

## XMC0 Series

### Definite Purpose Contactors

#### Description

Hongfa's Definite Purpose Contactor **XMC0** meets the rigorous demands of the HVAC, refrigeration, heating, data processing, welding, elevators, hoist & cranes, pool, commercial spa, and food service equipment industries. The contactor series meet and exceed the requirements for IEC 60947-4-1, GB 14048.4, UL 508, UL 60947-4-1, and UL 1995.



#### Features

1. Tools-free accessories for quick & easy snap on assembly.
2. Various terminal options for specific application.
3. Universal mounting plate.
4. Heavy duty Silver Metal Oxide contacts to provide long electrical endurance.
5. Class F (155°C) Coil insulation systems with a broad range of 50/60Hz voltage offerings.
6. Protective coil cover option available for the 1 & 2 pole contactors.
7. UL(USR/CNR) and CCC approved, some models SEMKO, KC or TÜV plus.

#### Environmental characteristics

<b>Protective treatment</b>		Total climate tropical use "TH"
<b>Operating position</b>		Vertical or Horizontal (Metal/Plastic base mounting)
<b>Ambient temperature</b>	<b>Operation</b>	-40°C ~ +70°C / -40°F ~ +158°F
	<b>Storage</b>	-40°C ~ +70°C / -40°F ~ +158°F
<b>Relative humidity</b>		90%-95%RH at 40°C
<b>Pollution degree</b>		3

# Type model nomenclature - Ordering Information

**XMC 0 - 50 J33 . E B B C 0 0 F G Z X**

**Product Type**  
XMC = Contactor Series

**Design Sequence Number**  
0 = Design Sequence Number

**Full Load Amperes (FLA)**  
20 = 20A (Same as 25A)    50 = 50A  
25 = 25A                      63 = 63A  
32 = 32A                      75 = 75A  
40 = 40A                      90 = 90A

**Number of Poles**  
1 = 1-pole+shunt(25-40A)  
7 = 1-pole(25-40A)  
2 = 2-pole(25-40A)  
3 = 3-pole(25-90A)  
3A = 2-pole (3P frame, 25-90A)  
4 = 4-pole(25-40A)  
Jmn = Matching mechanically interlocked block (3P/4P frame). "m" = 3A or 3 or 4, number of poles of the contactor A(on the left) and "n" = 3A or 3 or 4, number of poles of the contactor B(on the right).  
**Notes:** Quantum series only available for 2P/3P/4P frame, please contact us if you have any request.

**Coil Voltage**  
E = 24VAC 50/60Hz  
F = 110-120VAC 50/60Hz  
I = 208-220VAC 50Hz    208-240VAC 60Hz  
L = 277VAC 60Hz  
N = 380-415VAC 50Hz    440-480VAC 60Hz  
U = 550-600VAC 50/60Hz  
**Note:** Please contact us if you have any other request.

**Mounting plate**  
B = Metal plate  
Blank = Quantum series - Serviceable /metal plate

**Top Cover**  
B = Short cover  
Blank = Quantum series - Serviceable /short cover

**Power Terminals**  
C = Slotted & Hex head washer w/ quick connect  
D = Box Lug w/ quick connect  
E = Box lug w/ quick connect (Line side)  
Slotted & Hex head washer w/ quick connect (Load side)  
F = Slotted & Hex head washer w/ quick connect (Line side)  
Box lug w/ quick connect (Load side)  
**Note:** Please contact us if you have any other request.

**Option**  
Customer assigned suffix "X" where "X" may be any alphanumeric character or any combined alphanumeric character.

**Contact Construction Style (For 50/63 FLA only)**  
Blank = Flat construction in shape  
Z = Bend construction in shape(No "Break All Lines" restriction)

**Power Quick Terminals**  
Blank = Quad Terminals in 1- and 2- pole models and Dual Terminals in 3/4-pole models  
G = None QC Terminals  
Q = Quad Terminals in 3/4-pole models (Only the side no coil terminals)

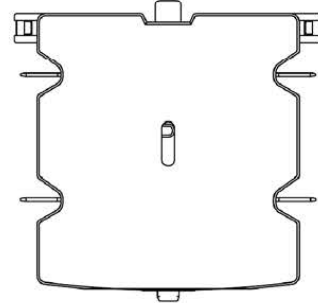
**Coil Terminals**  
Blank = Dual QC without screw in 1- and 2- pole models and Single QC with screw in 3/4-pole models  
F = Dual QC in 3/4-pole models

Auxiliary Contacts or Microswitch on Left Side (For 3/4-pole only)	Auxiliary Contacts or Microswitch on Right Side (For 3/4-pole only)
0 = None (Standard Type)	0 = None (Standard Type)
1 = 1NC + 1NO, 0.250" quick connect terminal	1 = 1NC + 1NO, 0.250" quick connect terminal
3 = 1NC, 0.250" quick connect terminal	3 = 1NC, 0.250" quick connect terminal
4 = 1NO, 0.250" quick connect terminal	4 = 1NO, 0.250" quick connect terminal
5 = 2NC, 0.250" quick connect terminal	5 = 2NC, 0.250" quick connect terminal
6 = 2NO, 0.250" quick connect terminal	6 = 2NO, 0.250" quick connect terminal
1P = 1NC + 1NO, pressure plate screw	1P = 1NC + 1NO, pressure plate screw
3P = 1NC, pressure plate screw	3P = 1NC, pressure plate screw
4P = 1NO, pressure plate screw	4P = 1NO, pressure plate screw
5P = 2NC, pressure plate screw	5P = 2NC, pressure plate screw
6P = 2NO, pressure plate screw	6P = 2NO, pressure plate screw
L = 2 SPDT	R = 2 SPDT
L1 = 1 SPDT, left side(position 1) of microswitch block	R1 = 1 SPDT, left side(position 1) of microswitch block
L2 = 1 SPDT, right side(position 2) of microswitch block	R2 = 1 SPDT, right side(position 2) of microswitch block
For example: (Refer to HF logo position, see page 9.)	
34P = 1NC 0.250" quick connect terminal on left side 1NO pressure plate screw on right side	
LR1 = 2 SPDT on left side 1 SPDT(position 1 of microswitch block) on right side	
3R2 = 1NC 0.250" quick connect terminal on left side 1 SPDT(position 2 of microswitch block) on right side	
<b>Note:</b> If "00" will be the final digits in selection, omit from model nomenclature.	

