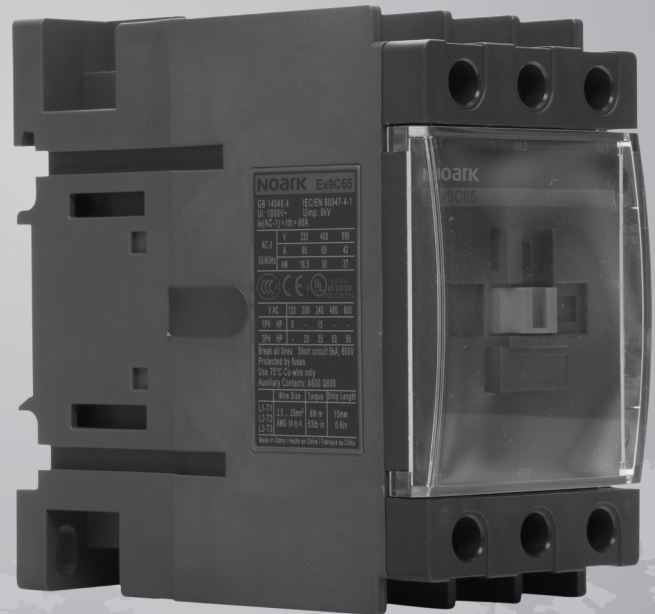
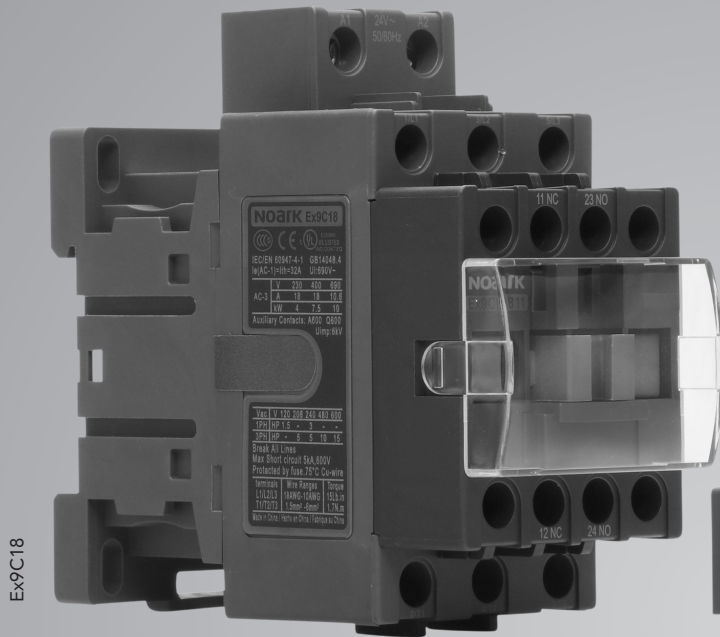


Data Sheet IEC Contactors Ex9C Series

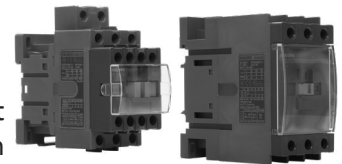


This document does not cover the complete IEC Contactor product line. Please contact NOARK for more information.

IEC Contactors NOARK Ex9C Series

Ex9C contactors are intended for various applications including heavy industrial ones. Splitting into four frame sizes brings optimization of electrical parameters and mechanical dimensions. All these frame sizes share accessory auxiliary contacts. Overload relays differ with the frame sizes in order to fit respective contactor of given rated current.

- Contactors according to IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60947-1 and UL 60947-4-1
- Nine frame sizes with rated current up to 1000 A at 690 V AC-3
- Coil control voltage 24~600 Vac, 24~250 Vdc; 24~600 Vac/dc (115~300 A); 36~600 Vac/dc (400~500 A)
- Wide range electronic coil available for 09~500 A contactor
- Mounts onto DIN rail 35 mm or 75 mm or onto panel (frame sizes 09~38 mount on 35 mm; 40~100 mount on 35 mm or 75 mm; 115~1000 cannot be mount on DIN rail, only mount by screw)



	General
Certifications	UL 508, IEC/EN 60947 CSA, CCC, RoHS Compliant
UL File Number	E353866
Number of Poles	3, 4 (9CS only)
Frequency	50/60 Hz
Mounting	35 mm DIN rail or Surface
Auxiliary Contacts	Built-In
Accessories	Front Mounted and Side Mounted Auxiliary Contacts, Surge Suppressor Block
Rated Insulation Voltage U_i (V)	690 V IEC / 600 V UL & CSA
Rated Operational Voltage U_e (V)	
Rated Impulse Withstand Voltage U_{imp} (V)	09-38A: 6kV, 40-1000A: 8kV

Product Selection Guide

Ex9C	S	R	09	D	10	A	7	B	G
NOARK Ex9C Series	Contactor Type	Function	Rated Current (AC-3)	Coil Type	Auxiliary Contacts	Control Voltage	Frequency	Main Power Contacts	Application
	Blank: Ex9C Standard (9~1000 A) S: Ex9C Miniature (6~12 A)	Blank: Full Voltage Non-Reversing (FVNR) R: Full Voltage Reversing (FVR)	06: 6 A 09: 9 A 12: 12 A 18: 18 A 25: 25 A 32: 32 A 38: 38 A 40: 40 A 50: 50 A 65: 65 A 80: 80 A 100: 100 A 115: 115 A 150: 150 A 185: 185 A 225: 225 A 265: 265 A 300: 300 A 400: 400 A 500: 500 A 630: 630 A 800: 800 A 1000: 1000 A	Blank: AC D: DC (Miniature Contactor Only) E: Vac/dc (115~1000A Only) F: Wide Range Electronic Coil (09A~500A Only)	10: 1NO (9CS Only) 01: 1NC (9CS Only) 11: 1NO+1NC (9~100A Only) 22: 2NO+2NC (09~38/115~1000A)	A: 12V B: 24V* C: 36V* D: 42V* E: 48V F: 110V G: 120V X: 208V M: 220V P: 230V U: 240V W: 250V N: 277V Q: 380V V: 400V Z: 415V R: 440V T: 480V S: 500V Y: 600V J: 24-60Vac/dc (09~100A Only) H: 48-130Vac/dc K: 100-250Vac/dc L: 250-500Vac/dc (115~500A Only)	7: 50/60 Hz	Blank: 3NO B: 2NO+2NC (9CS Only) C: 4NO (9CS Only)	G: No top mounting accessories for special industry (115-1000A)

* Note: 24Vac is not available from 400A to 1000A
36Vac, 42Vac are not available from 630A to 1000A

IEC Contactors Specifications

		Ex9CS/CSR			Ex9C/CR													
		6	9	12	9	12	18	25	32	38	40	50						
General Information																		
Pole		3, 4			3													
Production Standard		IEC 60947-1, IEC 60947-4-1, UL 60947-1, UL 60947-4-1																
Environmental Testing According to		IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-11, IEC 60068-2-30																
Rated Frequency (Hz)		50/60																
Conventional Free Air Thermal Current Ith (A)		0≤104 °F (0≤40 °C) 20			25		32		40		50		60		80			
		0≤140 °F (0≤60 °C) 16			17		22		28		35		42		56			
		0≤158 °F (0≤70 °C)																
Rated Insulating Voltage Ui (V)		690																
Rated Impulse Withstand Voltage Uimp (kV)		6																
Electrical Life (x10 ⁴ cycles)		120																
AC-3 380/400 V		5			4		5		4		5		4		3.5		3	
AC-4																		
Mechanical Life (x10 ⁴ cycles)		1,000																
Operating Cycles Per Hour (cycles/h)		AC-3 1,200 AC-4 300																
Environmental Temperature		Transportation or Storage -76 to 176 °F (-60 to +80 °C) Working At -4 to 140 °F (-20 to +60 °C) Maximum -40 to 158 °F (-40 to +70 °C)																
Altitude ft (m)		6,562 (2,000)																
Pollution Degree		Class III																
Rated Operational Current Ie (A)																		
AC-1 690 V		20			25		32		40		50		60		80			
At -82 to 131 °F (-25 to 40 °C)		6 9 12			9 12		18 25		32 38		40 50		34 39		40 50			
AC-3 380/400 V		3.8 4.9			6.7 9		10.6 17.3		21.9		34		39		40 50			
AC-3 660/690 V		6 9 12			9 12		18 25		32		40 50		34 39		40 50			
AC-4 380/400 V		3.8 4.9			6.7		8.9 14		17.3		34		39		40 50			
AC-4 660/690 V																		
Rated Power of 3-Phase Motor																		
AC-3 230 Vac		-																
AC-4 230 Vac		-																
For IEC (kW)		2.2 4 5.5			4 5.5		7.5 11		15 18.5		15 18.5		30 33		18.5 22			
AC-3 380/400 Vac		3 4			5.5 7.5		9 15		18.5		30		33		18.5 22			
AC-4 380/400 Vac		3 4			5.5 7.5		9 15		18.5		30		33		18.5 22			
AC-3 660/690 Vac		3 4			5.5 7.5		9 15		18.5		30		33		18.5 22			
AC-4 660/690 Vac		3 4			5.5 7.5		9 15		18.5		30		33		18.5 22			
AC-3 1,000 Vac		-																
AC-4 1,000 Vac		-																
UL Rating																		
Ith (A)		20			25		32		40		50		60		80			
Single-Phase (HP)		110-120 Vac 0.5 0.75			0.5 1		1.5 2		3		5		7.5		10			
		220-240 Vac 1 1.5 2			1.5 2		3		5		7.5		10		15			
Three-Phase (HP)		200-208 Vac 1.5			3		5 7.5		10 15		20		30		40			
		220-240 Vac 2			3		5 7.5		10 15		20		30		40			
		440-480 Vac 3 5 7.5			5 7.5		10 15		20		30		40		40			
		550-600 Vac 5 7.5 10			7.5 10		15 20		25		30		40		40			
Coil Voltage (V)		24-500Vac, 12-250 Vdc			24-600 Vac, 24-250Vac/dc													



