

Definite Purpose Contactors

AC1036



ABB

Definite purpose Contactors



Definite purpose contactors



Applications

Type DP contactors provide high performance with flexibility and reliability, designed to match numerous applications including:

- Motors
- Power supplies
- Food service equipment
- Compressors
- Business machines
- Resistive heating
- Air conditioning
- Refrigeration equipment
- Welding

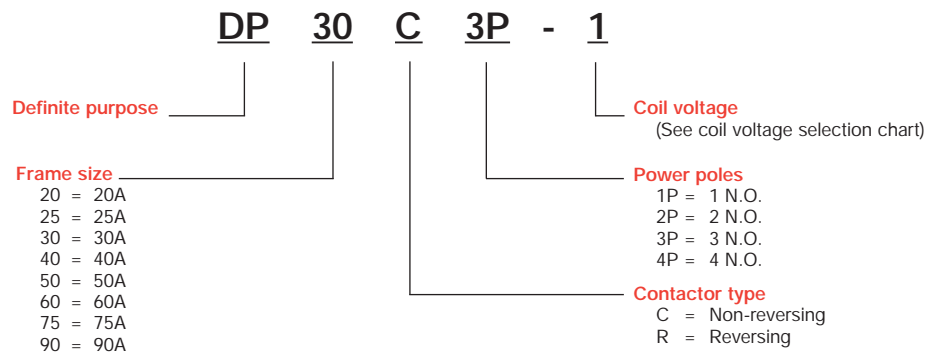
Agency approvals

- UL 508 Guide No. NLDX2, File # E224401
- CSA C22.2 No. 14, NLDX8 File No. E224401
- CE/Semko Certified, EN60947-4-1:1991
- IEC 947-4-1

Features

- Available as:
 - 20A, 25A, 1, 2 or 3 pole
 - 30A, 1, 2, 3 or 4 pole
 - 40A, 2, 3 or 4 pole
 - 50A, 60A, 75A, 90A, 3 pole
- Industry standard mounting plate provides easily accessible mounting holes
- Coil terminals are provided with #6-32 screws and (1) .250 quick connect or dual .250 quick connect terminals
- Exclusive hex, slotted, phillips #10-32 terminal screws for main terminals
- Coil is class B (130° C) insulation system with wide range of voltages and 50/60 Hz ratings
- Double E magnet assembly provides optimal performance with reduced power consumption
- Snap-in auxiliary switch with 1 SPDT or 2 SPDT contacts available as an option
- 1 N.O. & 1 N.C. auxiliary contact block with 600 VAC rating available as an option
- Base assembly is made from high arc-resistant polyester

