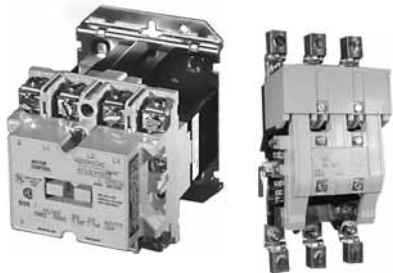


Contactors—Non-Reversing and Reversing



Contactors—Non-Reversing and Reversing

Product Description

Class A201 Contactors, Sizes 00–4; Three-Phase, 1-1/2–100 hp

A201 Magnetic Contactors from Eaton’s Electrical Sector are 600V rated devices available in NEMA Sizes 00–4, 10A through 150A (open rating). Product features include:

- Straight-through wiring to line and load terminals located up front for ease of installation
- Moving and stationary contacts are front accessible, simplifying inspection and maintenance
- Reliable U-shaped magnet for reduced power consumption
- Coil design reduces inventory/maintenance expenses. For a given voltage, one size coil fits all contactors Sizes 00–2, and a second coil fits three-pole Model J Sizes 3 and 4. Model K coils are different design

A201 contactors have normally open holding circuit interlocks which are supplied as standard.

Panel layout and drilling are simplified through the use

of common backplates, one for Sizes 00–2 and one for Sizes 3–4. In addition, panel space is reduced dramatically through the use of unique corner cavities for mounting the wide variety of modifications shown on **Page V5-T2-120**.

For reversing applications, two contactors are supplied on a common base with electrical and mechanical interlocks which prevent both contactors from being closed at the same time.

Class A201 Contactors, Sizes 5–9; Three-Phase, Over 100 hp

These AC magnetic contactors utilize clapper design and feature straight-through wiring.

Contacts are silver alloy for longer life. The contacts close with optimum wiping action which serves to keep the contacting surfaces clean. De-ion® arc quenchers draw the arc away from the contacts at opening, which reduces burning and pitting and increases contact life.

All of the contactors are complete with one unwired, normally-open (NO) auxiliary contact mounted and have

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accommodations for additional auxiliary contacts. No control circuit wiring or terminal markings are included.

Size 5, 300A, 600V, Open Size 6, 600A, 600V, Open

Class A201 Size 5 and 6 contactors are front clapper design, AC operated with the armature pivoting on dual needle bearings which assure accurate contact alignment.

The contactor base is molded of a high impact, non-tracking, non-hygroscopic glass polyester material permitting front mounting and wiring on a steel panel.

Floating magnet assures quiet operation.

Size 5 and 6 contactors must be mounted with the line terminals directly above the load terminals.

Multi-voltage coil ratings allow selection of the voltage which closely matches the actual system voltage to assure optimum contactor operation.

Each contactor accommodates two Type J11 auxiliary contacts, providing up to four auxiliary circuits, normally-open or normally-closed (NO and NC).

A201 Size 5 and 6 contactors and starters are UL recognized when supplied without terminals. When supplied with terminals, the devices are UL listed.

Two special configurations of the Class A201 Size 5 and 6 contactors are available:

- **Latched Design—** This is a mechanically held, electrically released device. It is applied where the contactor must remain closed during extreme voltage fluctuations or power failure. It is also suitable for applications requiring quiet operation since the operating coil is de-energized when the contactor is closed. The latch assembly consists of a mechanical latch mechanism, electrically operated AC trip solenoid and a clearing contact
- **DC Operated—** This device is DC operated. It is used where low dropout voltage or exceptionally quiet operation is desired. The DC assembly consists of a DC operating coil, integrally mounted rectifier and shorting contact

**Size 7, 900A, 600V, Open
Size 8, 1350A, 600V, Open
Size 9, 2500A, 600V, Open**

Class A201 Size 7 and 8 contactors are DC operated side clapper design with the shaft mounted on dual needle bearings to ensure positive contact alignment and long contact life.

A steel panel base permits mounting on angle or channel without additional support, for versatile low cost installation.

Each stationary contact assembly is mounted on an individual molded insulator. Each pair of contacts is surrounded by a De-ion grid type arc quencher for rapid and confined arc interruption and long contact life.

The shunt for each pole is made of flexible, braided copper cable for freedom of movement and long life.

The rugged DC operating coils are designed to operate at high temperature and insulated to meet Class H service.

An integrally mounted avalanche type silicon rectifier supplies DC coil voltage from the AC control circuit.

