

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, and UL 60947-4-1.



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

Operating position		Vertical or Horizontal (Metal/Plastic base mounting)
Ambient temperature	Operation	-40°C ~ +70°C / -40°F ~ +158°F
	Storage	-40°C ~ +70°C / -40°F ~ +158°F
Relative humidity		90%~95%RH at 40°C
Pollution degree		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

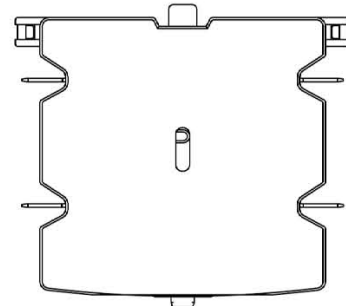
Auxiliary Contacts or Microswitch on Left Side (For 3/4-pole only)	Auxiliary Contacts or Microswitch on Right Side (For 3/4-pole only)
0 = None (Standard Type)	0 = None (Standard Type)
1 = 1NC + 1NO, 0.250" quick connect terminal	1 = 1NC + 1NO, 0.250" quick connect terminal
3 = 1NC, 0.250" quick connect 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 8.) 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 Note: 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

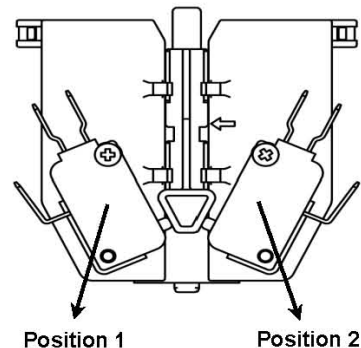
Basic Designation C03 = For XMC0 3P/4P Series Definite Purpose Contactors.
Accessory Category A = Auxiliary Contacts Block
Contact Type 01 = 1NC 10 = 1NO 11 = 1NC + 1NO 02 = 2NC 20 = 2NO Note: NC = Normally Closed, NO = Normally Opened.
Quick Connect Terminals Blank = 0.250" quick connect terminals P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



Microswitch Blocks:

C03 M 10 Q X

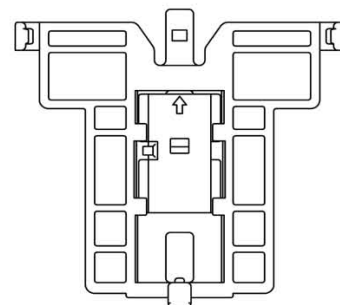
Basic Designation C03 = For XMC0 3P/4P Series Definite Purpose Contactors.												
Accessory Category M = Microswitch Block												
Contact Type <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="padding: 5px;">Microswitch at Left side(position 1) for Microswitch Assembly</th> <th colspan="2" style="padding: 5px;">Microswitch at Right side(position 2) for Microswitch Assembly</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">0 = None</td> <td style="padding: 5px;">3 = 1 SPST-NC</td> <td style="padding: 5px;">0 = None</td> <td style="padding: 5px;">3 = 1 SPST-NC</td> </tr> <tr> <td style="padding: 5px;">1 = 1 SPDT</td> <td style="padding: 5px;">4 = 1 SPST-NO</td> <td style="padding: 5px;">1 = 1 SPDT</td> <td style="padding: 5px;">4 = 1 SPST-NO</td> </tr> </tbody> </table> Note: SPDT = Single Pole Double Throw, SPST = Single Pole Single Throw, NC = Normally Closed, NO = Normally Opened.	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									
Used Function Q = Match with Quantum series												
Option Customer assigned suffix "X" where "X" may be any alphanumeric character or any combined alphanumeric character.												



Interlock Blocks:

