

**Magnet Coil Suffix**

<b>AC</b> ①			<b>DC</b> ⑤	
<b>60 Hertz</b>	<b>50 Hertz</b>	<b>Coil Suffix</b>	<b>60 Hertz</b>	<b>Coil Suffix</b>
12 ②	12	<b>R</b>	12	<b>1R</b>
24 ③	24	<b>T</b>	24	<b>1T</b>
110–120 ④	110–120 ④	<b>A</b>	48	<b>1W</b>
208 ⑥	—	<b>E</b>	120	<b>1A</b> ⑧
208–240 ⑥	208–240	<b>B</b>		
240 ⑦	220	<b>J</b>		
277	—	<b>H</b>		
—	380–415	<b>L</b>		
440–480	440–480	<b>C</b>		
550–600 ⑥	550–600	<b>D</b>		

**Notes**

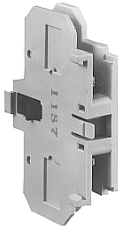
- ① Class H AC coils available as option for 15A–50A contactor. Add 2 before AC coil suffix letter.
- ② Available through 75A.
- ③ Available through 120A.
- ④ 104–120V 50/60 Hz for 60A, 75A and all four-pole contactors (25A–40A).
- ⑤ Available 120–360A.
- ⑥ Available 15–90A, others 240V.
- ⑦ Available through 50A.
- ⑧ Not available for 90A.
- ⑨ Contactors with DC coils (only available up to 75A) include an early break NC auxiliary contact, C320KGD1. See **Page V5-T4-62** for more details.
- ⑩ Available only for 15A through 75A contactors and four-pole contactors.

### Accessories

#### Auxiliary Contact Kits (Side Mounted)

##### Heavy-Duty Pilot Rated for 10A at 600 Vac

#### Side Mounted Auxiliary Contact



Circuit	With Standard Pressure Plate Terminals Catalog Number	With Pressure Plate and Quick Connect Terminals Catalog Number
<b>For 15 through 75A</b>		
1NO	C320KG1	C320KG11
1NC	C320KG2	C320KG12
1NO-1NC	C320KG3	C320KG13
2NO	C320KG4	C320KG14
2NC	C320KG5	C320KG15

#### Auxiliary Contact for FI Series Contactors



<b>For 90A</b>		
1NO	—	FIC320DPG10 ①
1NC	—	FIC320DPG01 ①
1NO-1NC	—	FIC320DPG11 ①
2NO	—	FIC320DPG20 ①

<b>For 120 through 360A</b>		
1NO	C320KGS20	—
1NC	C320KGS21	—
1NO-1NC	C320KGS22	—

#### Side Mounted Snap Switch



##### Snap Switch Design Side Mounted Auxiliary Contacts (For 15–75A Contactors Only)

Circuit	Snap Switch Design with Quick Connect Terminals Catalog Number
1NO-1NC	C320SNP11
2NO-2NC	C320SNP22

#### Magnet Coil Quick Connect Terminal

##### Description

Extra dual quick connect terminals (U-shaped) for magnet coil terminals ②

##### Notes

- ① Valid on Series **FI** contactors only.
- ② To order, add suffix number **9** to the complete catalog number.  
Example: C25DND215A**9**.

#### Auxiliary Contact Kits (Top Mounted)

##### Top Mounted Auxiliary Contact



#### Heavy-Duty Pilot Rated for 10A at 600 Vac

With Standard Pressure Plate Terminals		With Standard Pressure Plate Terminals	
Circuit	Catalog Number	Circuit	Catalog Number
<b>For 15 through 75A <sup>①</sup></b>			
1NO	<b>C320KGT1</b>	1NO-2NC	<b>C320KGT11</b>
1NC	<b>C320KGT2</b>	3NC	<b>C320KGT12</b>
1NO-1NC	<b>C320KGT3</b>	4NO	<b>C320KGT13</b>
2NO	<b>C320KGT4</b>	3NO-1NC	<b>C320KGT14</b>
2NC	<b>C320KGT5</b>	2NO-2NC	<b>C320KGT15</b>
3NO	<b>C320KGT9</b>	1NO-3NC	<b>C320KGT16</b>
2NO-1NC	<b>C320KGT10</b>	4NC	<b>C320KGT17</b>

