

#### Freedom Multispeed Starters

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#### Product Description

Eaton's multispeed panels feature Eaton's Freedom Series starters and contactors with a compact, space-saving design, high strength, impact and temperature resistant insulating materials.

#### Features

Two-speed starters are designed for starting and controlling both separate (two-winding) and reconnectable (one-winding) motors. Separate winding, wye-wye motors have a separate winding for each speed. Reconnectable, consequent pole motors use the same winding for both speeds. All standard starters are wired for selective control.

#### Standards and Certifications

- UL Listed
- cUL Listed (indicates appropriate CSA Standard investigation)
- OSHPD Certified (OSP-0015-10)

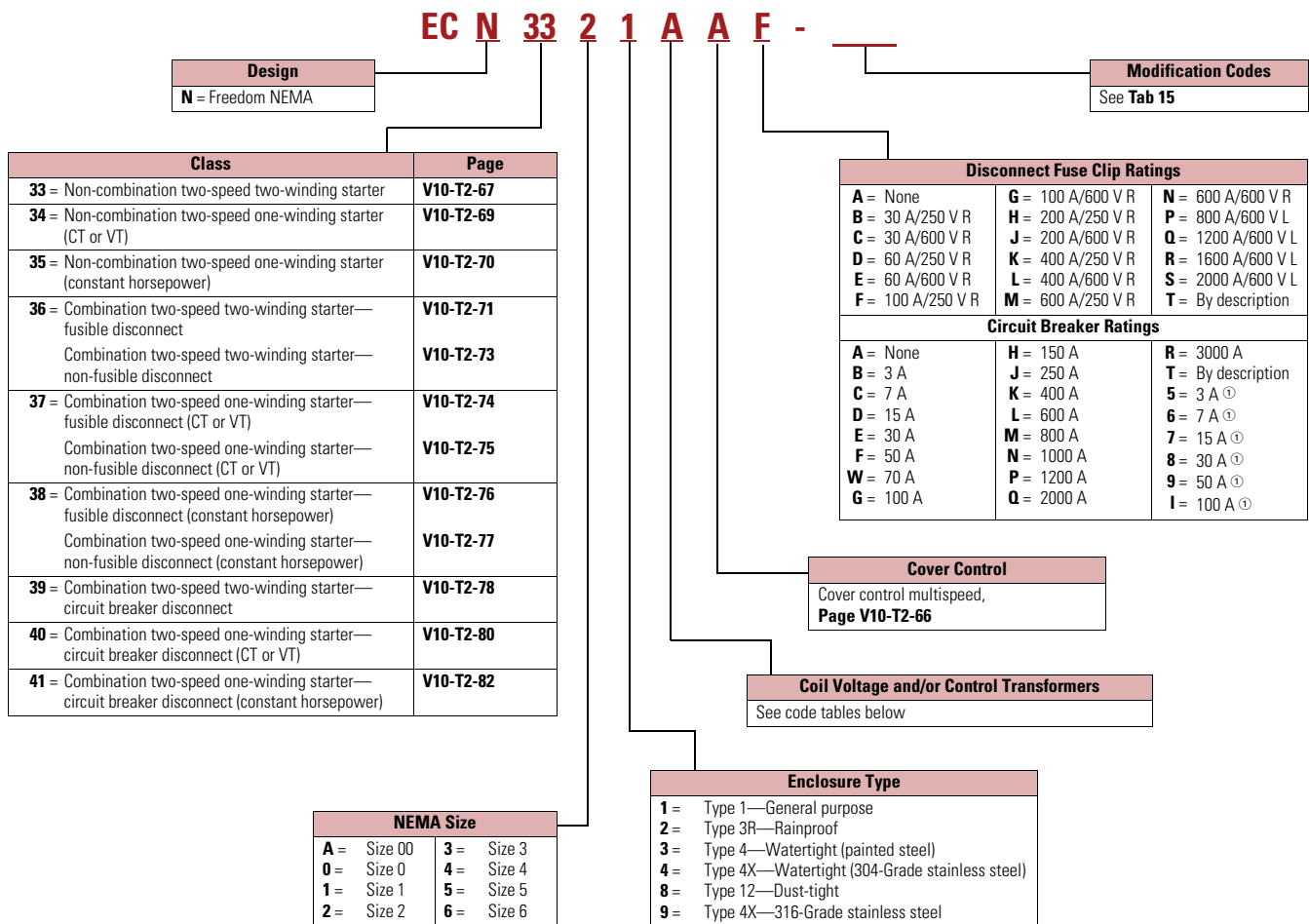
**Note:** See **Tab 17** for additional information on standards and certifications that apply to all enclosed control products.

#### Additional Reference

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### Catalog Number Selection

#### NEMA Freedom Multispeed Enclosed Control



#### Magnetic Coil Codes (System Voltage) ②

Code	Magnet Coil	Code	Magnet Coil	Code	Magnet Coil
A	120/601–10/50	K	240/50	U	24/50
B	240/602–20/50	L	380/50	V	32/50
C	460/604–40/50	M	415/50	W	48/60
D	575/605–50/50	P	12 Vdc	X	104–120/60
E	208/60	Q	24 Vdc	Y	48/50
G	550/50	R	48 Vdc	Z	By description
H	277/60	S	125 Vdc		
J	208–240/60	T	24/60		

#### Control Power Transformer Codes (System Voltage)

Code	Primary	Secondary
B	240/480–220/440 wired for 240 V	120/60–110/50
C	240/480–220/440 wired for 480 V	120/60–110/50
D	600/60–550/50	120/60–110/50
E	208/60	120/60
H	277/60	120/60
L	380/50	110/50
M	415/50	110/50
Q	208/60	24
R	240/480–220/440 wired for 240 V	24
S	240/480–220/440 wired for 480 V	24
T	600/60	24
U	277/60	24
V	380/50	24
W	415/50	24
X	240/480/600 wired for 480 V	120
Y	240/480/600 wired for 480 V	24
Z	By description	—

#### Notes

① Use for Sizes 0–3, HMCP 600 V applications only.

② When control power transformer modification codes (C1–C11) are used or when starter class includes CPT, see the table at right for system voltage code.

#### Cover Control

##### Flange Control Kits

For on-the-job conversion of Type 1, 3R, 4X and 12 enclosed starters. Knockouts are provided on the Type 1 flange. Type 3R, 4X and 12 have prepunched holes with removable hole plugs.

##### Factory Installed

To order factory installed pilot devices, change the ninth character of the catalog number to the alpha shown in the table below. Example: to order an **ECN3414CAA** with FAST/OFF/SLOW selector switch and two red pilot lights, change the **A** to **J**, that is, ECN3414C**J**A.

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#### Product Selection

##### Multispeed Pilot Devices



##### Multispeed Pilot Devices

Description	Factory Installed Flange Control			Field Installation Kits	
	Position 9 Alpha	Type 1 Non-Combination ①	All Others ②	Type 1 Non-Combination ① Catalog Number	All Others ② Catalog Number
No cover mounted pilot devices	<b>A</b>	■	■	<b>C400GK0</b>	—
FAST/SLOW/STOP pushbuttons	<b>B</b>	■	■	<b>C400GK9</b> ③	<b>C400T7</b>
With two red pilot lights	<b>C</b>	■	■	<b>C400GK94</b> ④	—
With two red/one green pilot lights	<b>D</b>	—	■	—	—
HIGH/LOW/STOP pushbuttons	<b>E</b>	—	■	—	<b>C400T8</b>
With two red pilot lights	<b>F</b>	—	■	—	—
With two red/one green pilot lights	<b>G</b>	—	■	—	—
FAST/OFF/SLOW selector switch	<b>H</b>	—	■	—	<b>C400T17</b>
With two red pilot lights	<b>J</b>	—	■	—	—
With two red/one green pilot lights	<b>K</b>	—	■	—	—
Two red pilot lights	<b>P</b>	■	■	<b>C400GK44</b> ④	⑤
One green pilot light	<b>Q</b>	■	■	<b>C400GK41</b> ④	<b>C400T10</b> ④
Two red/one green pilot lights	<b>R</b>	■	■	—	—
HIGH/OFF/LOW selector switch	<b>V</b>	—	■	—	<b>C400T18</b>
With two red pilot lights	<b>W</b>	—	■	—	—
With two red/one green pilot lights	<b>X</b>	—	■	—	—

##### Notes

- ① Type 1, NEMA Sizes 00–2 non-combination ONLY.
- ② Type 1, NEMA Sizes 3–7 non-combination PLUS all Type 3R, 4X, 12 non-combination PLUS all combination.
- ③ Uses a FAST/SLOW/OFF pushbutton.
- ④ Add code letter from table below to catalog number for voltage—kits only. Example: C400GK94**B**

Rating	Code Letter	Rating	Code Letter	Rating	Code Letter
120 V 60 Hz	<b>A</b>	240 V 60 Hz	<b>B</b>	480 V 60 Hz	<b>C</b>
208V 60 Hz	<b>E</b>	380 V 50 Hz	<b>L</b>	600 V 60 Hz	<b>D</b>

- ⑤ Order quantity two of C400T9 ④.

### Non-Combination Starters

#### Features

- Three-phase magnetic, three-pole
- Interchangeable heater OLR
- 600 V maximum

#### Product Selection

#### Class ECN33—Non-Combination Two-Speed Two-Winding Starter

NEMA Size	Motor Voltage ①	Maximum hp Rating		Magnet Coil Voltage	Type 1	Type 3R	Type 4X	Type 12	Component Starter (Open)
		Constant or Variable Torque	Constant Horsepower		General Purpose	Rainproof	Watertight and Dust-Tight Stainless Steel ②	Dust-Tight Industrial External Reset	
					Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
0	—	—	—	120	ECN3301AAA	ECN3302AAA	ECN3304AAA	ECN3308AAA	AN700BN022A
	200	3	2	208	ECN3301EAA	ECN3302EAA	ECN3304EAA	ECN3308EAA	AN700BN022E
	230	3	2	240	ECN3301BAA	ECN3302BAA	ECN3304BAA	ECN3308BAA	AN700BN022B
	460	5	3	480	ECN3301CAA	ECN3302CAA	ECN3304CAA	ECN3308CAA	AN700BN022C
	575	5	3	600	ECN3301DAA	ECN3302DAA	ECN3304DAA	ECN3308DAA	AN700BN022D
1	—	—	—	120	ECN3311AAA	ECN3312AAA	ECN3314AAA	ECN3318AAA	AN700DN022A
	200	7-1/2	5	208	ECN3311EAA	ECN3312EAA	ECN3314EAA	ECN3318EAA	AN700DN022E
	230	7-1/2	5	240	ECN3311BAA	ECN3312BAA	ECN3314BAA	ECN3318BAA	AN700DN022B
	460	10	7-1/2	480	ECN3311CAA	ECN3312CAA	ECN3314CAA	ECN3318CAA	AN700DN022C
	575	10	7-1/2	600	ECN3311DAA	ECN3312DAA	ECN3314DAA	ECN3318DAA	AN700DN022D
2	—	—	—	120	ECN3321AAA	ECN3322AAA	ECN3324AAA	ECN3328AAA	AN700GN022A
	200	10	7-1/2	208	ECN3321EAA	ECN3322EAA	ECN3324EAA	ECN3328EAA	AN700GN022E
	230	15	10	240	ECN3321BAA	ECN3322BAA	ECN3324BAA	ECN3328BAA	AN700GN022B
	460	25	20	480	ECN3321CAA	ECN3322CAA	ECN3324CAA	ECN3328CAA	AN700GN022C
	575	25	20	600	ECN3321DAA	ECN3322DAA	ECN3324DAA	ECN3328DAA	AN700GN022D
3	—	—	—	120	ECN3331AAA	ECN3332AAA	ECN3334AAA	ECN3338AAA	AN700KN022A
	200	25	20	208	ECN3331EAA	ECN3332EAA	ECN3334EAA	ECN3338EAA	AN700KN022E
	230	30	25	240	ECN3331BAA	ECN3332BAA	ECN3334BAA	ECN3338BAA	AN700KN022B
	460	50	40	480	ECN3331CAA	ECN3332CAA	ECN3334CAA	ECN3338CAA	AN700KN022C
	575	50	40	600	ECN3331DAA	ECN3332DAA	ECN3334DAA	ECN3338DAA	AN700KN022D
4	—	—	—	120	ECN3341AAA	ECN3342AAA	ECN3344AAA	ECN3348AAA	AN700NN022A
	200	40	30	208	ECN3341EAA	ECN3342EAA	ECN3344EAA	ECN3348EAA	AN700NN022E
	230	50	40	240	ECN3341BAA	ECN3342BAA	ECN3344BAA	ECN3348BAA	AN700NN022B
	460	100	75	480	ECN3341CAA	ECN3342CAA	ECN3344CAA	ECN3348CAA	AN700NN022C
	575	100	75	600	ECN3341DAA	ECN3342DAA	ECN3344DAA	ECN3348DAA	AN700NN022D

#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

① Maximum horsepower rating of starters for 380 V 50 Hz applications.

