

60A Size

## Product Description

The Cutler-Hammer ${ }^{\circledR}$ A202 Lighting Contactor from Eaton's electrical business provides a safe and convenient means for local or remote switching of relatively large tungsten, fluorescent or mercury arc lamp loads.

## Application Description

■ The Magnetically Latched Lighting Contactors are designed to withstand the large initial inrush currents of tungsten lamp loads without contact welding.

- The A202 Contactors are fully rated devices that do not require de-rating similar to standard motor control contactors.
- The Magnetically Latched Lighting Contactor provides effective control in applications such as office buildings, industrial plants, hospitals, stadiums, airports, etc.


## Features

- Designed and tested specifically for lighting and resistive loads
- Easy to install and maintain
- No control power necessary to maintain contact closure


## Operation

A permanent magnet is built into the contactor structure that will maintain the contactor in its energized state indefinitely without using control power. When energized, a DC current is applied to the latch coil, producing a magnetic field that reinforces the polarity of the permanent magnet, pulling in the contactor. The coil clearing interlock disconnects the current to the coil. In order to drop out the contactor, it is necessary to apply a field through the STOP coil in the reverse direction to the permanent magnet. This momentarily cancels the magnetic attraction and the contactor drops out.

## Instructional Leaflets

IL16965 30A (2, 3, 4, 5 Poles)
IL16966 60 - 200A (2, 3, 4, 5 Poles)

## Standards and Certifications

■ UL Listed File \# E44424, Guide NRNT

- CSA Certified File \# LR39402, Class 3231-01



## Technical Data and Specifications <br> ■ Terminals

- All except 30A devices: $\mathrm{Cu} / \mathrm{Al}$
- 30A devices: Cu only

■ Ballast load: 600 AC , breaking all lines

- Tungsten lamp loads, maximum volts
- Line-to-line: 480 V AC
- Line-to-neutral: 277V AC


## Accessories

See A200 NEMA Contactor Accessories, Page 33-194-33-196.

## Wiring Diagrams

The standard wiring of an A202 contactor can be controlled by a separate customer supplied single-pole doublethrow controlling station.


Figure 37-8. Standard Wiring


Figure 37-9. Two-Wire Control

## A202 Magnetically Latched

## Dimensions

Table 37-39. Approximate Dimensions for Non-combination Open Lighting Contactors - 2- to 12-Pole

| Continuous Amperes | Number of Poles | Pole Configuration | Dimensions in Inches (mm) |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Open Type |  |
|  |  |  | Wide A | High B |
| 30 | 2-4 |  | 3.31 (84.1) | 4.38 (111.3) |
|  | 5 |  | 4.19 (106.4) | 4.38 (111.3) |
|  | 6 | $3 \times 3$ | 7.13 (181.1) | 4.46 (113.3) |
|  | 8 | $4 \times 4$ | 7.13 (181.1) | 4.46 (113.3) |
|  | 10 | $5 \times 5$ | 10.63 (270.0) | 4.46 (113.3) |
|  | 12 | $4 \times 4 \times 4$ | 12.38 (314.5) | 6.88 (174.8) |
| 60 | 2, 3 |  | 3.31 (84.1) | 4.38 (111.3) |
|  | 4,5 |  | 4.19 (106.4) | 4.38 (111.3) |
|  | 6 | $3 \times 3$ | 7.13 (181.1) | 4.46 (113.3) |
|  | 8 | $4 \times 4$ | 10.63 (270.0) | 4.46 (113.3) |
|  | 10 | $5 \times 5$ | 10.63 (270.0) | 4.46 (113.3) |
|  | 12 | $5 \times 5 \times 2$ | 15.00 (381.0) | 6.88 (174.8) |
| 100 | 2, 3 |  | 4.63 (117.6) | 6.63 (168.4) |
|  | 4, 5 |  | 7.25 (184.2) | 6.63 (168.4) |
|  | 6 | $3 \times 3$ | 9.75 (247.7) | 6.88 (174.8) |
|  | 8 | $5 \times 3$ | 12.38 (314.5) | 6.88 (174.8) |
|  | 10 | $5 \times 5$ | 15.00 (381.0) | 6.88 (174.8) |
|  | 12 | $5 \times 5 \times 2$ | 34.13 (866.9) | 27.50 (698.5) |
| 200 | 2, 3 |  | 4.63 (117.6) | 6.63 (168.4) |
|  | 4,5 |  | 7.25 (184.2) | 6.63 (168.4) |
|  | 6 | $3 \times 3$ | 9.75 (247.7) | 6.88 (174.8) |
|  | 8 | $5 \times 3$ | 12.38 (314.5) | 6.88 (174.8) |
|  | 10 | $5 \times 5$ | 15.00 (381.0) | 6.88 (174.8) |
|  | 12 | $5 \times 5 \times 2$ | 34.13 (866.9) | 27.50 (698.5) |



