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*Type 1 Non-combination Starter  
Catalog Number ECE0511ABA*



*Type 1 Combination Starter  
Catalog Number ECE25A1AJB-R8*

## Product Description

The Cutler-Hammer® Freedom Line of Enclosed Control from Eaton's electrical business includes IEC Contactors and Starters with fixed heaters, interchangeable heaters and solid-state overload relays.

### Interchangeable Heater Starters

- Highest horsepower rating in compact, space-saving designs. 45 mm frame rated maximum 20 hp at 460V, 65 mm frame rated maximum 50 hp, and 90 mm frame rated maximum 100 hp.
- Bimetallic ambient compensated overload relays — available in three sizes, covering applications up to 100 hp.
- These overload relays feature:
  - Selectable manual or automatic reset operation.
  - Interchangeable heater packs adjustable  $\pm 24\%$  to match motor FLA and calibrated for 1.0 and 1.15 service factors. Heater packs for smaller overload relay will mount in larger overload relay — useful in derating applications such as jogging.
  - Overload trip indication.
  - Electrically isolated NO-NC contacts (pull RESET button to test).
- Long life twin break, silver cadmium oxide contacts — provide excellent conductivity and superior resistance to welding and arc erosion.
- Designed to 2,000,000 electrical and 20,000,000 mechanical operations through 20 hp at 460V. Adequate for most general duty motor control applications.

### Non-reversing

- IP20 finger protection shields available.
- Contactor and terminal markings conform to CENELEC EN50011.
- One NO right-side mounted auxiliary contact supplied as standard on Sizes A – N (on Sizes A – C, contact occupies 4th power pole — no increase in width).
- Three basic starter frame widths — 45 mm, 65 mm and 90 mm.

### Reversing

- Sizes A through M have a wired NO-NC side mounted electrical interlock on each contactor.
- 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.
- Screw-type power terminals have captive, backed-out, self-lifting pressure plates with  $\pm$  screws — reduced wiring time.



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Product Family Overview

**Fixed Heater Starters**

- **IEC 947-4-1 compliance** — International Standard for low voltage switchgear and control devices.
  - UL listed and CSA certified.
  - C316 bimetallic ambient compensated overload relays — available in three basic sizes, covering applications up to 150 hp.
- These overload relays feature:
- Direct heated bimetal elements — Class 10.
  - Single-phase and phase unbalance sensitivity.
  - Ambient temperature compensated.
  - Adjustable trip current.
  - Overload trip indication and contact test lever.
  - Manual/automatic reset.
  - Electrically isolated NO-NC contacts.
- Long life twin break, silver cadmium oxide contacts — provide excellent conductivity and superior resistance to welding and arc erosion.
  - Designed to 2,000,000 electrical and 20,000,000 mechanical operations through 20 hp at 460V. Adequate for most general duty motor control applications.

**Non-reversing**

- Highest horsepower rating in compact, space-saving designs. 45 mm frame rated maximum 20 hp at 460V, 65 mm frame rated maximum 50 hp, 90 mm frame rated maximum 100 hp, and 180 mm frame rated maximum 150 hp.
- NO side mounted auxiliary contact supplied as standard on Sizes A – N. Sizes P and R have NO-NC contacts.
- Four basic starter frame widths — 45 mm, 65 mm, 90 mm and 180 mm.

**Reversing**

- Highest horsepower rating in compact, space-saving designs. 45 mm frame rated maximum 20 hp at 460V, 65 mm frame rated maximum 50 hp at 460V, and 90 mm frame rated a maximum 75 hp at 460V.
- Sizes A through K have a wired NO-NC top mounted electrical interlock on each contactor. Sizes L through M have one NO-NC side mounted electrical interlock on each contactor.

**Table 34-204. Plugging and Jogging Service Horsepower Ratings** ①

Size	200V	230V	460V	575V
<b>IEC Style</b>				
B	1	1	2	3
C	1-1/2	1-1/2	3	5
D	2	2	5	7-1/2
E	3	3	7-1/2	10
F	5	5	10	15
G	5	7-1/2	15	20
H	7-1/2	10	20	25
J	7-1/2	10	25	30
K	10	15	30	40
L	15	20	40	40
M	20	25	50	50

① Maximum horsepower where operation is interrupted more than 5 times per minute, or more than 10 times in a 10 minute period.

**Standards and Certifications**

- UL Listed
- cUL Listed (indicates appropriate CSA Standard investigation)
- ABS Type Approved
- CE Mark available

**Options**



*Solid-State Overload Relay with Freedom Contactor*

**Solid-State Overload Relay**

- Self powered
- Phase loss protection
- Class 10 or Class 20
- Manual or automatic reset
- Visible trip indicator
- 1NO and 1NC isolated contacts
- Ambient compensated
- Test button
- Wide adjustment range (3.2:1)
- ± 1% repeats accuracy
- Current adjustment knob

Available thru Size N.

**See Page 34-49 for this and other Modification Codes.**

Product Family Overview

Cover Control

Non-combination Starters

For Non-combination Starter Cover Control, see Page 33-99.

Combination Starters

- Cover control for Combination Starters uses E22 style (22 mm).
- Selector switches are maintained with lever operators.
- Pushbuttons are momentary type with extended pushbutton.
- The kit includes hardware and connecting wires (where possible).
- For factory installed control devices other than shown below, refer to Modification Codes, Page 34-49.
- Use Table 34-205 to find the correct enclosure for the starter size and type.

Table 34-205. Combination Starter Enclosures

Catalog Number	Enclosures		
	J	K	L
	Starter Size		
ECE16	A - E	—	F - H
ECE17	A - E	—	F - H
ECE18	A - E	—	F - H
ECE19	A - E	—	F - H
ECE20	—	A - E	F - H
ECE21	A - E	—	F - H
ECE22	A - F	—	G - H
ECE23	—	A - F	G - H
ECE24	A - F	—	G - H
ECE25	A - F	—	G - H
ECE26	—	A - F	G - H

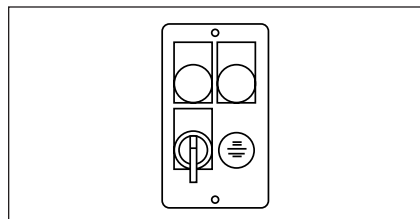


Figure 34-57. Cover Control  
Maximum (4) 22 mm Devices

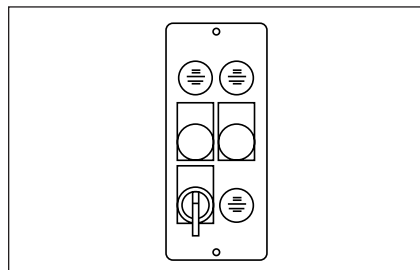


Figure 34-58. Cover Control  
Maximum (6) 22 mm Devices

Table 34-206. Combination Starter Cover Control

Description	Factory Installed ①		Field Kits	
	Position 9 Cover Control	Combination Only	Catalog Number	Price U.S. \$
	Code	Adder U.S. \$		

Kits for J Enclosure Non-reversing

START/STOP Pushbuttons (PB)	B	*	CE400T01	*
START/STOP PB & Red RUN Light	C	*	CE400T02 ②	*
START/STOP PB, Red RUN, & Green STOPPED Light	D	*	CE400T03 ②	*
HAND/OFF/AUTO Selector Switch (SS)	H	*	CE400T04	*
H-O-A SS & Red RUN Light	J	*	CE400T05 ②	*
H-O-A SS, Red RUN, & Green STOPPED Light	K	*	CE400T06 ②	*
Red RUN Pilot Light	P	*	CE400T10 ②	*
Green OFF Pilot Light	Q	*	CE400T11 ②	*
Red RUN/Green OFF Pilot Light	R	*	CE400T12 ②	*
ON/OFF Selector Switch (SS)	S	*	CE400T07	*
ON/OFF SS, Red RUN Light	T	*	CE400T08 ②	*
ON/OFF SS, Red RUN, & Green STOPPED Light	U	*	CE400T09 ②	*

Kits for K and L Enclosure Non-reversing

START/STOP Pushbuttons (PB)	B	*	CE400T21	*
START/STOP PB & Red RUN Light	C	*	CE400T22 ②	*
START/STOP PB, Red RUN, & Green STOPPED Light	D	*	CE400T23 ②	*
HAND/OFF/AUTO Selector Switch (SS)	H	*	CE400T24	*
H-O-A SS & Red RUN Light	J	*	CE400T25 ②	*
H-O-A SS, Red RUN, & Green STOPPED Light	K	*	CE400T26 ②	*
Red RUN Pilot Light	P	*	CE400T10 ②	*
Green OFF Pilot Light	Q	*	CE400T11 ②	*
Red RUN/Green OFF Pilot Light	R	*	CE400T12 ②	*
ON/OFF Selector Switch (SS)	S	*	CE400T27	*
ON/OFF SS, Red RUN Light	T	*	CE400T28 ②	*
ON/OFF SS, Red RUN, & Green STOPPED Light	U	*	CE400T29 ②	*

Kits for Full Voltage Reversing (All)

FWD/REV/STOP Pushbuttons (PB)	B	*	CE400T50	*
FWD/REV/STOP PB + Red FWD & REV Lights	C	*	CE400T51 ②	*
FWD/REV/STOP PB, Red FWD/REV, & Green STOPPED	D	*	CE400T52 ②	*
FOR/OFF/REV Selector Switch (SS)	H	*	CE400T53	*
FOR/OFF/REV SS + Red FWD & REV Lights	J	*	CE400T54 ②	*
FOR/OFF/REV SS, Red FWD/REV, & Green STOPPED	K	*	CE400T55 ②	*
OPEN/OFF/CLOSE Selector Switch (SS)	V	*	CE400T56	*
OPEN/OFF/CLOSE SS + Red FWD & REV Lights	W	*	CE400T57 ②	*
OPEN/OFF/CLOSE SS, Red FWD/REV, & Green STOPPED	X	*	CE400T58 ②	*

① To include any of the above cover controls, place the control code character in position 9 of your Catalog Number. Example: ECE16A1ADA Full voltage non-reversing fusible starter with interchangeable heater OLR and START/STOP pushbutton with red RUN and green OFF pilot lights.

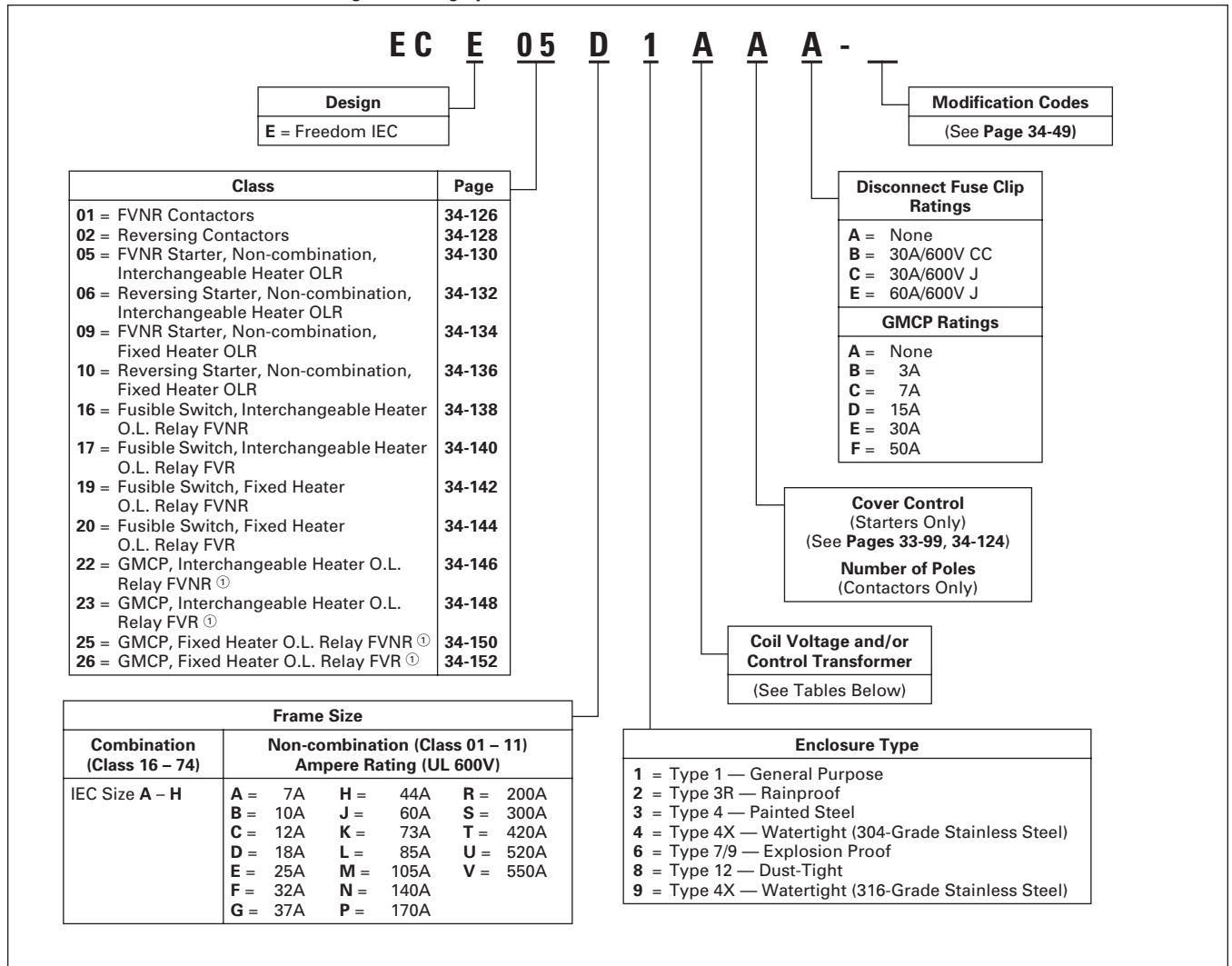
② Suffix for lights (required for field installed kits only) in chart below:

Rating	Catalog Suffix	Rating	Catalog Suffix
120V 60 Hz	A	277V 60 Hz	H
208V 60 Hz	E	380V 50 Hz	L
240V 60 Hz	B	460V 60 Hz	C
		600V 60 Hz	D

\*Please contact your local Eaton sales office.

