

# XMCO Series

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## DEFINITE PURPOSE CONTACTORS

### DESCRIPTION

Zettler Controls XMCO series of Definite Purpose Contactors are electro-mechanical switching devices designed ideally for the HVAC industry. The most common applications of our contactors are found in refrigeration, air conditioning and heating. Other applications include elevators, food service equipment, cranes, hoists, welding machines, power supplies, vending machines, lighting, pumps and compressors. XMCO contactors are built to the ARI 780/790 standard in our ISO 9001 manufacturing facility for high performance and great reliability. XMCO is available in various pole configurations and load ratings up to 90 amps.



### FEATURES

- A variety of termination options for specific application requirements
- Universal mounting plate: Easy replacement of competitor's contactors
- Heavy-duty contacts ensure long electrical life
- EE lamination (magnetic assembly) provides optimum performance while reducing power consumption
- Performance unaffected by position mounting
- Dust-free internal construction
- SCCR (short circuit current rating) 100kA, 600VAC
- Class F Coil Insulation
- Offer complete line of auxiliary contacts and micro switches
- Mechanical Interlock device offered - 2P, 2P/3P, 3P, and 4P
- UL, CUR file no. E222994
- Meets ARI 780/790 Guidelines

# XMCO Series

## PART NUMBERING SYSTEM

**XMCO - 25 3 • E B B C - H 0 0 F G - XXXX**

### Full Load Amp

25	25 FLA
32	32 FLA
40	40 FLA
50	50 FLA
63	63 FLA
75	75 FLA
90	90 FLA

### Number of Poles

7	1 Pole - Compact
1	1 Pole + 1 Shunt - Compact
2	2 Pole - Compact
3	3 Pole - Standard
3A	2 Pole - Standard (3 Pole Frame)
4	4 Pole - Standard (25 FLA to 40 FLA)

### Coil Voltage

	50Hz	60Hz
D	12 VAC	12 VAC
E	24 VAC	24 VAC
F	110-120 VAC	110-120 VAC
I	208-220/240 VAC	208-240 VAC
L	230-240 VAC	277 VAC
N	380-415 VAC	440-480 VAC
U	550-600 VAC	550-600 VAC

550-600V coil not available in 50A or greater models.

### Mounting Plate

B	Metal Plate std. Not for use with 4 pole
Blank	Metal Plate with Thermoset body

### Cover

Blank	Thermoset body
B	Short Cover std. Not for use with 4 pole

### Terminal with Quick Connects

B	Sems Clamp
C	Slotted & Hex Head Washer
D	Box Lug
E	Box Lug (Line) Slotted & Hex Head Washer (Load)
F	Box Lug (Load) Slotted & Hex Head Washer (Line)

### Contact Material

Nil*	AgSnO <sub>2</sub>
H	AgCdO

\*Contact option available in 40A version only. All other amperages use AgCdO

### Custom Special Code

### Power Terminals

Nil	1&2 Poles: Quad Terminals 3/4 Pole: Dual Terminals
D	1&2 Poles: Dual Terminals
G	Without Any Terminals
Q	3/4 Pole: Dual Terminals on the side near coil terminals. Quad Terminals on opposite side

### Coil Terminals

Nil	1 & 2 Pole: Dual Terminals w/o screws 3/4 Pole: Single Terminal w/ screw
F	3/4 Pole: Dual Terminals w/ screws

### Auxiliary Contacts & Microswitch

Right Side  
Left Side

#### AUXILIARY CONTACTS (3/4P ONLY)

0	None (Standard)
1	1NC+1NO, pressure plate screws w/ QC
3	1NC, pressure plate screws w/ QC
4	1NO, pressure plate screws w/ QC
5	2NC, pressure plate screws w/ QC
6	2NO, pressure plate screws w/ QC
1P	1NC+1NO, pressure plate screws
3P	1NC, pressure plate screws
4P	1NO, pressure plate screws
5P	2NC, pressure plate screws
6P	2NO, pressure plate screws

#### MICROSWITCH (3/4P ONLY)

L	Left 2 SPDT
L1	Left SPDT Postion 1
L2	Left SPDT Postion 2
R	Right 2 SPDT
R1	Right SPDT Postion 1
R2	Right SPDT Postion 2

