

### Product Selection

#### When Ordering Specify

- Catalog Number plus Magnet Coil Suffix, below.

- Modify Catalog Number for any options required — see Options, **Page 7**.

- Catalog Numbers of accessory kits required, **Page 7**.

Table 11. Catalog Numbering System

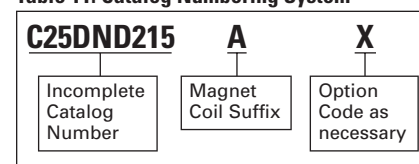


Table 12. C25 Contactors Product Selection— Open Type

Rating, Amperes				Maximum Motor Horsepower		Maximum Motor Kilowatts		Number of Poles	Open Type with Metal Mounting Plate		Open Type with DIN Rail Adapter	
Inductive Full Load	Resistive per Pole	Line Voltage	Locked Rotor	1-Phase	3-Phase	1-Phase	3-Phase		Catalog Number ①②	Price U.S. \$	Catalog Number ①②	Price U.S. \$
15	20	115	90	3/4	—	0.40	—	2	C25DND215_	68.00	C25DRD215_	65.00
		230	90	2	3	1.5	2.2	3	C25DND315_	77.00	C25DRD315_	73.00
		460	75	—	5	—	3.7	—	—	—	—	—
		575	60	—	5	—	3.7	—	—	—	—	—
25	35	115	150	2	—	1.5	—	2	C25DND225_	77.00	C25DRD225_	73.00
		230	150	3	7-1/2	2.2	5.5	3	C25DND325_	85.00	C25DRD325_	81.00
		460	125	—	10	—	7.5	4	C25END425_	112.00	—	—
		575	100	—	10	—	7.5	—	—	—	—	—
30	40	115	180	2	—	1.5	—	2	C25DND230_	85.00	C25DRD230_	81.00
		230	180	5	10	3.7	7.5	3	C25DND330_	92.50	C25DRD330_	88.00
		460	150	—	15	—	11	4	C25END430_	126.00	—	—
		575	120	—	15	—	11	—	—	—	—	—
40	50	115	240	3	—	2.2	—	2	C25DNF240_	101.00	C25DRF240_	96.00
		230	240	7-1/2	10	5.5	7.5	3	C25DNF340_	112.00	C25DRF340_	106.00
		460	200	—	20	—	15	4	C25ENF440_	147.00	—	—
		575	160	—	20	—	15	—	—	—	—	—
50	65	115	300	3	—	2.2	—	2	C25DNJ250_	180.00	C25DRJ250_	171.00
		230	300	10	15	7.5	11	3	C25DNJ350_	197.00	C25DRJ350_	187.00
		460	250	—	30	—	22	—	—	—	—	—
		575	200	—	30	—	22	—	—	—	—	—
60	75	115	360	5	—	3.7	—	2	C25FNF260_	215.00	NA	—
		230	360	10	20	7.5	15	3	C25FNF360_	235.00	—	—
		460	300	—	40	—	30	—	—	—	—	—
		575	240	—	40	—	30	—	—	—	—	—
75	90	115	450	5	—	3.7	—	2	C25FNF275_	291.00	NA	—
		230	450	15	20	11	18.5	3	C25FNF375_	312.00	—	—
		460	375	—	50	—	37	—	—	—	—	—
		575	300	—	50	—	37	—	—	—	—	—
90	120	115	540	7-1/2	—	5.7	—	2	C25GNF290_	362.00	NA	—
		230	540	20	30	15.1	22	3	C25GNF390_	387.00	—	—
		460	450	—	50	—	37	—	—	—	—	—
		575	360	—	50	—	37	—	—	—	—	—
120	140	230	720	—	—	—	—	3	C25HNE3120_	476.00	NA	—
		460	720	—	—	—	—	—	—	—	—	—
		575	570	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—
200	200	240	1200	—	—	—	—	3	C25KNE3200_	1,180.00	NA	—
		480	1200	—	—	—	—	—	—	—	—	—
		600	1000	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—
300	300	240	1800	—	—	—	—	3	C25KNE3300_	2,025.00	NA	—
		480	1800	—	—	—	—	—	—	—	—	—
		600	1500	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—
360	360	240	2320	—	—	—	—	3	C25LNE3360_	2,550.00	NA	—
		480	2320	—	—	—	—	—	—	—	—	—
		600	1900	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—

① Incomplete Catalog Number. Replace underscore ( \_ ) in Catalog Number with Magnet Coil Suffix from table below.

② Carton quantities including 20 individually packaged units are available for 2- and 3-pole units through 60A inductive.

③ Contactors with DC coils (only available up to 75A) include an early break NC auxiliary contact, C320KGD1. See **Page 34** for more details.

④ Available only for 15A through 75A contactors and 4-pole contactors.

⑤ Available through 75A.

⑥ Available through 120A.

⑦ Available 120 – 360A.

⑧ Available 15 – 90A, others 240V.

⑨ Available through 50A.

