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# D15 Series — Freedom 600V Multipole

# DC/AC Interface Module (Continued) Table 49-70. Controller Coil Voltage Ranges

| Controller Catalog<br>Number Prefix   | Controller<br>Size or Rating | Coil Range<br>Volts AC            |
|---------------------------------------|------------------------------|-----------------------------------|
| AE16, AE17, AE56,<br>AE57, CE15, CE55 | A – F<br>G – K<br>L – N      | 24 – 240<br>48 – 240<br>110 – 240 |
| AN16, AN56, CN15, CN55                | 00 – 0<br>1 – 2<br>3         | 24 _ 240<br>48 - 240<br>110 - 240 |
| CN35                                  | 10 – 30A<br>60A<br>100A      | 24 – 240<br>48 – 240<br>110 – 240 |

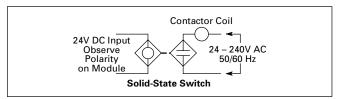


Figure 49-62. Typical Application

## **Dimensions**

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#### Table 49-71. Approximate Dimensions in Inches (mm) and Shipping Weights.

| Description   | Dimension C in Inches (mm)                  | Shipping Weights<br>Lbs. (kg)       |
|---|---|-------------------------------------|
| Relay Only<br>Relay with Timer<br>Attachment<br>Relay with Front Contact<br>Pole Deck | 3.30 (83.8)<br>5.55 (141.0)<br>4.66 (118.4) | 1.3 (0.6)<br>1.5 (0.7)<br>1.7 (0.8) |

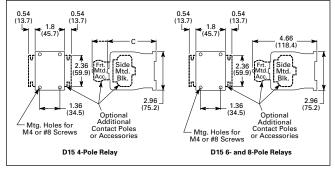


Figure 49-63. Approximate Dimensions in Inches (mm)



4-Pole Deck









4-Pole Relay with Side-Mounted Contact Block

#### **Product Selection**

#### When Ordering Specify

■ Catalog Number and Magnet Coil Code Letter. Example For a 4-pole relay having 4NO contacts with a 120V 60 Hz coil, order Catalog Number D15CR40AB.

**Table 49-72. Factory Assembled Multipole Relays** 

| Number of          | Type of | Contacts | Open Type                      |                  |
|--------------------|---------|----------|--------------------------------|------------------|
| Poles              | NO      | NC       | Catalog<br>Number <sup>①</sup> | Price<br>U.S. \$ |
| 4                  | 4       | 0        | D15CR40_B                      | 80.50            |
|                    | 3       | 1        | D15CR31_B                      | 80.50            |
|                    | 2       | 2        | D15CR22_B                      | 80.50            |
|                    | 1       | 3        | D15CR13_B                      | 80.50            |
|                    | 0       | 4        | D15CR04_B                      | 80.50            |
| 6                  | 6       | 0        | D15CR60_B                      | 109.00           |
| (4-Pole Relay      | 5       | 1        | D15CR51_B                      | 109.00           |
| with 2-Pole Front- | 4       | 2        | D15CR42_B                      | 109.00           |
| Mounted Deck)      | 3       | 3        | D15CR33_B                      | 109.00           |
|                    | 2       | 4        | D15CR24_B                      | 109.00           |
|                    | 1       | 5        | D15CR15_B 2                    | 109.00           |
|                    | 0       | 6        | D15CR06_B ②                    | 109.00           |
| 8                  | 8       | 0        | D15CR80_B                      | 134.00           |
| (4-Pole Relay      | 7       | 1        | D15CR71_B                      | 134.00           |
| with 4-Pole Front- | 6       | 2        | D15CR62_B                      | 134.00           |
| Mounted Deck)      | 5       | 3        | D15CT53_B                      | 134.00           |
|                    | 4       | 4        | D15CR44_B                      | 134.00           |
|                    | 3       | 5        | D15CR35_B ②                    | 134.00           |
|                    | 2       | 6        | D15CR26_B ②                    | 134.00           |

- ① Underscore indicates missing code suffix for magnet coil see Selection Table below.
- ② Not all Suffix Codes available: consult Customer Support Center.

#### Table 49-73 Additional Contact Poles

| Description                 | Catalog<br>Number | Price<br>U.S. \$ |
|-----------------------------|-------------------|------------------|
| Front Contact Pole Deck     | ·                 | ·                |
| 1NO-1NC                     | C320KGT3          | 27.00            |
| 2NO                         | C320KGT4          | 27.00            |
| 2NC                         | C320KGT5          | 27.00            |
| 1NO (E.C.) – 1NC (L.O.)     | C320KGT7          | 27.00            |
| 4NO                         | C320KGT13         | 54.50            |
| 3NO-1NC                     | C320KGT14         | 54.50            |
| 2NO-2NC                     | C320KGT15         | 54.50            |
| 1NO-3NC                     | C320KGT16         | 54.50            |
| 4NC                         | C320KGT17         | 54.50            |
| Side-Mounted Contact Blocks | <u>.</u>          |                  |
| 1NO-1NC                     | C320KGS3          | 27.00            |
| 2NO                         | C320KGS4          | 27.00            |
| 2NC                         | C320KGS5          | 27.00            |
| 1NO (E.C.) - 1NC (L.O.)     | C320KGS7          | 27.00            |