Catalog Number Selection

Table 34-207. IEC Enclosed Control Catalog Numbering System



① GMCP Type Disconnect — Maximum Rating 480V (use Fusible for 575/600V).

Table 34-208. Magnet 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	480/60 440/50	M	415/50	W	48/60
D	600/60 550/50	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. ECE07, 18) see Table 34-209 for system voltage code.

Table 34-209. Control Power Transformer Codes (System Voltage)

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

**Combination Starters — Fusible**

**Product Selection**

**Table 34-216. Class ECE16 — IEC Rated — Fusible Combination — Interchangeable Heater OLR — Non-reversing**

Motor Voltage	Max. hp Rating		Magnet Coil Voltage ①	Fuse Clip ②	3-Pole Type 1 General Purpose		3-Pole Type 3R Rainproof		3-Pole Component Starter (Open)
	1-Phase	3-Phase			Amps	Catalog Number	Price U.S. \$	Catalog Number	
<b>Size A — 45 mm</b>									
115	1/4	—	120	30	ECE16A1AAB	555.	ECE16A2AAB	720.	AE16ANS0AC
200	—	1-1/2	208		ECE16A1EAB	*	ECE16A2EAB	720.	AE16ANS0EC
230	1/2	1-1/2	240		ECE16A1BAB	*	ECE16A2BAB	*	AE16ANS0BC
460	—	3	480		ECE16A1CAB	555.	ECE16A2CAB	720.	AE16ANS0CC
575	—	5	600		ECE16A1DAB	*	ECE16A2DAB	720.	AE16ANS0DC
<b>Size B — 45 mm</b>									
115	1/2	—	120	30	ECE16B1AAB	570.	ECE16B2AAB	725.	AE16BNS0AC
200	—	2	208		ECE16B1EAB	*	ECE16B2EAB	*	AE16BNS0EC
230	1	2	240		ECE16B1BAB	*	ECE16B2BAB	*	AE16BNS0BC
460	—	5	480		ECE16B1CAB	570.	ECE16B2CAB	725.	AE16BNS0CC
575	—	7-1/2	600		ECE16B1DAB	*	ECE16B2DAB	*	AE16BNS0DC
<b>Size C — 45 mm</b>									
115	1/2	—	120	30	ECE16C1AAB	*	ECE16C2AAB	*	AE16CNS0AC
200	—	3	208		ECE16C1EAB	*	ECE16C2EAB	*	AE16CNS0EC
230	2	3	240		ECE16C1BAB	605.	ECE16C2BAB	*	AE16CNS0BC
460	—	7-1/2	480		ECE16C1CAB	605.	ECE16C2CAB	*	AE16CNS0CC
575	—	10	600		ECE16C1DAB	*	ECE16C2DAB	*	AE16CNS0DC
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE16D1AAC	630.	ECE16D2AAC	*	AE16DNS0AC
200	—	5	208		ECE16D1EAC	630.	ECE16D2EAC	*	AE16DNS0EC
230	3	5	240		ECE16D1BAC	630.	ECE16D2BAC	*	AE16DNS0BC
460	—	10	480		ECE16D1CAC	630.	ECE16D2CAC	*	AE16DNS0CC
575	—	15	600		ECE16D1DAC	*	ECE16D2DAC	*	AE16DNS0DC
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE16E1AAC	640.	ECE16E2AAC	*	AE16ENS0AC
200	—	5	208		ECE16E1EAC	*	ECE16E2EAC	*	AE16ENS0EC
230	3	7-1/2	240		ECE16E1BAC	*	ECE16E2BAC	*	AE16ENS0BC
460	—	15	480		ECE16E1CAC	*	ECE16E2CAC	*	AE16ENS0CC
575	—	20	600		ECE16E1DAC	*	ECE16E2DAC	*	AE16ENS0DC
<b>Size F — 45 mm</b>									
115	2	—	120	60	ECE16F1AAE	*	ECE16F2AAE	1,135.	AE16FNS0AC
200	—	7-1/2	208		ECE16F1EAE	*	ECE16F2EAE	1,135.	AE16FNS0EC
230	5	10	240		ECE16F1BAE	*	ECE16F2BAE	*	AE16FNS0BC
460	—	20	480		ECE16F1CAE	*	ECE16F2CAE	*	AE16FNS0CC
575	—	25	600		ECE16F1DAE	*	ECE16F2DAE	*	AE16FNS0DC
<b>Size G — 65 mm</b>									
115	3	—	120	60	ECE16G1AAE	875.	ECE16G2AAE	1,175.	AE16GNS0AB
200	—	7-1/2	208		ECE16G1EAE	875.	ECE16G2EAE	1,175.	AE16GNS0EB
230	5	10	240		ECE16G1BAE	*	ECE16G2BAE	1,175.	AE16GNS0BB
460	—	25	480		ECE16G1CAE	875.	ECE16G2CAE	1,175.	AE16GNS0CB
575	—	30	600		ECE16G1DAE	875.	ECE16G2DAE	1,175.	AE16GNS0DB
<b>Size H — 65 mm</b>									
115	3	—	120	60	ECE16H1AAE	930.	ECE16H2AAE	*	AE16HNS0AB
200	—	10	208		ECE16H1EAE	*	ECE16H2EAE	1,215.	AE16HNS0EB
230	7-1/2	15	240		ECE16H1BAE	*	ECE16H2BAE	*	AE16HNS0BB
460	—	30	480		ECE16H1CAE	*	ECE16H2CAE	1,215.	AE16HNS0CB
575	—	40	600		ECE16H1DAE	*	ECE16H2DAE	1,215.	AE16HNS0DB

**Starters do not include heater packs.** Select 1 carton of 3 heater packs. For Heater Pack Selection, see **Page 34-93**.

**Starters with Electronic Overload,** see **Page 34-55** of Modification Codes.

① For additional coil voltages, see **Page 34-125**.

② Fuse clips will accept both 250 and 600V.

\*Please contact your local Eaton sales office.

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 Dimensions ..... **PG03300001E**  
 Discount Symbol ..... **1CD1C**

Table 34-216. Class ECE16 — IEC Rated — Fusible Combination — Interchangeable Heater OLR — Non-reversing (Continued)

Motor Voltage	Max. hp Rating		Magnet Coil Voltage ①	Fuse Clip ②	3-Pole Type 4X ③ Watertight & Dust-Tight Stainless Steel		3-Pole Type 12 Dust-Tight		3-Pole Component Starter (Open) Catalog Number
	1-Phase	3-Phase			Amps	Catalog Number	Price U.S. \$	Catalog Number	
<b>Size A — 45 mm</b>									
115	1/4	—	120	30	ECE16A4AAB	*	ECE16A8AAB	720.	AE16ANS0AC
200	—	1-1/2	208		ECE16A4EAB	*	ECE16A8EAB	*	AE16ANS0EC
230	1/2	1-1/2	240		ECE16A4BAB	*	ECE16A8BAB	*	AE16ANS0BC
460	—	3	480		ECE16A4CAB	*	ECE16A8CAB	720.	AE16ANS0CC
575	—	5	600		ECE16A4DAB	*	ECE16A8DAB	*	AE16ANS0DC
<b>Size B — 45 mm</b>									
115	1/2	—	120	30	ECE16B4AAB	*	ECE16B8AAB	*	AE16BNS0AC
200	—	2	208		ECE16B4EAB	*	ECE16B8EAB	*	AE16BNS0EC
230	1	2	240		ECE16B4BAB	*	ECE16B8BAB	*	AE16BNS0BC
460	—	5	480		ECE16B4CAB	*	ECE16B8CAB	*	AE16BNS0CC
575	—	7-1/2	600		ECE16B4DAB	*	ECE16B8DAB	*	AE16BNS0DC
<b>Size C — 45 mm</b>									
115	1/2	—	120	30	ECE16C4AAB	*	ECE16C8AAB	*	AE16CNS0AC
200	—	3	208		ECE16C4EAB	*	ECE16C8EAB	*	AE16CNS0EC
230	2	3	240		ECE16C4BAB	*	ECE16C8BAB	*	AE16CNS0BC
460	—	7-1/2	480		ECE16C4CAB	*	ECE16C8CAB	*	AE16CNS0CC
575	—	10	600		ECE16C4DAB	*	ECE16C8DAB	*	AE16CNS0DC
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE16D4AAC	*	ECE16D8AAC	*	AE16DNS0AC
200	—	5	208		ECE16D4EAC	*	ECE16D8EAC	*	AE16DNS0EC
230	3	5	240		ECE16D4BAC	*	ECE16D8BAC	*	AE16DNS0BC
460	—	10	480		ECE16D4CAC	*	ECE16D8CAC	*	AE16DNS0CC
575	—	15	600		ECE16D4DAC	*	ECE16D8DAC	*	AE16DNS0DC
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE16E4AAC	*	ECE16E8AAC	800.	AE16ENS0AC
200	—	5	208		ECE16E4EAC	*	ECE16E8EAC	*	AE16ENS0EC
230	3	7-1/2	240		ECE16E4BAC	*	ECE16E8BAC	*	AE16ENS0BC
460	—	15	480		ECE16E4CAC	*	ECE16E8CAC	*	AE16ENS0CC
575	—	20	600		ECE16E4DAC	*	ECE16E8DAC	*	AE16ENS0DC
<b>Size F — 45 mm</b>									
115	2	—	120	60	ECE16F4AAE	*	ECE16F8AAE	1,135.	AE16FNS0AC
200	—	7-1/2	208		ECE16F4EAE	*	ECE16F8EAE	*	AE16FNS0EC
230	5	10	240		ECE16F4BAE	*	ECE16F8BAE	*	AE16FNS0BC
460	—	20	480		ECE16F4CAE	*	ECE16F8CAE	*	AE16FNS0CC
575	—	25	600		ECE16F4DAE	*	ECE16F8DAE	*	AE16FNS0DC
<b>Size G — 65 mm</b>									
115	3	—	120	60	ECE16G4AAE	*	ECE16G8AAE	1,175.	AE16GNS0AB
200	—	7-1/2	208		ECE16G4EAE	*	ECE16G8EAE	1,175.	AE16GNS0EB
230	5	10	240		ECE16G4BAE	*	ECE16G8BAE	1,175.	AE16GNS0BB
460	—	25	480		ECE16G4CAE	*	ECE16G8CAE	1,175.	AE16GNS0CB
575	—	30	600		ECE16G4DAE	*	ECE16G8DAE	1,175.	AE16GNS0DB
<b>Size H — 65 mm</b>									
115	3	—	120	60	ECE16H4AAE	*	ECE16H8AAE	*	AE16HNS0AB
200	—	10	208		ECE16H4EAE	*	ECE16H8EAE	*	AE16HNS0EB
230	7-1/2	15	240		ECE16H4BAE	*	ECE16H8BAE	*	AE16HNS0BB
460	—	30	480		ECE16H4CAE	*	ECE16H8CAE	*	AE16HNS0CB
575	—	40	600		ECE16H4DAE	*	ECE16H8DAE	*	AE16HNS0DB

Starters do not include heater packs. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 34-93.

Starters with Electronic Overload, see Page 34-55 of Modification Codes.

① For additional coil voltages, see Page 34-125.

② Fuse clips will accept both 250 and 600V.

③ These are the Catalog Numbers for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECE16A4AAB. 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.

\*Please contact your local Eaton sales office.