IEC Contactors Specifications

		Ex9C/CR										
		65	80	100	115	150	185	225	265	300	400	500
General Information												
Pole		3										
Production Standard		IEC 60947-1, IEC 60947-4-1, UL 60947-1, UL 60947-4-1										
Environmental Testing According to		IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-11, IEC 60068-2-30										
Rated Frequency (Hz)		50/60										
Conventional Free Air Thermal Current Ith (A)	0≤104 °F (0≤40 °C)	80	125		160	185	215	275	330	400	500	610
	0≤140 °F (0≤60 °C)					170	200	260	300	360	430	550
	0≤158 °F (0≤70 °C)	56	80		140	160	180	200	260	290	400	480
Rated Insulating Voltage Ui (V)		1,000										
Rated Impulse Withstand Voltage Uimp (kV)		8										
Electrical Life (x10 ⁴ cycles)	AC-3 380/400 V	120			100							
	AC-4	3	2.5		20							
Mechanical Life (x10 ⁴ cycles)		1,000			800						500	
Operating Cycles Per Hour (cycles/h)	AC-3	1,000	900		750			500			420	
	AC-4	120			130							
Environmental Temperature	Transportation or Storage	-76 to 176 °F (-60 to +80 °C)										
	Working At	-4 to 140 °F (-20 to +60 °C)										
	Maximum	-40 to 158 °F (-40 to +70 °C)										
Altitude ft (m)		6,562 (2,000)										
Pollution Degree		Class III										
Rated Operational Current Ie (A)												
At -82 to 131 °F (-25 to 40 °C)	AC-1 690 V	80	125		160	185	215	275	330	400	500	650
	AC-3 380/400 V	65	80	100	115	150	185	225	265	300	400	500
	AC-3 660/690 V	42	49				170			280		450
	AC-4 380/400 V	65	80	100	54	68	81	96	117	125	150	175
	AC-4 660/690 V	42	49		48	57	65	85	105	115	135	150
Rated Power of 3-Phase Motor												
For IEC (kW)	AC-3 230 Vac	-			37	45	55		75	90	132	160
					18.5	22	30		37	40	45	55
	AC-3 380/400 Vac	30	37	45	55	75	90	110	132	160	220	250
					30	37	45	55	63	75	90	100
	AC-3 660/690 Vac	37	45		110	132	160	200	250		355	400
					50	55	63	80	100	110	132	150
	AC-3 1,000 Vac	-			75	90	90		132		250	315
					50	55	63		80		110	
UL Rating												
Ith (A)		80	125		160	185	215	275	330	400	500	610
Single-Phase (HP)	110-120 Vac	5	7.5	10	15	-		-				
	220-240 Vac	15	20		25	30	40	-				
Three-Phase (HP)	200-208 Vac	20	30	30	40	50	60		75	100	125	150
	220-240 Vac	25		40	50	60	75		100	125	150	200
	440-480 Vac	50	60		100	125	150		200	250	300	400
	550-600 Vac				125	150	200		250	300	400	500
Coil Voltage (V)		24~600 Vac				24~600 Vac/dc					36~600 Vac/dc	



IEC Contactors Specifications

		Ex9C		
		630	800	1000
General Information				
Pole		3		
Production Standard		IEC 60947-1, IEC 60947-4-1, UL 60947-1, UL 60947-4-1		
Environmental Testing According to		IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-11, IEC 60068-2-30		
Rated Frequency (Hz)		50/60		
Conventional Free	0≤104 °F (0≤40 °C)	800	1000	1000
Air Thermal Current	0≤140 °F (0≤60 °C)	720	850	850
Ith (A)	0≤158 °F (0≤70 °C)	630	750	750
Rated Insulating Voltage Ui (V)		1,000		
Rated Impulse Withstand Voltage Uimp (kV)		8		
Electrical Life	AC-3	80	50	
(x10 ⁴ cycles)	AC-4 380/400 V	20		
Mechanical Life (x10 ⁴ cycles)		300		
Operating Cycles	AC-3	300		120
Per Hour (cycles/h)	AC-4	100		
Environmental Temperature	Transportation or Storage	-76 to 176 °F (-60 to +80 °C)		
	Working At	-4 to 140 °F (-20 to +60 °C)		
	Maximum	-40 to 158 °F (-40 to +70 °C)		
Altitude ft (m)		6,562 (2,000)		
Pollution Degree		Class III		
Rated Operational Current Ie (A)				
At -82 to 131 °F (-25 to 40 °C)	AC-1 690 V	800	1000	1260
	AC-3 380/400 V	630	800	1000
	AC-3 660/690 V	560	650	700
	AC-4 380/400 V	225	242	260
	AC-4 660/690 V	200	215	230
Rated Power of 3-Phase Motor				
For IEC (kW)	AC-3 230 Vac	200	250	315
	AC-4	75		80
	AC-3 380/400 Vac	335	450	560
	AC-4	110	132	150
	AC-3 660/690 Vac	560	630	710
	AC-4	185	200	220
	AC-3 1,000 Vac	400	450	500
	AC-4	150	200	
UL Rating				
Ith (A)		800	900	1000
Single-Phase (HP)	110-120 Vac	-		
	220-240 Vac			
Three-Phase (HP)	200-208 Vac	250	300	350
	220-240 Vac	500	600	750
	440-480 Vac	600	700	800
	550-600 Vac			
Coil Voltage (V)		48 - 480 Vac/dc		

IEC Contactors Specifications

			Ex9CS/CSR			Ex9C/CR								
			6	9	12	9	12	18	25	32	38	40	50	
Coil Electrical Parameters														
Tolerance of Control Voltage 50/60 Hz	Operation (Uc)	Standard	0.85~1.10											
		F-Type	-	0.85Ucmin~1.10Ucmax										
	Drop-Off (Uc)	Standard	0.20~0.75 AC 0.10~0.75 DC											
		F-Type	-	0.20Ucmax~0.75Ucmin (AC), 0.10Ucmax~0.75Ucmin (DC)										
Coil Power Consumption														
In Rush (VA)	AC		70		90		100		240					
	F-Type		-		100				200					
Power Factor														
Sealed (VA)	AC		9		9.5		11.4		36.6					
	F-Type		-			2.5		6						
Power Factor														
Pick-Up (W)	DC		4		7		17							
	F-Type		-		70		150							
Hold (W)	DC		4		7		17							
	F-Type		-		2		4.5							
Operating Time (ms)	Operation	Standard	10-20		12-24		14-27		20-30					
		F-Type	-		100-170		50~100							
	Drop-Off	Standard	4-16		6-20		7-22		8-20					
		F-Type			40~80		40~80		20~120					
IEC AC Contactor Working at DC Power Data														
	Rated Working Voltage (V)	Poles of Series Connection	Rated Working Current (A)											
Working Type: DC-1, Resistive Load	24	1												
		2												
		3												
Time Data: L/R≤1ms	48/75	1	15		20		25		32		40		50	65
		2												
		3												
Environmental Temperature: ≤140 °F (≤60 °C)	125	1	4				7							
		2	15		20		25		32		40		50	65
		3												
	225	1	1						1.5					
		2	4				7							
		3	15		20		25		32		40		50	65
IEC AC Contactor Working at AC Power Data														
	Rated Working Voltage (V)	Poles of Series Connection	Rated Working Current (A)											
Working Type: DC-2 to DC-5, Inductive Load	24	1												
		2	15		20		25		32		40		50	65
		3	5		8		32		40		50	65		
Time Data: L/R≤15ms	48/75	1	15		20		25		32		40		50	65
		2												
		3												
Environmental Temperature: ≤140 °F (≤60 °C)	125	1	1.5		2		3		4					
		2	11		15		32		40		50	65		
		3	15		20		25		32		40		50	65
	225	1	0.5				1					1.5		
		2	1.5		2		3		4					
		3	5		8		32		40		50	65		

