CJX2 AC contactor

Applicable scope

CJX2 AC Contactor is used in AC 50Hz/60Hz circuit with rated insulating voltage of 690V, rated working voltage of 400V and rated working current from 9A~95A in AC-3 utilization Category.

- It is used to making or breaking the circuit and for frequent start AC motors from a distance. It can also be used as electro-magnetic starter when matching with thermal relay to protect the circuit against overload.

- Conform to IEC/EN 60947-1,IEC/EN 60947-4-1,IEC/EN 60947-5-1.

Operation and installation conditions

Type	Operation and installation conditions
Installation class	III
Pollution degree	3
Compliant standards	IEC/EN 60947-1, IEC/EN 60947-4-1, IEC/EN 60947-5-1
Certification mark	CE
Enclosure protection degree	CJX2-09~32: IP20; CJX2-40~95: IP10;
Ambient temperature	Operation temperature limits: -35℃~+70℃ Normal operation temperature range: -5℃~+40℃. The 24-hour average temperature should not exceed +35℃. For use beyond the normal operation temperature range.
Altitude	Not exceeding 2000 m above sea level
Atmospheric conditions	The relative humidity should not exceed 50% at the upper temperature limit of +70℃. A higher relative humidity is allowed at a lower temperature, e.g. 90% at +20℃. Special precautions should be taken against occasional condensation due to humidity variations.
Installation conditions	The angle between the installation surface and the vertical surface should not exceed ±5°.

CJX2 AC contactor

Main circuit parameter			Technical performance
Rated insulation voltage Ui (V)			690V
Rated impulse withstand voltage Uimp (kV)			8kV
Rated making capacity			Making current: 10×Ie (AC-3) or 12× Ie (AC-4)
Rated breaking capacity			Breaking current: 8×Ie (AC-3) or 10xIe (AC-4)
Electrical life (cycles)		CJX2-09~18	1.2×10^{6}
		CJX2-25~32	1.2×10^{7}
		CJX2-40~65	1.2×10^{6}
		CJX2-80~95	0.8×10^{6}
Mechanical life (cycles)		CJX2-09~18	1.2×10^{7}
		CJX2-25~32	1×10^{7}
		CJX2-40~65	0.9×10^{7}
		CJX2-80~95	0.65×10^{7}
Main contact			3 NO
Matching thermal overload relay		CJX2-09~32	UR2-36
		CJX2-40~95	UR2-93
Built-in auxiliary contact		3P	1 NO+1 NC
		4P	-
Coil control power supply		CJX2-09~18	24,110 ,220 , 230 , 240,415
		CJX2-25~95	24,36,48,110,127,220,230,240,380,415
Control voltage		Pull-in	(70% ~ 120%) Us
		Release	(20% ~ 65%) Us
Coil average power (VA)	Start	CJX2-09~18	40~60
		CJX2-25~32	50~70
		CJX2-40~65	160~120
		CJX2-80~95	190~250
	Hold	CJX2-09~18	9.5
		CJX2-25~32	8~11.4
		CJX2-40~65	13~24
		CJX2-80~95	17~30
Heat dissipation(W)	AC	CJX2-09~32	1~3
		CJX2-40~65	4~8
		CJX2-80~95	6~10
	DC		-

CJX2 AC contactor

Contactor model

Contactor model		Conventional thermal current Ith (A)	Rated operation current Ie (A)		Rated control power AC-3(kW)
			AC-3	AC-4	
CJX2-09	220V/230V/240V	20	9	9	2.2
	380V/400V/415V	20	9	9	4
	660V/690V	20	6.6	6.6	5.5
CJX2-12	220V/230V/240V	25	12	12	3
	380V/400V/415V	25	12	12	5.5
	660V/690V	25	8.9	8.9	7.5
CJX2-18	220V/230V/240V	32	18	18	4
	380V/400V/415V	32	18	18	7.5
	660V/690V	32	12	12	10
CJX2-25	220V/230V/240V	40	25	25	5.5
	380V/400V/415V	40	25	25	11
	660V/690V	40	18	18	15
CJX2-32	220V/230V/240V	50	32	32	7.5
	380V/400V/415V	50	32	32	15
	660V/690V	50	22	22	18.5
CJX2-40	220V/230V/240V	60	40	40	11
	380V/400V/415V	60	40	40	18.5
	660V/690V	60	34	34	30
CJX2-50	220V/230V/240V	80	50	50	15
	380V/400V/415V	80	50	50	22
	660V/690V	80	39	39	37
CJX2-65	220V/230V/240V	80	65	65	18.5
	380V/400V/415V	80	65	65	30
	660V/690V	80	42	42	37
CJX2-80	220V/230V/240V	100	80	80	22
	380V/400V/415V	100	80	80	37
	660V/690V	100	49	49	45
CJX2-95	220V/230V/240V	100	100	100	25
	380V/400V/415V	100	100	100	45
	660V/690V	100	49	49	45

