

Freedom Full Voltage Control

Product Family Overview	
Product Description	3.2
Cover Control	3.3
Catalogue Number Selection	3.4
Contactors	
Product Selection	3.5
Non-combination Starters	
Product Selection	3.9
Combination Starters — Fusible and Non-fusible	
Product Selection	3.13
Combination Starters — HMCP	
Product Selection	3.20
Wiring Diagrams	3.27

A200 Full Voltage Control

Product Selection	3.30
-----------------------------	-------------

Freedom Multispeed Starters

Product Family Overview	
Cover Control	3.38
Non-combination	
Product Selection	3.39
Combination	
Product Selection	3.42
Wiring Diagrams	3.51

Product Family Overview

Catalogue Number ECN2208AAC



- Top located coil terminals convenient and readily accessible. 45 mm contactor magnet coils have three terminals, permitting either top or diagonal wiring — easy to replace European or U.S. style starters or contactors without changing wiring layout.
- Encapsulated dual voltage/frequency magnet coils — permanently marked with voltage, frequency and part number.
- Designed to meet or exceed UL, CSA, IEC, VDE, BS and other international standards and listings.

Product Description

Freedom Series Starters and Contactors from Eaton's electrical business feature a compact, space-saving design, using state-of-the-art technology and the latest in high strength, impact and temperature resistant insulating materials.

Features

- Adjustable Bimetallic Ambient Compensated Overload Relays with interchangeable heater packs — available in three basic sizes, covering applications up to 900 hp — reducing the number of different contactor/overload relay combinations that have to be stocked. Fixed heater overloads optional.
- A full line of snap-on accessories — top and side mounted auxiliary contacts, solid-state and pneumatic timers, etc.
- Straight-through wiring — line lugs at top, load lugs at bottom.
- Horizontal or vertical mounting on upright panel for application freedom.
- Screw type power terminals have captive, backed-out self-lifting pressure plates with \pm screws — reduced wiring time.
- Accessible terminals for easy wiring. Optional fingerproof shields available to prevent electrical shock.

Standards and Certifications

Note: See **Page 15.2** for additional information on Standards and Certifications that apply to all Eaton Enclosed Control products.

- CSA Certified
- UL Listed
- cUL Listed
- CE Mark available

Certified Type 2 Coordination

Freedom Series IEC starters and NEMA starters are UL Certified to achieve IEC 947 Type 2 coordination against 100,000A short circuit fault currents. Any brand of properly selected fuse can be used. Type 2 coordination means that the starter will be suitable for further use following a short circuit fault.

ISO 9001 Certification

When you turn to products from Eaton, you turn to quality. The International Standards Organization (ISO) has established a series of standards acknowledged by 91 industrialized nations to bring harmony to the international quest for quality. The ISO certification process covers 20 quality system elements in design, production and installation that must conform to achieve registration. This commitment to quality results in increased product reliability and total customer satisfaction.

Freedom NEMA contactors and starters are extremely rugged products built for any application. Their long electrical/mechanical life is extended through easy maintainability.

- Meets and exceeds all UL and CSA standards.
- Sized based on standard NEMA size classifications.
- Designed and built for a variety of demanding applications.
- Easy coil change and inspectable/replaceable contacts.
- Adjustable/interchangeable heater packs for flexibility.
- Available Open and in Type 1, 3R, 4, 4X, 7/9 and 12 enclosures.

Short Circuit Protection

Fuses and Inverse-Time Circuit Breakers may be selected per Article 430, Part D of the National Electrical Code to protect motor branch circuits from fault conditions. If higher ratings or settings are required to start the motor, do **not** exceed the maximum as listed in Exception No. 2, Article 430-52.

Cover Control

Non-reversing

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 Pilot Devices

To order factory installed pilot devices, change the 9th character of the Catalogue Number to the alpha shown in the table below. Example: to order an **ECN0514CAA** with START/STOP pushbuttons and a red pilot light, change the **A** to a **C**, i.e. **ECN0514CCA**.



Figure 3-1

Figure 3-2

Reversing

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 Pilot Devices

To order factory installed pilot devices, change the 9th character of the Catalogue Number to the alpha shown in the table below. Example: to order an **ECN0614CAA** with FOR/REV/STOP pushbuttons and 2 red pilot lights, change the **A** to a **C**, i.e. **ECN0614CCA**.



Figure 3-3

Figure 3-4

Table 3-1. Non-reversing Pilot Devices

Description	Factory Installed Flange Control		Field Installation Kits		
	Position 9 Alpha	Non-combination ^① See Figure 3-1	Combination ^② See Figure 3-2	Non-combination ^① See Figure 3-1 Catalogue Number	Combination ^② See Figure 3-2 Catalogue Number
No Cover Mounted Pilot Devices	A	■	■	■C400GK0	—
START/STOP Pushbuttons	B	■	■	■C400GK1	C400T1
with Red RUN Pilot Light	C	■	■	■C400GK12 ^③	—
with Red RUN/Green OFF Lights	D	■	■	■C400GK16 ^③	—
ON/OFF Pushbuttons	E	—	—	■	C400T2
with Red RUN Pilot Light	F	—	—	■	—
with Red RUN/Green OFF Lights	G	—	—	■	—
HAND/OFF/AUTO Selector Switch	H	■	■	■C400GK3	C400T12
with Red RUN Pilot Light	J	■	■	■C400GK32 ^③	—
with Red RUN/Green OFF Lights	K	■	■	■C400GK36 ^③	—
START Pushbutton	L	—	—	■	C400T3
ON Pushbutton	M	—	—	■	C400T4
OFF Pushbutton	N	—	—	■	C400T5
Red RUN Pilot Light	P	■	■	■C400GK42 ^③	C400T9 ^③
Green OFF	Q	■	■	■C400GK41 ^③	C400T10 ^③
Red RUN/Green OFF Pilot Lights	R	■	■	■C400GK46 ^③	C400T11 ^③
START/STOP Selector Switch	S	—	—	■	C400T13
with Red RUN Pilot Light	T	—	—	■	—
with Red RUN/Green OFF Lights	U	—	—	■	—
ON/OFF Selector Switch	V	—	—	■	C400T14
with Red RUN Pilot Light	W	—	—	■	—
with Red RUN/Green OFF Lights	X	—	—	■	—

① Type 1, NEMA Sizes 00 – 4/IEC Frames A – M Non-combination ONLY.

② Type 1, NEMA Sizes 5 – 9/IEC Frames N – V Non-combination PLUS all Type 3R, 4X, 12 Non-combination PLUS all Combination.

③ Add Code Letter from the table below to Catalogue Number for voltage — Kits only. Example: C400T9B.

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

Table 3-2. Reversing Pilot Devices

Description	Factory Installed Flange Control		Field Installation Kits		
	Position 9 Alpha	Non-combination ^④ See Figure 3-3	Combination ^⑤ See Figure 3-4	Non-combination ^④ See Figure 3-3 Catalogue Number	Combination ^⑤ See Figure 3-4 Catalogue Number
No Cover Mounted Pilot Devices	A	■	■	■C400GK0	—
FOR/REV/STOP Pushbuttons	B	■	■	■C400GR1	C400T6
with 2 Red Pilot Lights	C	■	■	■C400GR14 ^⑥	—
with 2 Red/1 Green Pilot Lights	D	—	—	■	—
UP/STOP/DOWN Pushbuttons	E	■	■	■C400GR2	—
with 2 Red Pilot Lights	F	■	■	■C400GR24 ^⑥	—
FOR/OFF/REV Selector Switch	H	—	—	■	C400T15
with 2 Red Pilot Lights	J	—	—	■	—
with 2 Red/1 Green Pilot Lights	K	—	—	■	—
Two Red Pilot Lights	P	■	■	■C400GK44 ^⑥	⑦
One Green Pilot Light	Q	■	■	■C400GK41 ^⑥	C400T10 ^⑥
Two Red/One Green Pilot Lights	R	—	—	■	—
OPEN/OFF/CLOSE Selector Switch	V	—	—	■	C400T16
with 2 Red Pilot Lights	W	—	—	■	—
with 2 Red/1 Green Pilot Lights	X	—	—	■	—

④ Type 1, NEMA Sizes 00 – 4/IEC Frames A – M Non-combination ONLY.

⑤ Type 1, NEMA Sizes 5 – 9/IEC Frames N – V Non-combination PLUS all Type 3R, 4X, 12 Non-combination PLUS all Combination.

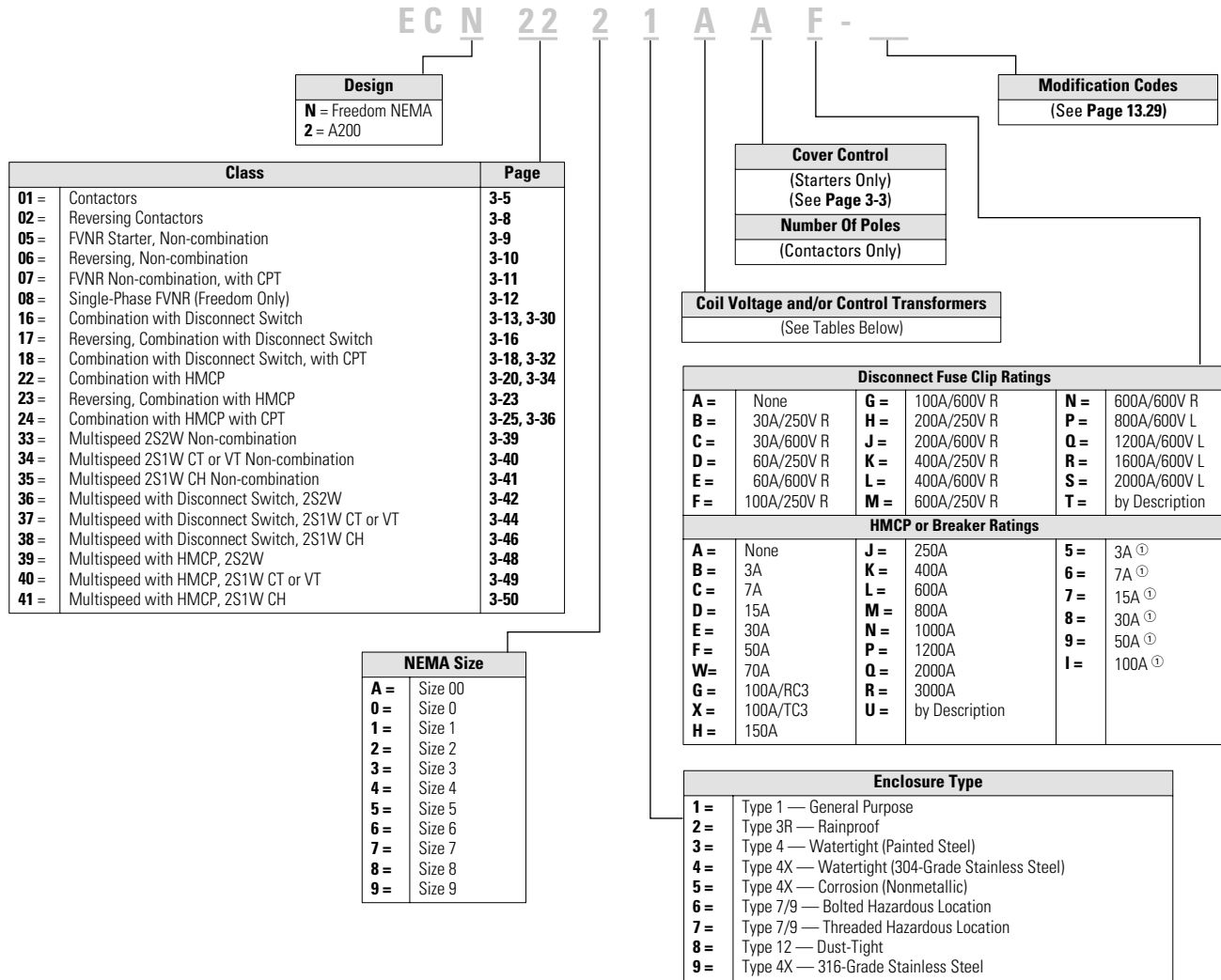
⑥ Add Code Letter from the table below to Catalogue Number for voltage. Example: C400T10B.

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

⑦ Order Quantity (2) of **C400T9**.

Catalogue Number Selection

Table 3-3. NEMA Freedom Line Enclosed Control Catalogue Numbering System



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

Table 3-4. Magnetic Coil Codes (System Voltage) ②

Code	Magnet Coil	Code	Magnet Coil	Code	Magnet Coil
A	120/60 110/50	K	240/50	U	24/50
B	240/60 220/50	L	380/50	V	32/50
C	460/60 440/50	M	415/50	W	48/60
D	575/60 550/50	P	12V DC	X	104 – 120/60
E	208/60	Q	24V DC	Y	48/50
G	550/50	R	48V DC	Z	By Description
H	277/60	S	125V DC		
J	208 – 240/60	T	24/60		

② When control power transformer modification codes (C1 – C11) are used or when starter class includes CPT (i.e. ECN07, 18) see table to the right for system voltage code.

Table 3-5. Control Power Transformer/Separate Control Codes (System Voltage)

Code	Primary	Secondary
B/BA	240/480 – 220/440 Wired for 240V	120/60 – 110/50
C/CA	240/480 – 220/440 Wired for 480V	120/60 – 110/50
D/DA	600/60 – 550/50	120/60 – 110/50
E/EA	208/60	120/60
H/HA	277/60	120/60
L/LA	380/50	110/50
M/MA	415/50	110/50
Q/ET	208/60	24
R/BT	240/480 – 220/440 Wired for 240V	24
S/CT	240/480 – 220/440 Wired for 480V	24
T/DT	600/60	24
U/UT	277/60	24
V/VT	380/50	24
W/WT	415/50	24
X	240/480/600 Wired for 480V	120
Y	240/480/600 Wired for 480V	24
Z	By Description	

Features

- 1-Phase or 3-Phase Magnetic
- 2-, 3-, 4- or 5-Pole Non-reversing or 3-Pole Reversing
- 600V Maximum

Product Selection

Table 3-6. Class ECN01 — NEMA 3-Pole Contactors — 3-Phase Non-reversing

NEMA Size	Continuous Ampere Rating	Motor Voltage	Maximum hp Rating ^①	Magnet Coil Voltage	Type 1	Type 3R	Type 4X Watertight & Dust-Tight Stainless Steel ^②	Type 12	Component Contactor (Open)
					General Purpose	Rainproof		Dust-Tight Industrial	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	9	—	—	120	ECN01A1A3A	ENC01A2A3A	(Select Contactor from Size 0 Listing)	—	CN15AN3AB
		200	1-1/2	208	ECN01A1E3A	ENC01A2E3A		CN15AN3EB	
		230	1-1/2	240	ECN01A1B3A	ENC01A2B3A		CN15AN3BB	
		460	2	480	ECN01A1C3A	ENC01A2C3A		CN15AN3CB	
		575	2	600	ECN01A1D3A	ENC01A2D3A		CN15AN3DB	
0	18	—	—	120	ECN0101A3A	ENC0102A3A	ENC0104A3A	ENC0108A3A	CN15BN3AB
		200	3	208	ECN0101E3A	ENC0102E3A	ENC0104E3A	ENC0108E3A	CN15BN3EB
		230	3	240	ECN0101B3A	ENC0102B3A	ENC0104B3A	ENC0108B3A	CN15BN3BB
		460	5	480	ECN0101C3A	ENC0102C3A	ENC0104C3A	ENC0108C3A	CN15BN3CB
		575	5	600	ECN0101D3A	ENC0102D3A	ENC0104D3A	ENC0108D3A	CN15BN3DB
1	27	—	—	120	ECN0111A3A	ENC0112A3A	ENC0114A3A	ENC0118A3A	CN15DN3AB
		200	7-1/2	208	ECN0111E3A	ENC0112E3A	ENC0114E3A	ENC0118E3A	CN15DN3EB
		230	7-1/2	240	ECN0111B3A	ENC0112B3A	ENC0114B3A	ENC0118B3A	CN15DN3BB
		460	10	480	ECN0111C3A	ENC0112C3A	ENC0114C3A	ENC0118C3A	CN15DN3CB
		575	10	600	ECN0111D3A	ENC0112D3A	ENC0114D3A	ENC0118D3A	CN15DN3DB
2	45	—	—	120	ECN0121A3A	ENC0122A3A	ENC0124A3A	ENC0128A3A	CN15GN3AB
		200	10	208	ECN0121E3A	ENC0122E3A	ENC0124E3A	ENC0128E3A	CN15GN3EB
		230	15	240	ECN0121B3A	ENC0122B3A	ENC0124B3A	ENC0128B3A	CN15GN3BB
		460	25	480	ECN0121C3A	ENC0122C3A	ENC0124C3A	ENC0128C3A	CN15GN3CB
		575	25	600	ECN0121D3A	ENC0122D3A	ENC0124D3A	ENC0128D3A	CN15GN3DB
3	90	—	—	120	ECN0131A3A	ENC0132A3A	ENC0134A3A	ENC0138A3A	CN15KN3A
		200	25	208	ECN0131E3A	ENC0132E3A	ENC0134E3A	ENC0138E3A	CN15KN3E
		230	30	240	ECN0131B3A	ENC0132B3A	ENC0134B3A	ENC0138B3A	CN15KN3B
		460	50	480	ECN0131C3A	ENC0132C3A	ENC0134C3A	ENC0138C3A	CN15KN3C
		575	50	600	ECN0131D3A	ENC0132D3A	ENC0134D3A	ENC0138D3A	CN15KN3D
4	135	—	—	120	ECN0141A3A	ENC0142A3A	ENC0144A3A	ENC0148A3A	CN15NN3A
		200	40	208	ECN0141E3A	ENC0142E3A	ENC0144E3A	ENC0148E3A	CN15NN3E
		230	50	240	ECN0141B3A	ENC0142B3A	ENC0144B3A	ENC0148B3A	CN15NN3B
		460	100	480	ECN0141C3A	ENC0142C3A	ENC0144C3A	ENC0148C3A	CN15NN3C
		575	100	600	ECN0141D3A	ENC0142D3A	ENC0144D3A	ENC0148D3A	CN15NN3D
5	270	—	—	120	ECN0151A3A	ENC0152A3A	ENC0154A3A	ENC0158A3A	CN15SN3A
		200	75	208	ECN0151E3A	ENC0152E3A	ENC0154E3A	ENC0158E3A	CN15SN3E
		230	100	240	ECN0151B3A	ENC0152B3A	ENC0154B3A	ENC0158B3A	CN15SN3B
		460	200	480	ECN0151C3A	ENC0152C3A	ENC0154C3A	ENC0158C3A	CN15SN3C
		575	200	600	ECN0151D3A	ENC0152D3A	ENC0154D3A	ENC0158D3A	CN15SN3D

^① Maximum horsepower rating of contactors for 380V 50 Hz applications:

NEMA Size	00	0	1	2	3	4	5
Horsepower	1-1/2	5	10	25	50	75	150

^② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN010**4**A3A. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Note: NEMA Sizes 00, 0 and 1 of 3-Pole/3-Phase Non-reversing Contactors are available with auxiliary contact omitted. Add Modification Code **A44**. Example: ECN0101A3A-**A44**.

Cover Control **Page 3.3**
 Other Magnet Coils **Page 3.4**
 Dimensions **Page 12.2**
 Accessories **Page 13.2**
 Modifications **Page 13.29**
 Technical Data **Page 15.3**

Table 3-7. Class ECN01 — NEMA 2-Pole Contactors — 1-Phase Non-reversing

NEMA Size	Continuous Ampere Rating	Motor Voltage	Maximum hp Rating	Magnet Coil Voltage	Type 1	Type 3R	Type 4X ^① Watertight & Dust-Tight Stainless Steel	Type 12	Component
					General Purpose	Rainproof	Dust-Tight Industrial	Contactor (Open)	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	9	115	1/3	120	ECN01A1A2A	(Select Contactor from Size 0 Listing)			CN15AN2AB
		—	—	208	ECN01A1E2A				CN15AN2EB
		230	1	240	ECN01A1B2A				CN15AN2BB
		—	—	480	ECN01A1C2A				CN15AN2CB
		—	—	600	ECN01A1D2A				CN15AN2DB
0	18	115	1	120	ECN0101A2A	ECN0102A2A	ECN0104A2A	ECN0108A2A	CN15BN2AB
		—	—	208	ECN0101E2A	ECN0102E2A	ECN0104E2A	ECN0108E2A	CN15BN2EB
		230	2	240	ECN0101B2A	ECN0102B2A	ECN0104B2A	ECN0108B2A	CN15BN2BB
		—	—	480	ECN0101C2A	ECN0102C2A	ECN0104C2A	ECN0108C2A	CN15BN2CB
		—	—	600	ECN0101D2A	ECN0102D2A	ECN0104D2A	ECN0108D2A	CN15BN2DB
1	27	115	2	120	ECN0111A2A	ECN0112A2A	ECN0114A2A	ECN0118A2A	CN15DN2AB
		—	—	208	ECN0111E2A	ECN0112E2A	ECN0114E2A	ECN0118E2A	CN15DN2EB
		230	3	240	ECN0111B2A	ECN0112B2A	ECN0114B2A	ECN0118B2A	CN15DN2BB
		—	—	480	ECN0111C2A	ECN0112C2A	ECN0114C2A	ECN0118C2A	CN15DN2CB
		—	—	600	ECN0111D2A	ECN0112D2A	ECN0114D2A	ECN0118D2A	CN15DN2DB
2	45	115	3	120	ECN0121A2A	ECN0122A2A	ECN0124A2A	ECN0128A2A	CN15GN2AB
		—	—	208	ECN0121E2A	ECN0122E2A	ECN0124E2A	ECN0128E2A	CN15GN2EB
		230	7-1/2	240	ECN0121B2A	ECN0122B2A	ECN0124B2A	ECN0128B2A	CN15GN2BB
		—	—	480	ECN0121C2A	ECN0122C2A	ECN0124C2A	ECN0128C2A	CN15GN2CB
		—	—	600	ECN0121D2A	ECN0122D2A	ECN0124D2A	ECN0128D2A	CN15GN2DB
3	90	115	7-1/2	120	ECN0131A2A	ECN0132A2A	ECN0134A2A	ECN0138A2A	CN15KN2A
		—	—	208	ECN0131E2A	ECN0132E2A	ECN0134E2A	ECN0138E2A	CN15KN2E
		230	15	240	ECN0131B2A	ECN0132B2A	ECN0134B2A	ECN0138B2A	CN15KN2B
		—	—	480	ECN0131C2A	ECN0132C2A	ECN0134C2A	ECN0138C2A	CN15KN2C
		—	—	600	ECN0131D2A	ECN0132D2A	ECN0134D2A	ECN0138D2A	CN15KN2D
4	135	—	—	120	ECN0141A2A	ECN0142A2A	ECN0144A2A	ECN0148A2A	CN15NN2A
		—	—	208	ECN0141E2A	ECN0142E2A	ECN0144E2A	ECN0148E2A	CN15NN2E
		—	—	240	ECN0141B2A	ECN0142B2A	ECN0144B2A	ECN0148B2A	CN15NN2B
		—	—	480	ECN0141C2A	ECN0142C2A	ECN0144C2A	ECN0148C2A	CN15NN2C
		—	—	600	ECN0141D2A	ECN0142D2A	ECN0144D2A	ECN0148D2A	CN15NN2D
5	270	—	—	120	ECN0151A2A	ECN0152A2A	ECN0154A2A	ECN0158A2A	CN15SN2A
		—	—	208	ECN0151E2A	ECN0152E2A	ECN0154E2A	ECN0158E2A	CN15SN2E
		—	—	240	ECN0151B2A	ECN0152B2A	ECN0154B2A	ECN0158B2A	CN15SN2B
		—	—	480	ECN0151C2A	ECN0152C2A	ECN0154C2A	ECN0158C2A	CN15SN2C
		—	—	600	ECN0151D2A	ECN0152D2A	ECN0154D2A	ECN0158D2A	CN15SN2D

① The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN010**4**A2A. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Note: NEMA Sizes 00, 0 and 1 of 2-Pole/2-Phase Non-reversing Contactors are available with auxiliary contact omitted. Add Modification Code **A44**. Example: ECN0101A2A-**A44**.

Cover Control	Page 3.3
Other Magnet Coils	Page 3.4
Dimensions	Page 12.2
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Table 3-8. Class ECN01 — NEMA 4-Pole Contactors — 3-Phase Non-reversing

NEMA Size	Continuous Ampere Rating	Motor Voltage	Maximum hp Rating	Magnet Coil Voltage	Type 1	Type 3R	Type 4X ^① Watertight & Dust-Tight Stainless Steel	Type 12	Component
					General Purpose	Rainproof	Dust-Tight Industrial	Contactors (Open)	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	9	—	—	120	ECN01A1A4A		(Select Contactor from Size 0 Listing)		CN15AN4AB
		200	1-1/2	208	ECN01A1E4A				CN15AN4EB
		230	1-1/2	240	ECN01A1B4A				CN15AN4BB
		460	2	480	ECN01A1C4A				CN15AN4CB
		575	2	600	ECN01A1D4A				CN15AN4DB
0	18	—	—	120	ECN0101A4A	ECN0102A4A	ECN0104A4A	ECN0108A4A	(Select Contactor from Size 1 Listing)
		200	3	208	ECN0101E4A	ECN0102E4A	ECN0104E4A	ECN0108E4A	
		230	3	240	ECN0101B4A	ECN0102B4A	ECN0104B4A	ECN0108B4A	
		460	5	480	ECN0101C4A	ECN0102C4A	ECN0104C4A	ECN0108C4A	
		575	5	600	ECN0101D4A	ECN0102D4A	ECN0104D4A	ECN0108D4A	
1	27	—	—	120	ECN0111A4A	ECN0112A4A	ECN0114A4A	ECN0118A4A	CN15DN4AB
		200	7-1/2	208	ECN0111E4A	ECN0112E4A	ECN0114E4A	ECN0118E4A	CN15DN4EB
		230	7-1/2	240	ECN0111B4A	ECN0112B4A	ECN0114B4A	ECN0118B4A	CN15DN4BB
		460	10	480	ECN0111C4A	ECN0112C4A	ECN0114C4A	ECN0118C4A	CN15DN4CB
		575	10	600	ECN0111D4A	ECN0112D4A	ECN0114D4A	ECN0118D4A	CN15DN4DB
2	45	—	—	120	ECN0121A4A	ECN0122A4A	ECN0124A4A	ECN0128A4A	CN15GN4AB
		200	10	208	ECN0121E4A	ECN0122E4A	ECN0124E4A	ECN0128E4A	CN15GN4EB
		230	15	240	ECN0121B4A	ECN0122B4A	ECN0124B4A	ECN0128B4A	CN15GN4BB
		460	25	480	ECN0121C4A	ECN0122C4A	ECN0124C4A	ECN0128C4A	CN15GN4CB
		575	25	600	ECN0121D4A	ECN0122D4A	ECN0124D4A	ECN0128D4A	CN15GN4DB

① The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECN0104A4A. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Table 3-9. Class ECN01 — NEMA 5-Pole Contactors — 3-Phase Non-reversing

NEMA Size	Continuous Ampere Rating	Motor Voltage	Maximum hp Rating	Magnet Coil Voltage	Type 1	Type 3R	Type 4X ^① Watertight & Dust-Tight Stainless Steel	Type 12	Component
					General Purpose	Rainproof	Dust-Tight Industrial	Contactors (Open)	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	9	—	—	120	ECN01A1A5A		(Select Contactor from Size 1 Listing)		
		200	1-1/2	208	ECN01A1E5A				
		230	1-1/2	240	ECN01A1B5A				
		460	2	480	ECN01A1C5A				
		575	2	600	ECN01A1D5A				
0	18	—	—	120	ECN0101A5A		(Select Contactor from Size 1 Listing)		
		200	3	208	ECN0101E5A				
		230	3	240	ECN0101B5A				
		460	5	480	ECN0101C5A				
		575	5	600	ECN0101D5A				
1	27	—	—	120	ECN0111A5A	ECN0112A5A	ECN0114A5A	ECN0118A5A	CN15DN5AB
		200	7-1/2	208	ECN0111E5A	ECN0112E5A	ECN0114E5A	ECN0118E5A	CN15DN5EB
		230	7-1/2	240	ECN0111B5A	ECN0112B5A	ECN0114B5A	ECN0118B5A	CN15DN5BB
		460	10	480	ECN0111C5A	ECN0112C5A	ECN0114C5A	ECN0118C5A	CN15DN5CB
		575	10	600	ECN0111D5A	ECN0112D5A	ECN0114D5A	ECN0118D5A	CN15DN5DB
2	45	—	—	120	ECN0121A5A	ECN0122A5A	ECN0124A5A	ECN0128A5A	CN15GN5AB
		200	10	208	ECN0121E5A	ECN0122E5A	ECN0124E5A	ECN0128E5A	CN15GN5EB
		230	15	240	ECN0121B5A	ECN0122B5A	ECN0124B5A	ECN0128B5A	CN15GN5BB
		460	25	480	ECN0121C5A	ECN0122C5A	ECN0124C5A	ECN0128C5A	CN15GN5CB
		575	25	600	ECN0121D5A	ECN0122D5A	ECN0124D5A	ECN0128D5A	CN15GN5DB