## Type model nomenclature - Ordering Information

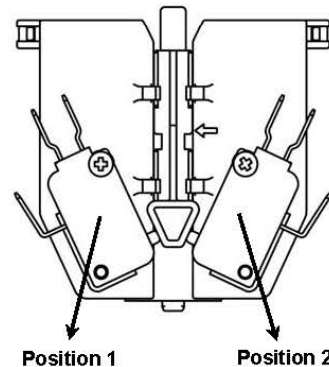
### Auxiliary Contact Blocks: C03 A 11 P Q X

<b>Basic Designation</b>
C03 = For XMC0 3P/4P Series Definite Purpose Contactors.
<b>Accessory Category</b>
A = Auxiliary Contacts Block
<b>Contact Type</b>
01 = 1NC    10 = 1NO    11 = 1NC + 1NO    02 = 2NC    20 = 2NO
Note: NC = Normally Closed, NO = Normally Opened.
<b>Quick Connect Terminals</b>
Blank = 0.250" quick connect terminals P = Pressure plate screw (None QC terminals)
<b>Used Function</b>
Blank = Match with 3P Contactor Q = Match with Quantum series
<b>Option</b>
Customer assigned suffix "X" where "X" may be any alphanumeric character or any combined alphanumeric character.



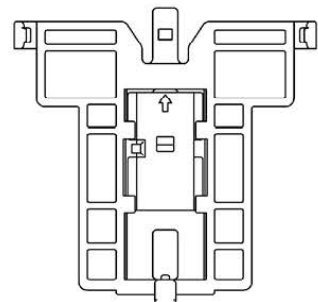
### Microswitch Blocks: C03 M 10 Q X

<b>Basic Designation</b>						
C03 = For XMC0 3P/4P Series Definite Purpose Contactors.						
<b>Accessory Category</b>						
M = Microswitch Block						
<b>Contact Type</b>						
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Microswitch at Left side (position 1) for Microswitch Assembly</td> <td style="width: 50%; border: none;">Microswitch at Right side (position 2) for Microswitch Assembly</td> </tr> <tr> <td style="border: none;">0 = None    3 = 1 SPST-NC</td> <td style="border: none;">0 = None    3 = 1 SPST-NC</td> </tr> <tr> <td style="border: none;">1 = 1 SPDT    4 = 1 SPST-NO</td> <td style="border: none;">1 = 1 SPDT    4 = 1 SPST-NO</td> </tr> </table>	Microswitch at Left side (position 1) for Microswitch Assembly	Microswitch at Right side (position 2) for Microswitch Assembly	0 = None    3 = 1 SPST-NC	0 = None    3 = 1 SPST-NC	1 = 1 SPDT    4 = 1 SPST-NO	1 = 1 SPDT    4 = 1 SPST-NO
Microswitch at Left side (position 1) for Microswitch Assembly	Microswitch at Right side (position 2) for Microswitch Assembly					
0 = None    3 = 1 SPST-NC	0 = None    3 = 1 SPST-NC					
1 = 1 SPDT    4 = 1 SPST-NO	1 = 1 SPDT    4 = 1 SPST-NO					
Note: SPDT = Single Pole Double Throw, SPST = Single Pole Single Throw, NC = Normally Closed, NO = Normally Opened.						
<b>Used Function</b>						
Blank = Match with 3P Contactor Q = Match with Quantum series						
<b>Option</b>						
Customer assigned suffix "X" where "X" may be any alphanumeric character or any combined alphanumeric character.						



### Interlock Blocks: C03 J 1Q X

<b>Basic Designation</b>
C03 = For XMC0 3P/4P Series Definite Purpose Contactors.
<b>Accessory Category</b>
J = Mechanically Interlocked Block
<b>Interlock Type</b>
0 = Match with 25-40A    2 = Match with 75-90A 1 = Match with 50-63A    1Q = Match with 25-63A (Quantum series)
<b>Option</b>
Customer assigned suffix "X" where "X" may be any alphanumeric character or any combined alphanumeric character.



## Pole characteristics

Full Load Amps(FLA)	Poles	Voltage	Locked Rotor Amps (LRA)	Resistive Amps Rating (RES)	Maximum Horsepower(HP)			Catalog Number
					Voltage	Single Phase	Three Phase	
25	1	240/277	150	35	240/277	2	-	XMC0-257* XMC0-251*
		480	125					
		600	100					
32	1	240/277	180	40	240/277	2	-	XMC0-327* XMC0-321*
		480	150					
		600	120					
40	1	240/277	240	50	240/277	3	-	XMC0-407* XMC0-401
		480	200					
		600	160					
25	2	240/277	150	35	240/277	3	-	XMC0-252*
		480	125					
		600	100					
32	2	240/277	180	40	240/277	3	-	XMC0-322*
		480	150					
		600	120					
40	2	240/277	240	50	240/277	3	-	XMC0-402*
		480	200					
		600	160					
25	2	240/277	150	35	240/277	3	7.5	XMC0-253A* XMC0-253* XMC0-254*
	3	480	125		480	-	15	
	4	600	100		600	-	20	
32	2	240/277	180	40	240/277	5	10	XMC0-323A* XMC0-323* XMC0-324*
	3	480	150		480	-	15	
	4	600	120		600	-	20	
40	2	240/277	240	50	240/277	7.5	10	XMC0-403A* XMC0-403* XMC0-404*
	3	480	200		480	-	20	
	4	600	160		600	-	25	
50	2	240/277	300	63	240/277	10	15	XMC0-503A* XMC0-503*
	3	480	250		480	-	25	
		600	200+		600	-	25	
63	2	240/277	360	75	240/277	10	20	XMC0-633A* XMC0-633*
	3	480	300		480	-	30	
		600	240+		600	-	30	
50	2	240/277	300	63	240/277	10	15	XMC0-503A*Z XMC0-503*Z
	3	480	250		480	-	25	
		600	200		600	-	25	
63	2	240/277	360	75	240/277	10	20	XMC0-633A*Z XMC0-633*Z
	3	480	300		480	-	30	
		600	240		600	-	30	
75	2	240/277	450	94	240/277	15	25	XMC0-753A* XMC0-753*
	3	480	375		480	-	40	
		600	300		600	-	40	
90	2	240/277	540	120	240/277	20	30	XMC0-903A* XMC0-903*
	3	480	450		480	-	50	
		600	360		600	-	50	

**Notes:**

1. All the models also could be marked or used for the actual applications which have less contact ratings than the certificated ratings. The rating can be Voltage, FLA, LRA or RES.
2. All the ratings have no "Break All Lines" restriction, except the rating "600VAC 50FLA/200LRA" for "XMC0-50 without Z" and "600VAC 63FLA/240LRA" for "XMC0-63 without Z".
3. Contact factory representative for Cd free option.

## Auxiliary contacts block characteristics

Contact Rating - Single Circuit NO or NC and Two Circuit NO/NC	Voltage Rating	120VAC	240VAC	480VAC	600VAC
	Amperes - Break	3.0	1.5	0.75	0.6
	Amperes - Make	30	15	7.5	6
	Amperes - Thermal continuous	10	10	10	10

## Microswitch blocks characteristics

Contact Rating - SPDT	10A or 11A, 1/3 HP, 125 or 250 VAC 1/2A, 125 VDC; 1/4A, 250 VDC 4A 120 VAC on Lamp Load
<b>Note:</b> Please contact us if you have any other request.	

