17.5	4	2	50
	65	48~65	50	17.5	4	2	50
	80	63~80	50	17.5	4	2	50

Table 3

Product number	Rated current of release In (A)	Setting current Adjustment range(A)	Standard rated power of three- phase motor (kW)					
			AC-3，50Hz/60Hz					
			230/240V	400V	415V	440V	500V	690V
HURV-32X HURV-32S	0.16	0.1~ 0.16	-	-	-	-	-	-
	0.25	0.16~0.25	-	-	-	-	-	-
	0.4	0.25~0.4	-	-	-	-	-	-
	0.63	0.4~0.63	-	-	-	-	-	0.37
	1	0.63~1	-	-	-	0.37	0.37	0.55
	1.6	1~1.6	-	0.37	-	0.55	0.75	1.1
	2.5	1.6~2.5	0.37	0.75	0.75	1.1	1.1	1.5
	4	2.5~4	0.75	1.5	1.5	1.5	2.2	3
	6.3	4~6.3	1.1	2.2	2.2	3	3.7	4
	10	6~10	2.2	4	4	4	5.5	7.5
	14	9~14	34	5.5	5.5	7.5	7.5	9
	18	13~18	5.5	7.5	9	9	9	11
	23	17~23	5.5	11	11	11	11	15
	25	20~25	15	11	11	11	15	18.5
	32	24~32	7.5	15	15	15	18.5	25
HURV- 80S	25	20-25	-	11	11	-	-	18.5
	32	23-32	-	15	15	-	-	22
	40	30-40	-	18.5	18.5	-	-	37
	50	37-50	-	22	22	-	-	45
	65	48-65	-	30	30	-	-	55
	80	63-80	-	37	37	-	-	63

Note: When using a starter in a line with the presence of high-order harmonics (such as frequency converters and other equipment), the specific specifications of the starter should be selected according to the actual situation, which is 1.3 to 1 .9 times the rated current of the motor. For example, when the rated current of the motor is 1.1A, for lines without high-order harmonics, the starter specifications should be selected: 1-1.6A; For circuits with high- order harmonics, it is recommended to choose a starter specification of 1.6-2.5A.

The shell protection level is IP20 (front side).
Overcurrent protection characteristics.

The Operating Characteristics of The Starter During Load Balancing of Each Phase

Table 4

Serial Number	Setting current multiple	Initial state	Set time	Expected results	ambient air temperature
1	1.05	cold state	t≥2h	Non release	+20°C±2°d
2	1.2	Hot state (rising to the specified current immediately after the first test)	t<2h	trip	+20°C±2°C
3	1.5	Starting after thermal balance of 1 times the set current	t<2min	trip	+20°C±2°G
4	7.2	cold state	2s<t<10s	trip	+20°C±2°C

Action Characteristics of The Starter When The Load of Each Phase is Unbalanced (phase Failure)

Table 5

Serial Number	Setting current multiple		Initial state	Set time	Expected results	ambient air temperature
	Any two phases	Third phase				
1	1.0	0.9	cold state	t≤2h	Non release	+20°C±2°C
2	1.15	0	Hot state (rising to the specifed current immediately after the first test)	t<2h	trip	+20°C±2°C

Temperature Compensation Performance of Starter

Table 6

Serial Number	Setting current multiple	Initial state	Set time	Expected results	ambient air temperature
1	1.0	cold state	t≥2h	Non release	+40°C±2°C
2	1.2	Hot state (rising to the specified current immediately after the first test)	t<2h	trip	+40°C±2°C
3	1.5	Hot state (after reaching equilibrium at 1.0 times the set current)	t<2min	trip	+40°C±2°C
4	1.05	cold state	t≥2h	Non release	-5°C±2°C
5	1.3	Hot state (rising to the specified current immediately after the third test)	t<2h	trip	-5°C±2°C
6	1.5	Hot state (after reaching equilibrium at 1.0 times the set current)	t<4min	trip	-5°C±2°C

The instantaneous electromagnetic tripping current setting value of the starter (see Table 7), and the instantaneous electromagnetic tripping action characteristics of the starter (see Table 8).Selection of backup fuses:

When the expected short -circuit current at the installation site exceeds the rated limit short -circuit breaking capacity of the starter, the type and melt current specifications of the backup short-circuit protection fuse (see Table 9).

For example, a fuse RT16 (NT00) with a usage category of gG can be selected.

Temperature Compensation Performance of Starter

Table 7

Product number	Tripping rated current In (A)	Thermal element setting current regulation range (A)	Instantaneous electromagnetic tripping current setting value Ii (A)
HURV-32S HURV-32X	0.16	0.1-0.16	1.5
	0.25	0.16-0.25	2.4
	0.4	0.25-0.4	5
	0.63	0.4-0.63	8
	1	0.63-1	13
	1.6	1-1.6	22.5
	2.5	1.6-2.5	33.5
	4	2.5-4	51
	6.3	4-6.3	78
	10	6-10	138
	14	9-14	170
	18	13-18	223
	23	17-23	327
	25	20-25	327
	32	24-32	416
HURV-80S	25	20-25	350
	32	23-32	448
	40	30-40	560
	50	37-50	700
	65	48-65	910
	80	63-80	1120

Instantaneous Electromagnetic Tripping Action Characteristics of starter

Table 8

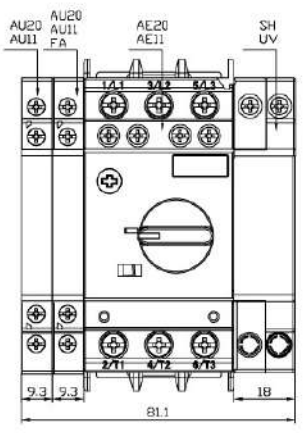
test current	Initial state	Set time	Expected results	ambient air temperature
0.8Ii	cold state	t≥0.2s	Non release	+20°C±5°C
1.2Ii	cold state	t<0.2s	trip	+20°C±5°C