IEC Contactors Specifications

		Ex9C/CR										Ex9C					
		65	80	100	115	150	185	225	265	300	400	500	630	800	1000		
Coil Electrical Parameters																	
Tolerance of Control Voltage 50/60 Hz	Operation (Uc)	0.85~1.10															
	Drop-Off (Uc)	0.20~0.70					0.20~0.65										
Coil Power Consumption																	
In Rush (VA)	AC	240	280	400		590		600		850							
	F-Type	200		-													
Power Factor		-		0.90-0.95													
Sealed (VA)	AC	36		10						10							
	F-Type	6		-													
Power Factor		-		0.90-0.95													
Pick-Up (W)	DC	17		400		590		600		850							
	F-Type	150		-													
Hold (W)	Standard	17		10						10							
	F-Type	4.5		-													
Operating Time (ms)	Operation	Standard	20-30	20-35	31-64		45-100		58-95		100~180						
		F-Type	50~100		-												
	Drop-Off	Standard	8-20	6-20	44-68		47-67		85-120		100~120						
		F-Type	20~120		-												
IEC AC Contactor Working at DC Power Data																	
	Rated Working Voltage (V)	Poles of Series Connection	Rated Working Current (A)														
Working Type: DC-1, Resistive Load	24	1	65	100	160	200	300	400									
		2															
		3															
	Time Data: L/R≤1ms	48/75	1														
			2														
			3														
Environmental Temperature: ≤140 °F (≤60 °C)	125	1	7	12	18	33											
		2	65	100	160	200	300	400									
		3															
	225	1	1.5		3.4		3.8										
		2	7	12	20	30		40									
		3	65	100	160	200	300	400									
IEC AC Contactor Working at DC Power Data																	
	Rated Working Voltage (V)	Poles of Series Connection	Rated Working Current (A)														
Working Type: DC-2 to DC-5, Inductive Load	24	1	65	100	160	200	300	400									
		2															
		3															
	Time Data: L/R≤15ms	48/75	1														
			2														
			3														
Environmental Temperature: ≤140 °F (≤60 °C)	125	1	4	5	7.5	11											
		2	65	100	160	200	300	400									
		3															
	225	1	1.5	2	2.5												
		2	4	5	7.5	11											
		3	65	100	160	200	300	400									

IEC Contactors Specifications

		Ex9CS/CSR			Ex9C/CR							
		6	9	12	9	12	18	25	32	38	40	50
Built-In Auxiliary Contacts												
Auxiliary Contacts		1NO/1NC (3P), None (4P)			1NO+1NC, 2NO+2NC						1NO+1NC	
Rated Operation Voltage Ue (V)		690										
Rated Insulating Voltage Ui (V)		6										
Rated Impulse Withstand Voltage Uimp (kV)		50/60										
Conventional Free Air Thermal Current Ith (A)		10										
Rated Operational Current Ie (A)												
AC-15	24 V	-										
	120 V	6										
	230 V	-										
	240 V	3										
	380 V	1.9										
	400 V	-										
	600 V	1.2										
DC-13	690 V	-										
	125 V	0.55										
	220 V	0.31										
Mounting	Screw (mm)	-			0.27							
	DIN rail (mm)				ø4						ø5	
Dimension LxWxH in (mm)		1.93x2.32x2.28 (49x59x58)			3.50x1.77x3.70 (89x45x94)			3.94x1.77x4.25 (100x45x108)			4.80x2.99x4.84 (122x76x123)	
Weight lb (kg)		0.40 (0.18)			0.77 (0.35)			0.88 (0.40)			2.71 (1.23)	
Degree of Protection		IP 20										
Main Power Terminal Connection												
Flexible Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable	18-12* (1-2.5) [†]			18-10* (1.5-6) [†]			14-8* (1.5-10) [†]			14-4* (2.5-25) [†]	
	Dual Cable											
Stiff Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable											
	Dual Cable											
Screw Size ø (mm)		M3			M3.5			M4			M8	
Torque of Terminals in-lb (N.m)		7 (0.80)			15 (1.70)			22 (2.50)			53 (6)	
Bus Bar Terminal Connection												
Bus Bar Size												
Screw Size ø (mm)		-										
Torque of Terminals in-lb (N.m)												
Auxiliary Contact Terminal Connection												
Flexible Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable											
	Dual Cable											
Stiff Cable With Cold-Press Terminal AWG (mm ²)	Single Cable	18-12* (1-2.5) [†]										
	Dual Cable											
Stiff Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable											
	Dual Cable											
Screw Size ø (mm)		M3			M3.5							
Torque of Terminals in-lb (N.m)		7 (0.80)			15 (1.70)							

* American Wire Gauge
[†] IEC Wire Gauge

IEC Contactors Specifications

		Ex9C/CR																					
		65	80	100	115	150	185	225	265	300	400	500											
Built-In Auxiliary Contacts																							
Auxiliary Contacts		1NO+1NC					2NO+2NC																
Rated Operation Voltage Ue (V)		690																					
Rated Insulating Voltage Ui (V)		6																					
Rated Impulse Withstand Voltage Uimp (kV)		50/60																					
Conventional Free Air Thermal Current Ith (A)		10																					
Rated Operational Current Ie (A)																							
AC-15	24 V	-					6																
	120 V	6					-																
	230 V	-					3.13																
	240 V						3																
	380 V	1.9					-																
	400 V	-					1.8																
	600 V	1.2					-																
	690 V	-					1.04																
DC-13	125 V	0.55																					
	220 V	0.31																					
	250 V	0.27																					
Mounting	Screw (mm)	ø5			ø8			ø9															
	DIN rail (mm)	35/7.5 or 75/7.5						-															
Dimension LxWxH in (mm)		4.80x2.99 x4.84 (122x76x123)	5.12x3.43x5.12 (130x87x130)		6.81x4.72x6.85 (173x120x174)			8.39x5.71x8.19 (213x145x208)		8.50x6.30x9.02 (216x160x229)													
Weight lb (kg)		2.71 (1.23)	3.31 (1.50)		6.61 (3)			13.23 (6)		20.94 (9.5)													
Degree of Protection		IP 20																					
Main Power Terminal Connection																							
Flexible Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable	14-4* (2.5-25) [†]	12-1/0 (2.5-50)		(1x) 4 - (2x) 250 MCM ((1x) 25 - (2x) 120)			(1x) 1/0 - (2x) 500 MCM ((1x) 50 - (2x) 240)															
	Dual Cable		12-1 (2.5-42.5)																				
Stiff Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable		12-1/0 (2.5-50)		(1x) 4 - (2x) 250 MCM ((1x) 25 - (2x) 120)			(1x) 1/0 - (2x) 500 MCM ((1x) 50 - (2x) 240)															
	Dual Cable		12-1 (2.5-42.5)																				
Screw Size ø (mm)		M8						M10															
Torque of Terminals in-lb (N.m)		53 (6)	79 (9)		159 (18)			310 (35)															
Bus Bar Terminal Connection																							
Bus Bar Size					2x0.75x0.25 (2x20x5)			2x1x0.25 (2x30x5)		2x1.25x0.25 (2x40x5)													
Screw Size ø (mm)					M8			M10															
Torque of Terminals in-lb (N.m)					159 (18)			310 (35)															
Auxiliary Contact Terminal Connection																							
Flexible Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable	18-12* (1-2.5) [†]																					
	Dual Cable																						
Stiff Cable With Cold-Press Terminal AWG (mm ²)	Single Cable												18-12* (1-2.5) [†]										
	Dual Cable																						
Stiff Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable	18-12* (1-2.5) [†]																					
	Dual Cable																						
Screw Size ø (mm)													M3.5										
Torque of Terminals in-lb (N.m)													15 (1.70)										

* American Wire Gauge

[†] IEC Wire Gauge

IEC Contactors Specifications

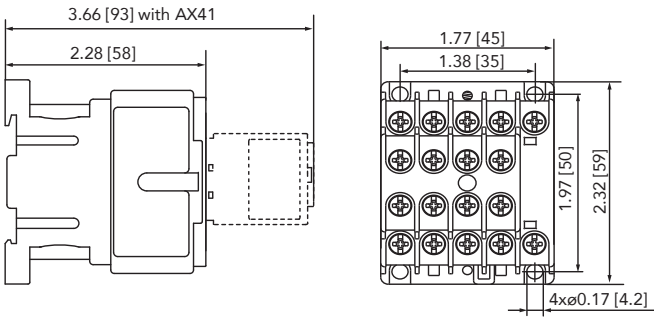
		Ex9C		
		630	800	1000
Built-In Auxiliary Contacts				
Auxiliary Contacts		2NO+2NC		
Rated Operation Voltage Ue (V)		690		
Rated Insulating Voltage Ui (V)		6		
Rated Impulse Withstand Voltage Uimp (kV)		50/60		
Rated Frequency (Hz)		10		
Conventional Free Air Thermal Current Ith (A)				
Rated Operational Current Ie (A)				
AC-15	24 V	6		
	120 V	-		
	230 V	3.13		
	240 V	3		
	380 V	-		
	400 V	1.8		
	600 V	-		
DC-13	690 V	1.04		
	125 V	0.55		
	220 V	0.31		
Mounting	250 V	0.27		
	Screw (mm)	11.5		
	DIN rail (mm)	-		
Dimension LxWxH in (mm)		11.73*9.06*10.47 (298*230*266)	12.68*9.06*10.47 (322*230*266)	
Weight lb (kg)		44.53(20.2)	48.5(22)	49.16(22.3)
Degree of Protection		IP 20 (Control Circuit Terminal) IP 00 Main Circuit Terminal		
Main Power Terminal Connection				
Flexible Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable	LTC25NB 250~600 LTC25NC 4/0~500	LTC26NC 3/0~750 LTC26ND 3/0~500	
	Dual Cable			
Stiff Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable			
	Dual Cable			
Screw Size ø (mm)		M12	4*M10	
Torque of Terminals in-lb (N.m)		310(45)	310(35)	
Auxiliary Contact Terminal Connection				
Flexible Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable	18-12* (1-2.5) †		
	Dual Cable			
Stiff Cable With Cold-Press Terminal AWG (mm ²)	Single Cable			
	Dual Cable			
Stiff Cable Without Cold-Press Terminal AWG (mm ²)	Single Cable			
	Dual Cable			
Screw Size ø (mm)		M3.5		
Torque of Terminals in-lb (N.m)		15 (1.70)		