NEMA Size	0	1	2	3	4	5	6
Constant or variable torque	5	10	25	50	75	150	300
Constant horsepower	3	7-1/2	20	40	60	100	200

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: ECN3304AAA. 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**.

#### Class ECN33—Non-Combination Two-Speed Two-Winding Starter, continued

NEMA Size	Motor Voltage ①	Maximum hp Rating		Magnet Coil Voltage	Type 1	Type 3R	Type 4X	Type 12	Component
		Constant or Variable Torque	Constant Horsepower		General Purpose	Rainproof	Watertight and Dust-Tight Stainless Steel ②	Dust-Tight Industrial External Reset	Starter (Open)
					Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
5	—	—	—	120	ECN3351AAA	ECN3352AAA	ECN3354AAA	ECN3358AAA	AN700SN022A
	200	75	60	208	ECN3351EAA	ECN3352EAA	ECN3354EAA	ECN3358EAA	AN700SN022E
	230	100	75	240	ECN3351BAA	ECN3352BAA	ECN3354BAA	ECN3358BAA	AN700SN022B
	460	200	150	480	ECN3351CAA	ECN3352CAA	ECN3354CAA	ECN3358CAA	AN700SN022C
	575	200	150	600	ECN3351DAA	ECN3352DAA	ECN3354DAA	ECN3358DAA	AN700SN022D
6	200	150	100	208	ECN3361EAA	ECN3362EAA	ECN3363EAA ③	ECN3368EAA	AN700TN022E
	230	200	150	240	ECN3361BAA	ECN3362BAA	ECN3363BAA ③	ECN3368BAA	AN700TN022B
	460	400	300	480	ECN3361CAA	ECN3362CAA	ECN3363CAA ③	ECN3368CAA	AN700TN022C
	575	400	300	600	ECN3361DAA	ECN3362DAA	ECN3363DAA ③	ECN3368DAA	AN700TN022D
7	230	300	225	240	ECN3371BAA	ECN3372BAA	ECN3373BAA ③	ECN3378BAA	AN700UN022B
	460	600	450	480	ECN3371CAA	ECN3372CAA	ECN3373CAA ③	ECN3378CAA	AN700UN022C
	575	600	450	600	ECN3371DAA	ECN3372DAA	ECN3373DAA ③	ECN3378DAA	AN700UN022D

**Notes**

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

① Maximum horsepower rating of starters for 380 V 50 Hz applications.

NEMA Size	0	1	2	3	4	5	6
Constant or variable torque	5	10	25	50	75	150	300
Constant horsepower	3	7-1/2	20	40	60	100	200

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: ECN3354AAA. 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 Type 4 (painted steel) sizes 6 and 7.

### Class ECN34—Non-Combination Two-Speed One-Winding Starter (CT or VT)

NEMA Size	Motor Voltage <sup>①</sup>	Maximum hp Rating	Magnet Coil Voltage	Type 1	Type 3R	Type 4X	Type 12	Component Starter (Open)
				General Purpose	Rainproof	Watertight and Dust-Tight Stainless Steel <sup>②</sup>	Dust-Tight Industrial External Reset	
				Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
0	—	—	120	ECN3401AAA	ECN3402AAA	ECN3404AAA	ECN3408AAA	AN700BN0218A
	200	3	208	ECN3401EAA	ECN3402EAA	ECN3404EAA	ECN3408EAA	AN700BN0218E
	230	3	240	ECN3401BAA	ECN3402BAA	ECN3404BAA	ECN3408BAA	AN700BN0218B
	460	5	480	ECN3401CAA	ECN3402CAA	ECN3404CAA	ECN3408CAA	AN700BN0218C
	575	5	600	ECN3401DAA	ECN3402DAA	ECN3404DAA	ECN3408DAA	AN700BN0218D
1	—	—	120	ECN3411AAA	ECN3412AAA	ECN3414AAA	ECN3418AAA	AN700DN0218A
	200	7-1/2	208	ECN3411EAA	ECN3412EAA	ECN3414EAA	ECN3418EAA	AN700DN0218E
	230	7-1/2	240	ECN3411BAA	ECN3412BAA	ECN3414BAA	ECN3418BAA	AN700DN0218B
	460	10	480	ECN3411CAA	ECN3412CAA	ECN3414CAA	ECN3418CAA	AN700DN0218C
	575	10	600	ECN3411DAA	ECN3412DAA	ECN3414DAA	ECN3418DAA	AN700DN0218D
2	—	—	120	ECN3421AAA	ECN3422AAA	ECN3424AAA	ECN3428AAA	AN700GN0218A
	200	10	208	ECN3421EAA	ECN3422EAA	ECN3424EAA	ECN3428EAA	AN700GN0218E
	230	15	240	ECN3421BAA	ECN3422BAA	ECN3424BAA	ECN3428BAA	AN700GN0218B
	460	25	480	ECN3421CAA	ECN3422CAA	ECN3424CAA	ECN3428CAA	AN700GN0218C
	575	25	600	ECN3421DAA	ECN3422DAA	ECN3424DAA	ECN3428DAA	AN700GN0218D
3	—	—	120	ECN3431AAA	ECN3432AAA	ECN3434AAA	ECN3438AAA	AN700KN0218A
	200	25	208	ECN3431EAA	ECN3432EAA	ECN3434EAA	ECN3438EAA	AN700KN0218E
	230	30	240	ECN3431BAA	ECN3432BAA	ECN3434BAA	ECN3438BAA	AN700KN0218B
	460	50	480	ECN3431CAA	ECN3432CAA	ECN3434CAA	ECN3438CAA	AN700KN0218C
	575	50	600	ECN3431DAA	ECN3432DAA	ECN3434DAA	ECN3438DAA	AN700KN0218D
4	—	—	120	ECN3441AAA	ECN3442AAA	ECN3444AAA	ECN3448AAA	AN700NN0218A
	200	40	208	ECN3441EAA	ECN3442EAA	ECN3444EAA	ECN3448EAA	AN700NN0218E
	230	50	240	ECN3441BAA	ECN3442BAA	ECN3444BAA	ECN3448BAA	AN700NN0218B
	460	100	480	ECN3441CAA	ECN3442CAA	ECN3444CAA	ECN3448CAA	AN700NN0218C
	575	100	600	ECN3441DAA	ECN3442DAA	ECN3444DAA	ECN3448DAA	AN700NN0218D
5	—	—	120	ECN3451AAA	ECN3452AAA	ECN3454AAA	ECN3458AAA	AN700SN0218A
	200	75	208	ECN3451EAA	ECN3452EAA	ECN3454EAA	ECN3458EAA	AN700SN0218E
	230	100	240	ECN3451BAA	ECN3452BAA	ECN3454BAA	ECN3458BAA	AN700SN0218B
	460	200	480	ECN3451CAA	ECN3452CAA	ECN3454CAA	ECN3458CAA	AN700SN0218C
	575	200	600	ECN3451DAA	ECN3452DAA	ECN3454DAA	ECN3458DAA	AN700SN0218D
6	200	150	208	ECN3461EAA	ECN3462EAA	ECN3463EAA <sup>③</sup>	ECN3468EAA	AN700TN0218E
	230	200	240	ECN3461BAA	ECN3462BAA	ECN3463BAA <sup>③</sup>	ECN3468BAA	AN700TN0218B
	460	400	480	ECN3461CAA	ECN3462CAA	ECN3463CAA <sup>③</sup>	ECN3468CAA	AN700TN0218C
	575	400	600	ECN3461DAA	ECN3462DAA	ECN3463DAA <sup>③</sup>	ECN3468DAA	AN700TN0218D

#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

<sup>①</sup> Maximum horsepower rating of starters for 380 V 50 Hz applications.

NEMA Size	0	1	2	3	4	5	6
Horsepower	5	10	25	50	75	150	300

<sup>②</sup> The catalog numbers listed in the Type 4X column are for Type 4X 304-Grade stainless steel, as indicated by the **seventh** digit. Example: ECN3404AAA. 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**.

<sup>③</sup> Type 4 (painted steel) sizes 6.

# 2.3

## NEMA Contactors and Starters

### Freedom Multispeed Starters

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#### Class ECN35—Non-Combination Two-Speed One-Winding Starter (Constant Horsepower)

