

Definite Purpose Contactor Specifications

Bulletin Number 400

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Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, http://www.ab.com	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.



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

Coil Technical Data — 20/25...40 A, 1- and 2-Pole Contactors

		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
Minimum 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

Coil Technical Data — 20/25...40 A, 3-Pole Contactors

Nominal Coil Voltage		24	120	208/240	277	347	480
Minimum 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

Coil Technical Data — 20/25...40 A, 4-Pole Contactors

Nominal AC Coil Voltage [V]		24	120	208/240	277	347	480
Minimum 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 — 20/25...40 A, 3-and 4-Pole Contactors

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

Δ 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

Coil Technical Data — 50...90 A, 3-Pole Contactors

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
Minimum 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 — 50...90 A, 3-Pole Contactors

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

* 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

Δ 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

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

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

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

50...60 FLA 3-Pole

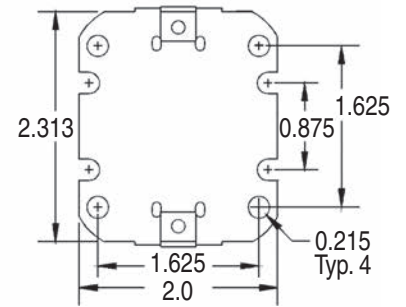
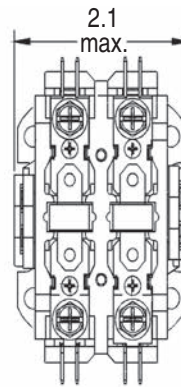
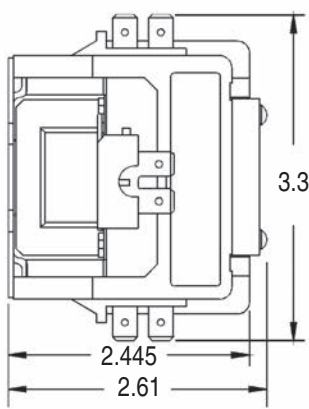
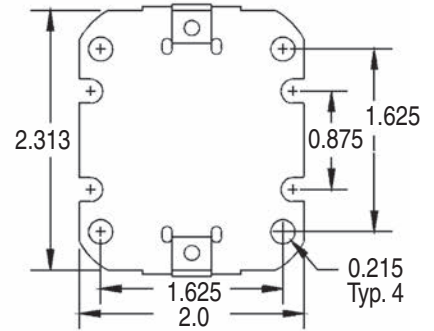
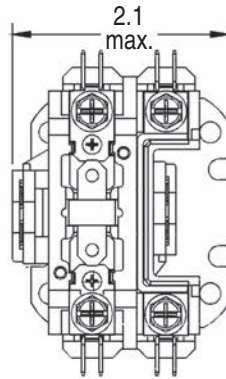
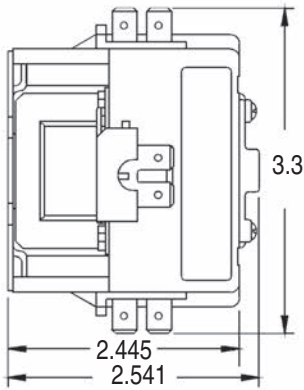
Line and Load Terminals		Box lug
Wire Size		#14...2 AWG
Mechanical Life		500 000 operations
Electrical Life		250 000 operations
Recommended Tightening Torque		50 lb•in
Quick Connects	Power terminals	Dual 0.250 QC (2)
	Coil terminals	#6-32 screw and 0.250 QC (2)
Arc Cover		Standard
Insulation System	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

75...90 FLA 3-Pole

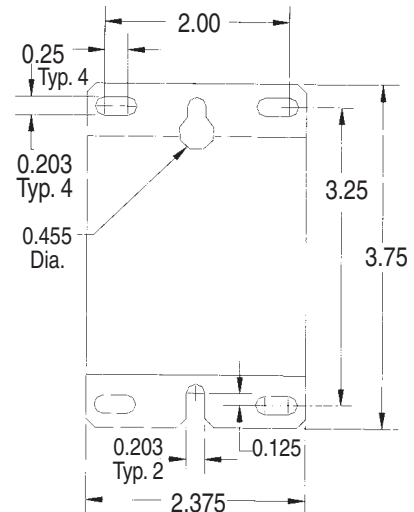
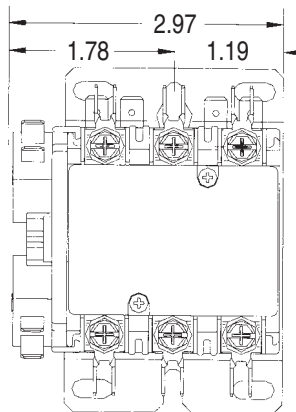
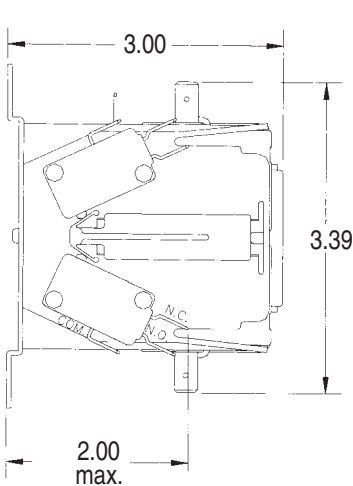
Line and Load Terminals		Box lug
Wire Size		#14...1/0 AWG
Mechanical Life		500 000 operations
Electrical Life		100 000 operations
Recommended Tightening Torque		50 lb•in
Quick Connects	Power terminals	Dual 0.250 QC
	Coil terminals	#6-32 screw and 0.250 QC (2)
Arc Cover		Standard
Insulation System		130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

