

#### Definite Purpose Contactors and Starters



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#### Product Overview

Eaton offers the most complete line of Definite Purpose (DP) contactors in the industry. Designed for heating, ventilation, air conditioning and refrigeration (HVACR) applications, Eaton's DP contactors are designed to handle the most challenging installations.

#### Application Description

These ampere and horsepower rated devices from Eaton's Electrical Sector are designed for service in applications such as refrigeration, air conditioning and resistance heating and are manufactured to traditional 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, and so on—contact your local Eaton distributor or sales office.

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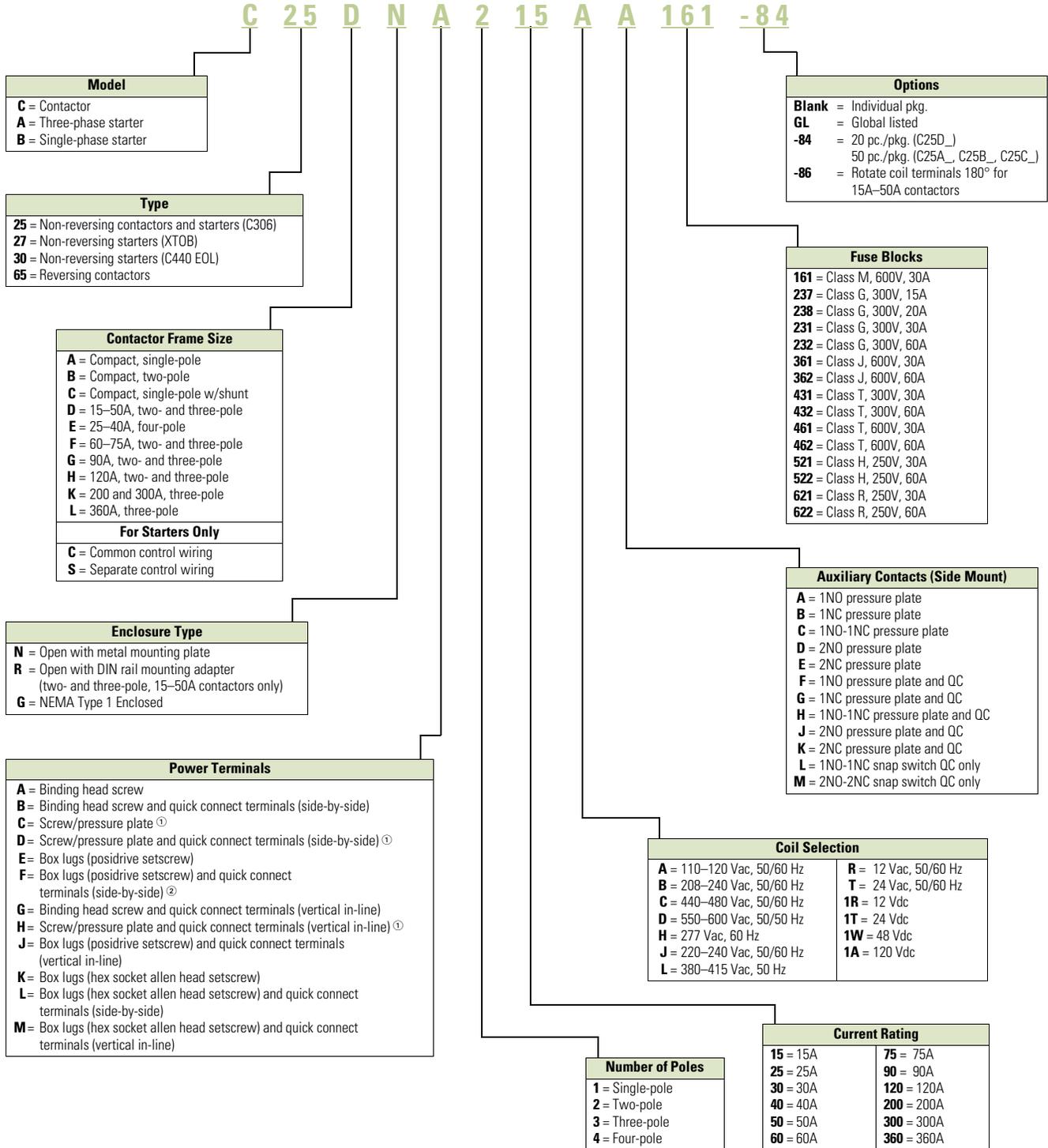
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#### Features

- Completely encased design impervious to dust and other environmental elements
- 15–360A contactor ratings
- Single-, two-, three- and four-pole configurations
- Contactors and starters (up to 60A)
- Open components and enclosed designs

### Catalog Number Selection

#### Definite Purpose Control—Contactors and Starters



**Notes**

- ① Not available on 50A devices.
- ② Vertical in-line quick connect terminals on 60A and 75A F frame.