C03 J 1Q X

Basic Designation C03 = For XMC0 3P/4P Series Definite Purpose Contactors.
Accessory Category J = Mechanically Interlocked Block
Interlock Type 1Q = Match with 25-63A(Quantum series) 2Q = Match with 75-90A(Quantum series)
Option 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	240/277 480 600	150 125 100	35	240/277	2	-	XMC0-257* XMC0-251*
32	1	240/277 480 600	180 150 120	40	240/277	2	-	XMC0-327* XMC0-321*
40	1	240/277 480 600	240 200 160	50	240/277	3	-	XMC0-407* XMC0-401
25	2	240/277 480 600	150 125 100	35	240/277	3	-	XMC0-252*
32	2	240/277 480 600	180 150 120	40	240/277	3	-	XMC0-322*
40	2	240/277 480 600	240 200 160	50	240/277	3	-	XMC0-402*
25	2 3 4	240/277 480 600	150 125 100	35	240/277 480 600	3 - -	7.5 15 20	XMC0-253A* XMC0-253* XMC0-254*
32	2 3 4	240/277 480 600	180 150 120	40	240/277 480 600	5 - -	10 15 20	XMC0-323A* XMC0-323* XMC0-324*
40	2 3 4	240/277 480 600	240 200 160	50	240/277 480 600	7.5 - -	10 20 25	XMC0-403A* XMC0-403* XMC0-404*
50	2 3	240/277 480 600	300 250 200+	63	240/277 480 600	10 - -	15 25 25	XMC0-503A* XMC0-503*
63	2 3	240/277 480 600	360 300 240+	75	240/277 480 600	10 - -	20 30 30	XMC0-633A* XMC0-633*
50	2 3	240/277 480 600	300 250 200	63	240/277 480 600	10 - -	15 25 25	XMC0-503A*Z XMC0-503*Z
63	2 3	240/277 480 600	360 300 240	75	240/277 480 600	10 - -	20 30 30	XMC0-633A*Z XMC0-633*Z
75	2 3	240/277 480 600	450 375 300	94	240/277 480 600	15 - -	25 40 40	XMC0-753A* XMC0-753*
90	2 3	240/277 480 600	540 450 360	120	240/277 480 600	20 - -	30 50 50	XMC0-903A* XMC0-903*

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
Note: Please contact us if you have any other request.	

Coil characteristics @ 25°C (Cold state)

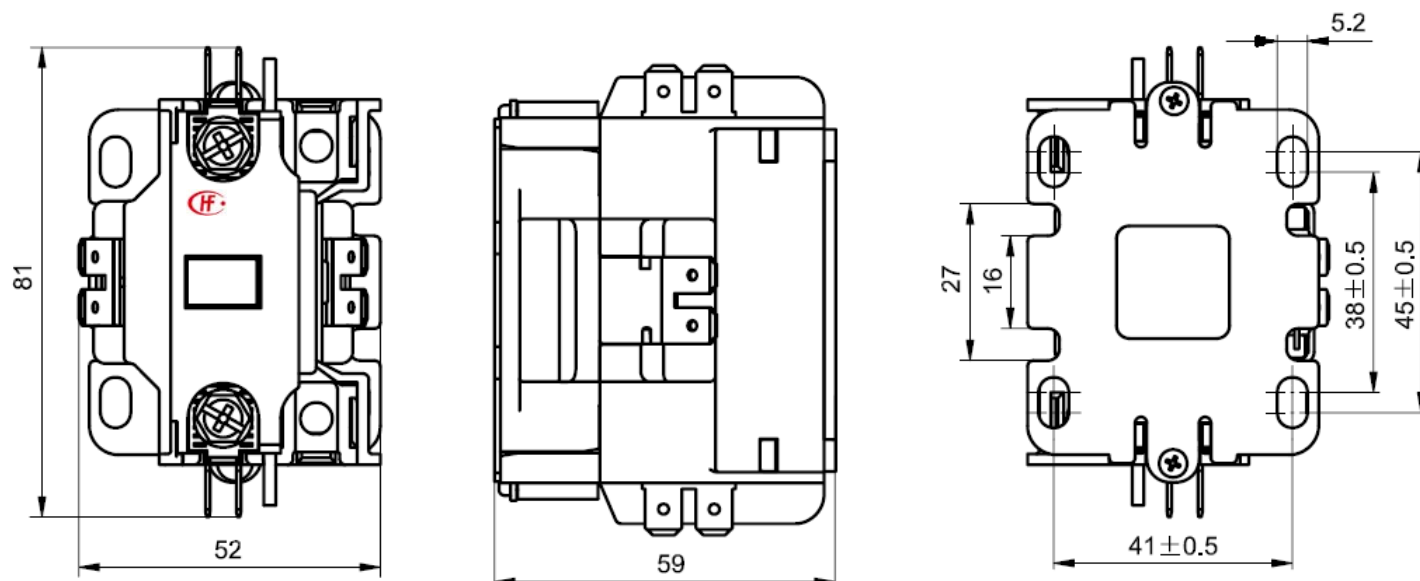
Part number	Max. Inrushed VA		Max. Sealed VA		Sealed Watts	Voltage	
	60Hz	50Hz	60Hz	50Hz	60Hz	Pick-up	Drop-out
XMC0-□1/7	40	55	7.5	10	3	$\leq 0.8U_s$	$\geq 0.2U_s$
XMC0-□2	45	55	8	10.5	3.5		
XMC0-□3/3A	80	90	12	16	5		
XMC0-□4	90	100	14	18	6		
XMC0-503/633	145	160	17.6	23	7		
XMC0-753/903	300	325	35	46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

