

C30CN

30 A lighting contactor—electrically held and mechanically held

Versatility, simplicity and performance



Eaton's C30CN lighting contactor delivers unprecedented versatility in application, simplicity in configuration and performance in operation. Its low magnetic noise makes it ideal for applications where quiet, energy-efficient operation is required. The C30CN is perfect for critical applications.

The C30CN is the right solution for effectively controlling tungsten (incandescent filament), ballast (fluorescent and mercury arc), high intensity discharge (HID) and non-motor AC resistive loads. The C30CN has a revolutionary design and rugged construction, and is available with an expansive feature set.

Applications

- Hospitals
- Office buildings
- Industrial plants
- Airports
- Stadiums

Standards and certifications

- UL® Listed File E1491, UL Category Code/ Guide NLDX/NLDX7
- cUL®
- CE
- Designed and built to NEMA® ICS-2 standards

Features

- 2–12 power poles (max. 8NC)
- Simple power pole mounting onto base
- NO or NC power pole easily determined by left or right positioning
- Additional poles, either NO or NC, may be added easily at any time
- Low input VA permits long wire runs
- Comes in a wide range of input voltages and with coils from 24 Vac to 277 Vac, and 12 Vdc to 24 Vdc
- Open and enclosed offerings
- Mechanically held (C30CNM) and electrically held (C30CNE) options
- Coils, power poles, control modules and auxiliary contacts available as replacement options and accessories
- Quiet operation—no coil hum

Contact Position Indication—When Button Protrudes, Contact is Closed

Power Poles are Available as Single or Double Poles, Creating 74 Different Circuit Combinations

Convenient Side Access for Field Power Wiring

Contact Configuration Indicator

Robust Pole Terminals Accept Up to Two #8 AWG Wires

Fast, Sure Three-Point Mounting

Plug-In Auxiliary Contacts are NC when Installed on the Right Side of the Base, NO on the Left

Enclosed Contacts Resist Contaminants for Greater Reliability

Common, Easily Installed Power Poles Change from NO to NC (or Vice Versa) by Simply Unlatching and Rotating 180°

Power Poles Rated for a Range of Tasks:

- 30 A Rated Contacts
- 15 A Motor Rated
- Pilot Duty Rated

Auxiliary Contacts, Rated A600, are Suitable for Use on Low-Level Circuits Down to 12 V, 5 mA

Finger and Back-of-Hand Safe Power Terminals

Mechanically Held Module



Powering Business Worldwide

Mechanically held contactor

The C30CNM has a mechanically held operation that will not switch to an OFF position during power failure. Its mechanical latch, with a two- or three-wire electronic control module, delivers reliable performance and protection for lighting control needs.



Electrically held contactor

The C30CNE electrically held base contactor contains a 2NO power pole as standard and will allow the addition of power poles up to 12 poles maximum. A mechanically held module kit can also be added to convert the electrically held contactor into a mechanically held contactor in the field.

Two-wire control

For single output, automatic operation or operation from single-pole devices, two-wire control should be used. When voltage is applied to the input terminals, the contactor is latched into position (coil is removed from the circuit while control voltage is continuously supplied). When control voltage is removed, the latch is disengaged and the contactor is returned to its original state.

Three-wire control

When using momentary devices that allow operation from multiple locations, three-wire control is the right choice. A momentary pulse of energy operates the contactor while a second pulse on an alternate leg returns the contactor to its original state.

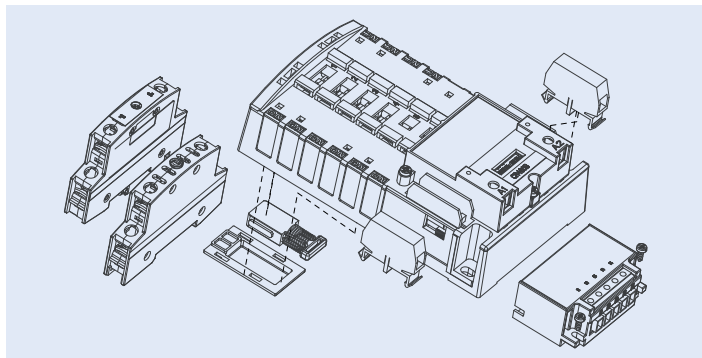
Enclosed control

The C30CN lighting contactor in enclosed control provides for all of your lighting contactor needs. Its unique design allows quick and easy product modification during installation to meet the pole configuration required for your application, either normally open (NO) or normally closed (NC). The C30CN is designed to allow you to add additional lighting loads later without the need to change contactors or add additional enclosures. Simply order the additional power poles and click them in place.

Enclosed control offers lighting contactors in NEMA 1, 3R, 12, 7/9 and 4X enclosures as combination and non-combination units. The following options can be added as part of the packaged offering:

- Control power transformers
- Auxiliary contacts
- Relays
- HOA selector switches
- Start/stop pushbuttons
- Indicating lights
- Terminal blocks
- Wire markers
- Two- or three-wire control

C30CN components—exploded view



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Technical data and specifications

Maximum AC Voltage and Ampere Ratings

| Load Type | Continuous Amperes | Poles | |
|--------------|--------------------|--------------|-------------|
| | | Single-Phase | Three-Phase |
| Ballast | 30 | 347 Vac | 600 Vac |
| General use | 30 | 600 Vac | 600 Vac |
| Tungsten | 20 | 277 Vac | 480 Vac |
| AC resistive | 30 | 600 Vac | 600 Vac |

Maximum Horsepower Rating

| Normal Starting Duty | |
|----------------------------------|------------|
| Volts | Horsepower |
| Single-Pole, Single-Phase | |
| 110–120 V | 1 |
| 220–240 V | 2 |
| Three-Pole, Three-Phase | |
| 200–208 V | 3 |
| 220–240 V | 5 |
| 440–480 V | 10 |
| 550–600 V | 15 |

Coil

| Description | VA |
|-------------|-----|
| Inrush | 248 |
| Sealed | 28 |

Control Module

| Input Voltage | Steady-State Current at Rated Voltage (mA) | Maximum VA |
|---------------|--|------------|
| 12–24 Vdc | 42 | 2 |
| 24 Vac | 80 | 5 |
| 115–120 Vac | 83 | 12 |
| 200–277 Vac | 91 | 30 |

Other Control Module Characteristics

| Description | Specification |
|--|---------------|
| Minimum pulse duration (three-wire control module) | 250 ms |
| Maximum allowable leakage current | 1.8 mA |
| EMI | 35 V/m |
| Surge transient peak | 6 kV |
| Frequency range | 40–70 Hz |

Other Device Characteristics

| Description | Specification |
|---------------------------|--------------------------------------|
| Auxiliary contacts rating | A600, 24 Vdc, 24 Vac |
| Ambient temperature | –13 °F to +104 °F (–25 °C to +40 °C) |
| Mounting position | Vertical 3-point mounting only |

Wire Specifications

| Component | Number of Cables | Wire Range (Solid or Stranded) | Wire Temperature |
|--------------------|------------------|--------------------------------|------------------|
| Power poles | 1 | 14–8 AWG | 75 °C Cu |
| | 2 | 14–8 AWG ① | 75 °C Cu |
| Coil | 1 or 2 | 18–14 AWG | 60 °C / 75 °C Cu |
| Control module | 1 | 22–12 AWG | 60 °C / 75 °C Cu |
| Auxiliary contacts | 1 or 2 | 22–12 AWG | 60 °C / 75 °C Cu |

① 8 AWG stranded only.

For more information, visit

Eaton.com/lightingcontactors

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