



Automation Products

Definite Purpose Contactors

The complete range

Power and productivity
for a better world™



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

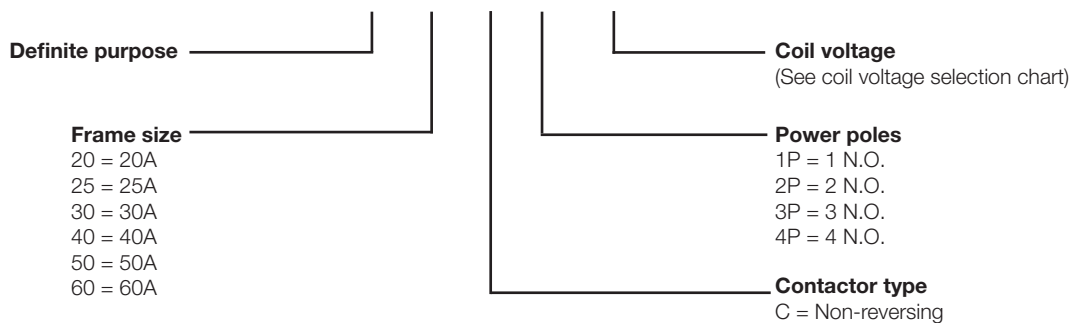
Agency approvals

- UL 508 Guide No. NLDX2, NLDX8 File # E224401
- CSA C22.2 No. 221260 (1456104) Class 3211 04 / 3211 84
- CE/Semko Certified, EN60947-4-1:2001

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, 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 quickconnect terminals
- Exclusive hex, slotted, phillips #10-32 terminal screws for main terminals
- Coil is class B (130° C) insulation system with a 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

DP 30 C 3P - 1



Definite purpose contactors

20 A to 60 A



Full Load Amps	Number of Poles	Locked Rotor Amps			Resistive Amps	Maximum HP						Standard Pack Qty	Catalog Number
		240V	480V	600V		Single Phase		Three Phase					
						120V	240V	208V	240V	480V	600V		
20	1	120	100	80	30	1	2	-	-	-	-	50	DP20C2P-1
20	2	120	100	80	30	2	3	-	-	-	-	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	2	3	-	-	-	-	50	DP25C2P-1
25	3	150	125	100	35	2	5	7.5	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	15	-	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	7.5	15	15	25	25	25	DP50C3P-1
60	3	360	300	240	75	5	10	20	25	30	30	25	DP60C3P-1

Coil Voltage Selection Chart

Voltage	24VAC	120VAC	208/240VAC	277VAC	480VAC	575VAC
Suffix #	F	1	2	C	4	6

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.

Definite purpose contactors

Accessories

Auxiliary Contact Blocks

Description	DP20 to DP40, 3 pole and 4 pole configurations	DP50 to DP60
Form C SPDT	CADP40-10	CADP40-10
Double Form C SPDT	CADP40-20	CADP40-20
Form Z SPDT (1NO & 1NC)**	CADP40-11	CADP40-11

** Must be the same polarity on both poles. For a complete description on contact types, please refer to page 7.



Mechanical Interlock

Application	Part Number
DP30C3P-*	VMDP-1
DP40C3P-*	VMDP-1

Protective Cover

Application	Part Number
DP20C2P-*	DP-2-AC
DP25C2P-*	DP-2-AC
DP30C2P-*	DP-2-AC



Din-Rail Mounting Bracket

Application	Part Number
DP20C1P-*	DP/DIN1-2
DP25C1P-*	DP/DIN1-2
DP30C1P-*	DP/DIN1-2
DP20C2P-*	DP/DIN1-2
DP25C2P-*	DP/DIN1-2
DP30C2P-*	DP/DIN1-2

Note: Replace “*” with appropriate coil voltage as per previous page

Technical Data

Contact rating of SPDT auxiliary contacts

Voltage	Current rating
125 VAC	10 A, 1/3 HP
120 VAC	4 A on lamp load
250 VAC	10 A, 1/3 HP
125 VDC	0.5 A
250 VDC	0.25 A