Notes:

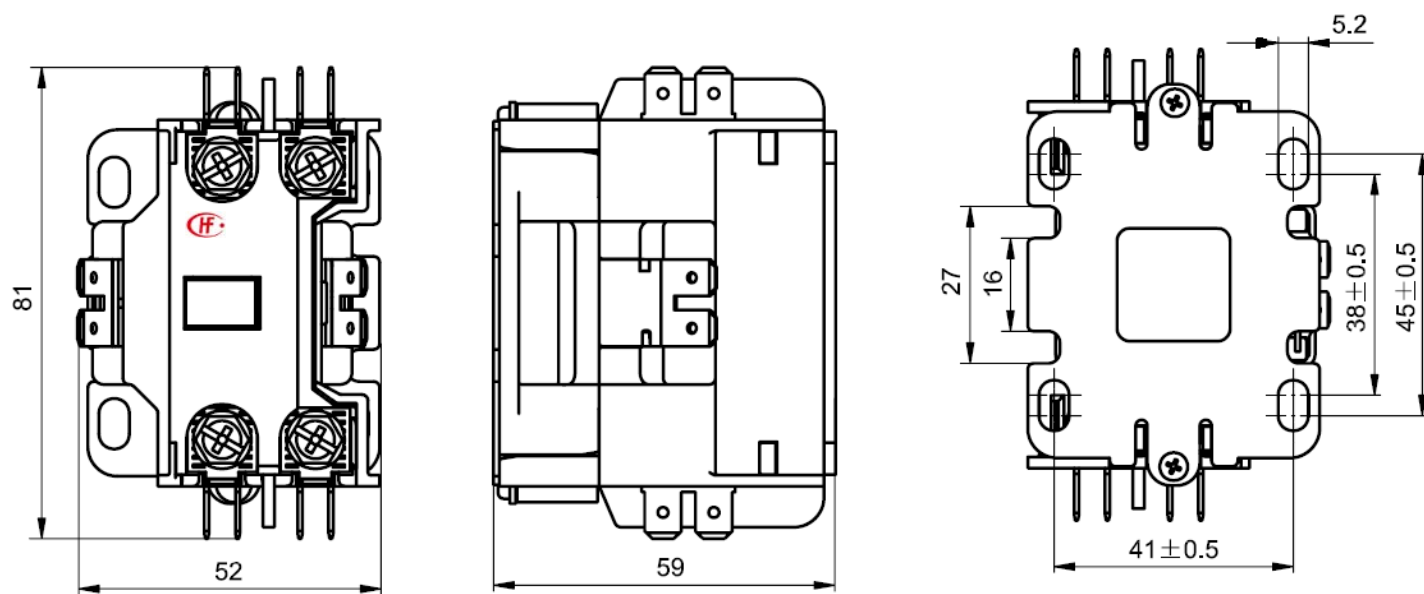
- $U_s=24VAC$ 50/60Hz("E"coil) or 120VAC 50/60Hz("F"coil) or 220VAC/50Hz, 240VAC/60Hz("I"coil) or 277VAC/60Hz("L" coil) or 415VAC/50Hz, 480VAC/60Hz("N"coil) or 600VAC 50/60Hz("U"coil).
- Inrushed VA and Sealed VA test at U_s .