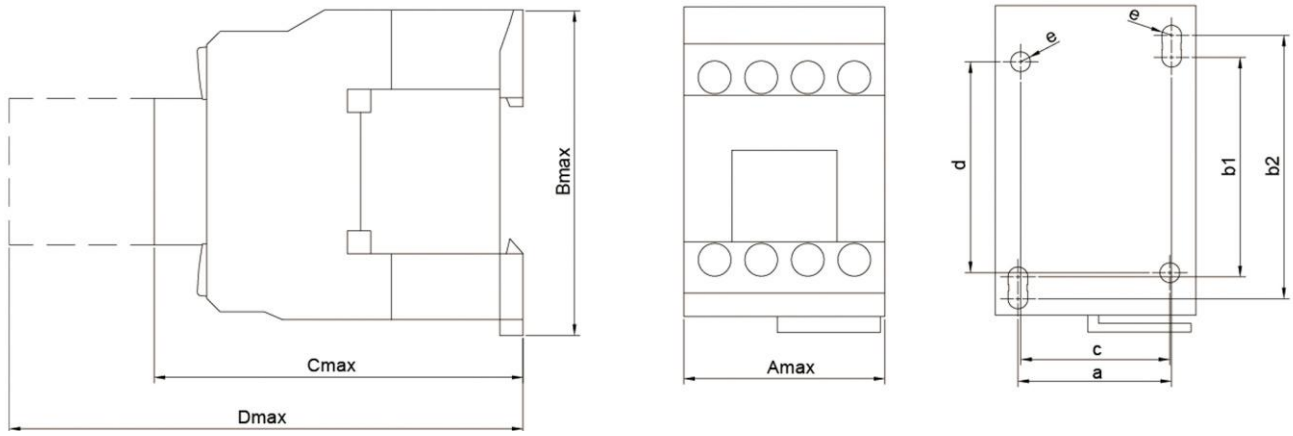
Contactor wiring

Contactor wiring				CJX2-09~12	CJX2-18~25	CJX2-32~40	CJX2-50~65	CJX2-80~95
Main circuit connection	Cable connection (mm2)	Prefabricated flexible wire	1	1~4	1.5~6	1.5~10	6~25	10~35
			2	1~2.5	1.5~4	1.5~6	4~10	6~16
		Hard wire	1	1~4	1.5~6	1.5~6	6~25	10~35
			2	1~4	1.5~6	1.5~6	4~10	6~16
	Size of fastening screw			M3.5	M3.5	M4	M8	M8
	Tightening torque (N·m)			0.8	0.8	1.2	6	6
Cable circuit connection	Cable connection (mm2)	Prefabricated flexible wire	1	1~4				
			2	1~2.5				
		Hard wire	1	1~4				
			2	1~4				
	Size of fastening screw			M3.5				
	Tightening torque (N·m)			0.8				