* American Wire Gauge
† IEC Wire Gauge

IEC Contactors Dimensions

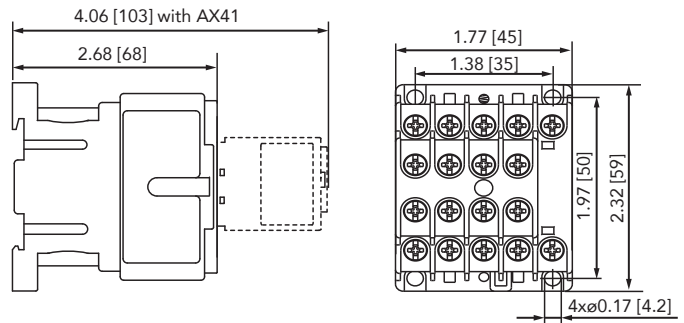
Ex9CS06~12 AC

Unit: in [mm]



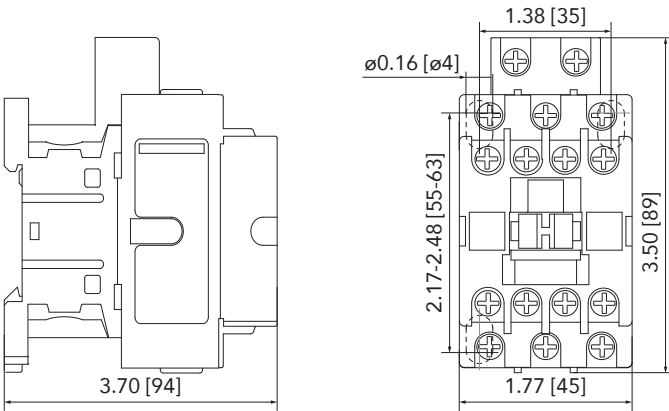
Ex9CS06~12 DC

Unit: in [mm]



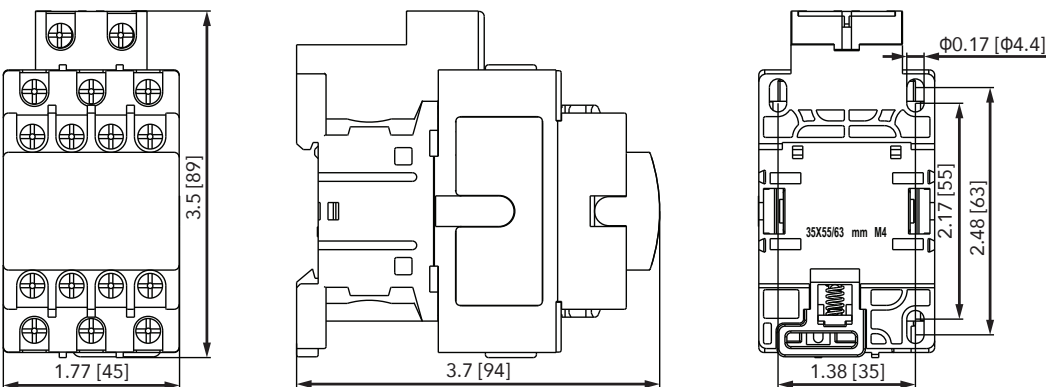
Ex9C09, Ex9C12, Ex9C18

Unit: in. [mm]



Ex9C09F, Ex9C12F, Ex9C18F

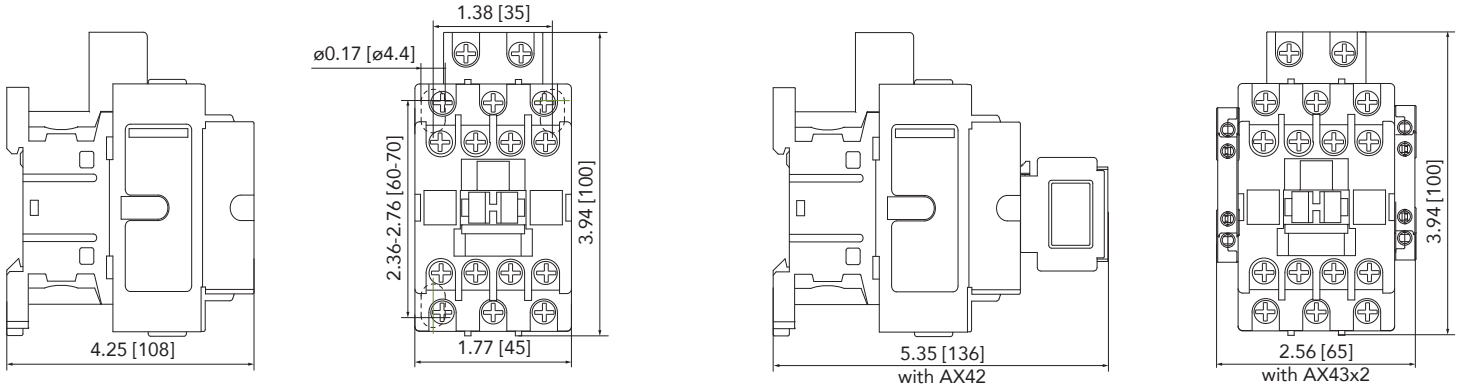
Unit: in. [mm]



IEC Contactors Dimensions

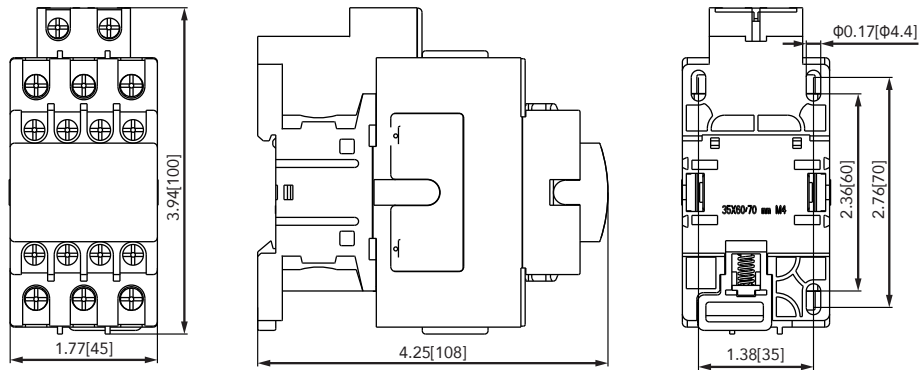
Ex9C25, Ex9C32, Ex9C38

Unit: in. [mm]



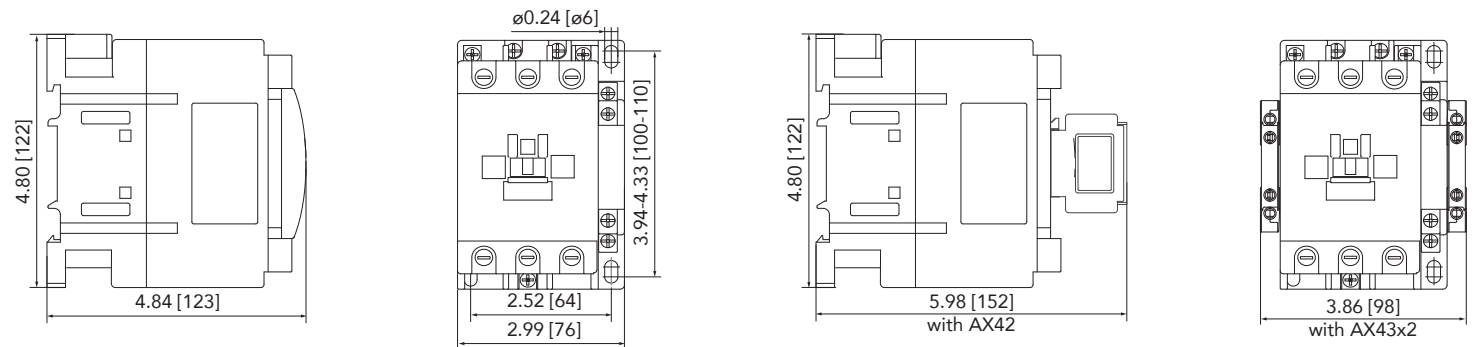
Ex9C25F, Ex9C32F, Ex9C38F

Unit: in. [mm]