##### Mechanical Interlock



#### Mechanical Interlock Kit

Description	Catalog Number
Mechanical interlock kit for 15 through 75A	<b>C321KM60B</b>

#### Solid-State ON DELAY Timer

Side mounted on C25D, C25E and C25F frame.

This timer is designed to be **wired in series with the load** (typically a coil). When the START button is pushed (power applied to timer), the ON DELAY timing function starts. At the completion of the set timing period, timer and series wired load will both be energized.

##### Solid-State ON DELAY Timer



#### Solid-State ON DELAY Timer

Timing Range	Catalog Number <sup>②③④</sup>
0.1–1.0 seconds	<b>C320TDN1_</b>
1–30 seconds	<b>C320TDN30_</b>
30–300 seconds	<b>C320TDN300_</b>
5–30 minutes	<b>C320TDN3000_</b>

#### Separate Enclosures

##### NEMA 1 Enclosure



#### Separate Enclosures—NEMA 1

Application	Catalog Number
15 through 50A, two- and three-pole	<b>C799B18</b>
60A, two- and three-pole or 25 through 40A, four-pole	<b>C799B19</b>

#### Notes

- ① Not available for four-pole contactors (15–40 Amp).
- ② Add operating voltage suffix to catalog number.  
**A** = 120V, **B** = 240V, **E** = 208V
- ③ Rated 0.5 ampere pilot duty—not to be used on larger contactors.
- ④ Terminal connections are quick connects only. Two per side.

### Options

To order C25, C65, A25 and B25 contactors and starters with the factory installed options listed below, change the basic catalog number listed in the product selection table as noted.

#### Factory Installed Options

Description	Code Letter	Number of Poles
<b>Terminals— 15A through 50A</b>		
Binding head screws		
Without quick connect terminals	<b>A</b>	2-, 3-, 4-pole
With quick connect terminals (side-by-side)	<b>B</b>	2-, 3-, 4-pole
With quick connect terminals (vertical in-line)	<b>G</b>	2-, 3-pole
Screw/pressure plate <sup>①</sup>		
Without quick connect terminals	<b>C</b>	2-, 3-, 4-pole
With quick connect terminals (side-by-side)	<b>D</b>	2-, 3-, 4-pole
With quick connect terminals (vertical in-line)	<b>H</b>	2-, 3-pole
Box lugs (#2 posidrive/slotted screw)		
Without quick connect terminals	<b>E</b>	2-, 3-, 4-pole <sup>②</sup>
With quick connect terminals (side-by-side)	<b>F</b>	2-, 3-, 4-pole <sup>②</sup>
With quick connect terminals (vertical in-line)	<b>J</b>	2-, 3-pole
Box lugs (hex socket allen head screw)		
Without quick connect terminals	<b>K</b>	2-, 3-pole
With quick connect terminals (side-by-side)	<b>L</b>	2-, 3-pole
With quick connect terminals (vertical in-line)	<b>M</b>	2-, 3-pole
<b>Terminals— 60A through 75A <sup>③</sup></b>		
Box lugs (slotted screw)		
Without quick connect terminals	<b>E</b>	2-, 3-pole
With quick connect terminals	<b>F</b>	2-, 3-pole

#### Auxiliary Contacts (Side Mount)

Add code letter listed below to complete catalog number.

Example: Change C25DND215**A** to C25DND215**AA**.