## Coil characteristics @ 25°C (Cold state)

Part number	Max. Inrushed VA		Max. Sealed VA		Sealed Watts	Voltage	
	60Hz	50Hz	60Hz	50Hz	60Hz	Pick-up	Drop-out
XMC0-□1/7	40	55	7.5	10	3	≤0.8U <sub>s</sub>	≥0.2U <sub>s</sub>
XMC0-□2	45	55	8	10.5	3.5		
XMC0-□3/3A	80	90	12	16	5		
XMC0-□4	90	100	14	18	6		
XMC0-503/633	145	160	17.6	23	7		
XMC0-753/903	300	325	35	46	12		

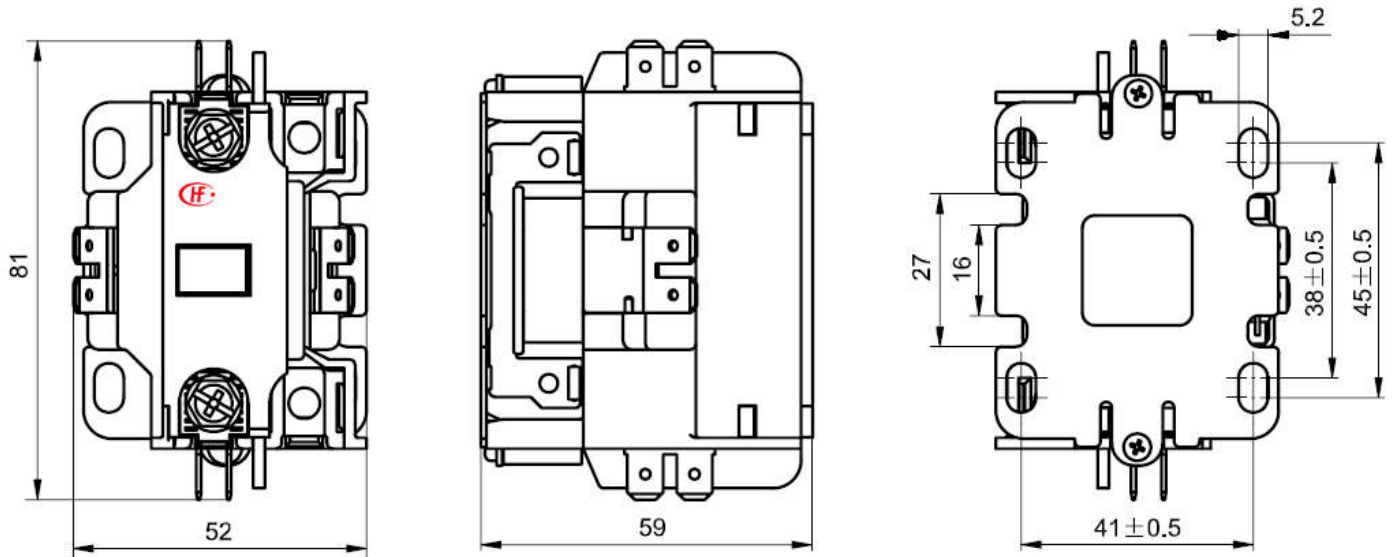
**Notes:**

- U<sub>s</sub>=24VAC 50/60Hz("E" coil) or 120VAC 50/60Hz("F" coil) or 220VAC/50Hz, 240VAC/60Hz("I" coil) or 277VAC/60Hz("L" coil) or 415VAC/50Hz, 480VAC/60Hz("N" coil) or 600VAC 50/60Hz("U" coil).
- Inrushed VA and Sealed VA test at U<sub>s</sub>.