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

	120V	240V	480V	600V
Break (A)	3.0	1.5	0.75	0.6
Make (A)	30	15	7.5	6
Continuous (A)	10	10	10	10

DP20 to DP40, 1 & 2 poles

Coil Technical Data		DP20 to DP30, 1 pole				DP20 to DP40, 2 poles			
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 - 140	50 - 165	6 - 15	20 - 70	40 - 170	50 - 165
Nominal inrush VA	50 Hz	31	31	31	31	33	33	33	33
Nominal inrush VA	60 Hz	28	28	28	28	30	30	30	30
Nominal closed VA	50 Hz	6	6	6	6	8	8	8	8
Nominal closed VA	60 Hz	5	5	5	5	6.5	6.5	6.5	6.5
Nominal DC resistance	Ohms	18	420	1800	2500	11	237	1000	1600
Other specifications		DP20 to DP30, 1 and 2 poles				DP40, 2 poles			
Line and load terminals		# 10 - 32 screw				Box lug			
Wire size AWG (min - max)		16 - 8				14 - 4 Cu/Al			
Tightening torque (recommended)		25 in. lbs.				40 in. lbs.			
Coil terminals		Dual .250" QC				Dual .250" QC			
Power Terminals		1 Pole: Quad .250" QC 2 Pole: Dual or Quad .250" QC				Quad Dual or quad			
Covers		Optional				Standard			
Insulation System		130° C class B				130° C class B			

DP20 to DP60, 3 poles

Coil Technical Data		DP20 to DP40, 3 poles					DP50 to DP60, 3 poles				
Nominal coil voltage		24	120	208/240	277	480	24	120	208/240	277	480
Maximum pickup volts		18	88	177	220	384	18	88	177	220	374
Drop out volts range		6 - 15	20 - 70	40 - 140	50 - 140	150 - 270	6 - 15	20 - 70	40 - 140	50 - 185	150 - 286
Nominal inrush VA	50 Hz	65	65	65	65	65	62	62	62	62	62
Nominal inrush VA	60 Hz	60	60	60	60	60	59	59	59	59	59
Nominal closed VA	50 Hz	7.5	7.5	7.5	7.5	7.5	9	9	9	9	9
Nominal closed VA	60 Hz	6	6	6	6	6	7	7	6	7	7
Nominal DC resistance	Ohms	7	180	720	900	1320	2.4	150	600	750	1452

Other specifications	DP20 to DP30, 3 poles	DP40, 3 poles	DP50 to DP60, 3 poles
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)	22 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 & dual .250 QC ²
Covers	Optional	Standard	Standard
Insulation system	130° C class B	130° C class B	130° C class B

