

UL Rated AC Contactors



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Product Description

Eaton's lighting contactors are designed to provide a safe, convenient means for local or remote switching of tungsten (incandescent filament) or ballast (fluorescent and mercury arc) lamp loads. They are also suitable for other loads such as low pressure and high pressure sodium lamp loads and other non-motor (resistive) loads. They are not recommended for most sign flashing loads.

These lighting contactors are designed to withstand the large initial inrush currents of tungsten lamp loads without contact welding. They are fully rated and do not require derating.

Application Description**Loads:**

Ballast Lamps—Fluorescent, mercury vapor, metal halide sodium vapor, quartz—600 V maximum.

Filament Lamps—

Incandescent, infrared, heating—480 V maximum, line to line; 277 V maximum line to neutral.

Resistance Heating—

Radiant and convection heating, furnaces and ovens.

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Standards and Certifications

Note: See **Tab 17** for additional information on Standards and Certifications that apply to all Enclosed Control products.

- UL Listed
- cUL Listed
- ABS Type Approved
- OSHPD Certified (OSP-0015-10)

Additional Reference

Accessories **V10-T4-13** and **Tab 15**

Cover Control **V10-T4-4**

Dimensions **Tab 14**

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Technical Data and Specifications **Tab 17**

Catalog Number Selection

Enclosed Lighting Contactors

EC L 12 D 1 A 3 E - X

Design	Modification Codes
L = CN35 or A202 lighting contactor C = C30CN lighting contactor	(See Pages V10-T4-4 and V10-T4-5 and Tab 15)

Class	Page
03 = Non-combination electrically held lighting contactor	V10-T4-6, V10-T4-7
04 = Non-combination mechanically held/magnetically latched lighting contactor	V10-T4-6, V10-T4-9
12 = Combination electrically held lighting contactor—fusable disconnect	V10-T4-11
13 = Combination magnetically latched lighting contactor—fusable disconnect	V10-T4-11
14 = Combination electrically held lighting contactor—thermal magnetic circuit breaker	V10-T4-12
15 = Combination magnetically latched lighting contactor—thermal magnetic circuit breaker	V10-T4-12

Ampere Size ^①		
A = 10 A	D = 60 A	G = 300 A
B = 20 A	E = 100 A	H = 400 A
C = 30 A	F = 200 A	J = 600 A

Disconnect Fuse Clip Ratings	
A = None	J = 200 A / 600 V R
B = 30 A / 250 V R	K = 400 A / 250 V R
C = 30 A / 600 V R	L = 400 A / 600 V R
D = 60 A / 250 V R	M = 600 A / 250 V R
E = 30 A / 600 V R	N = 600 A / 600 V R
F = 100 A / 250 V R	P = 800 A / 600 V R
G = 100 A / 600 V R	T = By description
H = 200 A / 250 V R	

Thermal-Magnetic Breaker Ratings			
A = None	F = 60 A	J = 300 A	M = 800 A
D = 20 A	G = 100 A	K = 400 A	T = By description
E = 30 A	H = 200 A	L = 600 A	

Number of Poles ^②
1, 2, 3, 4, 5, 6, 7, 8, 9 = Poles required
A = 10 poles
B = 12 poles
C = 20 poles
Combination Devices = Three-pole only

Coil Voltage		
A = 120/60 110/50	K = 240/50	T = 24/60
B = 240/60 220/50	L = 380/50	U = 24/50
C = 480/60 440/50	M = 415/50	V = 32/50
D = 600/60 550/50	P = 12 Vdc	W = 48/60
E = 208/60	Q = 24 Vdc	X = 104–120/60
G = 550/50	R = 48 Vdc	Y = 48/50
H = 277/60	S = 125 Vdc	Z = By description
J = 208–240/60		

Enclosure Types
1 = Type 1—General purpose
2 = Type 3R—Rainproof
3 = Type 4—Watertight (painted)
4 = Type 4X—Watertight (304-Grade stainless steel)
6 = Type 7/9—Explosion proof
8 = Type 12—Dust-tight
9 = Type 4X—Watertight (316-Grade stainless steel)

Enclosures

Lighting contactors are available open or mounted in Type 1, 3R, 4, 4X, 12 or 7/9 enclosures.

Type 1 is for indoor, general purpose for personal protection. Knock-outs are provided in the top and bottom for conduit entry.

Type 3R is for outdoor applications and rated for rain, sleet and external ice buildup. Type 3R enclosures have knockouts in the bottom and provisions for a hub in the top.

Type 4 and 4X are for mounting indoor or outdoor and provide protection from splashing water, hose-directed water and wind-blown dust. Watertight conduit hubs are provided in the top and bottom of Type 4X enclosures. The standard Type 4X enclosures are made of 304-Grade stainless steel, providing corrosion protection. 316-Grade stainless steel construction is available as an upgrade option.

Type 12 enclosures are for indoor mounting and protect from dripping liquids, falling dirt and dust. No knockouts or hubs are provided with Type 12 enclosures.