Type of backup short-circuit protection fuse and rated current of fuse element

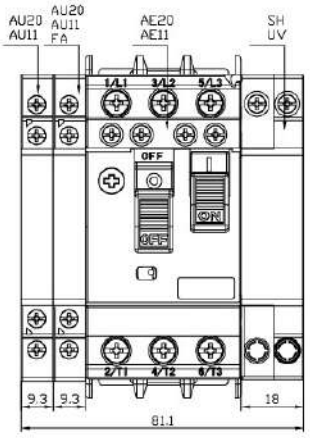
Table 9

Product number	Rated current of release In (A)	Setting current Adjustment range(A)	The specification of the melt current of the backup fuse is only required when the expected short-circuit current Icc is greater than the rated limit short-circuit breaking capacity of Icu									
			230/240V		400V/415V		440V		500V		690V	
			aM A	gL/gG A	aM A	gL/gG A	aM A	gL/gG A	aM A	gL/gG A	aM A	gL/gG A
HURV-32X HURV-32S	0.16	0.1~0.16	★	★	★	★	★	★	★	★	★	★
	0.25	0.16~0.25	★	★	★	★	★	★	★	★	★	★
	0.4	0.25~0.4	★	★	★	★	★	★	★	★	★	★
	0.63	0.4~0.63	★	★	★	★	★	★	★	★	★	★
	1	0.63~1	★	★	★	★	★	★	★	★	★	★
	1.6	1~1.6	★	★	★	★	★	★	★	★	★	★
	2.5	1.6~2.5	★	★	★	★	★	★	★	★	16	20
	4	2.5~4	★	★	★	★	★	★	★	★	25	32
	6.3	4~6.3	★	★	★	★	50	63	50	63	32	40
	10	6~10	★	★	★	★	50	63	50	63	32	40
	14	9~14	★	★	63	80	50	63	50	63	40	50
	18	13~18	★	★	63	80	50	63	50	63	40	50
	23	17~23	80	100	80	100	63	80	50	63	40	50
	25	20~25	80	100	80	100	63	80	50	63	40	50
	32	24~32	80	100	80	100	63	80	50	63	40	50
HURV-32H	0.16	0.1~0.16	★	★	★	★	★	★	★	★	★	★
	0.25	0.16~0.25	★	★	★	★	★	★	★	★	★	★
	0.4	0.25~0.4	★	★	★	★	★	★	★	★	★	★
	0.63	0.4~0.63	★	★	★	★	★	★	★	★	★	★
	1	0.63~1	★	★	★	★	★	★	★	★	★	★
	1.6	1~1.6	★	★	★	★	★	★	★	★	★	★
	2.5	1.6~2.5	★	★	★	★	★	★	★	★	20	25
	4	2.5~4	★	★	★	★	★	★	★	★	25	32
	6.3	4~6.3	★	★	★	★	★	★	★	★	40	50
	10	6~10	★	★	★	★	★	★	50	63	40	50
	14	9~14	★	★	100	125	50	63	50	63	50	63
	18	13~18	★	★	100	125	63	80	50	63	50	63
	23	17~23	★	★	100	125	80	100	50	63	50	63
	25	20~25	★	★	100	125	80	100	50	63	50	63
	32	24~32	★	★	100	125	80	100	50	63	50	63
HURV-80S	25	20~25	-	-	250	315	-	-	-	-	160	200
	32	23~32	-	-	250	315	-	-	-	-	160	200
	40	30~40	-	-	250	315	-	-	-	-	160	200
	50	37~50	-	-	315	400	-	-	-	-	200	250
	65	48~65	-	-	315	400	-	-	-	-	200	250
	80	63~80	-	-	315	400	-	-	-	-	200	250

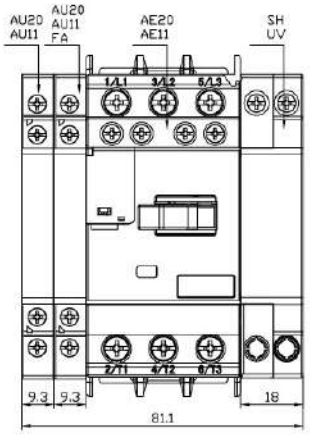
Overall and mounting dimentions



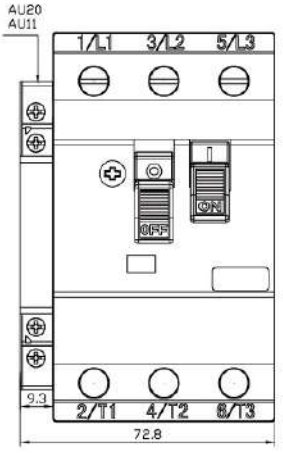
HURV-32X



HURV-32S



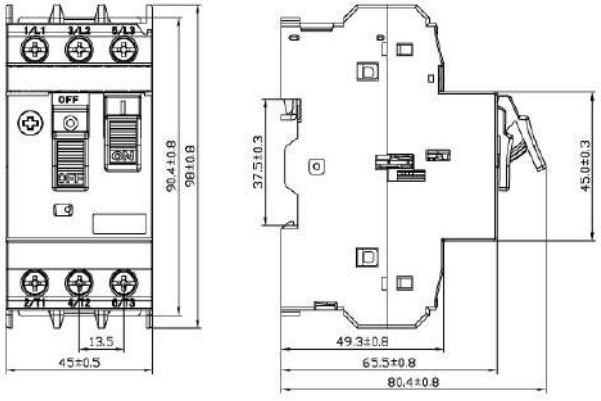
HURV-32H



HURV-80S

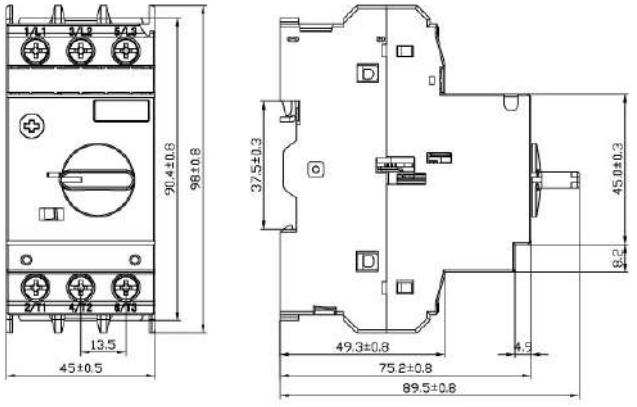
Appearance and installation dimensions of the starter;
The starter adopts standard guide rail installation, and its guide rail should comply with the A2.1 TH35-7.5 steel installation rail requirements of Jb6525.