Technical Data

DP20 to DP40, 4 poles

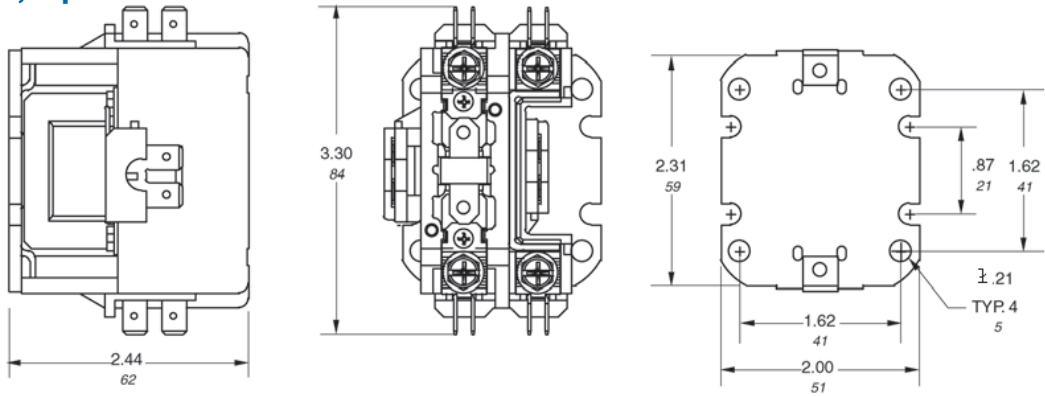
Coil Technical Data	DP20 to DP40, 4 poles				
Nominal coil voltage	24	120	208/240	277	480
Maximum pickup volts	18	88	177	220	384
Drop out volts range	6 - 15	20 - 70	40 - 140	65 - 185	150 - 270
Nominal inrush VA 50 Hz	62	62	62	62	62
Nominal inrush VA 60 Hz	59	59	59	59	59
Nominal closed VA 50 Hz	9	9	9	9	9
Nominal closed VA 60 Hz	7	7	6	7	6
Nominal DC resistance Ohms	6	148	600	750	2100
Other specifications	DP20 to DP30, 4 poles		DP40, 4 poles		
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 ⁰ C class B		130 ⁰ C class B		