CJX2 AC contactor

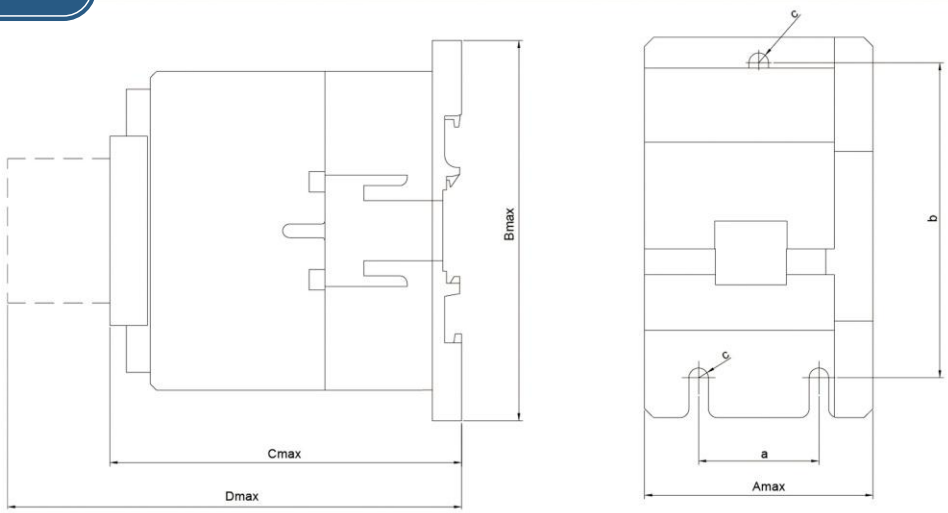
Dimensions (mm)

CJX2-09~32



Contactor model	Amax	Bmax	Cmax	Dmax	a	b1/b2	c	d	e
CJX2-09~18	45	75	85	117	35	50/60	34	48	Ø5
CJX2-25~32	45	85	92	124	35	50/60	34	48	Ø5

CJX2-40~95



Contactor model	Amax	Bmax	Cmax	Dmax	a	b	c
CJX2-40~65	77	127	117	151	40	100/110	Ø6.5
CJX2-80~95	86	127	125	160	40	100/110	Ø6.5

Applicable scope

The UNC1 AC Contactors are suitable for controlling various types of motors in the circuit of AC 50/60Hz,voltage up to 1000 V, current up to 800 A.

- Controlling resistance, inductance and capacitive circuits: heating, lighting, power compensation, transformer.
- Controlling distribution circuit, industrial distribution, green distribution.For frequent operations and harsh environment, quick operating coils are recommended to use.

- Conform to IEC/EN 60947-4-1

Operation and installation conditions

Type	Operation and installation conditions
Pollution degree	III
Compliant standards	IEC/EN 60947-4-1
Degree of protection	IP20
Ambient temperature	Operation temperature limits: -40℃~+70℃ Normal operation temperature range: -5℃~+40℃. Storage temperature range: -60℃~+80℃.
Humidity	Maximun relative humidity less than 50% below 40℃, Maximun relative humidity less than 90% below 20℃
Altitude	Not exceeding 2000 m above sea level

UNC1 AC contactor

Main circuit parameter			Technical performance
Rated insulation voltage Ui (V)			1000V
Rated impulse withstand voltage Uimp (kV)			8kV
Rated operational voltage Ue max (V)			1000V
Rated making capacity			Making current: 10×Ie (AC-3) or 12× Ie (AC-4)
Rated breaking capacity			Breaking current: 8×Ie (AC-3) or 10xIe (AC-4)
Rated control voltage(Uc)			24-660V (please specify control voltage when placing orders, default voltage is 220V)
Mechanical life (cycles)			1×10^{6}
Main contact		115~265	3NO or 4NO
		330~780	2NO、3NO or 4NO
		800	3NO
Control voltage limits(AC) (θ≤55℃)		Pull-in	0.85-1.1 Uc
		Release(AC)	0.2-0.75 Uc
		Release(DC)	0.1-0.75 Uc
Average power 50Hz (VA)	Start	115~150	550
		185~225	810
		265	1200
		330	600
		400	1000
		500	1050
		630	1500
		780	1900
		800	1600
	Hold	115~150	45
		185~225	55
		265	85
		330	10
		400	12
		500	16
		630	20
		780	45
		800	22