Appearance and installation dimensions of HURV-32S starters



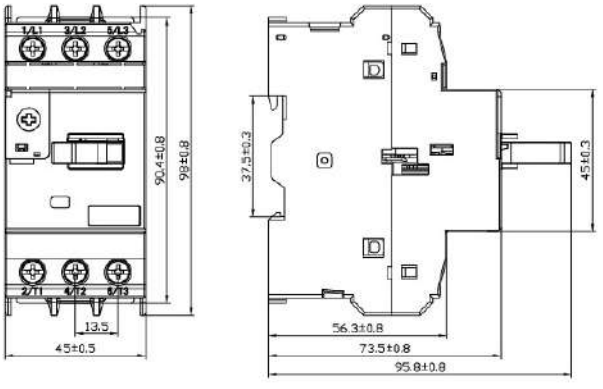
HURV-32S

Appearance and installation dimensions of HURV-32X starters



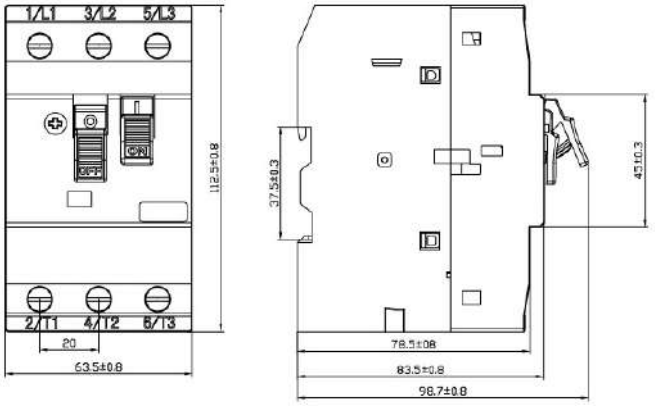
HURV-32X

HURV-32H starter appearance and installation dimensions



HURV-32H

HURV-80S starter appearance and installation dimensions



HURV-80S

Specrifications of accessories

Table 10

Name of Accessory	HURV-25 HURV-32/apply	HURV-25X HURV-32X/apply	HURV-32H/ apply	HURV -80/ apply	Specifications
Undervoltage release	HURV-UV110	HURV-UV110	HURV-UV110	HURV-UV110	110~115V, 50Hz; 127V, 60Hz
	HURV-UV220	HURV-UV220	HURV-UV220	HURV-UV220	220~240V, 50Hz
	HURV-UV380	HURV-UV380	HURV-UV380	HURV-UV380	380~400V, 50Hz; 440V, 60Hz
Shunt release	HURV-SH110	HURV-SH110	HURV-SH110	HURV-SH110	110~115V, 50Hz; 127V, 60Hz
	HURV-SH220	HURV- SH220	HURV-SH220	HURV-SH220	220~240V, 50Hz
Instantaneous auxiliary contact	HURV-SH380	HURV-SH380	HURV-SH380	HURV-SH380	380~400V, 50Hz; 440V, 60Hz
(front hanging)	HURV-AE20	HURV-AE20	HURV-AE20	HURV-AE20	2NO
Instantaneous auxiliary contact	HURV-AE11	HURV-AE11	HURV-AE11	HURV-AE11	1NO+ 1NC
(side mounted)	HURV-AU20	HURV-AU20	HURV-AU20	HURV-AU20(HURV-80)	2NO
Fault signal contact and	HURV-AU11	HURV-AU11	HURV-AU11	HURV-AU11(HURV-80)	1NO+1NC
instantaneous auxiliary contact	HURV-FA0110	HURV-FA0110	HURV-FA0110	-	-
Waterproof	HURV-FA0101	HURV-FA0101	HURV-FA0101	-	-
installation box	HURV-FA1010	HURV-FA1010	HURV-FA1010	-	-
Installation box with emergency	HURV-FA1001	HURV-FA1001	HURV-FA1001	-	-
stop button	HURV-MC	WPB-1	-	-	-
	HURV-MC01	-	-	-	-

Performance of undervoltage release HURV-UV110, UV220, Uv380:
a. Rated insulation voltage Ui (V): 690;
b. Rated impulse withstand voltage Uimp (kV): 6;
C. Action characteristics:
When the voltage drops to within the range of 70% and 35% of the rated voltage, the undervoltage release should act;
Undervoltage release in power supply.When the voltage is lower than 35% of the rated voltage of the release, the underoltage release should be able to prevent the starter from dosing; The power supply voltage is equal to or greater than.At 85% of the rated voltage of the release, the undervoltage release should ensure that the starter is closed

HURV-UV

Performance of shunt release HURV-SH110, SH220, Sh380:
a. Rated insulation voltage Ui (V): 690;
b. Rated impulse withstand voltage Uimp (kV): 6;
c. Action characteristics: The operating voltage range of the shunt release is 70% to 110% of the rated working voltage

HURV-SH

Performance of instantaneous auxiliary contacts HURV-AE20 and AE11 (front mounted):
a. Rated insulation voltage Ui (V): 250;
b. Agreed heating current Ith (A): 2.5;
C. Rated impulse withstand voltage Uimp (kV): 2.5;
d. The usage category, rated working voltage, and rated working current of instantaneous auxiliary contacts (see Table 11).

HURV-AE

Table 11

Usage category	AC-15				DC-13		
Rated working voltage Ue (V)	24	48	110/127	230/240	24	48	60
Rated working current IE (A)	2	1.25	1	0.5	1	0.3	0.15
Normal working power P (W)	48	60	127	120	24	15	9


HURV-AU

Performance of instantaneous auxiliary contacts HURV-AU20 and AU11 (side mounted):
a. Rated insulation voltage Ui (V): 690;
b. Agreed heating current Ith (A): 6;
C. Rated impulse withstand voltage Uimp (kV): 4;
d. The usage category, rated working voltage, and rated working current of instantaneous auxiliary contacts (see Table 12).

Table 12

Usage category	AC-15							DC-13				
Rated working voltage Ue (V)	48	110/127	230/240	380/415	440	500	690	24	48	60	110	220
Rated working current IE (A)	6	4.5	3.3	2.2	1.5	1	0.6	6	5	3	1.3	0.5
Normal working power P (W)	300	500	720	850	650	500	400	140	240	180	140	120


HURV-FA

Performance of fault signal contact and instantaneous auiliany contact HURV-FA:
The fault signal contact and instantaneous auiliary contact HURV-FA are composed of fault signal contact and instantaneous auiliary contact, and their usage categories and performance are different.
a. Rated insulation voltage Ui M): 690;
b. The agreed heating current Ith (A) of the instantaneous axiliary contactis 6;
The agreed heating current Ith (A) of the fault signal contact is 2.5;
C. Rated impulse withstand voltage Uimp (kV) of fault signal contact 25,
Rated impulse withstand voltage Uimp (kV) of instantaneous axiliary contacts:4
d. The usage category of instantaneous auxiliary contacts, rated working voltage and rated working current (see Table 12),
The performance is the same as that of the SCRV-AU instantaneous auiliay contac; The usage category, rated working voltage and rated working current of the fault signal contact (see Table 13).