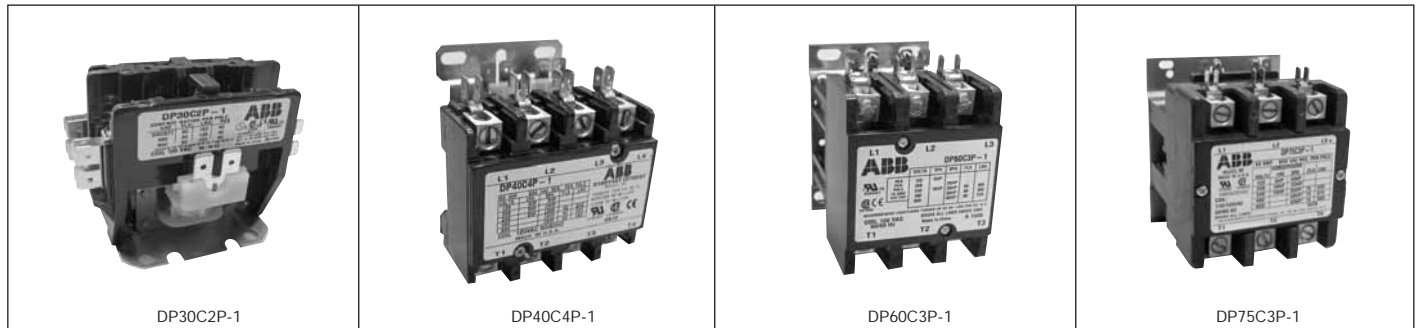
Catalog number explanation



This catalog is published for information purposes only and is not all inclusive. All dimensions are approximate. For additional information on products or technical information, consult ABB. The installation and use of ABB products should be in accordance with the provisions of the Canadian Electrical Code and/or other local codes or industry standards that are pertinent to the particular end use. Installation or use not in accordance with these codes and standards could be hazardous to personnel and/or equipment.

Definite purpose contactors

20A ... 90A



20A, 25A, 30A, 40A, 50A, 60A, 75A & 90A

Full load amps	Number of poles	Locked rotor amps			Resistive amps	Maximum HP 1 phase		Maximum HP 3 phase				Standard pack qty.	Catalog number	List price
		240/277V	480V	600V		120V	240V	200/208V	240/277V	480V	600V			
20	1	120	100	80	30	1	2	—	—	—	—	50	DP20C1P-1	
20	2	120	100	80	30	1	2	—	—	—	—	50	DP20C2P-1	
20	3	120	100	80	30	1.5	3	7.5	7.5	7.5	7.5	25	DP20C3P-1	
25	1	150	125	100	35	1	2	—	—	—	—	50	DP25C1P-1	
25	2	150	125	100	35	1	2	—	—	—	—	50	DP25C2P-1	
25	3	150	125	100	35	2	5	10	10	15	20	25	DP25C3P-1	
30	1	150	125	100	40	1	2	—	—	—	—	50	DP30C1P-1	
30	2	150	125	100	40	2	3	—	—	—	—	50	DP30C2P-1	
30	3	180	150	120	40	2	5	10	10	15	20	25	DP30C3P-1	
30	4	180	150	120	40	2	5	10	10	10	—	25	DP30C4P-1	
40	2	200	160	120	50	2	3	—	—	—	—	50	DP40C2P-1	
40	3	240	200	160	50	3	7.5	10	10	20	25	25	DP40C3P-1	
40	4	240	200	160	50	3	7.5	10	10	10	—	25	DP40C4P-1	
50	3	300	250	200	65	3	10	15	15	25	25	25	DP50C3P-1	
60	3	360	300	240	75	5	10	20	25	30	30	25	DP60C3P-1	
75	3	450	375	300	93	5	15	20	25	40	40	5	DP75C3P-1	
90	3	540	450	360	120	7.5	20	25	30	50	50	5	DP90C3P-1	

Coil voltage selection chart

Voltage	24VAC	120VAC	208/240VAC	277VAC
Suffix #	F	1	2	C

Coil voltage selection

All catalog numbers include a 120VAC coil. To select other coil voltages, substitute the code from the coil voltage selection chart for the first digit after the dash in the catalog number.

Auxiliary contact blocks

Description	Catalog number 20A - 40A, 3P	Catalog number 20A - 40A, 4P	Catalog number 50A - 60A	Catalog number 70A - 90A	List price
Form C SPDT 1 N.O. & 1 N.C.	CADP40-10 CADP40-11	CADP40A-10 CADP40A-11	CADP60-10 CADP60-11	CADP90-10 -	

Contact rating of 1 N.O. & 1 N.C.

		120V	240V	480V	600V
Break	A	3.0	1.5	.75	.6
Make	A	30	15	7.5	6
Continuous	A	10	10	10	10

Quick connect terminals on all auxiliary switches are .250 wide.