① The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECN0114A5A. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Cover Control Page 3.3
 Other Magnet Coils Page 3.4
 Dimensions Page 12.2
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data Page 15.3

Table 3-10. Class ECN02 — NEMA 3-Pole Contactors — 3-Phase Reversing

NEMA Size	Continuous Ampere Rating	Motor Voltage	Maximum hp Rating ^①	Magnet Coil Voltage	Type 1	Type 3R	Type 4X ^② Watertight & Dust-Tight Stainless Steel	Type 12	Component
					General Purpose	Rainproof	Stainless Steel	Dust-Tight Industrial	Contactors (Open)
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	9	—	—	120	ECN02A1A3A		(Select Contactor from Size 0 Listing)		CN55AN3AB
		200	1-1/2	208	ECN02A1E3A				CN55AN3EB
		230	1-1/2	240	ECN02A1B3A				CN55AN3BB
		460	2	480	ECN02A1C3A				CN55AN3CB
		575	2	600	ECN02A1D3A				CN55AN3DB
0	18	—	—	120	ECN0201A3A	ECN0202A3A	ECN0204A3A	ECN0208A3A	CN55BN3AB
		200	3	208	ECN0201E3A	ECN0202E3A	ECN0204E3A	ECN0208E3A	CN55BN3EB
		230	3	240	ECN0201B3A	ECN0202B3A	ECN0204B3A	ECN0208B3A	CN55BN3BB
		460	5	480	ECN0201C3A	ECN0202C3A	ECN0204C3A	ECN0208C3A	CN55BN3CB
		575	5	600	ECN0201D3A	ECN0202D3A	ECN0204D3A	ECN0208D3A	CN55BN3DB
1	27	—	—	120	ECN0211A3A	ECN0212A3A	ECN0214A3A	ECN0218A3A	CN55DN3AB
		200	7-1/2	208	ECN0211E3A	ECN0212E3A	ECN0214E3A	ECN0218E3A	CN55DN3EB
		230	7-1/2	240	ECN0211B3A	ECN0212B3A	ECN0214B3A	ECN0218B3A	CN55DN3BB
		460	10	480	ECN0211C3A	ECN0212C3A	ECN0214C3A	ECN0218C3A	CN55DN3CB
		575	10	600	ECN0211D3A	ECN0212D3A	ECN0214D3A	ECN0218D3A	CN55DN3DB
2	45	—	—	120	ECN0221A3A	ECN0222A3A	ECN0224A3A	ECN0228A3A	CN15GN3AB
		200	10	208	ECN0221E3A	ECN0222E3A	ECN0224E3A	ECN0228E3A	CN55GN3EB
		230	15	240	ECN0221B3A	ECN0222B3A	ECN0224B3A	ECN0228B3A	CN55GN3BB
		460	25	480	ECN0221C3A	ECN0222C3A	ECN0224C3A	ECN0228C3A	CN55GN3CB
		575	25	600	ECN0221D3A	ECN0222D3A	ECN0224D3A	ECN0228D3A	CN55GN3DB
3	90	—	—	120	ECN0231A3A	ECN0232A3A	ECN0234A3A	ECN0238A3A	CN55KN3A
		200	25	208	ECN0231E3A	ECN0232E3A	ECN0234E3A	ECN0238E3A	CN55KN3E
		230	30	240	ECN0231B3A	ECN0232B3A	ECN0234B3A	ECN0238B3A	CN55KN3B
		460	50	480	ECN0231C3A	ECN0232C3A	ECN0234C3A	ECN0238C3A	CN55KN3C
		575	50	600	ECN0231D3A	ECN0232D3A	ECN0234D3A	ECN0238D3A	CN55KN3D
4	135	—	—	120	ECN0241A3A	ECN0242A3A	ECN0244A3A	ECN0248A3A	CN55NN3A
		200	40	208	ECN0241E3A	ECN0242E3A	ECN0244E3A	ECN0248E3A	CN55NN3E
		230	50	240	ECN0241B3A	ECN0242B3A	ECN0244B3A	ECN0248B3A	CN55NN3B
		460	100	480	ECN0241C3A	ECN0242C3A	ECN0244C3A	ECN0248C3A	CN55NN3C
		575	100	600	ECN0241D3A	ECN0242D3A	ECN0244D3A	ECN0248D3A	CN55NN3D
5	270	—	—	120	ECN0251A3A	ECN0252A3A	ECN0254A3A	ECN0258A3A	CN55SN3A
		200	75	208	ECN0251E3A	ECN0252E3A	ECN0254E3A	ECN0258E3A	CN55SN3E
		230	100	240	ECN0251B3A	ECN0252B3A	ECN0254B3A	ECN0258B3A	CN55SN3B
		460	200	480	ECN0251C3A	ECN0252C3A	ECN0254C3A	ECN0258C3A	CN55SN3C
		575	200	600	ECN0251D3A	ECN0252D3A	ECN0254D3A	ECN0258D3A	CN55SN3D

^① Maximum horsepower rating of contactors for 380V 50 Hz applications:

NEMA Size	00	0	1	2	3	4	5
Horsepower	1-1/2	5	10	25	50	75	150

^② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**.
 Example: ECN0204A3A. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control	Page 3.3
Other Magnet Coils	Page 3.4
Dimensions	Page 12.2
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Features

- 1-Phase or 3-Phase Magnetic
- 2- or 3-Pole Non-reversing or 3-Pole Reversing
- Standard Interchangeable Heater OLR
- Optional Electronic Overload
- 600V Maximum

Product Selection

Table 3-11. Class ECN05 — NEMA 3-Pole Non-combination Starters — 3-Phase Non-reversing

NEMA Size	Motor Voltage	Maximum hp Rating ^①	Magnet Coil Voltage	Type 1	Type 3R	Type 4X ^② Watertight & Dust-Tight	Type 12	Component Starter (Open)
				General Purpose	Rainproof	Stainless Steel	Dust-Tight Industrial External Reset	
				Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	—	—	120	ECN05A1AAA	ECN05A2AAA	ECN05A4AAA	ECN05A8AAA	AN16AN0AC
	200	1-1/2	208	ECN05A1EAA	ECN05A2EAA	ECN05A4EAA	ECN05A8EAA	AN16AN0EC
	230	1-1/2	240	ECN05A1BAA	ECN05A2BAA	ECN05A4BAA	ECN05A8BAA	AN16AN0BC
	460	2	480	ECN05A1CAA	ECN05A2CAA	ECN05A4CAA	ECN05A8CAA	AN16AN0CC
	575	2	600	ECN05A1DAA	ECN05A2DAA	ECN05A4DAA	ECN05A8DAA	AN16AN0DC
0	—	—	120	ECN0501AAA	ECN0502AAA	ECN0504AAA	ECN0508AAA	AN16BN0AC
	200	3	208	ECN0501EAA	ECN0502EAA	ECN0504EAA	ECN0508EAA	AN16BN0EC
	230	3	240	ECN0501BAA	ECN0502BAA	ECN0504BAA	ECN0508BAA	AN16BN0BC
	460	5	480	ECN0501CAA	ECN0502CAA	ECN0504CAA	ECN0508CAA	AN16BN0CC
	575	5	600	ECN0501DAA	ECN0502DAA	ECN0504DAA	ECN0508DAA	AN16BN0DC
1	—	—	120	ECN0511AAA	ECN0512AAA	ECN0514AAA	ECN0518AAA	AN16DN0AB
	200	7-1/2	208	ECN0511EAA	ECN0512EAA	ECN0514EAA	ECN0518EAA	AN16DN0EB
	230	7-1/2	240	ECN0511BAA	ECN0512BAA	ECN0514BAA	ECN0518BAA	AN16DN0BB
	460	10	480	ECN0511CAA	ECN0512CAA	ECN0514CAA	ECN0518CAA	AN16DN0CB
	575	10	600	ECN0511DAA	ECN0512DAA	ECN0514DAA	ECN0518DAA	AN16DN0DB
2	—	—	120	ECN0521AAA	ECN0522AAA	ECN0524AAA	ECN0528AAA	AN16GN0AB
	200	10	208	ECN0521EAA	ECN0522EAA	ECN0524EAA	ECN0528EAA	AN16GN0EB
	230	15	240	ECN0521BAA	ECN0522BAA	ECN0524BAA	ECN0528BAA	AN16GN0BB
	460	25	480	ECN0521CAA	ECN0522CAA	ECN0524CAA	ECN0528CAA	AN16GN0CB
	575	25	600	ECN0521DAA	ECN0522DAA	ECN0524DAA	ECN0528DAA	AN16GN0DB
3	—	—	120	ECN0531AAA	ECN0532AAA	ECN0534AAA	ECN0538AAA	AN16KN0A
	200	25	208	ECN0531EAA	ECN0532EAA	ECN0534EAA	ECN0538EAA	AN16KN0E
	230	30	240	ECN0531BAA	ECN0532BAA	ECN0534BAA	ECN0538BAA	AN16KN0B
	460	50	480	ECN0531CAA	ECN0532CAA	ECN0534CAA	ECN0538CAA	AN16KN0C
	575	50	600	ECN0531DAA	ECN0532DAA	ECN0534DAA	ECN0538DAA	AN16KN0D
4	—	—	120	ECN0541AAA	ECN0542AAA	ECN0544AAA	ECN0548AAA	AN16NN0A
	200	40	208	ECN0541EAA	ECN0542EAA	ECN0544EAA	ECN0548EAA	AN16NN0E
	230	50	240	ECN0541BAA	ECN0542BAA	ECN0544BAA	ECN0548BAA	AN16NN0B
	460	100	480	ECN0541CAA	ECN0542CAA	ECN0544CAA	ECN0548CAA	AN16NN0C
	575	100	600	ECN0541DAA	ECN0542DAA	ECN0544DAA	ECN0548DAA	AN16NN0D
5	—	—	120	ECN0551AAA	ECN0552AAA	ECN0554AAA	ECN0558AAA	AN16SN0AB
	200	75	208	ECN0551EAA	ECN0552EAA	ECN0554EAA	ECN0558EAA	AN16SN0EB
	230	100	240	ECN0551BAA	ECN0552BAA	ECN0554BAA	ECN0558BAA	AN16SN0BB
	460	200	480	ECN0551CAA	ECN0552CAA	ECN0554CAA	ECN0558CAA	AN16SN0CB
	575	200	600	ECN0551DAA	ECN0552DAA	ECN0554DAA	ECN0558DAA	AN16SN0DB

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see **Page 13-4**.
Starters with Electronic Overload, see Page 13.33 of Modification Codes.

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

NEMA Size	00	0	1	2	3	4	5
Horsepower	1-1/2	5	10	25	50	75	150

^② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN0504AAA. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control **Page 3.3**
 Other Magnet Coils **Page 3.4**
 Dimensions **Page 12.2**
 Accessories **Page 13.2**
 Modifications **Page 13.29**
 Technical Data **Page 15.3**

Table 3-12. Class ECN06 — NEMA 3-Pole Non-combination Starters — 3-Phase Reversing

NEMA Size	Motor Voltage	Maximum hp Rating ^①	Magnet Coil Voltage	Type 1	Type 3R	Type 4X ^② Watertight & Dust-Tight Stainless Steel	Type 12	Component Starter (Open)
				General Purpose	Rainproof	Dust-Tight Industrial External Reset		
				Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	—	—	120	ECN06A1AAA	ECN06A2AAA	ECN06A4AAA	ECN06A8AAA	AN56AN0AC
	200	1-1/2	208	ECN06A1EAA	ECN06A2EAA	ECN06A4EAA	ECN06A8EAA	AN56AN0EC
	230	1-1/2	240	ECN06A1BAA	ECN06A2BAA	ECN06A4BAA	ECN06A8BAA	AN56AN0BC
	460	2	480	ECN06A1CAA	ECN06A2CAA	ECN06A4CAA	ECN06A8CAA	AN56AN0CC
	575	2	600	ECN06A1DAA	ECN06A2DAA	ECN06A4DAA	ECN06A8DAA	AN56AN0DC
0	—	—	120	ECN0601AAA	ECN0602AAA	ECN0604AAA	ECN0608AAA	AN56BN0AC
	200	3	208	ECN0601EAA	ECN0602EAA	ECN0604EAA	ECN0608EAA	AN56BN0EC
	230	3	240	ECN0601BAA	ECN0602BAA	ECN0604BAA	ECN0608BAA	AN56BN0BC
	460	5	480	ECN0601CAA	ECN0602CAA	ECN0604CAA	ECN0608CAA	AN56BN0CC
	575	5	600	ECN0601DAA	ECN0602DAA	ECN0604DAA	ECN0608DAA	AN56BN0DC
1	—	—	120	ECN0611AAA	ECN0612AAA	ECN0614AAA	ECN0618AAA	AN56DN0AB
	200	7-1/2	208	ECN0611EAA	ECN0612EAA	ECN0614EAA	ECN0618EAA	AN56DN0EB
	230	7-1/2	240	ECN0611BAA	ECN0612BAA	ECN0614BAA	ECN0618BAA	AN56DN0BB
	460	10	480	ECN0611CAA	ECN0612CAA	ECN0614CAA	ECN0618CAA	AN56DN0CB
	575	10	600	ECN0611DAA	ECN0612DAA	ECN0614DAA	ECN0618DAA	AN56DN0DB
2	—	—	120	ECN0621AAA	ECN0622AAA	ECN0624AAA	ECN0628AAA	AN56GN0AB
	200	10	208	ECN0621EAA	ECN0622EAA	ECN0624EAA	ECN0628EAA	AN56GN0EB
	230	15	240	ECN0621BAA	ECN0622BAA	ECN0624BAA	ECN0628BAA	AN56GN0BB
	460	25	480	ECN0621CAA	ECN0622CAA	ECN0624CAA	ECN0628CAA	AN56GN0CB
	575	25	600	ECN0621DAA	ECN0622DAA	ECN0624DAA	ECN0628DAA	AN56GN0DB
3	—	—	120	ECN0631AAA	ECN0632AAA	ECN0634AAA	ECN0638AAA	AN56KN0A
	200	25	208	ECN0631EAA	ECN0632EAA	ECN0634EAA	ECN0638EAA	AN56KN0E
	230	30	240	ECN0631BAA	ECN0632BAA	ECN0634BAA	ECN0638BAA	AN56KN0B
	460	50	480	ECN0631CAA	ECN0632CAA	ECN0634CAA	ECN0638CAA	AN56KN0C
	575	50	600	ECN0631DAA	ECN0632DAA	ECN0634DAA	ECN0638DAA	AN56KN0D
4	—	—	120	ECN0641AAA	ECN0642AAA	ECN0644AAA	ECN0648AAA	AN56NN0A
	200	40	208	ECN0641EAA	ECN0642EAA	ECN0644EAA	ECN0648EAA	AN56NN0E
	230	50	240	ECN0641BAA	ECN0642BAA	ECN0644BAA	ECN0648BAA	AN56NN0B
	460	100	480	ECN0641CAA	ECN0642CAA	ECN0644CAA	ECN0648CAA	AN56NN0C
	575	100	600	ECN0641DAA	ECN0642DAA	ECN0644DAA	ECN0648DAA	AN56NN0D
5	—	—	120	ECN0651AAA	ECN0652AAA	ECN0654AAA	ECN0658AAA	AN56SN0AB
	200	75	208	ECN0651EAA	ECN0652EAA	ECN0654EAA	ECN0658EAA	AN56SN0EB
	230	100	240	ECN0651BAA	ECN0652BAA	ECN0654BAA	ECN0658BAA	AN56SN0BB
	460	200	480	ECN0651CAA	ECN0652CAA	ECN0654CAA	ECN0658CAA	AN56SN0CB
	575	200	600	ECN0651DAA	ECN0652DAA	ECN0654DAA	ECN0658DAA	AN56SN0DB

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 13.4. Starters with Electronic Overload, see Page 13.33 of Modification Codes.

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

NEMA Size	00	0	1	2	3	4	5
Horsepower	1-1/2	5	10	25	50	75	150

② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**.
 Example: ECN0604AAA. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see Tab 11.

Cover Control	Page 3.3
Other Magnet Coils	Page 3.4
Dimensions	Page 12.2
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Table 3-13. Class ECN07 — NEMA 3-Pole Non-combination Starters — 3-Phase Non-reversing with CPT

NEMA Size	Primary Voltage ②	Max. hp Rating ①	Secondary Voltage Magnet Coil Voltage	Type 1	Type 3R	Type 4X	Type 12	Component Starter (Open)
				General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel ③	Dust-Tight Industrial External Reset	
				Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	208	1-1/2	120	ECN07A1EAA	ECN07A2EAA	ECN07A4EAA	ECN07A8EAA	AN16AN0EC
	240	1-1/2		ECN07A1BAA	ECN07A2BAA	ECN07A4BAA	ECN07A8BAA	AN16AN0BC
	480	2		ECN07A1CAA	ECN07A2CAA	ECN07A4CAA	ECN07A8CAA	AN16AN0CC
	600	3		ECN07A1DAA	ECN07A2DAA	ECN07A4DAA	ECN07A8DAA	AN16AN0DC
0	208	3	120	ECN0701EAA	ECN0702EAA	ECN0704EAA	ECN0708EAA	AN16BN0EC
	240	3		ECN0701BAA	ECN0702BAA	ECN0704BAA	ECN0708BAA	AN16BN0BC
	480	5		ECN0701CAA	ECN0702CAA	ECN0704CAA	ECN0708CAA	AN16BN0CC
	600	5		ECN0701DAA	ECN0702DAA	ECN0704DAA	ECN0708DAA	AN16BN0DC
1	208	7-1/2	120	ECN0711EAA	ECN0712EAA	ECN0714EAA	ECN0718EAA	AN16DN0EB
	240	7-1/2		ECN0711BAA	ECN0712BAA	ECN0714BAA	ECN0718BAA	AN16DN0BB
	480	10		ECN0711CAA	ECN0712CAA	ECN0714CAA	ECN0718CAA	AN16DN0CB
	600	10		ECN0711DAA	ECN0712DAA	ECN0714DAA	ECN0718DAA	AN16DN0DB
2	208	10	120	ECN0721EAA	ECN0722EAA	ECN0724EAA	ECN0728EAA	AN16GN0EB
	240	15		ECN0721BAA	ECN0722BAA	ECN0724BAA	ECN0728BAA	AN16GN0BB
	480	25		ECN0721CAA	ECN0722CAA	ECN0724CAA	ECN0728CAA	AN16GN0CB
	600	25		ECN0721DAA	ECN0722DAA	ECN0724DAA	ECN0728DAA	AN16GN0DB
3	208	25	120	ECN0731EAA	ECN0732EAA	ECN0734EAA	ECN0738EAA	AN16KN0E
	240	30		ECN0731BAA	ECN0732BAA	ECN0734BAA	ECN0738BAA	AN16KN0B
	480	50		ECN0731CAA	ECN0732CAA	ECN0734CAA	ECN0738CAA	AN16KN0C
	600	50		ECN0731DAA	ECN0732DAA	ECN0734DAA	ECN0738DAA	AN16KN0D
4	208	40	120	ECN0741EAA	ECN0742EAA	ECN0744EAA	ECN0748EAA	AN16NN0E
	240	50		ECN0741BAA	ECN0742BAA	ECN0744BAA	ECN0748BAA	AN16NN0B
	480	100		ECN0741CAA	ECN0742CAA	ECN0744CAA	ECN0748CAA	AN16NN0C
	600	100		ECN0741DAA	ECN0742DAA	ECN0744DAA	ECN0748DAA	AN16NN0D
5	208	75	120	ECN0751EAA	ECN0752EAA	ECN0754EAA	ECN0758EAA	AN16SN0EB
	240	100		ECN0751BAA	ECN0752BAA	ECN0754BAA	ECN0758BAA	AN16SN0BB
	480	200		ECN0751CAA	ECN0752CAA	ECN0754CAA	ECN0758CAA	AN16SN0CB
	600	200		ECN0751DAA	ECN0752DAA	ECN0754DAA	ECN0758DAA	AN16SN0DB

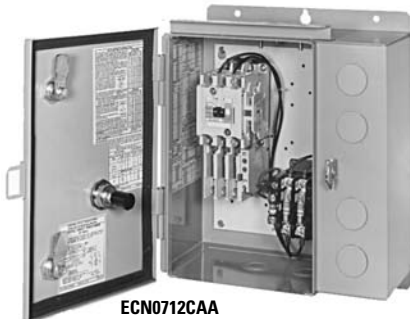
Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 13-4.
Starters with Electronic Overload, see Page 13.33 of Modification Codes.

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

NEMA Size	00	0	1	2	3	4	5
Horsepower	1-1/2	5	10	25	50	75	150

② Other control power transformer primary and/or secondary voltages, see Page 3.4.

③ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4.
Example: ECN0704EAA. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.



ECN0712CAA

Cover Control Page 3.3
 Other Magnet Coils Page 3.4
 Dimensions Page 12.2
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data Page 15.3

Table 3-14. Class ECN08 — NEMA 2-Pole Non-combination Starters — 1-Phase Non-reversing

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage	Type 1	Type 3R	Type 4X ^①	Type 12	Component Starter
				General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset	(Open)
				Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	115 230	1/3 1	120 240	ECN08A1AAA ECN08A1BAA		(Select Contactor from Size 0 Listing)		BN16AN0AC BN16AN0BC
0	115 230	1 2	120 240	ECN0801AAA ECN0801BAA	ECN0802AAA ECN0802BAA	ECN0804AAA ECN0804BAA	ECN0808AAA ECN0808BAA	BN16BN0AC BN16BN0BC
1	115 230	2 3	120 240	ECN0811AAA ECN0811BAA	ECN0812AAA ECN0812BAA	ECN0814AAA ECN0814BAA	ECN0818AAA ECN0818BAA	BN16DN0AB BN16DN0BB
1P	115 230	3 5	120 240	ECN08C1AAA ECN08C1BAA	ECN08C2AAA ECN08C2BAA	ECN08C4AAA ECN08C4BAA	ECN08C8AAA ECN08C8BAA	BN16PN0AB BN16PN0BB
2	115 230	3 7-1/2	120 240	ECN0821AAA ECN0821BAA	ECN0822AAA ECN0822BAA	ECN0824AAA ECN0824BAA	ECN0828AAA ECN0828BAA	BN16GN0AB BN16GN0BB
3	115 230	7-1/2 15	120 240	ECN0831AAA ECN0831BAA	ECN0832AAA ECN0832BAA	ECN0834AAA ECN0834BAA	ECN0838AAA ECN0838BAA	BN16KN0A BN16KN0B

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see **Page 13.4**.

^① The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN080**4**AAA. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control	Page 3.3
Other Magnet Coils	Page 3.4
Dimensions	Page 12.2
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Freedom Full Voltage Control Non-combination Starters Combination Starters — Fusible and Non-fusible

Features

- 3-Phase Magnetic
- 3-Pole Non-reversing or Reversing
- Standard Interchangeable Heater OLR
- Optional Electronic Overload
- 600V Maximum
- 100,000 RMS Short Circuit Rating with Fuses

Product Selection

Table 3-15. Class ECN16 — NEMA 3-Pole Fusible Combination Starters — Non-reversing

NEMA Size	Motor Voltage	Max. hp Rating Dual Element Fuses	Magnet Coil Voltage ①	Fuse Clip Amps	Type 1	Type 3R	Type 4X ④ Watertight & Dust-Tight Stainless Steel	Type 12	Component
					General Purpose	Rainproof	General Purpose	Dust-Tight Industrial External Reset ②③	Starter (Open)
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	200	1-1/2	208	30A	ECN16A1EAB	ECN16A2EAB	ECN16A4EAB	ECN16A8EAB	AN16AN0EC
	230	1-1/2	240		ECN16A1BAB	ECN16A2BAB	ECN16A4BAB	ECN16A8BAB	AN16AN0BC
	460	2	480		ECN16A1CAC	ECN16A2CAC	ECN16A4CAC	ECN16A8CAC	AN16AN0CC
	575	2	600		ECN16A1DAC	ECN16A2DAC	ECN16A4DAC	ECN16A8DAC	AN16AN0DC
0	200	3	208	30A	ECN1601EAB	ECN1602EAB	ECN1604EAB	ECN1608EAB	AN16BN0EC
	230	3	240		ECN1601BAB	ECN1602BAB	ECN1604BAB	ECN1608BAB	AN16BN0BC
	460	5	480		ECN1601CAC	ECN1602CAC	ECN1604CAC	ECN1608CAC	AN16BN0CC
	575	5	600		ECN1601DAC	ECN1602DAC	ECN1604DAC	ECN1608DAC	AN16BN0DC
1	200	7-1/2	208	30A	ECN1611EAB	ECN1612EAB	ECN1614EAB	ECN1618EAB	AN16DN0EB
	230	7-1/2	240		ECN1611BAB	ECN1612BAB	ECN1614BAB	ECN1618BAB	AN16DN0BB
	460	10	480		ECN1611CAC	ECN1612CAC	ECN1614CAC	ECN1618CAC	AN16DN0CB
	575	10	600		ECN1611DAC	ECN1612DAC	ECN1614DAC	ECN1618DAC	AN16DN0DB
2	200	10	208	60A	ECN1621EAD	ECN1622EAD	ECN1624EAD	ECN1628EAD	AN16GN0EB
	230	15	240		ECN1621BAD	ECN1622BAD	ECN1624BAD	ECN1628BAD	AN16GN0BB
	460	25	480		ECN1621CAE	ECN1622CAE	ECN1624CAE	ECN1628CAE	AN16GN0CB
	575	25	600		ECN1621DAE	ECN1622DAE	ECN1624DAE	ECN1628DAE	AN16GN0DB
3	200	25	208	100A	ECN1631EAF	ECN1632EAF	ECN1634EAF	ECN1638EAF	AN16KN0EB
	230	30	240		ECN1631BAF	ECN1632BAF	ECN1634BAF	ECN1638BAF	AN16KN0BB
	460	50	480		ECN1631CAG	ECN1632CAG	ECN1634CAG	ECN1638CAG	AN16KN0CB
	575	50	600		ECN1631DAG	ECN1632DAG	ECN1634DAG	ECN1638DAG	AN16KN0DB
4	200	40	208	200A	ECN1641EAH	ECN1642EAH	ECN1644EAH	ECN1648EAH	AN16NN0EB
	230	50	240		ECN1641BAH	ECN1642BAH	ECN1644BAH	ECN1648BAH	AN16NN0BB
	460	100	480		ECN1641CAJ	ECN1642CAJ	ECN1644CAJ	ECN1648CAJ	AN16NN0CB
	575	100	600		ECN1641DAJ	ECN1642DAJ	ECN1644DAJ	ECN1648DAJ	AN16NN0DB
5	200	75	208	400A	ECN1651EAK	ECN1652EAK	ECN1654EAK	ECN1658EAK	AN16SN0EB
	230	100	240		ECN1651BAK	ECN1652BAK	ECN1654BAK	ECN1658BAK	AN16SN0BB
	460	200	480		ECN1651CAL	ECN1652CAL	ECN1654CAL	ECN1658CAL	AN16SN0CB
	575	200	600		ECN1651DAL	ECN1652DAL	ECN1654DAL	ECN1658DAL	AN16SN0DB

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see **Page 13.4**.
Starters with Electronic Overload, see **Page 13.33** of Modification Codes.