Table 13

Usage category	AC-15				DC-13		
Rated working voltage Ue (V)	24	48	110/127	230/240	24	48	60
Rated working current IE (A)	2	1	0.5	0.3	1	0.3	0.15
Normal working power P (W)	48	48	72	72	24	15	9
Operational performance (times)	1000	1000	1000	1000	1000	1000	1000

Abnormal connection and disconnection capacity of fault signal contacts and instantaneous auxiliary contacts (see Table 14).

Table 14

Usage category	Connect			Divided			Number of on-off operation cycles and operating frequency		
	I/Ie	U/Ue	cos Φ or T0.95	I/Ie	U/Ue	cos Φ or T0.95	Number of operation cycles	Number of operation cycles per minute	Power on time
AC-14	6	1.1	0.7	6	1.1	0.7	10	2	0.05
AC-15	10	1.1	0.3	10	1.1	0.3	10	2	0.05
DC-13	1.1	1.1	6Pe	1.1	1.1	6Pe	10	2	0.05

Note: Pe≥50W, the upper limit of T0.95≈6Pe≤300ms.

Other Parameters of Accessories

Accessory Model	Equipped with fuse model	Rated current of matching fuse A	Rated limiting short- circuit current Iq kA	Protection Level of Housing
HURV-AE20，AE11	gG、RT36-00	6	1	Ip20
HURV-AU20，AU11		10		
HURV-FA				

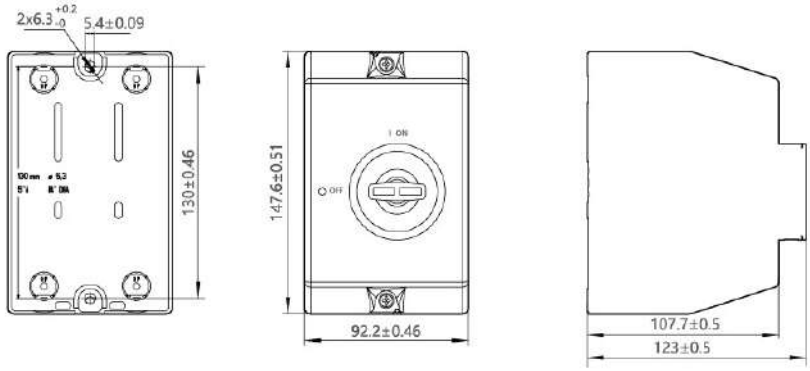
HURV-25 installation box (HURV-MC, HURV-MC01)

HURV-MC waterproof installation box IP55

HURV-MC01 with emergency stop button installation box IP55

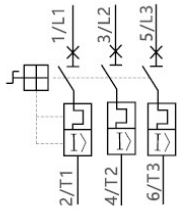
WPB-1 waterproof installation box Ip55

HURV-32H starter appearance and installation dimensions

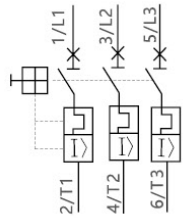


Circuit Diagram

HURV-25X、HURV-32X、
HURV-32H、HURV-80

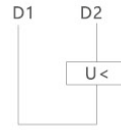


HURV-25、HURV-32



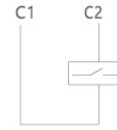
Undervoltage release

HURV-UV



Shunt release

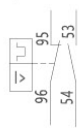
HURV-SH



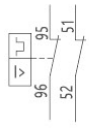
Instantaneous auiliary contact (front mounted)

Instantaneous auxiliary contact (side mounted)

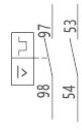
Fault signal contact and instantaneous auiliary contact 01 and 10 in front represent fault signal contact, and 01 and 10 in the back represent auxiliary contact



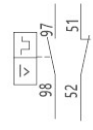
HURV-FA0110



HURV-FA0101



HURV-FA1010



HURV-FA1001

HCK2
Series Air Conditioning Contactor

Product description

Application Scope

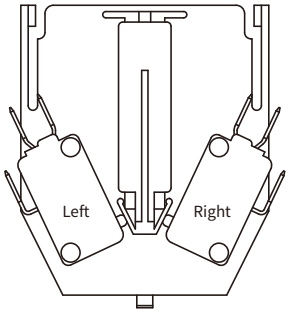
DP Contactor is mainly used to control motor load for AC 50Hz/60Hz ,rated insulation voltage: 690V ,rated work
current:90A Air Conditioner compressor, also applicable for other household and similar purposes device.

Features&benefits

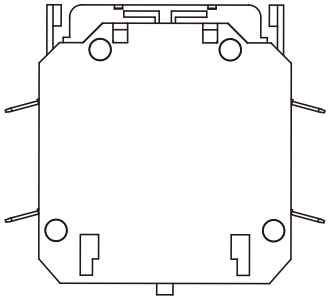
-Small size, compact structure, same installation dimensions, easy to replace.
-High heat-resistant coil, suitable for both 50Hz/60Hz & wide voltage range.
-Contact with excellent Arc resistance capacity.
-Resist Arc effectively with patented Arc extinguishing technology

Code Explanation

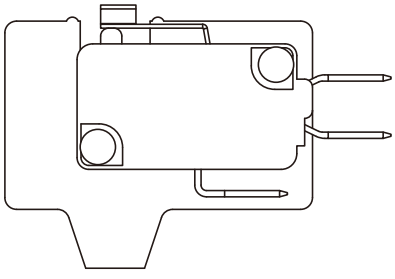
Auxiliary contact(Micro Switch)



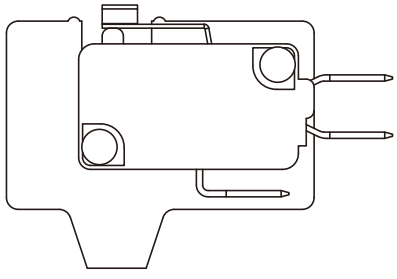
Auxiliary contact



Auxiliary contact(Micro Switch)



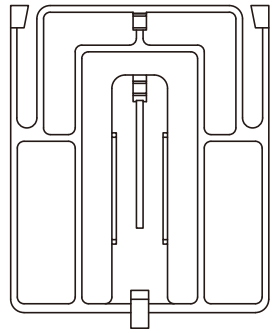
HCK2 1C300VQ6



HCK2 1C300VQ9

HCK2
Series Air Conditioning Contactor

Mechanical Interlock



HCK2 MI-40

Ambient condition

Ambient temperature（℃）	Operating	-40 ～+65
	Storage	-40 ～+70
Relative humidity	90%~95%RH(Below 40℃)	
Pollution degree	3	
Enclosure rating	IP 00	
Max Working Altitude (m)	2000	
Installation	M5 Screw installation	