Contact rating of SPDT

Voltage	Current rating
125VAC	10A, 1/3 HP
120VAC	4A on lamp load
250VAC	10A, 1/3 HP
125VDC	.5A
250VDC	.25A

Technical data

20A - 90A • 1, 2, 3, & 4 Pole

20A – 40A — 1 & 2 pole

Coil technical data		DP20...DP30C1P				DP20...DP40C2P			
Nominal coil voltage		24	120	208/240	277	24	120	208/240	277
Maximum pickup volts		18	88	177	221	18	88	177	221
Drop-out volts range		6 – 15	20 – 70	40 – 170	50 – 165	6 – 15	20 – 70	40 – 140	50 – 165
Nominal inrush VA	50 Hz	31	31	35	31	22	22	22	22
Nominal inrush VA	60 Hz	28	28	32	28	20	20	20	20
Nominal sealed VA	50 Hz	6	6	7	6	5.5	5.5	5.5	5.5
Nominal sealed VA	60 Hz	5	5	6	5	4.5	4.5	4.5	4.5
Nominal DC resistance	Ohms	17.5	450	1800	2252	13	275	1056	1772
Other specifications		DP20...DP30C1P, C2P				DP40C2P			
Line and load terminals		# 10 – 32 screw ①				Box lug ①			
Wire size AWG min – max		16 – 8 ②				14 – 4 Cu/Al			
Tightening torque (recommended)		25 in. lbs.				40 in. lbs			
Coil termination		Dual .250 QC (2)				Dual .250 QC (2)			
Quick connects .250 std. 1 – 1.5 pole		Quad				Quad			
Quick connects .250 std. 2 pole		Dual or quad				Dual or quad			
Covers		Optional				Standard			
Insulation system		130° C Class B				130° C Class B			

20A- 60A — 3 pole

Coil technical data		DP20...DP40C3P					DP50...DP60C3P				
Nominal coil voltage		24	120	208/240	277	480	24	120	208/240	277	480
Maximum pickup volts		18	88	177	220	384	18	93	177	235	374
Drop-out volts range		6 – 15	20 – 70	40 – 140	65 – 185	150 – 270	6 – 15	20 – 70	40 – 135	50 – 180	150 – 286
Nominal inrush VA	50 Hz	65	65	65	65	65	140	140	140	140	140
Nominal inrush VA	60 Hz	60	60	60	60	60	132	132	132	132	132
Nominal sealed VA	50 Hz	7.5	7.5	7.5	7.5	7.5	20	20	20	20	20
Nominal sealed VA	60 Hz	6	6	6	6	6	14	14	14	14	14
Nominal DC resistance	Ohms	6.6	165	660	880	1320	2.4	45	180	280	852
Other specifications		DP20...DP30C3P			DP40C3P		DP50...DP60C3P				
Line and load terminals		# 10 – 32 Screw ①			Box lug ①		Box lug ①				
Wire size AWG min – max		16 – 8 ②			14 – 4 Cu/Al		14 – 2 Cu/Al				
Tightening torque (recommended)		25 in. lbs			40 in.lbs		50 in. lbs				
Quick connects: power terminals		Dual.250 QC			Dual.250 QC		Dual.250 QC				
Coil terminals		Dual .250 QC (2)			Dual .250 QC (2)		#6 – 32 screw & .250 QC (2)				
Covers		Optional			Standard		Standard				
Insulation system		130° C Class B			130° C Class B		130° C Class B				

20A – 40A — 4 Pole

Coil technical data		DP20...DP40C4P					
Nominal coil voltage		24	120	208/240	277	480	
Maximum pickup volts		19.2	88	177	220	384	
Drop-out volts range		6 – 15	20 – 70	40 – 140	65 – 185	150 – 270	
Nominal inrush VA	50 Hz	68	68	68	68	68	
Nominal inrush VA	60 Hz	60	60	60	60	60	
Nominal sealed VA	50 Hz	14	14	14	11	11	
Nominal sealed VA	60 Hz	9	9	9	9.5	9.5	
Nominal DC resistance	Ohms	5	148	550	750	2100	
Other specifications		DP20...DP30C4P			DP40C4P		
Line and load terminals		# 10 – 32 screw ①			Box Lug ①		
Wire size AWG Min – Max		16 – 8 ②			14 – 4 Cu/AL		
Tightening torque (recommended)		22 in. lbs			40 in. lbs		
Quick connects: power terminals		Dual .250 QC			Dual .250 QC		
Coil terminals		Dual .250 QC (2)			Dual .250 QC (2)		
Covers		Optional			Standard		
Insulation system		130° C Class B			130° C Class B		