**AMERICAN ZETTLER, INC.**

[www.azettler.com](http://www.azettler.com)

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### GENERAL DATA

Rated insulation voltage	690 Vrms
Di-electric strength	2500Vrms (coil to contact & contact to contact)
Designs/conforms to	IEC 60947-4-1, GB14048.4, EN60947-4, ARI780 / 790
Agency approvals	UL, CUR file E220475
Operating position	Vertical and Horizontal mounting recommended
Operating altitude	2000 meters without derating
Ambient temperature	<b>Operating:</b> -25°C to 70°C *
	<b>Storage</b> -40°C to 70°C
Shock resistance (1/2 ~ wave) = 11ms	Contact Open: 6g ; Contact Closed: 15g
Vibration resistance (5-300Hz)	Contact Open: 2g ; Contact Closed: 4g
Weight	20-40A: 230-420g, 50/63A: 650g, 75/90A: 1550g
Torque	Screws 25 lb-in/Lugs 40 lb-in for 20-40FLA types
	Screws 45 lb-in/Lugs 50 lb-in for 50-63FLA types
	Screws 50 lb-in/Lugs 60 lb-in for 75-90FLA types
	Screws 8 lb-in for Auxiliary Contact Blocks
	Coil Screws 8 lb-in for 3/4-pole 30-40FLA and 12 lb-in for 50-90FLA types
QC Wiring	Main Screws 12 lb-in/Auxiliary Screws 8 lb-in/ Coil Screws 8 lb-in for small frame types
	The female connector should meet IEC 60760, necessary to ensure the reliability of connection between female connectors and QC terminals

\* The overall combined temperature must not exceed the coil insulation max temperature of 155C.

### ELECTRICAL

Rated Operating Voltage	12-600VAC max
Make Capacity (230V, cos Ø=0.45)	12 x FLA
Break Capacity (230V, cos Ø=0.45)	10 x FLA
Switching Frequency	360 operations/hour
Electrical Endurance	250,000
Mechanical Endurance	1,000,000
SCCR (UL508)	100kA, 600VAC

### AUXILIARY CONTACT BLOCK DATA

Conventional Thermal Current (A)		10
Rated Insulation Voltage (V)		690
Rated Operational Current (A)	A600 (AC-15) 230/380V	3/1.9
	N600(DC-13) 110/230V	2.2/1.1

### MICROSWITCH BLOCK DATA

Max. Rating	22A at 250 VAC. General use, 6K cycles
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### ELECTRICAL RATINGS

Size	Full Load Amps (FLA)	Resistive Load Amps (RLA)	Locked Rotor Amps (LRA)			Pole Form	Order Number
			240VAC	480VAC	600VAC		
Compact	25	32	150	125	100	1P	XMCO-257
						1P+1shunt	XMCO-251
						2P	XMCO-252
	32	40	180	150	120	1P	XMCO-327
						1P+1shunt	XMCO-321
						2P	XMCO-322
	40	50	240	200	160	1P	XMCO-407
						1P+1shunt	XMCO-401
						2P	XMCO-402
Standard	25	32	150	125	100	2P	XMCO-253A
						3P	XMCO-253
						4P	XMCO-254
	32	40	180	150	120	2P	XMCO-323A
						3P	XMCO-323
						4P	XMCO-324
	40	50	240	200	160	2P	XMCO-403A
						3P	XMCO-403
						4P	XMCO-404
	50	63	300	250	200	3P	XMCO-503
	63	75	360	300	240	3P	XMCO-633
	75	95	450	375	300	3P	XMCO-753
	90	120	540	450	360	3P	XMCO-903

### COIL DATA

Pole Form	Inrush VA		Sealed VA		Sealed (W)	Pickup Voltage	Dropout Voltage
	50Hz	60Hz	50Hz	60Hz			
1 pole, 1 pole + 1 shunt	33	31	8	6	3.5	≤ 0.8 Us*	≥ 0.2 Us*
2 pole	33	31	8	6	4		
3 pole, 2 pole standard (3A)	72.5	65	13	10	5		
3 pole -503 & 633	114	110	19	14	7		
3 pole -753 & 903	295	282	44	33	12		
4 pole	55	50	14.5	11.5	6		

\*Us = nominal coil voltage. VA data at nominal coil voltage, ambient temperature 25C.