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 Discount Symbol . . . . . 1CD1C

**Combination Starters — Fusible**

**Table 34-217. Class ECE17 — IEC Rated — Fusible Combination — Interchangeable Heater OLR — Reversing**

Motor Voltage	Max. hp Rating		Magnet Coil Voltage ①	Fuse Clip ②	3-Pole Type 1 General Purpose		3-Pole Type 3R Rainproof		3-Pole Component Starter (Open)
	1-Phase	3-Phase			Amps	Catalog Number	Price U.S. \$	Catalog Number	
<b>Size A — 45 mm</b>									
115	1/4	—	120	30	ECE17A1AAB	*	ECE17A2AAB	*	AE56AN0AC
200	—	1-1/2	208		ECE17A1EAB	*	ECE17A2EAB	*	AE56AN0EC
230	1/2	1-1/2	240		ECE17A1BAB	*	ECE17A2BAB	*	AE56AN0BC
460	—	3	480		ECE17A1CAB	*	ECE17A2CAB	*	AE56AN0CC
575	—	5	600		ECE17A1DAB	*	ECE17A2DAB	*	AE56AN0DC
<b>Size B — 45 mm</b>									
115	1/2	—	120	30	ECE17B1AAB	*	ECE17B2AAB	1,140.	AE56BN0AC
200	—	2	208		ECE17B1EAB	945.	ECE17B2EAB	*	AE56BN0EC
230	1	2	240		ECE17B1BAB	*	ECE17B2BAB	1,140.	AE56BN0BC
460	—	5	480		ECE17B1CAB	*	ECE17B2CAB	1,140.	AE56BN0CC
575	—	7-1/2	600		ECE17B1DAB	945.	ECE17B2DAB	*	AE56BN0DC
<b>Size C — 45 mm</b>									
115	1/2	—	120	30	ECE17C1AAB	*	ECE17C2AAB	*	AE56CN0AC
200	—	3	208		ECE17C1EAB	*	ECE17C2EAB	*	AE56CN0EC
230	2	3	240		ECE17C1BAB	*	ECE17C2BAB	*	AE56CN0BC
460	—	7-1/2	480		ECE17C1CAB	*	ECE17C2CAB	*	AE56CN0CC
575	—	10	600		ECE17C1DAB	*	ECE17C2DAB	*	AE56CN0DC
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE17D1AAC	*	ECE17D2AAC	*	AE56DN0AC
200	—	5	208		ECE17D1EAC	*	ECE17D2EAC	*	AE56DN0EC
230	3	5	240		ECE17D1BAC	*	ECE17D2BAC	*	AE56DN0BC
460	—	10	480		ECE17D1CAC	*	ECE17D2CAC	*	AE56DN0CC
575	—	15	600		ECE17D1DAC	*	ECE17D2DAC	*	AE56DN0DC
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE17E1AAC	*	ECE17E2AAC	*	AE56EN0AC
200	—	5	208		ECE17E1EAC	*	ECE17E2EAC	*	AE56EN0EC
230	3	7-1/2	240		ECE17E1BAC	*	ECE17E2BAC	*	AE56EN0BC
460	—	15	480		ECE17E1CAC	*	ECE17E2CAC	*	AE56EN0CC
575	—	20	600		ECE17E1DAC	*	ECE17E2DAC	*	AE56EN0DC
<b>Size F — 45 mm</b>									
115	2	—	120	60	ECE17F1AAE	*	ECE17F2AAE	*	AE56FN0AC
200	—	7-1/2	208		ECE17F1EAE	*	ECE17F2EAE	*	AE56FN0EC
230	5	10	240		ECE17F1BAE	*	ECE17F2BAE	*	AE56FN0BC
460	—	20	480		ECE17F1CAE	*	ECE17F2CAE	*	AE56FN0CC
575	—	25	600		ECE17F1DAE	*	ECE17F2DAE	*	AE56FN0DC
<b>Size G — 65 mm</b>									
115	3	—	120	60	ECE17G1AAE	*	ECE17G2AAE	*	AE56GN0AC
200	—	7-1/2	208		ECE17G1EAE	*	ECE17G2EAE	*	AE56GN0EC
230	5	10	240		ECE17G1BAE	*	ECE17G2BAE	*	AE56GN0BC
460	—	25	480		ECE17G1CAE	*	ECE17G2CAE	*	AE56GN0CC
575	—	30	600		ECE17G1DAE	*	ECE17G2DAE	*	AE56GN0DC
<b>Size H — 65 mm</b>									
115	3	—	120	60	ECE17H1AAE	*	ECE17H2AAE	*	AE56HN0AB
200	—	10	208		ECE17H1EAE	*	ECE17H2EAE	*	AE56HN0EB
230	7-1/2	15	240		ECE17H1BAE	*	ECE17H2BAE	*	AE56HN0BB
460	—	30	480		ECE17H1CAE	*	ECE17H2CAE	*	AE56HN0CB
575	—	40	600		ECE17H1DAE	*	ECE17H2DAE	*	AE56HN0DB

**Starters do not include heater packs.** Select 1 carton of 3 heater packs. For Heater Pack Selection, see **Page 34-93**.

**Starters with Electronic Overload,** see **Page 34-55** of Modification Codes.

① For additional coil voltages, see **Page 34-125**.

② Fuse clips will accept both 250 and 600V.

\*Please contact your local Eaton sales office.

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Heater Pack Selection .....	<b>Page 34-93</b>
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Dimensions .....	<b>PG03300001E</b>
Discount Symbol .....	<b>1CD1C</b>

Table 34-217. Class ECE17 — IEC Rated — Fusible Combination — Interchangeable Heater OLR — Reversing (Continued)

Motor Voltage	Max. hp Rating		Magnet Coil Voltage ①	Fuse Clip ②	3-Pole Type 4X ③ Watertight & Dust-Tight Stainless Steel		3-Pole Type 12 Dust-Tight		3-Pole Component Starter (Open)
	1-Phase	3-Phase			Amps	Catalog Number	Price U.S. \$	Catalog Number	
<b>Size A — 45 mm</b>									
115	1/4	—	120	30	ECE17A4AAB	*	ECE17A8AAB	*	AE56AN0AC
200	—	1-1/2	208		ECE17A4EAB	*	ECE17A8EAB	*	AE56AN0EC
230	1/2	1-1/2	240		ECE17A4BAB	*	ECE17A8BAB	*	AE56AN0BC
460	—	3	480		ECE17A4CAB	*	ECE17A8CAB	*	AE56AN0CC
575	—	5	600		ECE17A4DAB	*	ECE17A8DAB	*	AE56AN0DC
<b>Size B — 45 mm</b>									
115	1/2	—	120	30	ECE17B4AAB	*	ECE17B8AAB	*	AE56BN0AC
200	—	2	208		ECE17B4EAB	*	ECE17B8EAB	*	AE56BN0EC
230	1	2	240		ECE17B4BAB	*	ECE17B8BAB	*	AE56BN0BC
460	—	5	480		ECE17B4CAB	*	ECE17B8CAB	*	AE56BN0CC
575	—	7-1/2	600		ECE17B4DAB	*	ECE17B8DAB	*	AE56BN0DC
<b>Size C — 45 mm</b>									
115	1/2	—	120	30	ECE17C4AAB	*	ECE17C8AAB	*	AE56CN0AC
200	—	3	208		ECE17C4EAB	*	ECE17C8EAB	*	AE56CN0EC
230	2	3	240		ECE17C4BAB	*	ECE17C8BAB	*	AE56CN0BC
460	—	7-1/2	480		ECE17C4CAB	*	ECE17C8CAB	*	AE56CN0CC
575	—	10	600		ECE17C4DAB	*	ECE17C8DAB	*	AE56CN0DC
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE17D4AAC	*	ECE17D8AAC	*	AE56DN0AC
200	—	5	208		ECE17D4EAC	*	ECE17D8EAC	*	AE56DN0EC
230	3	5	240		ECE17D4BAC	*	ECE17D8BAC	*	AE56DN0BC
460	—	10	480		ECE17D4CAC	*	ECE17D8CAC	*	AE56DN0CC
575	—	15	600		ECE17D4DAC	*	ECE17D8DAC	*	AE56DN0DC
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE17E4AAC	*	ECE17E8AAC	*	AE56EN0AC
200	—	5	208		ECE17E4EAC	*	ECE17E8EAC	*	AE56EN0EC
230	3	7-1/2	240		ECE17E4BAC	*	ECE17E8BAC	*	AE56EN0BC
460	—	15	480		ECE17E4CAC	*	ECE17E8CAC	*	AE56EN0CC
575	—	20	600		ECE17E4DAC	*	ECE17E8DAC	*	AE56EN0DC
<b>Size F — 45 mm</b>									
115	2	—	120	60	ECE17F4AAE	*	ECE17F8AAE	*	AE56FN0AC
200	—	7-1/2	208		ECE17F4EAE	*	ECE17F8EAE	*	AE56FN0EC
230	5	10	240		ECE17F4BAE	*	ECE17F8BAE	*	AE56FN0BC
460	—	20	480		ECE17F4CAE	*	ECE17F8CAE	*	AE56FN0CC
575	—	25	600		ECE17F4DAE	*	ECE17F8DAE	*	AE56FN0DC
<b>Size G — 65 mm</b>									
115	3	—	120	60	ECE17G4AAE	*	ECE17G8AAE	*	AE56GN0AC
200	—	7-1/2	208		ECE17G4EAE	*	ECE17G8EAE	*	AE56GN0EC
230	5	10	240		ECE17G4BAE	*	ECE17G8BAE	*	AE56GN0BC
460	—	25	480		ECE17G4CAE	*	ECE17G8CAE	*	AE56GN0CC
575	—	30	600		ECE17G4DAE	*	ECE17G8DAE	*	AE56GN0DC
<b>Size H — 65 mm</b>									
115	3	—	120	60	ECE17H4AAE	*	ECE17H8AAE	*	AE56HN0AB
200	—	10	208		ECE17H4EAE	*	ECE17H8EAE	*	AE56HN0EB
230	7-1/2	15	240		ECE17H4BAE	*	ECE17H8BAE	*	AE56HN0BB
460	—	30	480		ECE17H4CAE	*	ECE17H8CAE	*	AE56HN0CB
575	—	40	600		ECE17H4DAE	*	ECE17H8DAE	*	AE56HN0DB
<p><b>Starters do not include heater packs.</b> Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 34-93.</p> <p><b>Starters with Electronic Overload,</b> see Page 34-55 of Modification Codes.</p>									

① For additional coil voltages, see Page 34-125.

② Fuse clips will accept both 250 and 600V.

③ These are the Catalog Numbers for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECE17A4AAB. 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.

\*Please contact your local Eaton sales office.

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Accessories.....	Page 34-100
Cover Control.....	Page 34-124
Dimensions.....	PG03300001E
Discount Symbol.....	1CD1C

Combination Starters — Fusible

Table 34-218. Class ECE19 — IEC Rated — Fusible Combination — Fixed Heater OLR — Non-reversing

Motor Voltage	Max. hp Rating		Magnet Coil Voltage <sup>①</sup>	Fuse Clip	3-Pole Type 1 General Purpose		3-Pole Type 3R Rainproof		3-Pole Component Starter (Open)
	1-Phase	3-Phase			Amps	Catalog Number <sup>②</sup>	Price U.S. \$	Catalog Number <sup>②</sup>	
<b>Size A — 45 mm</b>									
115	1/4	—	120	30	ECE19A1AAB_	*	ECE19A2AAB_	*	AE17ANS0_
200	—	1-1/2	208		ECE19A1EAB_	*	ECE19A2EAB_	*	
230	1/2	1-1/2	240		ECE19A1BAB_	*	ECE19A2BAB_	*	
460	—	3	480		ECE19A1CAB_	*	ECE19A2CAB_	*	
575	—	5	600		ECE19A1DAB_	*	ECE19A2DAB_	*	
<b>Size B — 45 mm</b>									
115	1/2	—	120	30	ECE19B1AAB_	*	ECE19B2AAB_	*	AE17BNS0_
200	—	2	208		ECE19B1EAB_	*	ECE19B2EAB_	*	
230	1	2	240		ECE19B1BAB_	*	ECE19B2BAB_	*	
460	—	5	480		ECE19B1CAB_	*	ECE19B2CAB_	*	
575	—	7-1/2	600		ECE19B1DAB_	*	ECE19B2DAB_	*	
<b>Size C — 45 mm</b>									
115	1/2	—	120	30	ECE19C1AAB_	*	ECE19C2AAB_	*	AE17CNS0_
200	—	3	208		ECE19C1EAB_	*	ECE19C2EAB_	*	
230	2	3	240		ECE19C1BAB_	*	ECE19C2BAB_	*	
460	—	7-1/2	480		ECE19C1CAB_	*	ECE19C2CAB_	*	
575	—	10	600		ECE19C1DAB_	*	ECE19C2DAB_	*	
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE19D1AAC_	*	ECE19D2AAC_	*	AE17DNS0_
200	—	5	208		ECE19D1EAC_	*	ECE19D2EAC_	*	
230	3	5	240		ECE19D1BAC_	*	ECE19D2BAC_	*	
460	—	10	480		ECE19D1CAC_	*	ECE19D2CAC_	*	
575	—	15	600		ECE19D1DAC_	*	ECE19D2DAC_	*	
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE19E1AAC_	*	ECE19E2AAC_	*	AE17ENS0_
200	—	5	208		ECE19E1EAC_	*	ECE19E2EAC_	*	
230	3	7-1/2	240		ECE19E1BAC_	*	ECE19E2BAC_	*	
460	—	15	480		ECE19E1CAC_	*	ECE19E2CAC_	*	
575	—	20	600		ECE19E1DAC_	*	ECE19E2DAC_	*	
<b>Size F — 45 mm</b>									
115	2	—	120	60	ECE19F1AAE_	*	ECE19F2AAE_	*	AE17FNS0_
200	—	7-1/2	208		ECE19F1EAE_	*	ECE19F2EAE_	*	
230	5	10	240		ECE19F1BAE_	*	ECE19F2BAE_	*	
460	—	20	480		ECE19F1CAE_	*	ECE19F2CAE_	*	
575	—	25	600		ECE19F1DAE_	*	ECE19F2DAE_	*	
<b>Size G — 65 mm</b>									
115	3	—	120	60	ECE19G1AAE_	*	ECE19G2AAE_	*	AE17GNS0_
200	—	7-1/2	208		ECE19G1EAE_	*	ECE19G2EAE_	*	
230	5	10	240		ECE19G1BAE_	*	ECE19G2BAE_	*	
460	—	25	480		ECE19G1CAE_	*	ECE19G2CAE_	*	
575	—	30	600		ECE19G1DAE_	*	ECE19G2DAE_	*	
<b>Size H — 65 mm</b>									
115	3	—	120	60	ECE19H1AAE_	*	ECE19H2AAE_	*	AE17HNS0_
200	—	10	208		ECE19H1EAE_	*	ECE19H2EAE_	*	
230	7-1/2	15	240		ECE19H1BAE_	*	ECE19H2BAE_	*	
460	—	30	480		ECE19H1CAE_	*	ECE19H2CAE_	*	
575	—	40	600		ECE19H1DAE_	*	ECE19H2DAE_	*	

1 set of 3 fixed heater overload relays included.