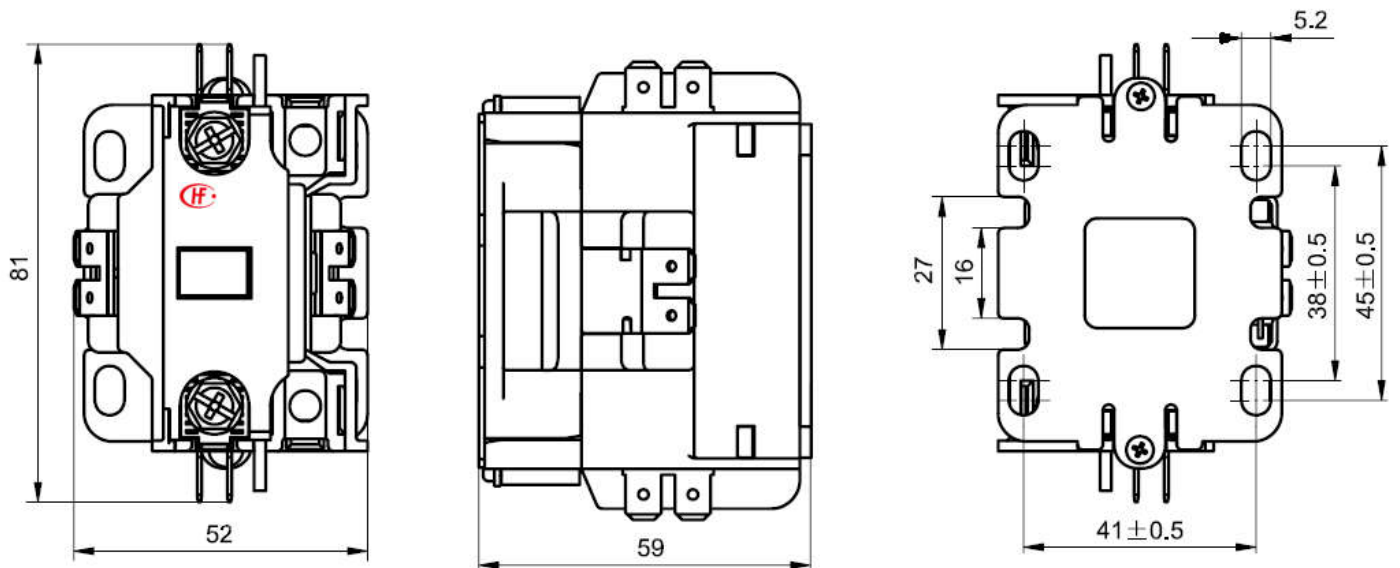


## Outline dimensions

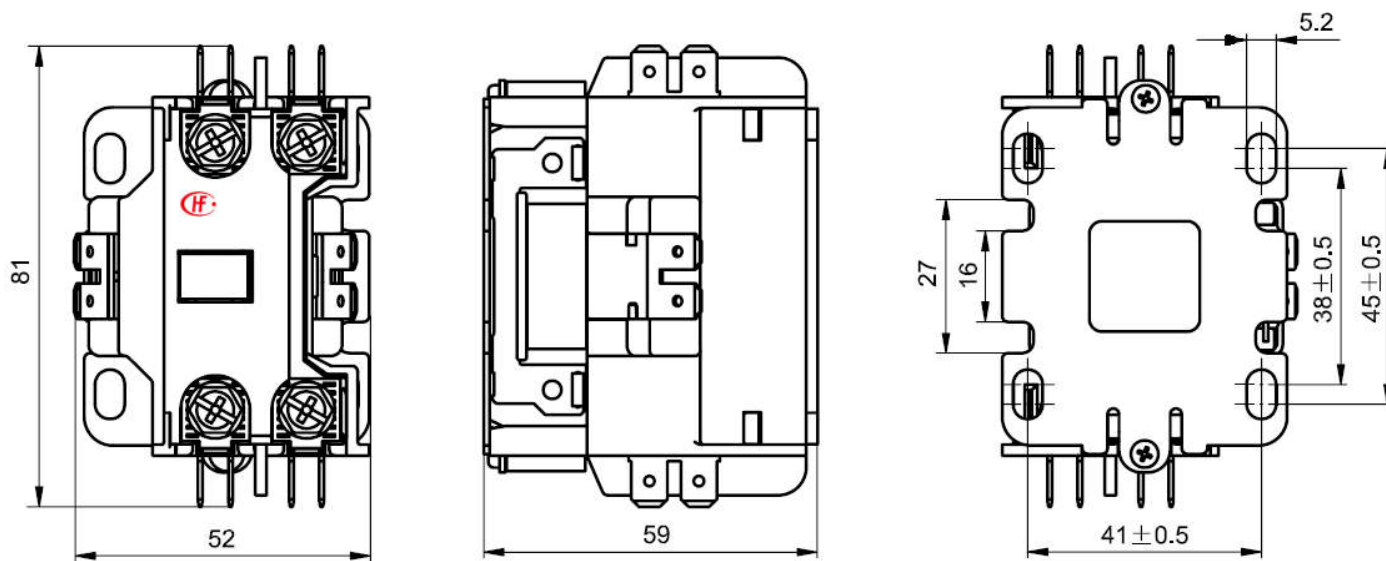
Unit: mm



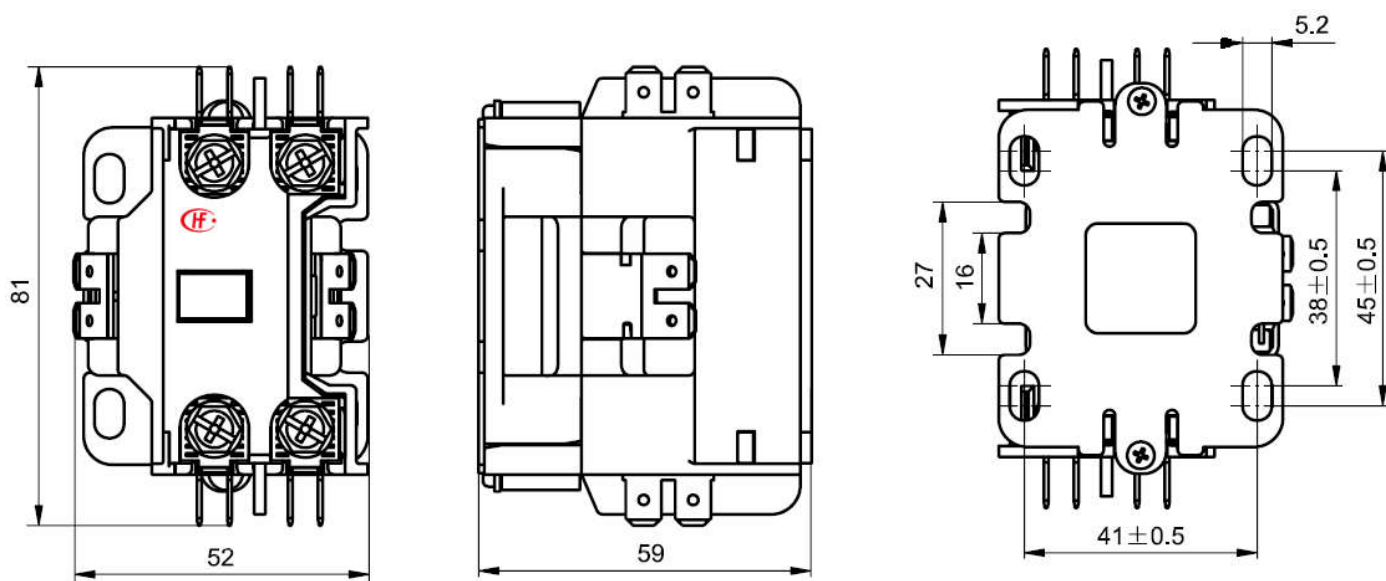
1 pole (metal plate, 25-40FLA, w/o coil cover)



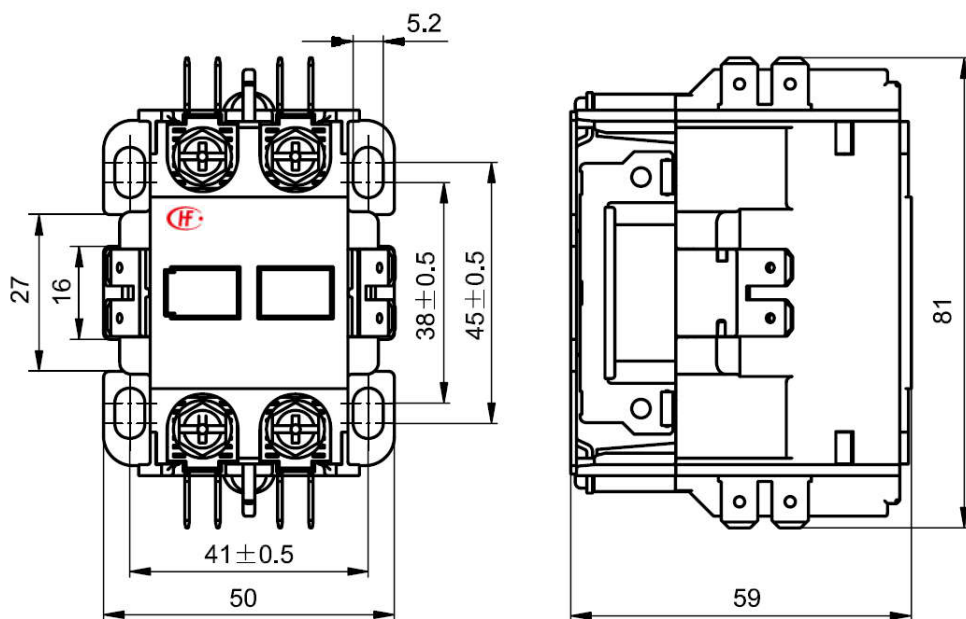
1 pole (metal base, 25-40FLA, with coil cover)