Type 1, 3R, 4 and 12 enclosures are painted with a polyester urethane powder coat paint meeting UL requirements and the color is ANSI 61 gray. Type 1 enclosures have knockouts for cover controls. All the other types have holes plugged, ready for cover controls. Type 7/9 is also available for explosion proof applications. Please contact the factory for additional details.

Notes

- ① C30CN available in 30 A only.
 ② For normally closed poles see **Tab 15**.

Product Selection

Two-Wire and Three-Wire Control Wiring Options—Two-Wire Control Standard

Class ECC03—Non-Combination Electrically Held Lighting Contactor—Two or Three-Wire Control

Number of Poles	Type 1 Catalog Number ^①	Type 3R Catalog Number ^①	Type 4X ^② Catalog Number ^①	Type 7/9 Catalog Number ^①	Type 12 Catalog Number ^①	Component Contactor (Open) Catalog Number ^①
Continuous Amps—30						
2	ECC03C1_2A	ECC03C2_2A	ECC03C4_2A	ECC03C6_2A	ECC03C8_2A	C30CNE20_0
3	ECC03C1_3A	ECC03C2_3A	ECC03C4_3A	ECC03C6_3A	ECC03C8_3A	C30CNE30_0
4	ECC03C1_4A	ECC03C2_4A	ECC03C4_4A	ECC03C6_4A	ECC03C8_4A	C30CNE40_0
5	ECC03C1_5A	ECC03C2_5A	ECC03C4_5A	ECC03C6_5A	ECC03C8_5A	C30CNE50_0
6	ECC03C1_6A	ECC03C2_6A	ECC03C4_6A	ECC03C6_6A	ECC03C8_6A	C30CNE60_0
7	ECC03C1_7A	ECC03C2_7A	ECC03C4_7A	ECC03C6_7A	ECC03C8_7A	C30CNE70_0
8	ECC03C1_8A	ECC03C2_8A	ECC03C4_8A	ECC03C6_8A	ECC03C8_8A	C30CNE80_0
9	ECC03C1_9A	ECC03C2_9A	ECC03C4_9A	ECC03C6_9A	ECC03C8_9A	C30CNE90_0
10	ECC03C1_AA	ECC03C2_AA	ECC03C4_AA	ECC03C6_AA	ECC03C8_AA	C30CNE100_0
12	ECC03C1_BA	ECC03C2_BA	ECC03C4_BA	ECC03C6_BA	ECC03C8_BA	C30CNE120_0

Class ECC04—Non-Combination Mechanically Held Lighting Contactor—Two-Wire Control ^③

Number of Poles	Type 1 Catalog Number ^①	Type 3R Catalog Number ^①	Type 4X ^② Catalog Number ^①	Type 7/9 Catalog Number ^①	Type 12 Catalog Number ^①	Component Contactor (Open) Catalog Number ^①
Continuous Amps—30						
2	ECC04C1_2A	ECC04C2_2A	ECC04C4_2A	ECC04C6_2A	ECC04C8_2A	C30CNM20_
3	ECC04C1_3A	ECC04C2_3A	ECC04C4_3A	ECC04C6_3A	ECC04C8_3A	C30CNM30_
4	ECC04C1_4A	ECC04C2_4A	ECC04C4_4A	ECC04C6_4A	ECC04C8_4A	C30CNM40_
5	ECC04C1_5A	ECC04C2_5A	ECC04C4_5A	ECC04C6_5A	ECC04C8_5A	C30CNM50_
6	ECC04C1_6A	ECC04C2_6A	ECC04C4_6A	ECC04C6_6A	ECC04C8_6A	C30CNM60_
7	ECC04C1_7A	ECC04C2_7A	ECC04C4_7A	ECC04C6_7A	ECC04C8_7A	C30CNM70_
8	ECC04C1_8A	ECC04C2_8A	ECC04C4_8A	ECC04C6_8A	ECC04C8_8A	C30CNM80_
9	ECC04C1_9A	ECC04C2_9A	ECC04C4_9A	ECC04C6_9A	ECC04C8_9A	C30CNM90_
10	ECC04C1_AA	ECC04C2_AA	ECC04C4_AA	ECC04C6_AA	ECC04C8_AA	C30CNM100_
12	ECC04C1_BA	ECC04C2_BA	ECC04C4_BA	ECC04C6_BA	ECC04C8_BA	C30CNM120_

Notes

^① For first open position (coil voltage), use the table below.

^② The catalog numbers listed in the Type 4X column are for Type 4X 304-Grade stainless steel, as indicated by the **seventh** digit.
Example: ECC03C4A2A. To order Type 4X 316-Grade stainless steel, change that digit to **9**. To order Type 4 painted steel, change that digit to **3**.
To order non-metallic, change that digit to **5**. For details on these alternate enclosures, see **Tab 13**.

Suffix	Coil Voltage	Suffix	Coil Voltage	Suffix	Coil Voltage
A	120/60 or 110/50	D	600/60 or 550/50	T	24/60
B	240/60 or 220/50	E	208/60	V	28/60 or 24/50
C	480/60 or 440/50	H	277/60 or 240/50	X	347/60

^③ Add **C18** modification code for three-wire control.

To get the C30CN lighting contactor with normally closed power poles, see **Tab 15**, for modification codes.