¹ See diagram on page 7 for approximate dimensions and description

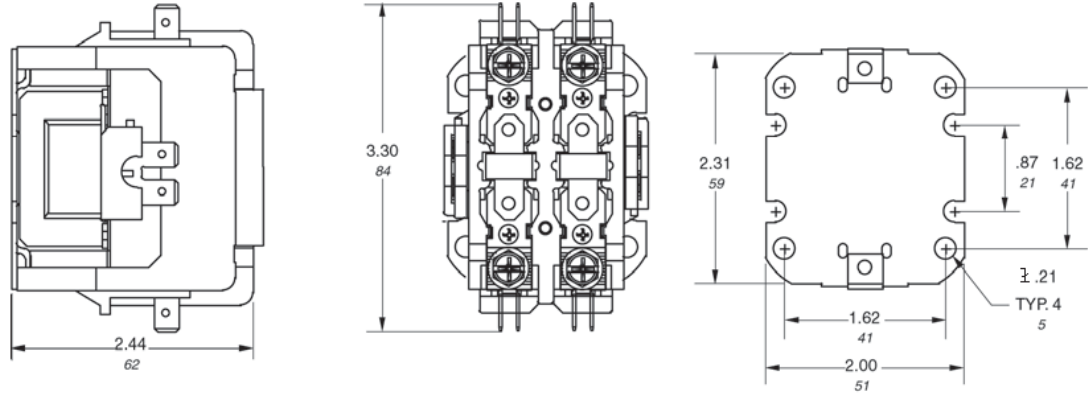
² Stranding must be split for # 8 wire

Approximate Dimensions

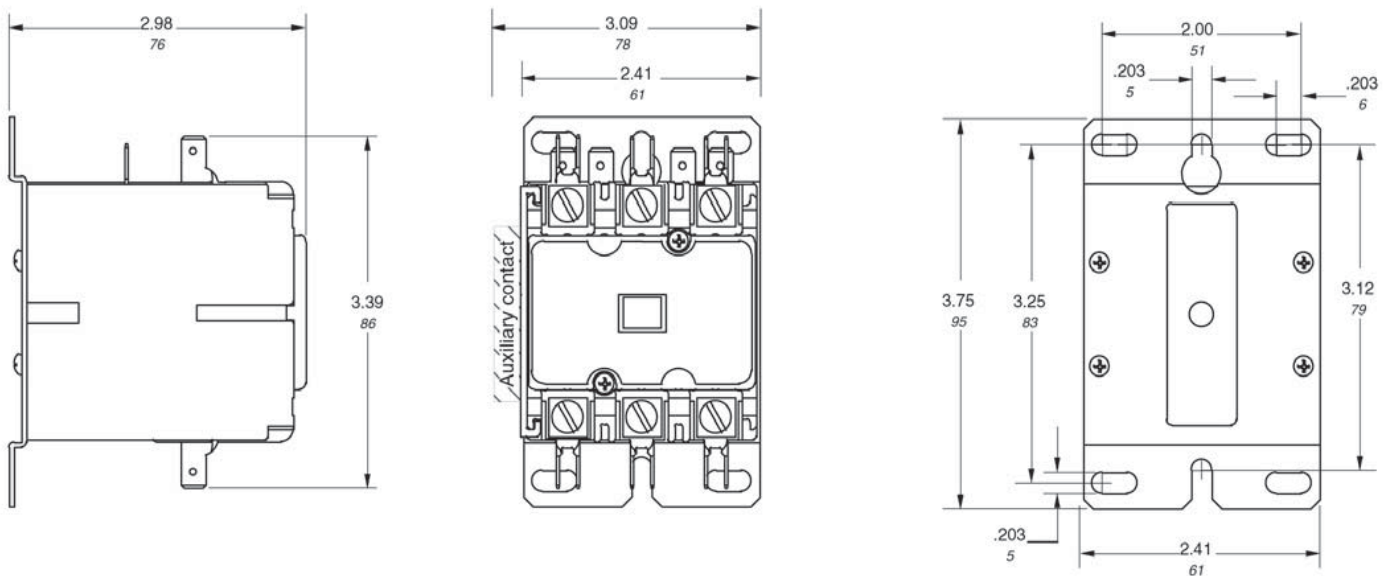
DP20 to DP30, 1 pole



DP20 to DP30, 2 poles

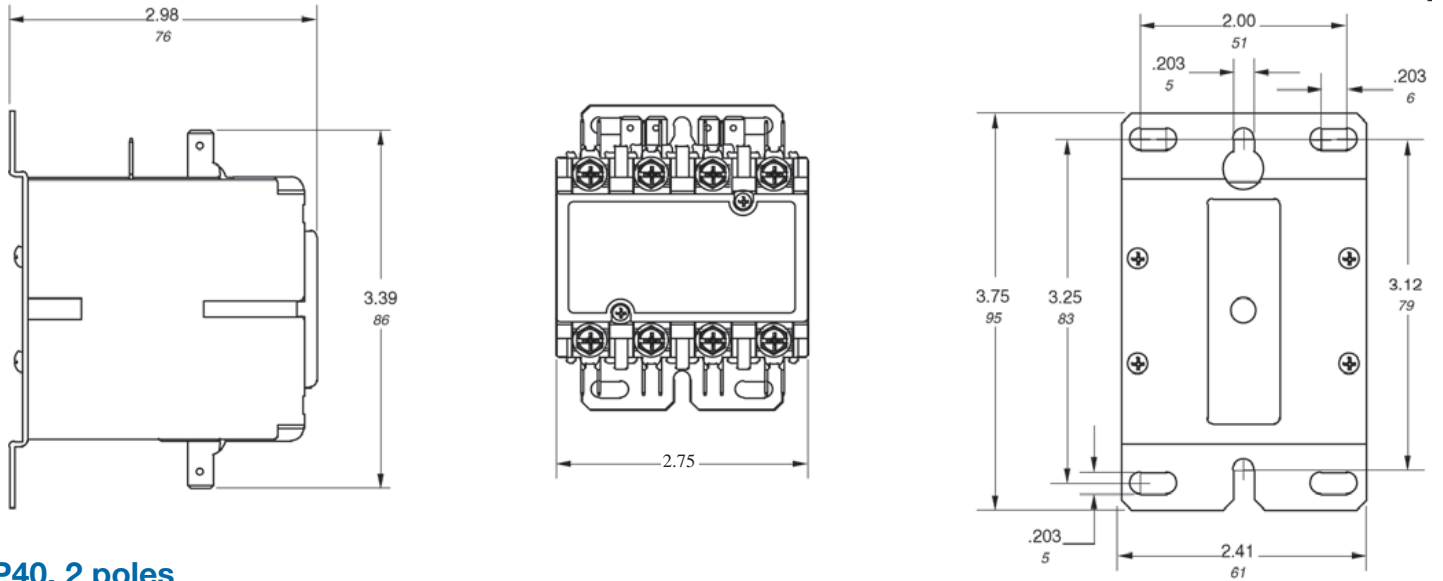


DP20 to DP30, 3 poles

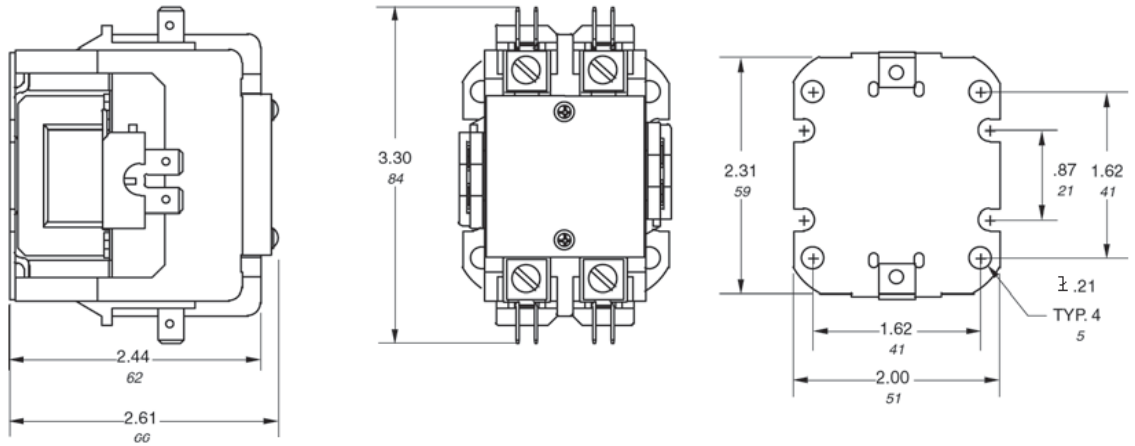


Approximate Dimensions

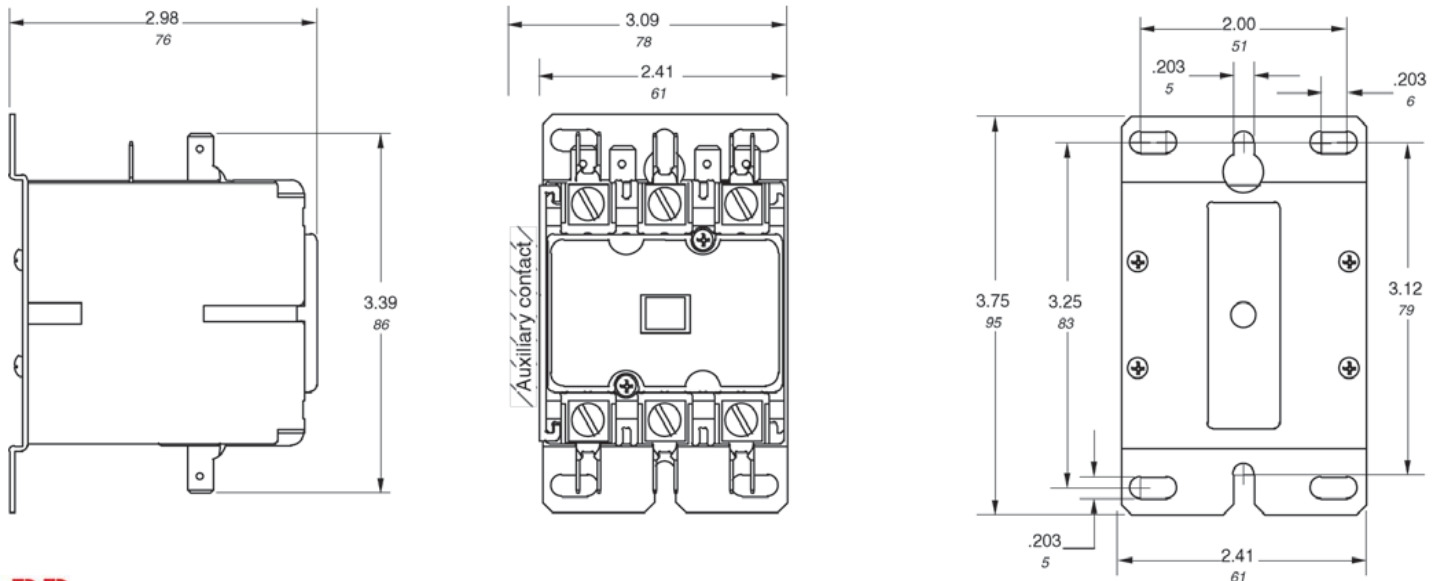
DP30, 4 poles



DP40, 2 poles

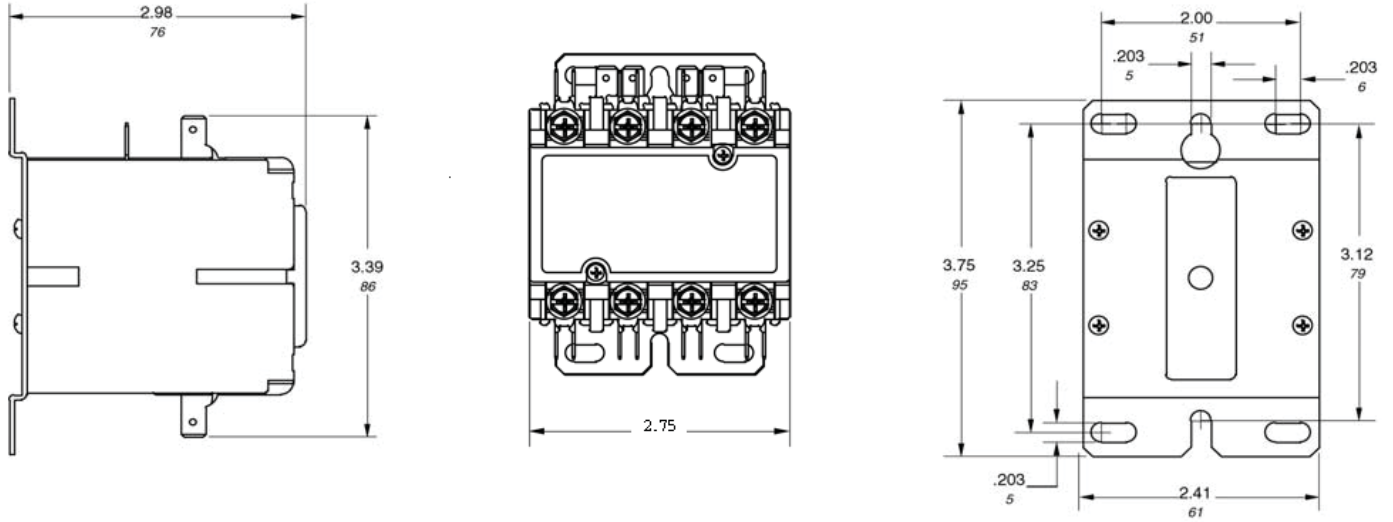


DP40, 3 poles

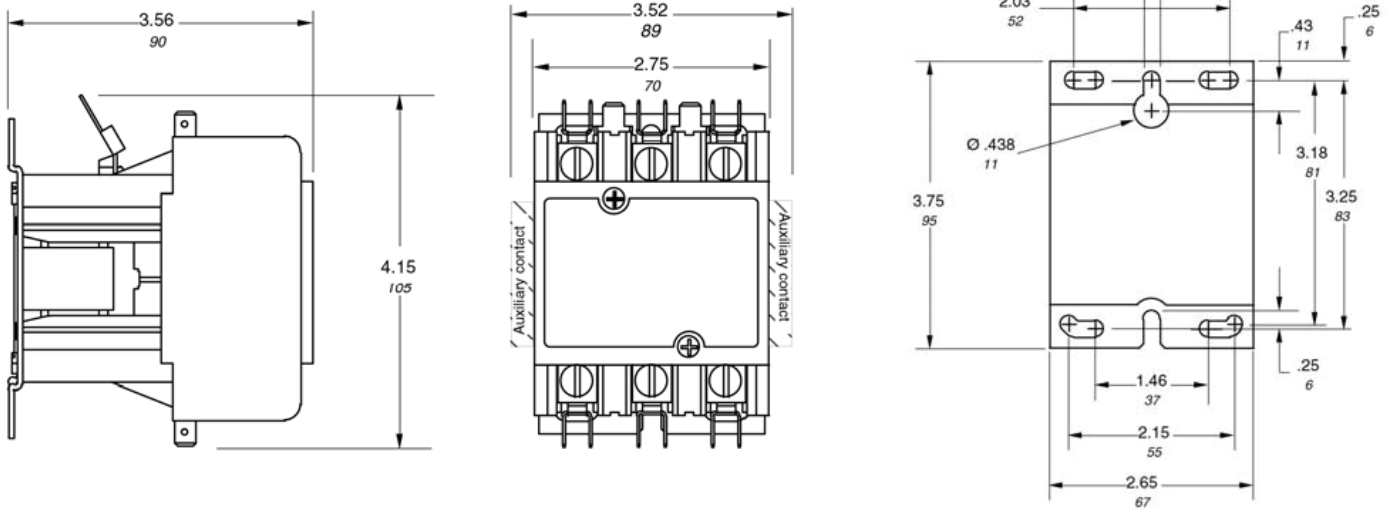