Technical data

CONTACT RATING - Main Contact					
Full Load Amps FLA	RES	LRA			
		240V	277V	480V	600V
A	A	A	A	A	A
1 POLE 20-40FLA(Include 1+N)					
20	30	120	120	100	80
25	35	150	150	125	100
30	40	180	180	150	120
40	50	240	240	200	160
2 POLES 20-90FLA					
20	30	120	120	100	80
25	35	150	150	125	100
30	40	180	180	150	120
40	50	240	240	200	160
50	65	300	240	240	200
60	75	360	240	300	240
75	90	450	300	300	-
90	120	540	360	360	-

HCK2
Series Air Conditioning Contactor

CONTACT RATING - Main Contact								
Full Load Amps FLA	RES	LRA				Max Power		
		240V	277V	480V	600V	Voltage	1 Hp	3 Hp
A	A	A	A	A	A	V	hp	hp
3&4 POLES 20-40FLA								
20	30	120	120	100	80	120V	1.5	-
						240V	3	7.5
						480V	-	7.5
						600V	-	7.5
25	35	150	150	125	100	120V	2	-
						240V	5	7.5
						480V	-	10
						600V	-	15
30	40	180	180	150	120	120V	3	-
						240V	5	10
						480V	-	15
						600V	-	20
40	50	240	240	200	160	120V	3	-
						240V	7.5	10
						480V	-	20
						600V	-	25
3 POLES 50-60FLA								
50	65	300	240	240	200	120V	3	-
						240V	7.5	15
						480V	-	25
						600V	-	25
60	75	360	240	300	240	120V	5	-
						240V	15	20
						480V	-	30
						600V	-	30
3 POLES 75-90FLA								
75	90	450	300	300	-	120V	5	-
						240V	15	25
						480V	-	40
						600V	-	50
90	120	540	360	360	-	120V	7.5	-
						240V	20	30
						480V	-	50
						600V	-	60

CONTACT IEC RATING - Main Contact

Product specifications	AC-1	AC-3		AC-8a	AC-8b	Ith(A)
	240VAC	240VAC	277VAC	240VAC	240VAC	
1 Pole 20 FLA	30	20	20	20	7	30
1 Pole 25 FLA	35	25	25	25	8	35
1 Pole 30 FLA	40	30	30	30	10	40
1 Pole 40 FLA	50	40	40	40	15	50
2 Poles 20 FLA	30	20	20	20	7	30
2 Poles 25 FLA	35	25	25	25	8	35
2 Poles 30 FLA	40	30	30	30	10	40
2 Poles 40 FLA	50	40	40	40	15	50

HCK2

Series Air Conditioning Contactor

Product specifications	AC-1	AC-3		AC-8a	AC-8b	Ith(A)
	415VAC	415VAC	690VAC	415VAC	415VAC	
3 Poles 20 FLA	30	20	20	20	7	30
3 Poles 25 FLA	35	25	25	25	8	35
3 Poles 30 FLA	40	30	30	30	10	40
3 Poles 40 FLA	50	40	40	40	15	50
3 Poles 50 FLA	65	50	32	50	18	65
3 Poles 60 FLA	75	60	32	60	22	75
3 Poles 75 FLA	90	75	39	75	27	90
3 Poles 90 FLA	120	90	47	90	34	120
4 Poles 20 FLA	30	20	20	20	7	30
4 Poles 25 FLA	35	25	25	25	8	35
4 Poles 30 FLA	40	30	30	30	10	40
4 Poles 40 FLA	50	40	40	40	15	50

CONTACT RATING - Auxiliary Contact

Contact Form ：	Rating Voltage （VAC）	120	240	480	600
1 NO 2NO	Rating breaking current （A）	3	1.5	0.75	0.6
1 NC 2NC	Maximal making current （A）	30	15	7.5	6
1 NO+1 NC	Ith（A）	10	10	10	10

CONTACT RATING - Micro Switch

Contact Form ：	16A,125 or 250VAC
1 SPDT	1/3hp,125VAC
	10A,30VDC

Coil Rating(+25°C)

Product specifications	max inrush （V·A）		Max Seal（V•A）		Voltage （VAC）		
	60Hz	50Hz	60Hz	50Hz	Operate	Dropout	Max Voltage
SA 1 Pole 20-40FLA	20	25	6.5	7.5			
SA 2 Poles 20-40FLA	45	35	7.5	9			
SA 3 Poles 20-40FLA	50	60	7	8	⩽0.8Us	⩾0.2Us	1.1Us
SA 4 Poles 20-40FLA	55	65	7	8			
SA 3 Poles 50-60FLA	120	140	23	28			
SA 3 Poles 75-90FLA	180	200	30	35			

Remark:

1.Coil Us=24VAC 50/60Hz or 120VAC 50/60Hz or 208/240VAC 50/60Hz or 277VAC 50/60Hz，380VAC 50/60Hz or 480VAC 50/60Hz.

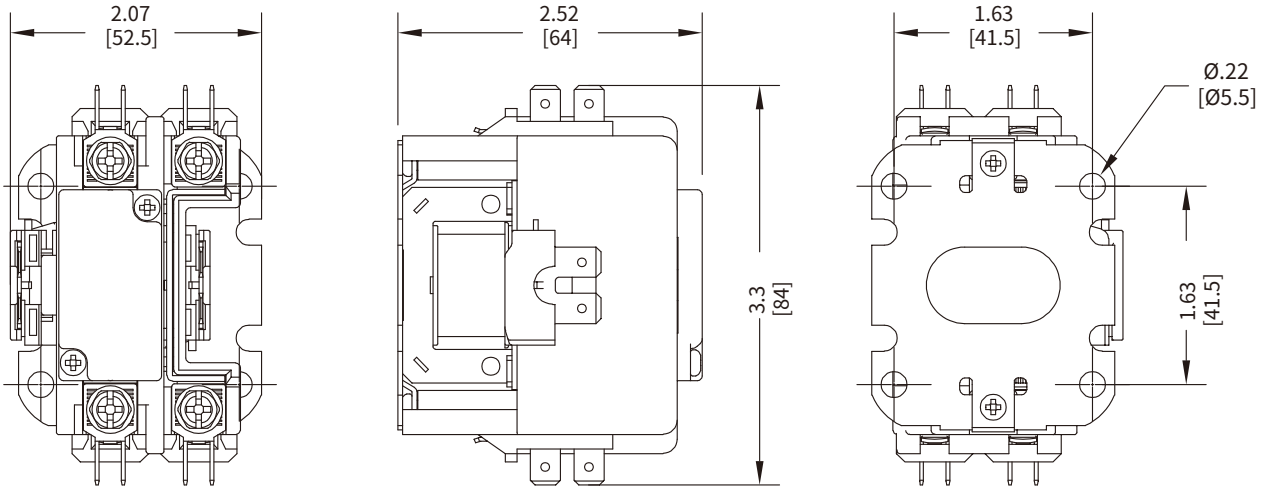
2.Starting and holding capacity are both measured at the rated voltage of the coil Us.