UNC1 AC contactor

Contactor model		Conventional thermal current Ith (A) (θ≤40℃)	Rated operation current Ie (A)		Rated control power AC-3(kW)
			max AC-1 (θ≤40℃)	max AC-3 (θ≤55℃)	
UNC1-115	220V/240V	200	200	115	30
	380V/400V	200	200	115	55
	415V/440V	200	200	115	59
	500V	200	200	-	75
	660V/690V	200	200	-	80
	1000V	200	200	-	65
UNC1-150	220V/240V	250	250	150	40
	380V/400V	250	250	150	75
	415V/440V	250	250	150	80
	500V	250	250	-	90
	660V/690V	250	250	-	100
	1000V	250	250	-	65
UNC1-185	220V/240V	275	275	185	55
	380V/400V	275	275	185	90
	415V/440V	275	275	185	100
	500V	275	275	-	110
	660V/690V	275	275	-	120
	1000V	275	275	-	100
UNC1-225	220V/240V	315	315	225	63
	380V/400V	315	315	225	100
	415V/440V	315	315	225	110
	500V	315	315	-	129
	660V/690V	315	315	-	129
	1000V	315	315	-	140
UNC1-265	220V/240V	350	350	265	75
	380V/400V	350	350	265	132
	415V/440V	350	350	265	140
	500V	350	350	-	160
	660V/690V	350	350	-	180
	1000V	350	350	-	147

UNC1 AC contactor

Contactor model		Conventional thermal current Ith (A) (θ≤40℃)	Rated operation current Ie (A)		Rated control power AC-3(kW)
			max AC-1 (θ≤40℃)	max AC-3 (θ≤55℃)	
UNC1-330	220V/240V	400	400	330	100
	380V/400V	400	400	330	160
	415V/440V	400	400	330	180
	500V	400	400	-	200
	660V/690V	400	400	-	220
	1000V	400	400	-	160
UNC1-400	220V/240V	500	500	400	129
	380V/400V	500	500	400	200
	415V/440V	500	500	400	220
	500V	500	500	-	257
	660V/690V	500	500	-	280
	1000V	500	500	-	185
UNC1-500	220V/240V	700	700	500	147
	380V/400V	700	700	500	250
	415V/440V	700	700	500	280
	500V	700	700	-	335
	660V/690V	700	700	-	355
	1000V	700	700	-	335
UNC1-630	220V/240V	900	800	630	200
	380V/400V	900	800	630	335
	415V/440V	900	800	630	275
	500V	900	800	-	400
	660V/690V	900	800	-	450
	1000V	900	800	-	450
UNC1-780	220V/240V	1000	1000	780	220
	380V/400V	1000	1000	780	400
	415V/440V	1000	1000	265	425
	500V	1000	1000	-	450
	660V/690V	1000	1000	-	475
	1000V	1000	1000	-	450

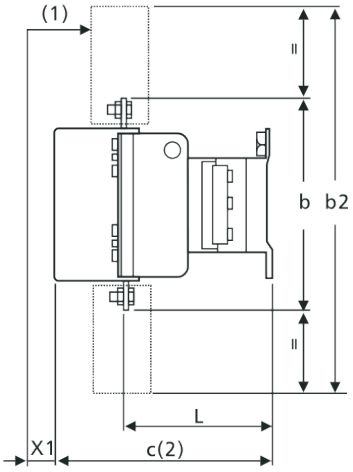
Contactor model		Conventional thermal current Ith (A) (θ≤40℃)	Rated operation current Ie (A)		Rated control power AC-3(kW)
			max AC-1 (θ≤40℃)	max AC-3 (θ≤55℃)	
UNC1-800	220V/240V	1000	1000	800	220
	380V/400V	1000	1000	800	400
	415V/440V	1000	1000	800	425
	500V	1000	1000	-	450
	660V/690V	1000	1000	-	475
	1000V	1000	1000	-	450