Sizes 7 and 8 accommodate three Type L-63 auxiliary contacts which are easily converted from normally-open to normally-closed, providing auxiliary circuit flexibility. Size 9 uses L-64 auxiliary contacts with a total of four circuits.

A201 Size 7, 8 and 9 contactors and starters are UL recognized when supplied without terminals. When supplied with terminals, the devices are UL listed.

Application Description

Magnetic contactors are used to switch transformers and capacitors and to control electrical power circuits such as heating, lighting and motors that require no overload protection, or where overload protection is separately provided. They can be operated remotely by manual or automatic pilot devices.

Standards and Certifications

A201 contactors are UL listed components and also have CSA certification.

**Instructional Leaflets**

- 16960B Sizes 00–1 Magnetic Contactor, Non-reversing or Reversing
- 16961E Size 2 Magnetic Contactor, Non-reversing or Reversing
- 13238G Size 3 Magnetic Contactor, Non-reversing or Reversing
- 17001C Size 4 Magnetic Contactor, Non-reversing or Reversing
- 17049D Size 5 Magnetic Contactor, Non-reversing or Reversing
- 17053B Size 6 Magnetic Contactor, Non-reversing or Reversing
- 17048 Sizes 7–8 Magnetic Contactor, Non-reversing or Reversing
- 16978 Size 9 Magnetic Contactor, Non-reversing or Reversing

Product Selection

Non-Reversing, Sizes 00–9

When Ordering Specify

Order by catalog number from the table below, plus suffix for coil voltages, verifying usage of appropriate sizes.

A201 Size 1 Contactor



Front Connected Contactors

Size	Amps	Max. UL Horsepower						Two Poles Open Catalog Number	Three Poles Open Catalog Number	Four Poles Open Catalog Number	Five Poles Open Catalog Number
		Single-Phase		Three-Phase		480V	600V				
		115V	230V	208V	240V						
Sizes 00–6											
00	9	1/3	1	1-1/2	1-1/2	2	2	A201KAB_	A201KAC_	A201KAD_	A201KAE_
0	18	1	2	3	3	5	5	A201K0B_	A201K0C_	A201K0D_	A201K0E_
1	27	2	3	7-1/2	7-1/2	10	10	A201K1B_	A201K1C_	A201K1D_	A201K1E_
2	45	3	7-1/2	10	15	25	25	A201K2B_	A201K2C_	A201K2D_	A201K2E_
3	90	—	—	25	30	50	50	A201K3B_	A201K3C_	A201K3D_	A201K3E_
4	135	—	—	40	50	100	100	A201K4B_	A201K4C_	A201K4D_	A201K4E_
5	270	—	—	75	100	200	200	A201K5B_	A201K5C_	—	—
6	540	—	—	150	200	400	400	A201K6B_	A201K6C_	—	—
Sizes 7–9											
7 ^①	810	—	—	200	300	600	600	A201K7B_	A201K7C_	—	—
8 ^①	1215	—	—	400	450	900	900	A201K8B_	A201K8C_	—	—
9 ^①	2250	—	—	—	800	1600	—	A201K9B_	A201K9C_Z1 ^{②③}	—	—

Rear Connected Contactors

120V Rectified Coil/Open Only

Size	Catalog Number
7	A201K7CJZ1Z4
8	A201K8CJZ1Z4
9	A201K9CJZ1Z4

Coil Suffix

Coil Volts and Hz	Code Suffix
Sizes 00–6	
120/60 or 110/50	A
200–208/60	B
240/60	W
Sizes 7, 8 and 9^②	
480/60	X
600/60	E
110–120/50 or 60	J
220–240/50 or 60	K
440–480/50 or 60	U
600/60	E

Notes

- ① Sizes 7–9 use rectifier with DC coil.
- ② For Size 9, only available coil voltage is 120V.
- ③ Supplied without terminal lugs.

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NEMA Contactors and Starters

A200 Series

Reversing, Sizes 00–9

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When Ordering Specify

Order by catalog number from the table below, plus suffix for coil voltages, verifying usage of appropriate sizes.