NEMA Size	Motor Voltage ①	Maximum hp Rating	Magnet Coil Voltage	Type 1	Type 3R	Type 4X	Type 12	Component Starter (Open)
				General Purpose	Rainproof	Watertight and Dust-Tight Stainless Steel ②	Dust-Tight Industrial External Reset	
				Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
0	—	—	120	ECN3501AAA	ECN3502AAA	ECN3504AAA	ECN3508AAA	AN700BN0218A
	200	2	208	ECN3501EAA	ECN3502EAA	ECN3504EAA	ECN3508EAA	AN700BN0218E
	230	2	240	ECN3501BAA	ECN3502BAA	ECN3504BAA	ECN3508BAA	AN700BN0218B
	460	3	480	ECN3501CAA	ECN3502CAA	ECN3504CAA	ECN3508CAA	AN700BN0218C
	575	3	600	ECN3501DAA	ECN3502DAA	ECN3504DAA	ECN3508DAA	AN700BN0218D
1	—	—	120	ECN3511AAA	ECN3512AAA	ECN3514AAA	ECN3518AAA	AN700DN0218A
	200	5	208	ECN3511EAA	ECN3512EAA	ECN3514EAA	ECN3518EAA	AN700DN0218E
	230	5	240	ECN3511BAA	ECN3512BAA	ECN3514BAA	ECN3518BAA	AN700DN0218B
	460	7-1/2	480	ECN3511CAA	ECN3512CAA	ECN3514CAA	ECN3518CAA	AN700DN0218C
	575	7-1/2	600	ECN3511DAA	ECN3512DAA	ECN3514DAA	ECN3518DAA	AN700DN0218D
2	—	—	120	ECN3521AAA	ECN3522AAA	ECN3524AAA	ECN3528AAA	AN700GN0218A
	200	7-1/2	208	ECN3521EAA	ECN3522EAA	ECN3524EAA	ECN3528EAA	AN700GN0218E
	230	10	240	ECN3521BAA	ECN3522BAA	ECN3524BAA	ECN3528BAA	AN700GN0218B
	460	20	480	ECN3521CAA	ECN3522CAA	ECN3524CAA	ECN3528CAA	AN700GN0218C
	575	20	600	ECN3521DAA	ECN3522DAA	ECN3524DAA	ECN3528DAA	AN700GN0218D
3	—	—	120	ECN3531AAA	ECN3532AAA	ECN3534AAA	ECN3538AAA	AN700KN0218A
	200	20	208	ECN3531EAA	ECN3532EAA	ECN3534EAA	ECN3538EAA	AN700KN0218E
	230	25	240	ECN3531BAA	ECN3532BAA	ECN3534BAA	ECN3538BAA	AN700KN0218B
	460	40	480	ECN3531CAA	ECN3532CAA	ECN3534CAA	ECN3538CAA	AN700KN0218C
	575	40	600	ECN3531DAA	ECN3532DAA	ECN3534DAA	ECN3538DAA	AN700KN0218D
4	—	—	120	ECN3541AAA	ECN3542AAA	ECN3544AAA	ECN3548AAA	AN700NN0218A
	200	30	208	ECN3541EAA	ECN3542EAA	ECN3544EAA	ECN3548EAA	AN700NN0218E
	230	40	240	ECN3541BAA	ECN3542BAA	ECN3544BAA	ECN3548BAA	AN700NN0218B
	460	75	480	ECN3541CAA	ECN3542CAA	ECN3544CAA	ECN3548CAA	AN700NN0218C
	575	75	600	ECN3541DAA	ECN3542DAA	ECN3544DAA	ECN3548DAA	AN700NN0218D
5	—	—	120	ECN3551AAA	ECN3552AAA	ECN3554AAA	ECN3558AAA	AN700SN0218A
	200	60	208	ECN3551EAA	ECN3552EAA	ECN3554EAA	ECN3558EAA	AN700SN0218E
	230	75	240	ECN3551BAA	ECN3552BAA	ECN3554BAA	ECN3558BAA	AN700SN0218B
	460	150	480	ECN3551CAA	ECN3552CAA	ECN3554CAA	ECN3558CAA	AN700SN0218C
	575	150	600	ECN3551DAA	ECN3552DAA	ECN3554DAA	ECN3558DAA	AN700SN0218D
6	200	100	208	ECN3561EAA	ECN3562EAA	ECN3563EAA ③	ECN3568EAA	AN700TN0218E
	230	150	240	ECN3561BAA	ECN3562BAA	ECN3563BAA ③	ECN3568BAA	AN700TN0218B
	460	300	480	ECN3561CAA	ECN3562CAA	ECN3563CAA ③	ECN3568CAA	AN700TN0218C
	575	300	600	ECN3561DAA	ECN3562DAA	ECN3563DAA ③	ECN3568DAA	AN700TN0218D

#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

① Maximum horsepower rating of starters for 380 V 50 Hz applications.

NEMA Size	0	1	2	3	4	5	6
Horsepower	3	7-1/2	20	40	60	100	200

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: ECN3504AAA. 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 Type 4 (painted steel) sizes 6.

**Combination Starters**

**Features**

- Choice of fusible/non-fusible combination with disconnect switch or combination HMCP or magnetic trip circuit breaker
- Three-phase magnetic, three-pole
- Interchangeable heater OLR
- 600 V maximum

**Product Selection**

**Class ECN36—Combination Two-Speed Two-Winding Starter—Fusible Disconnect**

NEMA Size	Motor Voltage ①	Maximum hp Rating		Magnet Coil Voltage	Fuse Clip Amperes	Type 1 General Purpose Catalog Number	Type 3R Rainproof Catalog Number	Type 4X Watertight and Dust-Tight Stainless Steel ② Catalog Number	Type 12 Dust-Tight Industrial External Reset Catalog Number	Component Starter (Open) Catalog Number
		Constant or Variable Torque	Constant Horsepower							
0	—	—	—	120	30 A	ECN3601AAB	ECN3602AAB	ECN3604AAB	ECN3608AAB	AN700BN022A
	200	3	2	208		ECN3601EAB	ECN3602EAB	ECN3604EAB	ECN3608EAB	AN700BN022E
	230			240		ECN3601BAB	ECN3602BAB	ECN3604BAB	ECN3608BAB	AN700BN022B
	460	5	3	480		ECN3601CAC	ECN3602CAC	ECN3604CAC	ECN3608CAC	AN700BN022C
	575			600		ECN3601DAC	ECN3602DAC	ECN3604DAC	ECN3608DAC	AN700BN022D
1	—	—	—	120	30 A	ECN3611AAB	ECN3612AAB	ECN3614AAB	ECN3618AAB	AN700DN022A
	200	7-1/2	5	208		ECN3611EAB	ECN3612EAB	ECN3614EAB	ECN3618EAB	AN700DN022E
	230			240		ECN3611BAB	ECN3612BAB	ECN3614BAB	ECN3618BAB	AN700DN022B
	460	10	7-1/2	480		ECN3611CAC	ECN3612CAC	ECN3614CAC	ECN3618CAC	AN700DN022C
	575			600		ECN3611DAC	ECN3612DAC	ECN3614DAC	ECN3618DAC	AN700DN022D
2	—	—	—	120	60 A	ECN3621AAD	ECN3622AAD	ECN3624AAD	ECN3628AAD	AN700GN022A
	200	10	7-1/2	208		ECN3621EAD	ECN3622EAD	ECN3624EAD	ECN3628EAD	AN700GN022E
	230	15	10	240		ECN3621BAD	ECN3622BAD	ECN3624BAD	ECN3628BAD	AN700GN022B
	460	25	20	480		ECN3621CAE	ECN3622CAE	ECN3624CAE	ECN3628CAE	AN700GN022C
	575			600		ECN3621DAE	ECN3622DAE	ECN3624DAE	ECN3628DAE	AN700GN022D
3	—	—	—	120	100 A	ECN3631AAF	ECN3632AAF	ECN3634AAF	ECN3638AAF	AN700KN022A
	200	25	20	208		ECN3631EAF	ECN3632EAF	ECN3634EAF	ECN3638EAF	AN700KN022E
	230	30	25	240		ECN3631BAF	ECN3632BAF	ECN3634BAF	ECN3638BAF	AN700KN022B
	460	50	40	480		ECN3631CAG	ECN3632CAG	ECN3634CAG	ECN3638CAG	AN700KN022C
	575			600		ECN3631DAG	ECN3632DAG	ECN3634DAG	ECN3638DAG	AN700KN022D

**Notes**

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

① Maximum horsepower rating of starters for 380 V 50 Hz applications.

NEMA Size	0	1	2	3	4	5	6
Constant or variable torque	5	10	25	50	75	150	300
Constant horsepower	3	7-1/2	20	40	60	100	200

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: ECN360**4**AAB. 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**.

#### Class ECN36—Combination Two-Speed Two-Winding Starter—Fusible Disconnect

NEMA Size	Motor Voltage ①	Maximum hp Rating		Magnet Coil Voltage	Fuse Clip Amperes	Type 1	Type 3R	Type 4X	Type 12	Component Starter (Open)
		Constant or Variable Torque	Constant Horsepower			General Purpose	Rainproof	Watertight and Dust-Tight Stainless Steel ②	Dust-Tight Industrial External Reset	
						Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
4	—	—	—	120	200 A	ECN3641AAH	ECN3642AAH	ECN3644AAH	ECN3648AAH	AN700NN022A
	200	40	30	208		ECN3641EAH	ECN3642EAH	ECN3644EAH	ECN3648EAH	AN700NN022E
	230	50	40	240		ECN3641BAH	ECN3642BAH	ECN3644BAH	ECN3648BAH	AN700NN022B
	460	100	75	480		ECN3641CAJ	ECN3642CAJ	ECN3644CAJ	ECN3648CAJ	AN700NN022C
	575	100	75	600		ECN3641DAJ	ECN3642DAJ	ECN3644DAJ	ECN3648DAJ	AN700NN022D
5	—	—	—	120	400 A	ECN3651AAK	ECN3652AAK	ECN3654AAK	ECN3658AAK	AN700SN022A
	200	75	60	208		ECN3651EAK	ECN3652EAK	ECN3654EAK	ECN3658EAK	AN700SN022E
	230	100	75	240		ECN3651BAK	ECN3652BAK	ECN3654BAK	ECN3658BAK	AN700SN022B
	460	200	150	480		ECN3651CAL	ECN3652CAL	ECN3654CAL	ECN3658CAL	AN700SN022C
	575	200	150	600		ECN3651DAL	ECN3652DAL	ECN3654DAL	ECN3658DAL	AN700SN022D
6	200	150	100	208	600 A	ECN3661EAM	ECN3662EAM	ECN3663EAM ③	ECN3668EAM	AN700TN022E
	230	200	150	240		ECN3661BAM	ECN3662BAM	ECN3663BAM ③	ECN3668BAM	AN700TN022B
	460	400	300	480		ECN3661CAN	ECN3662CAN	ECN3663CAN ③	ECN3668CAN	AN700TN022C
	575	400	300	600		ECN3661DAN	ECN3662DAN	ECN3663DAN ③	ECN3668DAN	AN700TN022D

#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

① Maximum horsepower rating of starters for 380 V 50 Hz applications.

NEMA Size	0	1	2	3	4	5	6
Constant or variable torque	5	10	25	50	75	150	300
Constant horsepower	3	7-1/2	20	40	60	100	200

- 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: ECN3644AAH. 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 Type 4 (painted steel) sizes 6.

