

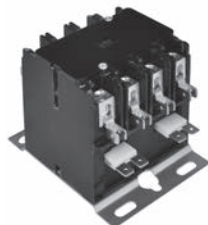
Definite Purpose Contactors

Product Overview/Catalog Number Explanation

1



2-pole



4-pole

Bulletin 400

- Available in the following ranges:
 - 1-Pole: 20/25...40 A, 600V max.
 - 2-Pole: 20/25...40 A, 600V max.
 - 3-Pole: 20/25...90 A, 600V max.
 - 4-Pole: 20/25...40 A, 600V max.

The Allen-Bradley Bulletin 400 Definite Purpose contactors are specifically designed for applications such as air-conditioning, refrigeration, resistive heating, data processing and food service equipment, pumps, and compressors.

Box lugs are standard on 40 A contactors and larger. A maximum of two auxiliary contact blocks (one on each side, four contacts max.) can be field installed.

Features Include:

- UL tested for lighting loads
- Compliant with international standards
- Standard and high fault short-circuit current rating (SCCR)

Table of Contents

Product Selection	1-6
Accessories.....	1-10
Modifications.....	1-10
Specifications.....	1-11
Approximate Dimensions	1-12

Standards Compliance

UL 508
CSA C22.2 No. 14
EN/IEC 60947-4-1

Certifications

UL Recognized (File No. E3125, Guide No. NLDX2)
CSA Certified (File No. 221970)
CE Marked
SEMKO Certified
CCC

Catalog Number Explanation

400 – DP40 N A 3 – K
 a b c d e

a

Current Rating	
Code	Full Load Amps [A]
DP25	20/25
DP30	30
DP40	40
DP50	50
DP60	60
DP75	75
DP90	90

b

Enclosure Code	
Code	Enclosure
N	No enclosure/No exceptions

c

Nominal Coil Voltage [V]	
Code	50/60 Hz Frequency
J	24
D	120
A	208/240
F	277
LF	347
B	480

d

Number of Poles	
Code	Description
1	1 pole
2	2 poles
3	3 poles
4	4 poles

e

Modifications	
Code	Description
B	Box lug with DP25 or DP30 in 2 nd position
D	400-DRA factory attached to DP (20/25...40 A)
E	2 poles with 3-pole base
K	#6-32 screw coil terminal with DP25, DP30, or DP40 in 2 nd position
R	Accept ring terminal for DP40...DP90
S	#10-32 SEMS terminal
T	Coil terminals down
U	Coil terminals on load side (T1/2, T2/4, T3/6) without quick connect (QC) line/load terminals
X	Without quick connect (QC) terminals on line and load

e (cont'd)

Modifications	
3- and 4-Pole 20/25, 30, and 40 A only (Steel Back Plate)	
Code	Description
AB1	Auxiliary contact – 1 N.O./1 N.C. with Quick Connect
A1	Auxiliary contact – SPDT with QC
A2	Auxiliary contact – 2 SPDT with QC
3-Pole 50...90 A only	
Code	Description
AB	Auxiliary contact – 1 N.O./1 N.C. with QC
A	Auxiliary contact – SPDT with QC
4-Pole 20/25, 30, and 40 A only (Molded Back Plate)	
Code	Description
AB5	Auxiliary contact – 1 N.O./1 N.C. with QC
A5	Auxiliary contact – SPDT with QC
AA5	Auxiliary contact – 2 SPDT with QC



Contactors

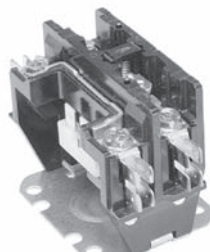
	Number of Poles	FLA Rating [A]	Arc Cover	Standard Termination	Certifications	Page Number	
 	1	20...30	Optional	#10-32 screw with 1/4 in. QC		1-6	
		40		Box lug (option available to accept ring terminals)			
	2	20...30		#10-32 screw with 1/4 in. QC			
		40		Box lug (option available to accept ring terminals)			
 	3	20...30	Standard	#10-32 screw with 1/4 in. QC		1-7	
		40		Box lug (option available to accept ring terminals)			
	3	50, 60	Standard	Box lug (option available to accept ring terminals)			1-8
		75, 90	Standard				
	4	20...30	Standard	#10-32 screw with 1/4 in. QC		1-9	
		40		Box lug (option available to accept ring terminals)			