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## DEFINITE PURPOSE CONTACTORS

### DIMENSIONS

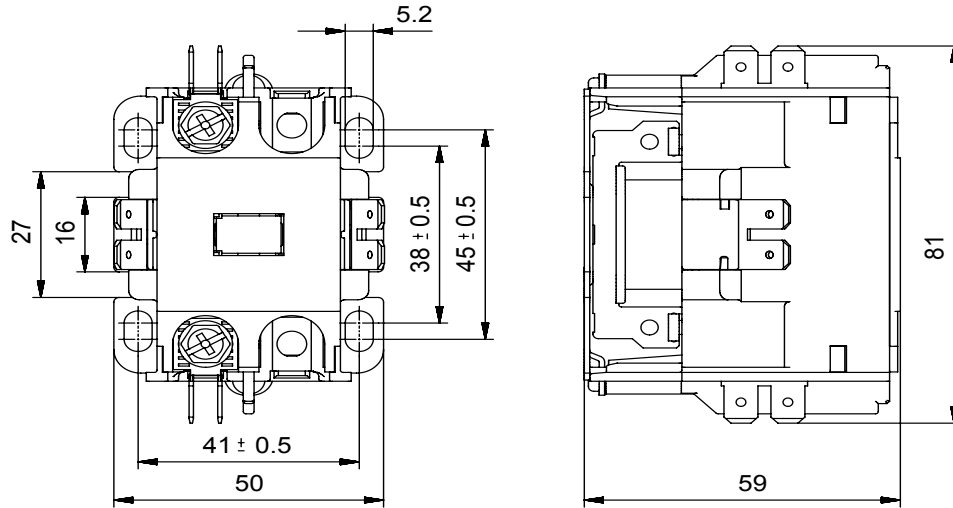


Figure 1 - 1 Pole Contactor (metal base, 25-40FLA)

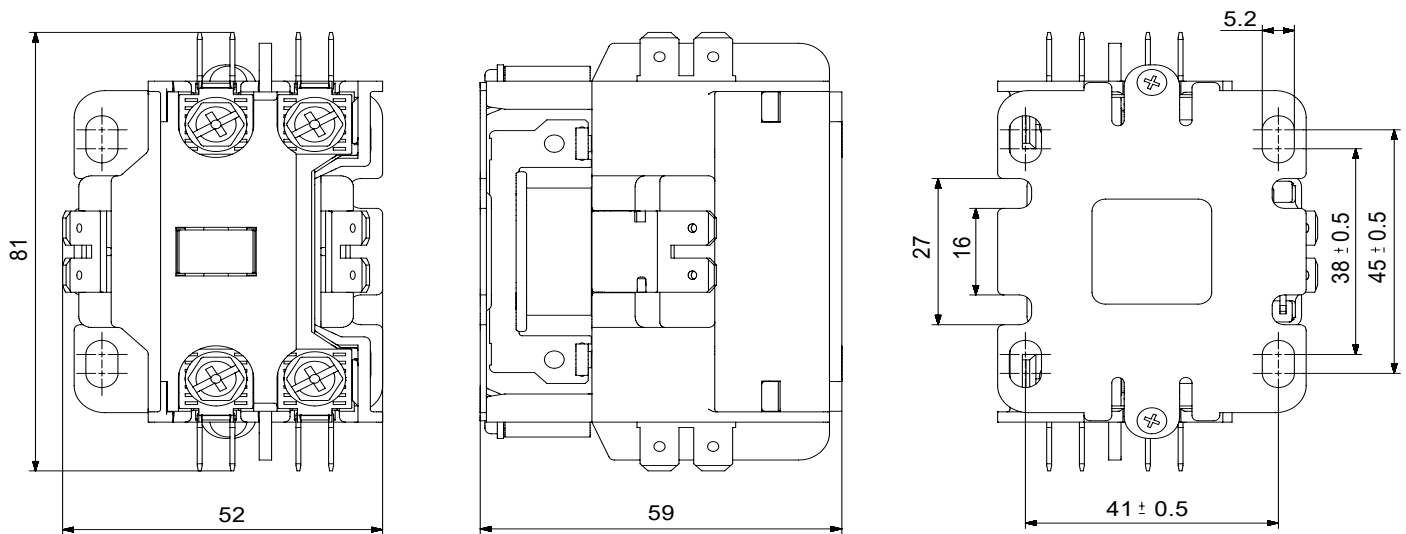


Figure 2 - 1 Pole + Shunt Contactor (metal base, 25-40FLA)