#### Auxiliary Contacts—Factory Installed

Description	With Standard Pressure Plate Terminals Code Letter	With Quick Connect Terminals Code Letter	Snap Switch Design with Quick Connect Terminals Code Letter
<b>For 15 through 90A <sup>④</sup></b>			
1NO	<b>A</b>	<b>F</b>	—
1NC	<b>B</b>	<b>G</b>	—
1NO-1NC	<b>C</b>	<b>H</b>	—
2NO	<b>D</b>	<b>J</b>	—
2NC	<b>E</b>	<b>K</b>	—
<b>For 15 through 75A</b>			
1NO-1NC	—	—	<b>L</b>
2NO-2NC	—	—	<b>M</b>
<b>For 120 through 360A</b>			
1NO	<b>A</b>	—	—
1NO-1NC	<b>C</b>	—	—
2NO	<b>D</b>	—	—
2NC	<b>E</b>	—	—

**Special Marking** (Special contactor marking, consult local sales office)

#### Notes

- ① Screw/pressure plate terminals are not available on 50A contactors.
- ② Four-pole contactors have box lugs with slotted screws.
- ③ Replace letter in the 6th position of catalog number with code letter listed. Example: Change C25F**N**F250 to C25F**N**E250.
- ④ 90A available only with binding head screw and quick connect terminals.

## Technical Data and Specifications

### Standard and Global Listed Line

#### 15–360A, Two-, Three- and Four-Pole—C25

Description	Standard	Global Listed Line
Magnet coil	Class B (C25E, F, G, H and K), 130°C Class F (C25D and L), 155°C Class H (C25D), 180°C (available as factory installed option)	Class B (C25E, F, G, H and K), 130°C Class F (C25D and L), 155°C Class H (C25D), 180°C (available as factory installed option)
Contacts	Double break	Double break
Coil terminals	18 AWG (90A)	18 AWG (90A)
Ambient temperature	150°F (65°C) maximum	150°F (65°C) maximum
Terminal wire range		
#8–32 binding head screw	14–12 AWG (one conductor-solid)	14–12 AWG (one conductor-solid)
#8–32 screw/pressure plate	14–8 AWG (one conductor); 14–8 AWG (two conductors)	14–8 AWG (one conductor); 14–8 AWG (two conductors)
Box lugs—15–50A <sup>①</sup>	# 2 posidrive screw or 5/32 hex socket screw Upper level: 14–4 AWG (one conductor) Lower level: 14–6 AWG (one conductor)	# 2 posidrive screw or 5/32 hex socket screw Upper level: 14–4 AWG (one conductor) Lower level: 14–6 AWG (one conductor)
Box lugs—60–75A <sup>①</sup>	Upper level: 14–2 AWG Lower level: 14–6 AWG	Upper level: 14–2 AWG Lower level: 14–6 AWG
Box lugs—90A	1/0–8 AWG	1/0–8 AWG
Box lugs—120A	3/0–8 AWG	3/0–8 AWG
Box lugs—200–300A	350 kcmil–6 AWG	350 kcmil–6 AWG
Box lugs—360A	750 kcmil–2 AWG	750 kcmil–2 AWG

### Contactors Torque Ratings

Contactors Size	Terminal	Wire Range	Tightening Torque
15–50A <sup>②</sup>	8–32 binding head screw	12–14 AWG	22 lb-in
		Screw/pressure plate	8–14 AWG
	Box lug	12–14 AWG	15 lb-in
		10 AWG	25 lb-in
		8 AWG	40 lb-in
60–75A <sup>③</sup>	Box lug	4–6 AWG	45 lb-in
		10–14 AWG	40 lb-in
		8 AWG	45 lb-in
90A	Box lug	3–6 AWG	50 lb-in
		1/0–8 AWG	60 lb-in
120A	Box lug	8 AWG	40 lb-in
		4–6 AWG	45 lb-in
		3–1/0 AWG	50 lb-in
200–300A	Box lug	6–350 kcmil	200 lb-in
360A	Box lug	2–750 kcmil	550 lb-in

#### Notes

- ① The box lugs on the 15–75A device can accept two conductors per pole.
- ② The box lugs on the 15–50A device can accept two conductors per pole, the upper section will accept 4–14 AWG and the lower section will accept 6–14 AWG.
- ③ The box lugs on the 60–75A device can accept two conductors per pole, the upper section will accept 3–14 AWG and the lower section will accept 6–14 AWG.

