

UL Rated AC Contactors



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.

Additional Reference

Accessories	V10-T4-13 and Tab 15
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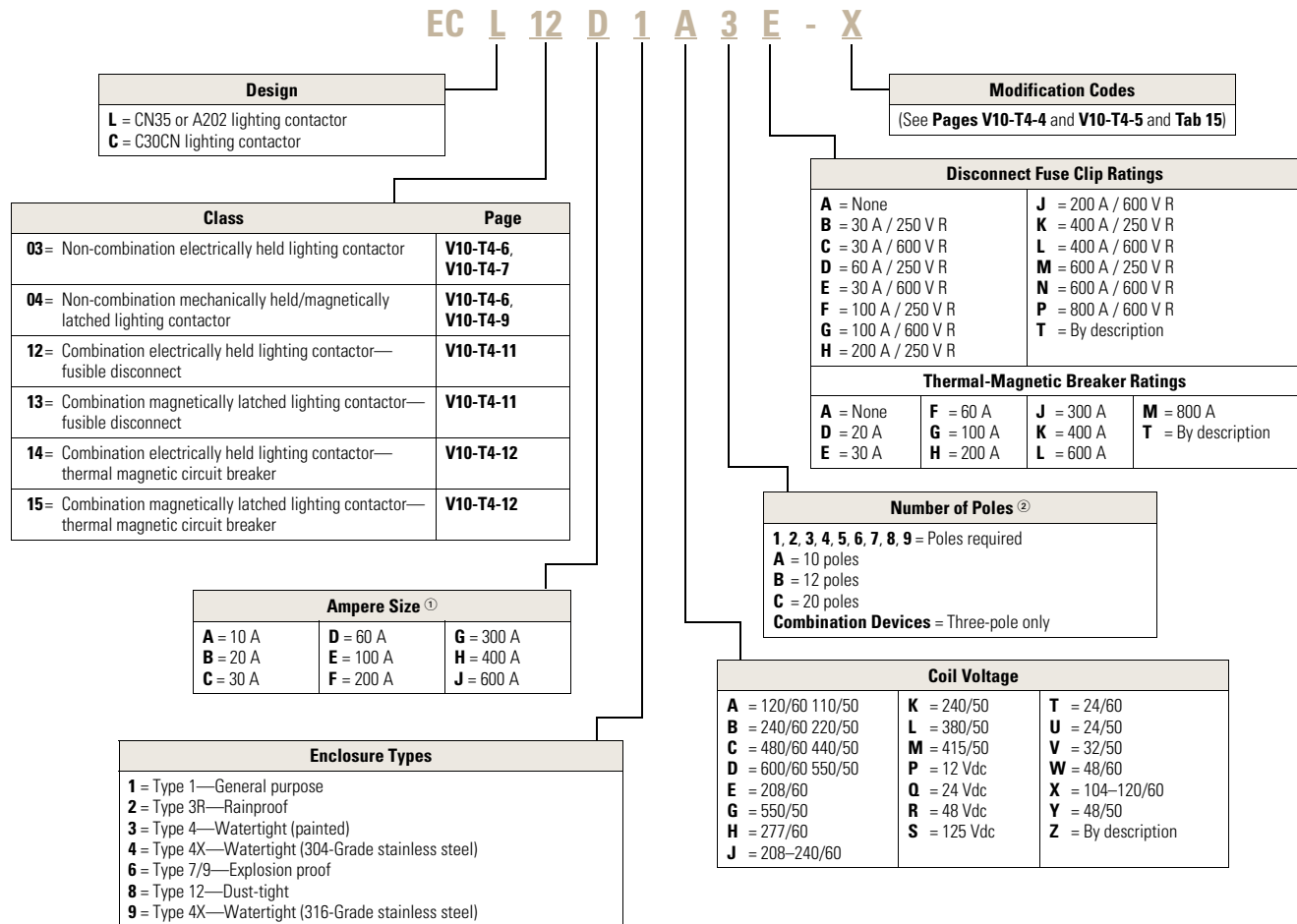
Standards and Certifications

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)

Catalog Number Selection

Enclosed Lighting Contactors



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**.