- ① Starters with 120V coil (for separate control) are available. To order, substitute the letter **A** for the 8th character of the listed Catalogue Number.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code **R5**.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification **E11**.
- ④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN1604EAB. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control **Page 3.3**
 Other Magnet Coils **Page 3.4**
 Dimensions **Page 12.2**
 Accessories **Page 13.2**
 Modifications **Page 13.29**
 Technical Data **Page 15.3**

3.14

NEMA Contactors & Starters

Freedom Full Voltage Control Non-combination Starters

Table 3-16. Class ECN16 — NEMA 3-Pole Non-fusible Combination Starters ③ — Non-reversing

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage	Disconnect Amps	Type 1	Type 3R	Type 4X ④	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ① ②	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	—	—	120	30A	ECN16A1AAA	ECN16A2AAA	ECN16A4AAA	ECN16A8AAA	AN16AN0AC
	200	1-1/2	208		ECN16A1EAA	ECN16A2EAA	ECN16A4EAA	ECN16A8EAA	AN16AN0EC
	230	1-1/2	240		ECN16A1BAA	ECN16A2BAA	ECN16A4BAA	ECN16A8BAA	AN16AN0BC
	460	2	480		ECN16A1CAA	ECN16A2CAA	ECN16A4CAA	ECN16A8CAA	AN16AN0CC
	575	2	600		ECN16A1DAA	ECN16A2DAA	ECN16A4DAA	ECN16A8DAA	AN16AN0DC
0	—	—	120	30A	ECN1601AAA	ECN1602AAA	ECN1604AAA	ECN1608AAA	AN16BN0AC
	200	3	208		ECN1601EAA	ECN1602EAA	ECN1604EAA	ECN1608EAA	AN16BN0EC
	230	3	240		ECN1601BAA	ECN1602BAA	ECN1604BAA	ECN1608BAA	AN16BN0BC
	460	5	480		ECN1601CAA	ECN1602CAA	ECN1604CAA	ECN1608CAA	AN16BN0CC
	575	5	600		ECN1601DAA	ECN1602DAA	ECN1604DAA	ECN1608DAA	AN16BN0DC
1	—	—	120	30A	ECN1611AAA	ECN1612AAA	ECN1614AAA	ECN1618AAA	AN16DN0AB
	200	7-1/2	208		ECN1611EAA	ECN1612EAA	ECN1614EAA	ECN1618EAA	AN16DN0EB
	230	7-1/2	240		ECN1611BAA	ECN1612BAA	ECN1614BAA	ECN1618BAA	AN16DN0BB
	460	10	480		ECN1611CAA	ECN1612CAA	ECN1614CAA	ECN1618CAA	AN16DN0CB
	575	10	600		ECN1611DAA	ECN1612DAA	ECN1614DAA	ECN1618DAA	AN16DN0DB
2	—	—	120	60A	ECN1621AAA	ECN1622AAA	ECN1624AAA	ECN1628AAA	AN16GN0AB
	200	10	208		ECN1621EAA	ECN1622EAA	ECN1624EAA	ECN1628EAA	AN16GN0EB
	230	15	240		ECN1621BAA	ECN1622BAA	ECN1624BAA	ECN1628BAA	AN16GN0BB
	460	25	480		ECN1621CAA	ECN1622CAA	ECN1624CAA	ECN1628CAA	AN16GN0CB
	575	25	600		ECN1621DAA	ECN1622DAA	ECN1624DAA	ECN1628DAA	AN16GN0DB
3	—	—	120	100A	ECN1631AAA	ECN1632AAA	ECN1634AAA	ECN1638AAA	AN16KN0A
	200	25	208		ECN1631EAA	ECN1632EAA	ECN1634EAA	ECN1638EAA	AN16KN0E
	230	30	240		ECN1631BAA	ECN1632BAA	ECN1634BAA	ECN1638BAA	AN16KN0B
	460	50	480		ECN1631CAA	ECN1632CAA	ECN1634CAA	ECN1638CAA	AN16KN0C
	575	50	600		ECN1631DAA	ECN1632DAA	ECN1634DAA	ECN1638DAA	AN16KN0D
4	—	—	120	200A	ECN1641AAA	ECN1642AAA	ECN1644AAA	ECN1648AAA	AN16NN0A
	200	40	208		ECN1641EAA	ECN1642EAA	ECN1644EAA	ECN1648EAA	AN16NN0E
	230	50	240		ECN1641BAA	ECN1642BAA	ECN1644BAA	ECN1648BAA	AN16NN0B
	460	100	480		ECN1641CAA	ECN1642CAA	ECN1644CAA	ECN1648CAA	AN16NN0C
	575	100	600		ECN1641DAA	ECN1642DAA	ECN1644DAA	ECN1648DAA	AN16NN0D
5	—	—	120	400A	ECN1651AAA	ECN1652AAA	ECN1654AAA	ECN1658AAA	AN16SN0AB
	200	75	208		ECN1651EAA	ECN1652EAA	ECN1654EAA	ECN1658EAA	AN16SN0EB
	230	100	240		ECN1651BAA	ECN1652BAA	ECN1654BAA	ECN1658BAA	AN16SN0BB
	460	200	480		ECN1651CAA	ECN1652CAA	ECN1654CAA	ECN1658CAA	AN16SN0CB
	575	200	600		ECN1651DAA	ECN1652DAA	ECN1654DAA	ECN1658DAA	AN16SN0DB

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see **Page 13.4**.
Starters with Electronic Overload, see **Page 13.33** of Modification Codes.

- ① All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code **R5**.
- ② Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification **E11**.
- ③ Field installed Fuse Clips available, see **Page 13.6**.
- ④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**.
 Example: ECN1604AAA. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control	Page 3.3
Other Magnet Coils	Page 3.4
Dimensions	Page 12.2
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Freedom Full Voltage Control Combination Starters — Fusible and Non-fusible

3

Table 3-17. Class ECN16 — NEMA 3-Pole Fusible and Non-fusible Combination Starters — Non-reversing Special Enclosure

NEMA Size	Motor Voltage	Maximum hp Rating	Magnet Coil Voltage ①	Fuse Clip Amperes ②	Type 4X ④ Watertight & Dust-Tight Stainless Steel		Type 12 Dust-Tight Industrial ③		Component Starter (Open) Catalogue Number
					Type 1 General Purpose	Type 12	External Reset	Internal Reset	
					External Reset	External Reset	Catalogue Number	Catalogue Number	
Horizontal Enclosure — Fusible									
1	200	7-1/2	208	30A	ECN1611EAB-E13	—	ECN1618EAB-E13	ECN1618EAB-E13R5	AN16DN0EB
	230	7-1/2	240		ECN1611BAB-E13	—	ECN1618BAB-E13	ECN1618BAB-E13R5	AN16DN0BB
	460	10	480		ECN1611CAC-E13	—	ECN1618CAC-E13	ECN1618CAC-E13R5	AN16DN0CB
	575	10	600		ECN1611DAC-E13	—	ECN1618DAC-E13	ECN1618DAC-E13R5	AN16DN0DB
2	200	10	208	60A	ECN1621EAD-E13	—	ECN1628EAD-E13	ECN1628EAD-E13R5	AN16GN0EB
	230	15	240		ECN1621BAD-E13	—	ECN1628BAD-E13	ECN1628BAD-E13R5	AN16GN0BB
	460	25	480		ECN1621CAE-E13	—	ECN1628CAE-E13	ECN1628CAE-E13R5	AN16GN0CB
	575	25	600		ECN1621DAE-E13	—	ECN1628DAE-E13	ECN1628DAE-E13R5	AN16GN0DB
Horizontal Enclosure — Non-fusible									
1	200	7-1/2	208	—	ECN1611EAA-E13	—	ECN1618EAA-E13	ECN1618EAA-E13R5	AN16DN0EB
	230	7-1/2	240		ECN1611BAA-E13	—	ECN1618BAA-E13	ECN1618BAA-E13R5	AN16DN0BB
	460	10	480		ECN1611CAA-E13	—	ECN1618CAA-E13	ECN1618CAA-E13R5	AN16DN0CB
	575	10	600		ECN1611DAA-E13	—	ECN1618DAA-E13	ECN1618DAA-E13R5	AN16DN0DB
2	200	10	208	—	ECN1621EAA-E13	—	ECN1628EAA-E13	ECN1628EAA-E13R5	AN16GN0EB
	230	15	240		ECN1621BAA-E13	—	ECN1628BAA-E13	ECN1628BAA-E13R5	AN16GN0BB
	460	25	480		ECN1621CAA-E13	—	ECN1628CAA-E13	ECN1628CAA-E13R5	AN16GN0CB
	575	25	600		ECN1621DAA-E13	—	ECN1628DAA-E13	ECN1628DAA-E13R5	AN16GN0DB
Oversize Enclosure — without Control Transformer — Fusible									
0	200	3	208	30A	ECN1601EAB-E3	ECN1604EAB-E3	ECN1608EAB-E3	ECN1608EAB-E3R5	AN16BN0EC
	230	3	240		ECN1601BAB-E3	ECN1604BAB-E3	ECN1608BAB-E3	ECN1608BAB-E3R5	AN16BN0BC
	460	5	480		ECN1601CAC-E3	ECN1604CAC-E3	ECN1608CAC-E3	ECN1608CAC-E3R5	AN16BN0CC
	575	5	600		ECN1601DAC-E3	ECN1604DAC-E3	ECN1608DAC-E3	ECN1608DAC-E3R5	AN16BN0DC
1	200	7-1/2	208	30A	ECN1611EAB-E3	ECN1614EAB-E3	ECN1618EAB-E3	ECN1618EAB-E3R5	AN16DN0EB
	230	7-1/2	240		ECN1611BAB-E3	ECN1614BAB-E3	ECN1618BAB-E3	ECN1618BAB-E3R5	AN16DN0BB
	460	10	480		ECN1611CAC-E3	ECN1614CAC-E3	ECN1618CAC-E3	ECN1618CAC-E3R5	AN16DN0CB
	575	10	600		ECN1611DAC-E3	ECN1614DAC-E3	ECN1618DAC-E3	ECN1618DAC-E3R5	AN16DN0DB
2	200	10	208	60A	ECN1621EAD-E3	ECN1624EAD-E3	ECN1628EAD-E3	ECN1628EAD-E3R5	AN16GN0EB
	230	15	240		ECN1621BAD-E3	ECN1624BAD-E3	ECN1628BAD-E3	ECN1628BAD-E3R5	AN16GN0BB
	460	25	480		ECN1621CAE-E3	ECN1624CAE-E3	ECN1628CAE-E3	ECN1628CAE-E3R5	AN16GN0CB
	575	25	600		ECN1621DAE-E3	ECN1624DAE-E3	ECN1628DAE-E3	ECN1628DAE-E3R5	AN16GN0DB
Oversize Enclosure — without Control Transformer — Non-fusible									
0	200	3	208	—	ECN1601EAA-E3	ECN1604EAA-E3	ECN1608EAA-E3	ECN1608EAA-E3R5	AN16BN0EC
	230	3	240		ECN1601BAA-E3	ECN1604BAA-E3	ECN1608BAA-E3	ECN1608BAA-E3R5	AN16BN0BC
	460	5	480		ECN1601CAA-E3	ECN1604CAA-E3	ECN1608CAA-E3	ECN1608CAA-E3R5	AN16BN0CC
	575	5	600		ECN1601DAA-E3	ECN1604DAA-E3	ECN1608DAA-E3	ECN1608DAA-E3R5	AN16BN0DC
1	200	7-1/2	208	—	ECN1611EAA-E3	ECN1614EAA-E3	ECN1618EAA-E3	ECN1618EAA-E3R5	AN16DN0EB
	230	7-1/2	240		ECN1611BAA-E3	ECN1614BAA-E3	ECN1618BAA-E3	ECN1618BAA-E3R5	AN16DN0BB
	460	10	480		ECN1611CAA-E3	ECN1614CAA-E3	ECN1618CAA-E3	ECN1618CAA-E3R5	AN16DN0CB
	575	10	600		ECN1611DAA-E3	ECN1614DAA-E3	ECN1618DAA-E3	ECN1618DAA-E3R5	AN16DN0DB
2	200	10	208	—	ECN1621EAA-E3	ECN1624EAA-E3	ECN1628EAA-E3	ECN1628EAA-E3R5	AN16GN0EB
	230	15	240		ECN1621BAA-E3	ECN1624BAA-E3	ECN1628BAA-E3	ECN1628BAA-E3R5	AN16GN0BB
	460	25	480		ECN1621CAA-E3	ECN1624CAA-E3	ECN1628CAA-E3	ECN1628CAA-E3R5	AN16GN0CB
	575	25	600		ECN1621DAA-E3	ECN1624DAA-E3	ECN1628DAA-E3	ECN1628DAA-E3R5	AN16GN0DB

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 13.4.

Starters with Electronic Overload, see Page 13.33 of Modification Codes.

① Starters with 120V coil (for separate control) are available. To order, substitute the letter **A** for the 8th character of the listed Catalogue Number.

② Fuse clips are for Class J fuses only. For H and R fuses see mods, Page 13.31.

③ To order Type 12 enclosures with safety door interlock add modification E11.

④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN1604EAB-E3. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see Tab 11.

Cover Control Page 3.3
 Other Magnet Coils Page 3.4
 Dimensions Page 12.2
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data Page 15.3

Table 3-18. Class ECN17 — NEMA 3-Pole Fusible Combination Starters — Reversing

NEMA Size	Motor Voltage	Max. hp Rating Dual Element Fuses	Magnet Coil Voltage ①	Fuse Clip Amps	Type 1	Type 3R	Type 4X ④	Type 12	Component Starter
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ②③	(Open)
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
0	200	3	208	30A	ECN1701EAB	ECN1702EAB	ECN1704EAB	ECN1708EAB	AN56BN0EC
	230	3	240		ECN1701BAB	ECN1702BAB	ECN1704BAB	ECN1708BAB	AN56BN0BC
	460	5	480		ECN1701CAC	ECN1702CAC	ECN1704CAC	ECN1708CAC	AN56BN0CC
	575	5	600		ECN1701DAC	ECN1702DAC	ECN1704DAC	ECN1708DAC	AN56BN0DC
1	200	7-1/2	208	30A	ECN1711EAB	ECN1712EAB	ECN1714EAB	ECN1718EAB	AN56DN0EB
	230	7-1/2	240		ECN1711BAB	ECN1712BAB	ECN1714BAB	ECN1718BAB	AN56DN0BB
	460	10	480		ECN1711CAC	ECN1712CAC	ECN1714CAC	ECN1718CAC	AN56DN0CB
	575	10	600		ECN1711DAC	ECN1712DAC	ECN1714DAC	ECN1718DAC	AN56DN0DB
2	200	10	208	60A	ECN1721EAD	ECN1722EAD	ECN1724EAD	ECN1728EAD	AN56GN0EB
	230	15	240		ECN1721BAD	ECN1722BAD	ECN1724BAD	ECN1728BAD	AN56GN0BB
	460	25	480		ECN1721CAE	ECN1722CAE	ECN1724CAE	ECN1728CAE	AN56GN0CB
	575	25	600		ECN1721DAE	ECN1722DAE	ECN1724DAE	ECN1728DAE	AN56GN0DB
3	200	25	208	100A	ECN1731EAF	ECN1732EAF	ECN1734EAF	ECN1738EAF	AN56KN0E
	230	30	240		ECN1731BAF	ECN1732BAF	ECN1734BAF	ECN1738BAF	AN56KN0B
	460	50	480		ECN1731CAG	ECN1732CAG	ECN1734CAG	ECN1738CAG	AN56KN0C
	575	50	600		ECN1731DAG	ECN1732DAG	ECN1734DAG	ECN1738DAG	AN56KN0D
4	200	40	208	200A	ECN1741EAH	ECN1742EAH	ECN1744EAH	ECN1748EAH	AN56NN0E
	230	50	240		ECN1741BAH	ECN1742BAH	ECN1744BAH	ECN1748BAH	AN56NN0B
	460	100	480		ECN1741CAJ	ECN1742CAJ	ECN1744CAJ	ECN1748CAJ	AN56NN0C
	575	100	600		ECN1741DAJ	ECN1742DAJ	ECN1744DAJ	ECN1748DAJ	AN56NN0D
5	200	75	208	400A	ECN1751EAK	ECN1752EAK	ECN1754EAK	ECN1758EAK	AN56SN0EB
	230	100	240		ECN1751BAK	ECN1752BAK	ECN1754BAK	ECN1758BAK	AN56SN0BB
	460	200	480		ECN1751CAL	ECN1752CAL	ECN1754CAL	ECN1758CAL	AN56SN0CB
	575	200	600		ECN1751DAL	ECN1752DAL	ECN1754DAL	ECN1758DAL	AN56SN0DB

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see **Page 13.4**.
Starters with Electronic Overload, see **Page 13.33** of Modification Codes.

- ① Starters with 120V coil (for separate control) are available. To order, substitute the letter **A** for the 8th character of the listed Catalogue Number.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code **R5**.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification **E11**.
- ④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN1704**4**EAB. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control	Page 3.3
Other Magnet Coils	Page 3.4
Dimensions	Page 12.2
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Freedom Full Voltage Control Combination Starters — Fusible and Non-fusible

Table 3-19. Class ECN17 — NEMA 3-Pole Non-fusible Combination Starters — Reversing

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage	Disconnect Amps	Type 1	Type 3R	Type 4X ^③	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ^{①②}	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
0	—	—	120	30A	ECN1701AAA	ECN1702AAA	ECN1704AAA	ECN1708AAA	AN56BN0AC
	200	3	208		ECN1701EAA	ECN1702EAA	ECN1704EAA	ECN1708EAA	AN56BN0EC
	230	3	240		ECN1701BAA	ECN1702BAA	ECN1704BAA	ECN1708BAA	AN56BN0BC
	460	5	480		ECN1701CAA	ECN1702CAA	ECN1704CAA	ECN1708CAA	AN56BN0CC
	575	5	600		ECN1701DAA	ECN1702DAA	ECN1704DAA	ECN1708DAA	AN56BN0DC
1	—	—	120	30A	ECN1711AAA	ECN1712AAA	ECN1714AAA	ECN1718AAA	AN56DN0AB
	200	7-1/2	208		ECN1711EAA	ECN1712EAA	ECN1714EAA	ECN1718EAA	AN56DN0EB
	230	7-1/2	240		ECN1711BAA	ECN1712BAA	ECN1714BAA	ECN1718BAA	AN56DN0BB
	460	10	480		ECN1711CAA	ECN1712CAA	ECN1714CAA	ECN1718CAA	AN56DN0CB
	575	10	600		ECN1711DAA	ECN1712DAA	ECN1714DAA	ECN1718DAA	AN56DN0DB
2	—	—	120	60A	ECN1721AAA	ECN1722AAA	ECN1724AAA	ECN1728AAA	AN56GN0AB
	200	10	208		ECN1721EAA	ECN1722EAA	ECN1724EAA	ECN1728EAA	AN56GN0EB
	230	15	240		ECN1721BAA	ECN1722BAA	ECN1724BAA	ECN1728BAA	AN56GN0BB
	460	25	480		ECN1721CAA	ECN1722CAA	ECN1724CAA	ECN1728CAA	AN56GN0CB
	575	25	600		ECN1721DAA	ECN1722DAA	ECN1724DAA	ECN1728DAA	AN56GN0DB
3	—	—	120	100A	ECN1731AAA	ECN1732AAA	ECN1734AAA	ECN1738AAA	AN56KN0A
	200	25	208		ECN1731EAA	ECN1732EAA	ECN1734EAA	ECN1738EAA	AN56KN0E
	230	30	240		ECN1731BAA	ECN1732BAA	ECN1734BAA	ECN1738BAA	AN56KN0B
	460	50	480		ECN1731CAA	ECN1732CAA	ECN1734CAA	ECN1738CAA	AN56KN0C
	575	50	600		ECN1731DAA	ECN1732DAA	ECN1734DAA	ECN1738DAA	AN56KN0D
4	—	—	120	200A	ECN1741AAA	ECN1742AAA	ECN1744AAA	ECN1748AAA	AN56NN0A
	200	40	208		ECN1741EAA	ECN1742EAA	ECN1744EAA	ECN1748EAA	AN56NN0E
	230	50	240		ECN1741BAA	ECN1742BAA	ECN1744BAA	ECN1748BAA	AN56NN0B
	460	100	480		ECN1741CAA	ECN1742CAA	ECN1744CAA	ECN1748CAA	AN56NN0C
	575	100	600		ECN1741DAA	ECN1742DAA	ECN1744DAA	ECN1748DAA	AN56NN0D
5	—	—	120	400A	ECN1751AAA	ECN1752AAA	ECN1754AAA	ECN1758AAA	AN56SN0AB
	200	75	208		ECN1751EAA	ECN1752EAA	ECN1754EAA	ECN1758EAA	AN56SN0EB
	230	100	240		ECN1751BAA	ECN1752BAA	ECN1754BAA	ECN1758BAA	AN56SN0BB
	460	200	480		ECN1751CAA	ECN1752CAA	ECN1754CAA	ECN1758CAA	AN56SN0CB
	575	200	600		ECN1751DAA	ECN1752DAA	ECN1754DAA	ECN1758DAA	AN56SN0DB

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 13.4. Starters with Electronic Overload, see Page 13.33 of Modification Codes.

- ① All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code R5.
- ② Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification E11.
- ③ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECN1704AAA. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Cover Control Page 3.3
 Other Magnet Coils Page 3.4
 Dimensions Page 12.2
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data Page 15.3

Table 3-20. Class ECN18 — NEMA 3-Pole Fusible Combination Starters — Non-reversing with CPT[®]

NEMA Size	Primary Voltage ^①	Max. hp Rating	Magnet Coil Voltage	Fuse Clip Amps	Type 1	Type 3R	Type 4X Watertight & Dust-Tight Stainless Steel ^⑥	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Dust-Tight Industrial External Reset ^{②③}		
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	208	1-1/2	120	30A ^④	ECN18A1EAB	ECN18A2EAB	ECN18A4EAB	ECN18A8EAB	AN16AN0EC
	240	1-1/2			ECN18A1BAB	ECN18A2BAB	ECN18A4BAB	ECN18A8BAB	AN16AN0BC
	480	2			ECN18A1CAC	ECN18A2CAC	ECN18A4CAC	ECN18A8CAC	AN16AN0CC
	600	2			ECN18A1DAC	ECN18A2DAC	ECN18A4DAC	ECN18A8DAC	AN16AN0DC
0	208	3	120	30A ^④	ECN1801EAB	ECN1802EAB	ECN1804EAB	ECN1808EAB	AN16BN0EC
	240	3			ECN1801BAB	ECN1802BAB	ECN1804BAB	ECN1808BAB	AN16BN0BC
	480	5			ECN1801CAC	ECN1802CAC	ECN1804CAC	ECN1808CAC	AN16BN0CC
	600	5			ECN1801DAC	ECN1802DAC	ECN1804DAC	ECN1808DAC	AN16BN0DC
1	208	7-1/2	120	30A ^④	ECN1811EAB	ECN1812EAB	ECN1814EAB	ECN1818EAB	AN16DN0EB
	240	7-1/2			ECN1811BAB	ECN1812BAB	ECN1814BAB	ECN1818BAB	AN16DN0BB
	480	10			ECN1811CAC	ECN1812CAC	ECN1814CAC	ECN1818CAC	AN16DN0CB
	600	10			ECN1811DAC	ECN1812DAC	ECN1814DAC	ECN1818DAC	AN16DN0DB
2	208	10	120	60A ^④	ECN1821EAD	ECN1822EAD	ECN1824EAD	ECN1828EAD	AN16GN0EB
	240	15			ECN1821BAD	ECN1822BAD	ECN1824BAD	ECN1828BAD	AN16GN0BB
	480	25			ECN1821CAE	ECN1822CAE	ECN1824CAE	ECN1828CAE	AN16GN0CB
	600	25			ECN1821DAE	ECN1822DAE	ECN1824DAE	ECN1828DAE	AN16GN0DB
3	208	25	120	100A	ECN1831EAF	ECN1832EAF	ECN1834EAF	ECN1838EAF	AN16KN0E
	240	30			ECN1831BAF	ECN1832BAF	ECN1834BAF	ECN1838BAF	AN16KN0B
	480	50			ECN1831CAG	ECN1832CAG	ECN1834CAG	ECN1838CAG	AN16KN0C
	600	50			ECN1831DAG	ECN1832DAG	ECN1834DAG	ECN1838DAG	AN16KN0D
4	208	40	120	200A	ECN1841EAH	ECN1842EAH	ECN1844EAH	ECN1848EAH	AN16NN0E
	240	50			ECN1841BAH	ECN1842BAH	ECN1844BAH	ECN1848BAH	AN16NN0B
	480	100			ECN1841CAJ	ECN1842CAJ	ECN1844CAJ	ECN1848CAJ	AN16NN0C
	600	100			ECN1841DAJ	ECN1842DAJ	ECN1844DAJ	ECN1848DAJ	AN16NN0D
5	208	75	120	400A	ECN1851EAK	ECN1852EAK	ECN1854EAK	ECN1858EAK	AN16SN0EB
	240	100			ECN1851BAK	ECN1852BAK	ECN1854BAK	ECN1858BAK	AN16SN0BB
	480	200			ECN1851CAL	ECN1852CAL	ECN1854CAL	ECN1858CAL	AN16SN0CB
	600	200			ECN1851DAL	ECN1852DAL	ECN1854DAL	ECN1858DAL	AN16SN0DB

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see **Page 13.4**.
Starters with Electronic Overload, see Page 13.33 of Modification Codes.

- ① Other control power transformer primary and/or secondary voltages, see **Page 3.4**.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order mod code **R5**.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification **E11**.
- ④ Fuse clips are for Class J fuses. For H and R fuses see mods, **Page 13.31**.
- ⑤ 100,000 RMS short-circuit rating.
- ⑥ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN1804**E**AB. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control. **Page 3.3**
 Other Magnet Coils **Page 3.4**
 Dimensions **Page 12.2**
 Accessories **Page 13.2**
 Modifications **Page 13.29**
 Technical Data **Page 15.3**

Freedom Full Voltage Control Combination Starters — Fusible and Non-fusible

3

Table 3-21. Class ECN18 — NEMA 3-Pole Non-fusible Combination Starters — Non-reversing with CPT

NEMA Size	Primary Voltage ^①	Max. hp Rating	Magnet Coil Voltage	Disconnect Switch Rating	Type 1	Type 3R	Type 4X Watertight & Dust-Tight	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Stainless Steel ^④	Dust-Tight Industrial External Reset ^{②③}	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	208	1-1/2	120	30A	ECN18A1EAA	ECN18A2EAA	ECN18A4EAA	ECN18A8EAA	AN16AN0EC
	240	1-1/2			ECN18A1BAA	ECN18A2BAA	ECN18A4BAA	ECN18A8BAA	AN16AN0BC
	480	2			ECN18A1CAA	ECN18A2CAA	ECN18A4CAA	ECN18A8CAA	AN16AN0CC
	600	2			ECN18A1DAA	ECN18A2DAA	ECN18A4DAA	ECN18A8DAA	AN16AN0DC
0	208	3	120	30A	ECN1801EAA	ECN1802EAA	ECN1804EAA	ECN1808EAA	AN16BN0EC
	240	3			ECN1801BAA	ECN1802BAA	ECN1804BAA	ECN1808BAA	AN16BN0BC
	480	5			ECN1801CAA	ECN1802CAA	ECN1804CAA	ECN1808CAA	AN16BN0CC
	600	5			ECN1801DAA	ECN1802DAA	ECN1804DAA	ECN1808DAA	AN16BN0DC
1	208	7-1/2	120	30A	ECN1811EAA	ECN1812EAA	ECN1814EAA	ECN1818EAA	AN16DN0EB
	240	7-1/2			ECN1811BAA	ECN1812BAA	ECN1814BAA	ECN1818BAA	AN16DN0BB
	480	10			ECN1811CAA	ECN1812CAA	ECN1814CAA	ECN1818CAA	AN16DN0CB
	600	10			ECN1811DAA	ECN1812DAA	ECN1814DAA	ECN1818DAA	AN16DN0DB
2	208	10	120	60A	ECN1821EAA	ECN1822EAA	ECN1824EAA	ECN1828EAA	AN16GN0EB
	240	15			ECN1821BAA	ECN1822BAA	ECN1824BAA	ECN1828BAA	AN16GN0BB
	480	25			ECN1821CAA	ECN1822CAA	ECN1824CAA	ECN1828CAA	AN16GN0CB
	600	25			ECN1821DAA	ECN1822DAA	ECN1824DAA	ECN1828DAA	AN16GN0DB
3	208	25	120	100A	ECN1831EAA	ECN1832EAA	ECN1834EAA	ECN1838EAA	AN16KN0E
	240	30			ECN1831BAA	ECN1832BAA	ECN1834BAA	ECN1838BAA	AN16KN0B
	480	50			ECN1831CAA	ECN1832CAA	ECN1834CAA	ECN1838CAA	AN16KN0C
	600	50			ECN1831DAA	ECN1832DAA	ECN1834DAA	ECN1838DAA	AN16KN0D
4	208	40	120	200A	ECN1841EAA	ECN1842EAA	ECN1844EAA	ECN1848EAA	AN16NN0E
	240	50			ECN1841BAA	ECN1842BAA	ECN1844BAA	ECN1848BAA	AN16NN0B
	480	100			ECN1841CAA	ECN1842CAA	ECN1844CAA	ECN1848CAA	AN16NN0C
	600	100			ECN1841DAA	ECN1842DAA	ECN1844DAA	ECN1848DAA	AN16NN0D
5	208	75	120	400A	ECN1851EAA	ECN1852EAA	ECN1854EAA	ECN1858EAA	AN16SN0EB
	240	100			ECN1851BAA	ECN1852BAA	ECN1854BAA	ECN1858BAA	AN16SN0BB
	480	200			ECN1851CAA	ECN1852CAA	ECN1854CAA	ECN1858CAA	AN16SN0CB
	600	200			ECN1851DAA	ECN1852DAA	ECN1854DAA	ECN1858DAA	AN16SN0DB

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 13.4. Starters with Electronic Overload, see Page 13.33 of Modification Codes.