Definite Purpose Contactors

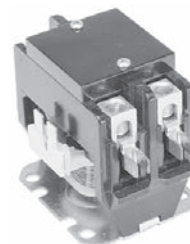
Product Selection

20/25...40 FLA 1- and 2-Pole

1



1-Pole Contactor with Shunt



2-Pole Contactor with Optional Arc Cover

Full Load Amps [A]	Number of Poles	Maximum Continuous Ampere Rating [A]		Line Voltage [V AC]	Locked Rotor Current [A]	Resistive Current Rating [A]	Voltage [V]	Max. Single Phase Hp	Cat. No.
		Tungsten Lamp Loads*	Ballast Lighting Load†						
20/25*	1	25		240/277	150	35	120	1	400-DP25N*1
				480	125	35	240	2	
				600	100	35			
20/25*	2	25		240/277	150	35	120	2	400-DP25N*2
				480	125	35	240	3	
				600	100	35			
30*	1	30		240/277	150	40	120	1	400-DP30N*1
				480	125	40	240	2	
				600	100	40			
30*	2	30		240/277	150	40	120	2	400-DP30N*2
				480	125	40	240	3	
				600	100	40			
40*	1	40		240/277	240	50	120	2	400-DP40N*1
				480	160	50	240	3	
				600	120	50			
40*	2	40		240/277	240	50	120	2	400-DP40N*2
				480	200	50	240	3	
				600	120	50			

* Coil terminal screws are not available on 1- and 2-pole contactors.

* Max. 250V AC.

† Max. 277V AC.

⊗ AC Coil Voltage Code for 1- and 2-Pole Contactors

The cat. no. as listed is incomplete. Select a coil voltage code from the table below to complete the cat. no.

Example: **Cat. No. 400-DP25N*1** becomes **Cat. No. 400-DP25NJ1**. For other voltages, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

[V]	24	120	208/240	277	480
Code	J	D	A	F	B

Coil Technical Data

		20/25...40 A One-Pole Contactors					20/25...40 A Two-Pole Contactors				
Nominal AC Coil Voltage [V]		24	120	208/240	277	480	24	120	208/240	277	480
Maximum Pickup Volts		18	88	177	221	384	18	88	177	221	384
Drop-Out Volts Range		6...15	20...70	40...140	50...165	150...270	6...15	20...70	40...140	50...165	150...270
Nominal Inrush VA	50 Hz	31	31	31	31	31	33	33	33	33	33
	60 Hz	28	28	28	28	28	30	30	30	30	30
Nominal Sealed VA	50 Hz	6	6	6	6	6	8	8	8	8	8
	60 Hz	5	5	5	5	5	6.5	6.5	6.5	6.5	6.5
Nominal DC Resistance (Ω)		18	420	1800	2500	3050	11	237	1000	1600	3050

Arc Cover

Description	Cat. No.
20/25 and 30 A – 1-Pole	400-C1
20/25 and 30 A – 2-Pole	400-C2
40 A – 1 and 2 Pole	Standard

20/25...40 FLA 3-Pole



30 FLA Contactor 3-Pole with optional Coil Terminal Screws

Full Load Amps [A]	Number of Poles	Maximum Continuous Ampere Rating [A]		Line Voltage [V AC]	Locked Rotor Current [A]	Resistive Current Rating [A]	Voltage [V]	Max. Horsepower		Cat. No.
		Tungsten Lamp Loads*	Ballast Lighting Load†					Single Phase	Three Phase	
20/25	3	25		240/277 480 600	150 125 100	35 35 35	110/120	2	—	400-DP25N*3
							200/208	—	7.5	
							240/277	5	10	
							480	—	15	
							600	—	20	
30	3	30		240/277 480 600	180 150 120	40 40 40	110/120	2	—	400-DP30N*3
							200/208	—	10	
							240/277	5	10	
							480	—	15	
							600	—	20	
40*	3	40		240/277 480 600	240 200 120	50 50 50	110/120	3	—	400-DP40N*3
							200/208	—	10	
							240/277	7.5	10	
							480	—	20	
							600	—	20	

* To use ring terminals on 40 FLA and larger power connections add the suffix **R** to the catalog number.
 Example: **Cat. No. 400-DP40N*3** becomes **Cat. No. 400-DP40N*3-R**.