### Class ECN36—Combination Two-Speed Two-Winding Starter—Non-Fusible Disconnect

NEMA Size	Motor Voltage ①	Maximum hp Rating		Magnet Coil Voltage	Fuse Clip Amperes	Type 1	Type 3R	Type 4X	Type 12	Component Starter (Open)
		Constant or Variable Torque	Constant Horsepower			General Purpose	Rainproof	Watertight and Dust-Tight Stainless Steel ②	Dust-Tight Industrial External Reset	
						Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
0	—	—	—	120	30 A	ECN3601AAA	ECN3602AAA	ECN3604AAA	ECN3608AAA	AN700BN022A
	200	3	2	208		ECN3601EAA	ECN3602EAA	ECN3604EAA	ECN3608EAA	AN700BN022E
	230	3	2	240		ECN3601BAA	ECN3602BAA	ECN3604BAA	ECN3608BAA	AN700BN022B
	460	5	3	480		ECN3601CAA	ECN3602CAA	ECN3604CAA	ECN3608CAA	AN700BN022C
	575	5	3	600		ECN3601DAA	ECN3602DAA	ECN3604DAA	ECN3608DAA	AN700BN022D
1	—	—	—	120	30 A	ECN3611AAA	ECN3612AAA	ECN3614AAA	ECN3618AAA	AN700DN022A
	200	7-1/2	5	208		ECN3611EAA	ECN3612EAA	ECN3614EAA	ECN3618EAA	AN700DN022E
	230	7-1/2	5	240		ECN3611BAA	ECN3612BAA	ECN3614BAA	ECN3618BAA	AN700DN022B
	460	10	7-1/2	480		ECN3611CAA	ECN3612CAA	ECN3614CAA	ECN3618CAA	AN700DN022C
	575	10	7-1/2	600		ECN3611DAA	ECN3612DAA	ECN3614DAA	ECN3618DAA	AN700DN022D
2	—	—	—	120	60 A	ECN3621AAA	ECN3622AAA	ECN3624AAA	ECN3628AAA	AN700GN022A
	200	10	7-1/2	208		ECN3621EAA	ECN3622EAA	ECN3624EAA	ECN3628EAA	AN700GN022E
	230	15	10	240		ECN3621BAA	ECN3622BAA	ECN3624BAA	ECN3628BAA	AN700GN022B
	460	25	20	480		ECN3621CAA	ECN3622CAA	ECN3624CAA	ECN3628CAA	AN700GN022C
	575	25	20	600		ECN3621DAA	ECN3622DAA	ECN3624DAA	ECN3628DAA	AN700GN022D
3	—	—	—	120	100 A	ECN3631AAA	ECN3632AAA	ECN3634AAA	ECN3638AAA	AN700KN022A
	200	25	20	208		ECN3631EAA	ECN3632EAA	ECN3634EAA	ECN3638EAA	AN700KN022E
	230	30	25	240		ECN3631BAA	ECN3632BAA	ECN3634BAA	ECN3638BAA	AN700KN022B
	460	50	40	480		ECN3631CAA	ECN3632CAA	ECN3634CAA	ECN3638CAA	AN700KN022C
	575	50	40	600		ECN3631DAA	ECN3632DAA	ECN3634DAA	ECN3638DAA	AN700KN022D
4	—	—	—	120	200 A	ECN3641AAA	ECN3642AAA	ECN3644AAA	ECN3648AAA	AN700NN022A
	200	40	30	208		ECN3641EAA	ECN3642EAA	ECN3644EAA	ECN3648EAA	AN700NN022E
	230	50	40	240		ECN3641BAA	ECN3642BAA	ECN3644BAA	ECN3648BAA	AN700NN022B
	460	100	75	480		ECN3641CAA	ECN3642CAA	ECN3644CAA	ECN3648CAA	AN700NN022C
	575	100	75	600		ECN3641DAA	ECN3642DAA	ECN3644DAA	ECN3648DAA	AN700NN022D
5	—	—	—	120	400 A	ECN3651AAA	ECN3652AAA	ECN3654AAA	ECN3658AAA	AN700SN022A
	200	75	60	208		ECN3651EAA	ECN3652EAA	ECN3654EAA	ECN3658EAA	AN700SN022E
	230	100	75	240		ECN3651BAA	ECN3652BAA	ECN3654BAA	ECN3658BAA	AN700SN022B
	460	200	150	480		ECN3651CAA	ECN3652CAA	ECN3654CAA	ECN3658CAA	AN700SN022C
	575	200	150	600		ECN3651DAA	ECN3652DAA	ECN3654DAA	ECN3658DAA	AN700SN022D
6	200	150	100	208	600 A	ECN3661EAA	ECN3662EAA	ECN3663EAA ③	ECN3668EAA	AN700TN022E
	230	200	150	240		ECN3661BAA	ECN3662BAA	ECN3663BAA ③	ECN3668BAA	AN700TN022B
	460	400	300	480		ECN3661CAA	ECN3662CAA	ECN3663CAA ③	ECN3668CAA	AN700TN022C
	575	400	300	600		ECN3661DAA	ECN3662DAA	ECN3663DAA ③	ECN3668DAA	AN700TN022D

#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

① Maximum horsepower rating of starters for 380 V 50 Hz applications.

NEMA Size	0	1	2	3	4	5	6
Constant or variable torque	5	10	25	50	75	150	300
Constant horsepower	3	7-1/2	20	40	60	100	200

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: ECN3604AAA. 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 Type 4 (painted steel) sizes 6.

#### Class ECN37—Combination Two-Speed One-Winding Starter (CT or VT)—Fusible Disconnect

NEMA Size	Motor Voltage ①	Maximum hp Rating	Magnet Coil Voltage	Fuse Clip Amperes	Type 1	Type 3R	Type 4X	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight and Dust-Tight Stainless Steel ②	Dust-Tight Industrial External Reset	
					Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
0	—	—	120	30 A	ECN3701AAB	ECN3702AAB	ECN3704AAB	ECN3708AAB	AN700BN0218A
	200	3	208		ECN3701EAB	ECN3702EAB	ECN3704EAB	ECN3708EAB	AN700BN0218E
	230	3	240		ECN3701BAB	ECN3702BAB	ECN3704BAB	ECN3708BAB	AN700BN0218B
	460	5	480		ECN3701CAC	ECN3702CAC	ECN3704CAC	ECN3708CAC	AN700BN0218C
	575	5	600		ECN3701DAC	ECN3702DAC	ECN3704DAC	ECN3708DAC	AN700BN0218D
1	—	—	120	30 A	ECN3711AAB	ECN3712AAB	ECN3714AAB	ECN3718AAB	AN700DN0218A
	200	7-1/2	208		ECN3711EAB	ECN3712EAB	ECN3714EAB	ECN3718EAB	AN700DN0218E
	230	7-1/2	240		ECN3711BAB	ECN3712BAB	ECN3714BAB	ECN3718BAB	AN700DN0218B
	460	10	480		ECN3711CAC	ECN3712CAC	ECN3714CAC	ECN3718CAC	AN700DN0218C
	575	10	600		ECN3711DAC	ECN3712DAC	ECN3714DAC	ECN3718DAC	AN700DN0218D
2	—	—	120	60 A	ECN3721AAD	ECN3722AAD	ECN3724AAD	ECN3728AAD	AN700GN0218A
	200	10	208		ECN3721EAD	ECN3722EAD	ECN3724EAD	ECN3728EAD	AN700GN0218E
	230	15	240		ECN3721BAD	ECN3722BAD	ECN3724BAD	ECN3728BAD	AN700GN0218B
	460	25	480		ECN3721CAE	ECN3722CAE	ECN3724CAE	ECN3728CAE	AN700GN0218C
	575	25	600		ECN3721DAE	ECN3722DAE	ECN3724DAE	ECN3728DAE	AN700GN0218D
3	—	—	120	100 A	ECN3731AAF	ECN3732AAF	ECN3734AAF	ECN3738AAF	AN700KN0218A
	200	25	208		ECN3731EAF	ECN3732EAF	ECN3734EAF	ECN3738EAF	AN700KN0218E
	230	30	240		ECN3731BAF	ECN3732BAF	ECN3734BAF	ECN3738BAF	AN700KN0218B
	460	50	480		ECN3731CAF	ECN3732CAF	ECN3734CAF	ECN3738CAF	AN700KN0218C
	575	50	600		ECN3731DAF	ECN3732DAF	ECN3734DAF	ECN3738DAF	AN700KN0218D
4	—	—	120	200 A	ECN3741AAH	ECN3742AAH	ECN3744AAH	ECN3748AAH	AN700NN0218A
	200	40	208		ECN3741EAH	ECN3742EAH	ECN3744EAH	ECN3748EAH	AN700NN0218E
	230	50	240		ECN3741BAH	ECN3742BAH	ECN3744BAH	ECN3748BAH	AN700NN0218B
	460	100	480		ECN3741CAJ	ECN3742CAJ	ECN3744CAJ	ECN3748CAJ	AN700NN0218C
	575	100	600		ECN3741DAJ	ECN3742DAJ	ECN3744DAJ	ECN3748DAJ	AN700NN0218D
5	—	—	120	400 A	ECN3751AAK	ECN3752AAK	ECN3754AAK	ECN3758AAK	AN700SN0218A
	200	75	208		ECN3751EAK	ECN3752EAK	ECN3754EAK	ECN3758EAK	AN700SN0218E
	230	100	240		ECN3751BAK	ECN3752BAK	ECN3754BAK	ECN3758BAK	AN700SN0218B
	460	200	480		ECN3751CAL	ECN3752CAL	ECN3754CAL	ECN3758CAL	AN700SN0218C
	575	200	600		ECN3751DAL	ECN3752DAL	ECN3754DAL	ECN3758DAL	AN700SN0218D
6	200	150	208	600 A	ECN3761EAM	ECN3762EAM	ECN3763EAM ③	ECN3768EAM	AN700TN0218E
	230	200	240		ECN3761BAM	ECN3762BAM	ECN3763BAM ③	ECN3768BAM	AN700TN0218B
	460	400	480		ECN3761CAN	ECN3762CAN	ECN3763CAN ③	ECN3768CAN	AN700TN0218C
	575	400	600		ECN3761DAN	ECN3762DAN	ECN3763DAN ③	ECN3768DAN	AN700TN0218D

#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

① Maximum horsepower rating of starters for 380 V 50 Hz applications.

NEMA Size	0	1	2	3	4	5	6
Horsepower	5	10	25	50	75	150	300

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: ECN3704AAB. 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 Type 4 (painted steel) sizes 6.

### Class ECN37—Combination Two-Speed One-Winding Starter (CT or VT)—Non-Fusible Disconnect

NEMA Size	Motor Voltage ①	Maximum hp Rating	Magnet Coil Voltage	Disconnect Amperes	Type 1 General Purpose Catalog Number	Type 3R Rainproof Catalog Number	Type 4X Watertight and Dust-Tight Stainless Steel ② Catalog Number	Type 12 Dust-Tight Industrial External Reset Catalog Number	Component Starter (Open) Catalog Number
0	—	—	120	30 A	ECN3701AAA	ECN3702AAA	ECN3704AAA	ECN3708AAA	AN700BN0218A
	200	3	208		ECN3701EAA	ECN3702EAA	ECN3704EAA	ECN3708EAA	AN700BN0218E
	230	3	240		ECN3701BAA	ECN3702BAA	ECN3704BAA	ECN3708BAA	AN700BN0218B
	460	5	480		ECN3701CAA	ECN3702CAA	ECN3704CAA	ECN3708CAA	AN700BN0218C
	575	5	600		ECN3701DAA	ECN3702DAA	ECN3704DAA	ECN3708DAA	AN700BN0218D
1	—	—	120	30 A	ECN3711AAA	ECN3712AAA	ECN3714AAA	ECN3718AAA	AN700DN0218A
	200	7-1/2	208		ECN3711EAA	ECN3712EAA	ECN3714EAA	ECN3718EAA	AN700DN0218E
	230	7-1/2	240		ECN3711BAA	ECN3712BAA	ECN3714BAA	ECN3718BAA	AN700DN0218B
	460	10	480		ECN3711CAA	ECN3712CAA	ECN3714CAA	ECN3718CAA	AN700DN0218C
	575	10	600		ECN3711DAA	ECN3712DAA	ECN3714DAA	ECN3718DAA	AN700DN0218D
2	—	—	120	60 A	ECN3721AAA	ECN3722AAA	ECN3724AAA	ECN3728AAA	AN700GN0218A
	200	10	208		ECN3721EAA	ECN3722EAA	ECN3724EAA	ECN3728EAA	AN700GN0218E
	230	15	240		ECN3721BAA	ECN3722BAA	ECN3724BAA	ECN3728BAA	AN700GN0218B
	460	25	480		ECN3721CAA	ECN3722CAA	ECN3724CAA	ECN3728CAA	AN700GN0218C
	575	25	600		ECN3721DAA	ECN3722DAA	ECN3724DAA	ECN3728DAA	AN700GN0218D
3	—	—	120	100 A	ECN3731AAA	ECN3732AAA	ECN3734AAA	ECN3738AAA	AN700KN0218A
	200	25	208		ECN3731EAA	ECN3732EAA	ECN3734EAA	ECN3738EAA	AN700KN0218E
	230	30	240		ECN3731BAA	ECN3732BAA	ECN3734BAA	ECN3738BAA	AN700KN0218B
	460	50	480		ECN3731CAA	ECN3732CAA	ECN3734CAA	ECN3738CAA	AN700KN0218C
	575	50	600		ECN3731DAA	ECN3732DAA	ECN3734DAA	ECN3738DAA	AN700KN0218D
4	—	—	120	200 A	ECN3741AAA	ECN3742AAA	ECN3744AAA	ECN3748AAA	AN700NN0218A
	200	40	208		ECN3741EAA	ECN3742EAA	ECN3744EAA	ECN3748EAA	AN700NN0218E
	230	50	240		ECN3741BAA	ECN3742BAA	ECN3744BAA	ECN3748BAA	AN700NN0218B
	460	100	480		ECN3741CAA	ECN3742CAA	ECN3744CAA	ECN3748CAA	AN700NN0218C
	575	100	600		ECN3741DAA	ECN3742DAA	ECN3744DAA	ECN3748DAA	AN700NN0218D
5	—	—	120	400 A	ECN3751AAA	ECN3752AAA	ECN3754AAA	ECN3758AAA	AN700SN0218A
	200	75	208		ECN3751EAA	ECN3752EAA	ECN3754EAA	ECN3758EAA	AN700SN0218E
	230	100	240		ECN3751BAA	ECN3752BAA	ECN3754BAA	ECN3758BAA	AN700SN0218B
	460	200	480		ECN3751CAA	ECN3752CAA	ECN3754CAA	ECN3758CAA	AN700SN0218C
	575	200	600		ECN3751DAA	ECN3752DAA	ECN3754DAA	ECN3758DAA	AN700SN0218D
6	200	150	208	600 A	ECN3761EAA	ECN3762EAA	ENC3763EAA ③	ECN3768EAA	AN700TN0218E
	230	200	240		ECN3761BAA	ECN3762BAA	ENC3763BAA ③	ECN3768BAA	AN700TN0218B
	460	400	480		ECN3761CAA	ECN3762CAA	ENC3763CAA ③	ECN3768CAA	AN700TN0218C
	575	400	600		ECN3761DAA	ECN3762DAA	ENC3763DAA ③	ECN3768DAA	AN700TN0218D