Table 13. Magnet Coil Selection

Voltage		Coil Suffix
60 Hertz	50 Hertz	
AC ⑩		
12 ⑤	12	R
24 ⑥	24	T
110 – 120 ⑩	110 – 120 ⑩	A
208 ⑦	—	E
208 – 240 ⑧	208 – 240	B
240 ⑨	220	J
277	—	H
—	380 – 415	L
440 – 480	440 – 480	C
550 – 600	550 – 600	D
DC ③		
12		1R
24		1T
48		1W
120		1A ④

⑩ 104 – 120V 50/60 Hz for 60A, 75A and all 4-Pole Contactors (25A – 40A).

⑪ Class H AC Coils available as option for 15A – 50A Contactor. Add 2 before AC Coil Suffix letter.

Technical Data ..... **Pages 5, 35**  
Options ..... **Page 7**  
Accessories ..... **Page 7**  
Dimensions ..... **Page 31**  
Discount Symbol ..... **1CD-5C**

## Application Description

These Cutler-Hammer® ampere and horsepower rated devices from Eaton's electrical business are designed for service in applications such as Refrigeration, Air Conditioning and Resistance Heating and are manufactured to traditional Cutler-Hammer standards for quality and reliability. They are subjected to stringent quality assurance inspections and

testing procedures. The life expectancy, both electrical and mechanical, will meet or exceed industry performance requirements for Definite Purpose devices.

If more detailed technical information is required — specifications, ratings, etc. — contact your local Eaton distributor or sales office.

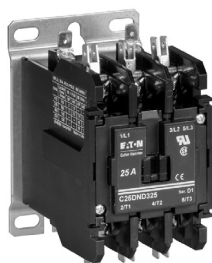
## Catalog Number Selection

Table 1. Definite Purpose Control Catalog Numbering System

<b>C 25 D N A 2 15 A A 161 - 84</b>									
<b>Model</b> C = Contactor A = Three-Phase Starter B = Single-Phase Starter			<b>Bulk Packaging</b> Blank = individual pkg. -84 = 20 pc./pkg. (C25D_) 50 pc./pkg. (C25A_, C25B_, C25C_) -86 = Rotate coil terminals 180° for 15A – 50A Contactors						
<b>Type</b> 25 = Non-reversing Contactors & Starters 27 = Non-reversing Starters 29 = Non-reversing Starters 65 = Reversing Contactors			<b>Fuse Blocks</b> 161 = Class M, 600V, 30A 237 = Class G, 300V, 15A 238 = Class G, 300V, 20A 231 = Class G, 300V, 30A 232 = Class G, 300V, 60A 361 = Class J, 600V, 30A 362 = Class J, 600V, 60A 431 = Class T, 300V, 30A 432 = Class T, 300V, 60A 461 = Class T, 600V, 30A 462 = Class T, 600V, 60A 521 = Class H, 250V, 30A 522 = Class H, 250V, 60A 621 = Class R, 250V, 30A 622 = Class R, 250V, 60A						
<b>Contactor Frame Size</b> A = Compact 1-Pole B = Compact 2-Pole C = Compact 1-Pole W/Shunt D = 15 – 50A, 2- and 3-Pole E = 25 – 40A, 4-Pole F = 60 – 75A, 2- and 3-Pole G = 90A, 2- and 3-Pole H = 120A, 2- and 3-Pole K = 200 and 300A, 3-Pole L = 360A, 3-Pole <b>For Starters Only</b> C = Common Control Wiring S = Separate Control Wiring			<b>Auxiliary Contacts (Side Mount)</b> A = 1NO Pressure Plate B = 1NC Pressure Plate C = 1NO-1NC Pressure Plate D = 2NO Pressure Plate E = 2NC Pressure Plate F = 1NO Pressure Plate and QC G = 1NC Pressure Plate and QC H = 1NO-1NC Pressure Plate and QC J = 2NO Pressure Plate and QC K = 2NC Pressure Plate and QC L = 1NO-1NC Snap Switch QC Only M = 2NO-2NC Snap Switch QC Only						
<b>Enclosure Type</b> N = Open with Metal Mounting Plate R = Open with DIN Rail Mounting Adapter (2- and 3-Pole, 15 – 50A Contactors Only) G = NEMA Type 1 Enclosed			<b>Coil Selection</b> A = 110 – 120V AC, 50/60 Hz B = 208 – 240V AC, 50/60 Hz C = 440 – 480V AC, 50/60 Hz D = 550 – 600V AC, 50/50 Hz H = 277V AC, 60 Hz J = 220 – 240 V AC, 50/60 Hz L = 380 – 415V AC, 50 Hz R = 12V AC, 50/60 Hz T = 24V AC, 50/60 Hz 1R = 12V DC 1T = 24V DC 1W = 48V DC 1A = 120V DC						
<b>Power Terminals</b> A = Binding Head Screw B = Binding Head Screw and Quick Connect Terminals (side by side) C = Screw/Pressure Plate ① D = Screw/Pressure Plate and Quick Connect Terminals (side by side) ① E = Box Lugs (Posidrive Setscrew) F = Box Lugs (Posidrive Setscrew) and Quick Connect Terminals (side by side) G = Binding Head Screw and Quick Connect Terminals (vertical in-line) H = Screw/Pressure Plate and Quick Connect Terminals (vertical in-line) ① J = Box Lugs (Posidrive Setscrew) and Quick Connect Terminals (vertical in-line) K = Box Lugs (Hex Socket Allen Head Setscrew) L = Box Lugs (Hex Socket Allen Head Setscrew) and Quick Connect Terminals (side by side) M = Box Lugs (Hex Socket Allen Head Setscrew) and Quick Connect Terminals (vertical in-line)			<b>No. of Poles</b> 1 = 1-Pole 2 = 2-Pole 3 = 3-Pole 4 = 4-Pole			<b>Current Rating</b> 15 = 15A 25 = 25A 30 = 30A 40 = 40A 50 = 50A 60 = 60A 75 = 75A 90 = 90A 120 = 120A 200 = 200A 300 = 300A 360 = 360A			