* Max. 250V AC.

† Max. 277V AC.

⊗ **AC Coil Voltage Code**

The cat. no. as listed is incomplete. Select a coil voltage code from the table below to complete the cat. no.
 Example: **Cat. No. 400-DP25N*3** becomes **Cat. No. 400-DP25NJ3**. For other voltages, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

[V]	24	120	208/240	277	347	480
Code	J	D	A	F	LF	B

Coil Technical Data

Nominal Coil Voltage		24	120	208/240	277	347	480
Maximum Pickup Voltage [V]		18	88	177	220	277	384
Drop-Out Voltage [V]		6...15	20...70	40...140	50...185	85...225	150...270
Nominal Inrush VA	50 Hz	65	65	65	65	65	65
	60 Hz	60	60	60	60	60	60
Nominal Sealed VA	50 Hz	7.5	7.5	7.5	7.5	7.5	7.5
	60 Hz	6	6	6	6	6	6
Nominal DC Resistance (Ω)		7	180	720	900	1330	2425

Auxiliary Contacts

Description	Cat. No.
1 N.O./1 N.C. w/QCs§	400-AB1
SPDT w/QCs*	400-A1
2-SPDT w/QCs*	400-A2

§ Contact rating single-circuit N.O. or N.C.:

[V]		120	240	480	600
Current [A]	Break	3.0	1.5	0.75	0.6
	Make	30	15	7.5	6
	Continuous	10	10	10	10

* Contact rating SPDT:
 10 A, 1/3 Hp, 125 or 250V AC;
 1/2 A, 125V DC;
 1/4 A, 250V DC;
 4 A 120V AC on lamp load

Definite Purpose Contactors

Product Selection

50...90 FLA 3-Pole



3-Pole

Full Load Amps [A]	Number of Poles	Maximum Continuous Ampere Rating [A]		Line Voltage [V AC]	Locked Rotor Current [A]	Resistive Current Rating [A]	Voltage [V]	Maximum Horsepower		Cat. No.
		Tungsten Lamp Loads*	Ballast Lighting Load‡					Single Phase	Three Phase	
50*	3	53		240 480 600	300 250 200	65 65 65	110/120	3	—	400-DP50N®3
							200/208	7.5	15	
							220...240	10	15	
							480	—	25	
							600	—	25	
60*	3	53		240 480 600	360 300 240	75 75 75	110/120	5	—	400-DP60N®3
							200/208	7.5	25	
							220...240	10	25	
							480	—	30	
							600	—	30	
75*	3	63	—	240 480 600	450 375 300	93 93 93	110/120	5	—	400-DP75N®3
							200/208	10	20	
							240	15	25	
							480	—	40	
							600	—	40	
90*	3	63	—	240 480 600	540 450 360	120 120 120	110/120	7.5	—	400-DP90N®3
							200/208	15	25	
							240	20	30	
							480	—	50	
							600	—	50	

* To use ring terminals on 40 FLA and larger power connections add the suffix **R** to the catalog number.

Example: **Cat. No. 400-DP60N®3** becomes **Cat. No. 400-DP60N®3-R**.

⚡ Max. 480V line 277V load

‡ Fluorescent

⊗ AC Coil Voltage Code

The cat. no. as listed is incomplete. Select a coil voltage code from the table below to complete the cat. no.