Ex9C40, Ex9C50, Ex9C65

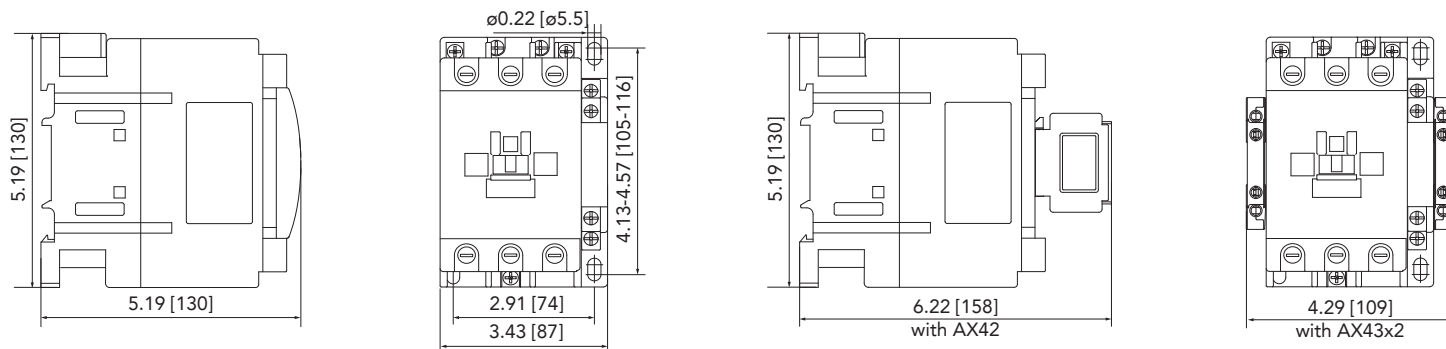
Unit: in. [mm]



IEC Contactors Dimensions

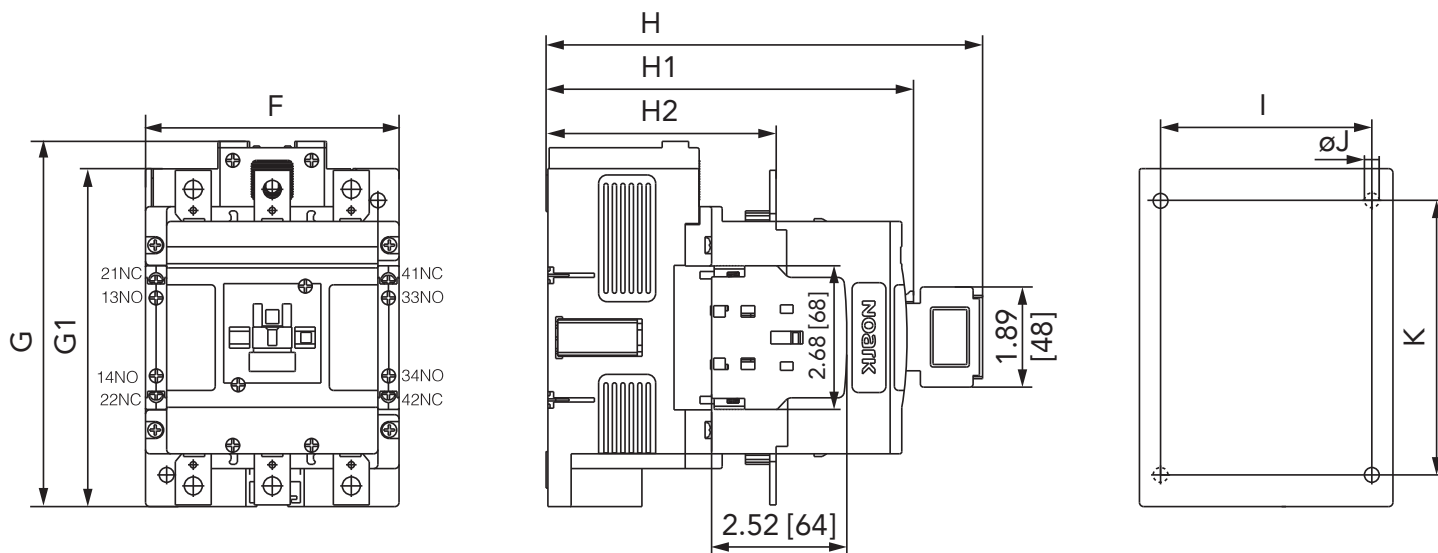
Ex9C80, Ex9C100

Unit: in. [mm]



Ex9C115, Ex9C500

Unit: in. [mm]



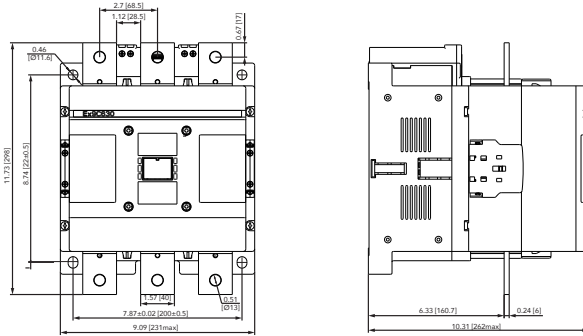
Contactor	F	G	G1	H	H1	H2	I	J*	K
Ex9C115~185	4.75 [120]	6.81 [173]	6.30 [160]	8.07 [205]	6.85 [174]	4.25 [108]	3.94 [100]	$\phi 0.28$ [$\phi 7$]	5.12 [130]
Ex9C225~300	5.71 [145]	8.35 [212]	7.87 [200]	9.41 [239]	8.15 [207]	5.28 [134]	4.72 [120]	$\phi 0.35$ [$\phi 9$]	7.09 [180]
Ex9C400~500	6.30 [160]	8.58 [218]	7.87 [200]	10.28 [261]	9.02 [229]	5.94 [151]	5.12 [130]	$\phi 0.35$ [$\phi 9$]	7.09 [180]

*Note: Ex9C115~185 has only two mounting holes as broken circles and the other types have four mounting holes.

IEC Contactors Dimensions

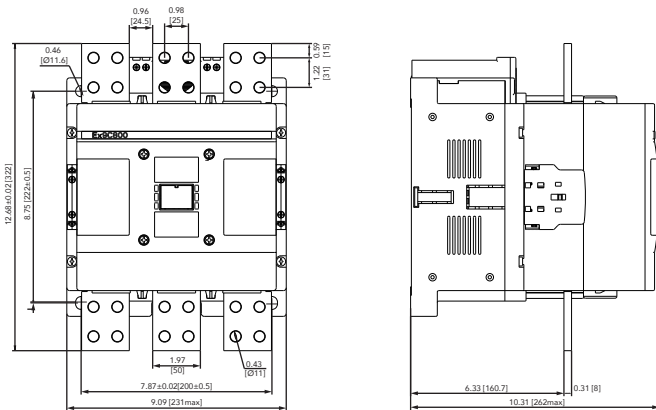
Ex9C630

Unit: in [mm]



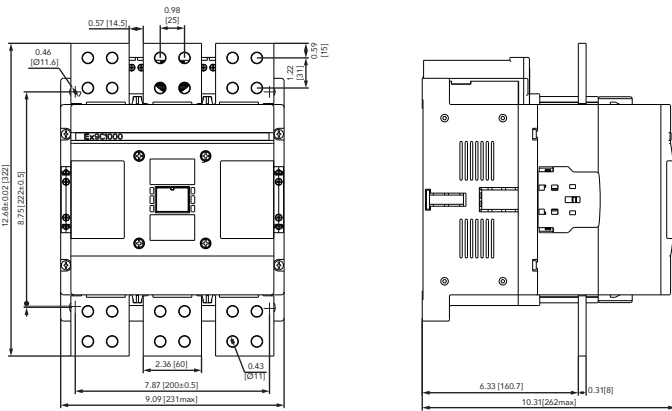
Ex9C800

Unit: in [mm]



Ex9C1000

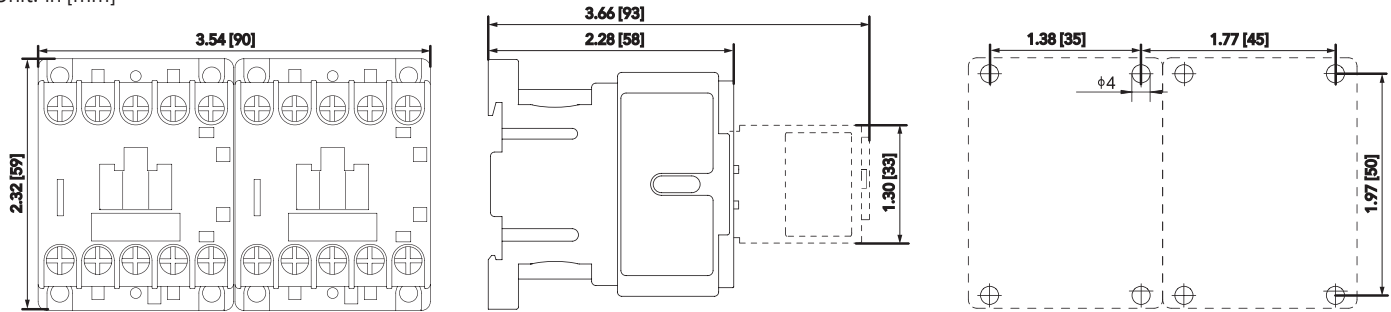
Unit: in [mm]



