

# Product Details and Certifications

## Cross Reference RA Part Number: PN-D10616

### Product: **PN-D10616**

Description: NEMA AC/DC Contactor, Motor Loads, Feed-Through , SIZE 2 Provision for Mounting Overload Relay, 460-480V 60Hz, Open, 3 Power Poles

#### NOTE:

This Part Number is Based on Standard Contactor as Reference: 500F-COD930

Replacement Coils:

Standard Coil Removed CC236

Heavy Load Coil Added CC273C



Representative Photo Only (actual product may vary based on configuration sections)

### **CONTACTOR DATA**

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|                              |                           |
|------------------------------|---------------------------|
| Bulletin Number              | 500 NEMA AC/DC Contactors |
| Continuous Ampere Rating (A) | 45 A                      |
| NEMA Size                    | NEMA 2                    |
| Enclosure Type               | Open                      |
| Coil Voltage                 | 460-480V 60Hz             |
| Pole Configuration           | 3 Power Poles             |
| With One Auxiliary Contact   | Yes                       |

### **PRODUCT**

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|              |            |
|--------------|------------|
| Product Type | Open Style |
|--------------|------------|

### **ASSEMBLY**

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|           |             |
|-----------|-------------|
| Assembly? | Modular Kit |
|-----------|-------------|

### **SYSTEM VOLTAGE DATA**

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|        |          |
|--------|----------|
| Phases | 3 Phases |
|--------|----------|

### **CERTIFICATIONS AND APPROVALS**

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NEMA/EEMAC

UL

CSA

ABS

USCG

IEEE



CE

For UL Certifications Directory:


<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>





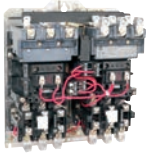
**NEMA AC Contactors**

|                                     |  |  |
|-------------------------------------|--|--|
|                                     |   |   |
| <b>Bulletin</b>                     | 500  | <b>500F</b>  |
| <b>Description</b>                  | Top-wired contactor  | Feed-through contactor   |
| <b>NEMA Size</b>                    | 00...9   | 0...5  |
| <b>Continuous Ampere Rating [A]</b> | 9...2250   | 18...270   |
| <b>Availability</b>                 | <b>NEMA size 0...4, open type</b><br>Modular kits and components<br><b>NEMA size 00, 5...9, open type</b><br>Factory assembled<br><b>NEMA size 00...9, enclosed</b><br>Factory assembled   | <b>NEMA size 0...4, open type</b><br>Modular kits and components<br><b>NEMA size 5, open type</b><br>Factory assembled<br><b>NEMA size 0...5, enclosed</b><br>Factory assembled  |
| <b>Enclosures (NEMA Type)</b>       | 1, 3R/4/12, 4/4X, 7, and 9   | —  |
| <b>Standards</b>                    | <ul style="list-style-type: none"> <li>NEMA/EEMAC ICS2 (Industrial Controls and Systems)</li> <li>UL 508</li> <li>CSA C22.2, No. 14</li> <li>ABS 4/5.115</li> <li>USCG 46 CFR 111.70</li> <li>IEEE 45</li> </ul>                                     | <ul style="list-style-type: none"> <li>NEMA/EEMAC ICS2 (Industrial Controls and Systems)</li> <li>UL 508</li> <li>CSA C22.2, No. 14</li> <li>ABS 4/5.115</li> <li>USCG 46 CFR 111.70</li> <li>IEEE 45</li> </ul>                                     |
| <b>Certifications</b>               | <ul style="list-style-type: none"> <li>UL Listed (File No. E3125; Guide No. NLDX)</li> <li>(File No. E10314; Guide No. NPKR)</li> <li>CSA Certified (LR1234)</li> <li>CE Marked (Per EN 60947)</li> <li>American Bureau of Shipping (ABS)</li> </ul> | <ul style="list-style-type: none"> <li>UL Listed (File No. E3125; Guide No. NLDX)</li> <li>(File No. E10314; Guide No. NPKR)</li> <li>CSA Certified (LR1234)</li> <li>CE Marked (Per EN 60947)</li> <li>American Bureau of Shipping (ABS)</li> </ul> |
| <b>Product Selection</b>            | <b>Page 1-31</b>   | <b>Page 1-36</b>   |