Outline dimensions

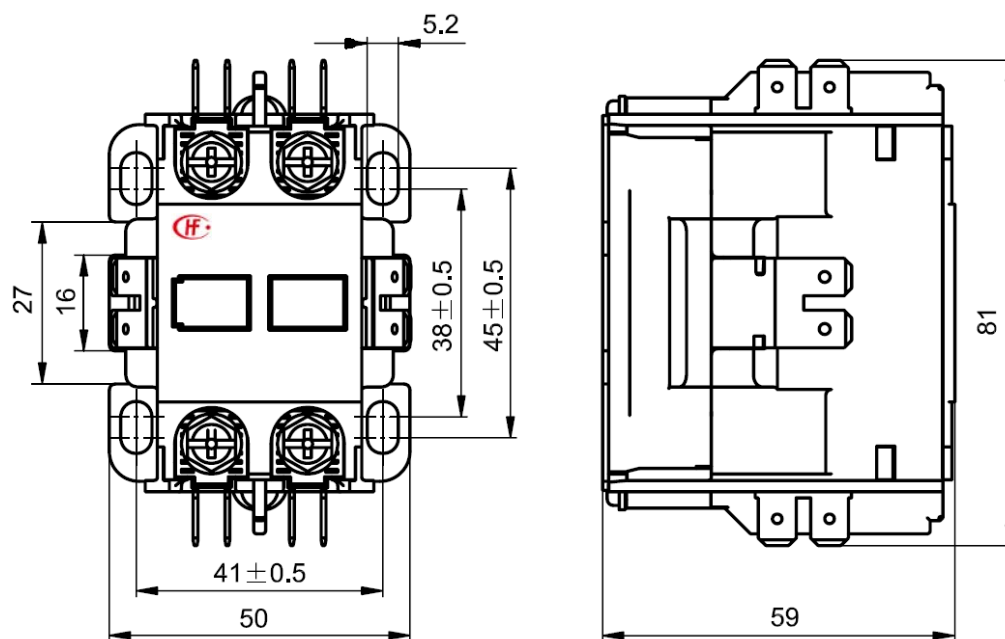
Unit: mm



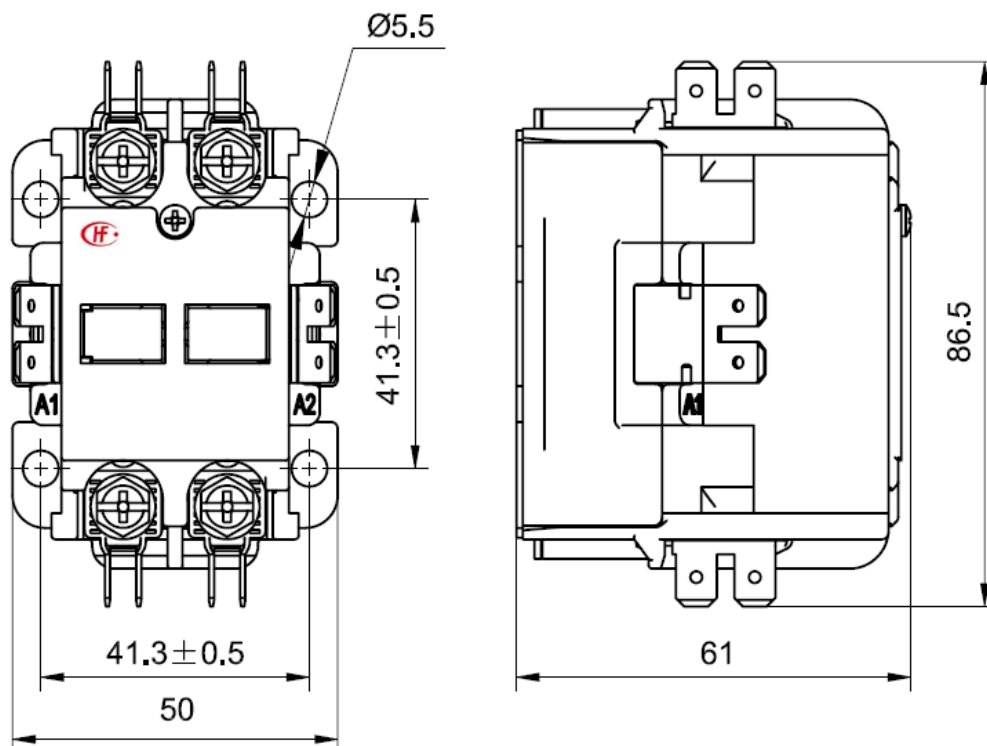
1 pole (metal base, 25-40FLA)