① Not available on 50A devices.

① Not available on 50A devices.



50 mm DP Contactor

## Product Description

Cutler-Hammer® Type C25 Definite Purpose Contactors 15A through 360A, from Eaton's electrical business incorporate most competitive contactor mounting dimensions into a single baseplate. Contactors are dual-rated with inductive and resistive ratings as well as horsepower and kilowatt ratings. C25 contactors are furnished with pressure plates and quick connect terminals as standard on 15, 25 and 30A devices and with box lugs and quick-connect terminals on 40, 50, 60 and 75A. Other terminal configurations are available, see **Table 14**. 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 rated 15 – 50A only are available with DIN rail mount as a factory installed option.

## Standards and Certifications

- UL Recognized Components  
UL File #E-1491, Guide NLDX2
- CSA Certified Components  
File #LR353, Class 3211 04, 481301 & 122201
- IEC 60947-4-1
- EN 60947-4-1



- RoHS Compliance (15A to 50A Only)



## Technical Data and Specifications

- 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)

- Contacts: Double break
- Coil terminals: 10 – 14 AWG
- Ambient temperature: 150°F (65°C) maximum
- UL recognized, CSA certified and conform to ARI 780
- CE mark
- Terminal wire range:
  - #8–32 binding head screw: 14 – 12 AWG (one conductor-solid)
  - #8–32 screw/pressure plate:
    - 14 – 8 AWG (one conductor)
    - 14 – 8 AWG (two conductors)
  - Box lugs — 15 – 50A:
    - # 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
  - Upper Level: 14 – 2 AWG
  - Lower Level: 14 – 6 AWG

**Note:** The box lugs on the 15 – 75A device can accept two conductors per pole.

- Box lugs — 90A: 1/0 – 14 AWG
- Box lugs — 120A: 3/0 – 8 AWG
- Box lugs — 200 – 300A: 350 MCM – 6 AWG
- Box lugs — 360A: 750 MCM – 2 AWG

**Table 7. Lighting Duty Ratings (25A to 50A Only)**

C25D Inductive Rating	Tungsten & Ballast (480V)
25A	30A
30A	40A
40A	50A
50A	60A

**Table 8. IEC/CE Ratings (IEC 60947-4-1, EN 60947-4-1) for 15A through 50A C25D Contactors**

C25D Inductive Rating	AC-1 (Ic)		AC-3 (Ie)		AC-4 (Ie)		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

**Table 9. DC Ratings (15A to 50A Only)**

Voltage	2-Pole, 15 – 30A Inductive			2-Pole, 40A Inductive			3-Pole, 15 – 30A Inductive			3-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>
240V DC 3 Poles in Series	—	—	—	—	—	—	4	3/4	4	5	1	5
120V DC 3 Poles in Series	—	—	—	—	—	—	8	3/4	8	10	1	10
120V DC 2 Poles in Series	5.5	1/2	5.5	8	3/4	8	5.5	1/2	5.5	8	3/4	8
120V DC per Pole	2	1/10	2	3.5	1/4	3.5	2	1/10	2	3.5	1/4	3.5
24V DC per Pole	15	—	15	20	—	20	15	—	15	20	—	20

**Table 10. Contactor Torque Ratings**

Contactor Size	Terminal	Wire Range	Tightening Torque
15 – 50A ①	8–32 Binding Head Screw	12 – 14 AWG	22 lb-in
	Screw/Pressure Plate	8 – 14 AWG	15 lb-in
	Box Lug	12 – 14 AWG 10 AWG 8 AWG 4 – 6 AWG	15 lb-in 25 lb-in 40 lb-in 45 lb-in
60 – 75A ②	Box Lug	10 – 14 AWG 8 AWG 3 – 6 AWG	40 lb-in 45 lb-in 50 lb-in
90A	Box Lug	1/0 – 14 AWG	60 lb-in
120A	Box Lug	8 AWG 4 – 6 AWG 3 – 1/0 AWG	40 lb-in 45 lb-in 50 lb-in
200 – 300A	Box Lug	6 – 350 MCM	200 lb-in
360A	Box Lug	2 – 750 MCM	550 lb-in

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

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