**NEMA Compact AC Contactors and Starters**

|                           |   |
|---------------------------|---|
|                           |    |
| <b>Bulletin</b>           | 300, 305, 309   |
| <b>Features</b>           | <ul style="list-style-type: none"> <li>Modular line of NEMA contactors &amp; starters</li> <li>Space saving design</li> <li>Electronic &amp; conventional coils</li> <li>DIN Rail mountable</li> <li>Common accessories</li> <li>Guarded terminals</li> </ul> |
| <b>NEMA Size</b>          | 0...5   |
| <b>DIN Rail Mountable</b> | ✓   |
| <b>Certifications</b>     | cULus Listed (File No. E41850, Guide No. NLDX, NLDX7)<br>CE Marked (per EN60947-4-1)  |
| <b>Product Selection</b>  | <b>Page 1-60</b>  |

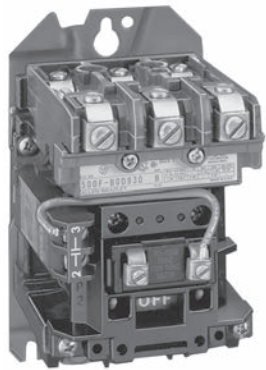
**NEMA Starters**

|                                 |   |  |  |
|---------------------------------|---|--|--|
|                                 |    |   |   |
| <b>Bulletin</b>                 | 505   | 509  | 520  |
| <b>Description</b>              | Reversing starters  | Non-reversing starters   | Multi-speed starters   |
|                                 | <b>3-Phase 600V, 3-Pole Overload Protection</b>   |  |  |
| <b>NEMA Size</b>                | 00...8  | 00...9   | 0...7  |
| <b>Continuous Ampere Rating</b> | 9...1215 A  | 9...2250 A   | 18...810 A   |
| <b>Availability</b>             | <b>All sizes</b><br>Factory assembled   | <b>NEMA size 0...4, open type</b><br>Modular kits and components<br><b>NEMA size 00, 5...9, open type</b><br>Factory assembled<br><b>NEMA size 00...9, enclosed</b><br>Factory assembled                                       | <b>All sizes</b><br>Factory assembled  |
| <b>Enclosure Type</b>           | 1, 3R/4/12, 4/4X, 7, and 9  | 1, 3R/4/12, 4/4X, 7, and 9   | 1, 3R/4/12, 4/4X, 7, and 9   |
| <b>Standards</b>                | <ul style="list-style-type: none"> <li>NEMA/EEMAC ICS 2 (Industrial Controls and Systems)</li> <li>UL 508</li> <li>CSA C22.2, No. 14</li> <li>ABS 4/5.115</li> <li>USCG 46 CFR 111.70</li> </ul>  | <ul style="list-style-type: none"> <li>NEMA/EEMAC ICS 2 (Industrial Controls and Systems)</li> <li>UL 508</li> <li>CSA C22.2, No. 14</li> <li>ABS 4/5.115</li> <li>USCG 46 CFR 111.70</li> </ul>                               | <ul style="list-style-type: none"> <li>NEMA/EEMAC ICS (Industrial Controls and Systems)</li> <li>UL 508</li> <li>CSA C22.2, No. 14</li> <li>ABS 4/5.115</li> </ul>   |
| <b>Certifications</b>           | <ul style="list-style-type: none"> <li>UL Listed (File No. E3125; Guide No. NLDX)</li> <li>CSA Certified (File LR 1234)</li> <li>CE Marked (per EN 60947-4-1)</li> <li>American Bureau of Shipping (ABS)</li> <li>Hazardous Location: UL Listed (File No. E10314), CSA Certified (File No. LR 11924)</li> </ul> | <ul style="list-style-type: none"> <li>UL Listed (File No. E3125; Guide No. NLDX)</li> <li>CSA Certified (File LR 1234)</li> <li>Hazardous Location: UL Listed (File No. E10314), CSA Certified (File No. LR 11924)</li> </ul> | <ul style="list-style-type: none"> <li>UL Listed (File No. E3125; Guide No. NLDX)</li> <li>CSA Certified (File LR 1234)</li> <li>Hazardous Location: UL Listed (File No. E10314), CSA Certified (File No. LR 11924)</li> </ul> |
| <b>Product Selection</b>        | <b>Page 1-39</b>  | <b>Page 1-46</b>   | <b>Page 1-53</b>   |