#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

① Maximum horsepower rating of starters for 380 V 50 Hz applications.

NEMA Size	0	1	2	3	4	5	6
Horsepower	5	10	25	50	75	150	300

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: ECN3704AAA. 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 Type 4 (painted steel) sizes 6.

#### Class ECN38—Combination Two-Speed One-Winding Starter (Constant Horsepower)—Fusible Disconnect

NEMA Size	Motor Voltage ①	Maximum hp Rating	Magnet Coil Voltage	Fuse Clip Amperes	Type 1	Type 3R	Type 4X	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight and Dust-Tight Stainless Steel ②	Dust-Tight Industrial External Reset	
					Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
0	—	—	120	30 A	ECN3801AAB	ECN3802AAB	ECN3804AAB	ECN3808AAB	AN700BN0218A
	200	2	208		ECN3801EAB	ECN3802EAB	ECN3804EAB	ECN3808EAB	AN700BN0218E
	230	2	240		ECN3801BAB	ECN3802BAB	ECN3804BAB	ECN3808BAB	AN700BN0218B
	460	3	480		ECN3801CAC	ECN3802CAC	ECN3804CAC	ECN3808CAC	AN700BN0218C
	575	3	600		ECN3801DAC	ECN3802DAC	ECN3804DAC	ECN3808DAC	AN700BN0218D
1	—	—	120	30 A	ECN3811AAB	ECN3812AAB	ECN3814AAB	ECN3818AAB	AN700DN0218A
	200	5	208		ECN3811EAB	ECN3812EAB	ECN3814EAB	ECN3818EAB	AN700DN0218E
	230	5	240		ECN3811BAB	ECN3812BAB	ECN3814BAB	ECN3818BAB	AN700DN0218B
	460	7-1/2	480		ECN3811CAC	ECN3812CAC	ECN3814CAC	ECN3818CAC	AN700DN0218C
	575	7-1/2	600		ECN3811DAC	ECN3812DAC	ECN3814DAC	ECN3818DAC	AN700DN0218D
2	—	—	120	60 A	ECN3821AAD	ECN3822AAD	ECN3824AAD	ECN3828AAD	AN700GN0218A
	200	7-1/2	208		ECN3821EAD	ECN3822EAD	ECN3824EAD	ECN3828EAD	AN700GN0218E
	230	10	240		ECN3821BAD	ECN3822BAD	ECN3824BAD	ECN3828BAD	AN700GN0218B
	460	20	480		ECN3821CAE	ECN3822CAE	ECN3824CAE	ECN3828CAE	AN700GN0218C
	575	20	600		ECN3821DAE	ECN3822DAE	ECN3824DAE	ECN3828DAE	AN700GN0218D
3	—	—	120	100 A	ECN3831AAF	ECN3832AAF	ECN3834AAF	ECN3838AAF	AN700KN0218A
	200	20	208		ECN3831EAF	ECN3832EAF	ECN3834EAF	ECN3838EAF	AN700KN0218E
	230	25	240		ECN3831BAF	ECN3832BAF	ECN3834BAF	ECN3838BAF	AN700KN0218B
	460	40	480		ECN3831CAF	ECN3832CAF	ECN3834CAF	ECN3838CAF	AN700KN0218C
	575	40	600		ECN3831DAF	ECN3832DAF	ECN3834DAF	ECN3838DAF	AN700KN0218D
4	—	—	120	200 A	ECN3841AAH	ECN3842AAH	ECN3844AAH	ECN3848AAH	AN700NN0218A
	200	30	208		ECN3841EAH	ECN3842EAH	ECN3844EAH	ECN3848EAH	AN700NN0218E
	230	40	240		ECN3841BAH	ECN3842BAH	ECN3844BAH	ECN3848BAH	AN700NN0218B
	460	75	480		ECN3841CAJ	ECN3842CAJ	ECN3844CAJ	ECN3848CAJ	AN700NN0218C
	575	75	600		ECN3841DAJ	ECN3842DAJ	ECN3844DAJ	ECN3848DAJ	AN700NN0218D
5	—	—	120	400 A	ECN3851AAK	ECN3852AAK	ECN3854AAK	ECN3858AAK	AN700SN0218A
	200	60	208		ECN3851EAK	ECN3852EAK	ECN3854EAK	ECN3858EAK	AN700SN0218E
	230	75	240		ECN3851BAK	ECN3852BAK	ECN3854BAK	ECN3858BAK	AN700SN0218B
	460	150	480		ECN3851CAL	ECN3852CAL	ECN3854CAL	ECN3858CAL	AN700SN0218C
	575	150	600		ECN3851DAL	ECN3852DAL	ECN3854DAL	ECN3858DAL	AN700SN0218D
6	200	100	208	600 A	ECN3861EAM	ECN3862EAM	ECN3863EAM ③	ECN3868EAM	AN700TN0218E
	230	150	240		ECN3861BAM	ECN3862BAM	ECN3863BAM ③	ECN3868BAM	AN700TN0218B
	460	300	480		ECN3861CAN	ECN3862CAN	ECN3863CAN ③	ECN3868CAN	AN700TN0218C
	575	300	600		ECN3861DAN	ECN3862DAN	ECN3863DAN ③	ECN3868DAN	AN700TN0218D

**Notes**

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

① Maximum horsepower rating of starters for 380 V 50 Hz applications.

NEMA Size	0	1	2	3	4	5	6
Horsepower	3	7-1/2	20	40	60	100	200

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: ECN3804AAB. 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 Type 4 (painted steel) sizes 6.

### Class ECN38—Combination Two-Speed One-Winding Starter (Constant Horsepower)—Non-Fusible Disconnect

NEMA Size	Motor Voltage ①	Maximum hp Rating	Magnet Coil Voltage	Disconnect Amperes	Type 1 General Purpose Catalog Number	Type 3R Rainproof Catalog Number	Type 4X Watertight and Dust-Tight Stainless Steel ② Catalog Number	Type 12 Dust-Tight Industrial External Reset Catalog Number	Component Starter (Open) Catalog Number
0	—	—	120	30 A	ECN3801AAA	ECN3802AAA	ECN3804AAA	ECN3808AAA	AN700BN0218A
	200	2	208		ECN3801EAA	ECN3802EAA	ECN3804EAA	ECN3808EAA	AN700BN0218E
	230	2	240		ECN3801BAA	ECN3802BAA	ECN3804BAA	ECN3808BAA	AN700BN0218B
	460	3	480		ECN3801CAA	ECN3802CAA	ECN3804CAA	ECN3808CAA	AN700BN0218C
	575	3	600		ECN3801DAA	ECN3802DAA	ECN3804DAA	ECN3808DAA	AN700BN0218D
1	—	—	120	30 A	ECN3811AAA	ECN3812AAA	ECN3814AAA	ECN3818AAA	AN700DN0218A
	200	5	208		ECN3811EAA	ECN3812EAA	ECN3814EAA	ECN3818EAA	AN700DN0218E
	230	5	240		ECN3811BAA	ECN3812BAA	ECN3814BAA	ECN3818BAA	AN700DN0218B
	460	7-1/2	480		ECN3811CAA	ECN3812CAA	ECN3814CAA	ECN3818CAA	AN700DN0218C
	575	7-1/2	600		ECN3811DAA	ECN3812DAA	ECN3814DAA	ECN3818DAA	AN700DN0218D
2	—	—	120	60 A	ECN3821AAA	ECN3822AAA	ECN3824AAA	ECN3828AAA	AN700GN0218A
	200	7-1/2	208		ECN3821EAA	ECN3822EAA	ECN3824EAA	ECN3828EAA	AN700GN0218E
	230	10	240		ECN3821BAA	ECN3822BAA	ECN3824BAA	ECN3828BAA	AN700GN0218B
	460	20	480		ECN3821CAA	ECN3822CAA	ECN3824CAA	ECN3828CAA	AN700GN0218C
	575	20	600		ECN3821DAA	ECN3822DAA	ECN3824DAA	ECN3828DAA	AN700GN0218D
3	—	—	120	100 A	ECN3831AAA	ECN3832AAA	ECN3834AAA	ECN3838AAA	AN700KN0218A
	200	20	208		ECN3831EAA	ECN3832EAA	ECN3834EAA	ECN3838EAA	AN700KN0218E
	230	25	240		ECN3831BAA	ECN3832BAA	ECN3834BAA	ECN3838BAA	AN700KN0218B
	460	40	480		ECN3831CAA	ECN3832CAA	ECN3834CAA	ECN3838CAA	AN700KN0218C
	575	40	600		ECN3831DAA	ECN3832DAA	ECN3834DAA	ECN3838DAA	AN700KN0218D
4	—	—	120	200 A	ECN3841AAA	ECN3842AAA	ECN3844AAA	ECN3848AAA	AN700NN0218A
	200	30	208		ECN3841EAA	ECN3842EAA	ECN3844EAA	ECN3848EAA	AN700NN0218E
	230	40	240		ECN3841BAA	ECN3842BAA	ECN3844BAA	ECN3848BAA	AN700NN0218B
	460	75	480		ECN3841CAA	ECN3842CAA	ECN3844CAA	ECN3848CAA	AN700NN0218C
	575	75	600		ECN3841DAA	ECN3842DAA	ECN3844DAA	ECN3848DAA	AN700NN0218D
5	—	—	120	400 A	ECN3851AAA	ECN3852AAA	ECN3854AAA	ECN3858AAA	AN700SN0218A
	200	60	208		ECN3851EAA	ECN3852EAA	ECN3854EAA	ECN3858EAA	AN700SN0218E
	230	75	240		ECN3851BAA	ECN3852BAA	ECN3854BAA	ECN3858BAA	AN700SN0218B
	460	150	480		ECN3851CAA	ECN3852CAA	ECN3854CAA	ECN3858CAA	AN700SN0218C
	575	150	600		ECN3851DAA	ECN3852DAA	ECN3854DAA	ECN3858DAA	AN700SN0218D
6	200	100	208	600 A	ECN3861EAA	ECN3862EAA	ECN3863EAA ③	ECN3868EAA	AN700TN0218E
	230	150	240		ECN3861BAA	ECN3862BAA	ECN3863BAA ③	ECN3868BAA	AN700TN0218B
	460	300	480		ECN3861CAA	ECN3862CAA	ECN3863CAA ③	ECN3868CAA	AN700TN0218C
	575	300	600		ECN3861DAA	ECN3862DAA	ECN3863DAA ③	ECN3868DAA	AN700TN0218D

#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

① Maximum horsepower rating of starters for 380 V 50 Hz applications.