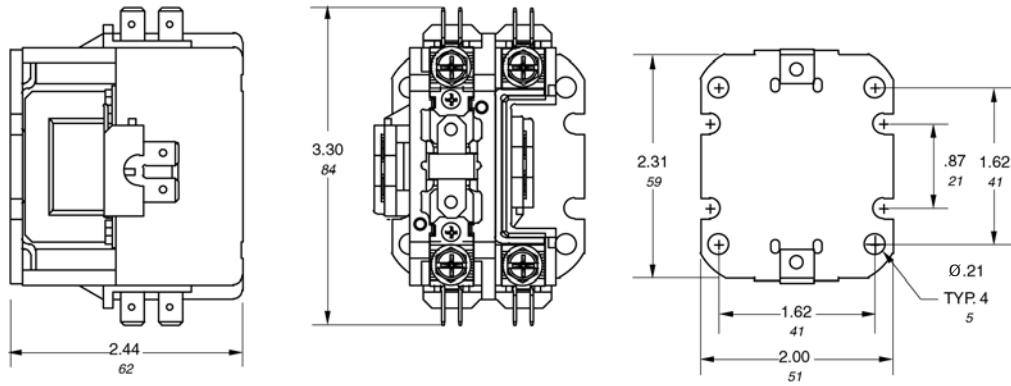
75A – 90A — 3 pole

Coil technical data		DP75, DP90C3P				
Nominal coil voltage		24	120	208/240	277	480
Maximum pickup volts		18	88	177	220	384
Drop-out volts range		6 – 15	20 – 70	40 – 110	65 – 185	150 – 270
Nominal inrush VA	50 Hz	285	285	285	285	285
Nominal inrush VA	60 Hz	240	240	240	240	240
Nominal sealed VA	50 Hz	42	42	42	42	42
Nominal sealed VA	60 Hz	27	27	27	27	27
Nominal DC resistance	Ohms	0.63	15.6	63.5	84	255
Other specifications		DP75, DP90C3P				
Line and load terminals		Box Lug ①				
Wire size AWG Min – Max		14 – 1/0 Cu/AL				
Tightening torque (recommended)		50 in. lbs				
Quick connects: power terminals		Dual .250 QC				
Coil terminals		#6 – 32 screw .250 QC (2)				
Covers		Standard				
Insulation system		130° C Class B				

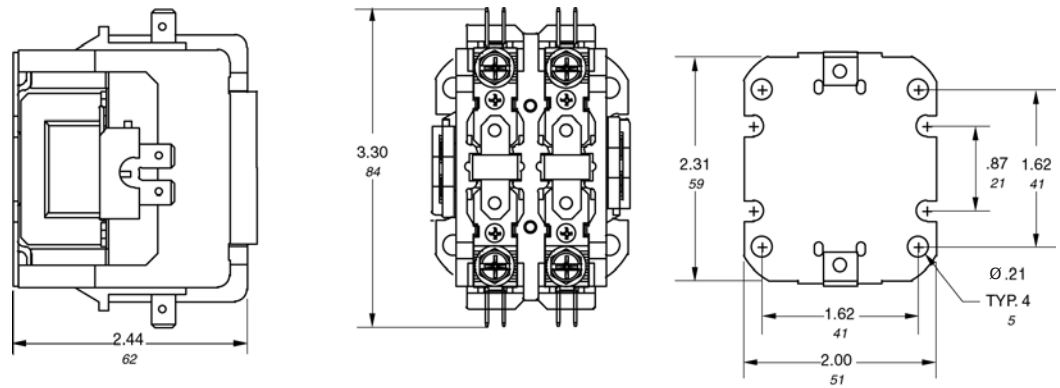
① See page 5 for description and approximate dimensions. ② Stranding must be split for #8 wire.