Approximate Dimensions

DP40, 4 poles



DP50 to DP60, 3 poles



Terminal Dimensions and Definitions

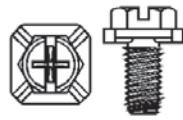
Standard on DP 20 to DP30



Std. on
20, 25, 30,
35 FLA

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

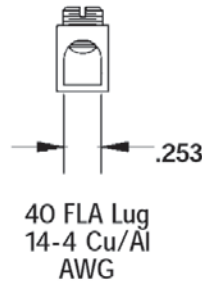
Optional on DP 20 to DP30



Optional on
20, 25,
30, 35,
40 FLA

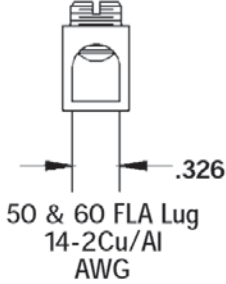
#10-32 Sems Screw
with pressure plate

Standard on DP40



40 FLA Lug
14-4 Cu/Al
AWG

Standard on DP 60



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

Description of contact types (as per NEMA ICS 5, version 2010)

- Form "A" contacts:

A contact arrangement which has single-pole, single throw, normally open contacts. The function of this arrangement is to close a circuit when actuated.

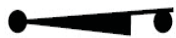
Symbol:



- Form "B" contacts:

A contact arrangement which has single-pole, single throw, normally closed contacts. The function of this arrangement is to open a circuit when actuated.

Symbol:



- Form "C" contacts:

A contact arrangement which has single-pole, double throw contacts with three terminals, one for normally open, one for normally closed and one common. The function of this arrangement is to transfer a circuit when actuated.

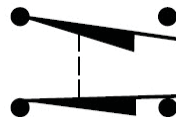
Symbol:



- Form "Z" contacts:

A contact arrangement which has single-pole, double-throw contacts with four terminals, two for normally open and two for normally closed. The function of this arrangement is to open one circuit and close the other.

Symbol:



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