NEMA Size	0	1	2	3	4	5	6
Horsepower	3	7-1/2	20	40	60	100	200

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: ECN3804AAA. 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 Type 4 (painted steel) sizes 6.

# 2.3

## NEMA Contactors and Starters

### Freedom Multispeed Starters

#### Class ECN39—Combination Two-Speed Two-Winding Starter—Circuit Breaker

2

NEMA Size	Motor Voltage	Maximum hp Rating		Magnet Coil Voltage ①	Circuit Breaker Size	Type 1 General Purpose	Type 3R Rainproof	Type 4X Watertight and Dust-Tight Stainless Steel ②	Type 12 Dust-Tight Industrial External Reset ③④	Component Starter (Open)	
		Constant or Variable Torque	Constant Horsepower			Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number	
0	200	1	1	208	7 A	ECN3901EAC	ECN3902EAC	ECN3904EAC	ECN3908EAC	AN700BN022E	
		3	2		15 A	ECN3901EAD	ECN3902EAD	ECN3904EAD	ECN3908EAD		
	230	1	1	240	7 A	ECN3901BAC	ECN3902BAC	ECN3904BAC	ECN3908BAC	AN700BN022B	
		3	2		15 A	ECN3901BAD	ECN3902BAD	ECN3904BAD	ECN3908BAD		
	460	3/4	3/4	480	3 A	ECN3901CAB	ECN3902CAB	ECN3904CAB	ECN3908CAB	AN700BN022C	
		2	2		7 A	ECN3901CAC	ECN3902CAC	ECN3904CAC	ECN3908CAC		
		5	3		15 A	ECN3901CAD	ECN3902CAD	ECN3904CAD	ECN3908CAD		
	575	1	1	600	3 A	ECN3901DA5	ECN3902DA5	ECN3904DA5	ECN3908DA5	AN700BN022D	
		3	3		7 A	ECN3901DA6	ECN3902DA6	ECN3904DA6	ECN3908DA6		
		5	—		15 A	ECN3901DA7	ECN3902DA7	ECN3904DA7	ECN3908DA7		
	1	200	1	1	208	7 A	ECN3911EAC	ECN3912EAC	ECN3914EAC	ECN3918EAC	AN700DN022E
			2	2		15 A	ECN3911EAD	ECN3912EAD	ECN3914EAD	ECN3918EAD	
7-1/2			5	30 A		ECN3911EAE	ECN3912EAE	ECN3914EAE	ECN3918EAE		
230		1	1	240	7 A	ECN3911BAC	ECN3912BAC	ECN3914BAC	ECN3918BAC	AN700DN022B	
		2	2		15 A	ECN3911BAD	ECN3912BAD	ECN3914BAD	ECN3918BAD		
		7-1/2	5		30 A	ECN3911BAE	ECN3912BAE	ECN3914BAE	ECN3918BAE		
460		3/4	3/4	480	3 A	ECN3911CAB	ECN3912CAB	ECN3914CAB	ECN3918CAB	AN700DN022C	
		2	2		7 A	ECN3911CAC	ECN3912CAC	ECN3914CAC	ECN3918CAC		
		5	5		15 A	ECN3911CAD	ECN3912CAD	ECN3914CAD	ECN3918CAD		
		10	7-1/2		30 A	ECN3911CAE	ECN3912CAE	ECN3914CAE	ECN3918CAE		
575		1	1	600	3 A	ECN3911DA5	ECN3912DA5	ECN3914DA5	ECN3918DA5	AN700DN022D	
		3	3		7 A	ECN3911DA6	ECN3912DA6	ECN3914DA6	ECN3918DA6		
		7-1/2	7-1/2		15 A	ECN3911DA7	ECN3912DA7	ECN3914DA7	ECN3918DA7		
		10	—		30 A	ECN3911DA8	ECN3912DA8	ECN3914DA8	ECN3918DA8		
2		200	10	7-1/2	208	50 A	ECN3921EAF	ECN3922EAF	ECN3924EAF	ECN3928EAF	AN700GN022E
		230	15	10	240		ECN3921BAF	ECN3922BAF	ECN3924BAF	ECN3928BAF	AN700GN022B
		460	25	20	480		ECN3921CAF	ECN3922CAF	ECN3924CAF	ECN3928CAF	AN700GN022C
		575	25	20	600		ECN3921DA9	ECN3922DA9	ECN3924DA9	ECN3928DA9	AN700GN022D

#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

- ① Starters with 120 V coil (for separate control) are available. To order, substitute the letter **A** for the eighth character of the listed catalog number.
- 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: ECN3904EAC. 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 All Type 12 enclosures are standardized with external reset. For internal reset, order mod code **R5**.
- ④ Type 12 enclosure is without safety door interlock.

### Class ECN39—Combination Two-Speed Two-Winding Starter—Circuit Breaker, continued

NEMA Size	Motor Voltage	Maximum hp Rating		Magnet Coil Voltage ①	Circuit Breaker Size	Type 1 General Purpose	Type 3R Rainproof	Type 4X Watertight and Dust-Tight Stainless Steel ②	Type 12 Dust-Tight Industrial External Reset ③④	Component Starter (Open)
		Constant or Variable Torque	Constant Horsepower			Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
3	200	25	20	208	100 A	ECN3931EAG	ECN3932EAG	ECN3934EAG	ECN3938EAG	AN700KN022E
	230	30	25	240		ECN3931BAG	ECN3932BAG	ECN3934BAG	ECN3938BAG	AN700KN022B
	460	50	40	480		ECN3931CAG	ECN3932CAG	ECN3934CAG	ECN3938CAG	AN700KN022C
	575	50	40	600		ECN3931DAI	ECN3932DAI	ECN3934DAI	ECN3938DAI	AN700KN022D
4	200	40	30	208	150 A	ECN3941EAH	ECN3942EAH	ECN3944EAH	ECN3948EAH	AN700NN022E
	230	50	40	240		ECN3941BAH	ECN3942BAH	ECN3944BAH	ECN3948BAH	AN700NN022B
	460	100	75	480		ECN3941CAH	ECN3942CAH	ECN3944CAH	ECN3948CAH	AN700NN022C
	575	100	75	600		ECN3941DAH	ECN3942DAH	ECN3944DAH	ECN3948DAH	AN700NN022D
5	200	60	60	208	250 A	ECN3951EAJ	ECN3952EAJ	ECN3954EAJ	ECN3958EAJ	AN700SN022E
		75	—		400 A	ECN3951EAK	ECN3952EAK	ECN3954EAK	ECN3958EAK	
	230	75	75	240	250 A	ECN3951BAJ	ECN3952BAJ	ECN3954BAJ	ECN3958BAJ	AN700SN022B
		100	—		400 A	ECN3951BAK	ECN3952BAK	ECN3954BAK	ECN3958BAK	
	460	150	150	480	250 A	ECN3951CAJ	ECN3952CAJ	ECN3954CAJ	ECN3958CAJ	AN700SN022C
		200	—		400 A	ECN3951CAK	ECN3952CAK	ECN3954CAK	ECN3958CAK	
575	200	150	600	250 A	ECN3951DAJ	ECN3952DAJ	ECN3954DAJ	ECN3958DAJ	AN700SN022D	
6	200	150	100	208	⑤	ECN3961EAU	ECN3962EAU	ECN3963EAU ⑥	ECN3968EAU	AN700TN022E
	230	200	150	240		ECN3961BAU	ECN3962BAU	ECN3963BAU ⑥	ECN3968BAU	AN700TN022B
	460	400	300	480		ECN3961CAU	ECN3962CAU	ECN3963CAU ⑥	ECN3968CAU	AN700TN022C
	575	400	300	600		ECN3961DAU	ECN3962DAU	ECN3963DAU ⑥	ECN3968DAU	AN700TN022D

#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

- ① Starters with 120 V coil (for separate control) are available. To order, substitute the letter **A** for the eight character of the listed catalog number.
- 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: ECN3934EAG. 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 All Type 12 enclosures are standardized with external reset. For internal reset, order mod code **R5**.
- ④ Type 12 enclosure is without safety door interlock.
- ⑤ Supply hp, voltage, FLA and whether motor is design E or not when ordering the starter.
- ⑥ Type 4 (painted steel) size 6.

#### Class ECN40—Combination Two-Speed One-Winding Starter (CT or VT)—Circuit Breaker

NEMA Size	Motor Voltage	Maximum hp Rating	Magnet Coil Voltage ①	Circuit Breaker Size	Type 1 General Purpose	Type 3R Rainproof	Type 4X Watertight and Dust-Tight Stainless Steel ②	Type 12 Dust-Tight Industrial External Reset ③④	Component Starter (Open)			
					Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number			
0	200	1	208	7 A	ECN4001EAC	ECN4002EAC	ECN4004EAC	ECN4008EAC	AN700BN0218E			
				15 A	ECN4001EAD	ECN4002EAD	ECN4004EAD	ECN4008EAD				
	230	1	240	7 A	ECN4001BAC	ECN4002BAC	ECN4004BAC	ECN4008BAC	AN700BN0218B			
				15 A	ECN4001BAD	ECN4002BAD	ECN4004BAD	ECN4008BAD				
	460	3/4	480	3 A	ECN4001CAB	ECN4002CAB	ECN4004CAB	ECN4008CAB	AN700BN0218C			
				7 A	ECN4001CAC	ECN4002CAC	ECN4004CAC	ECN4008CAC				
				15 A	ECN4001CAD	ECN4002CAD	ECN4004CAD	ECN4008CAD				
	575	1	600	3 A	ECN4001DA5	ECN4002DA5	ECN4004DA5	ECN4008DA5	AN700BN0218D			
				7 A	ECN4001DA6	ECN4002DA6	ECN4004DA6	ECN4008DA6				
				15 A	ECN4001DA7	ECN4002DA7	ECN4004DA7	ECN4008DA7				
	1	200	1	208	7 A	ECN4011EAC	ECN4012EAC	ECN4014EAC	ECN4018EAC	AN700DN0218E		
					15 A	ECN4011EAD	ECN4012EAD	ECN4014EAD	ECN4018EAD			
30 A					ECN4011EAE	ECN4012EAE	ECN4014EAE	ECN4018EAE				
230		1	240	7 A	ECN4011BAC	ECN4012BAC	ECN4014BAC	ECN4018BAC	AN700DN0218B			
				15 A	ECN4011BAD	ECN4012BAD	ECN4014BAD	ECN4018BAD				
				30 A	ECN4011BAE	ECN4012BAE	ECN4014BAE	ECN4018BAE				
460		3/4	480	3 A	ECN4011CAB	ECN4012CAB	ECN4014CAB	ECN4018CAB	AN700DN0218C			
				7 A	ECN4011CAC	ECN4012CAC	ECN4014CAC	ECN4018CAC				
				15 A	ECN4011CAD	ECN4012CAD	ECN4014CAD	ECN4018CAD				
				30 A	ECN4011CAE	ECN4012CAE	ECN4014CAE	ECN4018CAE				
575		1	600	3 A	ECN4011DA5	ECN4012DA5	ECN4014DA5	ECN4018DA5	AN700DN0218D			
				7 A	ECN4011DA6	ECN4012DA6	ECN4014DA6	ECN4018DA6				
	15 A			ECN4011DA7	ECN4012DA7	ECN4014DA7	ECN4018DA7					
	30 A			ECN4011DA8	ECN4012DA8	ECN4014DA8	ECN4018DA8					
2	200	10	208	50 A	ECN4021EAF	ECN4022EAF	ECN4024EAF	ECN4028EAF	AN700GN0218E			
				230	15	240	ECN4021BAF	ECN4022BAF		ECN4024BAF	ECN4028BAF	AN700GN0218B
				460	25	480	ECN4021CAF	ECN4022CAF		ECN4024CAF	ECN4028CAF	AN700GN0218C
				575	25	600	ECN4021DA9	ECN4022DA9		ECN4024DA9	ECN4028DA9	AN700GN0218D

#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

- ① Starters with 120 V coil (for separate control) are available. To order, substitute the letter **A** for the eight character of the listed catalog number.
- 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: ECN4004EAC. 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 All Type 12 enclosures are standardized with external reset. For internal reset, order mod code **R5**.
- ④ Type 12 enclosure is without safety door interlock.