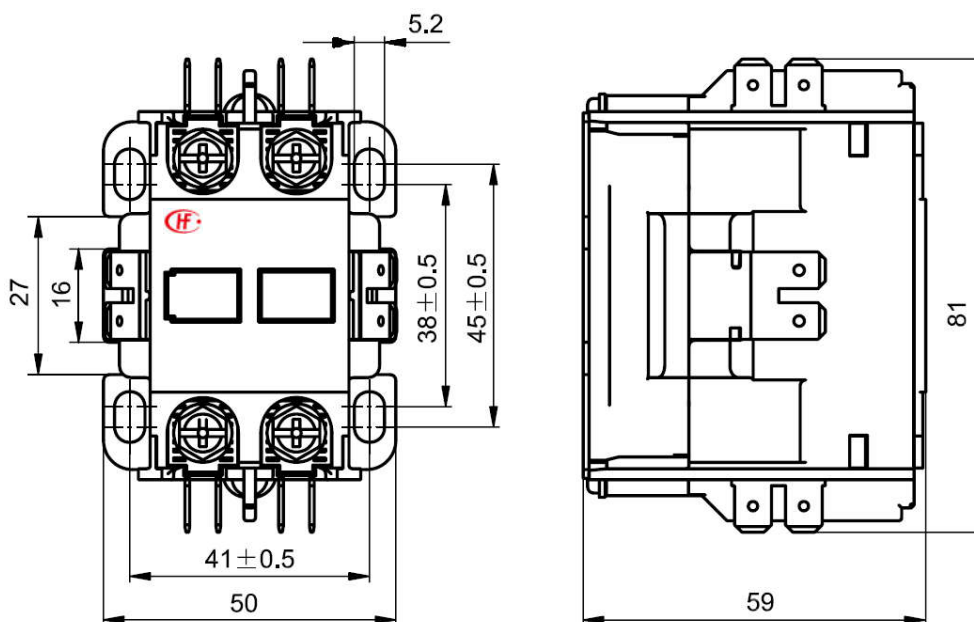
1 pole+shunt (metal base, 25-40FLA, w/o coil cover)



1 pole+shunt (metal base, 25-40FLA, with coil cover)

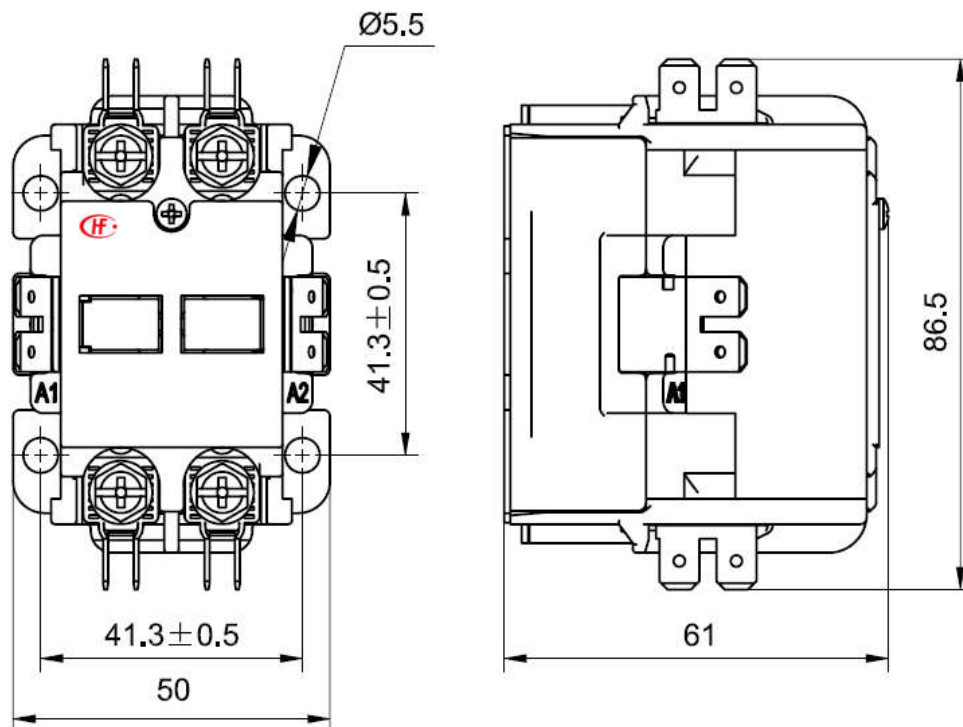


2 pole (metal base, 25-40FLA, w/o coil cover)