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## DEFINITE PURPOSE CONTACTORS

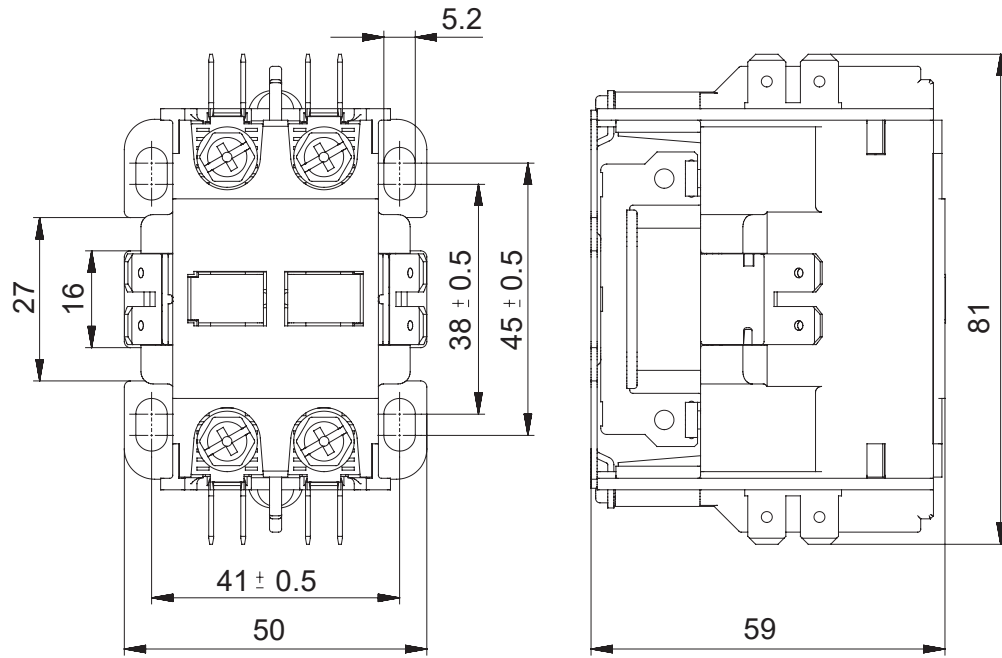


Figure 3 - 2 Pole Contactor (metal base, 25-40FLA)