### Class ECN40—Combination Two-Speed One-Winding Starter (CT or VT)—Circuit Breaker, continued

NEMA Size	Motor Voltage	Maximum hp Rating	Magnet Coil Voltage ①	Circuit Breaker Size	Type 1 General Purpose	Type 3R Rainproof	Type 4X Watertight and Dust-Tight Stainless Steel ②	Type 12 Dust-Tight Industrial External Reset ③④	Component Starter (Open)
					Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
3	200	25	208	100 A	ECN4031EAG	ECN4032EAG	ECN4034EAG	ECN4038EAG	AN700KN0218E
	230	30	240		ECN4031BAG	ECN4032BAG	ECN4034BAG	ECN4038BAG	AN700KN0218B
	460	50	480		ECN4031CAG	ECN4032CAG	ECN4034CAG	ECN4038CAG	AN700KN0218C
	575		600		ECN4031DAI	ECN4032DAI	ECN4034DAI	ECN4038DAI	AN700KN0218D
4	200	40	208	150 A	ECN4041EAH	ECN4042EAH	ECN4044EAH	ECN4048EAH	AN700NN0218E
	230	50	240		ECN4041BAH	ECN4042BAH	ECN4044BAH	ECN4048BAH	AN700NN0218B
	460	100	480		ECN4041CAH	ECN4042CAH	ECN4044CAH	ECN4048CAH	AN700NN0218C
	575		600		ECN4041DAH	ECN4042DAH	ECN4044DAH	ECN4048DAH	AN700NN0218D
5	200	60	208	250 A	ECN4051EAJ	ECN4052EAJ	ECN4054EAJ	ECN4058EAJ	AN700SN0218E
		75		400 A	ECN4051EAK	ECN4052EAK	ECN4054EAK	ECN4058EAK	
	230	75	240	250 A	ECN4051BAJ	ECN4052BAJ	ECN4054BAJ	ECN4058BAJ	AN700SN0218B
		100		400 A	ECN4051BAK	ECN4052BAK	ECN4054BAK	ECN4058BAK	
	460	150	480	250 A	ECN4051CAJ	ECN4052CAJ	ECN4054CAJ	ECN4058CAJ	AN700SN0218C
		200		400 A	ECN4051CAK	ECN4052CAK	ECN4054CAK	ECN4058CAK	
	575	200	600	250 A	ECN4051DAJ	ECN4052DAJ	ECN4054DAJ	ECN4058DAJ	AN700SN0218D
6	200	150	208	⑥	ECN4061EAU	ECN4062EAU	ECN4063EAU ⑥	ECN4068EAU	AN700TN0218E
	230	200	240		ECN4061BAU	ECN4062BAU	ECN4063BAU ⑥	ECN4068BAU	AN700TN0218B
	460	400	480		ECN4061CAU	ECN4062CAU	ECN4063CAU ⑥	ECN4068CAU	AN700TN0218C
	575		600		ECN4061DAU	ECN4062DAU	ECN4063DAU ⑥	ECN4068DAU	AN700TN0218D

#### Notes

- Starters do not include heater packs. Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.
- ① Starters with 120 V coil (for separate control) are available. To order, substitute the letter **A** for the eight character of the listed catalog number.
- 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: ECN4034EAG. 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 All Type 12 enclosures are standardized with external reset. For internal reset, order mod code **R5**.
- ④ Type 12 enclosure is without safety door interlock.
- ⑤ Supply hp, voltage, FLA and whether motor is design E or not when ordering the starter.
- ⑥ Type 4 (painted steel) size 6.

#### Class ECN41—Combination Two-Speed One-Winding Starter (Constant Horsepower)—Circuit Breaker

NEMA Size	Motor Voltage	Maximum hp Rating		Circuit Breaker Size	Type 1	Type 3R	Type 4X	Type 12	Component Starter (Open)	
		Constant Horsepower	Magnet Coil Voltage ①		General Purpose	Rainproof	Watertight and Dust-Tight Stainless Steel ②	Dust-Tight Industrial External Reset ③④		
					Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number	
0	200	1	208	7 A	ECN4101EAC	ECN4102EAC	ECN4104EAC	ECN4108EAC	AN700BN0218E	
		2		15 A	ECN4101EAD	ECN4102EAD	ECN4104EAD	ECN4108EAD		
	230	1	240	7 A	ECN4101BAC	ECN4102BAC	ECN4104BAC	ECN4108BAC	AN700BN0218B	
		2		15 A	ECN4101BAD	ECN4102BAD	ECN4104BAD	ECN4108BAD		
	460	3/4	480	3 A	ECN4101CAB	ECN4102CAB	ECN4104CAB	ECN4108CAB	AN700BN0218C	
		2		7 A	ECN4101CAC	ECN4102CAC	ECN4104CAC	ECN4108CAC		
		3		15 A	ECN4101CAD	ECN4102CAD	ECN4104CAD	ECN4108CAD		
	575	1	600	3 A	ECN4101DA5	ECN4102DA5	ECN4104DA5	ECN4108DA5	AN700BN0218D	
		3		7 A	ECN4101DA6	ECN4102DA6	ECN4104DA6	ECN4108DA6		
	1	200	1	208	7 A	ECN4111EAC	ECN4112EAC	ECN4114EAC	ECN4118EAC	AN700DN0218E
			2		5 A	ECN4111EAD	ECN4112EAD	ECN4114EAD	ECN4118EAD	
			5		30 A	ECN4111EAE	ECN4112EAE	ECN4114EAE	ECN4118EAE	
230		1	240	7 A	ECN4111BAC	ECN4112BAC	ECN4114BAC	ECN4118BAC	AN700DN0218B	
		2		15 A	ECN4111BAD	ECN4112BAD	ECN4114BAD	ECN4118BAD		
		5		30 A	ECN4111BAE	ECN4112BAE	ECN4114BAE	ECN4118BAE		
460		3/4	480	3 A	ECN4111CAB	ECN4112CAB	ECN4114CAB	ECN4118CAB	AN700DN0218C	
		2		7 A	ECN4111CAC	ECN4112CAC	ECN4114CAC	ECN4118CAC		
		5		15 A	ECN4111CAD	ECN4112CAD	ECN4114CAD	ECN4118CAD		
		7-1/2		30 A	ECN4111CAE	ECN4112CAE	ECN4114CAE	ECN4118CAE		
575		1	600	3 A	ECN4111DA5	ECN4112DA5	ECN4114DA5	ECN4118DA5	AN700DN0218D	
		3		7 A	ECN4111DA6	ECN4112DA6	ECN4114DA6	ECN4118DA6		
		7-1/2		15 A	ECN4111DA7	ECN4112DA7	ECN4114DA7	ECN4118DA7		
2		200	7-1/2	208	50 A	ECN4121EAF	ECN4122EAF	ECN4124EAF	ECN4128EAF	AN700GN0218E
		230	10	240		ECN4121BAF	ECN4122BAF	ECN4124BAF	ECN4128BAF	AN700GN0218B
		460	20	480		ECN4121CAF	ECN4122CAF	ECN4124CAF	ECN4128CAF	AN700GN0218C
		575	20	600		ECN4121DA9	ECN4122DA9	ECN4124DA9	ECN4128DA9	AN700GN0218D

**Notes**

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

- ① Starters with 120 V coil (for separate control) are available. To order, substitute the letter **A** for the eight character of the listed catalog number.
- 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: ECN4104EAC. 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 All Type 12 enclosures are standardized with external reset. For internal reset, order mod code **R5**.
- ④ Type 12 enclosure is without safety door interlock.

### Class ECN41—Combination Two-Speed One-Winding Starter (Constant Horsepower)—Circuit Breaker, continued

NEMA Size	Motor Voltage	Maximum hp Rating Constant Horsepower	Magnet Coil Voltage ①	Circuit Breaker Size	Type 1 General Purpose	Type 3R Rainproof	Type 4X Watertight and Dust-Tight Stainless Steel ②	Type 12 Dust-Tight Industrial External Reset ③④	Component Starter (Open)
					Catalog Number	Catalog Number	Catalog Number	Catalog Number	Catalog Number
3	200	20	208	100 A	ECN4131EAG	ECN4132EAG	ECN4134EAG	ECN4138EAG	AN700KN0218E
	230	25	240		ECN4131BAG	ECN4132BAG	ECN4134BAG	ECN4138BAG	AN700KN0218B
	460	40	480		ECN4131CAG	ECN4132CAG	ECN4134CAG	ECN4138CAG	AN700KN0218C
	575	40	600		ECN4131DAI	ECN4132DAI	ECN4134DAI	ECN4138DAI	AN700KN0218D
4	200	30	208	150 A	ECN4141EAH	ECN4142EAH	ECN4144EAH	ECN4148EAH	AN700NN0218E
	230	40	240		ECN4141BAH	ECN4142BAH	ECN4144BAH	ECN4148BAH	AN700NN0218B
	460	75	480		ECN4141CAH	ECN4142CAH	ECN4144CAH	ECN4148CAH	AN700NN0218C
	575	75	600		ECN4141DAH	ECN4142DAH	ECN4144DAH	ECN4148DAH	AN700NN0218D
5	200	60	208	250 A	ECN4151EAJ	ECN4152EAJ	ECN4154EAJ	ECN4158EAJ	AN700SN0218E
	230	75	240		ECN4151BAJ	ECN4152BAJ	ECN4154BAJ	ECN4158BAJ	AN700SN0218B
	460	150	480		ECN4151CAJ	ECN4152CAJ	ECN4154CAJ	ECN4158CAJ	AN700SN0218C
	575	150	600		ECN4151DAJ	ECN4152DAJ	ECN4154DAJ	ECN4158DAJ	AN700SN0218D
6	200	100	208	⑤	ECN4161EAU	ECN4162EAU	ECN4163EAU ⑥	ECN4168EAU	AN700TN0218E
	230	150	240		ECN4161BAU	ECN4162BAU	ECN4163BAU ⑥	ECN4168BAU	AN700TN0218B
	460	300	480		ECN4161CAU	ECN4162CAU	ECN4163CAU ⑥	ECN4168CAU	AN700TN0218C
	575	300	600		ECN4161DAU	ECN4162DAU	ECN4163DAU ⑥	ECN4168DAU	AN700TN0218D

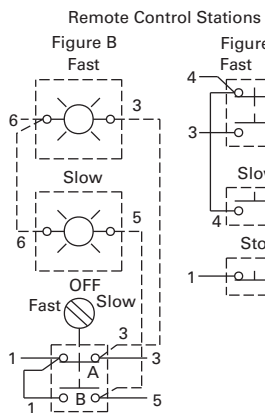
#### Notes

**Starters do not include heater packs.** Select two cartons of three heater packs (two overload relays—one for each speed). For heater pack selection, see **Tab 15**.