Example: **Cat. No. 400-DP50N®3** becomes **Cat. No. 400-DP50NJ3**. For other voltages, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

[V]	24	120	208/240	277	480
Code	J	D	A	F	B

Coil Technical Data

Nominal AC Coil Voltage [V]		24		120		208/240		277		480	
		50 & 60 A	75 & 90 A	50 & 60 A	75 & 90 A	50 & 60 A	75 & 90 A	50 & 60 A	75 & 90 A	50 & 60 A	75 & 90 A
Maximum Pickup Voltage [V]		18	18	93	88	177	177	235	220	374	384
Drop-Out Voltage [V]		6...15	6...15	20...70	20...70	40...135	40...110	50...180	65...185	120...286	150...270
Nominal Inrush VA	50 Hz	140	285	140	285	140	285	140	285	140	285
	60 Hz	132	240	132	240	132	240	132	240	132	240
Nominal Sealed VA	50 Hz	20	42	20	42	20	42	20	42	20	42
	60 Hz	14	27	14	27	14	27	14	27	14	27
Nominal DC Resistance (Ω)		2.4	0.63	45	15.6	180	63.5	280	84	852	255

Auxiliary Contacts

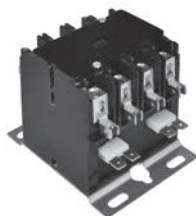
Description	Cat. No.
1 N.O./1 N.C. w/QCs and screws§	400-AB6
1 N.O. w/QCs and screws⚡	400-A6
1 N.C. w/QCs and screws⚡	400-B6

⚡ Contact rating SPDT:
10 A, 1/3 Hp, 125 or 250V AC;
1/2 A, 125V DC;
1/4 A, 250V DC;
4 A, 120V AC on lamp load

§ Contact rating single-circuit N.O. or N.C.:

[V]		120	240	480	600
Current [A]	Break	3.0	1.5	0.75	0.6
	Make	30	15	7.5	6
	Continuous	10	10	10	10

20/25...40 FLA 4-Pole



4-Pole

1

Full Load Amps [A]	Number of Poles	Maximum Continuous Ampere Rating [A]		Line Voltage [V AC]	Locked Rotor Current [A]	Resistive Current Rating [A]	Voltage [V]	Maximum Horsepower		Cat. No.
		Tungsten Lamp Loads*	Ballast Lighting Load†					Single Phase	Three Phase	
20/25	4	25		240/277 480 600	150 125 100	35 35 35	110/120	2	—	400-DP25N*4
							200/208	—	7.5	
							240/277	5	10	
							480	—	15	
							600	—	20	
30	4	30		240/277 480 600	180 150 120	40 40 40	110/120	2	—	400-DP30N*4
							200/208	—	10	
							240/277	5	10	
							480	—	15	
							600	—	20	
40	4	40		240/277 480 600	240 200 120	50 50 50	110/120	3	—	400-DP40N*4
							200/208	—	10	
							240/277	7.5	10	
							480	—	20	
							600	—	20	

* Max. 250V AC.

† Max. 277V AC.

⊗ AC Coil Voltage Code

The cat. no. as listed is incomplete. Select a coil voltage code from the table below to complete the cat. no.

Example: **Cat. No. 400-DP25N**⊗4 becomes **Cat. No. 400-DP25NJ4**. For other voltages, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

[V]	24	120	208/240	277	347	480
Code	J	D	A	F	LF	B

Coil Technical Data

Nominal AC Coil Voltage [V]		24	120	208/240	277	347	480
Maximum Pickup Voltage [V]		18	88	177	220	277	384
Drop-Out Voltage [V]		6...15	20...70	40...140	65...185	85...225	150...270
Nominal Inrush VA	50 Hz	62	62	62	62	62	62
	60 Hz	60	60	60	60	60	60
Nominal Sealed VA	50 Hz	9	9	9	9	9	9
	60 Hz	7	7	7	7	7	7
Nominal DC Resistance (Ω)		6	150	600	750	1205	2195

Auxiliary Contacts – Series B Contactors

Description	Steel Back Plate Cat. No.
1 N.O./1 N.C. w/QCs§	400-AB1
SPDT w/QCs*	400-A1
2-SPDT w/QCs*	400-A2