Approximate dimensions
20A, 25A, 30A • 1, 2 & 3 Pole

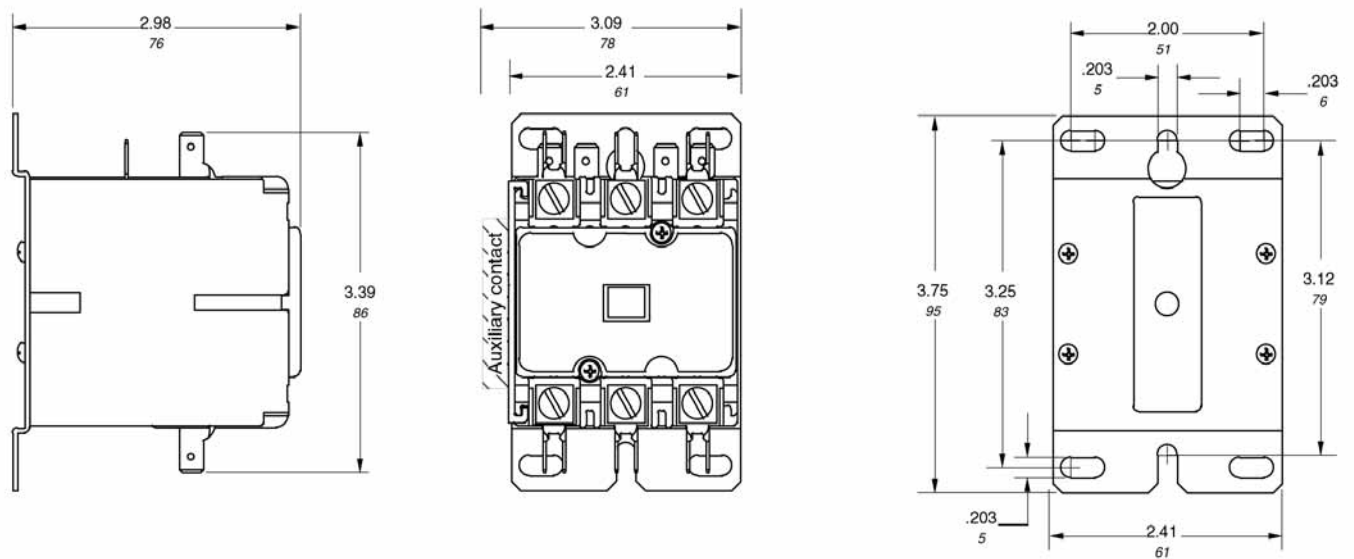
DP20...30C1P



DP20...30C2P

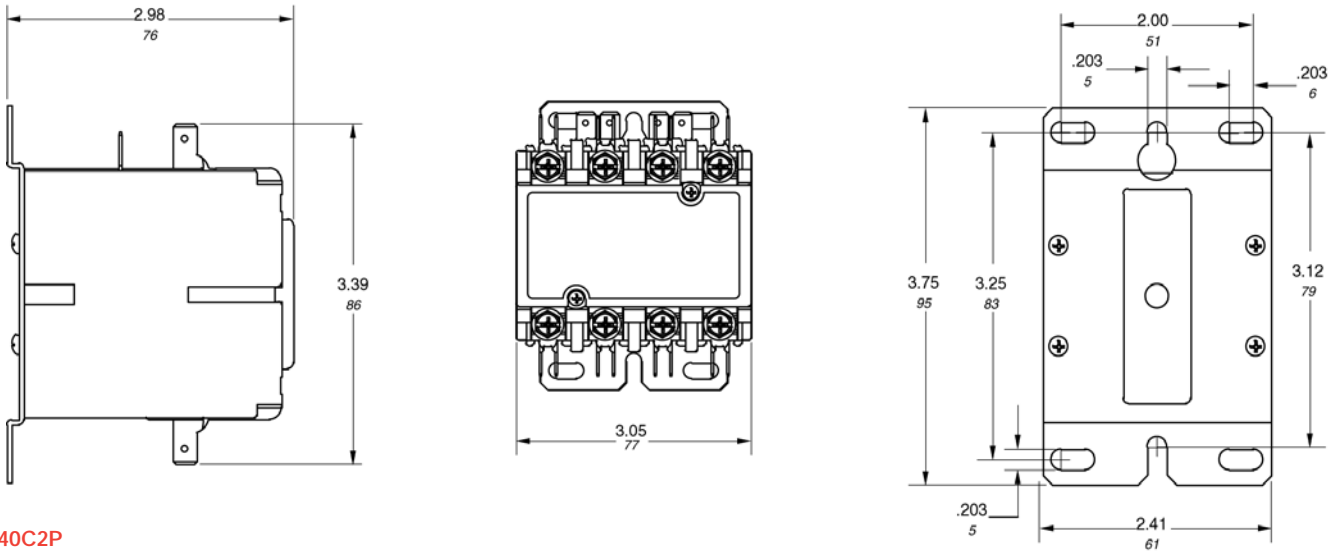


DP20...30C3P

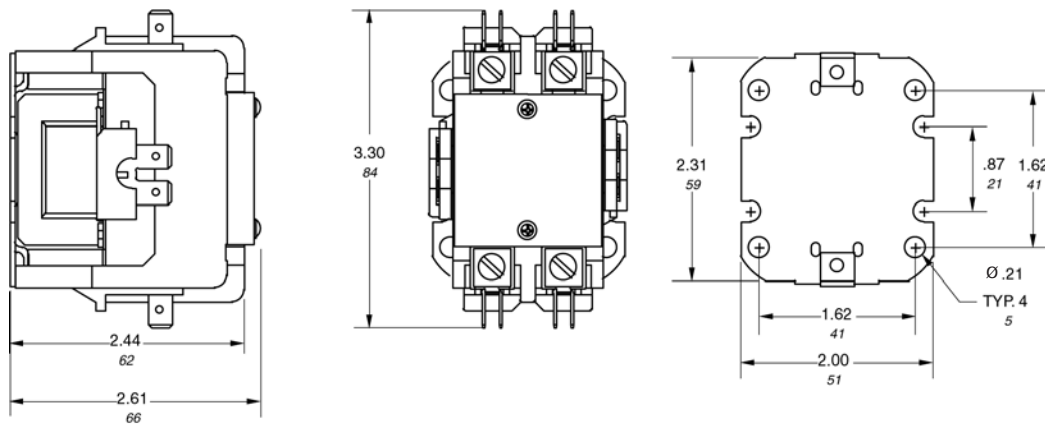


Approximate dimensions