- ① Other control power transformer primary and/or secondary voltages, see Page 3.4.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code R5.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification E11.
- ④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECN1804EAA. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Cover Control Page 3.3
 Other Magnet Coils Page 3.4
 Dimensions Page 12.2
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data Page 15.3

Features and Product Selection

- 3-Phase Magnetic
- 3-Pole Non-reversing or Reversing
- Standard Interchangeable Heater OLR
- Optional Electronic Overload
- 600V Maximum
- 100,000 RMS 480V, 50,000 RMS 600V

3

Product Selection

Table 3-22. Class ECN22 — NEMA 3-Pole Combination Starters with HMCP — Non-reversing

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ①	Circuit Breaker Type	Type 1	Type 3R	Type 4X ④ Watertight & Dust-Tight Stainless Steel	Type 12	Component
					General Purpose	Rainproof	Dust-Tight Industrial External Reset ②③	Starter (Open)	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	200	1	208	HMCP 7A	ECN22A1EAC	ECN22A2EAC	ECN22A4EAC	ECN22A8EAC	AN16AN0EC
				HMCP 15A	ECN22A1EAD	ECN22A2EAD	ECN22A4EAD	ECN22A8EAD	
	230	1-1/2	240	HMCP 7A	ECN22A1BAC	ECN22A2BAC	ECN22A4BAC	ECN22A8BAC	AN16AN0BC
				HMCP 15A	ECN22A1BAD	ECN22A2BAD	ECN22A4BAD	ECN22A8BAD	
460	1	480	HMCP 3A	ECN22A1CAB	ECN22A2CAB	ECN22A4CAB	ECN22A8CAB	AN16AN0CC	
			HMCP 7A	ECN22A1CAC	ECN22A2CAC	ECN22A4CAC	ECN22A8CAC		
			HMCP 15A	ECN22A1CAD	ECN22A2CAD	ECN22A4CAD	ECN22A8CAD		
575	1	600	HMCP 3A	ECN22A1DA5	ECN22A2DA5	ECN22A4DA5	ECN22A8DA5	AN16AN0DC	
			HMCP 7A	ECN22A1DA6	ECN22A2DA6	ECN22A4DA6	ECN22A8DA6		
			HMCP 15A	ECN22A1DA7	ECN22A2DA7	ECN22A4DA7	ECN22A8DA7		
0	200	1	208	HMCP 7A	ECN2201EAC	ECN2202EAC	ECN2204EAC	ECN2208EAC	AN16BN0EC
				HMCP 15A	ECN2201EAD	ECN2202EAD	ECN2204EAD	ECN2208EAD	
	230	1	240	HMCP 7A	ECN2201BAC	ECN2202BAC	ECN2204BAC	ECN2208BAC	AN16BN0BC
				HMCP 15A	ECN2201BAD	ECN2202BAD	ECN2204BAD	ECN2208BAD	
460	1	480	HMCP 3A	ECN2201CAB	ECN2202CAB	ECN2204CAB	ECN2208CAB	AN16BN0CC	
			HMCP 7A	ECN2201CAC	ECN2202CAC	ECN2204CAC	ECN2208CAC		
			HMCP 15A	ECN2201CAD	ECN2202CAD	ECN2204CAD	ECN2208CAD		
575	1	600	HMCP 3A	ECN2201DA5	ECN2202DA5	ECN2204DA5	ECN2208DA5	AN16BN0DC	
			HMCP 7A	ECN2201DA6	ECN2202DA6	ECN2204DA6	ECN2208DA6		
			HMCP 15A	ECN2201DA7	ECN2202DA7	ECN2204DA7	ECN2208DA7		
1	200	1	208	HMCP 7A	ECN2211EAC	ECN2212EAC	ECN2214EAC	ECN2218EAC	AN16DN0EB
				HMCP 15A	ECN2211EAD	ECN2212EAD	ECN2214EAD	ECN2218EAD	
				HMCP 30A	ECN2211EAE	ECN2212EAE	ECN2214EAE	ECN2218EAE	
				HMCP 50A	ECN2211EAF	ECN2212EAF	ECN2214EAF	ECN2218EAF	
	230	1	240	HMCP 7A	ECN2211BAC	ECN2212BAC	ECN2214BAC	ECN2218BAC	AN16DN0BB
				HMCP 15A	ECN2211BAD	ECN2212BAD	ECN2214BAD	ECN2218BAD	
				HMCP 30A	ECN2211BAE	ECN2212BAE	ECN2214BAE	ECN2218BAE	
				HMCP 50A	ECN2211BAF	ECN2212BAF	ECN2214BAF	ECN2218BAF	
	460	1	480	HMCP 3A	ECN2211CAB	ECN2212CAB	ECN2214CAB	ECN2218CAB	AN16DN0CB
				HMCP 7A	ECN2211CAC	ECN2212CAC	ECN2214CAC	ECN2218CAC	
				HMCP 15A	ECN2211CAD	ECN2212CAD	ECN2214CAD	ECN2218CAD	
				HMCP 30A	ECN2211CAE	ECN2212CAE	ECN2214CAE	ECN2218CAE	
575	1	600	HMCP 3A	ECN2211DA5	ECN2212DA5	ECN2214DA5	ECN2218DA5	AN16DN0DB	
			HMCP 7A	ECN2211DA6	ECN2212DA6	ECN2214DA6	ECN2218DA6		
			HMCP 15A	ECN2211DA7	ECN2212DA7	ECN2214DA7	ECN2218DA7		
			HMCP 30A	ECN2211DA8	ECN2212DA8	ECN2214DA8	ECN2218DA8		

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 13.4. Starters with Electronic Overload, see Page 13.33 of Modification Codes.

- ① Starters with 120V coil (for separate control) are available. To order, substitute the letter **A** for the 8th character of the listed Catalogue Number.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code **R5**.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification **E11**.
- ④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN2204EAC. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control	Page 3.3
Other Magnet Coils	Page 3.4
Dimensions	Page 12.2
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Table 3-22. Class ECN22 — NEMA 3-Pole Combination Starters with HMCP — Non-reversing (Continued)

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ①	Circuit Breaker Type	Type 1	Type 3R	Type 4X ④	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ②③	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
2	200	10	208	HMCP 50A	ECN2221EAF	ECN2222EAF	ECN2224EAF	ECN2228EAF	AN16GN0EB
	230	10	240	HMCP 50A	ECN2221BAF	ECN2222BAF	ECN2224BAF	ECN2228BAF	AN16GN0BB
		15		HMCP 70A	ECN2221BAW	ECN2222BAW	ECN2224BAW	ECN2228BAW	
	460	25	480	HMCP 50A	ECN2221CAF	ECN2222CAF	ECN2224CAF	ECN2228CAF	AN16GN0CB
	575	15	600	HMCP 30A	ECN2221DA8	ECN2222DA8	ECN2224DA8	ECN2228DA8	AN16GN0DB
25		HMCP 50A		ECN2221DA9	ECN2222DA9	ECN2224DA9	ECN2228DA9		
3	200	20	208	HMCP 100A	ECN2231EAG	ECN2232EAG	ECN2234EAG	ECN2238EAG	AN16KN0E
				HMCP 100A	ECN2231EAX	ECN2232EAX	ECN2234EAX	ECN2238EAX	
	230	25	240	HMCP 100A	ECN2231BAG	ECN2232BAG	ECN2234BAG	ECN2238BAG	AN16KN0B
				HMCP 100A	ECN2231BAX	ECN2232BAX	ECN2234BAX	ECN2238BAX	
	460	50	480	HMCP 100A	ECN2231CAG	ECN2232CAG	ECN2234CAG	ECN2238CAG	AN16KN0C
575	30	600	HMCP 50A	ECN2231DA9	ECN2232DA9	ECN2234DA9	ECN2238DA9	AN16KN0D	
	50		HMCP 100A	ECN2231DAI	ECN2232DAI	ECN2234DAI	ECN2238DAI		
4	200	40	208	HMCP 150A	ECN2241EAH	ECN2242EAH	ECN2244EAH	ECN2248EAH	AN16NN0E
	230	50	240	HMCP 150A	ECN2241BAH	ECN2242BAH	ECN2244BAH	ECN2248BAH	AN16NN0B
	460	100	480	HMCP 150A	ECN2241CAH	ECN2242CAH	ECN2244CAH	ECN2248CAH	AN16NN0C
	575	100	600	HMCP 150A	ECN2241DAH	ECN2242DAH	ECN2244DAH	ECN2248DAH	AN16NN0D
5	200	50	208	HMCP 250A	ECN2251EAJ	ECN2252EAJ	ECN2254EAJ	ECN2258EAJ	AN16SN0EB
		75		HMCP 400A	ECN2251EAK	ECN2252EAK	ECN2254EAK	ECN2258EAK	
	230	60	240	HMCP 250A	ECN2251BAJ	ECN2252BAJ	ECN2254BAJ	ECN2258BAJ	AN16SN0BB
		100		HMCP 400A	ECN2251BAK	ECN2252BAK	ECN2254BAK	ECN2258BAK	
	460	125	480	HMCP 250A	ECN2251CAJ	ECN2252CAJ	ECN2254CAJ	ECN2258CAJ	AN16SN0CB
200		HMCP 400A		ECN2251CAK	ECN2252CAK	ECN2254CAK	ECN2258CAK		
575	150	600	HMCP 250A	ECN2251DAJ	ECN2252DAJ	ECN2254DAJ	ECN2258DAJ	AN16SN0DB	
		200	HMCP 400A	ECN2251DAK	ECN2252DAK	ECN2254DAK	ECN2258DAK		

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 13.4. Starters with Electronic Overload, see Page 13.33 of Modification Codes.

- ① Starters with 120V coil (for separate control) are available. To order, substitute the letter **A** for the 8th character of the listed Catalogue Number.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code **R5**.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification **E11**.
- ④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN2204EAC. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control Page 3.3
 Other Magnet Coils Page 3.4
 Dimensions Page 12.2
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data Page 15.3

Table 3-23. Class ECN22 — NEMA 3-Pole Combination Starters with HMCP — Non-reversing Special Enclosure

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ①	Circuit Breaker Type	Type 1 General Purpose Catalogue Number	Type 4X ② Watertight & Dust-Tight Stainless Steel Catalogue Number	Type 12 Dust-Tight Industrial ③		Component Starter (Open) Catalogue Number
							External Reset Catalogue Number	Internal Rest Catalogue Number	
Horizontal Enclosure									
1	200	1 2 7-1/2	208	HMCP 7A	ECN2211EAC-E13	—	ECN2218EAC-E13	ECN2218EAC-E13R5	AN16DN0EB
				HMCP 15A	ECN2211EAD-E13	—	ECN2218EAD-E13	ECN2218EAD-E13R5	
				HMCP 30A	ECN2211EAE-E13	—	ECN2218EAE-E13	ECN2218EAE-E13R5	
	230	1 2 7-1/2	240	HMCP 7A	ECN2211BAC-E13	—	ECN2218BAC-E13	ECN2218BAC-E13R5	AN16DN0BB
				HMCP 5A	ECN2211BAD-E13	—	ECN2218BAD-E13	ECN2218BAD-E13R5	
				HMCP 30A	ECN2211BAE-E13	—	ECN2218BAE-E13	ECN2218BAE-E13R5	
	460	3/4 2 5 10	480	HMCP 3A	ECN2211CAB-E13	—	ECN2218CAB-E13	ECN2218CAB-E13R5	AN16DN0CB
				HMCP 7A	ECN2211CAC-E13	—	ECN2218CAC-E13	ECN2218CAC-E13R5	
				HMCP 15A	ECN2211CAD-E13	—	ECN2218CAD-E13	ECN2218CAD-E13R5	
				HMCP 30A	ECN2211CAE-E13	—	ECN2218CAE-E13	ECN2218CAE-E13R5	
	575	1 3 7-1/2 10	600	HMCP 3A	ECN2211DA5-E13	—	ECN2218DA5-E13	ECN2218DA5-E13R5	AN16DN0DB
				HMCP 7A	ECN2211DA6-E13	—	ECN2218DA6-E13	ECN2218DA6-E13R5	
HMCP 15A				ECN2211DA7-E13	—	ECN2218DA7-E13	ECN2218DA7-E13R5		
HMCP 30A				ECN2211DA8-E13	—	ECN2218DA8-E13	ECN2218DA8-E13R5		
2	200 230 460 575	10 15 25 25	208 240 480 600	HMCP 50A	ECN2221EAF-E13	—	ECN2228EAF-E13	ECN2228EAF-E13R5	AN16GN0EB
					ECN2221BAF-E13	—	ECN2228BAF-E13	ECN2228BAF-E13R5	AN16GN0BB
					ECN2221CAF-E13	—	ECN2228CAF-E13	ECN2228CAF-E13R5	AN16GN0CB
					ECN2221DA9-E13	—	ECN2228DA9-E13	ECN2228DA9-E13R5	AN16GN0DB
Overize Enclosure — without Control Transformer									
0	200	1 2	208	HMCP 7A	ECN2201EAC-E3	ECN2204EAC-E3	ECN2208EAC-E3	ECN2208EAC-E3R5	AN16BN0EC
				HMCP 15A	ECN2201EAD-E3	ECN2204EAD-E3	ECN2208EAD-E3	ECN2208EAD-E3R5	
	230	1 3	240	HMCP 7A	ECN2201BAC-E3	ECN2204BAC-E3	ECN2208BAC-E3	ECN2208BAC-E3R5	AN16BN0BC
				HMCP 15A	ECN2201BAD-E3	ECN2204BAD-E3	ECN2208BAD-E3	ECN2208BAD-E3R5	
	460	3/4 2 5	480	HMCP 3A	ECN2201CAB-E3	ECN2204CAB-E3	ECN2208CAB-E3	ECN2208CAB-E3R5	AN16BN0CC
				HMCP 7A	ECN2201CAC-E3	ECN2204CAC-E3	ECN2208CAC-E3	ECN2208CAC-E3R5	
				HMCP 15A	ECN2201CAD-E3	ECN2204CAD-E3	ECN2208CAD-E3	ECN2208CAD-E3R5	
	575	1 3 5	600	HMCP 3A	ECN2201DA5-E3	ECN2204DA5-E3	ECN2208DA5-E3	ECN2208DA5-E3R5	AN16BN0DC
				HMCP 7A	ECN2201DA6-E3	ECN2204DA6-E3	ECN2208DA6-E3	ECN2208DA6-E3R5	
				HMCP 15A	ECN2201DA7-E3	ECN2204DA7-E3	ECN2208DA7-E3	ECN2208DA7-E3R5	
	1	200	1 2 7-1/2	208	HMCP 7A	ECN2211EAC-E3	ECN2214EAC-E3	ECN2218EAC-E3	ECN2218EAC-E3R5
HMCP 15A					ECN2211EAD-E3	ECN2214EAD-E3	ECN2218EAD-E3	ECN2218EAD-E3R5	
HMCP 30A					ECN2211EAE-E3	ECN2214EAE-E3	ECN2218EAE-E3	ECN2218EAE-E3R5	
230		1 2 7-1/2	240	HMCP 7A	ECN2211BAC-E3	ECN2214BAC-E3	ECN2218BAC-E3	ECN2218BAC-E3R5	AN16DN0BB
				HMCP 15A	ECN2211BAD-E3	ECN2214BAD-E3	ECN2218BAD-E3	ECN2218BAD-E3R5	
				HMCP 30A	ECN2211BAE-E3	ECN2214BAE-E3	ECN2218BAE-E3	ECN2218BAE-E3R5	
460		3/4 2 5 10	480	HMCP 3A	ECN2211CAB-E3	ECN2214CAB-E3	ECN2218CAB-E3	ECN2218CAB-E3R5	AN16DN0CB
				HMCP 7A	ECN2211CAC-E3	ECN2214CAC-E3	ECN2218CAC-E3	ECN2218CAC-E3R5	
				HMCP 15A	ECN2211CAD-E3	ECN2214CAD-E3	ECN2218CAD-E3	ECN2218CAD-E3R5	
				HMCP 30A	ECN2211CAE-E3	ECN2214CAE-E3	ECN2218CAE-E3	ECN2218CAE-E3R5	
575		1 3 7-1/2 10	600	HMCP 3A	ECN2211DA5-E3	ECN2214DA5-E3	ECN2218DA5-E3	ECN2218DA5-E3R5	AN16DN0DB
				HMCP 7A	ECN2211DA6-E3	ECN2214DA6-E3	ECN2218DA6-E3	ECN2218DA6-E3R5	
	HMCP 15A			ECN2211DA7-E3	ECN2214DA7-E3	ECN2218DA7-E3	ECN2218DA7-E3R5		
	HMCP 30A			ECN2211DA8-E3	ECN2214DA8-E3	ECN2218DA8-E3	ECN2218DA8-E3R5		
2	200 230 460 575	10 15 25 25	208 240 480 600	HMCP 50A	ECN2221EAF-E3	ECN2224EAF-E3	ECN2228EAF-E3	ECN2228EAF-E3R5	AN16GN0EB
					ECN2221BAF-E3	ECN2224BAF-E3	ECN2228BAF-E3	ECN2228BAF-E3R5	AN16GN0BB
					ECN2221CAF-E3	ECN2224CAF-E3	ECN2228CAF-E3	ECN2228CAF-E3R5	AN16GN0CB
					ECN2221DA9-E3	ECN2224DA9-E3	ECN2228DA9-E3	ECN2228DA9-E3R5	AN16GN0DB

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see **Page 13.4**.

Starters with Electronic Overload, see Page 13.33 of Modification Codes.

① Starters with 120V coil (for separate control) are available. To order, substitute the letter **A** for the 8th character of the listed Catalogue Number.

② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN2204EAC-E3. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

③ To order Type 12 enclosures with safety door interlock add modification **E11**.

Cover Control	Page 3.3
Other Magnet Coils	Page 3.4
Dimensions	Page 12.2
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Table 3-24. Class ECN23 — NEMA 3-Pole Combination Starters with HMCP ④ — Reversing

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ①	Circuit Breaker Type	Type 1	Type 3R	Type 4X ⑤	Type 12	Component Starter (Open)	
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ②③		
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	
0	200	1 3	208	HMCP 7A	ECN2301EAC	ECN2302EAC	ECN2304EAC	ECN2308EAC	AN56BN0EC	
				HMCP 15A	ECN2301EAD	ECN2302EAD	ECN2304EAD	ECN2308EAD		
	230	1 3	240	HMCP 7A	ECN2301BAC	ECN2302BAC	ECN2304BAC	ECN2308BAC	AN56BN0BC	
				HMCP 15A	ECN2301BAD	ECN2302BAD	ECN2304BAD	ECN2308BAD		
460	1 3 5	480	HMCP 3A	ECN2301CAB	ECN2302CAB	ECN2304CAB	ECN2308CAB	AN56BN0CC		
			HMCP 7A	ECN2301CAC	ECN2302CAC	ECN2304CAC	ECN2308CAC			
			HMCP 15A	ECN2301CAD	ECN2302CAD	ECN2304CAD	ECN2308CAD			
575	1 3 5	600	HMCP 3A	ECN2301DA5	ECN2302DA5	ECN2304DA5	ECN2308DA5	AN56BN0DC		
			HMCP 7A	ECN2301DA6	ECN2302DA6	ECN2304DA6	ECN2308DA6			
			HMCP 15A	ECN2301DA7	ECN2302DA7	ECN2304DA7	ECN2308DA7			
1	200	1 3 5 7-1/2	208	HMCP 7A	ECN2311EAC	ECN2312EAC	ECN2314EAC	ECN2318EAC	AN56DN0EB	
				HMCP 15A	ECN2311EAD	ECN2312EAD	ECN2314EAD	ECN2318EAD		
				HMCP 30A	ECN2311EAE	ECN2312EAE	ECN2314EAE	ECN2318EAE		
				HMCP 50A	ECN2311EAF	ECN2312EAF	ECN2314EAF	ECN2318EAF		
	230	1 3 5 7-1/2	240	240	HMCP 7A	ECN2311BAC	ECN2312BAC	ECN2314BAC	ECN2318BAC	AN56DN0BB
					HMCP 15A	ECN2311BAD	ECN2312BAD	ECN2314BAD	ECN2318BAD	
					HMCP 30A	ECN2311BAE	ECN2312BAE	ECN2314BAE	ECN2318BAE	
					HMCP 50A	ECN2311BAF	ECN2312BAF	ECN2314BAF	ECN2318BAF	
	460	1 3 5 10	480	480	HMCP 3A	ECN2311CAB	ECN2312CAB	ECN2314CAB	ECN2318CAB	AN56DN0CB
					HMCP 7A	ECN2311CAC	ECN2312CAC	ECN2314CAC	ECN2318CAC	
					HMCP 15A	ECN2311CAD	ECN2312CAD	ECN2314CAD	ECN2318CAD	
					HMCP 30A	ECN2311CAE	ECN2312CAE	ECN2314CAE	ECN2318CAE	
575	1 3 5 10	600	600	HMCP 3A	ECN2311DA5	ECN2312DA5	ECN2314DA5	ECN2318DA5	AN56DN0DB	
				HMCP 7A	ECN2311DA6	ECN2312DA6	ECN2314DA6	ECN2318DA6		
				HMCP 15A	ECN2311DA7	ECN2312DA7	ECN2314DA7	ECN2318DA7		
				HMCP 30A	ECN2311DA8	ECN2312DA8	ECN2314DA8	ECN2318DA8		
2	200	10	208	HMCP 50A	ECN2321EAF	ECN2322EAF	ECN2324EAF	ECN2328EAF	AN56GN0EB	
	230	10 15	240	HMCP 50A	ECN2321BAF	ECN2322BAF	ECN2324BAF	ECN2328BAF	AN56GN0BB	
				HMCP 70A	ECN2321BAW	ECN2322BAW	ECN2324BAW	ECN2328BAW		
	460	25	480	HMCP 50A	ECN2321CAF	ECN2322CAF	ECN2324CAF	ECN2328CAF	AN56GN0CB	
575	15 25	600	HMCP 30A	ECN2321DA8	ECN2322DA8	ECN2324DA8	ECN2328DA8	AN56GN0DB		
			HMCP 50A	ECN2321DA9	ECN2322DA9	ECN2324DA9	ECN2328DA9			

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 13.4. Starters with Electronic Overload, see Page 13.33 of Modification Codes.

- ① Other control power transformer primary and/or secondary voltages, see Page 3.4.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code R5.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification E11.
- ④ 100,000 RMS short-circuit – 480V
50,000 RMS short-circuit – 600V
- ⑤ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECN2304EAC. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Cover Control Page 3.3
 Other Magnet Coils Page 3.4
 Dimensions Page 12.2
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data Page 15.3

Table 3-24. Class ECN23 — NEMA 3-Pole Combination Starters with HMCP ④ — Reversing (Continued)

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ①	Circuit Breaker Type	Type 1	Type 3R	Type 4X ⑤	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ②③	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
3	200	20 25	208	HMCP 100A	ECN2331EAG	ECN2332EAG	ECN2334EAG	ECN2338EAG	AN56KN0E
				HMCP 100A	ECN2331EAX	ECN2332EAX	ECN2334EAX	ECN2338EAX	
	230	25 30	240	HMCP 100A	ECN2331BAG	ECN2332BAG	ECN2334BAG	ECN2338BAG	AN56KN0B
				HMCP 100A	ECN2331BAX	ECN2332BAX	ECN2334BAX	ECN2338BAX	
	460	50	480	HMCP 100A	ECN2331CAG	ECN2332CAG	ECN2334CAG	ECN2338CAG	AN56KN0C
575	30 50	600	HMCP 50A	ECN2331DA9	ECN2332DA9	ECN2334DA9	ECN2338DA9	AN56KN0D	
			HMCP 100A	ECN2331DAI	ECN2332DAI	ECN2334DAI	ECN2338DAI		
4	200	40	208	HMCP 150A	ECN2341EAH	ECN2342EAH	ECN2344EAH	ECN2348EAH	AN56NN0E
				HMCP 150A	ECN2341BAH	ECN2342BAH	ECN2344BAH	ECN2348BAH	AN56NN0B
	460	100	480	HMCP 150A	ECN2341CAH	ECN2342CAH	ECN2344CAH	ECN2348CAH	AN56NN0C
				HMCP 150A	ECN2341DAH	ECN2342DAH	ECN2344DAH	ECN2348DAH	AN56NN0D
5	200	50 75	208	HMCP 250A	ECN2351EAJ	ECN2352EAJ	ECN2354EAJ	ECN2358EAJ	AN56SN0EB
				HMCP 400A	ECN2351EAK	ECN2352EAK	ECN2354EAK	ECN2358EAK	
	230	60 100	240	HMCP 250A	ECN2351BAJ	ECN2352BAJ	ECN2354BAJ	ECN2358BAJ	AN56SN0BB
				HMCP 400A	ECN2351BAK	ECN2352BAK	ECN2354BAK	ECN2358BAK	
	460	125 200	480	HMCP 250A	ECN2351CAJ	ECN2352CAJ	ECN2354CAJ	ECN2358CAJ	AN56SN0CB
				HMCP 400A	ECN2351CAK	ECN2352CAK	ECN2354CAK	ECN2358CAK	
	575	150 200	600	HMCP 250A	ECN2351DAJ	ECN2352DAJ	ECN2354DAJ	ECN2358DAJ	AN56SN0DB
				HMCP 400A	ECN2351DAK	ECN2352DAK	ECN2354DAK	ECN2358DAK	

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see **Page 13.4**.
Starters with Electronic Overload, see Page 13.33 of Modification Codes.