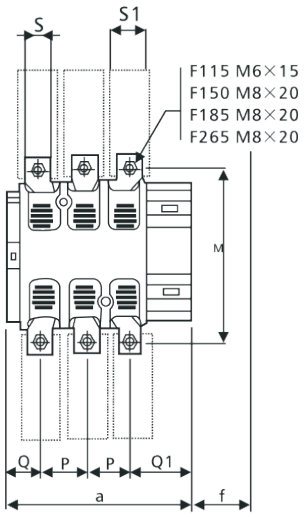
Contactor wiring

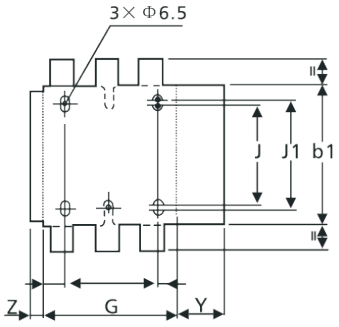
Contactor wiring		115	150/185	225	265	330	400	500	630	780	800
Cabling (θ≤55℃)	The maximum cross-sectional area number of cable (mm2)	2	2	2	2	2	2	2	2	2	2
	dimension of cables	20×3	25×3	32×3	32×4	30×5	30×5	40×5	60×5	100×5	60×5
	Cable with tabs(mm2)	95	120/150	185	240	240	2×150	2×240	-	-	-
	Cable with connectors (mm2)	95	120/150	185	240	-	-	-	-	-	-
	Bolt diameter(mm)	Φ6	Φ8	Φ10	Φ10	Φ10	Φ10	Φ10	Φ12	Φ12	Φ12
Cable circuit connection	Tightening torque (N·m)	10	18	35	35	35	35	35	58	58	58

UNC1 AC contactor

Dimensions (mm)







Current		115	150	185	225	265	330	400	500	630	780	800
Item	A	163.5	163.5	168.5	168.5	201.5	213	213	233	309	704	309
	B	162	170	174	197	203	206	206	238	304	435	304
	C	171	171	181	181	213	219	219	232	255	255	255
	F	131	131	130	130	147	147	151	169	201	201	201
	G	106	106	111	111	140	154.5	170 (156-192)	170 (156-192)	180 (100-195)	180 (100-195)	240
	J	120-106	120-106	120-106	120-106	120-106	120-106	180	180	180	180	180
	L	107	107	113.5	113.5	141	145	145	146	155	165	155
	M	147	150	154	172	178	181	181	208	264	400	264
	P	37	40	40	48	48	48	48	55	80	160	80
	Q	29.5	26	29	21	39	43	69	76	60	192	60
	S	20	20	20	25	25	25	25	30	40	60	40

UR2 Thermal overload relay

UR2-32

UR2-93

Applicable scope

Type UR2 thermal overload relay used to AC Current 50Hz or 60Hz, Voltage up to 690V.

- And suitable for three-phase or single-phase motor applications.
- Provider class 10 protection and main functions including: Motor protection against overload and phase failure. Automatic and manual reset both included test and stop functions.

- Conform to standard :IEC 60947-4-1 ,IEC 60947-5-1.

Technical features

Type number	UR2	
Rated current	UR2-32	0.1-32A
	UR2-93	23-93A
Rated insulated voltage V	690V	
Rated impulse withstand voltage Uimp V	60000V	
Phase failure protection function	YES	
Automatic and manual reset	YES	
Temperature compensation	YES	
Tripping indicator	YES	
Test and stop push button	YES	
Mounting type	Pulg in mounting	
Frame protection degree	IP 20	
Standards	IEC 60947-4-1 ,IEC 60947-5-1	
Auxiliary contacts		
Contacts configuration	1NO+1NC	
Rated current (A) AC-15 220V	2.73	
Rated current (A) AC-15 380V	1.57	

UR2 Thermal overload relay

Contactor wiring

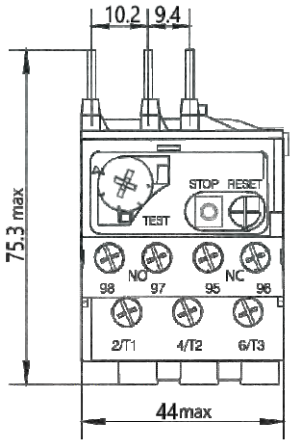
Contactor wiring			UR2-32	UR2-93
Cross section area of conductor mm²	Main circuit	Single core or standard sire	4-10mm²	4-35mm²
		Wiring screw	M4	M10
	Auxiliary circuit	Single core or standard sire	0.5-25	0.5-25
		Wiring screw	M3.5	M3.5