§ Contact rating single-circuit N.O. or N.C.:

[V]		120	240	480	600
Current [A]	Break	3.0	1.5	0.75	0.6
	Make	30	15	7.5	6
	Continuous	10	10	10	10

* Contact rating SPDT:
 10 A, 1/3 Hp, 125 or 250V AC;
 1/2 A, 125V DC;
 1/4 A, 250V DC;
 4 A 120V AC on lamp load

Definite Purpose Contactors

Accessories/Modifications

Accessories

	Description	For Use With	Cat. No.
1	 Mechanical Interlock Kit	20/25...40 A 3-pole	400-MK1
	 DIN Rail Adapter	20/25...40 A 1...4-pole	400-DRA

Modifications

Description	Suffix Code
Box lug with DP25 or DP30 in second position	B
Molded coil (not available with 1 or 2 in fifth position)	C
Factory-installed DIN Rail adapter (20...40 A)	D
2-pole with 3-pole base	E
#6-32 screw coil terminal with DP25, DP30, or DP40 in second position (3- & 4-pole only)	K
Ring terminal for DP40...DP90	R
#10-32 SEMS terminals with DP25, DP30, or DP40 in second position	S
Coil terminals down	T
Coil terminals on load side (T1/2, T2/4, T3/6) without quick connect (QC) line/load terminals	U
Without QC terminals on line and load	X

20/25...40 FLA 1- and 2-Pole

Line and Load Terminals		#10-32 screw or box lug
Wire Size	#10-32 screw	#16...8 AWG (stranding must be split for #8 wire)
	Box Lug	#14...4 AWG
Mechanical Life		1 000 000 operations
Electrical Life		250 000 operations
Recommended Tightening Torque	#10-32 screw	25 lb•in
	Box lug	40 lb•in
Quick Connects	Power terminals	Dual 0.250 QC (2)
	Coil terminals	1-Pole: Quad 0.250 QC 2-Pole: Dual or Quad 0.250 QC
Arc Cover		Optional
Insulation System		130 °C Class B
Temperature Range		-40...+65 °C (-40...+150 °F)
Mounting Position	Vertical	All positions
	Horizontal	Base down only
Weight	1-Pole	0.5 lb
	2-Pole	0.6 lb

50...60 FLA 3-Pole

Line and Load Terminals		Box lug
Wire Size		#14...2 AWG
Mechanical Life		500 000 operations
Electrical Life		250 000 operations
Recommended Tightening Torque		50 lb•in
Quick Connects	Power terminals	Dual 0.250 QC (2)
	Coil terminals	#6-32 screw and 0.250 QC (2)
Arc Cover		Standard
Insulation System		130 °C Class B
Temperature Range		-40...+65 °C (-40...+150 °F)
Mounting Position	Vertical	All positions
	Horizontal	Base down only
Weight		2 lb

20/25...40 FLA 3-Pole

Line and Load Terminals		#10-32 screw or box lug
Wire Size	#10-32 screw	#16...8 AWG (stranding must be split for #8 wire)
	Box Lug	#14...4 AWG
Mechanical Life		1 000 000 operations
Electrical Life		250 000 operations
Recommended Tightening Torque	#10-32 screw	25 lb•in
	Box lug	40 lb•in
Quick Connects	Power terminals	Dual 0.250 QC (2)
	Coil terminals	Quad 0.250 QC
Arc Cover		Standard
Insulation System		130 °C Class B
Temperature Range		-40...+65 °C (-40...+150 °F)
Mounting Position	Vertical	All positions
	Horizontal	Base down only
Weight		1 lb

75...90 FLA 3-Pole

Line and Load Terminals		Box lug
Wire Size		#14...1/0 AWG
Mechanical Life		500 000 operations
Electrical Life		100 000 operations
Recommended Tightening Torque		50 lb•in
Quick Connects	Power terminals	Dual 0.250 QC
	Coil terminals	#6-32 screw and 0.250 QC (2)
Arc Cover		Standard
Insulation System		130 °C Class B
Temperature Range		-40...+65 °C (-40...+150 °F)
Mounting Position	Vertical	All Positions
	Horizontal	Base down only
Weight		4 lb