# NEMA Feed-Through AC Contactors

Product Overview/Cat. No. Explanation



**Size 1, 3-Pole  
Open Type without Enclosure  
Feed-Through Construction  
with Auxiliary Contact**

### Bulletin 500F Open Type Feed-Through Contactor

- Feed-through construction
  - Contactor can be field wired for single- or three-phase applications
- NEMA sizes 0...4 (open type)
- Available as components or a modular kit for faster delivery
  - Product selection can be done via two options:
    - Ordering a complete kit
    - Ordering individual components
  - Feed-through contactor includes a 120V AC coil and (1) N.O. auxiliary contact, as standard
- NEMA size 5 (open type)
- Available as factory assembled

### Table of Contents

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### Standards Compliance

NEMA/EEMAC ICS 2  
 UL 508  
 CSA C22.2 No.14  
 ABS 4/5.115 — American Bureau of Shipping  
 UCSG 46 CFR 111.70  
 IEEE 45  
 EN/IEC 60947-4-1

### Certifications

CE Marked  
 CSA Certified (LR1234)  
 UL Listed (File No. E3125, Guide No. NLDX)

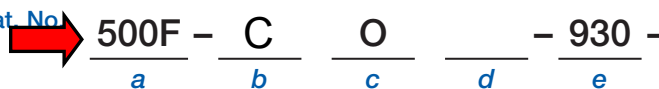
### Catalog Number Explanation

For flexibility, devices may be ordered in a convenient modular kit or as individual components.

#### A modular kit includes:

- Base contactor
- Selectable options
- Selectable coil voltage

#### Modular Kit Example Cat. No.



**NOTE:**  
For Coil options see page 5.

**a**

| Bulletin No. |                                     |
|--------------|-------------------------------------|
| Bulletin No. | Description                         |
| 500F         | Feed-through contactor              |
| 500FC        | Feed-through contactor (DC voltage) |

**b**

| NEMA Size |             |
|-----------|-------------|
| Code      | Description |
| A         | 0           |
| B         | 1           |
| C         | 2           |
| D         | 3           |
| E         | 4           |

**c**

| NEMA Enclosure Type |              |
|---------------------|--------------|
| Code                | Type         |
| O                   | No enclosure |

**d**

| Nominal Coil Voltage |               |                |
|----------------------|---------------|----------------|
| Code                 | Voltage       | Frequency      |
| A                    | 220V<br>240V  | 50 Hz<br>60 Hz |
| B                    | 440V<br>480V  | 50 Hz<br>60 Hz |
| C                    | 550V<br>600V  | 50 Hz<br>60 Hz |
| D                    | 110V<br>120V  | 50 Hz<br>60 Hz |
| F                    | 277V          | 60 Hz          |
| H                    | 200...208V    | 60 Hz          |
| I                    | 415V          | 50 Hz          |
| J                    | 24V           | 50/60 Hz       |
| N                    | 380V          | 50 Hz          |
| VL                   | 24V DC        | —              |
| VG                   | 125...250V DC | —              |

**e**

| Number of Poles |  |
|-----------------|--|
| Code            | Voltage Description                              |
| 930             | Three Power Poles and (1) N.O. Auxiliary Contact |

**f**

| Options |  |
|---------|--|
| Code    | Voltage Description                      |
| 17      | Surge Suppressor for 120 or 240V AC Coil |
| 90      | (1) N.O. Auxiliary Contact*              |
| 91      | (1) N.C. Auxiliary Contact*              |

\* Up to (6) combinations of auxiliary contacts can be selected. Example: Code 90011 indicates (2) N.O. and (2) N.C. contacts.

# NEMA Feed-Through AC Contactors

Product Selection — Modular Kit

## Product Selection of NEMA sizes 0...4 by Modular Kits



1

### Base Contactor

Includes a 120V AC coil and (1) N.O. auxiliary contactor as standard.

| NEMA Size | Continuous Ampere Rating [A] | Maximum Horsepower Rating<br>Full Load Current Must Not Exceed "Continuous Ampere Rating" |           |                       |           |                     |            | 3 Power Poles • 600V AC<br>Maximum • 60 Hz |
|-----------|------------------------------|---|-----------|-----------------------|-----------|---------------------|------------|--|
|           |                              | 1-Phase Motor Voltage   |           | 3-Phase Motor Voltage |           |                     |            |  |
|           |                              | 115V  | 230V      | 200V                  | 230V      | 50 Hz<br>380...415V | 460...575V |  |
| 0         | 18                           | —   | 3         | 3                     | 3         | 5                   | 5          | 500F-AO $\otimes$ 930                      |
| 1         | 27                           | —   | 7.5       | 7.5                   | 7.5       | 10                  | 10         | 500F-BO $\otimes$ 930                      |
| <b>2</b>  | <b>45</b>                    | <b>—</b>  | <b>15</b> | <b>10</b>             | <b>15</b> | <b>25</b>           | <b>25</b>  | <b>500F-CO<math>\otimes</math>930</b>      |
| 3         | 90                           | —   | 30        | 25                    | 30        | 50                  | 50         | 500F-DO $\otimes$ 930                      |
| 4         | 135                          | —   | 50        | 40                    | 50        | 75                  | 100        | 500F-EO $\otimes$ 930                      |
| 5         | 270                          | —   | —         | 75                    | 100       | 150                 | 200        | +  |