- ① Starters with 120 V coil (for separate control) are available. To order, substitute the letter **A** for the eight character of the listed catalog number.
- 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: ECN4134EAG. 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 All Type 12 enclosures are standardized with external reset. For internal reset, order mod code **R5**.
- ④ Type 12 enclosure is without safety door interlock.
- ⑤ Supply hp, voltage, FLA and whether motor is design E or not when ordering the starter.
- ⑥ Type 4 (painted steel) size 6.



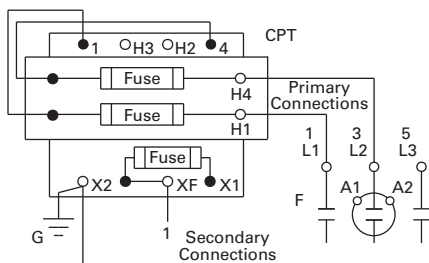
### Two-Speed One-Winding



Contact	Position		
	Fast	OFF	Slow
A	X		
B			X

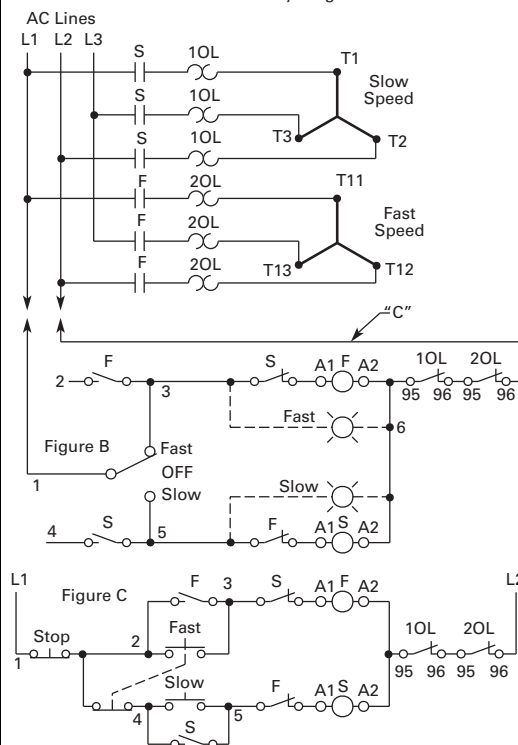
X = Contact Closed

**Figure 2**  
Control Circuit Transformer (If used)  
Remove Wire "C" if Supplied and Connect as Shown Below  
(All other wiring remains as shown in Figure 1)

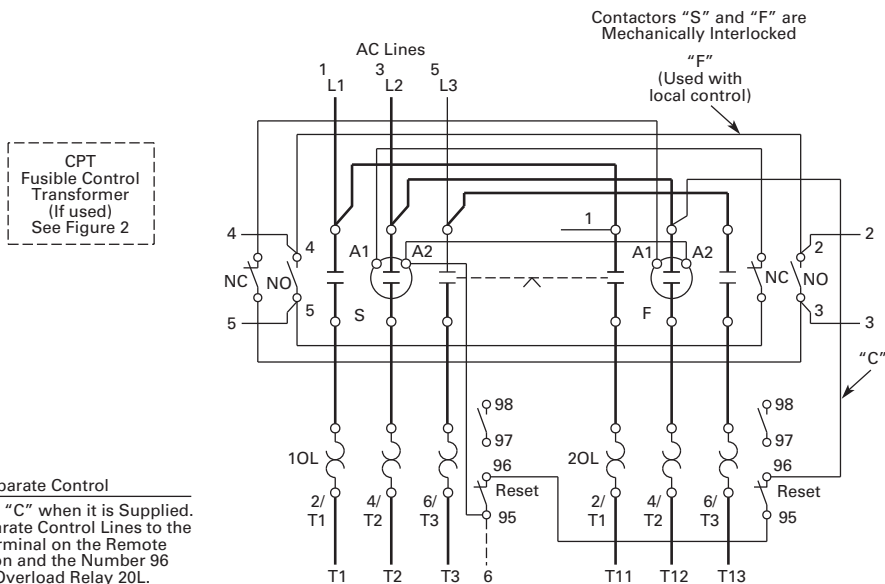


Connections for Dual Voltage Rated Transformer—See Transformer Nameplate

### Starter Elementary Diagram



**Figure 1**  
Front View of Panel



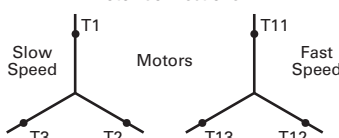
Contactors "S" and "F" are Mechanically Interlocked

"F" (Used with local control)

#### Separate Control

Remove Wire "C" when it is Supplied. Connect Separate Control Lines to the Number 1 Terminal on the Remote Control Station and the Number 96 Terminal on Overload Relay 20L.

#### Motor Connections



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# 2.3

## NEMA Contactors and Starters

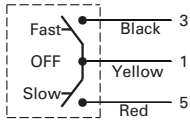
### Freedom Multispeed Starters

#### Multispeed Cover Control

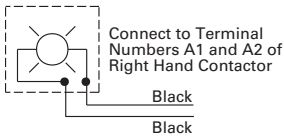
2

#### Two-Speed Two-Winding C400GK Control Options

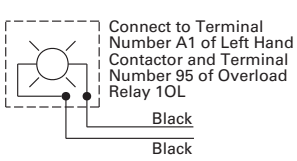
**Figure A**  
Three-Position Selector Switch  
(Two-wire control)



**Figure B**  
Pilot Light  
(FAST)



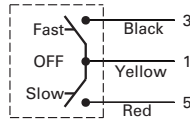
Pilot Light  
(SLOW)



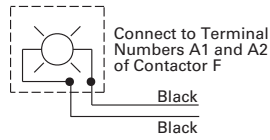
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#### Two-Speed One-Winding CH C400GK Control Options

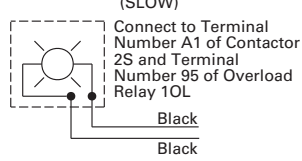
**Figure A**  
Three-Position Selector Switch  
(Two-wire control)



**Figure B**  
Pilot Light  
(FAST)



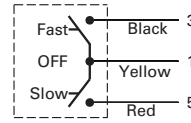
**Figure C**  
Pilot Light  
(SLOW)



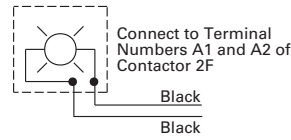
260894 D1

#### Two-Speed One-Winding CT, VT C400GK Control Options

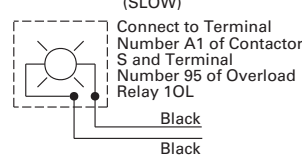
**Figure A**  
Three-Position Selector Switch  
(Two-wire control)



**Figure B**  
Pilot Light  
(FAST)



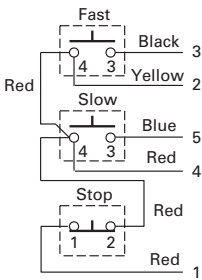
**Figure C**  
Pilot Light  
(SLOW)



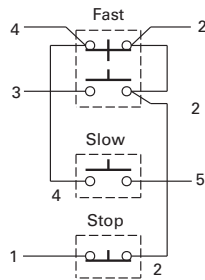
260893 D1

#### Two-Speed One-Winding CH C400T Control Options

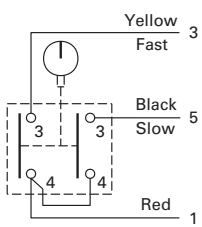
**Figure A**  
Pushbuttons



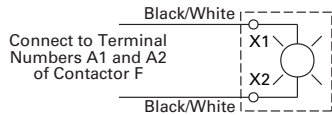
**Figure C**  
Pushbuttons



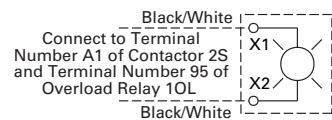
**Figure B**  
Three-Position Selector Switch



Pilot Light  
(FAST)



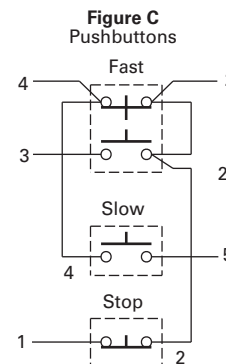
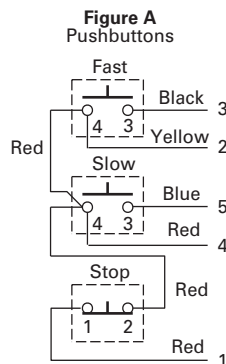
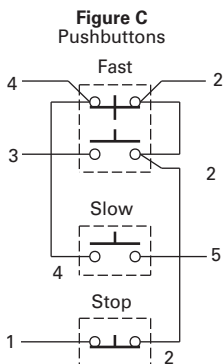
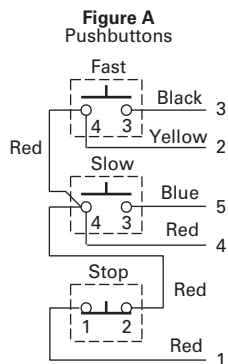
Pilot Light  
(SLOW)



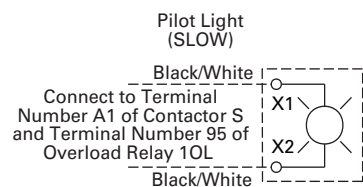
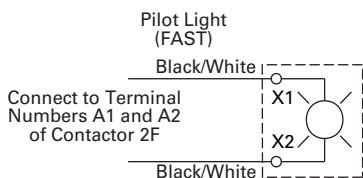
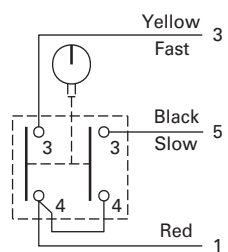
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### Two-Speed One-Winding CT, VT C400T Control Options

### Two-Speed Two-Winding C400T Control Options

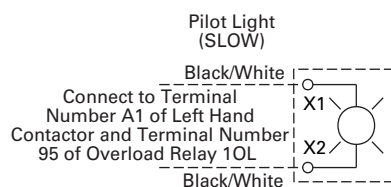
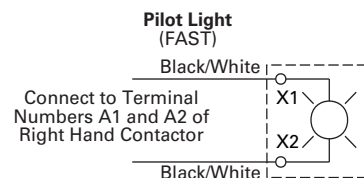
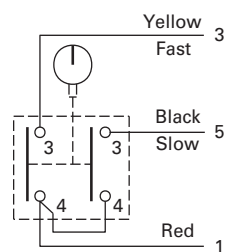


**Figure B**  
Three-Position Selector Switch



260895 D1

**Figure B**  
Three-Position Selector Switch



260816 D1