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

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

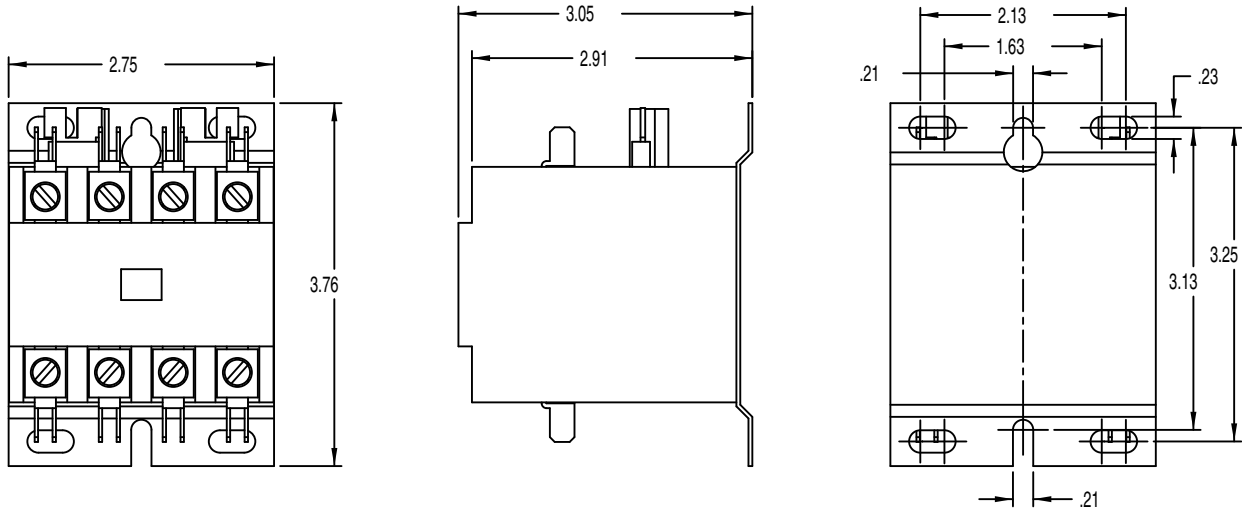


20/25...40 FLA 3-Pole

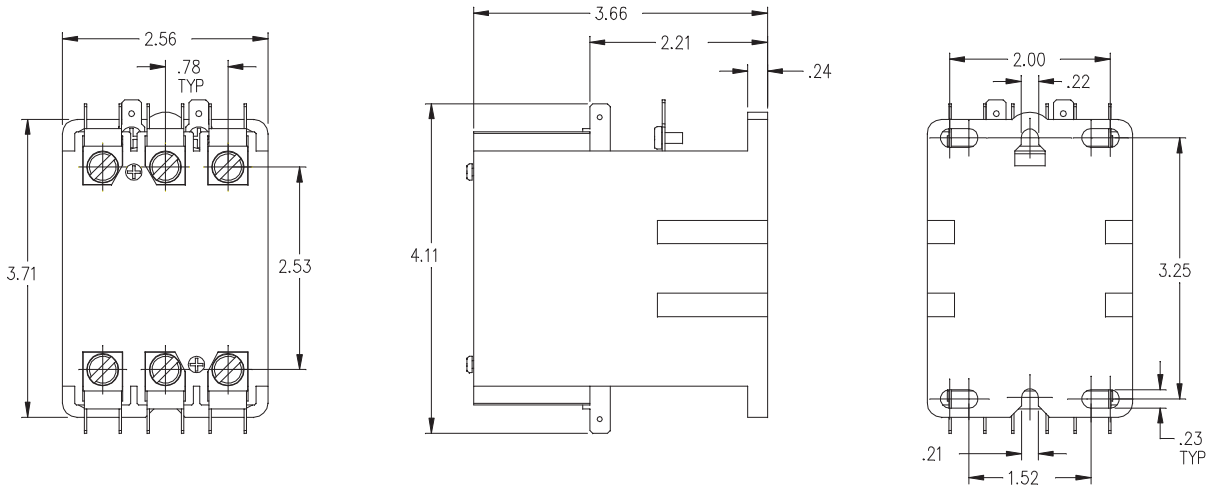


Dimensions shown in inches. Dimensions are not intended to be used for manufacturing purposes.