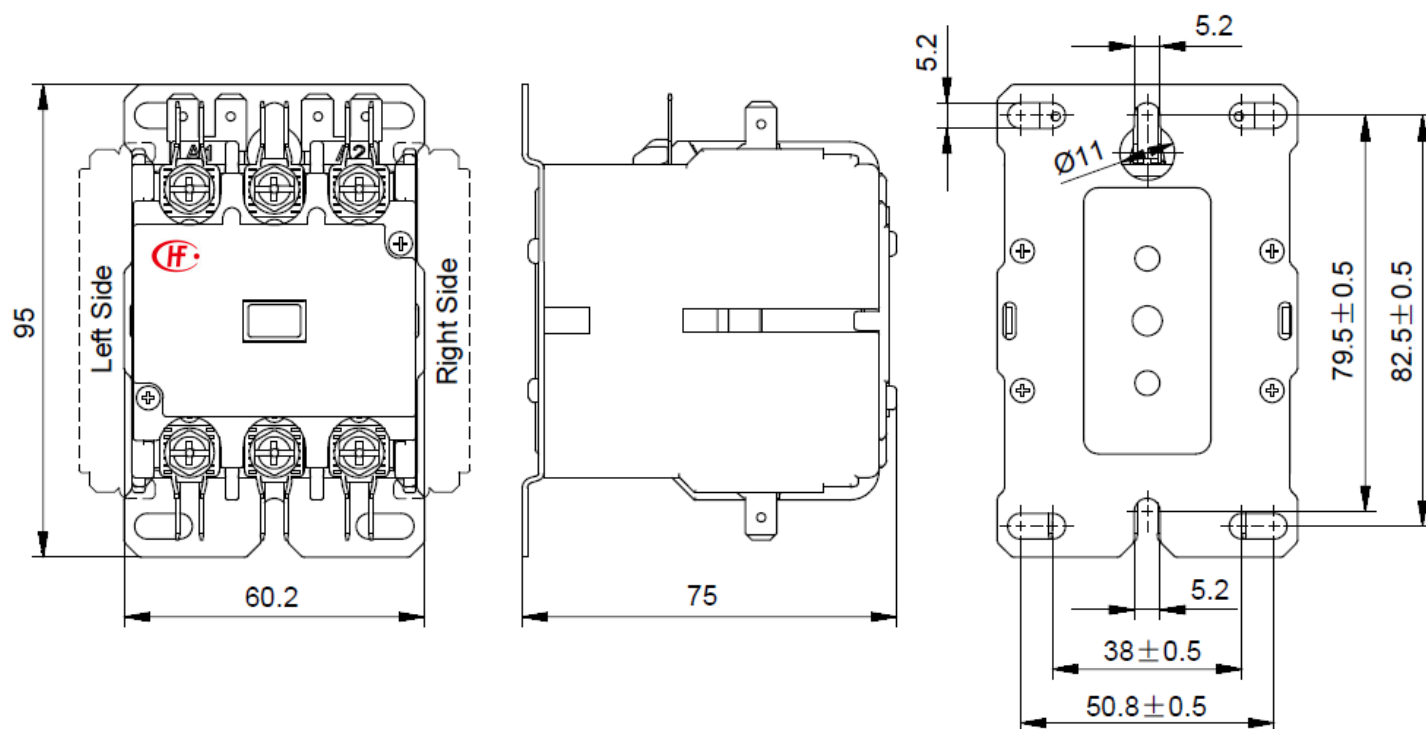
1 pole+shunt (metal base, 25-40FLA)



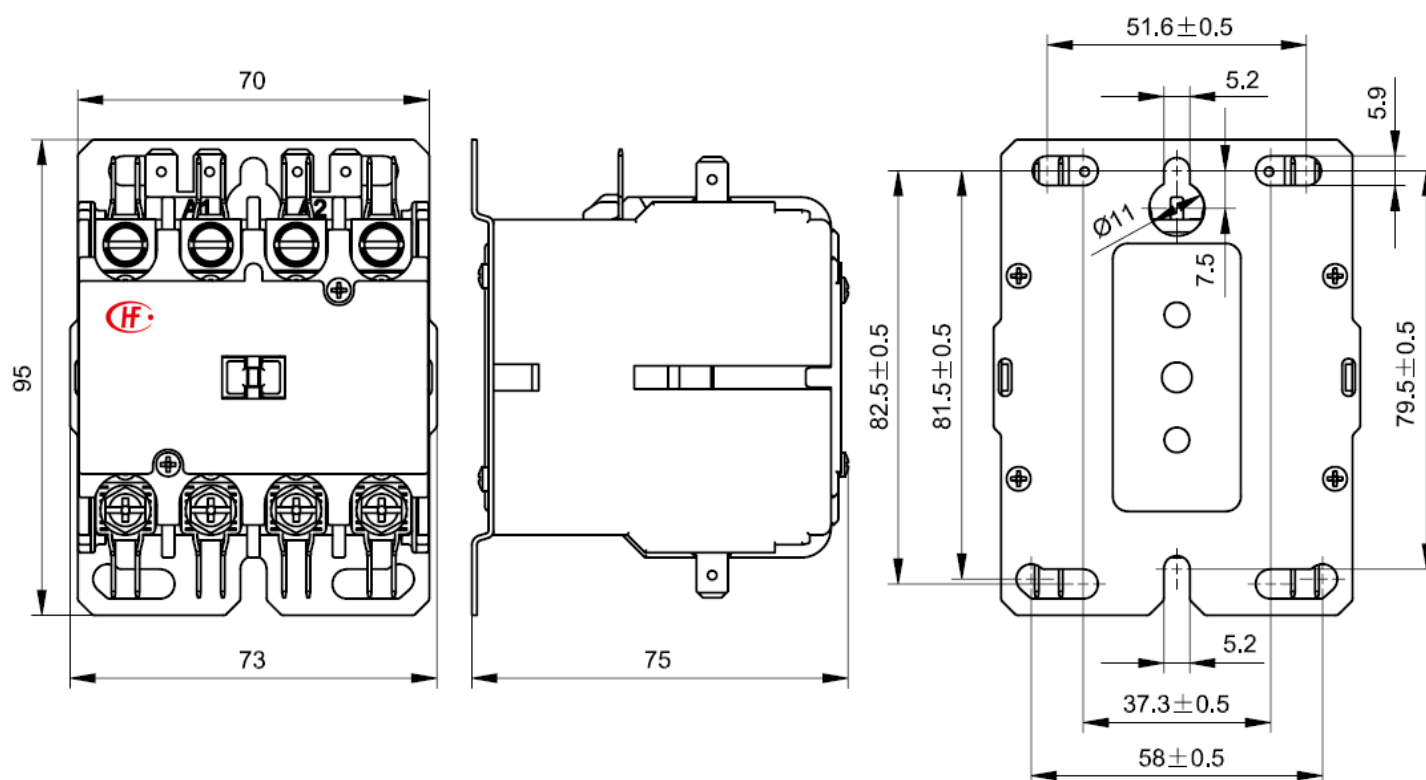
2 pole (metal base, 25-40FLA)