20/25...40 FLA 4-Pole

Line and Load Terminals		#10-32 screw or box lug
Wire Size	#10-32 screw	#16...8 AWG (stranding must be split for #8 wire)
	Box lug	#14...4 AWG
Mechanical Life		1 000 000 operations
Electrical Life		250 000 operations
Recommended Tightening Torque	#10-32 screw	25 lb•in
	Box lug	40 lb•in
Quick Connects	Power terminals	Dual 0.250 QC
	Coil terminals	Dual 0.250 QC (2)
Arc Cover		Standard
Insulation System		130 °C Class B
Temperature Range		-40...+65 °C (-40...+150 °F)
Mounting Position	Vertical	All positions
	Horizontal	Base down only
Weight		1.5 lb

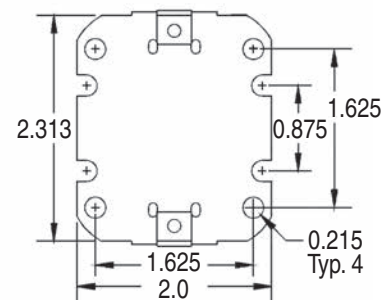
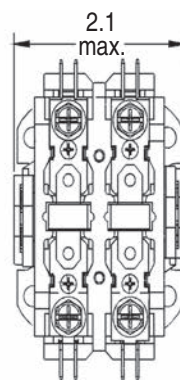
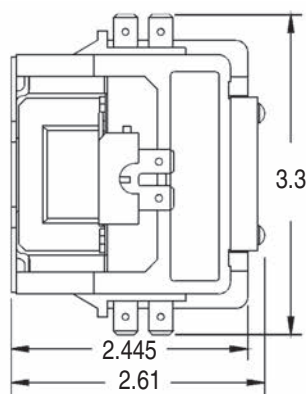
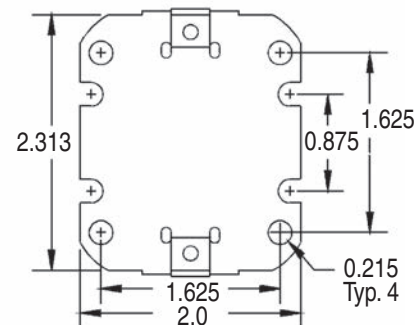
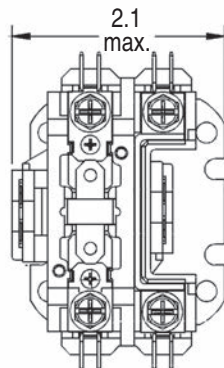
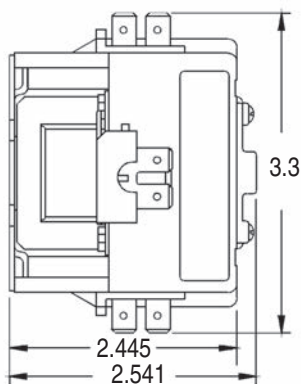
Definite Purpose Contactors

Approximate Dimensions

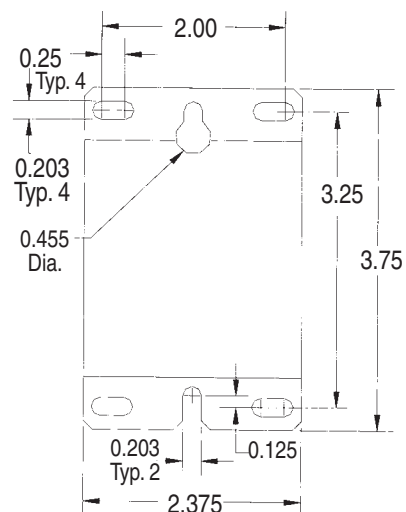
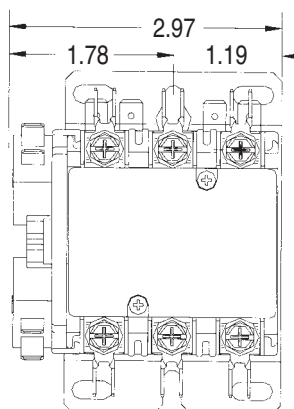
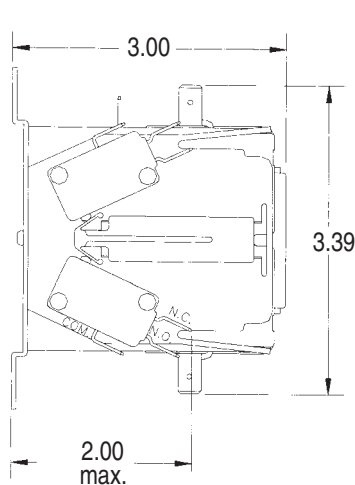
Dimensions shown in inches. Dimensions are not intended to be used for manufacturing purposes.

