

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

① Not available on 50A devices.

## Product Selection

## When Ordering Specify

- Catalog Number plus Magnet Coil Suffix, below.

- Modify Catalog Number for any options required — see Options, **Page 6**.
- Catalog Numbers of accessory kits required, **Page 6**.

Table 11. Catalog Numbering System

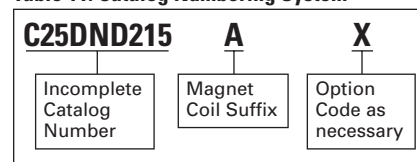


Table 12. C25 Contactors Product Selection— Open Type

| 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                   | * | Catalog Number ①②               | * |
| 15                  | 20                 | 115<br>230<br>460<br>575 | 90<br>90<br>75<br>60     | 3/4<br>2<br>—<br>—       | —<br>3<br>5<br>5       | 0.40<br>1.5<br>—<br>—   | —<br>2.2<br>3.7<br>3.7 | 2<br>3          | C25DND215<br>C25DND315              |   | C25DRD215<br>C25DRD315          |   |
| 25                  | 35                 | 115<br>230<br>460<br>575 | 150<br>150<br>125<br>100 | 2<br>3<br>—<br>—         | —<br>7-1/2<br>10<br>10 | 1.5<br>2.2<br>—<br>—    | —<br>5.5<br>7.5<br>7.5 | 2<br>3<br>4     | C25DND225<br>C25DND325<br>C25END425 |   | C25DRD225<br>C25DRD325          |   |
| 30                  | 40                 | 115<br>230<br>460<br>575 | 180<br>180<br>150<br>120 | 2<br>5<br>—<br>—         | —<br>10<br>15<br>15    | 1.5<br>3.7<br>—<br>—    | —<br>7.5<br>11<br>11   | 2<br>3<br>4     | C25DND230<br>C25DND330<br>C25END430 |   | C25DRD230<br>C25DRD330          |   |
| 40                  | 50                 | 115<br>230<br>460<br>575 | 240<br>240<br>200<br>160 | 3<br>7-1/2<br>—<br>—     | —<br>10<br>20<br>20    | 2.2<br>5.5<br>—<br>—    | —<br>7.5<br>15<br>15   | 2<br>3<br>4     | C25DNF240<br>C25DNF340<br>C25ENF440 |   | C25DRF240<br>C25DRF340          |   |
| 50                  | 65                 | 115<br>230<br>460<br>575 | 300<br>300<br>250<br>200 | 3<br>10<br>—<br>—        | —<br>15<br>30<br>30    | 2.2<br>7.5<br>—<br>—    | —<br>11<br>22<br>22    | 2<br>3          | C25DNJ250<br>C25DNJ350              |   | C25DRJ250<br>C25DRJ350          |   |
| 60                  | 75                 | 115<br>230<br>460<br>575 | 360<br>360<br>300<br>240 | 5<br>10<br>—<br>—        | —<br>20<br>40<br>40    | 3.7<br>7.5<br>—<br>—    | —<br>15<br>30<br>30    | 2<br>3          | C25FNF260<br>C25FNF360              |   | NA                              |   |
| 75                  | 90                 | 115<br>230<br>460<br>575 | 450<br>450<br>375<br>300 | 5<br>15<br>—<br>—        | —<br>20<br>50<br>50    | 3.7<br>11<br>—<br>—     | —<br>18.5<br>37<br>37  | 2<br>3          | C25FNF275<br>C25FNF375              |   | NA                              |   |
| 90                  | 120                | 115<br>230<br>460<br>575 | 540<br>540<br>450<br>360 | 7-1/2<br>20<br>—<br>—    | —<br>30<br>50<br>50    | 5.7<br>15.1<br>—<br>—   | —<br>22<br>37<br>37    | 2<br>3          | C25GNF290<br>C25GNF390              |   | NA                              |   |
| 120                 | 140                | 230<br>460<br>575        | 720<br>720<br>570        | —<br>—<br>—              | —<br>—<br>—            | —<br>—<br>—             | —<br>—<br>—            | 3               | C25HNE3120                          |   | NA                              |   |
| 200                 | 200                | 240<br>480<br>600        | 1200<br>1200<br>1000     | —<br>—<br>—              | —<br>—<br>—            | —<br>—<br>—             | —<br>—<br>—            | 3               | C25KNE3200                          |   | NA                              |   |
| 300                 | 300                | 240<br>480<br>600        | 1800<br>1800<br>1500     | —<br>—<br>—              | —<br>—<br>—            | —<br>—<br>—             | —<br>—<br>—            | 3               | C25KNE3300                          |   | NA                              |   |
| 360                 | 360                | 240<br>480<br>600        | 2320<br>2320<br>1900     | —<br>—<br>—              | —<br>—<br>—            | —<br>—<br>—             | —<br>—<br>—            | 3               | C25LNE3360                          |   | NA                              |   |

- 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 33** 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 ①        |             |                                                |
| 12 ⑤        | 12          | R<br>T<br>A<br>E<br>B<br>J<br>H<br>L<br>C<br>D |
| 24 ⑥        | 24          |                                                |
| 110 – 120 ⑧ | 110 – 120 ⑧ |                                                |
| 208 ⑦       | —           |                                                |
| 208 – 240 ⑧ | 208 – 240   |                                                |
| 240 ⑨       | 220         |                                                |
| 277         | —           |                                                |
| —           | 380 – 415   |                                                |
| 440 – 480   | 440 – 480   |                                                |
| 550 – 600   | 550 – 600   |                                                |
| 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 4, 34**  
Options ..... **Page 6**  
Accessories..... **Page 6**  
Dimensions..... **Page 30**  
Discount Symbol..... **1CD-5C**

\* Consult Sales Office for Pricing