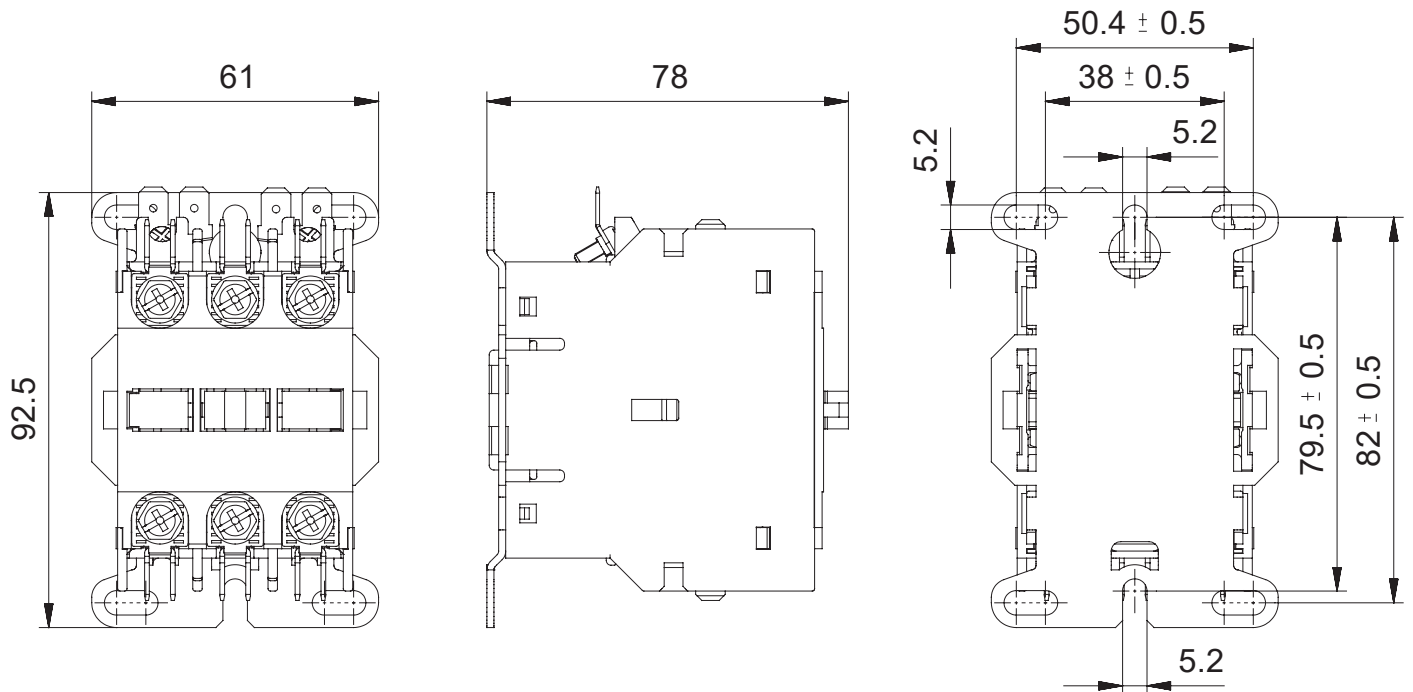


Figure 4 - 3 Pole Contactor (metal base, 25-40FLA)

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## DEFINITE PURPOSE CONTACTORS