3.Pick-up & drop-off voltage are tested under the condition of the base being perpendicular to the horizontal (vertical installation).

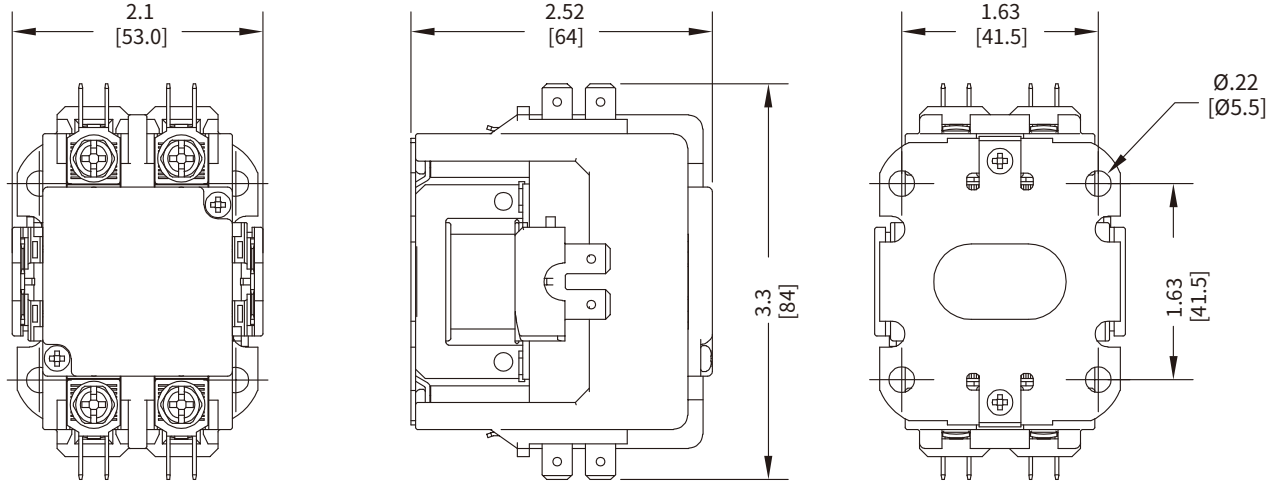
Technical parameter description

Above data is based on the testing under standard condition with manufacturer's sample , actual use may vary due to differences in environment, on/off load, on/off frequency, and equipment.