Size 1 Horizontal Reversing Contactor



Class A211 – Horizontally Mounted and Class A251 – Vertically Mounted Reversing Contactors

Size	Amps	Max. UL Horsepower		Three-Phase				Horizontal Design	Vertical Design
		115V	230V	208V	240V	480V	600V	Catalog Number	Catalog Number
Sizes 0–6									
0	18	1	2	3	3	5	5	A211K0C_	A251K0C_
1	27	2	3	7-1/2	7-1/2	10	10	A211K1C_	A251K1C_
2	45	3	7-1/2	10	15	25	25	A211K2C_	A251K2C_
3	90	—	—	25	30	50	50	A211K3C_	A251K3C_
4	135	—	—	40	50	100	100	A211K4C_	A251K4C_
5	270	—	—	75	100	200	200	A211K5C_	A251K5C_
6	540	—	—	150	200	400	400	A211K6C_	A251K6C_
Sizes 7–9									
7 ^①	810	—	—	200	300	600	600	—	A251K7C_
8 ^①	1215	—	—	400	450	900	900	—	A251K8C_
9 ^①	2250	—	—	—	800	1600	—	—	A251K9C_ ^②

Coil Suffix

Coil Volts and Hz	Code Suffix
Sizes 00–6	
120/60 or 110/50	A
200–208/60	B
240/60	W
480/60	X
600/60	E
Sizes 7, 8 and 9^②	
110–120/50 or 60	J
220–240/50 or 60	K
440–480/50 or 60	U
600/60	E

Notes

- ① Sizes 7–9 use rectifier with DC coil.
- ② For Size 9, only available coil voltage is 120V.

Dimensions

Approximate Dimensions in Inches (mm)

Not to be used for construction purposes unless approved.

Non-Reversing Open Contactors

Figure A—Sizes 00–4 A210

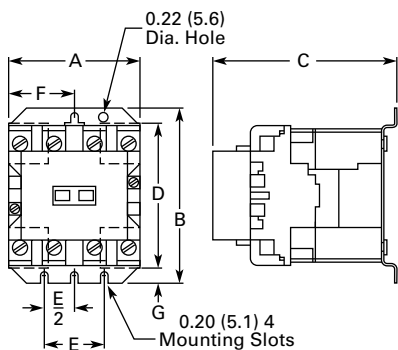


Figure B—Size 5

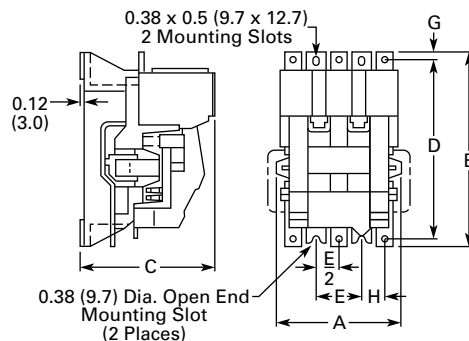


Figure C—Size 6

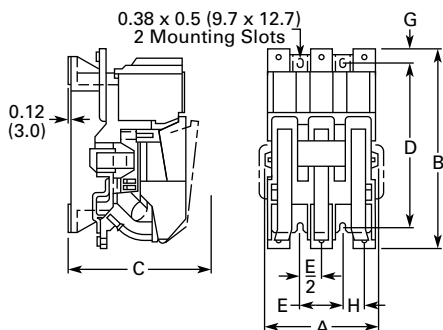
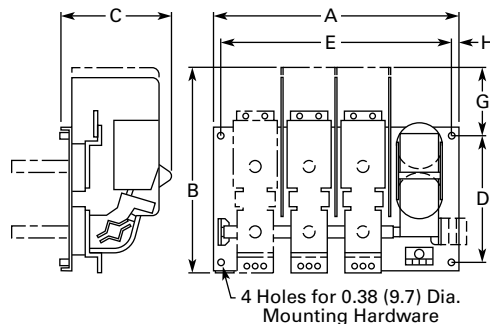