① For additional coil voltages, refer to **Page 34-125**.

② Starter includes fixed heater overload. For Enclosed IEC Starters, select suffix code **-R\_** from the table below. Overload relay range can not exceed contactor amperage rating. For Open IEC Starters, use suffix code **-F\_** or **-K\_** from the table below.

**Note:** Overload relay range can not exceed contactor amperage rating.

\*Please contact your local Eaton sales office.

Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range
R4	Omit OLR	R14/FJ	2.2 – 3.1A	R21/FR	13 – 19A
R8/FC	.25 – .40A	R15/FK	2.8 – 4.0A	R22/FS	18 – 24A
R9/FD	.40 – .63A	R16/FL	3.5 – 5A	R23/FT	24 – 32A
R10/FE	.63 – 1.0A	R17/FM	4.5 – 6.5A	R24/KA	18 – 25A
R11/FF	1.0 – 1.4A	R18/FN	6 – 8.5A	R25/KB	22 – 32A
R12/FG	1.8 – 1.8A	R19/FP	7.5 – 11A	R26/KC	29 – 42A
R13/FH	1.7 – 2.4A	R20/FQ	10 – 14A	R27/KD	36 – 52A

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 Cover Control ..... **Page 34-124**  
 Dimensions ..... **PG03300001E**  
 Discount Symbol ..... **1CD1C**

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Table 34-218. Class ECE19 — IEC Rated — Fusible Combination — Fixed Heater OLR — Non-reversing (Continued)

Motor Voltage	Max. hp Rating		Magnet Coil Voltage <sup>①</sup>	Fuse Clip	3-Pole Type 4X <sup>③</sup> Watertight & Dust-Tight Stainless Steel		3-Pole Type 12 Dust-Tight		3-Pole Component Starter (Open)
	1-Phase	3-Phase			Amps	Catalog Number <sup>②</sup>	Price U.S. \$	Catalog Number <sup>②</sup>	Price U.S. \$
<b>Size A — 45 mm</b>									
115	1/4	—	120	30	ECE19A4AAB_	*	ECE19A8AAB_	*	AE17ANS0_
200	—	1-1/2	208		ECE19A4EAB_	*	ECE19A8EAB_	*	
230	1/2	1-1/2	240		ECE19A4BAB_	*	ECE19A8BAB_	*	
460	—	3	480		ECE19A4CAB_	*	ECE19A8CAB_	*	
575	—	5	600		ECE19A4DAB_	*	ECE19A8DAB_	*	
<b>Size B — 45 mm</b>									
115	1/2	—	120	30	ECE19B4AAB_	*	ECE19B8AAB_	*	AE17BNS0_
200	—	2	208		ECE19B4EAB_	*	ECE19B8EAB_	*	
230	1	2	240		ECE19B4BAB_	*	ECE19B8BAB_	*	
460	—	5	480		ECE19B4CAB_	*	ECE19B8CAB_	*	
575	—	7-1/2	600		ECE19B4DAB_	*	ECE19B8DAB_	*	
<b>Size C — 45 mm</b>									
115	1/2	—	120	30	ECE19C4AAB_	*	ECE19C8AAB_	*	AE17CNS0_
200	—	3	208		ECE19C4EAB_	*	ECE19C8EAB_	*	
230	2	3	240		ECE19C4BAB_	*	ECE19C8BAB_	*	
460	—	7-1/2	480		ECE19C4CAB_	*	ECE19C8CAB_	*	
575	—	10	600		ECE19C4DAB_	*	ECE19C8DAB_	*	
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE19D4AAC_	*	ECE19D8AAC_	*	AE17DNS0_
200	—	5	208		ECE19D4EAC_	*	ECE19D8EAC_	*	
230	3	5	240		ECE19D4BAC_	*	ECE19D8BAC_	*	
460	—	10	480		ECE19D4CAC_	*	ECE19D8CAC_	*	
575	—	15	600		ECE19D4DAC_	*	ECE19D8DAC_	*	
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE19E4AAC_	*	ECE19E8AAC_	*	AE17ENS0_
200	—	5	208		ECE19E4EAC_	*	ECE19E8EAC_	*	
230	3	7-1/2	240		ECE19E4BAC_	*	ECE19E8BAC_	*	
460	—	15	480		ECE19E4CAC_	*	ECE19E8CAC_	*	
575	—	20	600		ECE19E4DAC_	*	ECE19E8DAC_	*	
<b>Size F — 45 mm</b>									
115	2	—	120	60	ECE19F4AAE_	*	ECE19F8AAE_	*	AE17FNS0_
200	—	7-1/2	208		ECE19F4EAE_	*	ECE19F8EAE_	*	
230	5	10	240		ECE19F4BAE_	*	ECE19F8BAE_	*	
460	—	20	480		ECE19F4CAE_	*	ECE19F8CAE_	*	
575	—	25	600		ECE19F4DAE_	*	ECE19F8DAE_	*	
<b>Size G — 65 mm</b>									
115	3	—	120	60	ECE19G4AAE_	*	ECE19G8AAE_	*	AE17GNS0_
200	—	7-1/2	208		ECE19G4EAE_	*	ECE19G8EAE_	*	
230	5	10	240		ECE19G4BAE_	*	ECE19G8BAE_	*	
460	—	25	480		ECE19G4CAE_	*	ECE19G8CAE_	*	
575	—	30	600		ECE19G4DAE_	*	ECE19G8DAE_	*	
<b>Size H — 65 mm</b>									
115	3	—	120	60	ECE19H4AAE_	*	ECE19H8AAE_	*	AE17HNS0_
200	—	10	208		ECE19H4EAE_	*	ECE19H8EAE_	*	
230	7-1/2	15	240		ECE19H4BAE_	*	ECE19H8BAE_	*	
460	—	30	480		ECE19H4CAE_	*	ECE19H8CAE_	*	
575	—	40	600		ECE19H4DAE_	*	ECE19H8DAE_	*	

1 set of 3 fixed heater overload relays included.

① For additional coil voltages, refer to Page 34-125.

② Starter includes fixed heater overload. For Enclosed IEC Starters, select suffix code **-R\_** from the table below. Overload relay range can not exceed contactor amperage rating. For Open IEC Starters, use suffix code **-F\_** or **-K\_** from the table below.

Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range
R4	Omit OLR	R14/FJ	2.2 – 3.1A	R21/FR	13 – 19A
R8/FC	.25 – .40A	R15/FK	2.8 – 4.0A	R22/FS	18 – 24A
R9/FD	.40 – .63A	R16/FL	3.5 – 5A	R23/FT	24 – 32A
R10/FE	.63 – 1.0A	R17/FM	4.5 – 6.5A	R24/KA	18 – 25A
R11/FF	1.0 – 1.4A	R18/FN	6 – 8.5A	R25/KB	22 – 32A
R12/FG	1.8 – 1.8A	R19/FP	7.5 – 11A	R26/KC	29 – 42A
R13/FH	1.7 – 2.4A	R20/FQ	10 – 14A	R27/KD	36 – 52A

**Note:** Overload relay range can not exceed contactor amperage rating.

③ These are the Catalog Numbers for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECE19A4AAB. 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**.

\*Please contact your local Eaton sales office.

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Dimensions .....	PG03300001E
Discount Symbol .....	1CD1C

**Combination Starters — Fusible**

**Table 34-219. Class ECE20 — IEC Rated — Fusible Combination — Fixed Heater OLR — Reversing**

Motor Voltage	Max. hp Rating		Magnet Coil Voltage <sup>①</sup>	Fuse Clip	3-Pole Type 1 General Purpose		3-Pole Type 3R Rainproof		3-Pole Component Starter (Open)
	1-Phase	3-Phase			Amps	Catalog Number <sup>②</sup>	Price U.S. \$	Catalog Number <sup>②</sup>	Price U.S. \$
<b>Size A — 45 mm</b>									
115	1/4	—	120	30	ECE20A1AAB_	*	ECE20A2AAB_	*	AE57AN0_
200	—	1-1/2	208		ECE20A1EAB_	*	ECE20A2EAB_	*	
230	1/2	1-1/2	240		ECE20A1BAB_	*	ECE20A2BAB_	*	
460	—	3	480		ECE20A1CAB_	*	ECE20A2CAB_	*	
575	—	5	600		ECE20A1DAB_	*	ECE20A2DAB_	*	
<b>Size B — 45 mm</b>									
115	1/2	—	120	30	ECE20B1AAB_	*	ECE20B2AAB_	*	AE57BN0_
200	—	2	208		ECE20B1EAB_	*	ECE20B2EAB_	*	
230	1	2	240		ECE20B1BAB_	*	ECE20B2BAB_	*	
460	—	5	480		ECE20B1CAB_	*	ECE20B2CAB_	*	
575	—	7-1/2	600		ECE20B1DAB_	*	ECE20B2DAB_	*	
<b>Size C — 45 mm</b>									
115	1/2	—	120	30	ECE20C1AAB_	*	ECE20C2AAB_	*	AE57CN0_
200	—	3	208		ECE20C1EAB_	*	ECE20C2EAB_	*	
230	2	3	240		ECE20C1BAB_	*	ECE20C2BAB_	*	
460	—	7-1/2	480		ECE20C1CAB_	*	ECE20C2CAB_	*	
575	—	10	600		ECE20C1DAB_	*	ECE20C2DAB_	*	
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE20D1AAC_	*	ECE20D2AAC_	*	AE57DN0_
200	—	5	208		ECE20D1EAC_	*	ECE20D2EAC_	*	
230	3	5	240		ECE20D1BAC_	*	ECE20D2BAC_	*	
460	—	10	480		ECE20D1CAC_	*	ECE20D2CAC_	*	
575	—	15	600		ECE20D1DAC_	*	ECE20D2DAC_	*	
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE20E1AAC_	*	ECE20E2AAC_	*	AE57EN0_
200	—	5	208		ECE20E1EAC_	*	ECE20E2EAC_	*	
230	3	7-1/2	240		ECE20E1BAC_	*	ECE20E2BAC_	*	
460	—	15	480		ECE20E1CAC_	*	ECE20E2CAC_	*	
575	—	20	600		ECE20E1DAC_	*	ECE20E2DAC_	*	
<b>Size F — 45 mm</b>									
115	2	—	120	60	ECE20F1AAE_	*	ECE20F2AAE_	*	AE57FN0_
200	—	7-1/2	208		ECE20F1EAE_	*	ECE20F2EAE_	*	
230	5	10	240		ECE20F1BAE_	*	ECE20F2BAE_	*	
460	—	20	480		ECE20F1CAE_	*	ECE20F2CAE_	*	
575	—	25	600		ECE20F1DAE_	*	ECE20F2DAE_	*	
<b>Size G — 65 mm</b>									
115	3	—	120	60	ECE20G1AAE_	*	ECE20G2AAE_	*	AE57GN0_
200	—	7-1/2	208		ECE20G1EAE_	*	ECE20G2EAE_	*	
230	5	10	240		ECE20G1BAE_	*	ECE20G2BAE_	*	
460	—	25	480		ECE20G1CAE_	*	ECE20G2CAE_	*	
575	—	30	600		ECE20G1DAE_	*	ECE20G2DAE_	*	
<b>Size H — 65 mm</b>									
115	3	—	120	60	ECE20H1AAE_	*	ECE20H2AAE_	*	AE57HN0_
200	—	10	208		ECE20H1EAE_	*	ECE20H2EAE_	*	
230	7-1/2	15	240		ECE20H1BAE_	*	ECE20H2BAE_	*	
460	—	30	480		ECE20H1CAE_	*	ECE20H2CAE_	*	
575	—	40	600		ECE20H1DAE_	*	ECE20H2DAE_	*	

1 set of 3 fixed heater overload relays included.

① For additional coil voltages, refer to **Page 34-125**.

② Starter includes fixed heater overload. For Enclosed IEC Starters, select suffix code **-R\_** from the table below. Overload relay range can not exceed contactor amperage rating. For Open IEC Starters, use suffix code **-F\_** or **-K\_** from the table below.

**Note:** Overload relay range can not exceed contactor amperage rating.

\*Please contact your local Eaton sales office.

Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range
R4	Omit OLR	R14/FJ	2.2 – 3.1A	R21/FR	13 – 19A
R8/FC	.25 – .40A	R15/FK	2.8 – 4.0A	R22/FS	18 – 24A
R9/FD	.40 – .63A	R16/FL	3.5 – 5A	R23/FT	24 – 32A
R10/FE	.63 – 1.0A	R17/FM	4.5 – 6.5A	R24/KA	18 – 25A
R11/FF	1.0 – 1.4A	R18/FN	6 – 8.5A	R25/KB	22 – 32A
R12/FG	1.8 – 1.8A	R19/FP	7.5 – 11A	R26/KC	29 – 42A
R13/FH	1.7 – 2.4A	R20/FQ	10 – 14A	R27/KD	36 – 52A

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 Accessories ..... **Page 34-100**  
 Cover Control ..... **Page 34-124**  
 Dimensions ..... **PG03300001E**  
 Discount Symbol ..... **1CD1C**

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Table 34-219. Class ECE20 — IEC Rated — Fusible Combination — Fixed Heater OLR — Reversing (Continued)

Motor Voltage	Max. hp Rating		Magnet Coil Voltage <sup>①</sup>	Fuse Clip	3-Pole Type 4X <sup>③</sup> Watertight & Dust-Tight Stainless Steel		3-Pole Type 12 Dust-Tight		3-Pole Component Starter (Open)
	1-Phase	3-Phase			Amps	Catalog Number <sup>②</sup>	Price U.S. \$	Catalog Number <sup>②</sup>	Price U.S. \$
<b>Size A — 45 mm</b>									
115	1/4	—	120	30	ECE20A4AAB_	*	ECE20A8AAB_	*	AE57AN0_
200	—	1-1/2	208		ECE20A4EAB_	*	ECE20A8EAB_	*	
230	1/2	1-1/2	240		ECE20A4BAB_	*	ECE20A8BAB_	*	
460	—	3	480		ECE20A4CAB_	*	ECE20A8CAB_	*	
575	—	5	600		ECE20A4DAB_	*	ECE20A8DAB_	*	
<b>Size B — 45 mm</b>									
115	1/2	—	120	30	ECE20B4AAB_	*	ECE20B8AAB_	*	AE57BN0_
200	—	2	208		ECE20B4EAB_	*	ECE20B8EAB_	*	
230	1	2	240		ECE20B4BAB_	*	ECE20B8BAB_	*	
460	—	5	480		ECE20B4CAB_	*	ECE20B8CAB_	*	
575	—	7-1/2	600		ECE20B4DAB_	*	ECE20B8DAB_	*	
<b>Size C — 45 mm</b>									
115	1/2	—	120	30	ECE20C4AAB_	*	ECE20C8AAB_	*	AE57CN0_
200	—	3	208		ECE20C4EAB_	*	ECE20C8EAB_	*	
230	2	3	240		ECE20C4BAB_	*	ECE20C8BAB_	*	
460	—	7-1/2	480		ECE20C4CAB_	*	ECE20C8CAB_	*	
575	—	10	600		ECE20C4DAB_	*	ECE20C8DAB_	*	
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE20D4AAC_	*	ECE20D8AAC_	*	AE57DN0_
200	—	5	208		ECE20D4EAC_	*	ECE20D8EAC_	*	
230	3	5	240		ECE20D4BAC_	*	ECE20D8BAC_	*	
460	—	10	480		ECE20D4CAC_	*	ECE20D8CAC_	*	
575	—	15	600		ECE20D4DAC_	*	ECE20D8DAC_	*	
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE20E4AAC_	*	ECE20E8AAC_	*	AE57EN0_
200	—	5	208		ECE20E4EAC_	*	ECE20E8EAC_	*	
230	3	7-1/2	240		ECE20E4BAC_	*	ECE20E8BAC_	*	
460	—	15	480		ECE20E4CAC_	*	ECE20E8CAC_	*	
575	—	20	600		ECE20E4DAC_	*	ECE20E8DAC_	*	
<b>Size F — 45 mm</b>									
115	2	—	120	60	ECE20F4AAE_	*	ECE20F8AAE_	*	AE57FN0_
200	—	7-1/2	208		ECE20F4EAE_	*	ECE20F8EAE_	*	
230	5	10	240		ECE20F4BAE_	*	ECE20F8BAE_	*	
460	—	20	480		ECE20F4CAE_	*	ECE20F8CAE_	*	
575	—	25	600		ECE20F4DAE_	*	ECE20F8DAE_	*	
<b>Size G — 65 mm</b>									
115	3	—	120	60	ECE20G4AAE_	*	ECE20G8AAE_	*	AE57GN0_
200	—	7-1/2	208		ECE20G4EAE_	*	ECE20G8EAE_	*	
230	5	10	240		ECE20G4BAE_	*	ECE20G8BAE_	*	
460	—	25	480		ECE20G4CAE_	*	ECE20G8CAE_	*	
575	—	30	600		ECE20G4DAE_	*	ECE20G8DAE_	*	
<b>Size H — 65 mm</b>									
115	3	—	120	60	ECE20H4AAE_	*	ECE20H8AAE_	*	AE57HN0_
200	—	10	208		ECE20H4EAE_	*	ECE20H8EAE_	*	
230	7-1/2	15	240		ECE20H4BAE_	*	ECE20H8BAE_	*	
460	—	30	480		ECE20H4CAE_	*	ECE20H8CAE_	*	
575	—	40	600		ECE20H4DAE_	*	ECE20H8DAE_	*	

1 set of 3 fixed heater overload relays included.

① For additional coil voltages, refer to Page 34-125.

② Starter includes fixed heater overload. For Enclosed IEC Starters, select suffix code **-R\_** from the table below. Overload relay range can not exceed contactor amperage rating. For Open IEC Starters, use suffix code **-F\_** or **-K\_** from the table below.

Suffix Enclosed/Open	Overload Range	Suffix Enclosed/Open	Overload Range	Suffix Enclosed/Open	Overload Range
R4	Omit OLR	R14/FJ	2.2 – 3.1A	R21/FR	13 – 19A
R8/FC	.25 – .40A	R15/FK	2.8 – 4.0A	R22/FS	18 – 24A
R9/FD	.40 – .63A	R16/FL	3.5 – 5A	R23/FT	24 – 32A
R10/FE	.63 – 1.0A	R17/FM	4.5 – 6.5A	R24/KA	18 – 25A
R11/FF	1.0 – 1.4A	R18/FN	6 – 8.5A	R25/KB	22 – 32A
R12/FG	1.8 – 1.8A	R19/FP	7.5 – 11A	R26/KC	29 – 42A
R13/FH	1.7 – 2.4A	R20/FQ	10 – 14A	R27/KD	36 – 52A

**Note:** Overload relay range can not exceed contactor amperage rating.

③ These are the Catalog Numbers for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECE20A4AAB. 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**.

\*Please contact your local Eaton sales office.

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Cover Control .....	Page 34-124
Dimensions .....	PG0330001E
Discount Symbol .....	1CD1C

**Combination Starters — GMCP**

**Product Selection**

**Table 34-220. Class ECE22 — IEC Rated — Combination GMCP — Interchangeable Heater OLR — Non-reversing**

Motor Voltage ②	Max. hp Rating		Magnet Coil Voltage ①	GMCP Rating (trip range) Amperes	3-Pole Type 1 General Purpose		3-Pole Type 3R Rainproof		3-Pole Component Starter (Open) Catalog Number
	1-Phase	3-Phase			Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	
<b>Size A — 45 mm</b>									
115	—	—	120	3	ECE22A1AAB	*	ECE22A2AAB	*	AE16ANS0AC
200	1/6	1/2	208	(15-30)	ECE22A1EAB	*	ECE22A2EAB	*	AE16ANS0EC
230	1/6	1/2	240		ECE22A1BAB	*	ECE22A2BAB	*	AE16ANS0BC
460	1/2	1-1/2	480		ECE22A1CAB	*	ECE22A2CAB	*	AE16ANS0CC
<b>Size B — 45 mm</b>									
115	1/4	—	120	7	ECE22B1AAC	*	ECE22B2AAC	*	AE16BNS0AC
200	1/2	1-1/2	208	(35-70)	ECE22B1EAC	*	ECE22B2EAC	*	AE16BNS0EC
230	1/2	1-1/2	240		ECE22B1BAC	*	ECE22B2BAC	*	AE16BNS0BC
460	1-1/2	3	480		ECE22B1CAC	*	ECE22B2CAC	*	AE16BNS0CC
<b>Size C — 45 mm</b>									
115	1/2	—	120	15	ECE22C1AAD	*	ECE22C2AAD	*	AE16CNS0AC
200	1-1/2	3	208	(75-150)	ECE22C1EAD	*	ECE22C2EAD	*	AE16CNS0EC
230	2	3	240		ECE22C1BAD	*	ECE22C2BAD	*	AE16CNS0BC
460	3	7-1/2	480		ECE22C1CAD	825.	ECE22C2CAD	*	AE16CNS0CC
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE22D1AAE	*	ECE22D2AAE	*	AE16DNS0AC
200	—	5	208	(150-300)	ECE22D1EAE	*	ECE22D2EAE	*	AE16DNS0EC
230	3	5	240		ECE22D1BAE	*	ECE22D2BAE	*	AE16DNS0BC
460	—	10	480		ECE22D1CAE	*	ECE22D2CAE	*	AE16DNS0CC
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE22E1AAE	*	ECE22E2AAE	*	AE16ENS0AC
200	—	5	208	(150-300)	ECE22E1EAE	*	ECE22E2EAE	*	AE16ENS0EC
230	3	7-1/2	240		ECE22E1BAE	*	ECE22E2BAE	*	AE16ENS0BC
460	—	15	480		ECE22E1CAE	*	ECE22E2CAE	*	AE16ENS0CC
<b>Size F — 45 mm</b>									
115	2	—	120	50	ECE22F1AAF	*	ECE22F2AAF	*	AE16FNS0AC
200	—	7-1/2	208	(250-500)	ECE22F1EAF	*	ECE22F2EAF	*	AE16FNS0EC
230	5	10	240		ECE22F1BAF	*	ECE22F2BAF	*	AE16FNS0BC
460	—	20	480		ECE22F1CAF	*	ECE22F2CAF	*	AE16FNS0CC
<b>Size G — 65 mm</b>									
115	3	—	120	50	ECE22G1AAF	*	ECE22G2AAF	*	AE16GNS0AB
200	—	7-1/2	208	(250-500)	ECE22G1EAF	*	ECE22G2EAF	*	AE16GNS0EB
230	5	10	240		ECE22G1BAF	*	ECE22G2BAF	*	AE16GNS0BB
460	—	25	480		ECE22G1CAF	*	ECE22G2CAF	*	AE16GNS0CB
<b>Size H — 65 mm</b>									
115	3	—	120	50	ECE22H1AAF	*	ECE22H2AAF	*	AE16HNS0AB
200	—	10	208	(250-500)	ECE22H1EAF	*	ECE22H2EAF	*	AE16HNS0EB
230	7-1/2	15	240		ECE22H1BAF	*	ECE22H2BAF	*	AE16HNS0BB
460	—	30	480		ECE22H1CAF	*	ECE22H2CAF	*	AE16HNS0CB
<p><b>Starters do not include heater packs.</b> Select 1 carton of 3 heater packs. For Heater Pack Selection, see <b>Page 34-93</b>.</p> <p><b>Starters with Electronic Overload</b>, see <b>Page 34-55</b> of Modification Codes.</p>									

① For additional coil voltages, see **Page 34-125**.

② GMCP is rated for 480V maximum.

\*Please contact your local Eaton sales office.

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 Cover Control ..... **Page 34-124**  
 Dimensions ..... **PG03300001E**  
 Discount Symbol ..... **1CD1C**

Table 34-220. Class ECE22 — IEC Rated — Combination GMCP — Interchangeable Heater OLR — Non-reversing (Continued)

Motor Voltage ②	Max. hp Rating		Magnet Coil Voltage ①	GMCP Rating (trip range) Amperes	3-Pole Type 4X ③ Watertight & Dust-Tight Stainless Steel		3-Pole Type 12 Dust-Tight		3-Pole Component Starter (Open) Catalog Number
	1-Phase	3-Phase			Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	
<b>Size A — 45 mm</b>									
115	—	—	120	3	ECE22A4AAB	*	ECE22A8AAB	*	AE16ANS0AC
200	1/6	1/2	208	(15-30)	ECE22A4EAB	*	ECE22A8EAB	*	AE16ANS0EC
230	1/6	1/2	240		ECE22A4BAB	*	ECE22A8BAB	*	AE16ANS0BC
460	1/2	1-1/2	480		ECE22A4CAB	*	ECE22A8CAB	*	AE16ANS0CC
<b>Size B — 45 mm</b>									
115	1/4	—	120	7	ECE22B4AAC	*	ECE22B8AAC	*	AE16BNS0AC
200	1/2	1-1/2	208	(35-70)	ECE22B4EAC	*	ECE22B8EAC	*	AE16BNS0EC
230	1/2	1-1/2	240		ECE22B4BAC	*	ECE22B8BAC	*	AE16BNS0BC
460	1-1/2	3	480		ECE22B4CAC	*	ECE22B8CAC	*	AE16BNS0CC
<b>Size C — 45 mm</b>									
115	1/2	—	120	15	ECE22C4AAD	*	ECE22C8AAD	*	AE16CNS0AC
200	1-1/2	3	208	(75-150)	ECE22C4EAD	*	ECE22C8EAD	*	AE16CNS0EC
230	2	3	240		ECE22C4BAD	*	ECE22C8BAD	*	AE16CNS0BC
460	3	7-1/2	480		ECE22C4CAD	*	ECE22C8CAD	*	AE16CNS0CC
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE22D4AAE	*	ECE22D8AAE	*	AE16DNS0AC
200	—	5	208	(150-300)	ECE22D4EAE	*	ECE22D8EAE	*	AE16DNS0EC
230	3	5	240		ECE22D4BAE	*	ECE22D8BAE	*	AE16DNS0BC
460	—	10	480		ECE22D4CAE	*	ECE22D8CAE	*	AE16DNS0CC
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE22E4AAE	*	ECE22E8AAE	*	AE16ENS0AC
200	—	5	208	(150-300)	ECE22E4EAE	*	ECE22E8EAE	*	AE16ENS0EC
230	3	7-1/2	240		ECE22E4BAE	*	ECE22E8BAE	*	AE16ENS0BC
460	—	15	480		ECE22E4CAE	*	ECE22E8CAE	*	AE16ENS0CC
<b>Size F — 45 mm</b>									
115	2	—	120	50	ECE22F4AAF	*	ECE22F8AAF	*	AE16FNS0AC
200	—	7-1/2	208	(250-500)	ECE22F4EAF	*	ECE22F8EAF	*	AE16FNS0EC
230	5	10	240		ECE22F4BAF	*	ECE22F8BAF	*	AE16FNS0BC
460	—	20	480		ECE22F4CAF	*	ECE22F8CAF	*	AE16FNS0CC
<b>Size G — 65 mm</b>									
115	3	—	120	50	ECE22G4AAF	*	ECE22G8AAF	*	AE16GNS0AB
200	—	7-1/2	208	(250-500)	ECE22G4EAF	*	ECE22G8EAF	*	AE16GNS0EB
230	5	10	240		ECE22G4BAF	*	ECE22G8BAF	*	AE16GNS0BB
460	—	25	480		ECE22G4CAF	*	ECE22G8CAF	*	AE16GNS0CB
<b>Size H — 65 mm</b>									
115	3	—	120	50	ECE22H4AAF	*	ECE22H8AAF	*	AE16HNS0AB
200	—	10	208	(250-500)	ECE22H4EAF	*	ECE22H8EAF	*	AE16HNS0EB
230	7-1/2	15	240		ECE22H4BAF	*	ECE22H8BAF	*	AE16HNS0BB
460	—	30	480		ECE22H4CAF	*	ECE22H8CAF	*	AE16HNS0CB

Starters do not include heater packs. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 34-93. Starters with Electronic Overload, see Page 34-55 of Modification Codes.