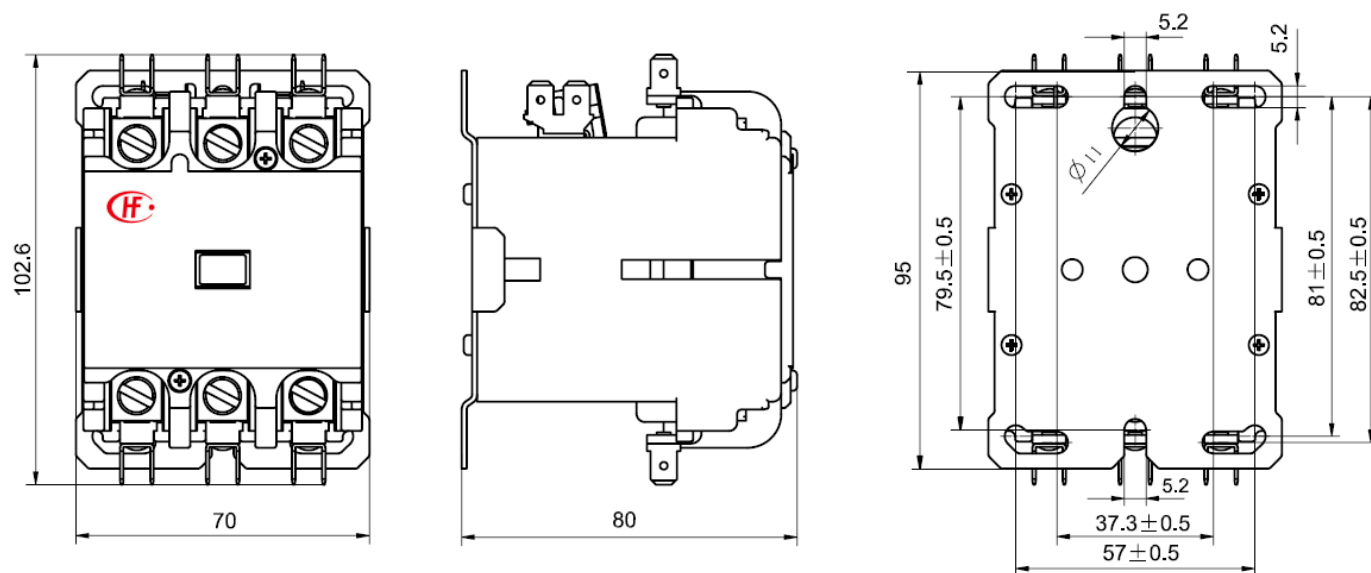
2 pole (metal base, 25-40FLA) - Quantum series