IEC Contactors Dimensions

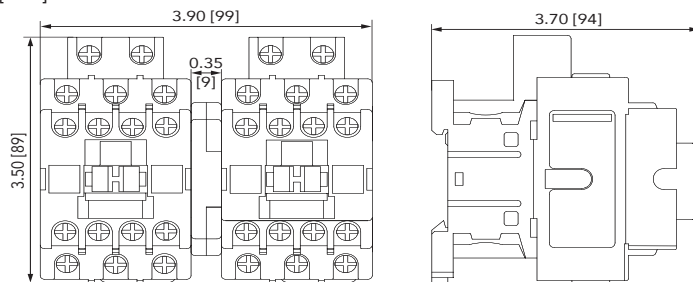
Ex9CSR06~12

Unit: in [mm]



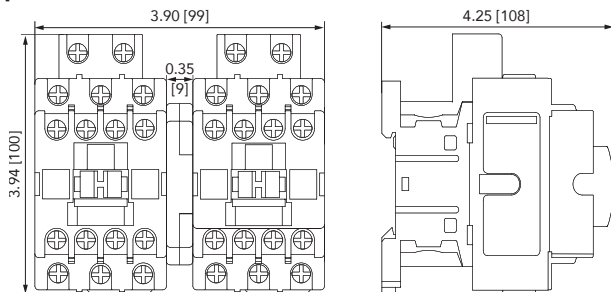
Ex9CR09~18

Unit: in [mm]



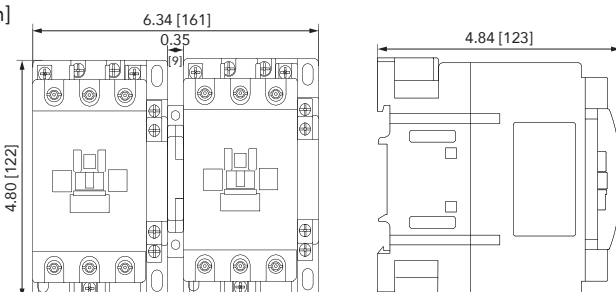
Ex9CR25~38

Unit: in [mm]



Ex9CR40~65

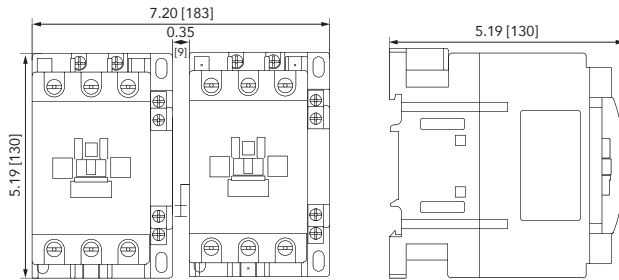
Unit: in [mm]



IEC Contactors Dimensions

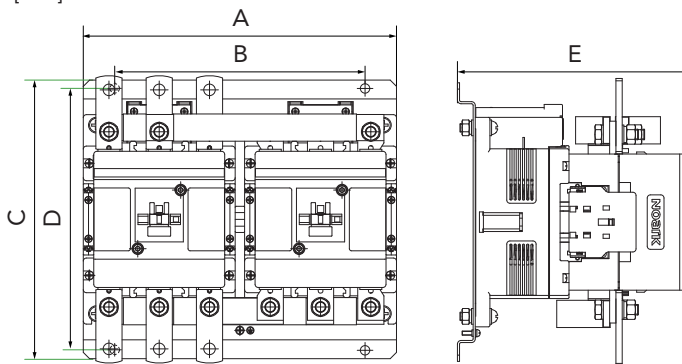
Ex9CR80~100

Unit: in [mm]



Ex9CR115~500

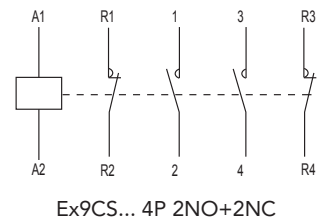
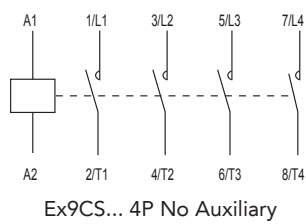
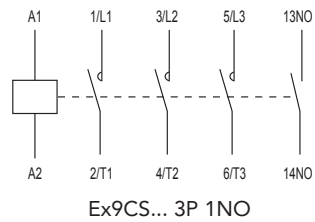
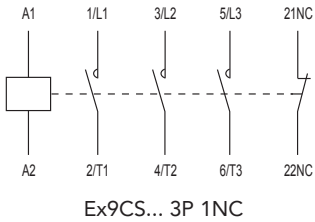
Unit: in [mm]



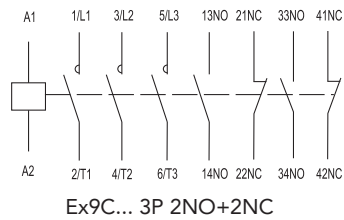
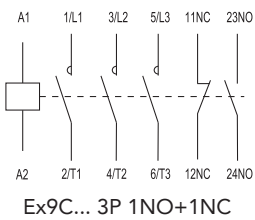
Contactor	A	B	C	D	E
Ex9C115~185	9.80 [249]	7.44 [189]	9.06 [230]	8.43 [214]	7.64 [194]
Ex9C225~300	11.77 [299]	9.41 [239]	10.47 [266]	9.84 [250]	8.86 [225]
Ex9C400~500	12.95 [329]	10.59 [269]	10.55 [268]	9.96 [253]	9.69 [246]

IEC Contactors Wiring Diagram

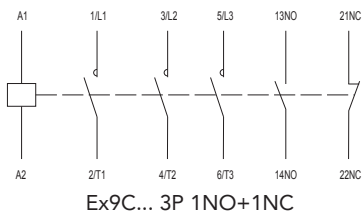
Ex9CS06~12



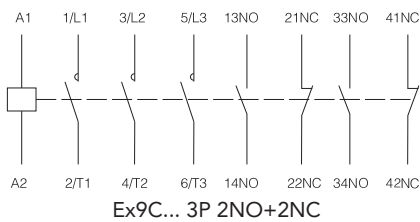
Ex9C09~38



Ex9C40~100

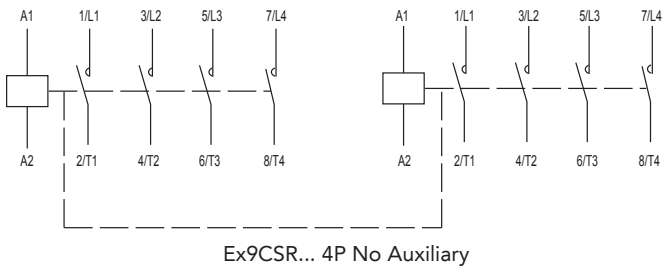
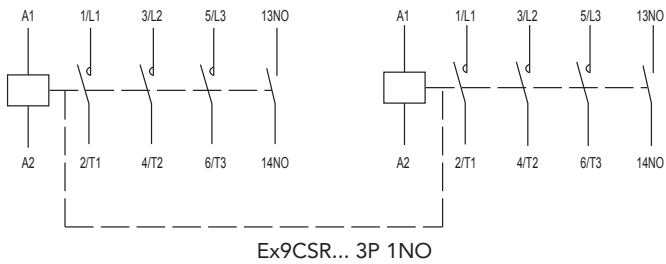