① For additional coil voltages, see Page 34-125.  
 ② GMCP is rated for 480V maximum.  
 ③ These are the Catalog Numbers for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECE22A4AAB. 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.  
 \*Please contact your local Eaton sales office.

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 Dimensions . . . . . PG03300001E  
 Discount Symbol . . . . . 1CD1C

**Combination Starters — GMCP**

**Table 34-221. Class ECE23 — IEC Rated — Combination GMCP — Interchangeable Heater OLR — Reversing**

Motor Voltage ②	Max. hp Rating		Magnet Coil Voltage ①	GMCP Rating (trip range) Amperes	3-Pole Type 1 General Purpose		3-Pole Type 3R Rainproof		3-Pole Component Starter (Open) Catalog Number
	1-Phase	3-Phase			Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	
<b>Size A — 45 mm</b>									
115	—	—	120	3 (15-30)	ECE23A1AAB	*	ECE23A2AAB	*	AE56AN0AC
200	1/6	1/2	208		ECE23A1EAB	*	ECE23A2EAB	*	AE56AN0EC
230	1/6	1/2	240		ECE23A1BAB	*	ECE23A2BAB	*	AE56AN0BC
460	1/2	1-1/2	480		ECE23A1CAB	*	ECE23A2CAB	*	AE56AN0CC
<b>Size B — 45 mm</b>									
115	1/4	—	120	7 (35-70)	ECE23B1AAC	*	ECE23B2AAC	*	AE56BN0AC
200	1/2	1-1/2	208		ECE23B1EAC	*	ECE23B2EAC	*	AE56BN0EC
230	1/2	1-1/2	240		ECE23B1BAC	*	ECE23B2BAC	*	AE56BN0BC
460	1-1/2	3	480		ECE23B1CAC	*	ECE23B2CAC	*	AE56BN0CC
<b>Size C — 45 mm</b>									
115	1/2	—	120	15 (75-150)	ECE23C1AAD	*	ECE23C2AAD	*	AE56CN0AC
200	1-1/2	3	208		ECE23C1EAD	*	ECE23C2EAD	*	AE56CN0EC
230	2	3	240		ECE23C1BAD	*	ECE23C2BAD	*	AE56CN0BC
460	3	7-1/2	480		ECE23C1CAD	*	ECE23C2CAD	*	AE56CN0CC
<b>Size D — 45 mm</b>									
115	1	—	120	30 (150-300)	ECE23D1AAE	*	ECE23D2AAE	*	AE56DN0AC
200	—	5	208		ECE23D1EAE	*	ECE23D2EAE	*	AE56DN0EC
230	3	5	240		ECE23D1BAE	*	ECE23D2BAE	*	AE56DN0BC
460	—	10	480		ECE23D1CAE	*	ECE23D2CAE	*	AE56DN0CC
<b>Size E — 45 mm</b>									
115	2	—	120	30 (150-300)	ECE23E1AAE	*	ECE23E2AAE	*	AE56EN0AC
200	—	5	208		ECE23E1EAE	*	ECE23E2EAE	*	AE56EN0EC
230	3	7-1/2	240		ECE23E1BAE	*	ECE23E2BAE	*	AE56EN0BC
460	—	15	480		ECE23E1CAE	*	ECE23E2CAE	*	AE56EN0CC
<b>Size F — 45 mm</b>									
115	2	—	120	50 (250-500)	ECE23F1AAF	*	ECE23F2AAF	*	AE56FN0AC
200	—	7-1/2	208		ECE23F1EAF	*	ECE23F2EAF	*	AE56FN0EC
230	5	10	240		ECE23F1BAF	*	ECE23F2BAF	*	AE56FN0BC
460	—	20	480		ECE23F1CAF	*	ECE23F2CAF	*	AE56FN0CC
<b>Size G — 65 mm</b>									
115	3	—	120	50 (250-500)	ECE23G1AAF	*	ECE23G2AAF	*	AE56GN0AB
200	—	7-1/2	208		ECE23G1EAF	*	ECE23G2EAF	*	AE56GN0EB
230	5	10	240		ECE23G1BAF	*	ECE23G2BAF	*	AE56GN0BB
460	—	25	480		ECE23G1CAF	*	ECE23G2CAF	*	AE56GN0CB
<b>Size H — 65 mm</b>									
115	3	—	120	50 (250-500)	ECE23H1AAF	*	ECE23H2AAF	*	AE56HN0AB
200	—	10	208		ECE23H1EAF	*	ECE23H2EAF	*	AE56HN0EB
230	7-1/2	15	240		ECE23H1BAF	*	ECE23H2BAF	*	AE56HN0BB
460	—	30	480		ECE23H1CAF	*	ECE23H2CAF	*	AE56HN0CB

**Starters do not include heater packs.** Select 1 carton of 3 heater packs. For Heater Pack Selection, see **Page 34-93**.  
**Starters with Electronic Overload**, see **Page 34-55** of Modification Codes.

① For additional coil voltages, see **Page 34-125**.

② GMCP is rated for 480V maximum.

\*Please contact your local Eaton sales office.

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 Dimensions ..... **PG03300001E**  
 Discount Symbol ..... **1CD1C**

Table 34-221. Class ECE23 — IEC Rated — Combination GMCP — Interchangeable Heater OLR — Reversing (Continued)

Motor Voltage ②	Max. hp Rating		Magnet Coil Voltage ①	GMCP Rating (trip range) Amperes	3-Pole Type 4X ③ Watertight & Dust-Tight Stainless Steel		3-Pole Type 12 Dust-Tight		3-Pole Component Starter (Open) Catalog Number
	1-Phase	3-Phase			Catalog Number	Price U.S. \$	Catalog Number	Price U.S. \$	
<b>Size A — 45 mm</b>									
115	—	—	120	3	ECE23A4AAB	*	ECE23A8AAB	*	AE56AN0AC
200	1/6	1/2	208	(15-30)	ECE23A4EAB	*	ECE23A8EAB	*	AE56AN0EC
230	1/6	1/2	240		ECE23A4BAB	*	ECE23A8BAB	*	AE56AN0BC
460	1/2	1-1/2	480		ECE23A4CAB	*	ECE23A8CAB	*	AE56AN0CC
<b>Size B — 45 mm</b>									
115	1/4	—	120	7	ECE23B4AAC	*	ECE23B8AAC	*	AE56BN0AC
200	1/2	1-1/2	208	(35-70)	ECE23B4EAC	*	ECE23B8EAC	*	AE56BN0EC
230	1/2	1-1/2	240		ECE23B4BAC	*	ECE23B8BAC	*	AE56BN0BC
460	1-1/2	3	480		ECE23B4CAC	*	ECE23B8CAC	*	AE56BN0CC
<b>Size C — 45 mm</b>									
115	1/2	—	120	15	ECE23C4AAD	*	ECE23C8AAD	*	AE56CN0AC
200	1-1/2	3	208	(75-150)	ECE23C4EAD	*	ECE23C8EAD	*	AE56CN0EC
230	2	3	240		ECE23C4BAD	*	ECE23C8BAD	*	AE56CN0BC
460	3	7-1/2	480		ECE23C4CAD	*	ECE23C8CAD	*	AE56CN0CC
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE23D4AAE	*	ECE23D8AAE	*	AE56DN0AC
200	—	5	208	(150-300)	ECE23D4EAE	*	ECE23D8EAE	*	AE56DN0EC
230	3	5	240		ECE23D4BAE	*	ECE23D8BAE	*	AE56DN0BC
460	—	10	480		ECE23D4CAE	*	ECE23D8CAE	*	AE56DN0CC
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE23E4AAE	*	ECE23E8AAE	*	AE56EN0AC
200	—	5	208	(150-300)	ECE23E4EAE	*	ECE23E8EAE	*	AE56EN0EC
230	3	7-1/2	240		ECE23E4BAE	*	ECE23E8BAE	*	AE56EN0BC
460	—	15	480		ECE23E4CAE	*	ECE23E8CAE	*	AE56EN0CC
<b>Size F — 45 mm</b>									
115	2	—	120	50	ECE23F4AAF	*	ECE23F8AAF	*	AE56FN0AC
200	—	7-1/2	208	(250-500)	ECE23F4EAF	*	ECE23F8EAF	*	AE56FN0EC
230	5	10	240		ECE23F4BAF	*	ECE23F8BAF	*	AE56FN0BC
460	—	20	480		ECE23F4CAF	*	ECE23F8CAF	*	AE56FN0CC
<b>Size G — 65 mm</b>									
115	3	—	120	50	ECE23G4AAF	*	ECE23G8AAF	*	AE56GN0AB
200	—	7-1/2	208	(250-500)	ECE23G4EAF	*	ECE23G8EAF	*	AE56GN0EB
230	5	10	240		ECE23G4BAF	*	ECE23G8BAF	*	AE56GN0BB
460	—	25	480		ECE23G4CAF	*	ECE23G8CAF	*	AE56GN0CB
<b>Size H — 65 mm</b>									
115	3	—	120	50	ECE23H4AAF	*	ECE23H8AAF	*	AE56HN0AB
200	—	10	208	(250-500)	ECE23H4EAF	*	ECE23H8EAF	*	AE56HN0EB
230	7-1/2	15	240		ECE23H4BAF	*	ECE23H8BAF	*	AE56HN0BB
460	—	30	480		ECE23H4CAF	*	ECE23H8CAF	*	AE56HN0CB

Starters do not include heater packs. Select 1 carton of 3 heater packs. For Heater Pack Selection, see Page 34-93. Starters with Electronic Overload, see Page 34-55 of Modification Codes.

- ① For additional coil voltages, see Page 34-125.
  - ② GMCP is rated for 480V maximum.
  - ③ These are the Catalog Numbers for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECE23B4AAC. 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.
- \*Please contact your local Eaton sales office.

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 Discount Symbol . . . . . 1CD1C

**Combination Starters — GMCP**

**Table 34-222. Class ECE25 — IEC Rated — Combination GMCP — Fixed Heater OLR — Non-reversing**

Motor Voltage ③	Max. hp Rating		Magnet Coil Voltage ①	GMCP Rating (trip range) Amperes	3-Pole Type 1 General Purpose		3-Pole Type 3R Rainproof		3-Pole Component Starter (Open) Catalog Number ②
	1-Phase	3-Phase			Catalog Number ②	Price U.S. \$	Catalog Number ②	Price U.S. \$	
<b>Size A — 45 mm</b>									
115	—	—	120	3	ECE25A1AAB_	*	ECE25A2AAB_	*	AE17ANS0_
200	1/6	1/2	208	(15-30)	ECE25A1EAB_	*	ECE25A2EAB_	*	
230	1/6	1/2	240		ECE25A1BAB_	*	ECE25A2BAB_	*	
460	1/2	1-1/2	480		ECE25A1CAB_	*	ECE25A2CAB_	*	
<b>Size B — 45 mm</b>									
115	1/4	—	120	7	ECE25B1AAC_	*	ECE25B2AAC_	*	AE17BNS0_
200	1/2	1-1/2	208	(35-70)	ECE25B1EAC_	*	ECE25B2EAC_	*	
230	1/2	1-1/2	240		ECE25B1BAC_	*	ECE25B2BAC_	*	
460	1-1/2	3	480		ECE25B1CAC_	*	ECE25B2CAC_	*	
<b>Size C — 45 mm</b>									
115	1/2	—	120	15	ECE25C1AAD_	*	ECE25C2AAD_	*	AE17CNS0_
200	1-1/2	3	208	(75-150)	ECE25C1EAD_	*	ECE25C2EAD_	*	
230	2	3	240		ECE25C1BAD_	*	ECE25C2BAD_	*	
460	3	7-1/2	480		ECE25C1CAD_	*	ECE25C2CAD_	*	
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE25D1AAE_	*	ECE25D2AAE_	*	AE17DNS0_
200	—	5	208	(150-300)	ECE25D1EAE_	*	ECE25D2EAE_	*	
230	3	5	240		ECE25D1BAE_	*	ECE25D2BAE_	*	
460	—	10	480		ECE25D1CAE_	*	ECE25D2CAE_	*	
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE25E1AAE_	*	ECE25E2AAE_	*	AE17ENS0_
200	—	5	208	(150-300)	ECE25E1EAE_	*	ECE25E2EAE_	*	
230	3	7-1/2	240		ECE25E1BAE_	*	ECE25E2BAE_	*	
460	—	15	480		ECE25E1CAE_	*	ECE25E2CAE_	*	
<b>Size F — 45 mm</b>									
115	2	—	120	50	ECE25F1AAF_	*	ECE25F2AAF_	*	AE17FNS0_
200	—	7-1/2	208	(250-500)	ECE25F1EAF_	*	ECE25F2EAF_	*	
230	5	10	240		ECE25F1BAF_	*	ECE25F2BAF_	*	
460	—	20	480		ECE25F1CAF_	*	ECE25F2CAF_	*	
<b>Size G — 65 mm</b>									
115	3	—	120	50	ECE25G1AAF_	*	ECE25G2AAF_	*	AE17GNS0_
200	—	7-1/2	208	(250-500)	ECE25G1EAF_	*	ECE25G2EAF_	*	
230	5	10	240		ECE25G1BAF_	*	ECE25G2BAF_	*	
460	—	25	480		ECE25G1CAF_	*	ECE25G2CAF_	*	
<b>Size H — 65 mm</b>									
115	3	—	120	50	ECE25H1AAF_	*	ECE25H2AAF_	*	AE17HNS0_
200	—	10	208	(250-500)	ECE25H1EAF_	*	ECE25H2EAF_	*	
230	7-1/2	15	240		ECE25H1BAF_	*	ECE25H2BAF_	*	
460	—	30	480		ECE25H1CAF_	*	ECE25H2CAF_	*	

1 set of 3 fixed heater overload relays included.