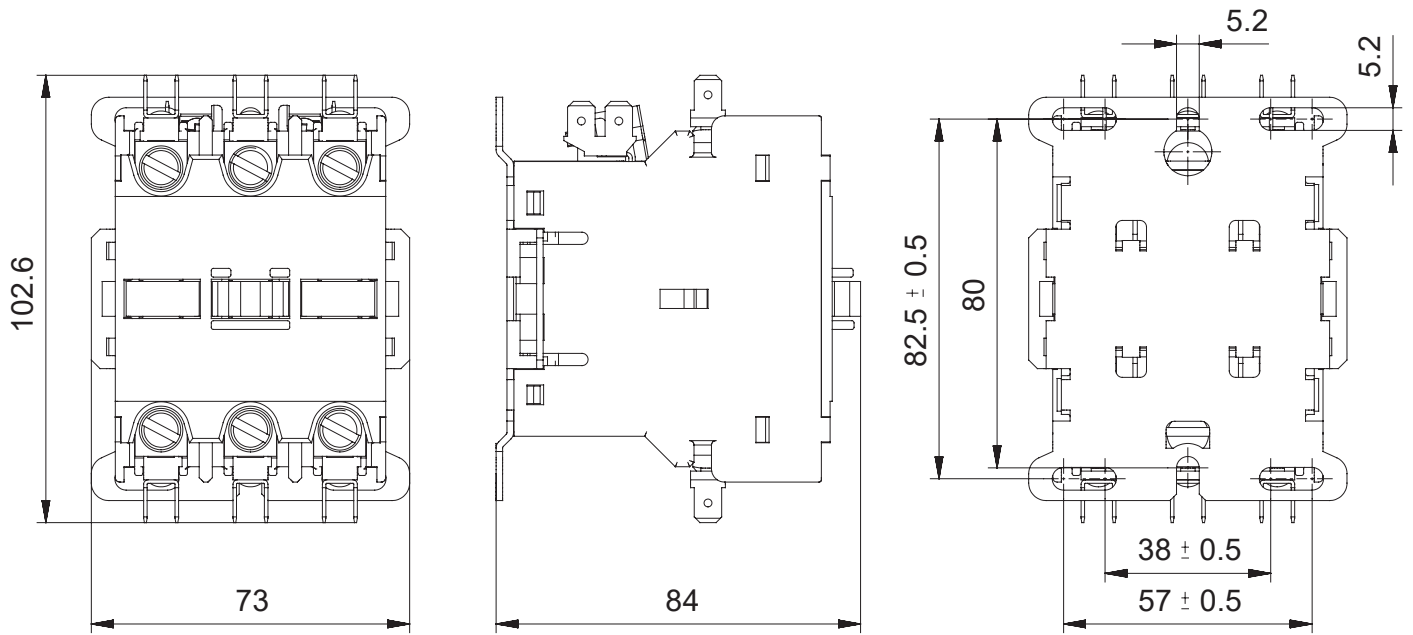


Figure 5 - 3 Pole Contactor (metal base, 50-63FLA)

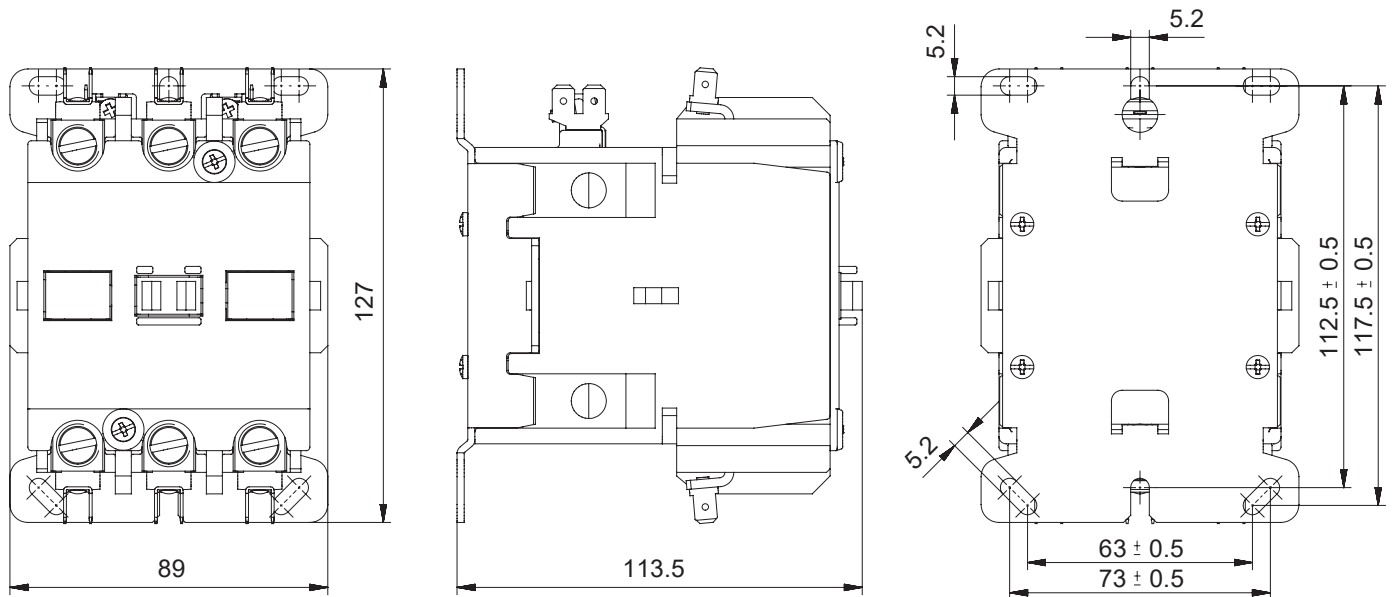


Figure 6 - 3 Pole Contactor (metal base, 75-90FLA)