 30A, 4 Pole • 40A, 2 & 3 Pole

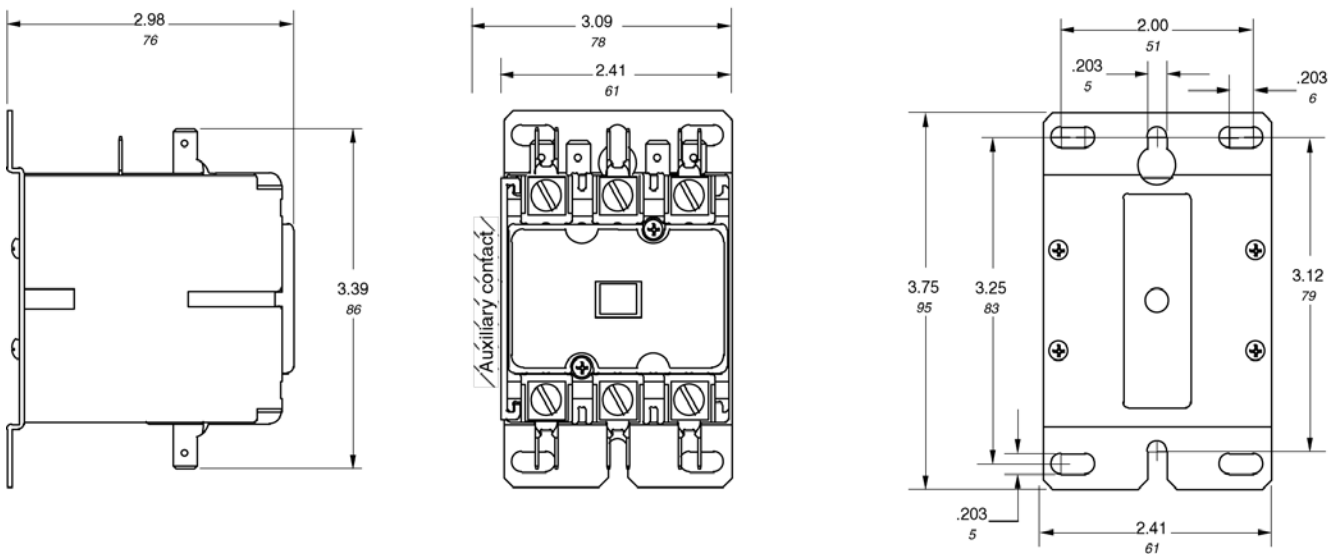
DP30C4P



DP40C2P



DP40C3P

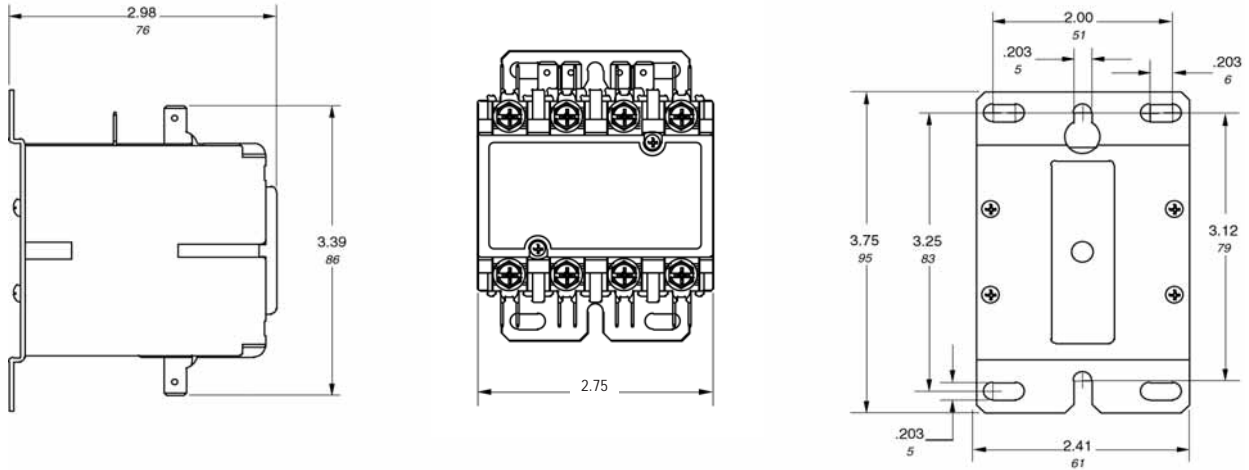


Approximate dimensions

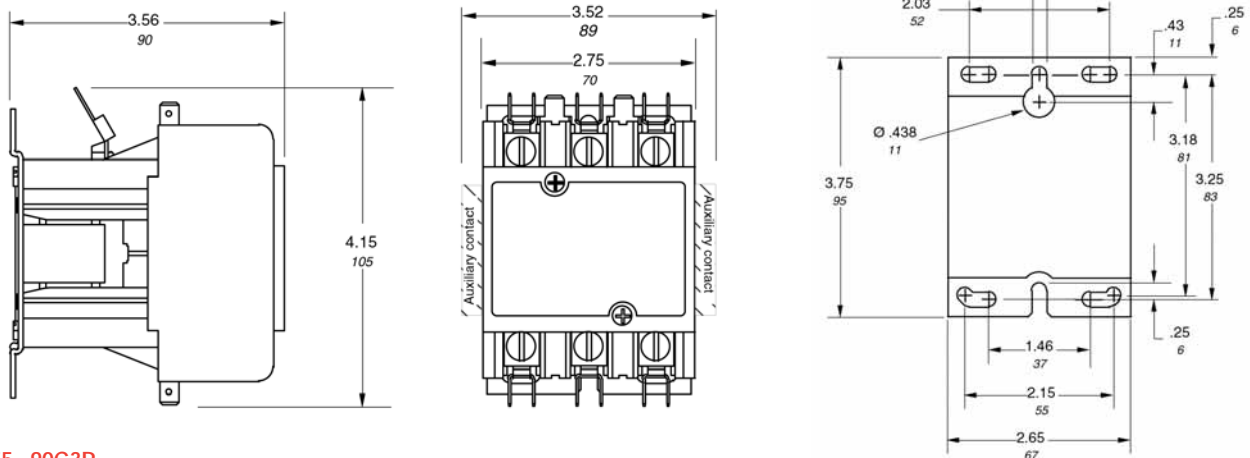
40A, 4 Pole • 50A, 60A, 75A, 90A, 3 Pole

00.00 Inches