E.C. = Early Closing L.O. = Late Opening

## Table 49-74. Magnet Coil Selection Table

| •                                    |                |                                |                |                   |                |
|--------------------------------------|----------------|--------------------------------|----------------|-------------------|----------------|
| AC Coils<br>Volts and Hertz          | Code<br>Suffix | AC Coils<br>Volts and<br>Hertz | Code<br>Suffix | DC Coils<br>Volts | Code<br>Suffix |
|                                      |                |                                |                |                   |                |
| 120/60 or 110/50<br>240/60 or 220/50 | A<br>B         | 208/60<br>277/60               | E<br>H         | 12<br>24          | R1<br>T1       |
| 480/60 or 440/50<br>600/60 or 550/50 | C<br>D         | 208 – 240/60<br>24/60          | J<br>T         | 48<br>120         | W1<br>A1       |

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# D15 Series — Freedom 600V Multipole





4-Pole Relay

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4-Pole Relay with Front Contact Pole Deck Assembled

## **Product Description**

Contact poles on the D15 relay are of the fixed design and are not convertible. The basic 4-pole relay will accept a front-mounted contact pole deck and/or side-mounted contact blocks (one per side). In addition, a sidemounted solid-state timer or a frontmounted pneumatic timer can be added to the relay. Only one frontmounted attachment can be added to the basic relay.

# Application Description

Side-mounted contact blocks can be used to provide additional poles in applications where a pneumatic timer is installed on the front of the relav. They can also be used where panel depth is restricted.

The maximum number of contacts recommended per relay is 8, 6 of which can be NC. When a pneumatic timer is used, the maximum recommended number of NC contacts is 3.

Relays with DC coils are supplied with a coil clearing NC contact mounted on the side of the relay.

#### **Features**

- 600V, 10A continuous thermal current
- State indicator visually shows relay ON or OFF status
- Relay base has mounting holes on 35 x 60 mm centers, permitting direct replacement of competitive
- Relay also mounts on 35 mm DIN rail as standard
- Magnet coil has three terminals, permitting either top or diagonal wiring — easy to replace European or



U.S. relays without changing wiring

- Contact pole terminals have captive. backed-out, self-lifting pressure plates with ± screws — reduced wiring time
- All terminals are shrouded or "finger-proofed" to reduce possibility of electrical shock
- Designed to meet or exceed UL, NEMA, IEC, CSA, VDE, BS and other international standards

## Standards and Certifications





**®** (€

# Terminal Marking

Relay terminals are identified by a two digit number in accordance with International Standards approved by CEN-**ELEC** (European Committee for Electrotechnical Standardization). The number is marked on the relay and is used to identify location and status of the contacts.

The first digit indicates the location of the contact on the relay. The numbering begins with 1 and continues without a break from left to right.

The second digit indicates the status of the contacts (NO or NC). Terminal marking 1 and 2 mean NC and 3 and 4 mean NO.

Example of marking with 2NO and 2NC contacts:

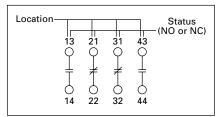


Figure 49-61. Terminal Marking

#### **Technical Data**

## Table 49-59. Contact Ratings

| NEIVIA A600     |                                |       |  |  |
|-----------------|--------------------------------|-------|--|--|
| Continuous Ther | Continuous Thermal Rating: 10A |       |  |  |
| AC Volts        | Make                           | Break |  |  |
| 120             | 60                             | 6.0   |  |  |
| 240             | 30                             | 3.0   |  |  |
| 480             | 15                             | 1.5   |  |  |
| 600             | 12                             | 1.2   |  |  |

#### **NEMA P300**

#### **Continuous Thermal Rating: 5A**

| DC Volts | Make/Break Amperes |
|----------|--------------------|
| 125      | 1.1                |
| 250      | 0.55               |

#### Table 49-60. Magnet Coil Data

| AC           | Pick-Up |       | Sealed |       |
|--------------|---------|-------|--------|-------|
| Voltage      | VA      | Watts | VA     | Watts |
| 12 –<br>600V | 80      | 49    | 7.5    | 2.4   |

| DC      | Pick-Up |       | Sealed |       |
|---------|---------|-------|--------|-------|
| Voltage | Amps    | Watts | VA     | Watts |
| 12      | 6.4     | 76.8  | 0.28   | 3.36  |
| 24      | 3.2     | 76.8  | 0.14   | 3.36  |
| 48      | 1.6     | 76.8  | 0.07   | 3.36  |
| 120     | 0.64    | 76.8  | 0.028  | 3.36  |

#### **Accessories**

# **Pneumatic Timer Attachment**

Attachment mounts on top of any Freedom Series relay (top-mounted auxiliary contacts can not be installed on device when timer is used). Timer unit has DPST timed contacts circuits in each pole must be the same polarity. Units are convertible from OFF to ON Delay or vice-versa.



C320 Pneumatic Timer Attachment

#### Table 49-61. Pneumatic Timer Attachment

| Timing            | Catalog | Price   |
|-------------------|---------|---------|
| Range             | Number  | U.S. \$ |
| 0.1 to 30 Seconds | C320TP1 | 162.    |
| 10 to 180 Seconds | C320TP2 | 162.    |

#### Table 49-62. Maximum Ampere Ratings

| Description | Volts           | Volts AC |      |     |  |
|-------------|-----------------|----------|------|-----|--|
|             | 120 240 480 600 |          |      |     |  |
| Make        | 30              | 15       | 7.5  | 6   |  |
| Break       | 3               | 1.5      | 0.75 | 0.6 |  |

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