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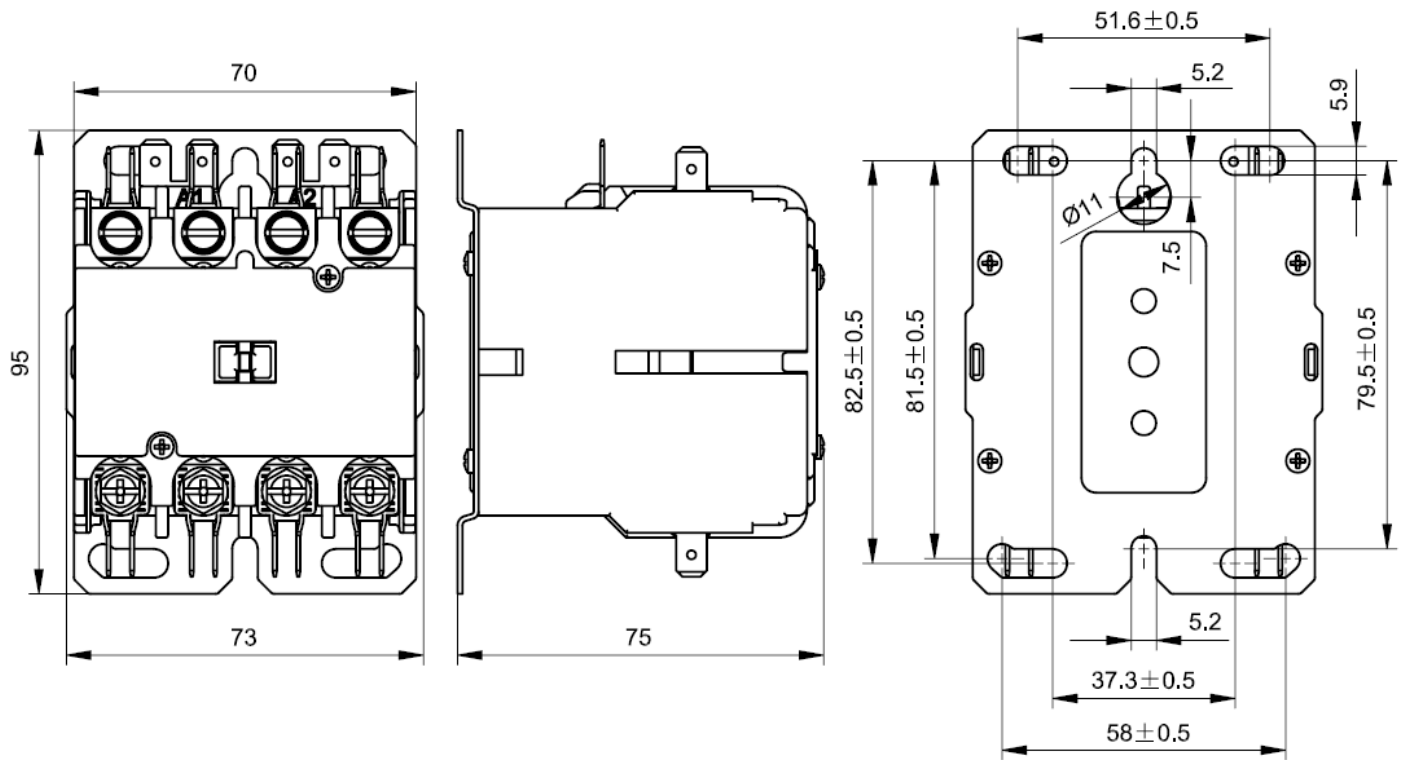
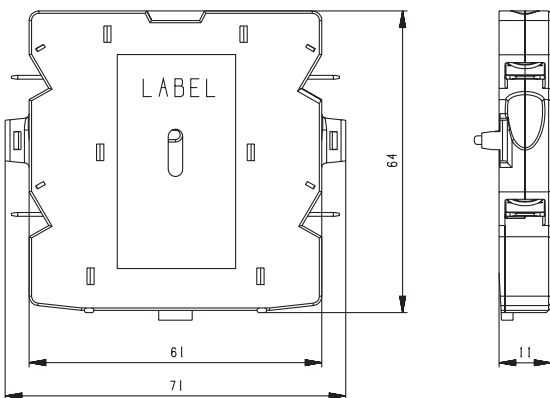
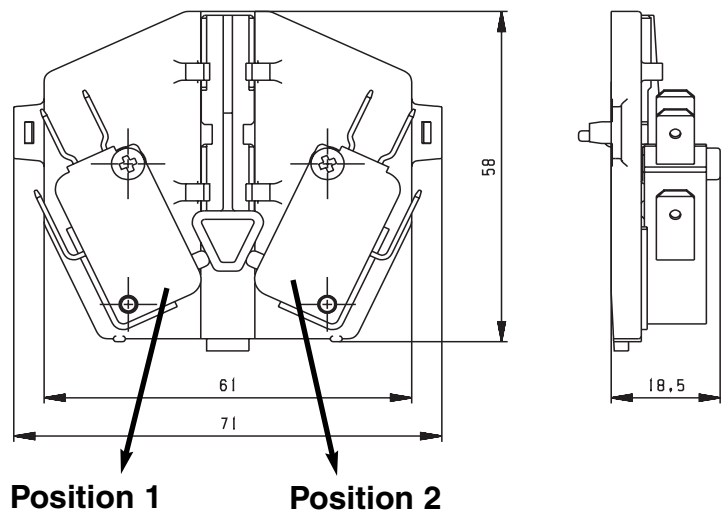