00.00 Millimeters

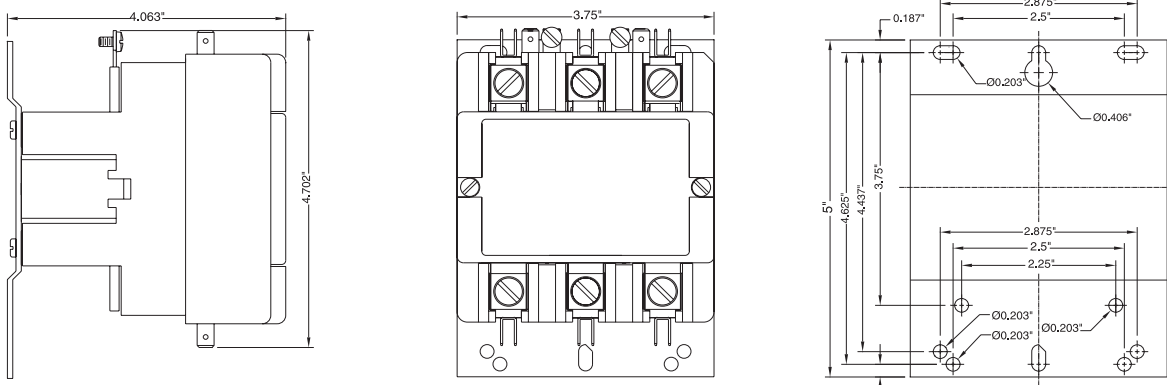
DP40C4P



DP50...60C3P

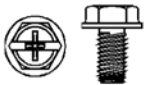


DP75...90C3P



Screw

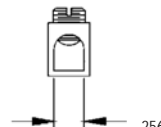
Standard on
DP 20...30



10-32 Combination
Phillips, Slotted &
5/16 Hex Head # 12 washer

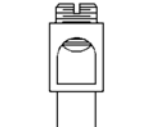
Lugs

Standard on
DP40



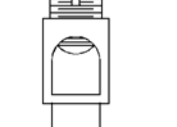
40 FLA Lug
14-4 Cu/Al
AWG

Standard on
DP60



50 & 60 FLA Lug
14-2Cu/Al
AWG

Standard on
DP75&90



75 & 90 FLA Lug
14-1 Cu/Al
AWG