- ① Starters with 120V coil (for separate control) are available. To order, substitute the letter **A** for the 8th character of the listed Catalogue Number.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code **R5**.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification **E11**.
- ④ 100,000 RMS Short-circuit – 480V
50,000 RMS Short-circuit – 600V
- ⑤ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN2304EAC. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control **Page 3.3**
 Other Magnet Coils **Page 3.4**
 Dimensions **Page 12.2**
 Accessories **Page 13.2**
 Modifications **Page 13.29**
 Technical Data **Page 15.3**

Table 3-25. Class ECN24 — NEMA 3-Pole Combination Starters with HMCP ④ — Non-reversing with CPT

NEMA Size	Motor Voltage ①	Max. hp Rating	Magnet Coil Voltage	Circuit Breaker Type	Type 1	Type 3R	Type 4X ⑤	Type 12	Component Starter (Open)	
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ②③		
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	
00	200	1-1/2 1-1/2	208	HMCP 7A	ECN24A1EAC	ECN24A2EAC	ECN24A4EAC	ECN24A8EAC	AN16AN0EC	
				HMCP 15A	ECN24A1EAD	ECN24A2EAD	ECN24A4EAD	ECN24A8EAD		
	230	1-1/2 1-1/2	240	HMCP 7A	ECN24A1BAC	ECN24A2BAC	ECN24A4BAC	ECN24A8BAC	AN16AN0BC	
				HMCP 15A	ECN24A1BAD	ECN24A2BAD	ECN24A4BAD	ECN24A8BAD		
	460	2 2 2	480	HMCP 3A	ECN24A1CAB	ECN24A2CAB	ECN24A4CAB	ECN24A8CAB	AN16AN0CC	
				HMCP 7A	ECN24A1CAC	ECN24A2CAC	ECN24A4CAC	ECN24A8CAC		
				HMCP 15A	ECN24A1CAD	ECN24A2CAD	ECN24A4CAD	ECN24A8CAD		
	575	2 2 2	600	HMCP 3A	ECN24A1DA5	ECN24A2DA5	ECN24A4DA5	ECN24A8DA5	AN16AN0DC	
				HMCP 7A	ECN24A1DA6	ECN24A2DA6	ECN24A4DA6	ECN24A8DA6		
				HMCP 15A	ECN24A1DA7	ECN24A2DA7	ECN24A4DA7	ECN24A8DA7		
	0	200	1 3	208	HMCP 7A	ECN2401EAC	ECN2402EAC	ECN2404EAC	ECN2408EAC	AN16BN0EC
					HMCP 15A	ECN2401EAD	ECN2402EAD	ECN2404EAD	ECN2408EAD	
230		1 3	240	HMCP 7A	ECN2401BAC	ECN2402BAC	ECN2404BAC	ECN2408BAC	AN16BN0BC	
				HMCP 15A	ECN2401BAD	ECN2402BAD	ECN2404BAD	ECN2408BAD		
460		1 3 5	480	HMCP 3A	ECN2401CAB	ECN2402CAB	ECN2404CAB	ECN2408CAB	AN16BN0CC	
				HMCP 7A	ECN2401CAC	ECN2402CAC	ECN2404CAC	ECN2408CAC		
				HMCP 15A	ECN2401CAD	ECN2402CAD	ECN2404CAD	ECN2408CAD		
575		1 3 5	600	HMCP 3A	ECN2401DA5	ECN2402DA5	ECN2404DA5	ECN2408DA5	AN16BN0DC	
				HMCP 7A	ECN2401DA6	ECN2402DA6	ECN2404DA6	ECN2408DA6		
				HMCP 15A	ECN2401DA7	ECN2402DA7	ECN2404DA7	ECN2408DA7		
1		200	1 3 5 7-1/2	208	HMCP 7A	ECN2411EAC	ECN2412EAC	ECN2414EAC	ECN2418EAC	AN16DN0EB
					HMCP 15A	ECN2411EAD	ECN2412EAD	ECN2414EAD	ECN2418EAD	
	HMCP 30A				ECN2411EAE	ECN2412EAE	ECN2414EAE	ECN2418EAE		
	HMCP 50A				ECN2411EAF	ECN2412EAF	ECN2414EAF	ECN2418EAF		
	230	1 3 5 7-1/2	240	HMCP 7A	ECN2411BAC	ECN2412BAC	ECN2414BAC	ECN2418BAC	AN16DN0BB	
				HMCP 15A	ECN2411BAD	ECN2412BAD	ECN2414BAD	ECN2418BAD		
				HMCP 30A	ECN2411BAE	ECN2412BAE	ECN2414BAE	ECN2418BAE		
				HMCP 50A	ECN2411BAF	ECN2412BAF	ECN2414BAF	ECN2418BAF		
	460	1 3 5 10	480	HMCP 3A	ECN2411CAB	ECN2412CAB	ECN2414CAB	ECN2418CAB	AN16DN0CB	
				HMCP 7A	ECN2411CAC	ECN2412CAC	ECN2414CAC	ECN2418CAC		
				HMCP 15A	ECN2411CAD	ECN2412CAD	ECN2414CAD	ECN2418CAD		
				HMCP 30A	ECN2411CAE	ECN2412CAE	ECN2414CAE	ECN2418CAE		
575	1 3 5 10	600	HMCP 3A	ECN2411DA5	ECN2412DA5	ECN2414DA5	ECN2418DA5	AN16DN0DB		
			HMCP 7A	ECN2411DA6	ECN2412DA6	ECN2414DA6	ECN2418DA6			
			HMCP 15A	ECN2411DA7	ECN2412DA7	ECN2414DA7	ECN2418DA7			
			HMCP 30A	ECN2411DA8	ECN2412DA8	ECN2414DA8	ECN2418DA8			
2	200	10	208	HMCP 50A	ECN2421EAF	ECN2422EAF	ECN2424EAF	ECN2428EAF	AN16GN0EB	
				230	10	240	HMCP 50A	ECN2421BAF		ECN2422BAF
	460	25	480	HMCP 50A	ECN2421CAF	ECN2422CAF	ECN2424CAF	ECN2428CAF	AN16GN0CB	
				575	15 25	600	HMCP 30A	ECN2421DA8		ECN2422DA8
				HMCP 50A	ECN2421DA9	ECN2422DA9	ECN2424DA9	ECN2428DA9		

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 13.4. Starters with Electronic Overload, see Page 13.33 of Modification Codes.

- ① Other control power transformer primary and/or secondary voltages, see Page 3.4.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code R5.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification E11.
- ④ 100,000 RMS short-circuit – 480V
50,000 RMS short-circuit – 600V
- ⑤ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECN2404EAC. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Cover Control Page 3.3
 Other Magnet Coils Page 3.4
 Dimensions Page 12.2
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data Page 15.3

Table 3-25. Class ECN24 — NEMA 3-Pole Combination Starters with HMCP ④ — Non-reversing with CPT (Continued)

NEMA Size	Motor Voltage ①	Max. hp Rating	Magnet Coil Voltage	Circuit Breaker Type	Type 1	Type 3R	Type 4X ⑤	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ②③	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
3	200	20	208	HMCP 100A	ECN2431EAG	ECN2432EAG	ECN2434EAG	ECN2438EAG	AN16KN0E
		25		HMCP 100A	ECN2431EAX	ECN2432EAX	ECN2434EAX	ECN2438EAX	
	230	25	240	HMCP 100A	ECN2431BAG	ECN2432BAG	ECN2434BAG	ECN2438BAG	AN16KN0B
		30		HMCP 100A	ECN2431BAX	ECN2432BAX	ECN2434BAX	ECN2438BAX	
	460	50	480	HMCP 100A	ECN2431CAG	ECN2432CAG	ECN2434CAG	ECN2438CAG	AN16KN0C
575	30	600	HMCP 50A	ECN2431DA9	ECN2432DA9	ECN2434DA9	ECN2438DA9	AN16KN0D	
	50		HMCP 100A	ECN2431DAI	ECN2432DAI	ECN2434DAI	ECN2438DAI		
4	200	40	208	HMCP 150A	ECN2441EAH	ECN2442EAH	ECN2444EAH	ECN2448EAH	AN16NN0E
	230	50	240	HMCP 150A	ECN2441BAH	ECN2442BAH	ECN2444BAH	ECN2448BAH	AN16NN0B
	460	100	480	HMCP 150A	ECN2441CAH	ECN2442CAH	ECN2444CAH	ECN2448CAH	AN16NN0C
	575	100	600	HMCP 150A	ECN2441DAH	ECN2442DAH	ECN2444DAH	ECN2448DAH	AN16NN0D
5	200	50	208	HMCP 250A	ECN2451EAJ	ECN2452EAJ	ECN2454EAJ	ECN2458EAJ	AN16SN0EB
		75		HMCP 400A	ECN2451EAK	ECN2452EAK	ECN2454EAK	ECN2458EAK	
	230	60	240	HMCP 250A	ECN2451BAJ	ECN2452BAJ	ECN2454BAJ	ECN2458BAJ	AN16SN0BB
		100		HMCP 400A	ECN2451BAK	ECN2452BAK	ECN2454BAK	ECN2458BAK	
	460	125	480	HMCP 250A	ECN2451CAJ	ECN2452CAJ	ECN2454CAJ	ECN2458CAJ	AN16SN0CB
		200		HMCP 400A	ECN2451CAK	ECN2452CAK	ECN2454CAK	ECN2458CAK	
	575	150	600	HMCP 250A	ECN2451DAJ	ECN2452DAJ	ECN2454DAJ	ECN2458DAJ	AN16SN0DB
		200		HMCP 400A	ECN2451DAK	ECN2452DAK	ECN2454DAK	ECN2458DAK	

Starters do not include heater packs - order separately. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 13.4.

Starters with Electronic Overload, see Page 13.33 of Modification Codes.

① Other control power transformer primary and/or secondary voltages, see Page 3.4.

② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code R5.

③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification E11.

④ 100,000 RMS short-circuit – 480V

50,000 RMS short-circuit – 600V

⑤ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECN2404EAC. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Cover Control	Page 3.3
Other Magnet Coils	Page 3.4
Dimensions	Page 12.2
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Wiring Diagrams

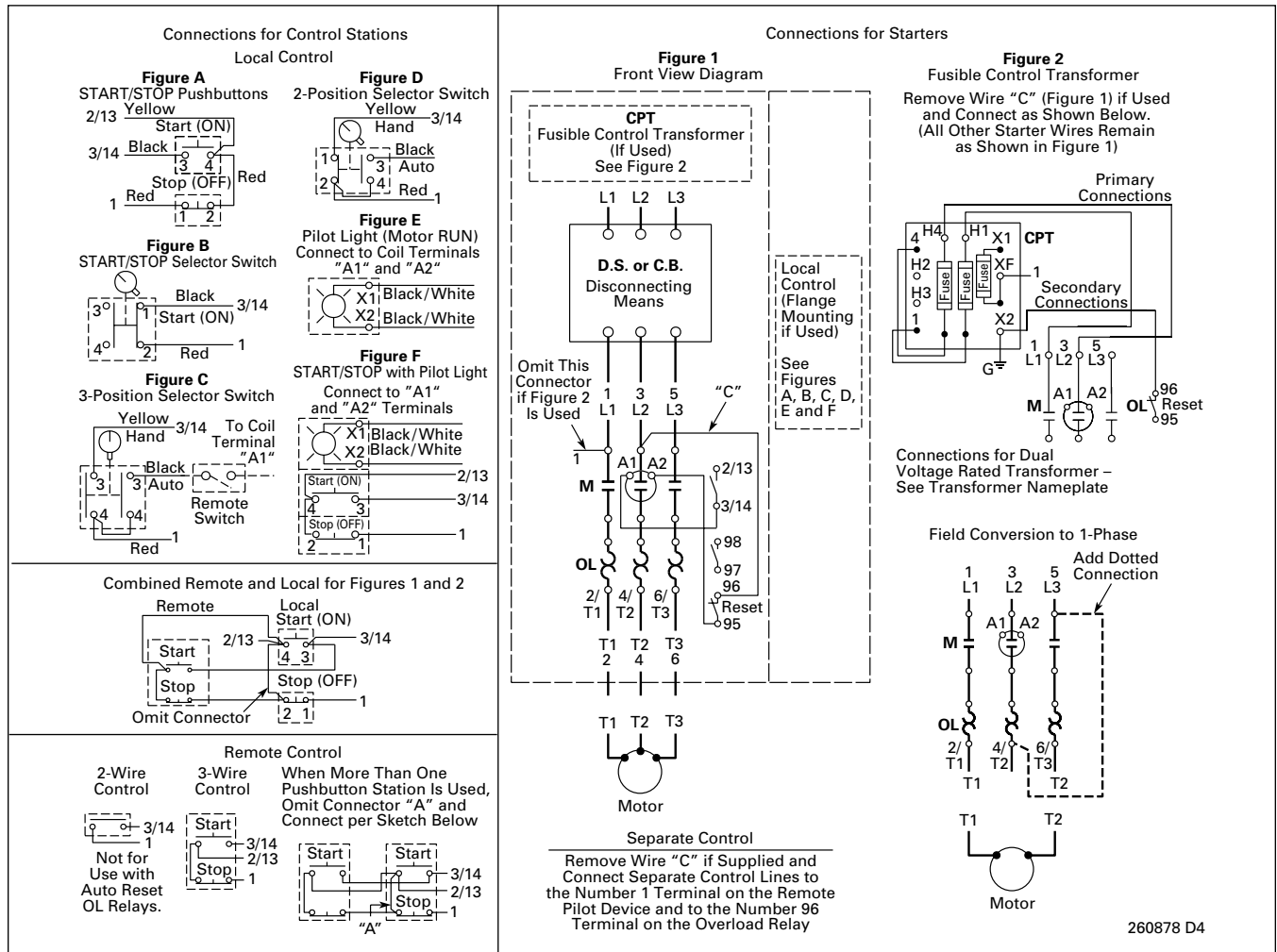


Figure 3-5. Non-reversing Starter — Combination

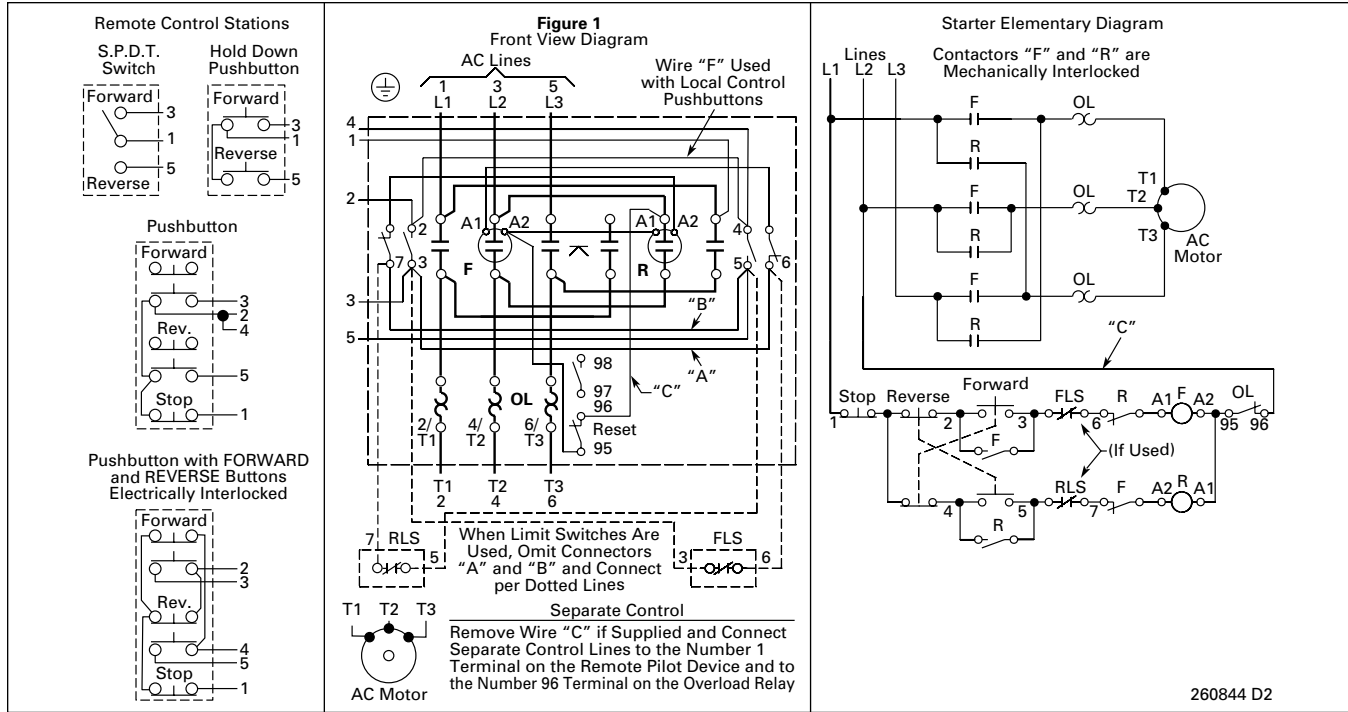


Figure 3-6. Reversing Starter — Non-combination

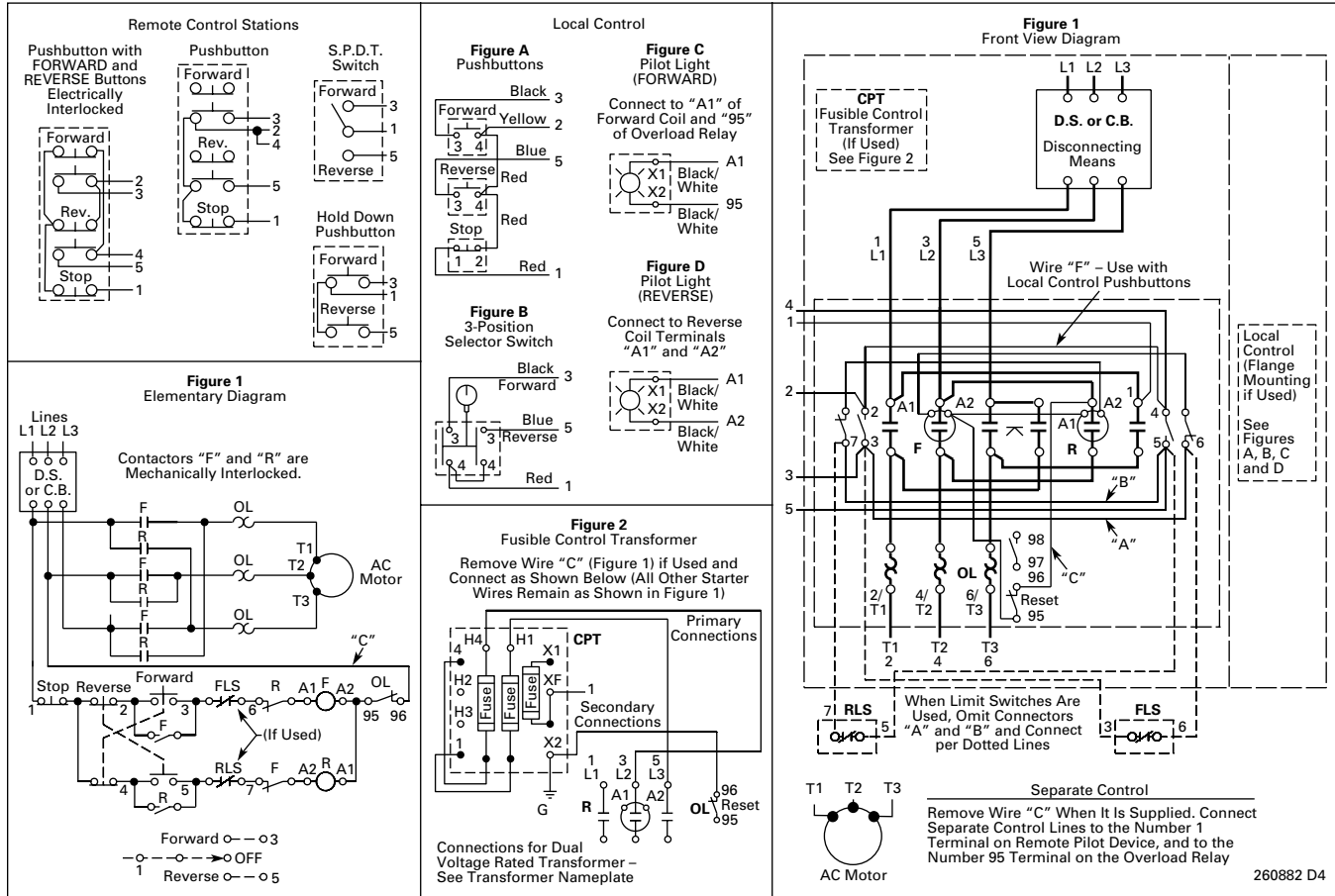
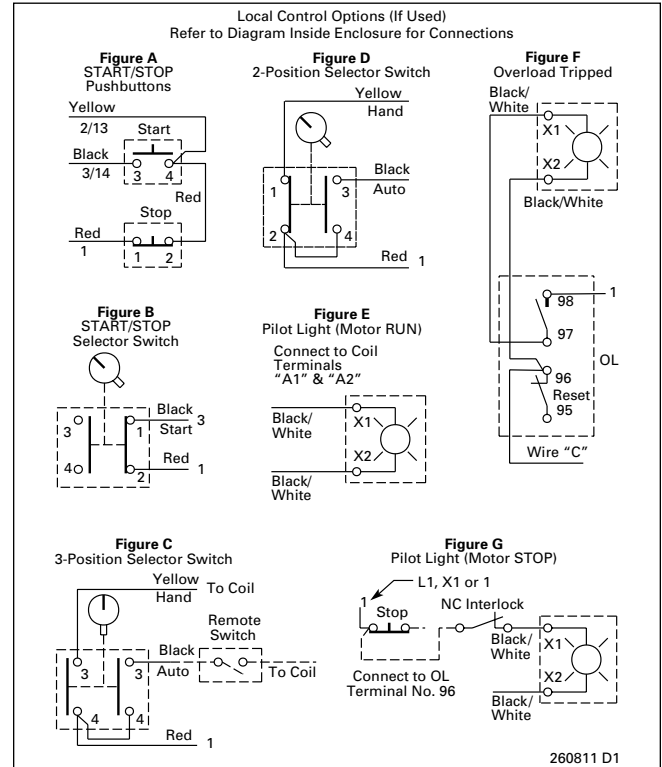
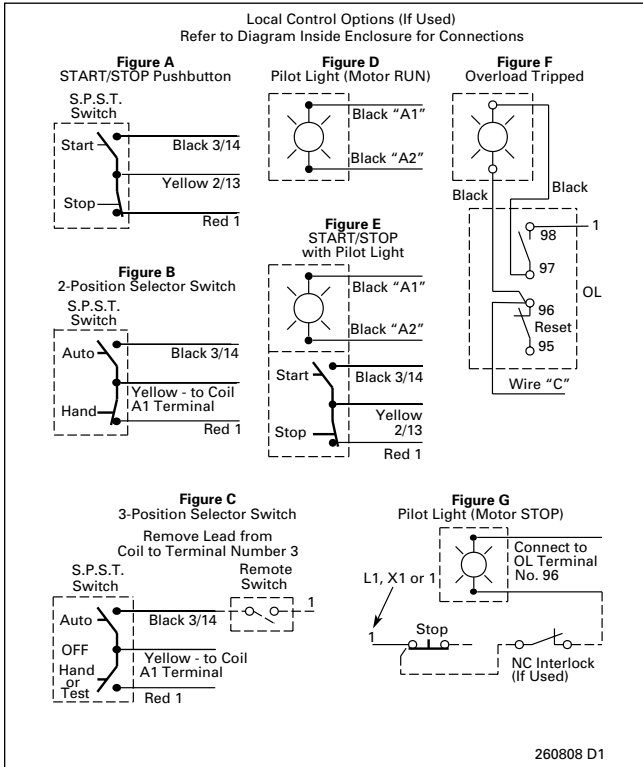


Figure 3-7. Reversing Starter — Combination

Non-reversing Cover Control



Reversing Cover Control

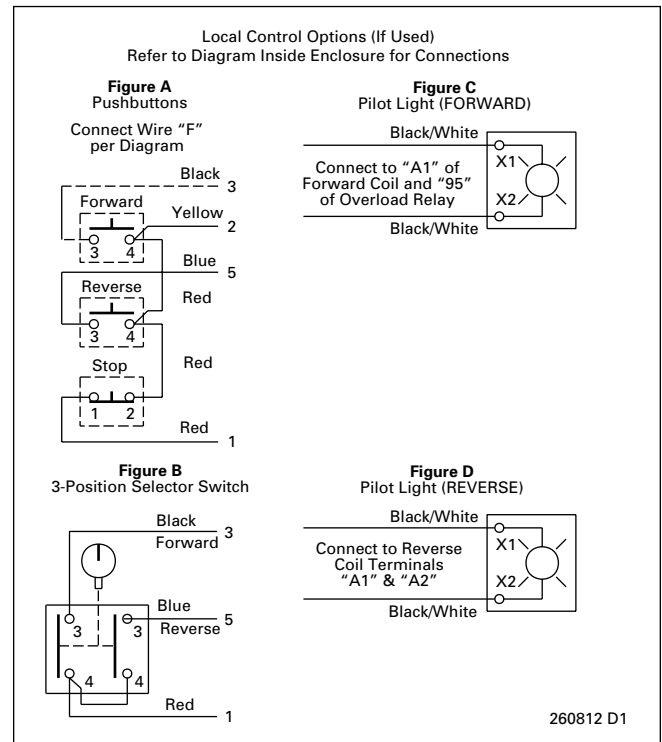
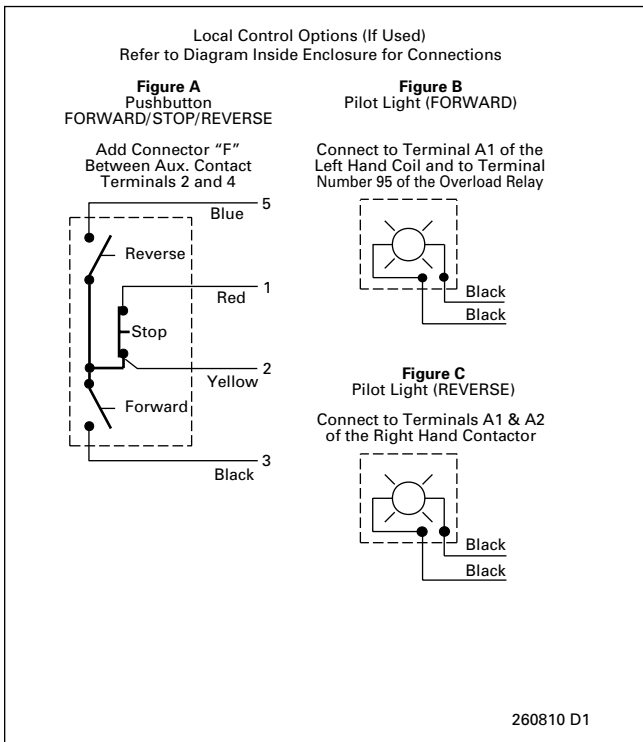


Figure 3-10. Type 1 C400GR Control Options

Figure 3-11. C400T Control Options

Product Selection

Table 3-26. Class EC216 — Combination Non-reversing Starters — Fusible Disconnect ^①

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ^①	Fuse Clip Amps	Type 1	Type 3R	Type 4X ^④	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ^{② ③}	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	—	—	120	30A	EC216A1AAB	EC216A2AAB	EC216A4AAB	EC216A8AAB	A200MACAC
	200	1-1/2	208		EC216A1EAB	EC216A2EAB	EC216A4EAB	EC216A8EAB	A200MACB
	230	1-1/2	240		EC216A1BAB	EC216A2BAB	EC216A4BAB	EC216A8BAB	A200MACW
	460	2	480		EC216A1CAC	EC216A2CAC	EC216A4CAC	EC216A8CAC	A200MACX
	575	2	600		EC216A1DAC	EC216A2DAC	EC216A4DAC	EC216A8DAC	A200MACE
0	—	—	120	30A	EC21601AAB	EC21602AAB	EC21604AAB	EC21608AAB	A200M0CAC
	200	3	208		EC21601EAB	EC21602EAB	EC21604EAB	EC21608EAB	A200M0CB
	230	3	240		EC21601BAB	EC21602BAB	EC21604BAB	EC21608BAB	A200M0CW
	460	5	480		EC21601CAC	EC21602CAC	EC21604CAC	EC21608CAC	A200M0CX
	575	5	600		EC21601DAC	EC21602DAC	EC21604DAC	EC21608DAC	A200M0CE
1	—	—	120	30A	EC21611AAB	EC21612AAB	EC21614AAB	EC21618AAB	A200M1CAC
	200	7-1/2	208		EC21611EAB	EC21612EAB	EC21614EAB	EC21618EAB	A200M1CB
	230	7-1/2	240		EC21611BAB	EC21612BAB	EC21614BAB	EC21618BAB	A200M1CW
	460	10	480		EC21611CAC	EC21612CAC	EC21614CAC	EC21618CAC	A200M1CX
	575	10	600		EC21611DAC	EC21612DAC	EC21614DAC	EC21618DAC	A200M1CE
2	—	—	120	60A	EC21621AAD	EC21622AAD	EC21624AAD	EC21628AAD	A200M2CAC
	200	10	208		EC21621EAD	EC21622EAD	EC21624EAD	EC21628EAD	A200M2CB
	230	15	240		EC21621BAD	EC21622BAD	EC21624BAD	EC21628BAD	A200M2CW
	460	25	480		EC21621CAE	EC21622CAE	EC21624CAE	EC21628CAE	A200M2CX
	575	25	600		EC21621DAE	EC21622DAE	EC21624DAE	EC21628DAE	A200M2CE
3	—	—	120	100A	EC21631AAF	EC21632AAF	EC21634AAF	EC21638AAF	A200M3CAC
	200	25	208		EC21631EAF	EC21632EAF	EC21634EAF	EC21638EAF	A200M3CB
	230	30	240		EC21631BAF	EC21632BAF	EC21634BAF	EC21638BAF	A200M3CW
	460	50	480		EC21631CAG	EC21632CAG	EC21634CAG	EC21638CAG	A200M3CX
	575	50	600		EC21631DAG	EC21632DAG	EC21634DAG	EC21638DAG	A200M3CE
4	—	—	120	200A	EC21641AAH	EC21642AAH	EC21644AAH	EC21648AAH	A200M4CAC
	200	40	208		EC21641EAH	EC21642EAH	EC21644EAH	EC21648EAH	A200M4CB
	230	50	240		EC21641BAH	EC21642BAH	EC21644BAH	EC21648BAH	A200M4CW
	460	100	480		EC21641CAJ	EC21642CAJ	EC21644CAJ	EC21648CAJ	A200M4CX
	575	100	600		EC21641DAJ	EC21642DAJ	EC21644DAJ	EC21648DAJ	A200M4CE

Starters do not include heater packs. Order quantity of 3 heater packs. For Heater Pack Selection, see Page 13.12.