Cover Control

Type 1 Non-Combination Cover Control (Box 1 Only) ^①

Description	Factory Installed Cover Control	Field Installation Kits
	Modification Code Suffix	Catalog Number
ON/OFF pushbutton	P8	C600M2
With red RUN pilot light	P8P23	C600M201_ ^②
With red RUN/green OFF lights	P8P23P25	C600M202_ ^②
HAND/OFF/AUTO selector switch	S3	C600M12
With red RUN pilot light	S3P23	C600M121_ ^②
With red RUN/green OFF lights	S3P23P25	C600M122_ ^②
ON/OFF selector switch	S12	C600M14
With red RUN pilot light	S12P23	C600M141_ ^②
With red RUN/green OFF lights	S12P23P25	C600M142_ ^②
Red RUN pilot light	P23	C600M9_ ^②
Green OFF pilot light	P25	C600M10_ ^②
Red RUN/green OFF lights	P23P25	C600M11_ ^②

Notes

- ① Box 1 offering with cover control includes CN35 lighting contactors 10 A 2–4P, 20 A 2–4P, 30 A 2–3P and 60 A 2–4P.
 ② Add code letter from the table below to catalog number for voltage. Example: C600M101**A**.

Rating	Code Letter
85–264 Vac	A
480 Vac	C
12–30 Vac/Vdc	T

Type 1, 3R, 4X and 12 Cover Control Non-Combination (Non-Box 1) and Combination Cover Control

Description	For Use with Lighting Contactor	Factory Installed Cover Control		Field Installation Kits	
		Type 1, 3R, 4X and 12 Modification Code Suffix	Type 7/9 Modification Code Suffix	Type 1 ^{①②} Catalog Number	Type 3R, 4X and 12 Non-Combination and Type 1, 3R, 4X and 12 Combination ^② Catalog Number
ON/OFF pushbuttons	Electrical three-wire C30CN; CN35; A202	P8	P8	C400GK18	C400T2
With red RUN pilot light		P8P23	P8P23	C400GK19_	—
With red RUN/GREEN off lights		P8P23P25	P8P23P25	C400GK1A_	—
ON/OFF Pushbuttons	Mechanical three-wire C30CN	P8	P8	C400GK4	C400T201
With red RUN pilot light		P8P23	P8P23	C400GK48_	—
With red RUN/GREEN off lights		P8P23P25	P8P23P25	C400GK49_	—
ON/OFF pushbuttons	Electrical and mechanical two-wire C30CN; CN35; A202	P8	P8	C400GK5	C400T14 ^③
With red RUN pilot light		P8P23	P8P23	C400GK52_	—
With red RUN/GREEN off lights		P8P23P25	P8P23P25	C400GK55_	—
Start/stop pushbuttons	Mechanical three-wire C30CN	P7	P7	C400GK7	C400T200
With red RUN pilot light		P7P23	P7P23	C400GK72_	—
With red RUN/GREEN off lights		P7P23P25	P7P23P25	C400GK75_	—
Start/stop pushbuttons	Electrical and mechanical two-wire C30CN	P7	P7	C400GK6	C400T13 ^③
With red RUN pilot light		P7P23	P7P23	C400GK62_	—
With red RUN/GREEN off lights		P7P23P25	P7P23P25	C400GK65_	—
HAND/OFF/AUTO cover control	Electrical and mechanical two-wire C30CN; CN35; A202	S3	S3 ^④	C400GK3	C400T12 ^③
With red RUN pilot light		S3P23	S3P23 ^④	C400GK32_	—
With red RUN/GREEN off lights		S3P23P25	S3P23P25 ^④	C400GK35_	—
Red RUN pilot light	All	P23	P23	C400GK42_	C400T9_
Green OFF pilot light		P25	P25	C400GK41_	C400T10_
Red RUN/green OFF pilot light		P23P25	P23P25	C400GK46_	C400T11_

Notes

- ① For use with non-combination units (box sizes 2–4).
 ② Add code letter from table below to catalog number for voltage in place of _.

Rating	Code Letter	Rating	Code Letter	Rating	Code Letter
24 V 60 Hz	T	240 V 60 Hz	B	480 V 60 Hz	C
120 V 60 Hz	A	277 V 60 Hz	H	600 V 60 Hz	D
208 V 60 Hz	E	380 V 60 Hz	L		

③ Selector switch.

④ With three-position selector switch, Mod **C20** (two-wire control relay) must be used with magnetically latched contactor (ECL04, ECL13, ECL15).

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.