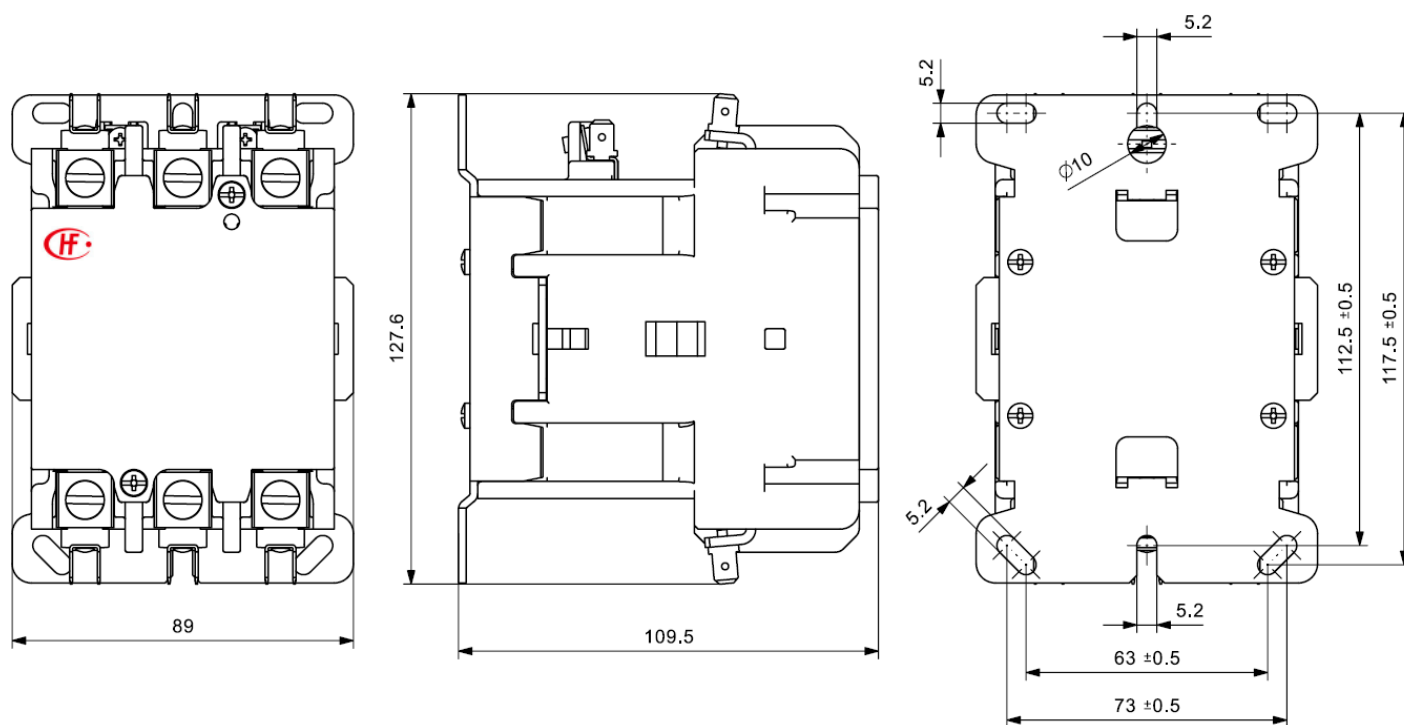
3 pole (metal base, 25-40FLA) - Quantum series



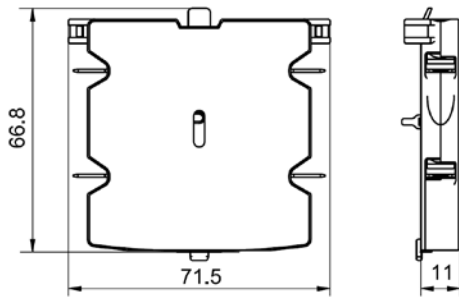
4 pole (metal base, 25-40FLA) - Quantum series



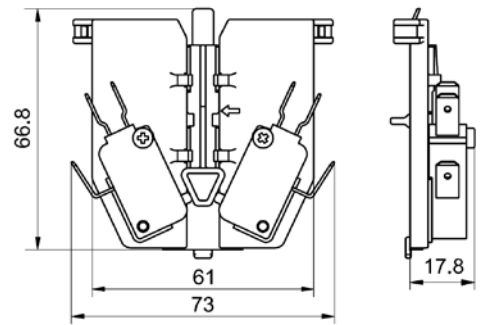
3 pole (metal base, 50-63FLA) - Quantum series