- ① For additional coil voltages, refer to **Page 34-125**.
- ② Starter includes fixed heater overload. For Enclosed IEC Starters, select suffix code **-R\_** from the table below. Overload relay range can not exceed contactor amperage rating. For Open IEC Starters, use suffix code **-F\_** or **-K\_** from the table below.

Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range
R4	Omit OLR	R14/FJ	2.2 – 3.1A	R21/FR	13 – 19A
R8/FC	.25 – .40A	R15/FK	2.8 – 4.0A	R22/FS	18 – 24A
R9/FD	.40 – .63A	R16/FL	3.5 – 5A	R23/FT	24 – 32A
R10/FE	.63 – 1.0A	R17/FM	4.5 – 6.5A	R24/KA	18 – 25A
R11/FF	1.0 – 1.4A	R18/FN	6 – 8.5A	R25/KB	22 – 32A
R12/FG	1.8 – 1.8A	R19/FP	7.5 – 11A	R26/KC	29 – 42A
R13/FH	1.7 – 2.4A	R20/FQ	10 – 14A	R27/KD	36 – 52A

- ③ GMCP is rated for 480V maximum.
- \*Please contact your local Eaton sales office.

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 Dimensions ..... **PG03300001E**  
 Discount Symbol ..... **1CD1C**

Table 34-222. Class ECE25 — IEC Rated — Combination GMCP — Fixed Heater OLR — Non-reversing (Continued)

Motor Voltage ③	Max. hp Rating		Magnet Coil Voltage ①	GMCP Rating (trip range) Amperes	3-Pole Type 4X ④ Watertight & Dust-Tight Stainless Steel		3-Pole Type 12 Dust-Tight		3-Pole Component Starter (Open)
	1-Phase	3-Phase			Catalog Number ②	Price U.S. \$	Catalog Number ②	Price U.S. \$	Catalog Number ②
<b>Size A — 45 mm</b>									
115	—	—	120	3	ECE25A4AAB_	*	ECE25A8AAB_	*	AE17ANS0_
200	1/6	1/2	208	(15-30)	ECE25A4EAB_	*	ECE25A8EAB_	*	
230	1/6	1/2	240		ECE25A4BAB_	*	ECE25A8BAB_	*	
460	1/2	1-1/2	480		ECE25A4CAB_	*	ECE25A8CAB_	*	
<b>Size B — 45 mm</b>									
115	1/4	—	120	7	ECE25B4AAC_	*	ECE25B8AAC_	*	AE17BNS0_
200	1/2	1-1/2	208	(35-70)	ECE25B4EAC_	*	ECE25B8EAC_	*	
230	1/2	1-1/2	240		ECE25B4BAC_	*	ECE25B8BAC_	*	
460	1-1/2	3	480		ECE25B4CAC_	*	ECE25B8CAC_	*	
<b>Size C — 45 mm</b>									
115	1/2	—	120	15	ECE25C4AAD_	*	ECE25C8AAD_	*	AE17CNS0_
200	1-1/2	3	208	(75-150)	ECE25C4EAD_	*	ECE25C8EAD_	*	
230	2	3	240		ECE25C4BAD_	*	ECE25C8BAD_	*	
460	3	7-1/2	480		ECE25C4CAD_	*	ECE25C8CAD_	*	
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE25D4AAE_	*	ECE25D8AAE_	*	AE17DNS0_
200	—	5	208	(150-300)	ECE25D4EAE_	*	ECE25D8EAE_	*	
230	3	5	240		ECE25D4BAE_	*	ECE25D8BAE_	*	
460	—	10	480		ECE25D4CAE_	*	ECE25D8CAE_	*	
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE25E4AAE_	*	ECE25E8AAE_	*	AE17ENS0_
200	—	5	208	(150-300)	ECE25E4EAE_	*	ECE25E8EAE_	*	
230	3	7-1/2	240		ECE25E4BAE_	*	ECE25E8BAE_	*	
460	—	15	480		ECE25E4CAE_	*	ECE25E8CAE_	*	
<b>Size F — 45 mm</b>									
115	2	—	120	50	ECE25F4AAF_	*	ECE25F8AAF_	*	AE17FNS0_
200	—	7-1/2	208	(250-500)	ECE25F4EAF_	*	ECE25F8EAF_	*	
230	5	10	240		ECE25F4BAF_	*	ECE25F8BAF_	*	
460	—	20	480		ECE25F4CAF_	*	ECE25F8CAF_	*	
<b>Size G — 65 mm</b>									
115	3	—	120	50	ECE25G4AAF_	*	ECE25G8AAF_	*	AE17GNS0_
200	—	7-1/2	208	(250-500)	ECE25G4EAF_	*	ECE25G8EAF_	*	
230	5	10	240		ECE25G4BAF_	*	ECE25G8BAF_	*	
460	—	25	480		ECE25G4CAF_	*	ECE25G8CAF_	*	
<b>Size H — 65 mm</b>									
115	3	—	120	50	ECE25H4AAF_	*	ECE25H8AAF_	*	AE17HNS0_
200	—	10	208	(250-500)	ECE25H4EAF_	*	ECE25H8EAF_	*	
230	7-1/2	15	240		ECE25H4BAF_	*	ECE25H8BAF_	*	
460	—	30	480		ECE25H4CAF_	*	ECE25H8CAF_	*	

1 set of 3 fixed heater overload relays included.

① For additional coil voltages, refer to Page 34-125.

② Starter includes fixed heater overload. For Enclosed IEC Starters, select suffix code -R\_ from the table below. Overload relay range can not exceed contactor amperage rating. For Open IEC Starters, use suffix code -F\_ or -K\_ from the table below.

Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range
R4	Omit OLR	R14/FJ	2.2 – 3.1A	R21/FR	13 – 19A
R8/FC	.25 – .40A	R15/FK	2.8 – 4.0A	R22/FS	18 – 24A
R9/FD	.40 – .63A	R16/FL	3.5 – 5A	R23/FT	24 – 32A
R10/FE	.63 – 1.0A	R17/FM	4.5 – 6.5A	R24/KA	18 – 25A
R11/FF	1.0 – 1.4A	R18/FN	6 – 8.5A	R25/KB	22 – 32A
R12/FG	1.8 – 1.8A	R19/FP	7.5 – 11A	R26/KC	29 – 42A
R13/FH	1.7 – 2.4A	R20/FQ	10 – 14A	R27/KD	36 – 52A

③ GMCP is rated for 480V maximum.

④ These are the Catalog Numbers for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit 4. Example: ECE25A4AAB. 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.

\*Please contact your local Eaton sales office.

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 Discount Symbol . . . . . 1CD1C

**Combination Starters — GMCP**

**Table 34-223. Class ECE26 — IEC Rated — Combination GMCP — Fixed Heater OLR — Reversing**

Motor Voltage ③	Max. hp Rating		Magnet Coil Voltage ①	GMCP Rating (trip range) Amperes	3-Pole Type 1 General Purpose		3-Pole Type 3R Rainproof		3-Pole Component Starter (Open) Catalog Number ②
	1-Phase	3-Phase			Catalog Number ②	Price U.S. \$	Catalog Number ②	Price U.S. \$	
<b>Size A — 45 mm</b>									
115	—	—	120	3	ECE26A1AAB_	*	ECE26A2AAB_	*	AE57AN0_
200	1/6	1/2	208	(15-30)	ECE26A1EAB_	*	ECE26A2EAB_	*	
230	1/6	1/2	240		ECE26A1BAB_	*	ECE26A2BAB_	*	
460	1/2	1-1/2	480		ECE26A1CAB_	*	ECE26A2CAB_	*	
<b>Size B — 45 mm</b>									
115	1/4	—	120	7	ECE26B1AAC_	*	ECE26B2AAC_	*	AE57BN0_
200	1/2	1-1/2	208	(35-70)	ECE26B1EAC_	*	ECE26B2EAC_	*	
230	1/2	1-1/2	240		ECE26B1BAC_	*	ECE26B2BAC_	*	
460	1-1/2	3	480		ECE26B1CAC_	*	ECE26B2CAC_	*	
<b>Size C — 45 mm</b>									
115	1/2	—	120	15	ECE26C1AAD_	*	ECE26C2AAD_	*	AE57CN0_
200	1-1/2	3	208	(75-150)	ECE26C1EAD_	*	ECE26C2EAD_	*	
230	2	3	240		ECE26C1BAD_	*	ECE26C2BAD_	*	
460	3	7-1/2	480		ECE26C1CAD_	*	ECE26C2CAD_	*	
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE26D1AAE_	*	ECE26D2AAE_	*	AE57DN0_
200	—	5	208	(150-300)	ECE26D1EAE_	*	ECE26D2EAE_	*	
230	3	5	240		ECE26D1BAE_	*	ECE26D2BAE_	*	
460	—	10	480		ECE26D1CAE_	*	ECE26D2CAE_	*	
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE26E1AAE_	*	ECE26E2AAE_	*	AE57EN0_
200	—	5	208	(150-300)	ECE26E1EAE_	*	ECE26E2EAE_	*	
230	3	7-1/2	240		ECE26E1BAE_	*	ECE26E2BAE_	*	
460	—	15	480		ECE26E1CAE_	*	ECE26E2CAE_	*	
<b>Size F — 45 mm</b>									
115	2	—	120	50	ECE26F1AAF_	*	ECE26F2AAF_	*	AE57FN0_
200	—	7-1/2	208	(250-500)	ECE26F1EAF_	*	ECE26F2EAF_	*	
230	5	10	240		ECE26F1BAF_	*	ECE26F2BAF_	*	
460	—	20	480		ECE26F1CAF_	*	ECE26F2CAF_	*	
<b>Size G — 65 mm</b>									
115	3	—	120	50	ECE26G1AAF_	*	ECE26G2AAF_	*	AE57GN0_
200	—	7-1/2	208	(250-500)	ECE26G1EAF_	*	ECE26G2EAF_	*	
230	5	10	240		ECE26G1BAF_	*	ECE26G2BAF_	*	
460	—	25	480		ECE26G1CAF_	*	ECE26G2CAF_	*	
<b>Size H — 65 mm</b>									
115	3	—	120	50	ECE26H1AAF_	*	ECE26H2AAF_	*	AE57HN0_
200	—	10	208	(250-500)	ECE26H1EAF_	*	ECE26H2EAF_	*	
230	7-1/2	15	240		ECE26H1BAF_	*	ECE26H2BAF_	*	
460	—	30	480		ECE26H1CAF_	*	ECE26H2CAF_	*	

1 set of 3 fixed heater overload relays included.

- ① For additional coil voltages, refer to **Page 34-125**.
- ② Starter includes fixed heater overload. For Enclosed IEC Starters, select suffix code **-R\_** from the table below. Overload relay range can not exceed contactor amperage rating. For Open IEC Starters, use suffix code **-F\_** or **-K\_** from the table below.

Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range
R4	Omit OLR	R14/FJ	2.2 – 3.1A	R21/FR	13 – 19A
R8/FC	.25 – .40A	R15/FK	2.8 – 4.0A	R22/FS	18 – 24A
R9/FD	.40 – .63A	R16/FL	3.5 – 5A	R23/FT	24 – 32A
R10/FE	.63 – 1.0A	R17/FM	4.5 – 6.5A	R24/KA	18 – 25A
R11/FF	1.0 – 1.4A	R18/FN	6 – 8.5A	R25/KB	22 – 32A
R12/FG	1.8 – 1.8A	R19/FP	7.5 – 11A	R26/KC	29 – 42A
R13/FH	1.7 – 2.4A	R20/FQ	10 – 14A	R27/KD	36 – 52A

- ③ GMCP is rated for 480V maximum.
- \*Please contact your local Eaton sales office.