### For Global Line Only

#### DC Ratings (Global Listed Line Only)

Voltage	Two-Pole, 15–30A Inductive			Two-Pole, 40A Inductive			Three-Pole, 15–30A Inductive			Three-Pole, 40A Inductive		
	UL/CSA		DC-3/DC-5	UL/CSA		DC-3/DC-5	UL/CSA		DC-3/DC-5	UL/CSA		DC-3/DC-5
	FLA	hp	I <sub>e</sub>	FLA	hp	I <sub>e</sub>	FLA	hp	I <sub>e</sub>	FLA	hp	I <sub>e</sub>
240 Vdc three poles in series	—	—	—	—	—	—	4	3/4	4	5	1	5
120 Vdc three poles in series	—	—	—	—	—	—	8	3/4	8	10	1	10
120 Vdc two poles in series	5.5	1/2	5.5	8	3/4	8	5.5	1/2	5.5	8	3/4	8
120 Vdc per pole	2	1/10	2	3.5	1/4	3.5	2	1/10	2	3.5	1/4	3.5
24 Vdc per pole	15	—	15	20	—	20	15	—	15	20	—	20

#### Lighting Duty Ratings (Global Listed Line Only)

C25D_ Inductive Rating	Tungsten and Ballast (480V)
25A	30A
30A	40A
40A	50A
50A	60A

#### IEC/CE Ratings (IEC 60947-4-1, EN 60947-4-1) for 15A through 50A C25 D–Contactors (Global Listed Line Only)

C25D_ Inductive Rating	AC-1 (I <sub>c</sub> )		AC-3 (I <sub>e</sub> )		AC-4 (I <sub>e</sub> )		AC-8a	
	480V	600V	480V	600V	480V	600V	480V	600V
15A	20A	20A	15A	15A	15A	—	15A	15A
25A	30A	30A	25A	25A	25A	—	25A	25A
30A	40A	40A	30A	30A	30A	—	30A	30A
40A	50A	—	40A	—	40A	—	40A	—
50A	65A	65A	50A	50A	50A	—	50A	50A

15–360A, Two-, Three- and Four-Pole—C25



### 15–360A, Two-, Three- and Four-Pole—C25

#### Product Description

Eaton offers the most comprehensive line of definite purpose contactors in the industry. Initially designed as an HVAC and refrigeration product, the C25 line is now the market leader and the product of choice for many OEMs and contractors serving diverse markets. Featuring current ratings between 15A and 360A, the contactors are dual-rated for inductive and resistive ratings as well as for horsepower and kilowatt ratings.

Other terminal configurations are available, see **Page V5-T4-13**. Contactors will accept add-on auxiliary contacts—order factory assembled or as kits for field installation.

The separately available snap-on mechanical interlock permits interlocking two contactors for reversing or two-speed applications.

Contactors between 15A and 50A are offered as two different lines—Standard and Global Listed.

#### Standard DP Contactors (15–50A, Two- and Three-Pole)

The standard line of C25 DP contactor features:

- Pressure plates and quick connects are standard on 15–30A contactors
- Lugs and quick connects are standard on 40A and 50A contactors
- Highest electrical life in its class—minimum 250,000 operations
- Universal baseplate allows for easy retrofit of competitive units (optional DIN rail mounting)
- UL recognized design in U.S. and Canada “cURus” (CSA approval pending)
- Accessories including auxiliary contacts, mechanical interlocks and fuse blocks
- RoHS (Reduction of Hazardous Substances) compliant

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#### Standards and Certifications