Class ECL03—Non-Combination Electrically Held Lighting Contactor

No. of Poles	Frame Size	Type 1 General Purpose Catalog Number ^①	Type 3R Rainproof Catalog Number ^①	Type 4X ^② Watertight and Dust-Tight Stainless Steel Catalog Number ^①	Type 7/9 Hazardous Location Catalog Number ^①	Type 12 Dust-Tight Industrial Catalog Number ^①	Component Contactor (Open) Catalog Number ^①
Maximum Ampere Rating—10^③							
2	45 mm	ECL03A1_2A	ECL03A2_2A	ECL03A4_2A	ECL03A6_2A	ECL03A8_2A	CN35AN2_B
3		ECL03A1_3A	ECL03A2_3A	ECL03A4_3A	ECL03A6_3A	ECL03A8_3A	CN35AN3_B
4		ECL03A1_4A	ECL03A2_4A	ECL03A4_4A	ECL03A6_4A	ECL03A8_4A	CN35AN4_B
5		ECL03A1_5A	ECL03A2_5A	ECL03A4_5A	ECL03A6_5A	ECL03A8_5A	—
6		ECL03A1_6A	ECL03A2_6A	ECL03A4_6A	ECL03A6_6A	ECL03A8_6A	—
9		ECL03A1_9A	ECL03A2_9A	ECL03A4_9A	ECL03A6_9A	ECL03A8_9A	—
10		ECL03A1_AA	ECL03A2_AA	ECL03A4_AA	ECL03A6_AA	ECL03A8_AA	—
12		ECL03A1_BA	ECL03A2_BA	ECL03A4_BA	ECL03A6_BA	ECL03A8_BA	—
20		ECL03A1_CA	ECL03A2_CA	ECL03A4_CA	ECL03A6_CA	ECL03A8_CA	—
Maximum Ampere Rating—20^③							
2	45 mm	ECL03B1_2A	ECL03B2_2A	ECL03B4_2A	ECL03B6_2A	ECL03B8_2A	CN35BN2_B
3		ECL03B1_3A	ECL03B2_3A	ECL03B4_3A	ECL03B6_3A	ECL03B8_3A	CN35BN3_B
4		ECL03B1_4A	ECL03B2_4A	ECL03B4_4A	ECL03B6_4A	ECL03B8_4A	CN35BN4_B
5		ECL03B1_5A	ECL03B2_5A	ECL03B4_5A	ECL03B6_5A	ECL03B8_5A	—
6		ECL03B1_6A	ECL03B2_6A	ECL03B4_6A	ECL03B6_6A	ECL03B8_6A	CN35BN6_B
9		ECL03B1_9A	ECL03B2_9A	ECL03B4_9A	ECL03B6_9A	ECL03B8_9A	CN35BN9_B
10		ECL03B1_AA	ECL03B2_AA	ECL03B4_AA	ECL03B6_AA	ECL03B8_AA	—
12		ECL03B1_BA	ECL03B2_BA	ECL03B4_BA	ECL03B6_BA	ECL03B8_BA	CN35BN12_B
20		ECL03B1_CA	ECL03B2_CA	ECL03B4_CA	ECL03B6_CA	ECL03B8_CA	—
Maximum Ampere Rating—30^③							
2	45 mm	ECL03C1_2A	ECL03C2_2A	ECL03C4_2A	ECL03C6_2A	ECL03C8_2A	CN35DN2_B
3		ECL03C1_3A	ECL03C2_3A	ECL03C4_3A	ECL03C6_3A	ECL03C8_3A	CN35DN3_B
4		ECL03C1_4A	ECL03C2_4A	ECL03C4_4A	ECL03C6_4A	ECL03C8_4A	CN35DN4_B
5		ECL03C1_5A	ECL03C2_5A	ECL03C4_5A	ECL03C6_5A	ECL03C8_5A	CN35DN5_B
6		ECL03C1_6A	ECL03C2_6A	ECL03C4_6A	ECL03C6_6A	ECL03C8_6A	CN35DN6_B
9		ECL03C1_9A	ECL03C2_9A	ECL03C4_9A	ECL03C6_9A	ECL03C8_9A	CN35DN9_B
10		ECL03C1_AA	ECL03C2_AA	ECL03C4_AA	ECL03C6_AA	ECL03C8_AA	—
12		ECL03C1_BA	ECL03C2_BA	ECL03C4_BA	ECL03C6_BA	ECL03C8_BA	CN35DN12_B
20		ECL03C1_CA	ECL03C2_CA	ECL03C4_CA	ECL03C6_CA	ECL03C8_CA	—
Maximum Ampere Rating—60^③							
2	65 mm	ECL03D1_2A	ECL03D2_2A	ECL03D4_2A	ECL03D6_2A	ECL03D8_2A	CN35GN2_B
3		ECL03D1_3A	ECL03D2_3A	ECL03D4_3A	ECL03D6_3A	ECL03D8_3A	CN35GN3_B
4		ECL03D1_4A	ECL03D2_4A	ECL03D4_4A	ECL03D6_4A	ECL03D8_4A	CN35GN4_B
5		ECL03D1_5A	ECL03D2_5A	ECL03D4_5A	ECL03D6_5A	ECL03D8_5A	CN35GN5_B
6		ECL03D1_6A	ECL03D2_6A	ECL03D4_6A	ECL03D6_6A	ECL03D8_6A	—
9		ECL03D1_9A	ECL03D2_9A	ECL03D4_9A	ECL03D6_9A	ECL03D8_9A	—
10		ECL03D1_AA	ECL03D2_AA	ECL03D4_AA	ECL03D6_AA	ECL03D8_AA	—
12		ECL03D1_BA	ECL03D2_BA	ECL03D4_BA	ECL03D6_BA	ECL03D8_BA	—