Ex9C115~1000

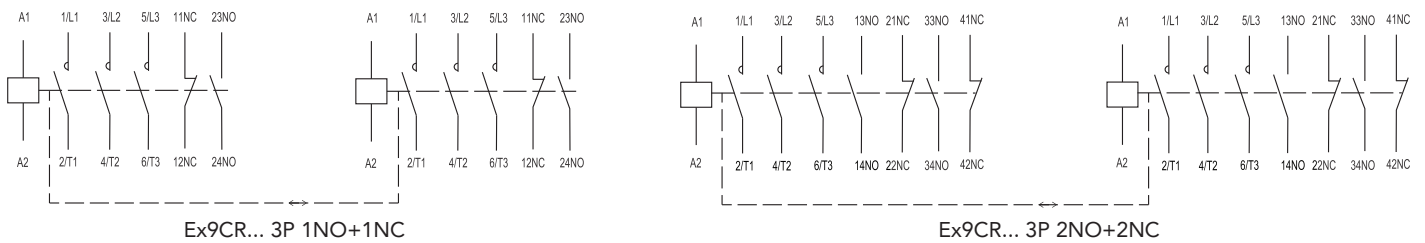


IEC Contactors Wiring Diagram

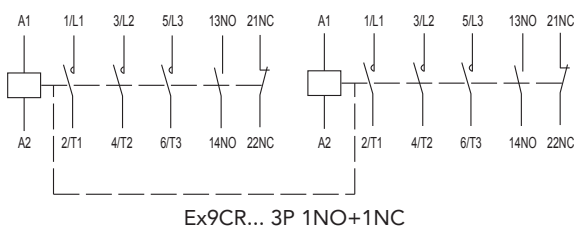
Ex9CSR06~12



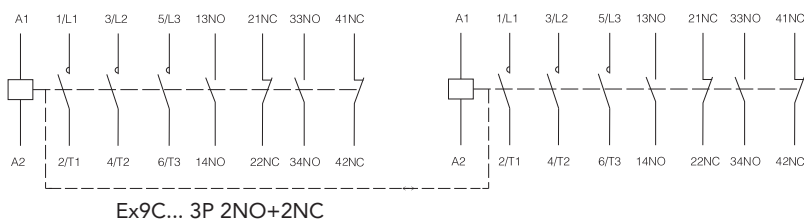
Ex9CR09~38



Ex9CR40~100

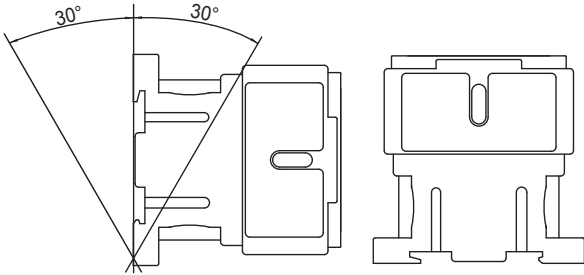


Ex9CR115~500

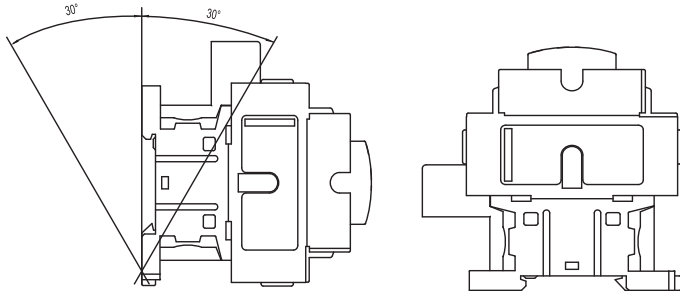


IEC Contactors Mounting Positions

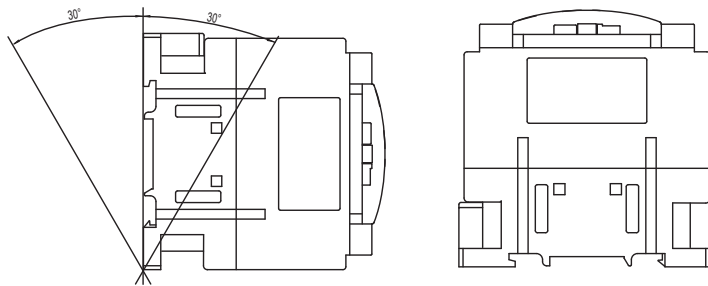
Ex9CS/CSR06~12



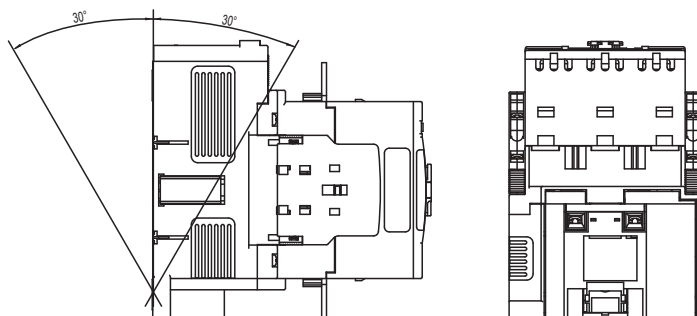
Ex9C/CR09~38



Ex9C/CR40~100



Ex9C/CR115~500



IEC Contactors Accessories

The Ex9C line shares accessories and every contactor can be equipped with one front-mounted unit, two units of side-mounted contact (one from the left, the other from the right) and surge suppressor block.

Front-Mounted Auxiliary Contacts (AX41/42)

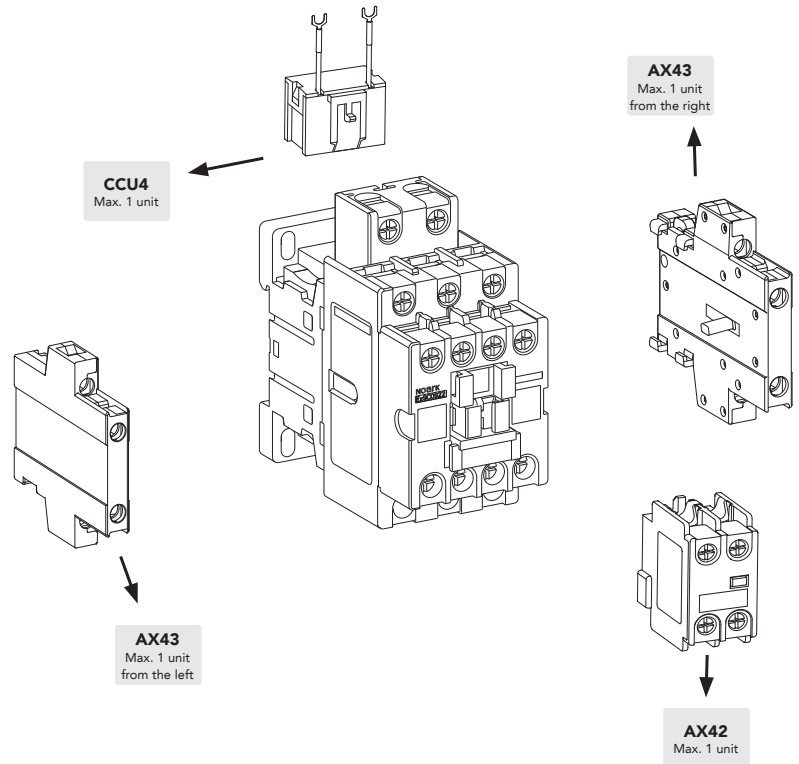
- For subsequent mounting
- One unit used with a contactor

Side-Mounted Auxiliary Contacts

- For subsequent mounting
- One unit used with a contactor at the left, another unit at the right

Surge Suppressor Blocks

- Reduces voltage peaks in control circuit
- Versions with varistor and RC circuit technology
- Includes cable lugs for connecting to contactor terminals



Accessory Product Selection Guide

AX4	2	31	CCU4	2	A
Ex9C Contactor Accessory Description	Type & Amperage	Auxiliary Contact	Ex9C Contactor Accessory Description	Type & Amperage	Voltage Protection Scope
AX4: Auxiliary Contact	1: Mini, Top Mounting 06~12 A	02: 2NC 04: 4NC	CCU4: Surge Suppressor Block	1: Mini, 06~12 A	A: 24~48 Vac
	2: Standard, Top Mounting 09~500 A	11: 1NO+1NC 13: 1NO+3NC		2: Standard, 09~38 A	B: 110~240 Vac
	3: Standard, Side Mounting 09~100 A	20: 2NO 22: 2NO+2NC		3: Standard, 40~100 A	C: 380~415 Vac
	4: Standard, Side Mounting 115~500 A	31: 3NO+1NC 40: 4NO			

IEC Contactors

Accessory Specifications

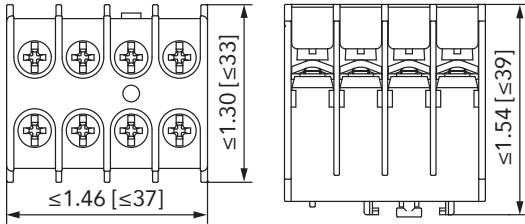
Auxiliary Contact	CS/CSR Front Mount AX41					C/CR Front Mount AX42								C/CR Side Mount AX43 AX44				
	04	13	22	31	40	02	04	11	13	20	22	31	40	11	02	11	20	
	UL Standard File Number	E353866																
IEC Standard File Number	IEC/EN 60947-5-1																	
Certifications	UL Listed, CSA, CCC, RoHS																	
Electrical Parameters																		
Contacts	4NC	1NO+ 3NC	2NO+ 2NC	3NO+ 1NC	4NO	2NC	4NC	1NO+ 1NC	1NO+ 3NC	2NO	2NO+ 2NC	3NO+ 1NC	4NO	1NO+ 1NC	2NC	1NO+ 1NC	2NO	
Rated Frequency (Hz)	50/60																	
Rated Working Voltage Ue	AC-15 (V) DC-13 (V)										380/400/415 220/250							24/230/400/690 125/250
Rated Working Current Ie	AC-15 (A) DC-13 (A)										1.9A 0.31							6.00 (24 V) 3.13 (230 V) 1.80 (400 V) 1.04 (690 V) 0.55 (125 V) 0.27 (250 V)
Rated Capacity	AC-15 (VA) DC-13 (W)										720 69							
Rated Thermal Current Ith (A)	10																	
Rated Impulse Withstand Voltage Uimp (kV)	6 (1.2/50 ms)																	
Rated Insulation Voltage Ui (V)	690																	
Mechanical Parameters																		
Device Width in (mm)	1.30 (33)					1.89 (48)								0.43 (11)	0.39 (10)			
Device Height in (mm)	1.54 (39)					1.46 (37)								2.72 (69)	2.52 (64)			
Device Depth in (mm)	1.46 (37)					1.02 (26)			1.77 (45)					2.76 (70)	2.68 (68)			
Degree of Protection	IP 20																	
Terminals	Lift																	
Terminal Capacity AWG (mm ²)	18-12 (1-4)																	
Torque of Terminals in-lb (N.m)	7 (0.80)					15 (1.70)												
Surge Suppressor Block																		
	CCU41					CCU42							CCU43					
Electrical Parameters																		
Internal Technology	Varistor					Resistance												
Control Coil Voltage Uc (Protection Range)	24~48 Vac/dc 110~240 Vac/dc 380~415 Vac/dc																	
Maximum Peak Voltage Up (Uc)	2kV					3kV												
Mechanical Parameters																		
Matched Contactor Type	Ex9CS06~12					Ex9C09~38							Ex9C40~100					
Mounting	Mounts to Contactor Control Coil Terminals																	
Weight lb (kg)	0.04 (0.02)																	