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 (excluding 90A) 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 Catalog Number ①	With DIN Rail Adapter Catalog Number ①	With Baseplate Catalog Number ①
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				
120	140	230	720	—	—	—	—	3	C25HNE3120_	—	—
		460	720								
		575	570								
200	200	240	1200	—	—	—	—	3	C25KNE3200_	—	—
		480	1200								
		600	1000								
300	300	240	1800	—	—	—	—	3	C25KNE3300_	—	—
		480	1800								
		600	1500								
360	360	240	2320	—	—	—	—	3	C25LNE3360_	—	—
		480	2320								
		600	1900								

#### Note

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

**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.

**Renewal Parts**

**Renewal Contact Kits for C25 Definite Purpose Contactors**

- Replace complete contactor for:
  - C25A\_
  - C25B\_
  - C25C\_
  - C25D\_

**Renewal Contact Kits for C25 Definite Purpose Contactors**

Catalog Number	Single-Pole Kit Part Number	Two-Pole Kit Part Number	Three-Pole Kit Part Number
C25FNF250	—	6-65-5	—
C25FNF350	—	—	6-65-6
C25FNF260	—	6-65-7	—
C25FNF360	—	—	6-65-8
C25FNF275	—	6-65-20	—
C25FNF375	—	—	6-65-19
C25GNF290	—	—	—
C25GNF390	—	—	—
C25HNE3120	—	—	6-43-6
C25KNE3200	—	—	6-288
C25KNE3300	—	—	6-286
C25LNE3360	—	—	6-45-2

**Product Selection**

**AC Coils**

AC Coil Voltage	Frequency	Inrush (Maximum)		Sealed (Maximum)		Coil Suffix	Class	Part Number
		VA	Watts	VA	Watts			
<b>15, 25, 30 and 40A – Two- and Three-Pole (Series D1 and E1)</b>								
12	60	74.85	46.1	5.53	1.68	<b>R</b>	Class F, 155°C	<b>9-3185-5</b>
24		81.35	49.7	5.83	1.74	<b>T</b>		<b>9-3185-6</b>
110/120		74.69	51.6	5.79	1.81	<b>A</b>		<b>9-3185-1</b>
208/240		82.64	59.1	6.96	2.38	<b>B</b>		<b>9-3185-2</b>
220/240	60	74.03	51.8	5.85	1.99	<b>J</b>	Class F, 155°C	<b>9-3185-10</b>
440/480		73.39	52.1	6.09	2.58	<b>C</b>		<b>9-3185-3</b>
550/600		79.47	51.7	6.56	3.05	<b>D</b>		<b>9-3185-4</b>
277		72.88	52.4	6.09	2.58	<b>H</b>		<b>9-3185-7</b>
380/415	50	64.5	50.6	6.08	2.43	<b>L</b>	Class F, 155°C	<b>9-3185-8</b>
<b>15, 25, 30 and 40A – Two- and Three-Pole (Series C1)</b>								
12	60	65	30	11	2.5	<b>R</b>	Class F, 155°C	<b>9-3125-5</b>
24		65	30	11	2.5	<b>T</b>		<b>9-3125-6</b>
104/120		65	30	11	2.5	<b>A</b>		<b>9-3125-1</b>
208/240	50	75	35	17	3.5	<b>B</b>	Class F, 155°C	<b>9-3125-2</b>
440/480		75	35	17	3.5	<b>C</b>		<b>9-3125-3</b>
550/600		75	35	17	3.5	<b>D</b>		<b>9-3125-4</b>
277	60	65	30	11	2.5	<b>H</b>	Class F, 155°C	<b>9-3125-8</b>
380/415	50	75	35	17	3.5	<b>L</b>	Class F, 155°C	<b>9-3125-8</b>