Figure D—Sizes 7–9



Dimensions and Shipping Weights

NEMA Size	No. of Poles	Fig.	Mounting Screws		A	B	C	D	E	F	G	H	Weight, Lbs (kg)
			No.	Size									
00, 0, 1	2-4	A	3	#10	3.31 (84.1)	4.38 (111.3)	4.61 (117.1)	3.95 (100.3)	1.50 (38.1)	1.66 (42.2)	0.45 (11.5)	—	2.6 (1.2)
	5	A	3	#10	4.19 (106.4)	4.38 (111.3)	4.61 (117.1)	3.95 (100.3)	1.50 (38.1)	2.09 (53.1)	0.45 (11.5)	—	3.2 (1.5)
2	2, 3	A	3	#10	3.31 (84.1)	4.38 (111.3)	4.94 (125.5)	3.95 (100.3)	1.50 (38.1)	1.66 (42.2)	0.45 (11.5)	—	3.3 (1.5)
	4, 5	A	3	#10	5.06 (128.5)	4.38 (111.3)	4.94 (125.5)	3.95 (100.3)	1.50 (38.1)	2.53 (64.3)	0.45 (11.5)	—	4.5 (2.0)
3, 4	2, 3	A	3	1/4 in.	4.63 (117.6)	6.63 (168.4)	6.75 (171.5)	6.00 (152.4)	1.88 (47.8)	2.31 (58.7)	0.38 (9.7)	—	9.3 (4.2)
	4, 5	A	3	1/4 in.	7.25 (184.2)	6.63 (168.4)	6.75 (171.5)	6.00 (152.4)	1.88 (47.8)	3.63 (92.2)	0.38 (9.7)	—	13.0 (5.9)
5	2, 3	B	4	3/8 in.	7.22 (183.4)	12.00 (304.8)	7.75 (196.9)	11.00 (279.4)	2.75 (69.9)	—	0.59 (15.0)	2.22 (56.4)	25.0 (11.4)
6	2, 3	C	4	3/8 in.	7.22 (183.4)	13.50 (342.9)	9.50 (251.3)	11.00 (279.4)	2.75 (69.9)	—	0.59 (15.0)	2.22 (56.4)	42.0 (19.1)
7	3	D	4	3/8 in.	23.50 (596.9)	18.63 (473.2)	11.00 (279.4)	12.00 (304.8)	22.00 (558.8)	—	5.63 (143.0)	0.75 (19.1)	215.0 (97.6)
8	3	D	4	3/8 in.	23.50 (596.9)	19.25 (489.0)	11.00 (279.4)	12.00 (304.8)	22.00 (558.8)	—	5.63 (143.0)	0.75 (19.1)	265.0 (120.3)
9	3	D	4	1/2 in.	33.00 (838.2)	29.75 (755.7)	12.94 (328.7)	8.00 (203.2)	30.75 (781.1)	—	14.50 (368.3)	1.63 (41.4)	315.0 (143.0)

2.3

NEMA Contactors and Starters

A200 Series

Approximate Dimensions in Inches (mm)

Not to be used for construction purposes unless approved.