IEC Contactors Accessory Dimensions

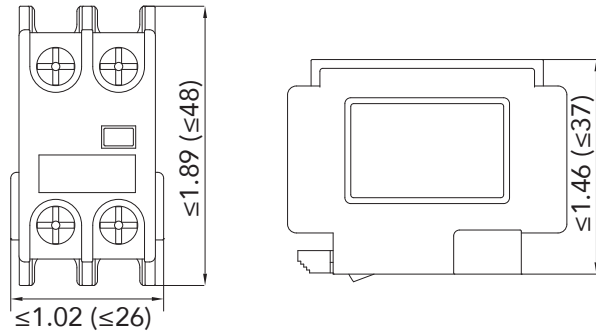
Front-Mounting Auxiliary Contact

Unit: in. [mm]

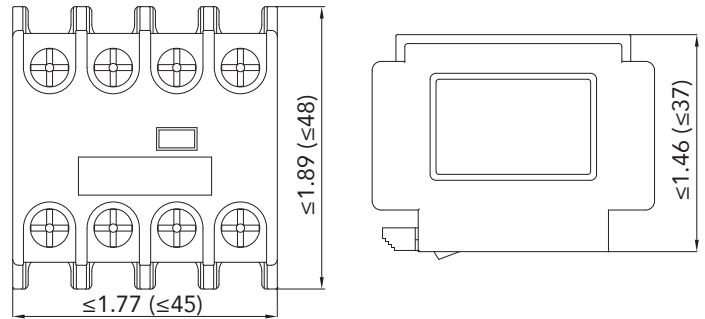
AX4104, AX4113, AX4122, AX4131, AX4140



AX4202, AX4211, AX4220



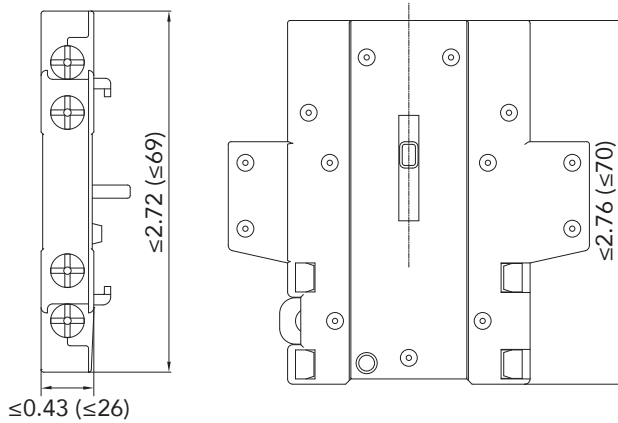
AX4204, AX4213, AX4223, AX4231, AX4240



Side-Mounting Auxiliary Contact

Unit: in. [mm]

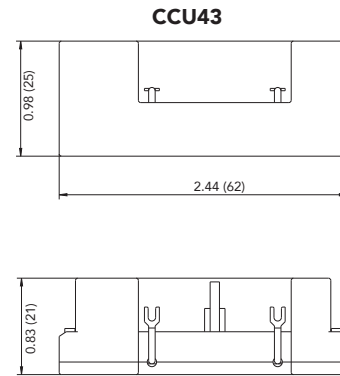
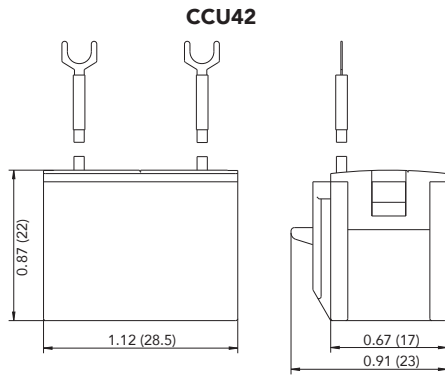
AX4311



IEC Contactors Accessory Dimensions

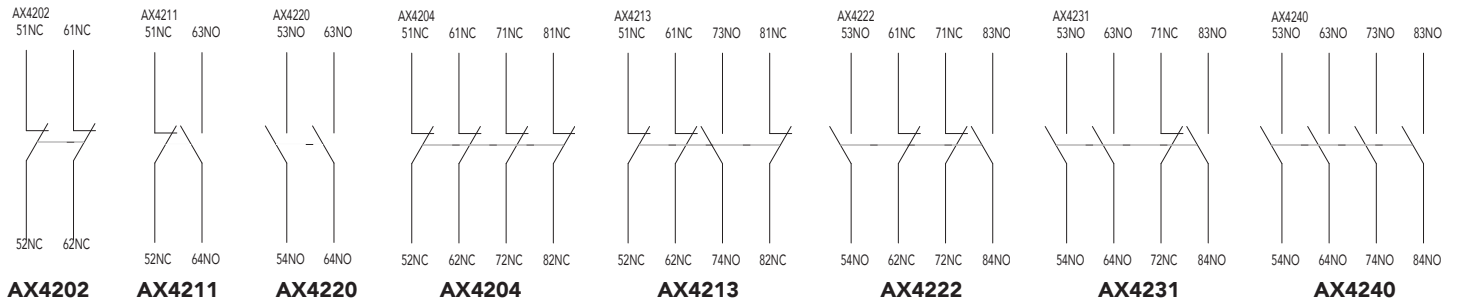
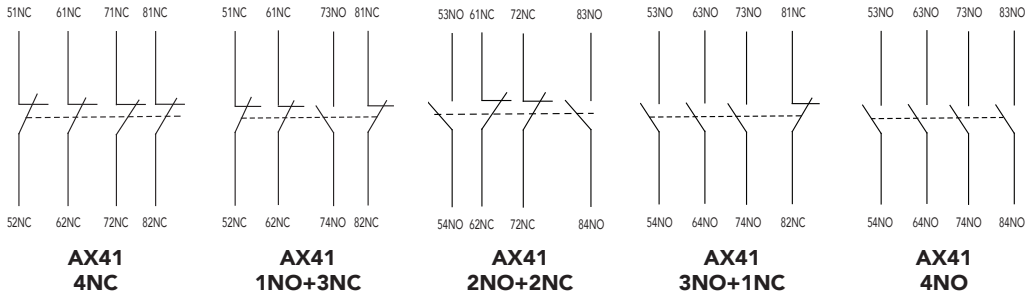
Surge Suppressor Blocks

Unit: in. [mm]

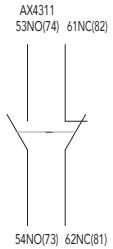


IEC Contactors Accessory Wiring Diagram

Front-Mounting Auxiliary Contact

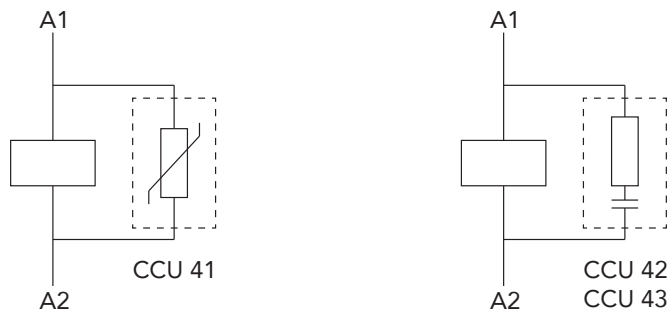


Side-Mounting Auxiliary Contact



AX4311

Surge Suppressor Block



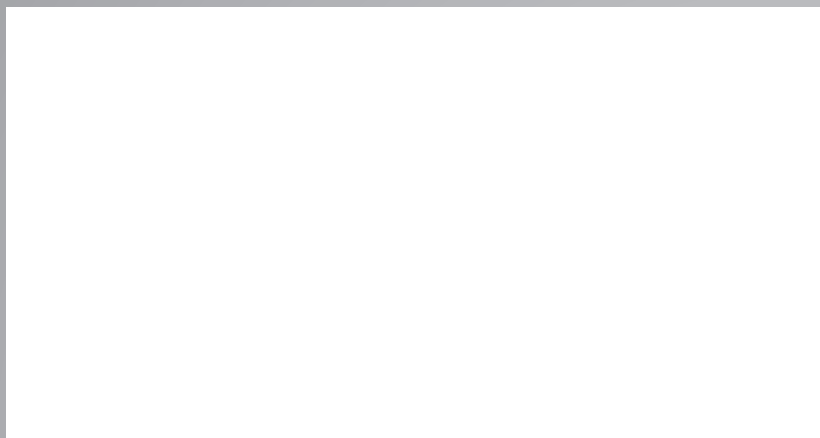
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