20/25...40 FLA 1- and 2-Pole

1

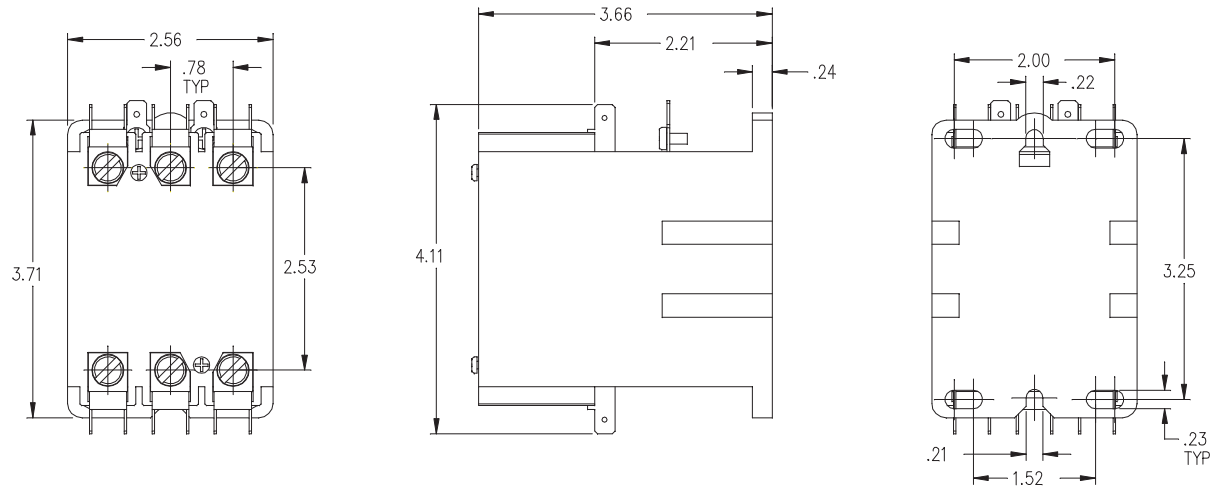


20/25...40 FLA 3-Pole

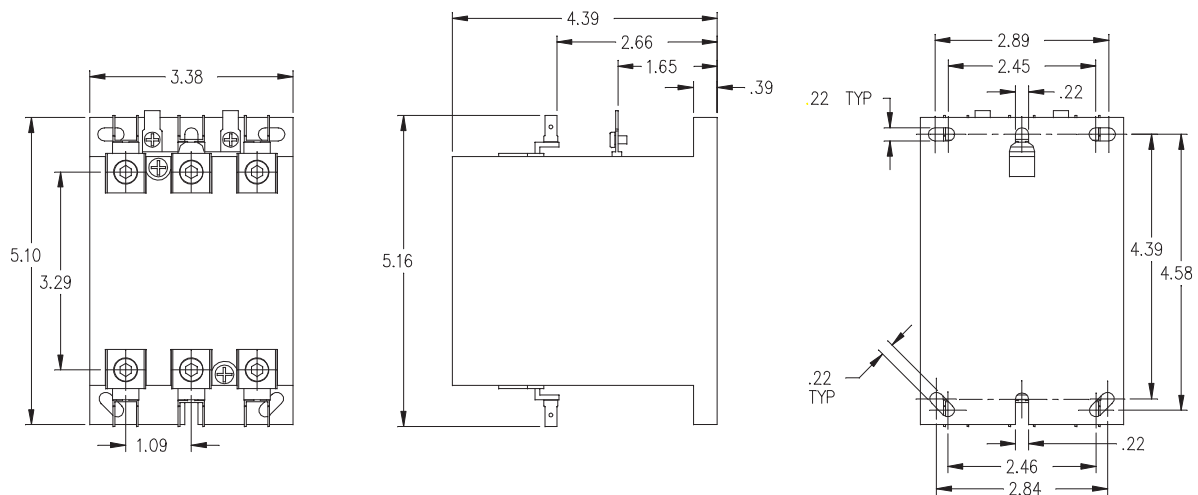


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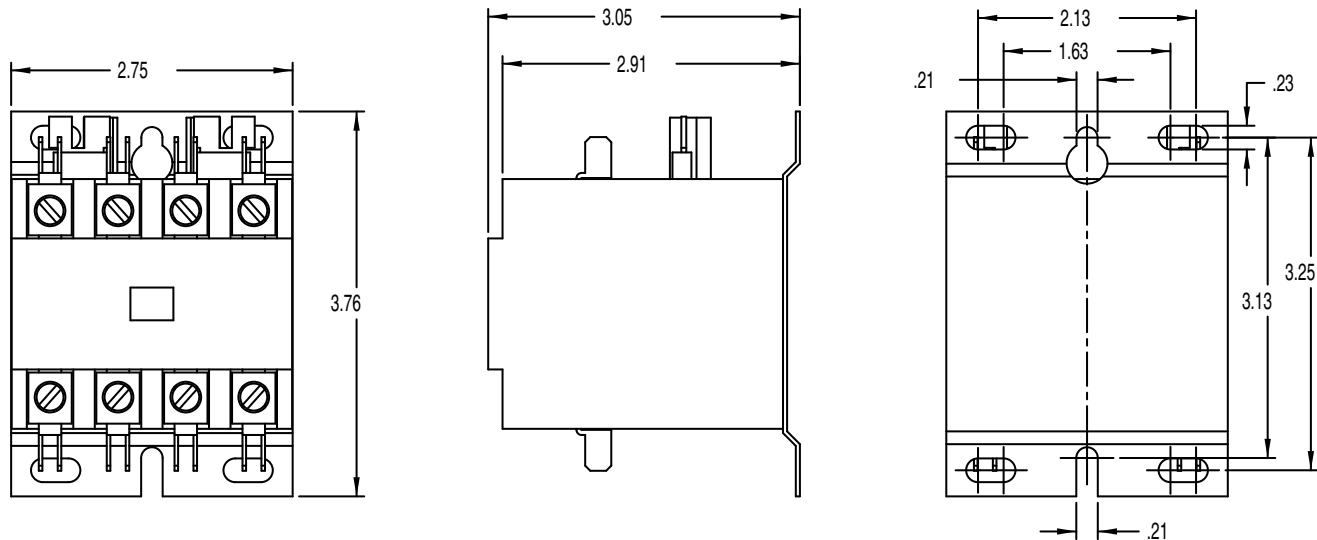
50 and 60 FLA 3-Pole



75 and 90 FLA 3-Pole



20/25...40 FLA 4-Pole



The technical drawings show the following components and dimensions:

- Standard on DP25 and DP30:** A Phillips screw with a slotted head and a #12 washer. The screw is labeled "#10-32 combination Phillips, slotted and 5/16 hex head #12 washer".
- Special on DP25, DP30, and DP40:** A screw with a hex head and a pressure plate. The screw is labeled "#10-32 Sems screw with pressure plate".
- 40 FLA Lug #14...4 AWG:** A lug with a width of .253.
- 50 and 60 FLA Lug #14...2 AWG:** A lug with a width of .326.
- 75 and 90 FLA Lug #14...1/0 AWG:** A lug with a width of .406.