+ See page 1-38 for NEMA size 5 contactors.

### ⊗ Coil Voltage Code

The cat. no. as listed is incomplete. Select a coil voltage code from the table below to complete the cat. no.

Example: **Cat. No. 500F-AO $\otimes$ 930** becomes **Cat. No. 500F-AOD930**. For other voltages, please consult your local Rockwell Automation sales office or Allen-Bradley distributor.

| [V]       | 24 | 110 | 120      | 125 | 208      | 220 | 240      | 250 | 277      | 380 | 415 | 440 | 480      | 550 | 600      |
|-----------|----|-----|----------|-----|----------|-----|----------|-----|----------|-----|-----|-----|----------|-----|----------|
| AC, 50 Hz | J  | D   | —        | —   | —        | A   | —        | —   | —        | N   | I   | B   | —        | C   | —        |
| AC, 60 Hz | J  | —   | <b>D</b> | —   | <b>H</b> | —   | <b>A</b> | —   | <b>F</b> | —   | —   | —   | <b>B</b> | —   | <b>C</b> |
| DC        | VL | —   | —        | VG  | —        | —   | —        | VG  | —        | —   | —   | —   | —        | —   | —        |

> DC voltage code is only available for NEMA sizes 0...3. When ordering a DC voltage code (VL or VG), add "C" to the catalog number. Example: **Cat. No. 500FC-BOVL930**.

**Note:** The base contactor includes a 120V AC coil as standard. For all other voltages, a second coil will be included in the modular kit for field swap out.

### Options for Modular Kit

| Options |  |
|---------|--|
| Code    | Description                              |
| 17      | Surge Suppressor for 120 or 240V AC Coil |
| 90      | (1) N.O. Auxiliary Contact*              |
| 91      | (1) N.C. Auxiliary Contact*              |

\* Up to (6) combinations of auxiliary contacts can be selected. Example: Code 90011 indicates (2) N.O. and (2) N.C. contacts.

**Example:** **Cat. No. 500F-COD930-17-90** includes a NEMA size 2, 3-pole, contactor with a 120V AC coil, surge suppressor, and (1) N.O. auxiliary contact.