- UL Recognized Components UL File #E-1491, Guide NLDX2
- CSA Certified Components File #LR353, Class 3211 04, 481301 and 122201
- CE mark (Global line only) EN 60947-4-1
- RoHS Compliance (15A to 50A and 90A)



#### Global Listed Contactors (15–50A, Two- and Three-Pole)

In addition to all the features of the standard DP line, the Global Listed line also features:

- Exact footprint and mounting dimensions as the standard line—ideal for retrofits
- CE (Conformité Européen), CCC (China) and DEMKO (Denmark) certifications
- Higher electrical life—minimum 300,000 operations

### Product Selection

#### When Ordering Specify

- Catalog number plus magnet coil suffix, see **Page V5-T4-10**
- Catalog numbers of accessory kits required, see Accessories, **Page V5-T4-11**
- Modify catalog number for any options required, see Options, **Page V5-T4-13**

#### DP Contactor



### C25 Contactors—Open Type

Ampere Rating		Line Voltage	Locked Rotor	Maximum Motor (hp)		Maximum Motor (kW)		Number of Poles	Standard DP Contactors		Global Listed Line
Inductive Full Load	Resistive per Pole			Single-Phase	Three-Phase	Single-Phase	Three-Phase		With Baseplate	With DIN Rail Adapter	With Baseplate
									Catalog Number <sup>①</sup>	Catalog Number <sup>①</sup>	Catalog Number <sup>①</sup>
15	20	115	90	3/4	—	0.40	—	2	C25DND215_	C25DRD215_	C25DND215_-GL
		230	90	2	3	1.5	2.2	3	C25DND315_	C25DRD315_	C25DND315_-GL
		460	75	—	5	—	3.7				
		575	60	—	5	—	3.7				
25	35	115	150	2	—	1.5	—	2	C25DND225_	C25DRD225_	C25DND225_-GL
		230	150	3	7-1/2	2.2	5.5	3	C25DND325_	C25DRD325_	C25DND325_-GL
		460	125	—	10	—	7.5	4	C25END425_	—	—
		575	100	—	10	—	7.5				
30	40	115	180	2	—	1.5	—	2	C25DND230_	C25DRD230_	C25DND230_-GL
		230	180	5	10	3.7	7.5	3	C25DND330_	C25DRD330_	C25DND330_-GL
		460	150	—	15	—	11	4	C25END430_	—	—
		575	120	—	15	—	11				
40	50	115	240	3	—	2.2	—	2	C25DNF240_	C25DRF240_	C25DNF240_-GL
		230	240	7-1/2	10	5.5	7.5	3	C25DNF340_	C25DRF340_	C25DNF340_-GL
		460	200	—	20	—	15	4	C25ENF440_	—	—
		575	160	—	20	—	15				
50	65	115	300	3	—	2.2	—	2	C25DNJ250_	C25DRJ250_	C25DNJ250_-GL
		230	300	10	15	7.5	11	3	C25DNJ350_	C25DRJ350_	C25DNJ350_-GL
		460	250	—	30	—	22				
		575	200	—	30	—	22				
60	75	115	360	5	—	3.7	—	2	C25FNF260_	—	—
		230	360	10	20	7.5	15	3	C25FNF360_	—	—
		460	300	—	40	—	30				
		575	240	—	40	—	30				
75	90	115	450	5	—	3.7	—	2	C25FNF275_	—	—
		230	450	15	20	11	18.5	3	C25FNF375_	—	—
		460	375	—	50	—	37				
		575	300	—	50	—	37				
90	120	115	540	7-1/2	—	5.5	—	2	C25GNF290_	—	—
		230	540	15	30	11	22	3	C25GNF390_	—	—
		460	450	—	50	—	37				
		575	360	—	50	—	37				

#### Note

① Incomplete catalog number. Replace underscore ( \_ ) in catalog number with magnet coil suffix from table on **Page V5-T4-10**.