Figure 37-10. Approximate Dimensions

## Product Selection

## When Ordering Specify

Catalog Number with Coil Suffix Code from the Magnet Coil Selection Table.
Any required Accessories.
Table 37-40. Latched AC Lighting Contactors (1)2

| Holding Circuit Auxiliary Contact or Pushbutton Station Not Included |  |  |  |
| :--- | :--- | :--- | :--- |
| Continuous | Number of | Open Type |  |
| Amperes <br> (Enclosed) | Poles | Catalog | Price |
|  |  | Number ${ }^{3}$ | U.S. \$ |


| 30 | $\begin{aligned} & \hline 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \end{aligned}$ | A202K1B M A202K1C M A202K1D_M A202K1E_M A202K1F_M |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|r} \hline 8 \\ 10 \\ 12 \end{array}$ | A202K1G M A202K1H M A202K1K_M |  |
| 60 | $\begin{aligned} & \hline 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \end{aligned}$ | A202K2B M A202K2C_M A202K2D_M A202K2E_M A202K2F_M |  |
|  | $\begin{array}{\|r\|} \hline 8 \\ 10 \\ 12 \end{array}$ | A202K2G M A202K2H_M A202K2K M |  |
| 100 | $\begin{aligned} & 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \end{aligned}$ | A202K3B_M A202K3C_M A202K3D_M A202K3E_M A202K3F_M |  |
|  | $\begin{array}{\|r} \hline 8 \\ 10 \\ 12 \end{array}$ | A202K3G M A202K3H_M A202K3K_M |  |
| 200 | $\begin{aligned} & \hline 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \end{aligned}$ | A202K4B M A202K4C_M A202K4D_M A202K4E_M A202K4F_M |  |
|  | $\begin{array}{\|r} \hline 8 \\ 10 \\ 12 \end{array}$ | A202K4G_M A202K4H M A202K4K_M |  |
| 300 | $\begin{aligned} & 2 \\ & 3 \end{aligned}$ | $\begin{aligned} & \hline \text { A202K5B_M } \\ & \text { A202K5C_M } \end{aligned}$ |  |
| 400 | $\begin{aligned} & 2 \\ & 3 \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { A202K6B_M } \\ \text { A202K6C_M } \end{array}$ |  |

(1) Lighting contactors are not available with DC coils.
(2) Contactors rated 300 A and 400 A are mechanically latched

Underscore (_) indicates missing Code letter for Magnet Coil Selection - see Magnet Coil Selection Table.

Table 37-41. Magnet Coil Selection

| Coil Voltage | Catalog Number Suffix |
| :--- | :--- |
| $120 \mathrm{~V}, 60 \mathrm{~Hz}$ | A |
| $208 \mathrm{~V}, 60 \mathrm{~Hz}$ | B |
| $277 \mathrm{~V}, 60 \mathrm{~Hz}$ | Z |
| $440 \mathrm{~V} / 50,480 \mathrm{~V} / 60$ | X |
| $600 \mathrm{~V}, 60 \mathrm{~Hz}$ | E |
| $120 \mathrm{~V} / 60,110 \mathrm{~V} / 50$ | A |
| $220 \mathrm{~V} / 50,240 \mathrm{~V} / 60$ | W |
| $24 \mathrm{~V}, 60 \mathrm{~Hz}$ | $\mathbf{I} 4$ |

(4) Available on 2-to 5-pole, 30 and 60A devices and on 2- to 3-pole 100 and 200A devices.