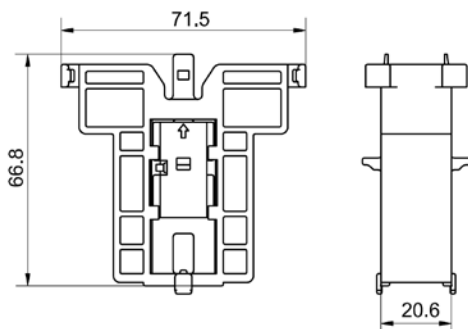
3 pole (metal base, 75-90FLA) - Quantum series



Auxiliary Contact Blocks - Used for Quantum series



Microswitch Blocks - Used for Quantum series

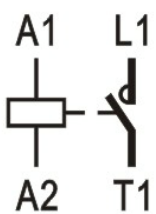


Interlock Blocks - Used for Quantum series

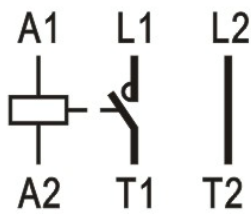
Notes: Undeclared tolerance of product overall dimension base on ± 1.5

Wiring diagram

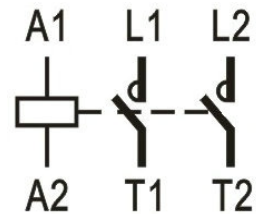
Contactors:



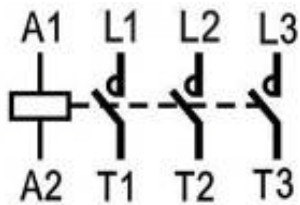
XMC0-□7



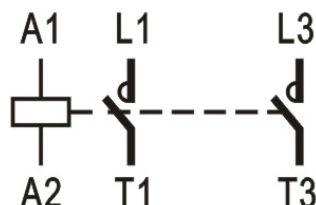
XMC0-□1



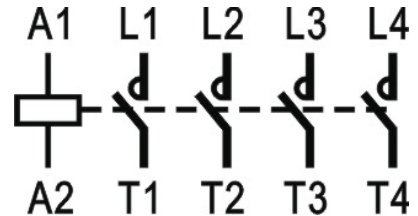
XMC0-□2



XMC0-□3

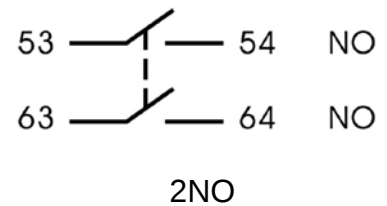
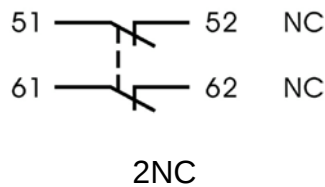
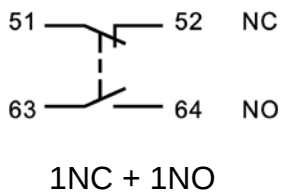
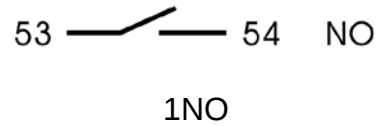
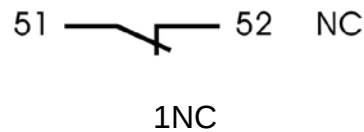


XMC0-□3A



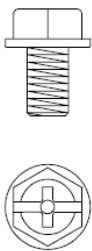
XMC0-□4

Auxiliary Contact Blocks:

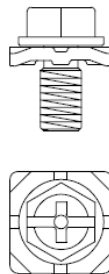


Terminations

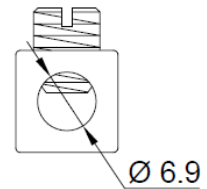
Unit: mm



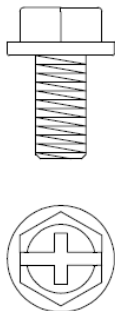
C type on 25-40A FLA
#10-32 combination
phillips, slotted &
5/16 hex head with
#8 washer



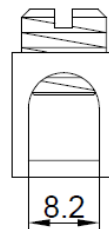
Special C type on 25-40A FLA
#10-32 sems screw
with pressure plate



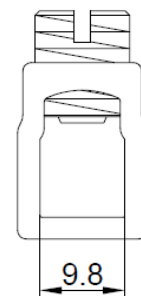
D type on 25-40A FLA
#14-4 AWG Cu/Al



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 only

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.