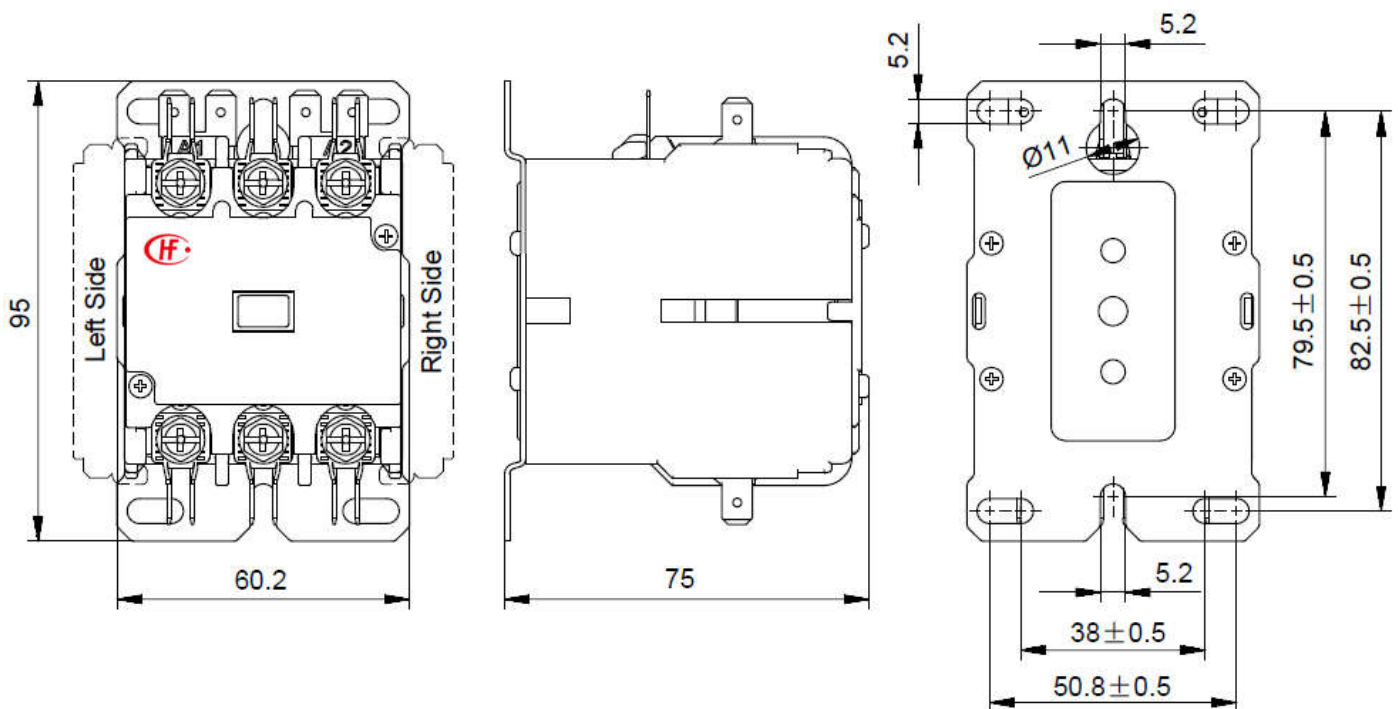


2 pole (metal base, 25-40FLA, with coil cover)

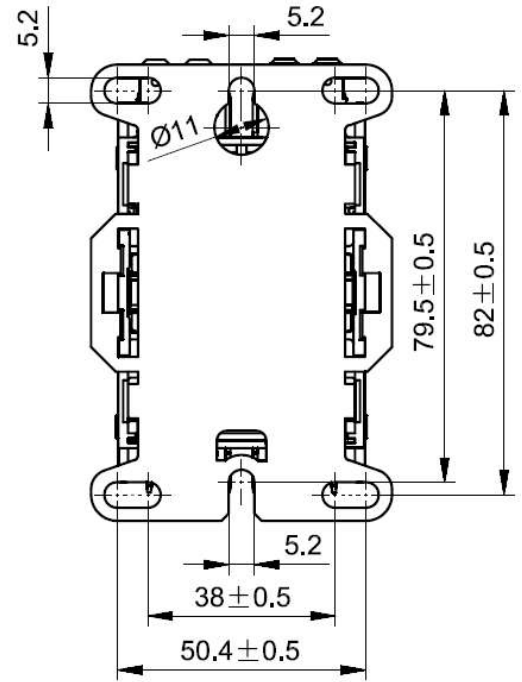
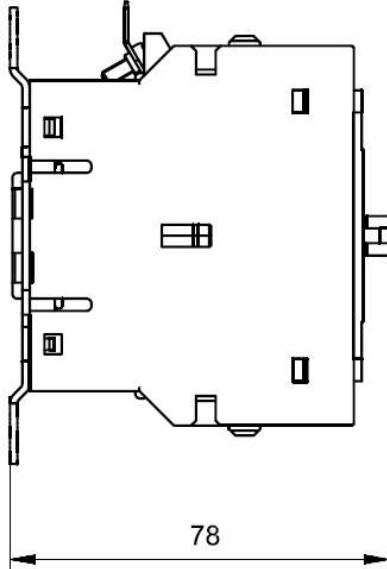
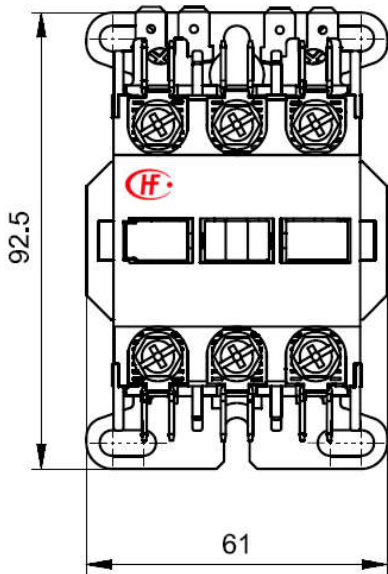




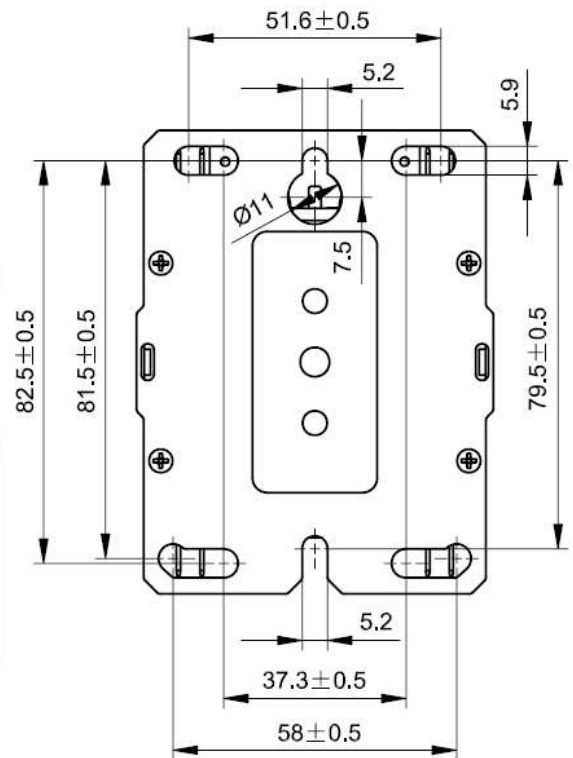
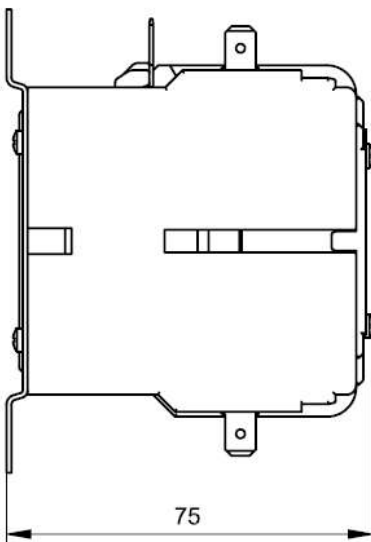
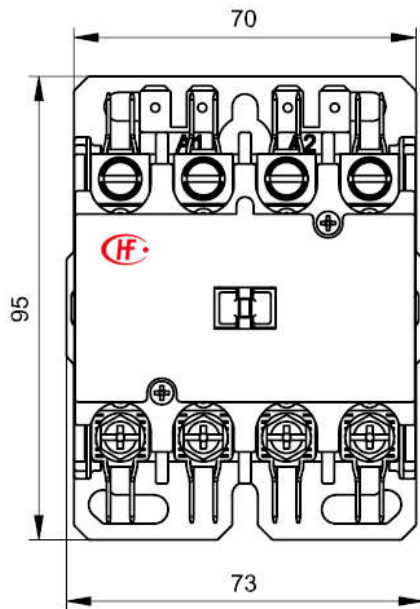
2 pole (metal base, 25-40FLA) - Quantum series