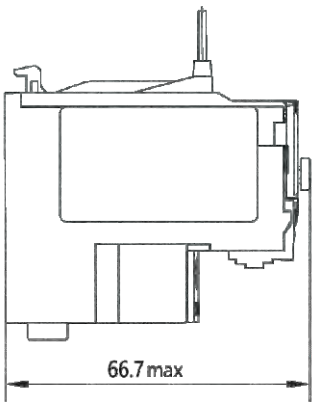
Frame	Rated current adjustable range (A)	Recommended fuse type		Matching for ac contactor (A)
		aM	gG	
UR2-32	0.1-0.16	0.25	2	09-32A
	0.16-0.25	0.5	2	09-32A
	0.25-0.4	1	2	09-32A
	0.4-0.63	1	2	09-32A
	0.63-1	2	4	09-32A
	1-1.6	2	4	09-32A
	1.25-2	4	6	09-32A
	1.6-2.5	4	6	09-32A
	2.5-4	6	10	09-32A
	4-6	8	16	09-32A
	5.5-8	12	20	09-32A
	7-10	12	20	09-32A
	9-13	16	25	09-32A
	12-18	20	35	09-32A
	17-25	25	50	32A
	23-32	40	63	25-32A

Frame	Rated current adjustable range (A)	Recommended fuse type		Matching for ac contactor (A)
		aM	gG	
UR2-93	23-32	40	63	40A
	30-40	40	100	50A
	37-50	63	100	65A
	48-65	63	100	80A
	55-70	80	125	90A
	63-80	80	125	40-65A
	80-93	100	160	80-95A

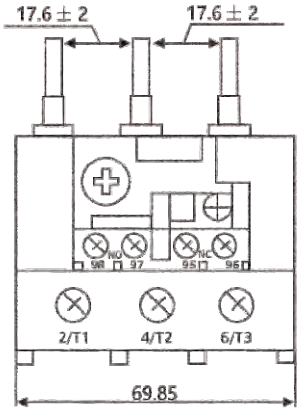
Dimensions (mm)

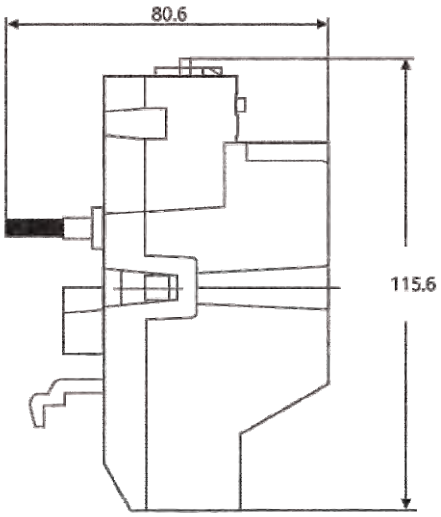
UR2-32





UR2-93





AC contactor accessaries

Accessory selection table

Dust cove

Contactor	Optional accessory
CJX2-09~18	CJX-1 dust cover
CJX2-25~32	CJX-2 dust cover
CJX2-40~65	CJX-3 dust cover
CJX2-80~95	CJX-4 dust cover

Air delay head

N meaning :power on time delay

F meaning: power off time delay

Contactor	Optional accessory	Accessory model	Contact combination	Delay range (s)
CJX full series	La2 air delay head	LA2-NO	1NO+1NC	0.1~3
		LA2-N2	1NO+1NC	0.1~30
		LA2-N4	1NO+1NC	10~180
		LA2-FO	1NO+1NC	0.1~3
		LA2-F2	1NO+1NC	0.1~30
		LA2-F4	1NO+1NC	10~180

AC contactor accessaries

Auxiliary contacts

Contactor	Optional accessory	Accessory model	Contact combination
CJX2-09~95	Top-mounted	F111	1NO+1NC
		F102	2NC
		F120	2NO
		F122	2NO+2NC
		F113	1NO+3NC
		F131	3NO+1NC
		F140	4NO
		F104	4NC

*Built-in 1NO and 1NC auxiliary contacts

Lateral block

Contactor	Optional accessory	Accessory model	Contact combination
CJX2-09~95	Side-mounted	F811	1NO+1NC
		F820	2NO