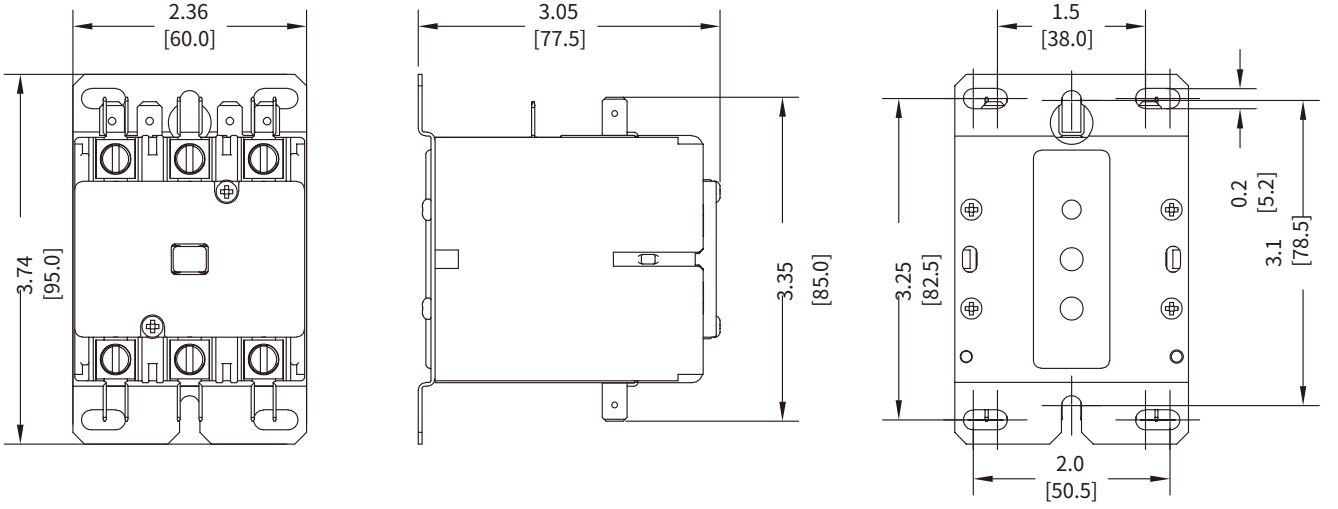
HCK2-1P 20-40A



HCK2-2P 20-40A



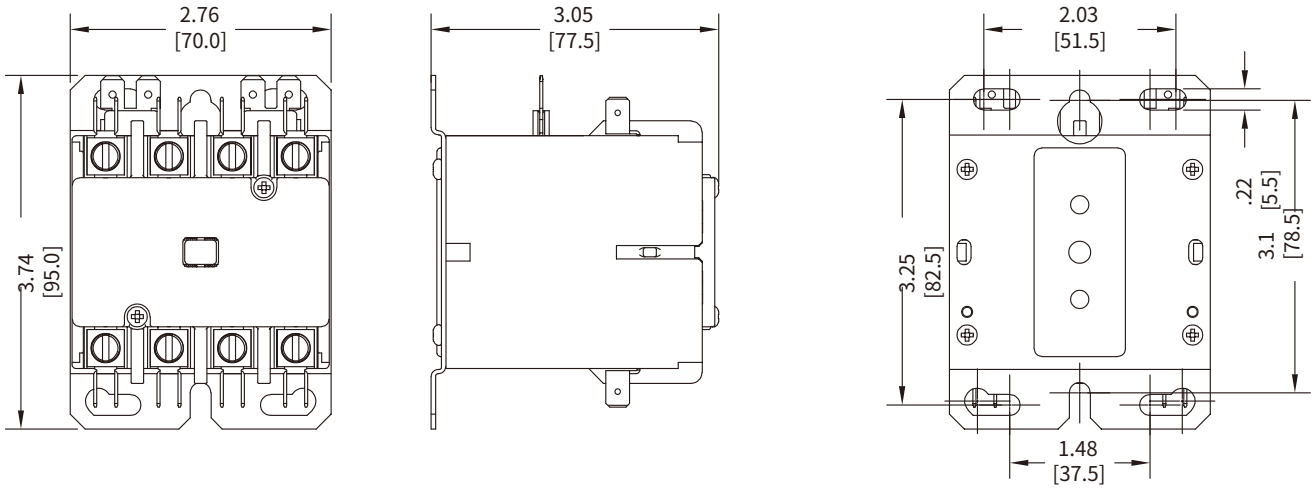
HCK2-3P 20-40A



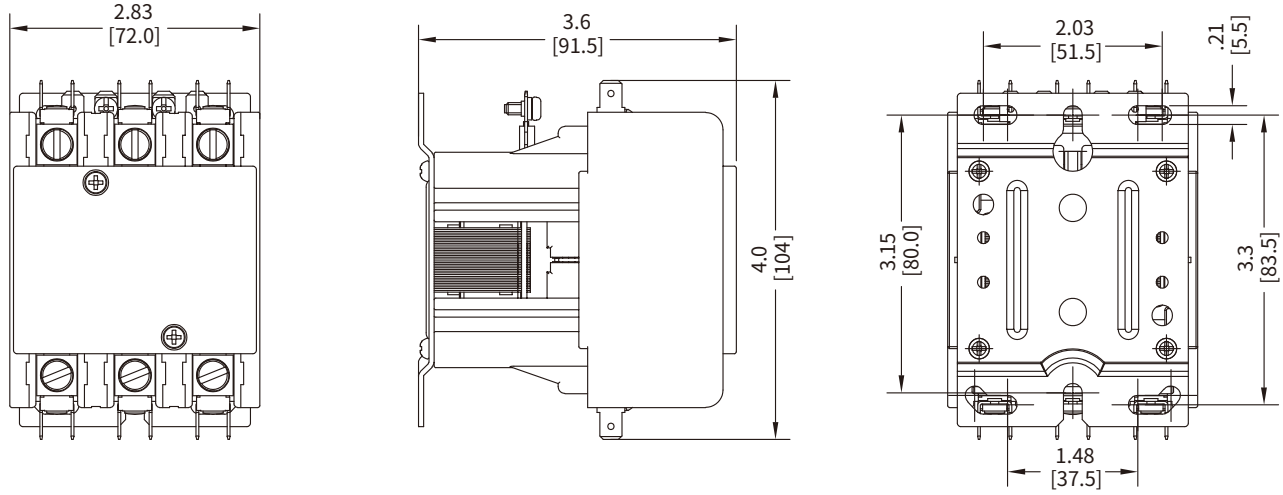
HCK2

Series Air Conditioning Contactor

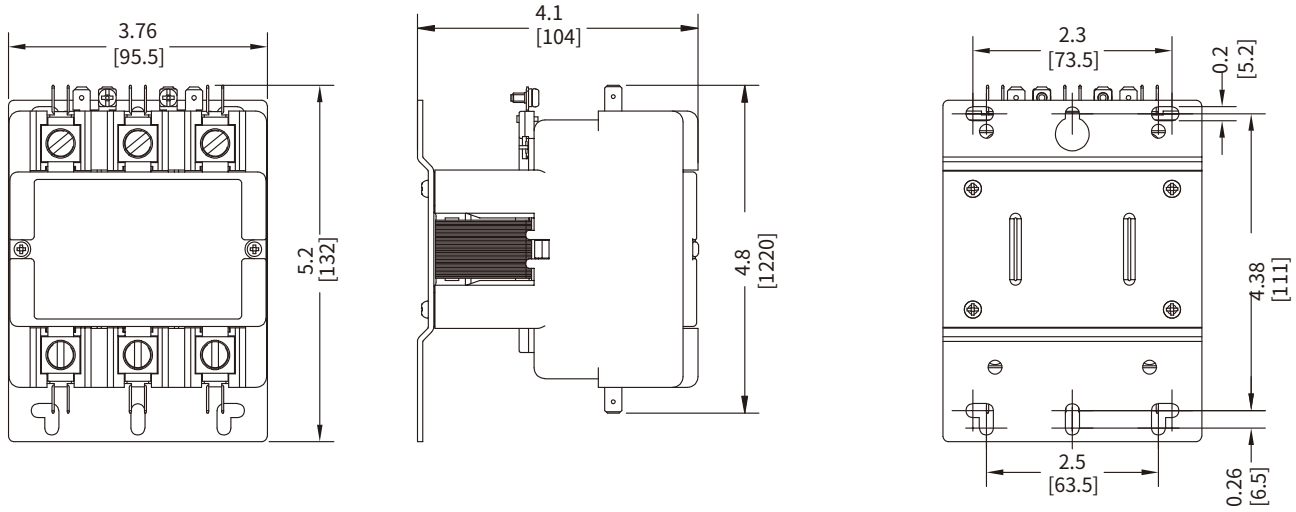
HCK2-4P 20-40A



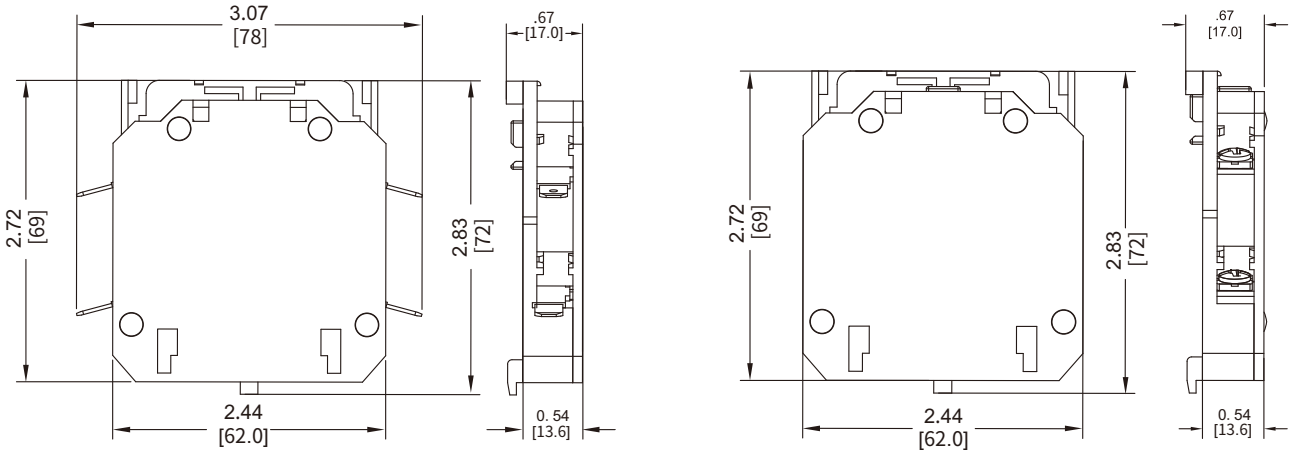
HCK2-3P 50-60A



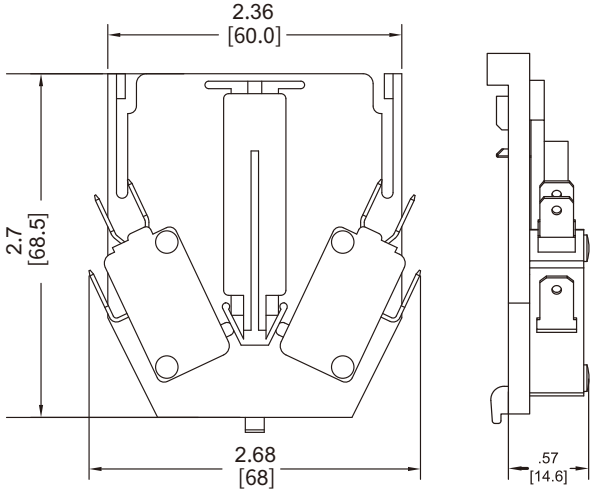
HCK2-3P 75-90A



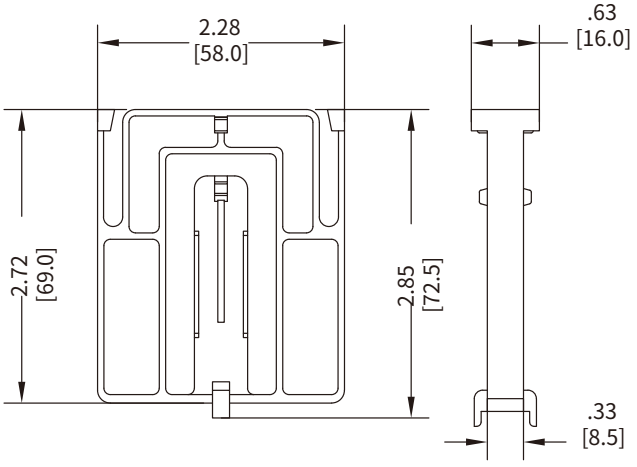
Auxiliary Contact-Apply to 3&4 Poles 20-40FLA



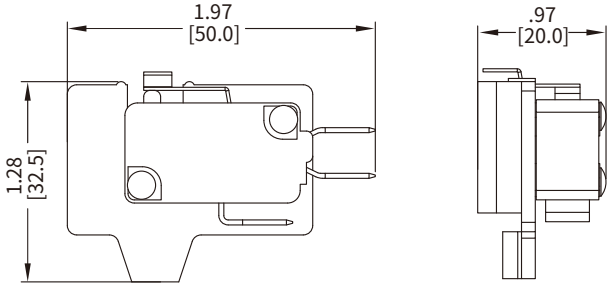
Auxiliary Contact（Micro Switch）
-Apply to 3&4 Poles 20-40FLA



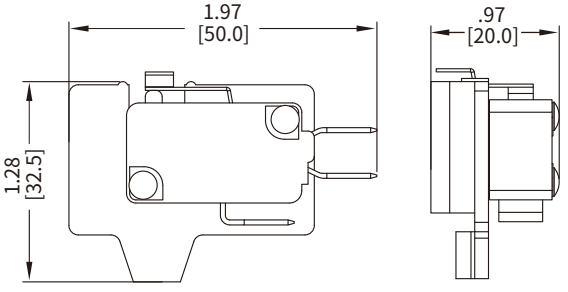
Mechanical Interlock
-Apply to 3&4 Poles 20-40FLA



Auxiliary Contact（Micro Switch）
-Apply to 3 Poles 50-60FLA

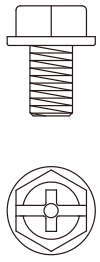


Auxiliary Contact（Micro Switch）
-Apply to 3 Poles 75-90FLA

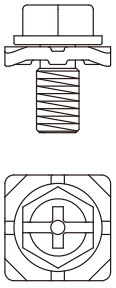


HCK2
Series Air Conditioning Contactor

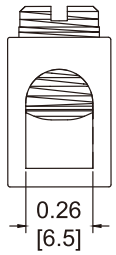
Terminals



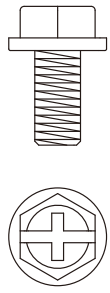