- ① For Ambient Compensated Overload Relay with Auto-Reset, add suffix **D**.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code **R5**.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification **E11**.
- ④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: EC2160**4**EAB. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control	Page 3.3
Dimensions	Page 12.2
Accessories	Page 13.11
Modifications	Page 13.29
Renewal Parts	Page 14.4
Technical Data	CA08102002K

A200 Full Voltage Control Combination Starters — Fusible and Non-fusible

3

Table 3-26. Class EC216 — Combination Non-reversing Starters — Fusible Disconnect (Continued)^①

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ^①	Fuse Clip Amps	Type 1	Type 3R	Type 4X ^④	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ^{② ③}	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
5	—	—	120	400A	EC21651AAK	EC21652AAK	EC21654AAK	EC21658AAK	A200M5CAC
	200	75	208		EC21651EAK	EC21652EAK	EC21654EAK	EC21658EAK	A200M5CB
	230	100	240		EC21651BAK	EC21652BAK	EC21654BAK	EC21658BAK	A200M5CW
	460	200	480		EC21651CAL	EC21652CAL	EC21654CAL	EC21658CAL	A200M5CX
	575	200	600		EC21651DAL	EC21652DAL	EC21654DAL	EC21658DAL	A200M5CE
6	—	—	120	600A	EC21661AAM	EC21662AAM	EC21663AAM ^④	EC21668AAM	A200M6CAC
	200	150	208		EC21661EAM	EC21662EAM	EC21663EAM ^④	EC21668EAM	A200M6CB
	230	200	240		EC21661BAM	EC21662BAM	EC21663BAM ^④	EC21668BAM	A200M6CW
	460	400	480		EC21661CAN	EC21662CAN	EC21663CAN ^④	EC21668CAN	A200M6CX
	575	400	600		EC21661DAN	EC21662DAN	EC21663DAN ^④	EC21668DAN	A200M6CE
7	—	—	120	⑤	EC21671AAU	EC21672AAU	EC21673AAU ^④	EC21678AAU	A200M7CJ
	230	300	240		EC21671BAU	EC21672BAU	EC21673BAU ^④	EC21678BAU	A200M7CW
	460	600	480		EC21671CAU	EC21672CAU	EC21673CAU ^④	EC21678CAU	A200M7CX
	575	600	600		EC21671DAU	EC21672DAU	EC21673DAU ^④	EC21678DAU	A200M7CE
8	—	—	120	⑤	EC21681AAU	EC21682AAU	EC21624AAD ^④	EC21688AAU	A200M8CJ
	230	450	240		EC21681BAU	EC21682BAU	EC21624BAD ^④	EC21688BAU	A200M8CW
	460	900	480		EC21681CAU	EC21682CAU	EC21624CAE ^④	EC21688CAU	A200M8CX
	575	900	600		EC21681DAU	EC21682DAU	EC21624DAE ^④	EC21688DAU	A200M8CE
9	—	—	120	⑤	EC21691AAU	EC21692AAU	EC21693AAU ^④	EC21698AAU	A200M9CJ
	230	800	240		EC21691BAU	EC21692BAU	EC21693BAFU ^④	EC21698BAU	A200M9CW
	460	1000	480		EC21691CAU	EC21692CAU	EC21693CAU ^④	EC21698CAU	A200M9CX
	575	1000	600		EC21691DAU	EC21692DAU	EC21693DAU ^④	EC21698DAU	A200M9CE

Starters do not include heater packs. Order quantity of 3 heater packs. For Heater Pack Selection, see Page 13.12.

- ① For Ambient Compensated Overload Relay with Auto-Reset, add suffix **D**.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code **R5**.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification **E11**.
- ④ Type 4 (Painted steel) Sizes 6 - 9.
- ⑤ Contact Eaton
- ⑥ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: EC2160**4**EAB. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control Page 3.3
 Dimensions Page 12.2
 Accessories Page 13.11
 Modifications Page 13.29
 Renewal Parts Page 14.4
 Technical Data CA08102002K

Table 3-27. Class EC218 — Combination Non-reversing Starters — Fusible Disconnect with CPT^①

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ^①	Fuse Clip Amps	Type 1	Type 3R	Type 4X ^④	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ^{② ③}	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
00	—	—	120	30A	EC218A1AAB	EC218A2AAB	EC218A4AAB	EC218A8AAB	A200MACAC
	200	1-1/2	208		EC218A1EAB	EC218A2EAB	EC218A4EAB	EC218A8EAB	A200MACB
	230	1-1/2	240		EC216A1BAB	EC218A2BAB	EC218A4BAB	EC218A8BAB	A200MACW
	460	2	480		EC216A1CAC	EC218A2CAC	EC216A4CAC	EC218A8CAC	A200MACX
	575	2	600		EC216A1DAC	EC218A2DAC	EC218A4DAC	EC218A8DAC	A200MACE
0	—	—	120	30A	EC21801AAB	EC21802AAB	EC21804AAB	EC21808AAB	A200M0CAC
	200	3	208		EC21801EAB	EC21802EAB	EC21804EAB	EC21808EAB	A200M0CB
	230	3	240		EC21801BAB	EC21802BAB	EC21804BAB	EC21808BAB	A200M0CW
	460	5	480		EC21801CAC	EC21802CAC	EC21804CAC	EC21808CAC	A200M0CX
	575	5	600		EC21801DAC	EC21802DAC	EC21804DAC	EC21808DAC	A200M0CE
1	—	—	120	30A	EC21811AAB	EC21812AAB	EC21814AAB	EC21818AAB	A200M1CAC
	200	7-1/2	208		EC21811EAB	EC21812EAB	EC21814EAB	EC21818EAB	A200M1CB
	230	7-1/2	240		EC21811BAB	EC21812BAB	EC21814BAB	EC21818BAB	A200M1CW
	460	10	480		EC21811CAC	EC21812CAC	EC21814CAC	EC21818CAC	A200M1CX
	575	10	600		EC21811DAC	EC21812DAC	EC21814DAC	EC21818DAC	A200M1CE
2	—	—	120	60A	EC21821AAD	EC21822AAD	EC21824AAD	EC21828AAD	A200M2CAC
	200	10	208		EC21821EAD	EC21822EAD	EC21824EAD	EC21828EAD	A200M2CB
	230	15	240		EC21621BAD	EC21822BAD	EC21824BAD	EC21828BAD	A200M2CW
	460	25	480		EC21821CAE	EC21822CAE	EC21824CAE	EC21828CAE	A200M2CX
	575	25	600		EC21821DAE	EC21822DAE	EC21824DAE	EC21828DAE	A200M2CE
3	—	—	120	100A	EC21831AAF	EC21832AAF	EC21834AAF	EC21838AAF	A200M3CAC
	200	25	208		EC21831EAF	EC21832EAF	EC21834EAF	EC21838EAF	A200M3CB
	230	30	240		EC21831BAF	EC21832BAF	EC21834BAF	EC21838BAF	A200M3CW
	460	50	480		EC21831CAG	EC21832CAG	EC21834CAG	EC21838CAG	A200M3CX
	575	50	600		EC21831DAG	EC21832DAG	EC21834DAG	EC21838DAG	A200M3CE
4	—	—	120	200A	EC21841AAH	EC21842AAH	EC21844AAH	EC21848AAH	A200M4CAC
	200	40	208		EC21841EAH	EC21842EAH	EC21844EAH	EC21848EAH	A200M4CB
	230	50	240		EC21841BAH	EC21842BAH	EC21844BAH	EC21848BAH	A200M4CW
	460	100	480		EC21841CAJ	EC21842CAJ	EC21844CAJ	EC21848CAJ	A200M4CX
	575	100	600		EC21841DAJ	EC21842DAJ	EC21844DAJ	EC21848DAJ	A200M4CE

Starters do not include heater packs. Order quantity of 3 heater packs. For Heater Pack Selection, see Page 13.12.

① For Ambient Compensated Overload Relay with Auto-Reset, add suffix **D**.

② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code **R5**.

③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification **E11**.

④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**.

Example: EC21804EAB. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control	Page 3.3
Dimensions	Page 12.2
Accessories	Page 13.11
Modifications	Page 13.29
Renewal Parts	Page 14.4
Technical Data	CA08102002K

Table 3-27. Class EC218 — Combination Non-reversing Starters — Fusible Disconnect with CPT (Continued)^①

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ^①	Fuse Clip Amps	Type 1	Type 3R	Type 4X ^④	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ^{② ③}	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
5	—	—	120	400A	EC21851AAK	EC21852AAK	EC21854AAK	EC21858AAK	A200M5CAC
	200	75	208		EC21851EAK	EC21852EAK	EC21854EAK	EC21858EAK	A200M5CB
	230	100	240		EC21851BAK	EC21852BAK	EC21854BAK	EC21858BAK	A200M5CW
	460	200	480		EC21851CAL	EC21852CAL	EC21854CAL	EC21858CAL	A200M5CX
	575	200	600		EC21851DAL	EC21852DAL	EC21854DAL	EC21858DAL	A200M5CE
6	—	—	120	600A	EC21861AAM	EC21862AAM	EC21863AAM ^④	EC21868AAM	A200M6CAC
	200	150	208		EC21861EAM	EC21862EAM	EC21863EAM ^④	EC21868EAM	A200M6CB
	230	200	240		EC21861BAM	EC21862BAM	EC21863BAM ^④	EC21868BAM	A200M6CW
	460	400	480		EC21861CAN	EC21862CAN	EC21863CAN ^④	EC21868CAN	A200M6CX
	575	400	600		EC21861DAN	EC21862DAN	EC21863DAN ^④	EC21868DAN	A200M6CE
7	—	—	120	⑤	EC21871AAU	EC21872AAU	EC21873AAU ^④	EC21878AAU	A200M7CJ
	230	300	240		EC21871BAU	EC21872BAU	EC21873BAU ^④	EC21878BAU	A200M7CW
	460	600	480		EC21871CAU	EC21872CAU	EC21873CAU ^④	EC21878CAU	A200M7CX
	575	600	600		EC21871DAU	EC21872DAU	EC21873DAU ^④	EC21878DAU	A200M7CE
8	—	—	120	⑤	EC21881AAU	EC21882AAU	EC21824AAD ^④	EC21888AAU	A200M8CJ
	230	450	240		EC21881BAU	EC21882BAU	EC21824BAD ^④	EC21888BAU	A200M8CW
	460	900	480		EC21881CAU	EC21882CAU	EC21824CAE ^④	EC21888CAU	A200M8CX
	575	900	600		EC21881DAU	EC21882DAU	EC21824DAE ^④	EC21888DAU	A200M8CE
9	—	—	120	⑤	EC21891AAU	EC21892AAU	EC21893AAU ^④	EC21898AAU	A200M9CJ
	230	800	240		EC21891BAU	EC21892BAU	EC21893BAFU ^④	EC21898BAU	A200M9CW
	460	1000	480		EC21891CAU	EC21892CAU	EC21893CAU ^④	EC21898CAU	A200M9CX
	575	1000	600		EC21891DAU	EC21892DAU	EC21893DAU ^④	EC21898DAU	A200M9CE

Starters do not include heater packs. Order quantity of 3 heater packs. For Heater Pack Selection, see Page 13.12.

- ① For Ambient Compensated Overload Relay with Auto-Reset, add suffix **D**.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order Mod Code **R5**.
- ③ Type 12 enclosure is without safety door interlock. When safety door interlock is required, add modification **E11**.
- ④ Type 4 (Painted steel) Sizes 6 - 9.
- ⑤ Contact Eaton.
- ⑥ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: EC2180**4**EAB. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control Page 3.3
 Dimensions Page 12.2
 Accessories Page 13.11
 Modifications Page 13.29
 Renewal Parts Page 14.4
 Technical Data CA08102002K

Table 3-28. Class EC222 — Combination Non-reversing Starter — Circuit Breaker ^②

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ^①	Circuit Breaker Type	Type 1	Type 3R	Type 4X ^⑤	Type 12	Component Starter (Open)		
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ^{② ③}			
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number		
00	200	1 1-1/2	120	HMCP 7A	EC222A1AAC	EC222A2AAC	EC222A4AAC	EC222A8AAC	A200MACAC		
				HMCP 15A	EC222A1AAD	EC222A2AAD	EC222A4AAD	EC222A8AAD			
	230	1 1-1/2		HMCP 7A	EC222A1AAC	EC222A2AAC	EC222A4AAC	EC222A8AAC			
				HMCP 15A	EC222A1AAD	EC222A2AAD	EC222A4AAD	EC222A8AAD			
	460	1 2		HMCP 3A	EC222A1AAB	EC222A2AAB	EC222A4AAB	EC222A8AAB			
				HMCP 7A	EC222A1AAC	EC222A2AAC	EC222A4AAC	EC222A8AAC			
	575	1 2		HMCP 3A	EC222A1AA5	EC222A2AA5	EC222A4AA5	EC222A8AA5			
				HMCP 7A	EC222A1AA6	EC222A2AA6	EC222A4AA6	EC222A8AA6			
	0	200		1 3	HMCP 7A	EC22201AAC	EC22202AAC	EC22204AAC		EC22208AAC	A200M0CAC
					HMCP 15A	EC22201AAD	EC22202AAD	EC22204AAD		EC22208AAD	
		230		1 3	HMCP 7A	EC22201AAC	EC22202AAC	EC22204AAC		EC22208AAC	
					HMCP 15A	EC22201AAD	EC22202AAD	EC22204AAD		EC22208AAD	
460		1 3 5	HMCP 3A	EC22201AAB	EC22202AAB	EC22204AAB	EC22208AAB				
			HMCP 7A	EC22201AAC	EC22202AAC	EC22204AAC	EC22208AAC				
			HMCP 15A	EC22201AAD	EC22202AAD	EC22204AAD	EC22208AAD				
575		1 3 5	HMCP 3A	EC22201AA5	EC22202AA5	EC22204AA5	EC22208AA5				
			HMCP 7A	EC22201AA6	EC22202AA6	EC22204AA6	EC22208AA6				
			HMCP 15A	EC22201AA7	EC22202AA7	EC22204AA7	EC22208AA7				
1		200	1 3 5 7-1/2	HMCP 7A	EC22211AAC	EC22212AAC	EC22214AAC	EC22218AAC	A200M1CAC		
				HMCP 15A	EC22211AAD	EC22212AAD	EC22214AAD	EC22218AAD			
	HMCP 30A			EC22211AAE	EC22212AAE	EC22214AAE	EC22218AAE				
	HMCP 50A			EC22211AAF	EC22212AAF	EC22214AAF	EC22218AAF				
	230	1 3 5 7-1/2	HMCP 7A	EC22211AAC	EC22212AAC	EC22214AAC	EC22218AAC				
			HMCP 15A	EC22211AAD	EC22212AAD	EC22214AAD	EC22218AAD				
			HMCP 30A	EC22211AAE	EC22212AAE	EC22214AAE	EC22218AAE				
			HMCP 50A	EC22211AAF	EC22212AAF	EC22214AAF	EC22218AAF				
	460	1 3 5 10	HMCP 3A	EC22211AAB	EC22212AAB	EC22214AAB	EC22218AAB				
			HMCP 7A	EC22211AAC	EC22212AAC	EC22214AAC	EC22218AAC				
			HMCP 15A	EC22211AAD	EC22212AAD	EC22214AAD	EC22218AAD				
			HMCP 30A	EC22211AAE	EC22212AAE	EC22214AAE	EC22218AAE				
	575	1 3 5 10	HMCP 3A	EC22211AA5	EC22212AA5	EC22214AA5	EC22218AA5				
			HMCP 7A	EC22211AA6	EC22212AA6	EC22214AA6	EC22218AA6				
			HMCP 15A	EC22211AA7	EC22212AA7	EC22214AA7	EC22218AA7				
			HMCP 30A	EC22211AA8	EC22212AA8	EC22214AA8	EC22218AA8				

Starters do not include heater packs. Order quantity of 3 heater packs. For Heater Pack Selection, see Page 13.12.

- ① For other magnet coil voltages substitute the eighth digit with appropriate digit based on Table 3.4.
- ② For Ambient Compensated Overload Relay with Auto-Reset, add suffix D.
- 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. When safety door interlock is required, add modification E11.
- ⑤ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: EC22204EAC. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Cover Control.....	Page 3.3
Dimensions	Page 12.2
Accessories	Page 13.11
Modifications	Page 13.29
Renewal Parts.....	Page 14.4
Technical Data	CA08102002K

A200 Full Voltage Control Combination Starters — Circuit Breaker

3

Table 3-28. Class EC222 — Combination Non-reversing Starter — Circuit Breaker (Continued) ②

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ①	Circuit Breaker Type	Type 1 General Purpose Catalogue Number	Type 3R Rainproof Catalogue Number	Type 4X ⑥ Watertight & Dust-Tight Stainless Steel Catalogue Number	Type 12 Dust-Tight Industrial External Reset ② ③ Catalogue Number	Component Starter (Open) Catalogue Number
2	200	10	120	HMCP 50A	EC22221AAF	EC22222AAF	EC22224AAF	EC22228AAF	A200M2CAC
				HMCP 50A HMCP 70A	EC22221AAF EC22221AAW	EC22222AAF EC22222AAW	EC22224AAF EC22224AAW	EC22228AAF EC22228AAW	
	460	25	120	HMCP 50A	EC22221AAF	EC22222AAF	EC22224AAF	EC22228AAF	
				HMCP 30A HMCP 50A	EC22221AA8 EC22221AA9	EC22222AA8 EC22222AA9	EC22224AA8 EC22224AA9	EC22228AA8 EC22228AA9	
				HMCP 100A	EC22231AAG EC22231AAX	EC22232AAG EC22232AAX	EC22234AAG EC22234AAX	EC22238AAG EC22238AAX	
3	200	20 30	120	HMCP 100A	EC22231AAG	EC22232AAG	EC22234AAG	EC22238AAG	A200M3CAC
				HMCP 100A	EC22231AAX	EC22232AAX	EC22234AAX	EC22238AAX	
	460	50	120	HMCP 100A	EC22231AAG	EC22232AAG	EC22234AAG	EC22238AAG	
				HMCP 50A HMCP 100A	EC22231AA9 EC22231AAI	EC22232AA9 EC22232AAI	EC22234AA9 EC22234AAI	EC22238AA9 EC22238AAI	
				HMCP 150A	EC22241AAH	EC22242AAH	EC22244AAH	EC22248AAH	
4	200	40 50 100 100	120	HMCP 150A	EC22241AAH	EC22242AAH	EC22244AAH	EC22248AAH	A200M4CAC
				HMCP 150A	EC22241AAH	EC22242AAH	EC22244AAH	EC22248AAH	
				HMCP 150A	EC22241AAH	EC22242AAH	EC22244AAH	EC22248AAH	
				HMCP 150A	EC22241AAH	EC22242AAH	EC22244AAH	EC22248AAH	
5	200	50 75	120	HMCP 250A	EC22251AAJ	EC22252AAJ	EC22254AAJ	EC22258AAJ	A200M5CAC
				HMCP 400A	EC22251AAK	EC22252AAK	EC22254AAK	EC22258AAK	
	230	60 100	120	HMCP 250A	EC22251AAJ	EC22252AAJ	EC22254AAJ	EC22258AAJ	
				HMCP 400A	EC22251AAK	EC22252AAK	EC22254AAK	EC22258AAK	
	460	125 200	120	HMCP 250A	EC22251AAJ	EC22252AAJ	EC22254AAJ	EC22258AAJ	
				HMCP 400A	EC22251AAK	EC22252AAK	EC22254AAK	EC22258AAK	
	575	150 200	120	HMCP 250A	EC22251AAJ	EC22252AAJ	EC22254AAJ	EC22258AAJ	
				HMCP 400A	EC22251AAK	EC22252AAK	EC22254AAK	EC22258AAK	
6	200	150 200	120	HMCP 600A	EC22261AAL	EC22262AAL	EC22263AAL ⑤	EC22268AAL	A200M6CAC
				HMCP 600A	EC22261AAL	EC22262AAL	EC22263AAL ⑤	EC22268AAL	
	460	350 400	120	HMCP 600A	EC22261AAL	EC22262AAL	EC22263AAL ⑤	EC22268AAL	
				HMCP 1200A	EC22261AAP	EC22262AAP	EC22263AAP ⑤	EC22268AAP	
	575	400	120	HMCP 600A	EC22261AAL	EC22262AAL	EC22263AAL ⑤	EC22268AAL	

Starters do not include heater packs. Order quantity of 3 heater packs. For Heater Pack Selection, see Page 13.12.

- ① For other magnet coil voltages substitute the eighth digit with appropriate digit based on Table 3.4.
- ② For Ambient Compensated Overload Relay with Auto-Reset, add suffix **D**.
- 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. When safety door interlock is required, add modification **E11**.
- ⑤ Type 4 (Painted steel) Size 6.
- ⑥ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: EC22204EAC. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see Tab 11.

Cover Control Page 3.3
 Dimensions Page 12.2
 Accessories Page 13.11
 Modifications Page 13.29
 Renewal Parts..... Page 14.4
 Technical Data CA08102002K

Table 3-29. Class EC224 — Combination Non-reversing Starter — Circuit Breaker with CTP ②

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ①	Circuit Breaker Type	Type 1	Type 3R	Type 4X ⑤	Type 12	Component Starter (Open)	
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ② ③		
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	
00	200	1 1-1/2	120	HMCP 7A	EC224A1EAC	EC224A2EAC	EC224A4EAC	EC224A8EAC	A200MACAC	
				HMCP 15A	EC224A1EAD	EC224A2EAD	EC224A4EAD	EC224A8EAD		
	230	1 1-1/2		HMCP 7A	EC224A1BAC	EC224A2BAC	EC224A4BAC	EC224A8BAC		
				HMCP 15A	EC224A1BAD	EC224A2BAD	EC224A4BAD	EC224A8BAD		
	460	1 2		HMCP 3A	EC224A1CAB	EC224A2CAB	EC224A4CAB	EC224A8CAB		
				HMCP 7A	EC224A1CAC	EC224A2CAC	EC224A4CAC	EC224A8CAC		
	575	1 2		HMCP 3A	EC224A1DA5	EC224A2DA5	EC224A4DA5	EC224A8DA5		
				HMCP 7A	EC224A1DA6	EC224A2DA6	EC224A4DA6	EC224A8DA6		
	0	200		1 3	HMCP 7A	EC22401EAC	EC22402EAC	EC22404EAC	EC22408EAC	A200M0CAC
					HMCP 15A	EC22401EAD	EC22402EAD	EC22404EAD	EC22408EAD	
		230		1 3	HMCP 7A	EC22401BAC	EC22402BAC	EC22404BAC	EC22408BAC	
					HMCP 15A	EC22401BAD	EC22402BAD	EC22404BAD	EC22408BAD	
460		1 3 5	HMCP 3A	EC22401CAB	EC22402CAB	EC22404CAB	EC22408CAB			
			HMCP 7A	EC22401CAC	EC22402CAC	EC22404CAC	EC22408CAC			
			HMCP 15A	EC22401CAD	EC22402CAD	EC22404CAD	EC22408CAD			
575		1 3 5	HMCP 3A	EC22401DA5	EC22402DA5	EC22404DA5	EC22408DA5			
			HMCP 7A	EC22401DA6	EC22402DA6	EC22404DA6	EC22408DA6			
			HMCP 15A	EC22401DA7	EC22402DA7	EC22404DA7	EC22408DA7			
1		200	1 3 5 7-1/2	HMCP 7A	EC22411EAC	EC22412EAC	EC22414EAC	EC22418EAC	A200M1CAC	
				HMCP 15A	EC22411EAD	EC22412EAD	EC22414EAD	EC22418EAD		
	HMCP 30A			EC22411EAE	EC22412EAE	EC22414EAE	EC22418EAE			
	HMCP 50A			EC22411EAF	EC22412EAF	EC22414EAF	EC22418EAF			
	230	1 3 5 7-1/2	HMCP 7A	EC22411BAC	EC22412BAC	EC22414BAC	EC22418BAC			
			HMCP 15A	EC22411BAD	EC22412BAD	EC22414BAD	EC22418BAD			
			HMCP 30A	EC22411BAE	EC22412BAE	EC22414BAE	EC22418BAE			
			HMCP 50A	EC22411BAF	EC22412BAF	EC22414BAF	EC22418BAF			
	460	1 3 5 10	HMCP 3A	EC22411CAB	EC22412CAB	EC22414CAB	EC22418CAB			
			HMCP 7A	EC22411CAC	EC22412CAC	EC22414CAC	EC22418CAC			
			HMCP 15A	EC22411CAD	EC22412CAD	EC22414CAD	EC22418CAD			
			HMCP 30A	EC22411CAE	EC22412CAE	EC22414CAE	EC22418CAE			
	575	1 3 5 10	HMCP 3A	EC22411DA5	EC22412DA5	EC22414DA5	EC22418DA5			
			HMCP 7A	EC22411DA6	EC22412DA6	EC22414DA6	EC22418DA6			
			HMCP 15A	EC22411DA7	EC22412DA7	EC22414DA7	EC22418DA7			
			HMCP 30A	EC22411DA8	EC22412DA8	EC22414DA8	EC22418DA8			

Starters do not include heater packs. Order quantity of 3 heater packs. For Heater Pack Selection, see Page 13.12.

- ① For other magnet coil voltages substitute the eighth digit with appropriate digit based on Table 3.4.
- ② For Ambient Compensated Overload Relay with Auto-Reset, add suffix **D**.
- 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. When safety door interlock is required, add modification **E11**.
- ⑤ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: EC2240**4**EAC. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Cover Control.....	Page 3.3
Dimensions	Page 12.2
Accessories	Page 13.11
Modifications	Page 13.29
Renewal Parts.....	Page 14.4
Technical Data	CA08102002K

A200 Full Voltage Control Combination Starters — Circuit Breaker

Table 3-29. Class EC224 — Combination Non-reversing Starter — Circuit Breaker with CTP (Continued) ②

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ①	Circuit Breaker Type	Type 1 General Purpose Catalogue Number	Type 3R Rainproof Catalogue Number	Type 4X ⑥ Watertight & Dust-Tight Stainless Steel Catalogue Number	Type 12 Dust-Tight Industrial External Reset ② ③ Catalogue Number	Component Starter (Open) Catalogue Number
2	200	10	120	HMCP 50A	EC22421AAF	EC22422AAF	EC22424AAF	EC22428AAF	A200M2CAC
	230	10		HMCP 50A	EC22421BAF	EC22422BAF	EC22424BAF	EC22428BAF	
		15		HMCP 70A	EC22421BAW	EC22422BAW	EC22424BAW	EC22428BAW	
	460	25		HMCP 50A	EC22421CAF	EC22422CAF	EC22424CAF	EC22428CAF	
	575	15		HMCP 30A	EC22421CA8	EC22422CA8	EC22424CA8	EC22428CA8	
25		HMCP 50A	EC22421DA9	EC22422DA9	EC22424DA9	EC22428DA9			
3	200	20	120	HMCP 100A	EC22431EAG	EC22432EAG	EC22434EAG	EC22438EAG	A200M3CAC
		30		HMCP 100A	EC22431EAX	EC22432EAX	EC22434EAX	EC22438EAX	
	230	25		HMCP 100A	EC22431BAG	EC22432BAG	EC22434BAG	EC22438BAG	
		30		HMCP 100A	EC22431BAX	EC22432BAX	EC22434BAX	EC22438BAX	
	460	50		HMCP 100A	EC22431CAG	EC22432CAG	EC22434CAG	EC22438CAG	
	575	30		HMCP 50A	EC22431DA9	EC22432DA9	EC22434DA9	EC22438DA9	
		50		HMCP 100A	EC22431DAI	EC22432DAI	EC22434DAI	EC22438DAI	
	4	200		40	120	HMCP 150A	EC22441EAH	EC22442EAH	
230		50	HMCP 150A	EC22441BAH		EC22442BAH	EC22444BAH	EC22448BAH	
460		100	HMCP 150A	EC22441CAH		EC22442CAH	EC22444CAH	EC22448CAH	
575		100	HMCP 150A	EC22441DAH		EC22442DAH	EC22444DAH	EC22448DAH	
5	200	50	120	HMCP 250A	EC22451EAJ	EC22452EAJ	EC22454EAJ	EC22458EAJ	A200M5CAC
		75		HMCP 400A	EC22451EAK	EC22452EAK	EC22454EAK	EC22458EAK	
	230	60		HMCP 250A	EC22451BAJ	EC22452BAJ	EC22454BAJ	EC22458BAJ	
		100		HMCP 400A	EC22451BAK	EC22452BAK	EC22454BAK	EC22458BAK	
	460	125		HMCP 250A	EC22451CAJ	EC22452CAJ	EC22454CAJ	EC22458CAJ	
		200		HMCP 400A	EC22451CAK	EC22452CAK	EC22454CAK	EC22458CAK	
	575	150		HMCP 250A	EC22451DAJ	EC22452DAJ	EC22454DAJ	EC22458DAJ	
		200		HMCP 400A	EC22451DAK	EC22452DAK	EC22454DAK	EC22458DAK	
6	200	150	120	HMCP 600A	EC22461EAL	EC22462EAL	EC22463EAL ⑤	EC22468EAL	A200M6CAC
	230	200		HMCP 600A	EC22461BAL	EC22462BAL	EC22463BAL ⑤	EC22468BAL	
	460	350		HMCP 600A	EC22461CAL	EC22462CAL	EC22463CAL ⑤	EC22468CAL	
		400		HMCP 1200A	EC22461CAP	EC22462CAP	EC22463CAP ⑤	EC22468CAP	
	575	400		HMCP 600A	EC22461DAL	EC22462DAL	EC22463DAL ⑤	EC22468DAL	

Starters do not include heater packs. Order quantity of 3 heater packs. For Heater Pack Selection, see Page 13.12.