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Reversing Open Contactors

Figure A—Sizes 00–4 Horizontal

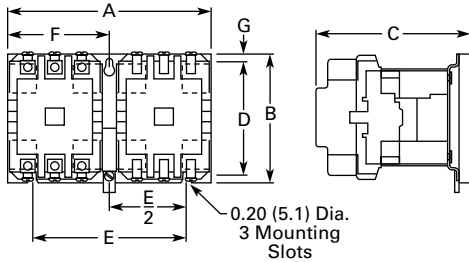


Figure C—Sizes 5, 6 Horizontal

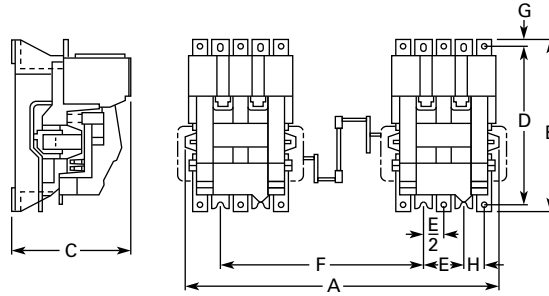


Figure B—Sizes 00–4 Vertical

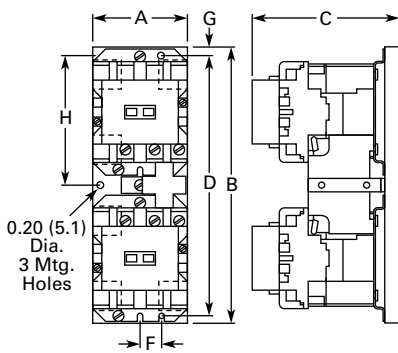


Figure D—Sizes 5, 6 Vertical

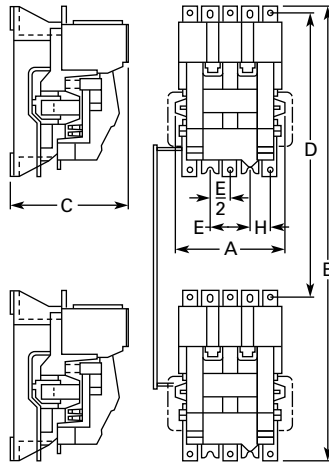
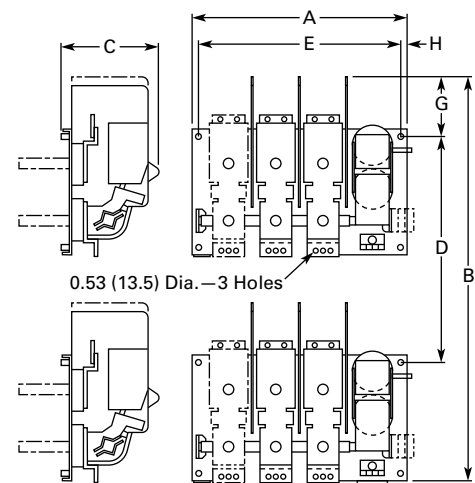


Figure E—Sizes 7–9 Vertical



Dimensions and Shipping Weights

NEMA Size	No. of Poles	Fig.	Mounting Screws		A	B	C	D	E	F	G	H	Weight, Lbs (kg)
			No.	Size									
00, 0, 1	3 x 3 H.	A	3	#10	7.13 (181.1)	4.45 (113.0)	5.05 (128.3)	3.95 (100.3)	5.31 (134.9)	3.56 (90.4)	0.25 (6.4)	—	7.8 (3.5)
	3 x 3 V.	B	3	#10	3.33 (84.6)	9.61 (244.1)	5.05 (128.3)	9.08 (230.6)	2.16 (54.9)	0.75 (19.1)	0.25 (6.4)	4.52 (114.8)	8.9 (4.0)
2	3 x 3 H.	A	3	#10	7.13 (181.1)	4.45 (113.0)	5.38 (136.7)	3.95 (100.3)	5.31 (134.9)	3.56 (90.4)	0.25 (6.4)	—	9.1 (4.1)
	3 x 3 V.	B	3	#10	3.33 (84.6)	9.61 (244.1)	5.38 (136.7)	9.08 (230.6)	2.16 (54.9)	0.75 (19.1)	0.25 (6.4)	4.52 (114.8)	10.0 (4.5)
3, 4	3 x 3 H.	A	3	1/4 in.	9.75 (247.7)	6.88 (174.8)	7.25 (184.2)	6.00 (152.4)	7.00 (177.8)	4.88 (124.0)	0.44 (11.2)	—	24.0 (10.9)
	3 x 3 V.	B	3	1/4 in.	4.63 (117.6)	16.56 (420.6)	7.25 (184.2)	15.69 (398.5)	2.75 (69.9)	0.94 (23.9)	0.44 (11.2)	7.78 (197.6)	25.0 (11.4)
5	3 x 3 H.	C	8	3/8 in.	17.22 (437.4)	12.00 (304.8)	7.75 (196.9)	11.00 (279.4)	2.75 (69.9)	10.00 (254.0)	0.59 (15.0)	1.38 (35.1)	55.0 (25.0)
	3 x 3 V.	D	8	3/8 in.	8.25 (209.6)	30.00 (762.0)	7.75 (196.9)	18.00 (457.8)	2.75 (69.9)	—	—	1.38 (35.1)	55.0 (25.0)
6	3 x 3 H.	C	8	3/8 in.	17.22 (437.4)	13.50 (342.9)	8.75 (222.3)	11.00 (279.4)	2.75 (69.9)	10.00 (254.0)	0.59 (15.0)	1.38 (35.1)	90.0 (40.9)
	3 x 3 V.	D	8	3/8 in.	8.25 (209.6)	41.50 (1054.1)	8.75 (222.3)	28.00 (711.2)	2.75 (69.9)	—	—	1.38 (35.1)	90.0 (40.9)
7	3 x 3 V.	E	8	3/8 in.	23.50 (596.9)	38.63 (981.2)	11.00 (279.4)	20.00 (508.0)	22.00 (558.8)	—	5.63 (143.0)	0.75 (19.1)	450.0 (204.3)
8	3 x 3 V.	E	8	3/8 in.	23.50 (596.9)	39.25 (997.0)	11.00 (279.4)	20.00 (508.0)	22.00 (558.8)	—	5.63 (143.0)	0.75 (19.1)	550.0 (249.7)
9	3 x 3 V.	E	8	1/2 in.	33.00 (838.2)	62.75 (1593.9)	12.94 (328.7)	33.00 (838.2)	30.75 (781.1)	—	14.50 (368.3)	1.63 (41.4)	650.0 (295.1)