20-40FLA
#10-32 Combination Screw



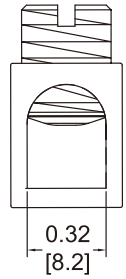
20-40FLA
#10-32 HCK2 MS Screw



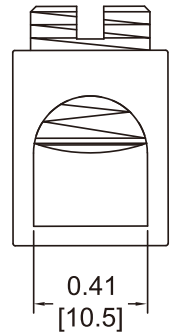
20-40FLA——Lug
#14-4 AWG Cu/Al



50-60FLA
Combination Screw



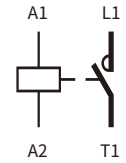
50-60FLA——Lug
#14-2 AWG Cu/Al



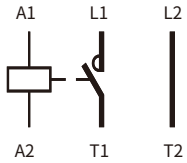
75-90FLA——Lug
#14-1 AWG Cu only

Wiring diagram

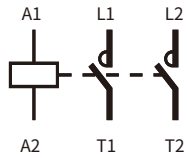
Contactor



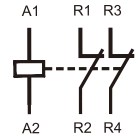
1 Pole 20-40 FLA



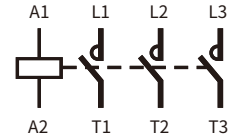
1+N Pole 20-40 FLA



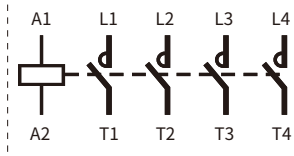
2 Poles 20-90 FLA



2 Poles 20-40 FLA



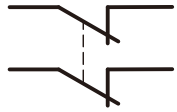
3 Poles 20-90 FLA



4 Poles 20-40 FLA

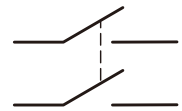
Auxiliary Contact

1NC



2NC

1NO



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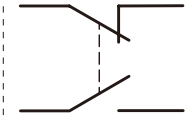
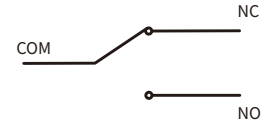


1NO+1NC



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