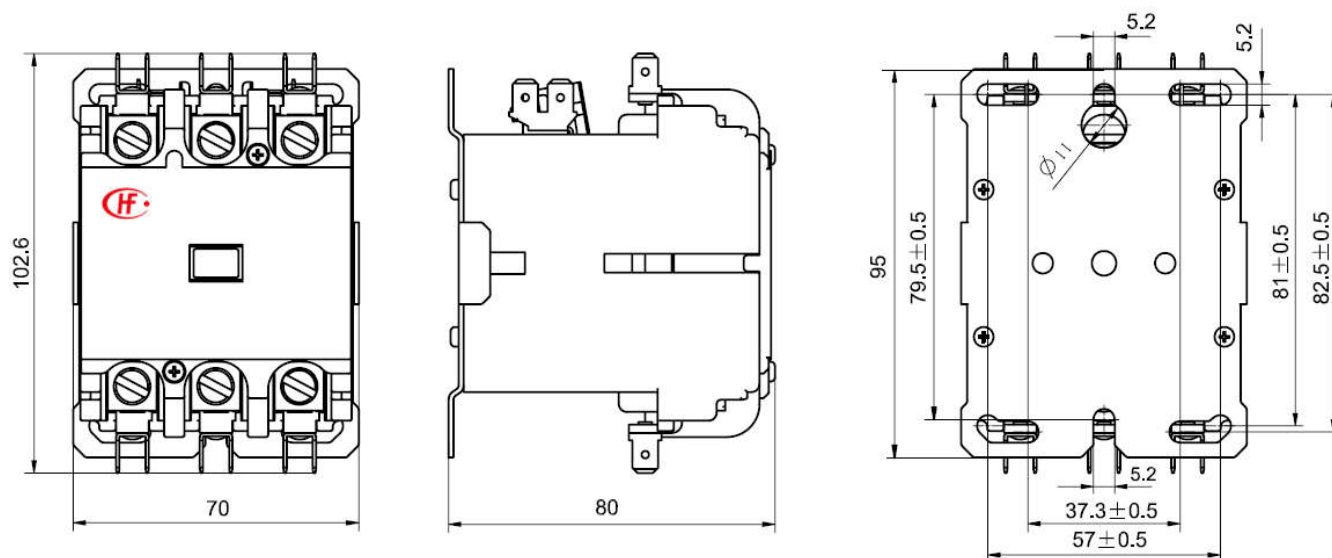
3 pole (metal base, 25-40FLA) - Quantum series



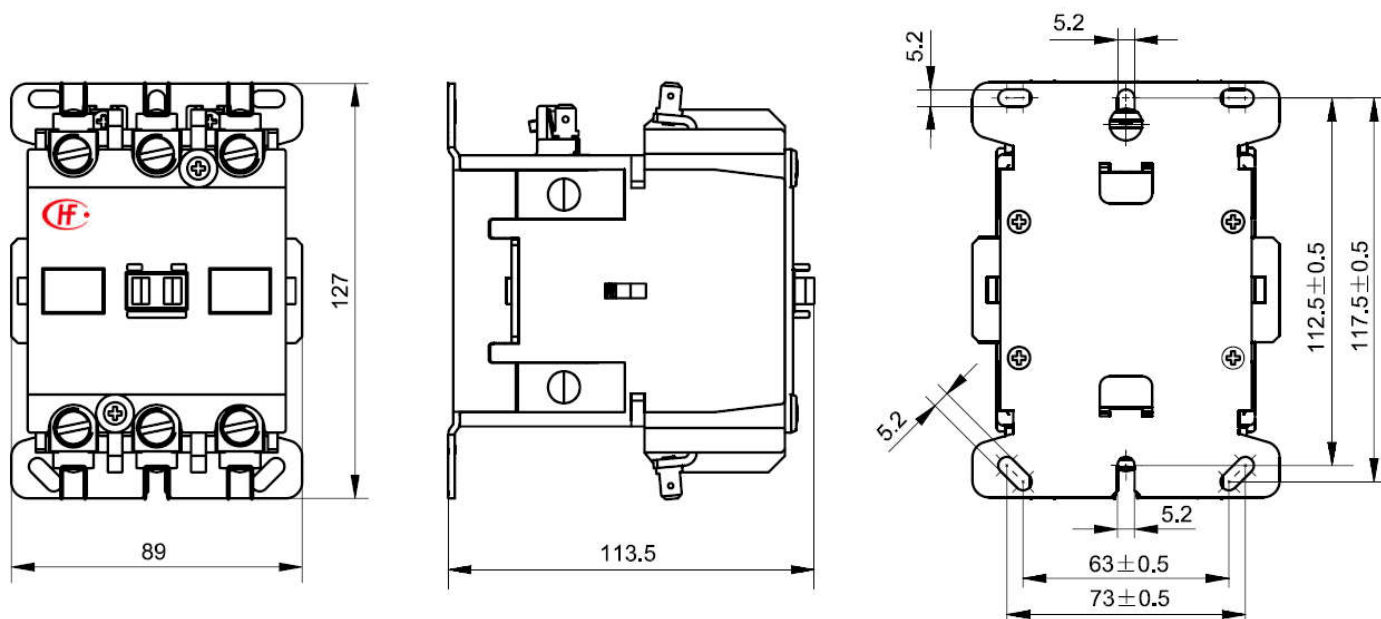
3 pole (metal base, 25-40FLA)



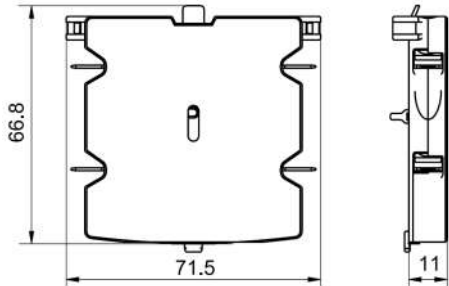
4 pole (metal base, 25-40FLA) - Quantum series



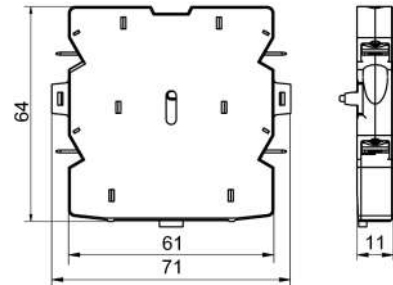
**3 pole (metal base, 50-63FLA) - Quantum series**