- ① For other magnet coil voltages substitute the eighth digit with appropriate digit based on Table 3.4.
- ② For Ambient Compensated Overload Relay with Auto-Reset, add suffix **D**.
- 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. When safety door interlock is required, add modification **E11**.
- ⑤ Type 4 (Painted steel) Size 6.
- ⑥ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: EC22404EAC. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see Tab 11.

Cover Control Page 3.3
 Dimensions Page 12.2
 Accessories Page 13.11
 Modifications Page 13.29
 Renewal Parts..... Page 14.4
 Technical Data CA08102002K

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 9th character of the Catalogue Number to the alpha shown in the table below. Example: to order an **ECN3414CAA** with FAST/OFF/SLOW selector switch and 2 red pilot lights, change the **A** to **J**, i.e. ECN3414CJA.



Table 3-30. Multispeed Pilot Devices

Description	Factory Installed Flange Control			Field Installation Kits	
	Position 9 Alpha	Non-combination ^①	Combination ^②	Non-combination ^①	Combination ^②
		Catalogue Number	Catalogue Number		
No Cover Mounted Pilot Devices	A	■	■	■C400GK0	—
FAST/SLOW/STOP Pushbuttons with 2 Red Pilot Lights	B	■	■	■C400GK9 ^④	C400T7
with 2 Red/1 Green Pilot Lights	C	■	■	■C400GK94 ^③	—
	D	—	—	—	—
HIGH/LOW/STOP Pushbuttons with 2 Red Pilot Lights	E	—	—	■—	C400T8
with 2 Red/1 Green Pilot Lights	F	—	—	■—	—
	G	—	—	■—	—
FAST/OFF/SLOW Selector Switch with 2 Red Pilot Lights	H	—	—	■—	C400T17
with 2 Red/1 Green Pilot Lights	J	—	—	■—	—
	K	—	—	■—	—
Two Red Pilot Lights	P	—	■	■C400GK44 ^④	⑤
One Green Pilot Light	Q	—	■	■C400GK41 ^④	C400T10 ^③
Two Red/One Green Pilot Lights	R	—	■	■—	—
HIGH/OFF/LOW Selector Switch with 2 Red Pilot Lights	V	—	—	■—	C400T18
with 2 Red/1 Green Pilot Lights	W	—	—	■—	—
	X	—	—	—	—

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 Add Code Letter from table below to Catalogue Number for voltage — Kits only. Example: C400GK94B.

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

④ Uses a FAST/SLOW/OFF pushbutton.

⑤ Order quantity 2 of **C400T9** ^③.

Catalogue Number Selection

Note: For Catalogue Number Selection for Freedom Multispeed Starters, see Page 3.4.

Features

- 3-Phase Magnetic, 3-Pole
- Interchangeable Heater OLR
- 600V Maximum

Product Selection

Table 3-31. Class ECN33 — NEMA 3-Pole Non-combination — 2-Speed 2-Winding (Separate Winding)

NEMA Size	Motor Voltage ①	Maximum hp Rating		Magnet Coil Voltage	Type 1 General Purpose Catalogue Number	Type 3R Rainproof Catalogue Number	Type 4X ②	Type 12	Component Starter (Open) Catalogue Number
		Constant or Variable Torque	Constant Horsepower				Watertight & Dust-Tight Stainless Steel Catalogue Number	Dust-Tight Industrial External Reset Catalogue 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
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

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays — 1 for each speed). Heater Pack Selection, **Page 13.4**.

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

NEMA Size	0	1	2	3	4	5
Constant or Variable Torque	5	10	25	50	75	150
Constant Horsepower	3	7-1/2	20	40	60	100

② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Other Magnet Coils. **Page 3.4**
 Cover Control. **Page 3.38**
 Dimensions **Page 12.4**
 Accessories **Page 13.2**
 Modifications **Page 13.29**
 Technical Data. **Page 15.3**

Table 3-32. Class ECN34 — NEMA 3-Pole Non-combination — 2-Speed 1-Winding (CT or VT)

NEMA Size	Motor Voltage ①	Max. hp Rating	Magnet Coil Voltage	Type 1	Type 3R	Type 4X ②	Type 12	Component Starter (Open)
				General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset	
				Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue 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

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays — 1 for each speed). Heater Pack Selection, see **Page 13.4**.

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

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

② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Other Magnet Coils	Page 3.4
Cover Control	Page 3.38
Dimensions	Page 12.4
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Table 3-33. Class ECN35 — NEMA 3-Pole Non-combination — 2-Speed 1-Winding (Constant Horsepower)

NEMA Size	Motor Voltage ^①	Max. hp Rating	Magnet Coil Voltage	Type 1	Type 3R	Type 4X ^② Watertight & Dust-Tight Stainless Steel	Type 12	Component Starter (Open)
				General Purpose	Rainproof		Dust-Tight Industrial External Reset	
				Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
0	—	—	120	ECN3501AAA	ECN3502AAA	ECN3504AAA	ECN3508AAA	AN700BN0219A
	200	2	208	ECN3501EAA	ECN3502EAA	ECN3504EAA	ECN3508EAA	AN700BN0219E
	230	2	240	ECN3501BAA	ECN3502BAA	ECN3504BAA	ECN3508BAA	AN700BN0219B
	460	3	480	ECN3501CAA	ECN3502CAA	ECN3504CAA	ECN3508CAA	AN700BN0219C
	575	3	600	ECN3501DAA	ECN3502DAA	ECN3504DAA	ECN3508DAA	AN700BN0219D
1	—	—	120	ECN3511AAA	ECN3512AAA	ECN3514AAA	ECN3518AAA	AN700DN0219A
	200	5	208	ECN3511EAA	ECN3512EAA	ECN3514EAA	ECN3518EAA	AN700DN0219E
	230	5	240	ECN3511BAA	ECN3512BAA	ECN3514BAA	ECN3518BAA	AN700DN0219B
	460	7-1/2	480	ECN3511CAA	ECN3512CAA	ECN3514CAA	ECN3518CAA	AN700DN0219C
	575	7-1/2	600	ECN3511DAA	ECN3512DAA	ECN3514DAA	ECN3518DAA	AN700DN0219D
2	—	—	120	ECN3521AAA	ECN3522AAA	ECN3524AAA	ECN3528AAA	AN700GN0219A
	200	7-1/2	208	ECN3521EAA	ECN3522EAA	ECN3524EAA	ECN3528EAA	AN700GN0219E
	230	10	240	ECN3521BAA	ECN3522BAA	ECN3524BAA	ECN3528BAA	AN700GN0219B
	460	20	480	ECN3521CAA	ECN3522CAA	ECN3524CAA	ECN3528CAA	AN700GN0219C
	575	20	600	ECN3521DAA	ECN3522DAA	ECN3524DAA	ECN3528DAA	AN700GN0219D
3	—	—	120	ECN3531AAA	ECN3532AAA	ECN3534AAA	ECN3538AAA	AN700KN0219A
	200	20	208	ECN3531EAA	ECN3532EAA	ECN3534EAA	ECN3538EAA	AN700KN0219E
	230	25	240	ECN3531BAA	ECN3532BAA	ECN3534BAA	ECN3538BAA	AN700KN0219B
	460	40	480	ECN3531CAA	ECN3532CAA	ECN3534CAA	ECN3538CAA	AN700KN0219C
	575	40	600	ECN3531DAA	ECN3532DAA	ECN3534DAA	ECN3538DAA	AN700KN0219D
4	—	—	120	ECN3541AAA	ECN3542AAA	ECN3544AAA	ECN3548AAA	AN700NN0219A
	200	30	208	ECN3541EAA	ECN3542EAA	ECN3544EAA	ECN3548EAA	AN700NN0219E
	230	40	240	ECN3541BAA	ECN3542BAA	ECN3544BAA	ECN3548BAA	AN700NN0219B
	460	75	480	ECN3541CAA	ECN3542CAA	ECN3544CAA	ECN3548CAA	AN700NN0219C
	575	75	600	ECN3541DAA	ECN3542DAA	ECN3544DAA	ECN3548DAA	AN700NN0219D
5	—	—	120	ECN3551AAA	ECN3552AAA	ECN3554AAA	ECN3558AAA	AN700SN0219A
	200	60	208	ECN3551EAA	ECN3552EAA	ECN3554EAA	ECN3558EAA	AN700SN0219E
	230	75	240	ECN3551BAA	ECN3552BAA	ECN3554BAA	ECN3558BAA	AN700SN0219B
	460	150	480	ECN3551CAA	ECN3552CAA	ECN3554CAA	ECN3558CAA	AN700SN0219C
	575	150	600	ECN3551DAA	ECN3552DAA	ECN3554DAA	ECN3558DAA	AN700SN0219D

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays — 1 for each speed). Heater Pack Selection, see Page 13.4.

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

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

② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Other Magnet Coils..... Page 3.4
 Cover Control..... Page 3.38
 Dimensions..... Page 12.4
 Accessories..... Page 13.2
 Modifications..... Page 13.29
 Technical Data..... Page 15.3

Features

- Choice of Fusible/Non-fusible Combination with Disconnect Switch or Combination HMCP or Magnetic Trip Circuit Breaker
- 3-Phase Magnetic, 3-Pole
- Interchangeable Heater OLR
- 600V Maximum

Product Selection

Table 3-34. Class ECN36 — NEMA 3-Pole Fusible Combination — 2-Speed 2-Winding

NEMA Size	Motor Voltage ^①	Maximum hp Rating		Magnet Coil Voltage	Fuse Clip Amperes	Type 1	Type 3R	Type 4X ^②	Type 12	Component Starter (Open)
		Constant or Variable Torque	Constant Horsepower			General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset	
						Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
0	—	—	—	120	30A	ECN3601AAB	ECN3602AAB	ECN3604AAB	ECN3608AAB	AN700BN022A
	200	3	2	208		ECN3601EAB	ECN3602EAB	ECN3604EAB	ECN3608EAB	AN700BN022E
	230	3	2	240		ECN3601BAB	ECN3602BAB	ECN3604BAB	ECN3608BAB	AN700BN022B
	460	5	3	480		ECN3601CAC	ECN3602CAC	ECN3604CAC	ECN3608CAC	AN700BN022C
	575	5	3	600		ECN3601DAC	ECN3602DAC	ECN3604DAC	ECN3608DAC	AN700BN022D
1	—	—	—	120	30A	ECN3611AAB	ECN3612AAB	ECN3614AAB	ECN3618AAB	AN700DN022A
	200	7-1/2	5	208		ECN3611EAB	ECN3612EAB	ECN3614EAB	ECN3618EAB	AN700DN022E
	230	7-1/2	5	240		ECN3611BAB	ECN3612BAB	ECN3614BAB	ECN3618BAB	AN700DN022B
	460	10	7-1/2	480		ECN3611CAC	ECN3612CAC	ECN3614CAC	ECN3618CAC	AN700DN022C
	575	10	7-1/2	600		ECN3611DAC	ECN3612DAC	ECN3614DAC	ECN3618DAC	AN700DN022D
2	—	—	—	120	60A	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	25	20	600		ECN3621DAE	ECN3622DAE	ECN3624DAE	ECN3628DAE	AN700GN022D
3	—	—	—	120	100A	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	50	40	600		ECN3631DAG	ECN3632DAG	ECN3634DAG	ECN3638DAG	AN700KN022D
4	—	—	—	120	200A	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	400A	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

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays — 1 for each speed). Heater Pack Selection, **Page 13.4**.

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

NEMA Size	0	1	2	3	4	5
Constant or Variable Torque	5	10	25	50	75	150
Constant Horsepower	3	7-1/2	20	40	60	100

^② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN3604**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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Other Magnet Coils **Page 3.4**
 Cover Control **Page 3.38**
 Dimensions **Page 12.4**
 Accessories **Page 13.2**
 Modifications **Page 13.29**
 Technical Data **Page 15.3**

Table 3-35. Class ECN36 — NEMA 3-Pole Non-fusible Combination — 2-Speed 2-Winding

NEMA Size	Motor Voltage ①	Maximum hp Rating		Magnet Coil Voltage	Disconnect Amperes	Type 1 General Purpose Catalogue Number	Type 3R Rainproof Catalogue Number	Type 4X ②	Type 12	Component Starter (Open) Catalogue Number
		Constant or Variable Torque	Constant Horsepower					Watertight & Dust-Tight Stainless Steel Catalogue Number	Dust-Tight Industrial External Reset Catalogue Number	
0	—	—	—	120	30A	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	30A	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	60A	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	100A	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	200A	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	400A	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

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays — 1 for each speed). Heater Pack Selection, Page 13.4.

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

NEMA Size	0	1	2	3	4	5
Constant or Variable Torque	5	10	25	50	75	150
Constant Horsepower	3	7-1/2	20	40	60	100

② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Other Magnet Coils Page 3.4
 Cover Control Page 3.38
 Dimensions Page 12.4
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data Page 15.3

Table 3-36. Class ECN37 — NEMA 3-Pole Fusible Combination — 2-Speed 1-Winding (CT or VT)

NEMA Size	Motor Voltage ^①	Max. hp Rating	Magnet Coil Voltage	Fuse Clip Amperes	Type 1	Type 3R	Type 4X ^②	Type 12	Component
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset	Starter (Open)
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
0	—	—	120	30A	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	30A	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	60A	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	100A	ECN3731AAF	ECN3732AAF	ECN3734AAF	ECN3738AAF	AN700KN0218A
	200	25	208		ECN3731EAF	ECN3732EAF	ECN3734EAF	ECN3738EAF	AN700KN0218E
	230	30	240		ECN3731BAF	ECN3732BAF	ECN3734BAF	ECN3738BAF	AN700KN0218B
	460	50	480		ECN3731CAG	ECN3732CAG	ECN3734CAG	ECN3738CAG	AN700KN0218C
	575	50	600		ECN3731DAG	ECN3732DAG	ECN3734DAG	ECN3738DAG	AN700KN0218D
4	—	—	120	200A	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	400A	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

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays — 1 for each speed). Heater Pack Selection, see **Page 13.4**.

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

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

② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECN3704**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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Other Magnet Coils	Page 3.4
Cover Control	Page 3.38
Dimensions	Page 12.4
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Table 3-37. Class ECN37 — NEMA 3-Pole Non-fusible Combination — 2-Speed 1-Winding (CT or VT)

NEMA Size	Motor Voltage ^①	Max. hp Rating	Magnet Coil Voltage	Disconnect Amperes	Type 1 General Purpose Catalogue Number	Type 3R Rainproof Catalogue Number	Type 4X ^② Watertight & Dust-Tight Stainless Steel Catalogue Number	Type 12 Dust-Tight Industrial External Reset Catalogue Number	Component Starter (Open) Catalogue Number
0	—	—	120	30A	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	30A	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	60A	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	100A	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	200A	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	400A	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

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays — 1 for each speed). Heater Pack Selection, see Page 13.4.

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

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

② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Other Magnet Coils Page 3.4
 Cover Control. Page 3.38
 Dimensions Page 12.4
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data Page 15.3

Table 3-38. Class ECN38 — NEMA 3-Pole Fusible Combination — 2-Speed 1-Winding (Constant Horsepower)

NEMA Size	Motor Voltage ^①	Max. hp Rating	Magnet Coil Voltage	Fuse Clip Amperes	Type 1	Type 3R	Type 4X ^②	Type 12	Component Starter (Open)
					General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
0	—	—	120	30A	ECN3801AAB	ECN3802AAB	ECN3804AAB	ECN3808AAB	AN700BN0219A
	200	2	208		ECN3801EAB	ECN3802EAB	ECN3804EAB	ECN3808EAB	AN700BN0219E
	230	2	240		ECN3801BAB	ECN3802BAB	ECN3804BAB	ECN3808BAB	AN700BN0219B
	460	3	480		ECN3801CAC	ECN3802CAC	ECN3804CAC	ECN3808CAC	AN700BN0219C
	575	3	600		ECN3801DAC	ECN3802DAC	ECN3804DAC	ECN3808DAC	AN700BN0219D
1	—	—	120	30A	ECN3811AAB	ECN3812AAB	ECN3814AAB	ECN3818AAB	AN700DN0219A
	200	5	208		ECN3811EAB	ECN3812EAB	ECN3814EAB	ECN3818EAB	AN700DN0219E
	230	5	240		ECN3811BAB	ECN3812BAB	ECN3814BAB	ECN3818BAB	AN700DN0219B
	460	7-1/2	480		ECN3811CAC	ECN3812CAC	ECN3814CAC	ECN3818CAC	AN700DN0219C
	575	7-1/2	600		ECN3811DAC	ECN3812DAC	ECN3814DAC	ECN3818DAC	AN700DN0219D
2	—	—	120	60A	ECN3821AAD	ECN3822AAD	ECN3824AAD	ECN3828AAD	AN700GN0219A
	200	7-1/2	208		ECN3821EAD	ECN3822EAD	ECN3824EAD	ECN3828EAD	AN700GN0219E
	230	10	240		ECN3821BAD	ECN3822BAD	ECN3824BAD	ECN3828BAD	AN700GN0219B
	460	20	480		ECN3821CAE	ECN3822CAE	ECN3824CAE	ECN3828CAE	AN700GN0219C
	575	20	600		ECN3821DAE	ECN3822DAE	ECN3824DAE	ECN3828DAE	AN700GN0219D
3	—	—	120	100A	ECN3831AAF	ECN3832AAF	ECN3834AAF	ECN3838AAF	AN700KN0219A
	200	20	208		ECN3831EAF	ECN3832EAF	ECN3834EAF	ECN3838EAF	AN700KN0219E
	230	25	240		ECN3831BAF	ECN3832BAF	ECN3834BAF	ECN3838BAF	AN700KN0219B
	460	40	480		ECN3831CAG	ECN3832CAG	ECN3834CAG	ECN3838CAG	AN700KN0219C
	575	40	600		ECN3831DAG	ECN3832DAG	ECN3834DAG	ECN3838DAG	AN700KN0219D
4	—	—	120	200A	ECN3841AAH	ECN3842AAH	ECN3844AAH	ECN3848AAH	AN700NN0219A
	200	30	208		ECN3841EAH	ECN3842EAH	ECN3844EAH	ECN3848EAH	AN700NN0219E
	230	40	240		ECN3841BAH	ECN3842BAH	ECN3844BAH	ECN3848BAH	AN700NN0219B
	460	75	480		ECN3841CAJ	ECN3842CAJ	ECN3844CAJ	ECN3848CAJ	AN700NN0219C
	575	75	600		ECN3841DAJ	ECN3842DAJ	ECN3844DAJ	ECN3848DAJ	AN700NN0219D
5	—	—	120	400A	ECN3851AAK	ECN3852AAK	ECN3854AAK	ECN3858AAK	AN700SN0219A
	200	60	208		ECN3851EAK	ECN3852EAK	ECN3854EAK	ECN3858EAK	AN700SN0219E
	230	75	240		ECN3851BAK	ECN3852BAK	ECN3854BAK	ECN3858BAK	AN700SN0219B
	460	150	480		ECN3851CAL	ECN3852CAL	ECN3854CAL	ECN3858CAL	AN700SN0219C
	575	150	600		ECN3851DAL	ECN3852DAL	ECN3854DAL	ECN3858DAL	AN700SN0219D

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays — 1 for each speed). Heater Pack Selection, see **Page 13.4**.

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

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

② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Other Magnet Coils **Page 3.4**
 Cover Control **Page 3.38**
 Dimensions **Page 12.4**
 Accessories **Page 13.2**
 Modifications **Page 13.29**
 Technical Data **Page 15.3**

Table 3-39. Class ECN38 — NEMA 3-Pole Non-fusible Combination — 2-Speed 1-Winding (Constant Horsepower)

NEMA Size	Motor Voltage ^①	Max. hp Rating	Magnet Coil Voltage	Disconnect Amperes	Type 1	Type 3R	Type 4X ^② Watertight & Dust-Tight Stainless Steel	Type 12	Component Starter (Open)
					General Purpose	Rainproof		Dust-Tight Industrial External Reset	
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
0	—	—	120	30A	ECN3801AAA	ECN3802AAA	ECN3804AAA	ECN3808AAA	AN700BN0219A
	200	2	208		ECN3801EAA	ECN3802EAA	ECN3804EAA	ECN3808EAA	AN700BN0219E
	230	2	240		ECN3801BAA	ECN3802BAA	ECN3804BAA	ECN3808BAA	AN700BN0219B
	460	3	480		ECN3801CAA	ECN3802CAA	ECN3804CAA	ECN3808CAA	AN700BN0219C
	575	3	600		ECN3801DAA	ECN3802DAA	ECN3804DAA	ECN3808DAA	AN700BN0219D
1	—	—	120	30A	ECN3811AAA	ECN3812AAA	ECN3814AAA	ECN3818AAA	AN700DN0219A
	200	5	208		ECN3811EAA	ECN3812EAA	ECN3814EAA	ECN3818EAA	AN700DN0219E
	230	5	240		ECN3811BAA	ECN3812BAA	ECN3814BAA	ECN3818BAA	AN700DN0219B
	460	7-1/2	480		ECN3811CAA	ECN3812CAA	ECN3814CAA	ECN3818CAA	AN700DN0219C
	575	7-1/2	600		ECN3811DAA	ECN3812DAA	ECN3814DAA	ECN3818DAA	AN700DN0219D
2	—	—	120	60A	ECN3821AAA	ECN3822AAA	ECN3824AAA	ECN3828AAA	AN700GN0219A
	200	7-1/2	208		ECN3821EAA	ECN3822EAA	ECN3824EAA	ECN3828EAA	AN700GN0219E
	230	10	240		ECN3821BAA	ECN3822BAA	ECN3824BAA	ECN3828BAA	AN700GN0219B
	460	20	480		ECN3821CAA	ECN3822CAA	ECN3824CAA	ECN3828CAA	AN700GN0219C
	575	20	600		ECN3821DAA	ECN3822DAA	ECN3824DAA	ECN3828DAA	AN700GN0219D
3	—	—	120	100A	ECN3831AAA	ECN3832AAA	ECN3834AAA	ECN3838AAA	AN700KN0219A
	200	20	208		ECN3831EAA	ECN3832EAA	ECN3834EAA	ECN3838EAA	AN700KN0219E
	230	25	240		ECN3831BAA	ECN3832BAA	ECN3834BAA	ECN3838BAA	AN700KN0219B
	460	40	480		ECN3831CAA	ECN3832CAA	ECN3834CAA	ECN3838CAA	AN700KN0219C
	575	40	600		ECN3831DAA	ECN3832DAA	ECN3834DAA	ECN3838DAA	AN700KN0219D
4	—	—	120	200A	ECN3841AAA	ECN3842AAA	ECN3844AAA	ECN3848AAA	AN700NN0219A
	200	30	208		ECN3841EAA	ECN3842EAA	ECN3844EAA	ECN3848EAA	AN700NN0219E
	230	40	240		ECN3841BAA	ECN3842BAA	ECN3844BAA	ECN3848BAA	AN700NN0219B
	460	75	480		ECN3841CAA	ECN3842CAA	ECN3844CAA	ECN3848CAA	AN700NN0219C
	575	75	600		ECN3841DAA	ECN3842DAA	ECN3844DAA	ECN3848DAA	AN700NN0219D
5	—	—	120	400A	ECN3851AAA	ECN3852AAA	ECN3854AAA	ECN3858AAA	AN700SN0219A
	200	60	208		ECN3851EAA	ECN3852EAA	ECN3854EAA	ECN3858EAA	AN700SN0219E
	230	75	240		ECN3851BAA	ECN3852BAA	ECN3854BAA	ECN3858BAA	AN700SN0219B
	460	150	480		ECN3851CAA	ECN3852CAA	ECN3854CAA	ECN3858CAA	AN700SN0219C
	575	150	600		ECN3851DAA	ECN3852DAA	ECN3854DAA	ECN3858DAA	AN700SN0219D

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays — 1 for each speed). Heater Pack Selection, see Page 13.4.

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

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

② The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. 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 Nonmetallic, change that digit to 5. For details on these Alternate Enclosures, see Tab 11.

Other Magnet Coils. Page 3.4
 Cover Control. Page 3.38
 Dimensions Page 12.4
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data. Page 15.3

Table 3-40. Class ECN39 — NEMA 3-Pole Combination HMCP or Magnetic Trip C.B. — 2-Speed 2-Winding

NEMA Size	Motor Voltage	Maximum hp Rating		Magnet Coil Voltage ①	Circuit Breaker Type	Type 1	Type 3R	Type 4X ④	Type 12	Component Starter (Open)		
		Constant or Variable Torque	Constant Horsepower			General Purpose	Rainproof	Watertight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ②③			
						Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number		
0	200	1	1	208	HMCP 7A HMCP 15A	ECN3901EAC	ECN3902EAC	ECN3904EAC	ECN3908EAC	AN700BN022E		
		3	2			ECN3901EAD	ECN3902EAD	ECN3904EAD	ECN3908EAD			
	230	1	1	240	HMCP 7A HMCP 15A	ECN3901BAC	ECN3902BAC	ECN3904BAC	ECN3908BAC	AN700BN022B		
		3	2			ECN3901BAD	ECN3902BAD	ECN3904BAD	ECN3908BAD			
	460	3/4	3/4	480	HMCP 3A HMCP 7A HMCP 15A	ECN3901CAB	ECN3902CAB	ECN3904CAB	ECN3908CAB	AN700BN022C		
						2	2	ECN3901CAC	ECN3902CAC		ECN3904CAC	ECN3908CAC
						5	3	ECN3901CAD	ECN3902CAD		ECN3904CAD	ECN3908CAD
	575	1	1	600	HMCP 3A HMCP 7A HMCP 15A	ECN3901DA5	ECN3902DA5	ECN3904DA5	ECN3908DA5	AN700BN022D		
						3	3	ECN3901DA6	ECN3902DA6		ECN3904DA6	ECN3908DA6
						5	—	ECN3901DA7	ECN3902DA7		ECN3904DA7	ECN3908DA7
	1	200	1	1	208	HMCP 7A HMCP 15A HMCP 30A	ECN3911EAC	ECN3912EAC	ECN3914EAC	ECN3918EAC	AN700DN022E	
			2	2			ECN3911EAD	ECN3912EAD	ECN3914EAD	ECN3918EAD		
7-1/2			5	ECN3911EAE			ECN3912EAE	ECN3914EAE	ECN3918EAE			
230		1	1	240	HMCP 7A HMCP 15A HMCP 30A	ECN3911BAC	ECN3912BAC	ECN3914BAC	ECN3918BAC	AN700DN022B		
						2	2	ECN3911BAD	ECN3912BAD		ECN3914BAD	ECN3918BAD
						7-1/2	5	ECN3911BAE	ECN3912BAE		ECN3914BAE	ECN3918BAE
460		3/4	3/4	480	HMCP 3A HMCP 7A HMCP 15A HMCP 30A	ECN3911CAB	ECN3912CAB	ECN3914CAB	ECN3918CAB	AN700DN022C		
						2	2	ECN3911CAC	ECN3912CAC		ECN3914CAC	ECN3918CAC
						5	5	ECN3911CAD	ECN3912CAD		ECN3914CAD	ECN3918CAD
						10	7-1/2	ECN3911CAE	ECN3912CAE		ECN3914CAE	ECN3918CAE
575		1	1	600	HMCP 3A HMCP 7A HMCP 15A HMCP 30A	ECN3911DA5	ECN3912DA5	ECN3914DA5	ECN3918DA5	AN700DN022D		
						3	3	ECN3911DA6	ECN3912DA6		ECN3914DA6	ECN3918DA6
	7-1/2					7-1/2	ECN3911DA7	ECN3912DA7	ECN3914DA7		ECN3918DA7	
	10					—	ECN3911DA8	ECN3912DA8	ECN3914DA8		ECN3918DA8	
2	200	10	7-1/2	208	HMCP 50A	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	HMCP 50A	ECN3921DA9	ECN3922DA9	ECN3924DA9	ECN3928DA9	AN700GN022D
3	200	25	20	208	HMCP 100A	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	HMCP 100A	ECN3931DAI	ECN3932DAI	ECN3934DAI	ECN3938DAI	AN700KN022D
4	200	40	30	208	HMCP 150A	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	HMCP 250A HMCP 400A	ECN3951EAJ	ECN3952EAJ	ECN3954EAJ	ECN3958EAJ	AN700SN022E		
		75	—			ECN3951EAK	ECN3952EAK	ECN3954EAK	ECN3958EAK			
	230	75	75	240	HMCP 250A HMCP 400A	ECN3951BAJ	ECN3952BAJ	ECN3954BAJ	ECN3958BAJ	AN700SN022B		
		100	—			ECN3951BAK	ECN3952BAK	ECN3954BAK	ECN3958BAK			
	460	150	150	480	HMCP 250A HMCP 400A	ECN3951CAJ	ECN3952CAJ	ECN3954CAJ	ECN3958CAJ	AN700SN022C		
		200	—			ECN3951CAK	ECN3952CAK	ECN3954CAK	ECN3958CAK			
	575	200	150	600	HMCP 250A	ECN3951DAJ	ECN3952DAJ	ECN3954DAJ	ECN3958DAJ	AN700SN022D		

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays — 1 for each speed). Heater Pack Selection, [Page 13.4](#).