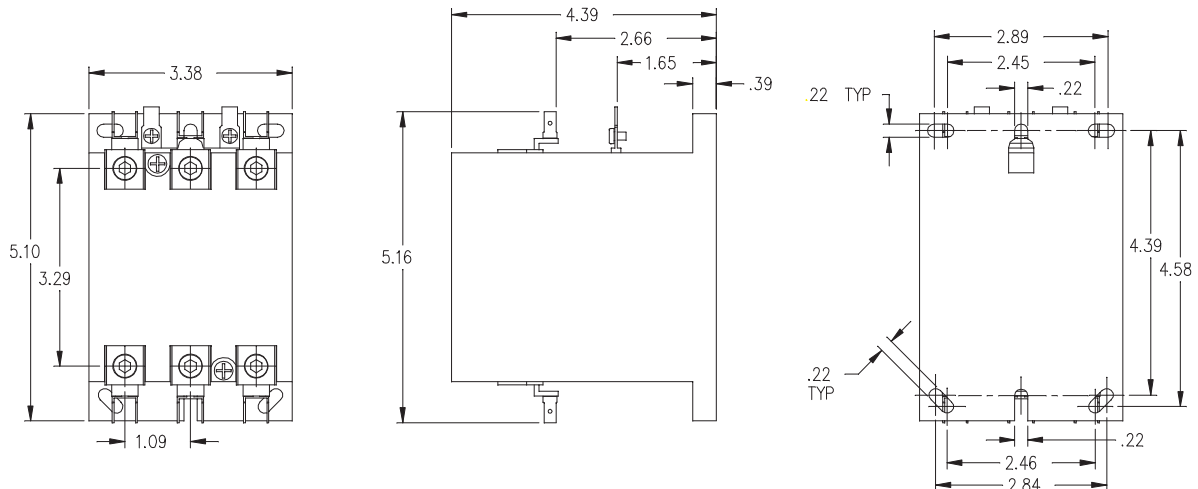
20/25...40 FLA 4-Pole



50 and 60 FLA 3-Pole

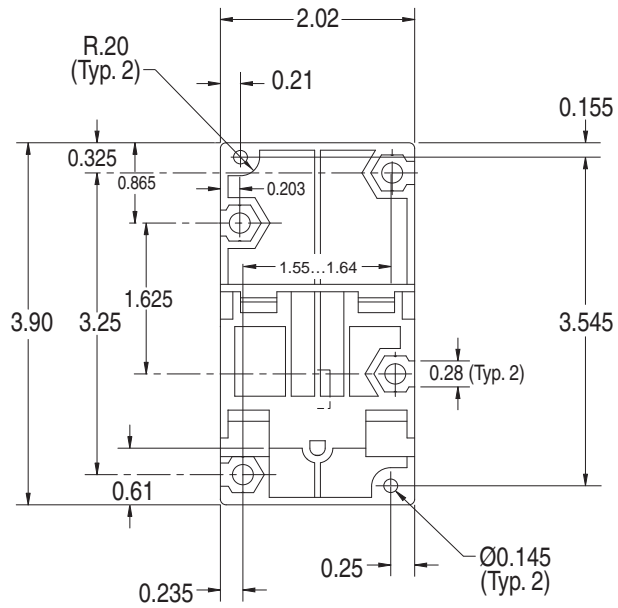


75 and 90 FLA 3-Pole



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

DIN Rail Adaptors

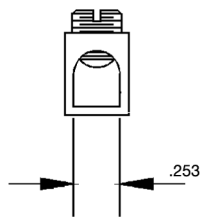


Terminations

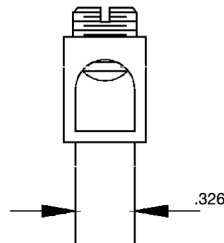


Standard on DP25 and DP30
 #10-32 combination
 Phillips, slotted and 5/16
 hex head #12 washer

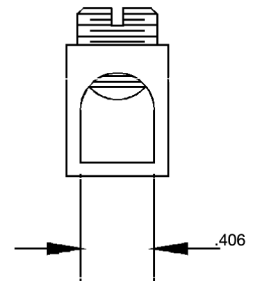
Special on DP25, DP30, and DP40
 #10-32 Sems screw
 with pressure plate



40 FLA Lug
 #14...4 AWG



50 and 60 FLA Lug
 #14...2 AWG



75 and 90 FLA Lug
 #14...1/0 AWG

Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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