Notes

① For open position (coil voltage), use the table below:

Suffix	Coil Voltage	Suffix	Coil Voltage	Suffix	Coil Voltage
A	120/60 or 110/5	C	480/60 or 440/50	E	208/60
B	240/60 or 220/50	D	600/60 or 550/50	H	277/60

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: ECL03B4A2A. 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**.

③ Ampere ratings are based on a maximum load voltage of 480 V for tungsten lamp applications and 600 V for ballast or mercury vapor type applications.

Class ECL03—Non-Combination Electrically Held Lighting Contactor, continued

No. of Poles	Frame Size	Type 1 General Purpose Catalog Number ①	Type 3R Rainproof Catalog Number ①	Type 4X ② Watertight and Dust-Tight Stainless Steel Catalog Number ①	Type 7/9 Hazardous Location Catalog Number ①	Type 12 Dust-Tight Industrial Catalog Number ①	Component Contactor (Open) Catalog Number ①
Maximum Ampere Rating—100 ③							
2	90 mm	ECL03E1_2A	ECL03E2_2A	ECL03E4_2A	ECL03E6_2A	ECL03E8_2A	CN35KN2_
3		ECL03E1_3A	ECL03E2_3A	ECL03E4_3A	ECL03E6_3A	ECL03E8_3A	CN35KN3_
4		ECL03E1_4A	ECL03E2_4A	ECL03E4_4A	ECL03E6_4A	ECL03E8_4A	—
5		ECL03E1_5A	ECL03E2_5A	ECL03E4_5A	ECL03E6_5A	ECL03E8_5A	—
6		ECL03E1_6A	ECL03E2_6A	ECL03E4_6A	ECL03E6_6A	ECL03E8_6A	—
9		ECL03E1_9A	ECL03E2_9A	ECL03E4_9A	ECL03E6_9A	ECL03E8_9A	—
Maximum Ampere Rating—200 ③							
2	180 mm	ECL03F1_2A	ECL03F2_2A	ECL03F4_2A	ECL03F6_2A	ECL03F8_2A	CN35NN2_
3		ECL03F1_3A	ECL03F2_3A	ECL03F4_3A	ECL03F6_3A	ECL03F8_3A	CN35NN3_
4		ECL03F1_4A	ECL03F2_4A	ECL03F4_4A	ECL03F6_4A	ECL03F8_4A	—
5		ECL03F1_5A	ECL03F2_5A	ECL03F4_5A	ECL03F6_5A	ECL03F8_5A	—
6		ECL03F1_6A	ECL03F2_6A	ECL03F4_6A	ECL03F6_6A	ECL03F8_6A	—
Maximum Ampere Rating—300 ③							
2	180 mm	ECL03G1_2A	ECL03G2_2A	ECL03G4_2A	ECL03G6_2A	ECL03G8_2A	CN35SN2_
3		ECL03G1_3A	ECL03G2_3A	ECL03G4_3A	ECL03G6_3A	ECL03G8_3A	CN35SN3_
4		ECL03G1_4A	ECL03G2_4A	ECL03G4_4A	ECL03G6_4A	ECL03G8_4A	—
5		ECL03G1_5A	ECL03G2_5A	ECL03G4_5A	ECL03G6_5A	ECL03G8_5A	—
6		ECL03G1_6A	ECL03G2_6A	ECL03G4_6A	ECL03G6_6A	ECL03G8_6A	—
Maximum Ampere Rating—400 ③④							
2	220 mm	ECL03H1_2A	ECL03H2_2A	ECL03H4_2A	ECL03H6_2A	ECL03H8_2A	CN35TN2_
3		ECL03H1_3A	ECL03H2_3A	ECL03H4_3A	ECL03H6_3A	ECL03H8_3A	CN35TN3_

Notes

① For open position (coil voltage), use the table below:

Suffix	Coil Voltage	Suffix	Coil Voltage	Suffix	Coil Voltage
A	120/60 or 110/5	C	480/60 or 440/50	E	208/60
B	240/60 or 220/50	D	600/60 or 550/50	H	277/60

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: ECL03E4A2A. 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**.

③ Ampere ratings are based on a maximum load voltage of 480 V for tungsten lamp applications and 600 V for ballast or mercury vapor type applications.

④ UL ballast and resistive ratings only.