Figure 7 - 4 Pole Contactor (metal base, 25-40FLA)

### AUXILIARY CONTACT



### MICROSWITCH



**Note:** Thermoset body contactor uses alternate aux switch, micro switch plate, and interlock snap-fit mounting interface.

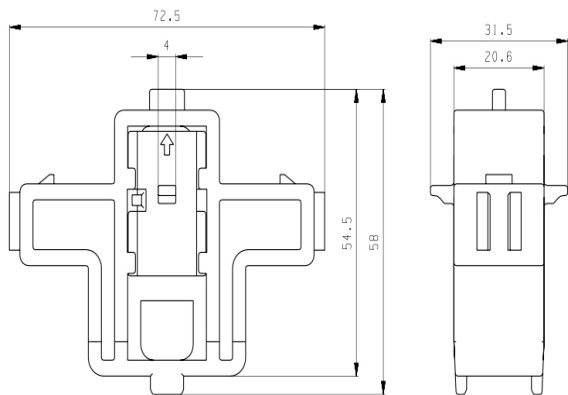
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## INTERLOCKS

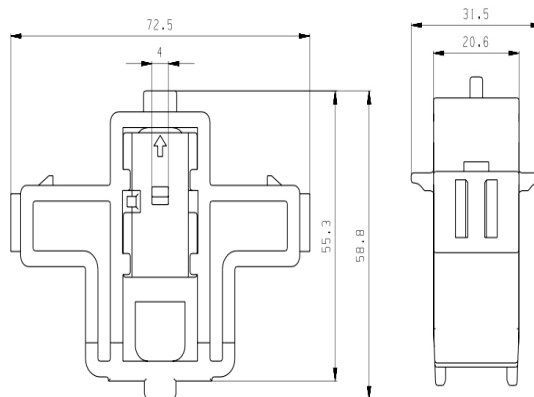
### Ordering Information:

In XMCO Part Number, replace "Number of Poles" selection with **J22** (2 2P), **J23** (1 2P & 1 3P), **J32** (1 3P & 1 2P), or **J33** (2 3P). Interlock Pole Order is left to right for 2P or 3P.

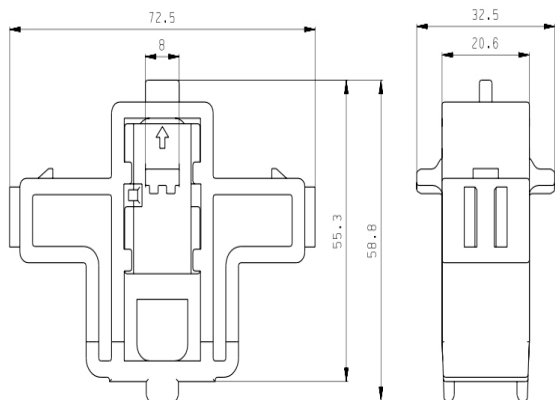
**25-40A C03J0**



**50-63A C03J1**



**75-90A C03J2**



**Interlock Block Fastener (2X)**