- ① Starters with 120V coil (for separate control) are available. To order, substitute the letter **A** for the 8th character of the listed Catalogue Number.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order mod code **R5**.
- ③ Type 12 enclosure is without safety door interlock.
- ④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see [Tab 11](#).

Other Magnet Coils	Page 3.4
Cover Control	Page 3.38
Dimensions	Page 12.4
Accessories	Page 13.2
Modifications	Page 13.29
Technical Data	Page 15.3

Table 3-41. Class ECN40 — NEMA 3-Pole Combination HMCP or Magnetic Trip C.B. — 2-Speed 1-Winding (CT or VT)

NEMA Size	Motor Voltage	Max. hp Rating	Magnet Coil Voltage ①	Circuit Breaker Type	Type 1	Type 3R	Type 4X ④	Type 12	Component Starter (Open)	
					General Purpose	Rainproof	Water-tight & Dust-Tight Stainless Steel	Dust-Tight Industrial External Reset ②③		
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	
0	200	1 3	208	HMCP 7A	ECN4001EAC	ECN4002EAC	ECN4004EAC	ECN4008EAC	AN700BN0218E	
				HMCP 15A	ECN4001EAD	ECN4002EAD	ECN4004EAD	ECN4008EAD		
	230	1 3	240	HMCP 7A	ECN4001BAC	ECN4002BAC	ECN4004BAC	ECN4008BAC	AN700BN0218B	
				HMCP 15A	ECN4001BAD	ECN4002BAD	ECN4004BAD	ECN4008BAD		
	460	3/4 2 5	480	HMCP 3A	ECN4001CAB	ECN4002CAB	ECN4004CAB	ECN4008CAB	AN700BN0218C	
				HMCP 7A	ECN4001CAC	ECN4002CAC	ECN4004CAC	ECN4008CAC		
				HMCP 15A	ECN4001CAD	ECN4002CAD	ECN4004CAD	ECN4008CAD		
	575	1 3 5	600	HMCP 3A	ECN4001DA5	ECN4002DA5	ECN4004DA5	ECN4008DA5	AN700BN0218D	
				HMCP 7A	ECN4001DA6	ECN4002DA6	ECN4004DA6	ECN4008DA6		
				HMCP 15A	ECN4001DA7	ECN4002DA7	ECN4004DA7	ECN4008DA7		
	1	200	1 2 7-1/2	208	HMCP 7A	ECN4011EAC	ECN4012EAC	ECN4014EAC	ECN4018EAC	AN700DN0218E
					HMCP 15A	ECN4011EAD	ECN4012EAD	ECN4014EAD	ECN4018EAD	
HMCP 30A					ECN4011EAE	ECN4012EAE	ECN4014EAE	ECN4018EAE		
230		1 2 7-1/2	240	HMCP 7A	ECN4011BAC	ECN4012BAC	ECN4014BAC	ECN4018BAC	AN700DN0218B	
				HMCP 15A	ECN4011BAD	ECN4012BAD	ECN4014BAD	ECN4018BAD		
				HMCP 30A	ECN4011BAE	ECN4012BAE	ECN4014BAE	ECN4018BAE		
460		3/4 2 5 10	480	HMCP 3A	ECN4011CAB	ECN4012CAB	ECN4014CAB	ECN4018CAB	AN700DN0218C	
				HMCP 7A	ECN4011CAC	ECN4012CAC	ECN4014CAC	ECN4018CAC		
				HMCP 15A	ECN4011CAD	ECN4012CAD	ECN4014CAD	ECN4018CAD		
575		1 3 7-1/2 10	600	HMCP 3A	ECN4011DA5	ECN4012DA5	ECN4014DA5	ECN4018DA5	AN700DN0218D	
				HMCP 7A	ECN4011DA6	ECN4012DA6	ECN4014DA6	ECN4018DA6		
				HMCP 15A	ECN4011DA7	ECN4012DA7	ECN4014DA7	ECN4018DA7		
2	200	10	208	HMCP 50A	ECN4021EAF	ECN4022EAF	ECN4024EAF	ECN4028EAF	AN700GN0218E	
	230	15	240		ECN4021BAF	ECN4022BAF	ECN4024BAF	ECN4028BAF	AN700GN0218B	
	460	25	480		ECN4021CAF	ECN4022CAF	ECN4024CAF	ECN4028CAF	AN700GN0218C	
	575	25	600	HMCP 50A	ECN4021DA9	ECN4022DA9	ECN4024DA9	ECN4028DA9	AN700GN0218D	
3	200	25	208	HMCP 100A	ECN4031EAG	ECN4032EAG	ECN4034EAG	ECN4038EAG	AN700KN0218E	
	230	30	240		ECN4031BAG	ECN4032BAG	ECN4034BAG	ECN4038BAG	AN700KN0218B	
	460	50	480		ECN4031CAG	ECN4032CAG	ECN4034CAG	ECN4038CAG	AN700KN0218C	
	575	50	600	HMCP 100A	ECN4031DAI	ECN4032DAI	ECN4034DAI	ECN4038DAI	AN700KN0218D	
4	200	40	208	HMCP 150A	ECN4041EAH	ECN4042EAH	ECN4044EAH	ECN4048EAH	AN700NN0218E	
	230	50	240		ECN4041BAH	ECN4042BAH	ECN4044BAH	ECN4048BAH	AN700NN0218B	
	460	100	480		ECN4041CAH	ECN4042CAH	ECN4044CAH	ECN4048CAH	AN700NN0218C	
	575	100	600		ECN4041DAH	ECN4042DAH	ECN4044DAH	ECN4048DAH	AN700NN0218D	
5	200	60 75	208	HMCP 250A	ECN4051EAJ	ECN4052EAJ	ECN4054EAJ	ECN4058EAJ	AN700SN0218E	
				HMCP 400A	ECN4051EAK	ECN4052EAK	ECN4054EAK	ECN4058EAK		
	230	75 100	240	HMCP 250A	ECN4051BAJ	ECN4052BAJ	ECN4054BAJ	ECN4058BAJ	AN700SN0218B	
				HMCP 400A	ECN4051BAK	ECN4052BAK	ECN4054BAK	ECN4058BAK		
	460	150 200	480	HMCP 250A	ECN4051CAJ	ECN4052CAJ	ECN4054CAJ	ECN4058CAJ	AN700SN0218C	
				HMCP 400A	ECN4051CAK	ECN4052CAK	ECN4054CAK	ECN4058CAK		
	575	200	600	HMCP 250A	ECN4051DAJ	ECN4052DAJ	ECN4054DAJ	ECN4058DAJ	AN700SN0218D	

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays – 1 for each speed). Heater Pack Selection, see Page 13.4.

- ① Starters with 120V coil (for separate control) are available. To order, substitute the letter **A** for the 8th character of the listed Catalogue Number.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order mod code **R5**.
- ③ Type 12 enclosure is without safety door interlock.
- ④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see Tab 11.

Other Magnet Coils. Page 3.4
 Cover Control. Page 3.38
 Dimensions Page 12.4
 Accessories Page 13.2
 Modifications Page 13.29
 Technical Data. Page 15.3

Table 3-42. Class ECN41 — NEMA 3-Pole Combination HMCP or Magnetic Trip C.B. — 2-Speed 1-Winding (Constant Horsepower)

NEMA Size	Motor Voltage	Maximum hp Rating		Circuit Breaker Type	Type 1 General Purpose	Type 3R Rainproof	Type 4X ^④ Watertight & Dust-Tight Stainless Steel	Type 12 Dust-Tight Industrial External Reset ^{②③}	Component Starter (Open)	
		Constant Horsepower	Magnet Coil Voltage ^①							
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	
0	200	1	208	HMCP 7A	ECN4101EAC	ECN4102EAC	ECN4104EAC	ECN4108EAC	AN700BN0219E	
		2		HMCP 15A	ECN4101EAD	ECN4102EAD	ECN4104EAD	ECN4108EAD		
	230	1	240	HMCP 7A	ECN4101BAC	ECN4102BAC	ECN4104BAC	ECN4108BAC	AN700BN0219B	
		2		HMCP 15A	ECN4101BAD	ECN4102BAD	ECN4104BAD	ECN4108BAD		
	460	3/4	480	HMCP 3A	ECN4101CAB	ECN4102CAB	ECN4104CAB	ECN4108CAB	AN700BN0219C	
		2		HMCP 7A	ECN4101CAC	ECN4102CAC	ECN4104CAC	ECN4108CAC		
		3		HMCP 15A	ECN4101CAD	ECN4102CAD	ECN4104CAD	ECN4108CAD		
	575	1	600	HMCP 3A	ECN4101DA5	ECN4102DA5	ECN4104DA5	ECN4108DA5	AN700BN0219D	
		3		HMCP 7A	ECN4101DA6	ECN4102DA6	ECN4104DA6	ECN4108DA6		
	1	200	1	208	HMCP 7A	ECN4111EAC	ECN4112EAC	ECN4114EAC	ECN4118EAC	AN700DN0219E
			2		HMCP 5A	ECN4111EAD	ECN4112EAD	ECN4114EAD	ECN4118EAD	
			5		HMCP 30A	ECN4111EAE	ECN4112EAE	ECN4114EAE	ECN4118EAE	
230		1	240	HMCP 7A	ECN4111BAC	ECN4112BAC	ECN4114BAC	ECN4118BAC	AN700DN0219B	
		2		HMCP 15A	ECN4111BAD	ECN4112BAD	ECN4114BAD	ECN4118BAD		
		5		HMCP 30A	ECN4111BAE	ECN4112BAE	ECN4114BAE	ECN4118BAE		
460		3/4	480	HMCP 3A	ECN4111CAB	ECN4112CAB	ECN4114CAB	ECN4118CAB	AN700DN0219C	
		2		HMCP 7A	ECN4111CAC	ECN4112CAC	ECN4114CAC	ECN4118CAC		
		5		HMCP 15A	ECN4111CAD	ECN4112CAD	ECN4114CAD	ECN4118CAD		
		7-1/2		HMCP 30A	ECN4111CAE	ECN4112CAE	ECN4114CAE	ECN4118CAE		
575		1	600	HMCP 3A	ECN4111DA5	ECN4112DA5	ECN4114DA5	ECN4118DA5	AN700DN0219D	
		3		HMCP 7A	ECN4111DA6	ECN4112DA6	ECN4114DA6	ECN4118DA6		
		7-1/2		HMCP 15A	ECN4111DA7	ECN4112DA7	ECN4114DA7	ECN4118DA7		
2		200	7-1/2	208	HMCP 50A	ECN4121EAF	ECN4122EAF	ECN4124EAF	ECN4128EAF	AN700GN0219E
		230	10		240	ECN4121BAF	ECN4122BAF	ECN4124BAF	ECN4128BAF	AN700GN0219B
		460	20		480	ECN4121CAF	ECN4122CAF	ECN4124CAF	ECN4128CAF	AN700GN0219C
		575	20		600	HMCP 50A	ECN4121DA9	ECN4122DA9	ECN4124DA9	ECN4128DA9
3		200	20	208	HMCP 100A	ECN4131EAG	ECN4132EAG	ECN4134EAG	ECN4138EAG	AN700KN0219E
		230	25		240	ECN4131BAG	ECN4132BAG	ECN4134BAG	ECN4138BAG	AN700KN0219B
		460	40		480	ECN4131CAG	ECN4132CAG	ECN4134CAG	ECN4138CAG	AN700KN0219C
		575	40		600	HMCP 100A	ECN4131DAI	ECN4132DAI	ECN4134DAI	ECN4138DAI
4		200	30	208	HMCP 150A	ECN4141EAH	ECN4142EAH	ECN4144EAH	ECN4148EAH	AN700NN0219E
		230	40		240	ECN4141BAH	ECN4142BAH	ECN4144BAH	ECN4148BAH	AN700NN0219B
		460	75		480	ECN4141CAH	ECN4142CAH	ECN4144CAH	ECN4148CAH	AN700NN0219C
	575	75	600		ECN4141DAH	ECN4142DAH	ECN4144DAH	ECN4148DAH	AN700NN0219D	
5	200	60	208	HMCP 250A	ECN4151EAJ	ECN4152EAJ	ECN4154EAJ	ECN4158EAJ	AN700SN0219E	
	230	75		240	HMCP 250A	ECN4151BAJ	ECN4152BAJ	ECN4154BAJ	ECN4158BAJ	AN700SN0219B
	460	150		480	HMCP 250A	ECN4151CAJ	ECN4152CAJ	ECN4154CAJ	ECN4158CAJ	AN700SN0219C
	575	150		600	HMCP 250A	ECN4151DAJ	ECN4152DAJ	ECN4154DAJ	ECN4158DAJ	AN700SN0219D

Starters do not include heater packs - order separately. Select 2 cartons of 3 heater packs (2 overload relays — 1 for each speed). Heater Pack Selection, **Page 13.4.**

- ① Starters with 120V coil (for separate control) are available. To order, substitute the letter **A** for the 8th character of the listed Catalogue Number.
- ② All Type 12 enclosures are standardized with external reset. For internal reset, order mod code **R5**.
- ③ Type 12 enclosure is without safety door interlock.
- ④ The Catalogue Numbers listed in the Type 4X column are for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. 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 Nonmetallic, change that digit to **5**. For details on these Alternate Enclosures, see **Tab 11**.

Other Magnet Coils **Page 3.4**
 Cover Control **Page 3.38**
 Dimensions **Page 12.4**
 Accessories **Page 13.2**
 Modifications **Page 13.29**
 Technical Data **Page 15.3**

Wiring Diagrams

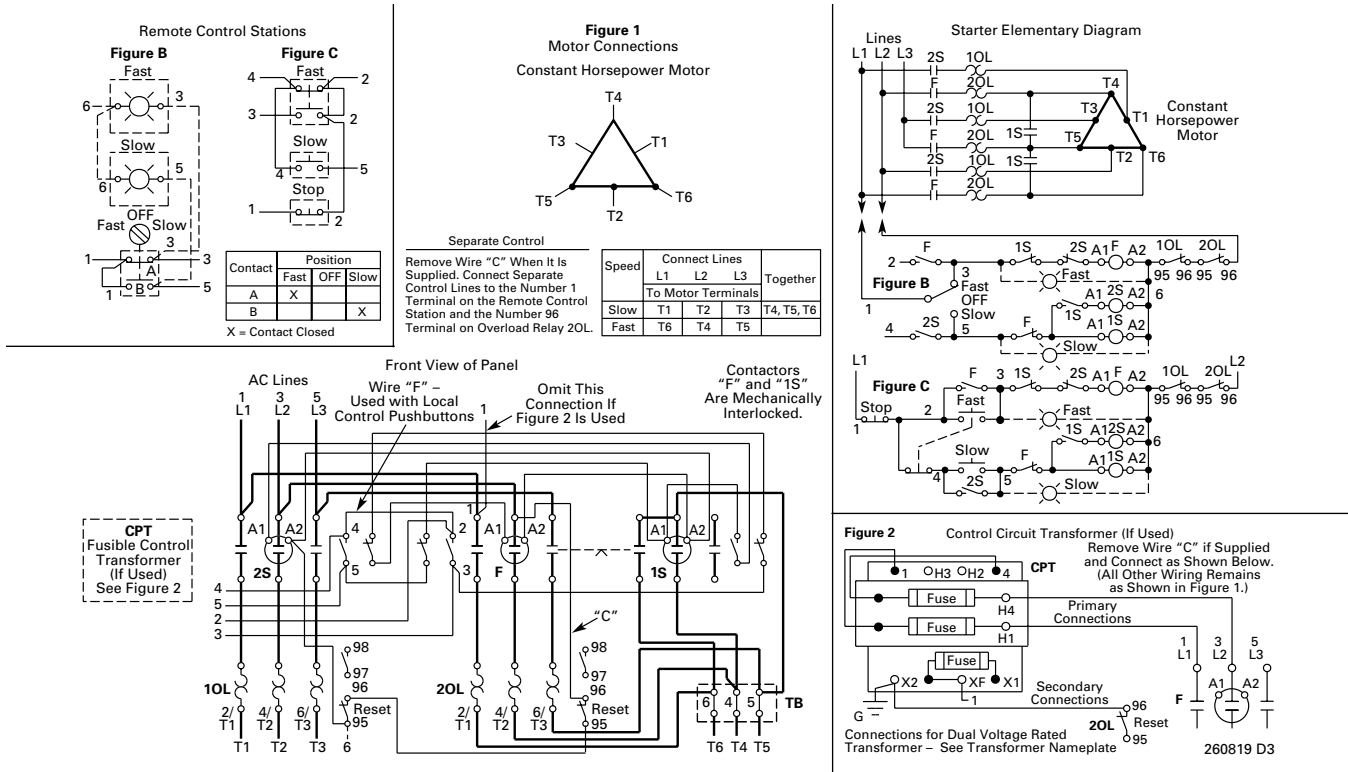


Figure 3-12. Multispeed — 2-Speed 1-Winding Constant Horsepower

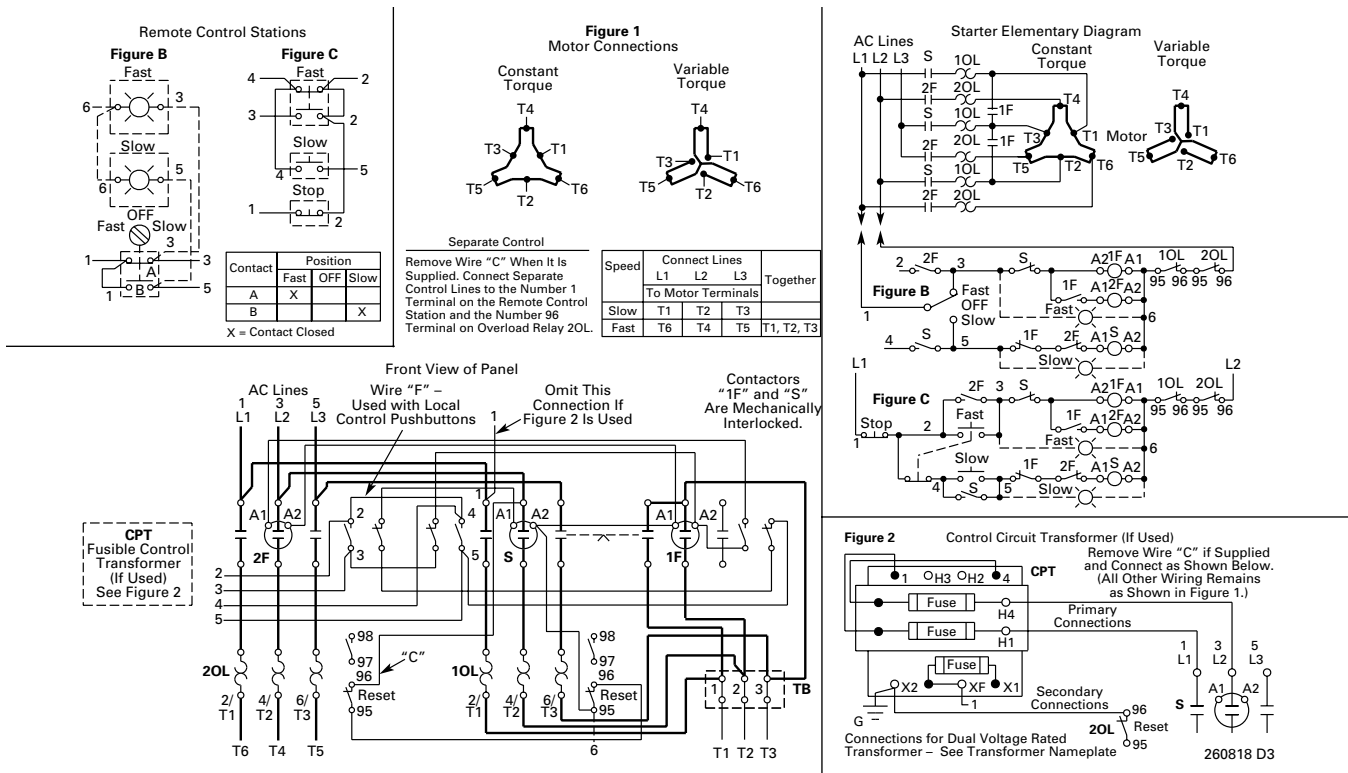


Figure 3-13. Multispeed — 2-Speed 1-Winding Constant or Variable Torque

Multispeed Cover Control

Figure A
3-Position Selector Switch
(2-Wire Control)

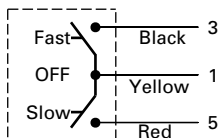


Figure B
Pilot Light
(FAST)

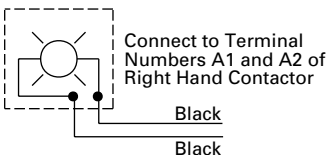
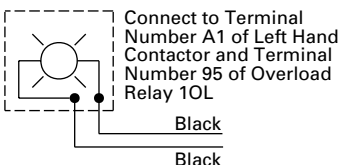


Figure C
Pilot Light
(SLOW)



260817 D1

Figure 3-15. 2-Speed 2-Winding C400GK Control Options

Figure A
3-Position Selector Switch
(2-Wire Control)

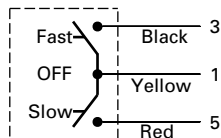


Figure B
Pilot Light
(FAST)

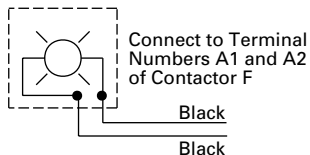
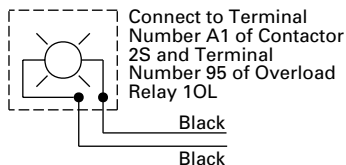


Figure C
Pilot Light
(SLOW)



260894 D1

Figure 3-16. 2-Speed 1-Winding CH C400GK Control Options

Figure A
3-Position Selector Switch
(2-Wire Control)

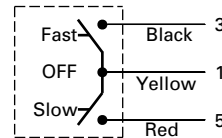


Figure B
Pilot Light
(FAST)

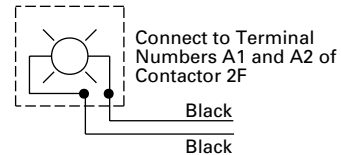
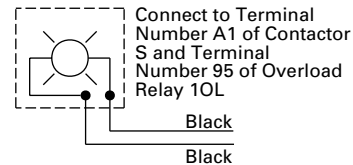
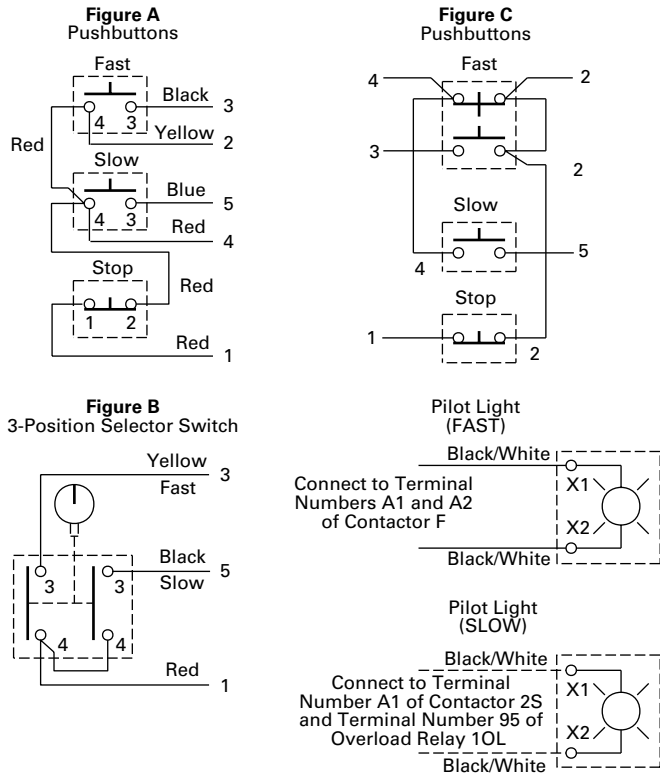


Figure C
Pilot Light
(SLOW)



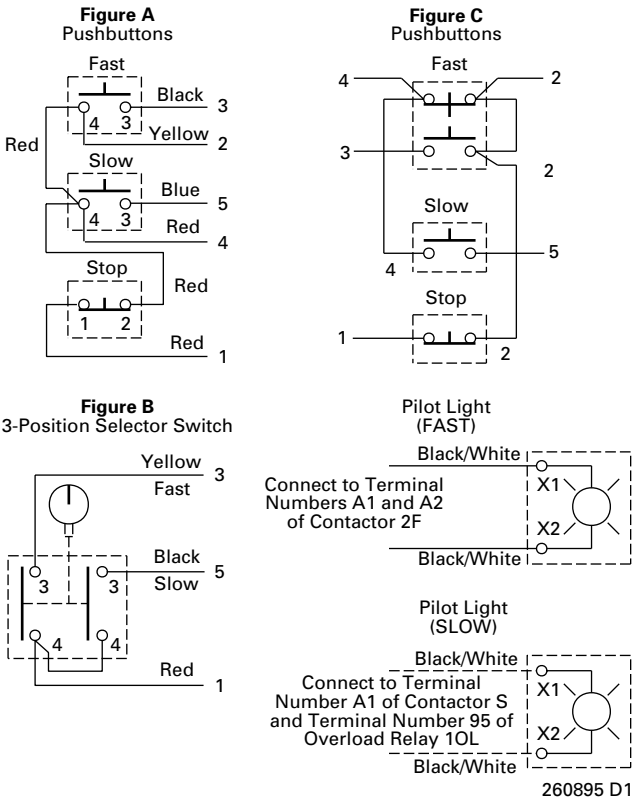
260893 D1

Figure 3-17. 2-Speed 1-Winding CT, VT C400GK Control Options



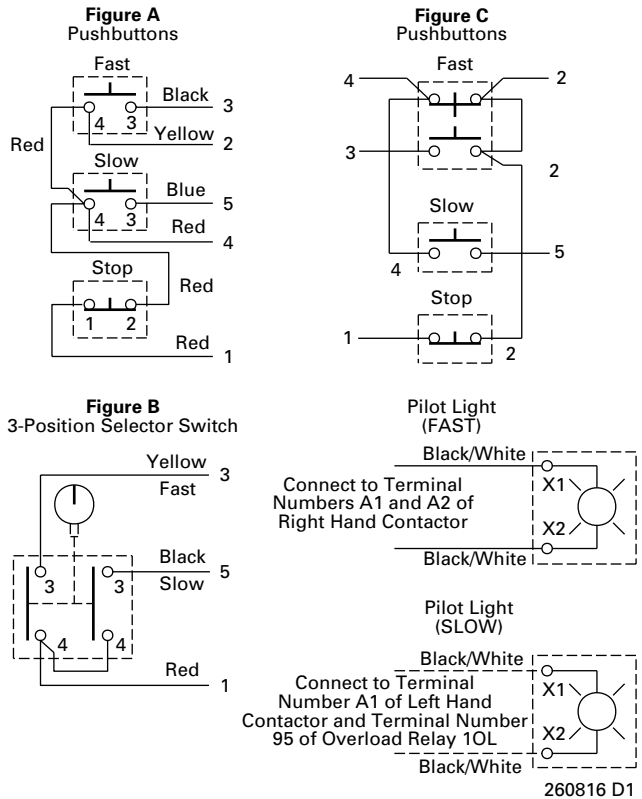
260896 D1

Figure 3-18. 2-Speed 1-Winding CH C400T Control Options



260895 D1

Figure 3-19. 2-Speed 1-Winding CT, VT C400T Control Options



260816 D1

Figure 3-20. 2-Speed 2-Winding C400T Control Options