### ⊕ Operating Coils

| Coil Voltage            | Frequency (Hz) | Size 0-1<br>Size 15/20A-30A |                        | Size 2<br>Size 60A |                          | Size 3<br>Size 100A    |                          | Size 4<br>Size 200A    |                          | Size 5<br>Size 300A |
|-------------------------|----------------|-----------------------------|------------------------|--------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|---------------------|
|                         |                | 2-3 Poles<br>①②             | 4 Poles①<br>4-5 Poles② | 2 Poles①②          | 3-4 Poles①<br>3-5 Poles② | 2 Poles①<br>2-3 Poles② | 3-4 Poles①<br>4-5 Poles② | 2 Poles①<br>2-3 Poles② | 3-4 Poles①<br>4-5 Poles② | Series L④           |
| 24V                     | 60             | CB013                       | CB013                  | CC013              | CC013C                   | CD013                  | CD013                    | —                      | —                        | —                   |
|                         | 50             | CB407                       | CB407C                 | CC407              | CC407C                   | CD407                  | CD407C                   | CE407                  | —                        | AF407               |
| 110V                    | 50             | CB236                       | CB236                  | CC236              | CC236C                   | CD236                  | CD236C                   | CE236                  | CE236C                   | AF236               |
| 110-115V                | 50             | CB322                       | CB322C                 | CC322              | CC322C                   | CD322                  | CD322C                   | CE322                  | CE322C                   | AF322               |
| 115-120V                | 60             | CB236                       | CB236                  | CC236              | CC236C                   | CD236                  | CD236C                   | CE236                  | CE236C                   | AF236               |
| 200-208V                | 60             | CB249                       | CB249C                 | CC249              | CC249C                   | CD249                  | CD249C                   | CE249                  | CE249C                   | AF249               |
| 220-230V                | 50             | CB339                       | CC339                  | CC339              | CC339C                   | CD339                  | CD339C                   | CE339                  | CE339C                   | AF339               |
| 230-240V                | 50             | CB242                       | CB342C                 | CC342              | CC342C                   | CD342                  | CD342C                   | CE342                  | CE342C                   | AF342               |
|                         | 60             | CB254                       | CB254                  | CC254              | CC254C                   | CD254                  | CD254C                   | CE254                  | CE254C                   | AF254               |
| 277V                    | 60             | CB260                       | CB260                  | CC260              | CC260C                   | CD260                  | CD260C                   | CE260                  | CE260C                   | AF260               |
| 380V                    | 50             | CB354                       | CB354C                 | CC354              | CC354C                   | CD354                  | CD354C                   | CE354                  | CE354C                   | AF354               |
| 380-400V<br>("KN" Code) | 50             | CB390                       | CB390C                 | CC390              | CC390C                   | CD390                  | CD390C                   | CE390                  | CE390C                   | AF390               |
| 415V                    | 50             | CB357                       | CB357C                 | CC357              | CC357C                   | CD357                  | CD357C                   | CE357                  | CE357C                   | AF357               |
| 440-460V                | 50             | CB360                       | CB360C                 | CC360              | CC360C                   | CD360                  | CD360C                   | CE360                  | CE360C                   | AF360               |
| 460-480V                | 60             | CB273                       | CB273                  | CC273              | CC273C                   | CD273                  | CD273C                   | CE273                  | CE273C                   | AF273               |
| 500V                    | 50             | CB364                       | CB364C                 | CC364              | CC364C                   | CD364                  | CD364C                   | CE364                  | CE364C                   | AF364               |
| 575-600V                | 60             | CB278                       | CB278                  | CC278              | CC278C                   | CD278                  | CD278C                   | CE278                  | CE278C                   | AF278               |

Parts indicated with ⊕ are recommended spare parts.

- ① For Non-motor Loads (Bulletin 500L).
- ② For Motor Rated Contactors.
- ③ For Size 5 Series A coils, the nearest sales office for information.

### Operating Coil Data

| Contactor Size  | No. of Poles | Voltamperes Burden for 60 Hz Coils④ |        |               |        |               |        |               |        |               |        |               |        |
|-----------------|--------------|-------------------------------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|
|                 |              | 24 Volts                            |        | 115-120 Volts |        | 200-208 Volts |        | 230-240 Volts |        | 460-480 Volts |        | 575-600 Volts |        |
|                 |              | Inrush                              | Sealed | Inrush        | Sealed | Inrush        | Sealed | Inrush        | Sealed | Inrush        | Sealed | Inrush        | Sealed |
| 0               | 2-5          | 192                                 | 29     | 192           | 29     | 192           | 29     | 192           | 29     | 192           | 29     | 192           | 29     |
| 1               | 2-5          | 192                                 | 29     | 192           | 29     | 192           | 29     | 192           | 29     | 192           | 29     | 192           | 29     |
| 2               | 2-3          | 240                                 | 29     | 240           | 29     | 240           | 29     | 240           | 29     | 240           | 29     | 240           | 29     |
| 2               | 4-5          | 315                                 | 38     | 315           | 38     | 315           | 38     | 315           | 38     | 315           | 38     | 315           | 38     |
| 3               | 2-3          | 660                                 | 45     | 660           | 45     | 660           | 45     | 660           | 45     | 660           | 45     | 660           | 45     |
| 3               | 4-5          | 840                                 | 58     | 840           | 58     | 840           | 58     | 840           | 58     | 840           | 58     | 840           | 88     |
| 4               | 2-3          | —                                   | —      | 1225          | 69     | 1225          | 69     | 1225          | 69     | 1225          | 69     | 1225          | 69     |
| 4               | 4-5          | —                                   | —      | 1490          | 96     | 1490          | 96     | 1490          | 96     | 1490          | 96     | 1490          | 96     |
| 5<br>(Series L) | 2-3          | —                                   | —      | 1490          | 96     | 1490          | 96     | 1490          | 96     | 1490          | 96     | 1490          | 96     |

④ For 50 Hz coils, consult your nearest Allen-Bradley Sales Office.