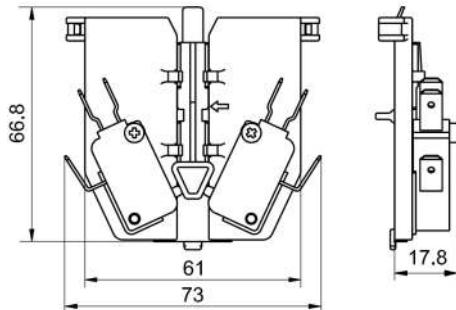
**3 pole (metal base, 75-90FLA)**



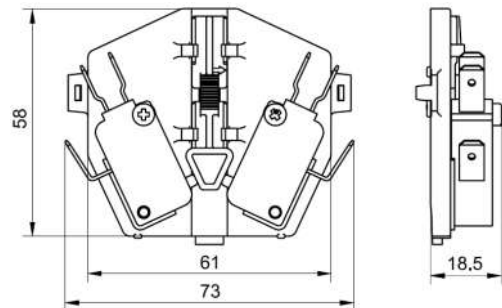
Auxiliary Contact Blocks - Used for Quantum series



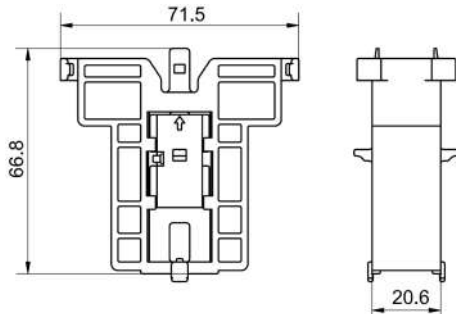
Auxiliary Contact Blocks



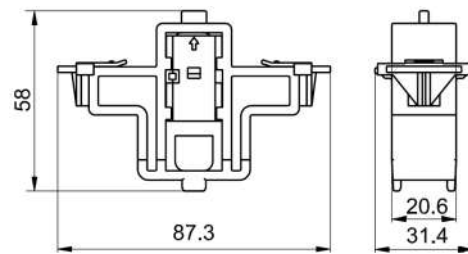
Microswitch Blocks - Used for Quantum series



Microswitch Blocks



Interlock Blocks - Used for Quantum series



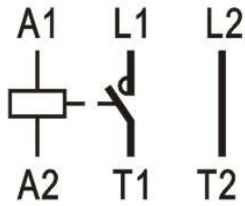
Interlock Blocks

## Wiring diagram

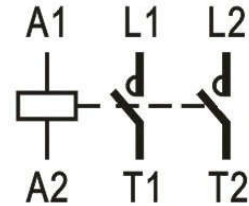
### Contactors:



XMC0-□7



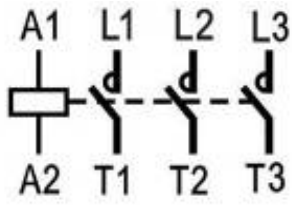
XMC0-□1



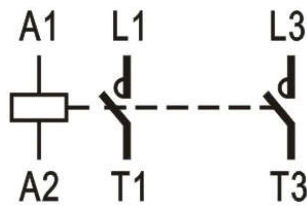
XMC0-□2

# XMC0 Series

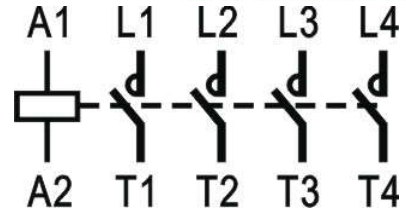
**HONGFA**



XMC0-□3

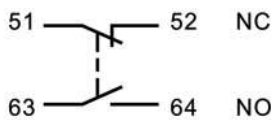
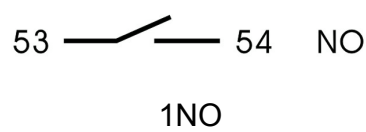
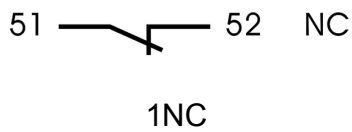


XMC0-□3A

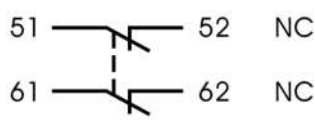


XMC0-□4

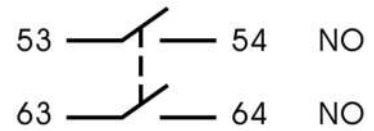
## Auxiliary Contact Blocks:



1NC + 1NO



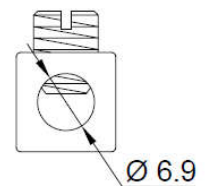
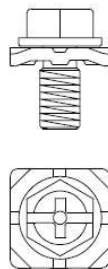
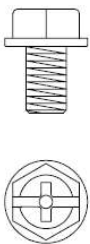
2NC



2NO

## Terminations

Unit: mm

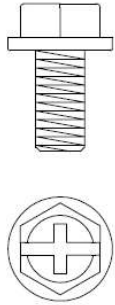


**C type on 25-40A FLA**  
 #10-32 combination  
 phillips, slotted &  
 5/16 hex head with  
 #8 washer

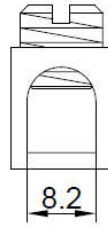
**Special C type on 25-40A FLA**  
 #10-32 sems screw  
 with pressure plate

**D type on 25-40A FLA**  
 #14-4 AWG Cu/Al

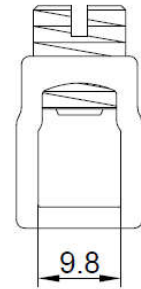




**C type on 50-90A FLA**  
M6 combination  
phillips, slotted &  
3/8 hex head with  
#12 washer



**D type on 50-63A FLA**  
#14-2 AWG Cu/Al



**D type on 75-90A FLA**  
#8-1/0 AWG Cu/Al

## Remarks:

- 1) Torque for Screws 25 lb-in /Lugs 25 lb-in for 25-40FLA types;  
Torque for Screws 45 lb-in /Lugs 50 lb-in for 50-63FLA types;  
Torque for Screws 50 lb-in /Lugs 60 lb-in for 75-90FLA types;  
Torque for Screws 8 lb-in for Auxiliary Contact Blocks;  
Torque for Coil Screws 8 lb-in for 3/4-pole 25-40FLA types and 12 lb-in for 50-90FLA types.
- 2) For QC wiring, the female connector should meet IEC 60760, necessary to ensure the reliability of connection between female connectors and QC terminals.
- 3) If the actual condition differs from this specification, please contact us for further discussion.