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Discount Symbol .....	<b>1CD1C</b>

Table 34-223. Class ECE26 — IEC Rated — Combination GMCP — Fixed Heater OLR — Reversing (Continued)

Motor Voltage ③	Max. hp Rating		Magnet Coil Voltage ①	GMCP Rating (trip range) Amperes	3-Pole Type 4X ④ Watertight & Dust-Tight Stainless Steel		3-Pole Type 12 Dust-Tight		3-Pole Component Starter (Open)
	1-Phase	3-Phase			Catalog Number ②	Price U.S. \$	Catalog Number ②	Price U.S. \$	Catalog Number ②
<b>Size A — 45 mm</b>									
115	—	—	120	3	ECE26A4AAB_	*	ECE26A8AAB_	*	AE57AN0_
200	1/6	1/2	208	(15-30)	ECE26A4EAB_	*	ECE26A8EAB_	*	
230	1/6	1/2	240		ECE26A4BAB_	*	ECE26A8BAB_	*	
460	1/2	1-1/2	480		ECE26A4CAB_	*	ECE26A8CAB_	*	
<b>Size B — 45 mm</b>									
115	1/4	—	120	7	ECE26B4AAC_	*	ECE26B8AAC_	*	AE57BN0_
200	1/2	1-1/2	208	(35-70)	ECE26B4EAC_	*	ECE26B8EAC_	*	
230	1/2	1-1/2	240		ECE26B4BAC_	*	ECE26B8BAC_	*	
460	1-1/2	3	480		ECE26B4CAC_	*	ECE26B8CAC_	*	
<b>Size C — 45 mm</b>									
115	1/2	—	120	15	ECE26C4AAD_	*	ECE26C8AAD_	*	AE57CN0_
200	1-1/2	3	208	(75-150)	ECE26C4EAD_	*	ECE26C8EAD_	*	
230	2	3	240		ECE26C4BAD_	*	ECE26C8BAD_	*	
460	3	7-1/2	480		ECE26C4CAD_	*	ECE26C8CAD_	*	
<b>Size D — 45 mm</b>									
115	1	—	120	30	ECE26D4AAE_	*	ECE26D8AAE_	*	AE57DN0_
200	—	5	208	(150-300)	ECE26D4EAE_	*	ECE26D8EAE_	*	
230	3	5	240		ECE26D4BAE_	*	ECE26D8BAE_	*	
460	—	10	480		ECE26D4CAE_	*	ECE26D8CAE_	*	
<b>Size E — 45 mm</b>									
115	2	—	120	30	ECE26E4AAE_	*	ECE26E8AAE_	*	AE57EN0_
200	—	5	208	(150-300)	ECE26E4EAE_	*	ECE26E8EAE_	*	
230	3	7-1/2	240		ECE26E4BAE_	*	ECE26E8BAE_	*	
460	—	15	480		ECE26E4CAE_	*	ECE26E8CAE_	*	
<b>Size F — 45 mm</b>									
115	2	—	120	50	ECE26F4AAF_	*	ECE26F8AAF_	*	AE57FN0_
200	—	7-1/2	208	(250-500)	ECE26F4EAF_	*	ECE26F8EAF_	*	
230	5	10	240		ECE26F4BAF_	*	ECE26F8BAF_	*	
460	—	20	480		ECE26F4CAF_	*	ECE26F8CAF_	*	
<b>Size G — 65 mm</b>									
115	3	—	120	50	ECE26G4AAF_	*	ECE26G8AAF_	*	AE57GN0_
200	—	7-1/2	208	(250-500)	ECE26G4EAF_	*	ECE26G8EAF_	*	
230	5	10	240		ECE26G4BAF_	*	ECE26G8BAF_	*	
460	—	25	480		ECE26G4CAF_	*	ECE26G8CAF_	*	
<b>Size H — 65 mm</b>									
115	3	—	120	50	ECE26H4AAF_	*	ECE26H8AAF_	*	AE57HN0_
200	—	10	208	(250-500)	ECE26H4EAF_	*	ECE26H8EAF_	*	
230	7-1/2	15	240		ECE26H4BAF_	*	ECE26H8BAF_	*	
460	—	30	480		ECE26H4CAF_	*	ECE26H8CAF_	*	

1 set of 3 fixed heater overload relays included.

① For additional coil voltages, refer to Page 34-125.

② Starter includes fixed heater overload. For Enclosed IEC Starters, select suffix code **-R\_** from the table below. Overload relay range can not exceed contactor amperage rating. For Open IEC Starters, use suffix code **-F\_** or **-K\_** from the table below.

Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range	Suffix Enclosed/ Open	Overload Range
R4	Omit OLR	R14/FJ	2.2 – 3.1A	R21/FR	13 – 19A
R8/FC	.25 – .40A	R15/FK	2.8 – 4.0A	R22/FS	18 – 24A
R9/FD	.40 – .63A	R16/FL	3.5 – 5A	R23/FT	24 – 32A
R10/FE	.63 – 1.0A	R17/FM	4.5 – 6.5A	R24/KA	18 – 25A
R11/FF	1.0 – 1.4A	R18/FN	6 – 8.5A	R25/KB	22 – 32A
R12/FG	1.8 – 1.8A	R19/FP	7.5 – 11A	R26/KC	29 – 42A
R13/FH	1.7 – 2.4A	R20/FQ	10 – 14A	R27/KD	36 – 52A

③ GMCP is rated for 480V maximum.

④ These are the Catalog Numbers for Type 4X 304-Grade Stainless Steel, as indicated by the seventh digit **4**. Example: ECE26B4AAC. 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**.

\*Please contact your local Eaton sales office.

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 Dimensions . . . . . PG03300001E  
 Discount Symbol . . . . . 1CD1C

Wiring Diagrams

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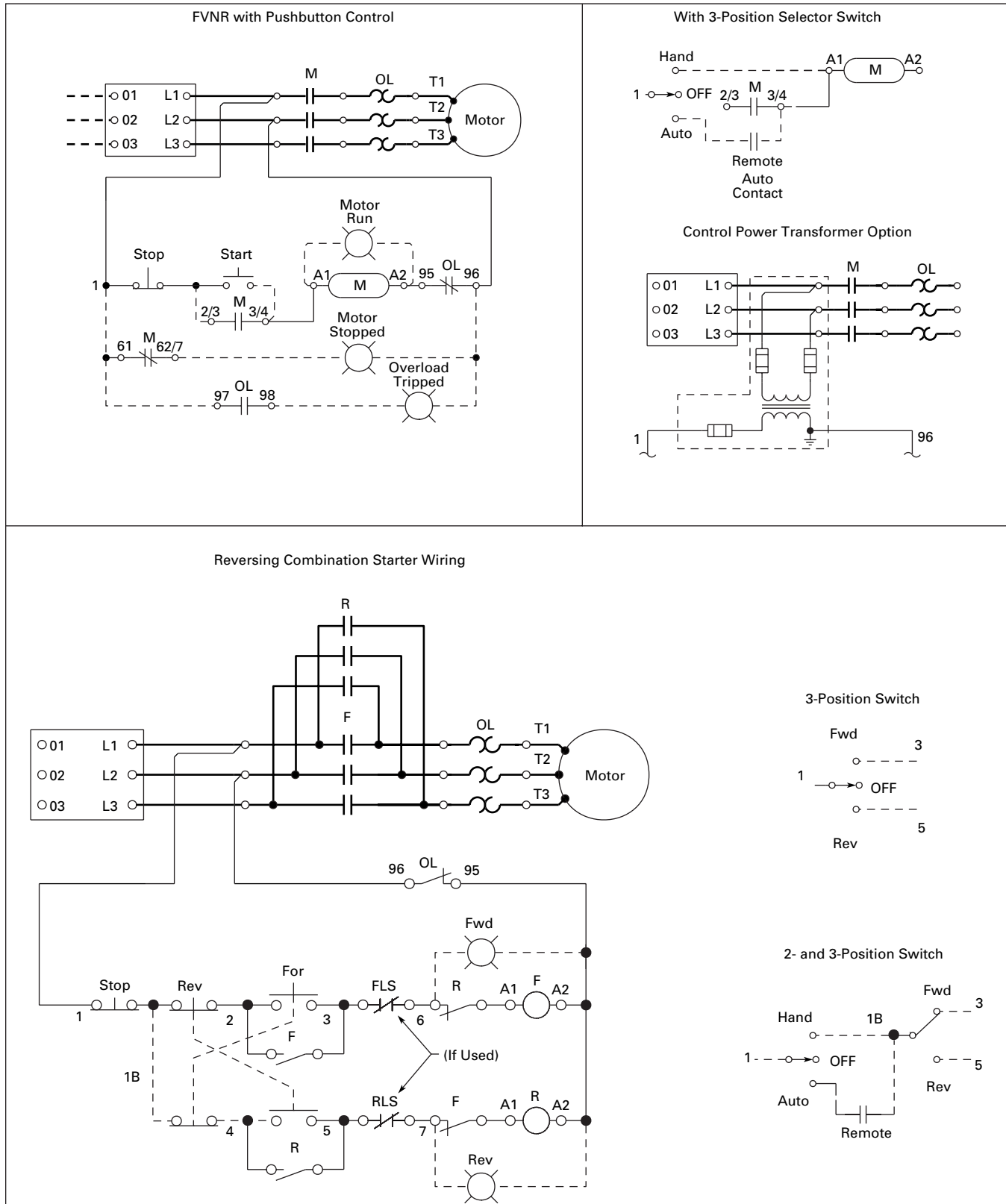


Figure 34-59. Typical Wiring Diagram

Non-combination Starters — Non-reversing

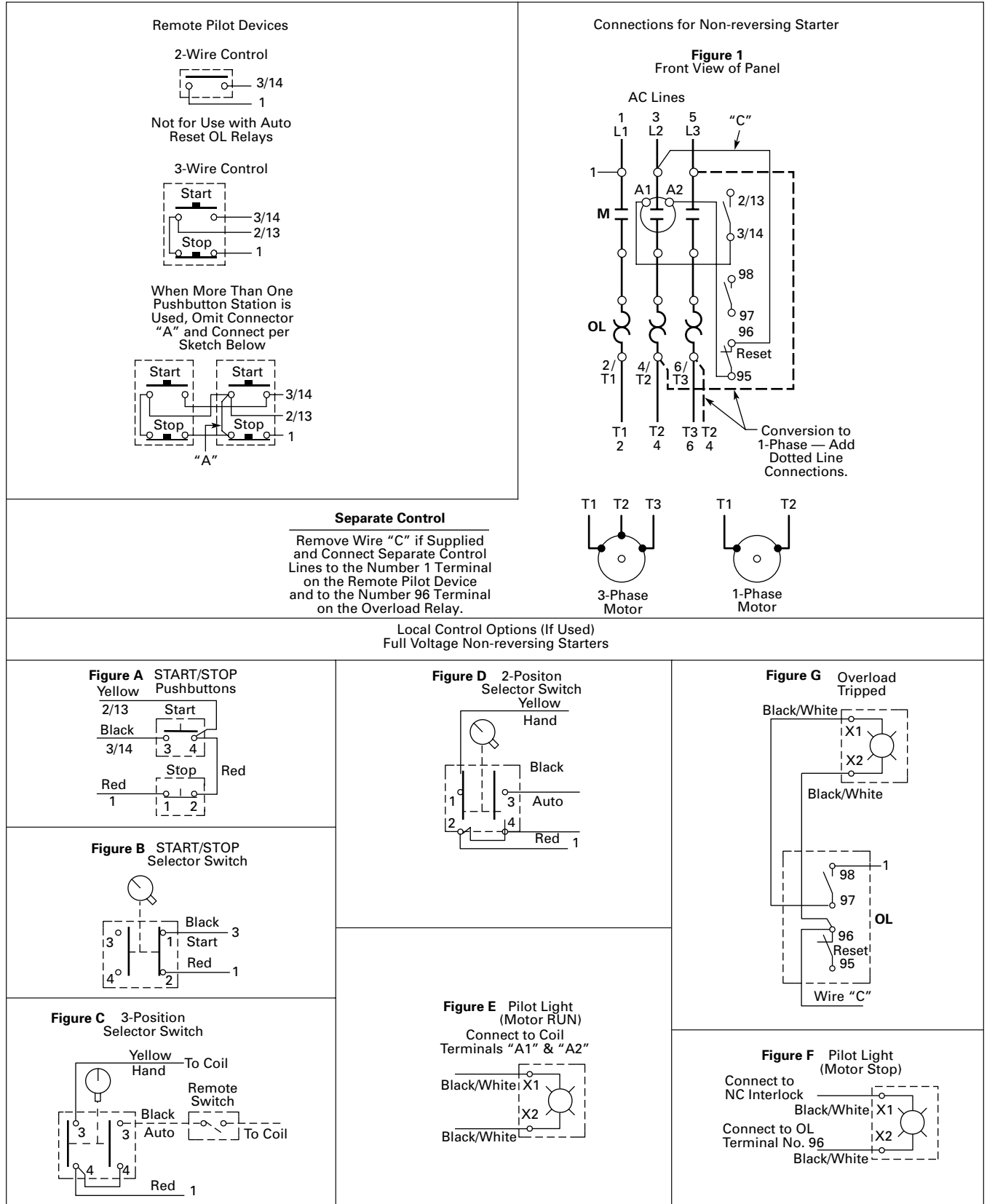


Figure 34-60. Typical Wiring Diagram

Wiring Diagrams

Non-combination Starters — Reversing

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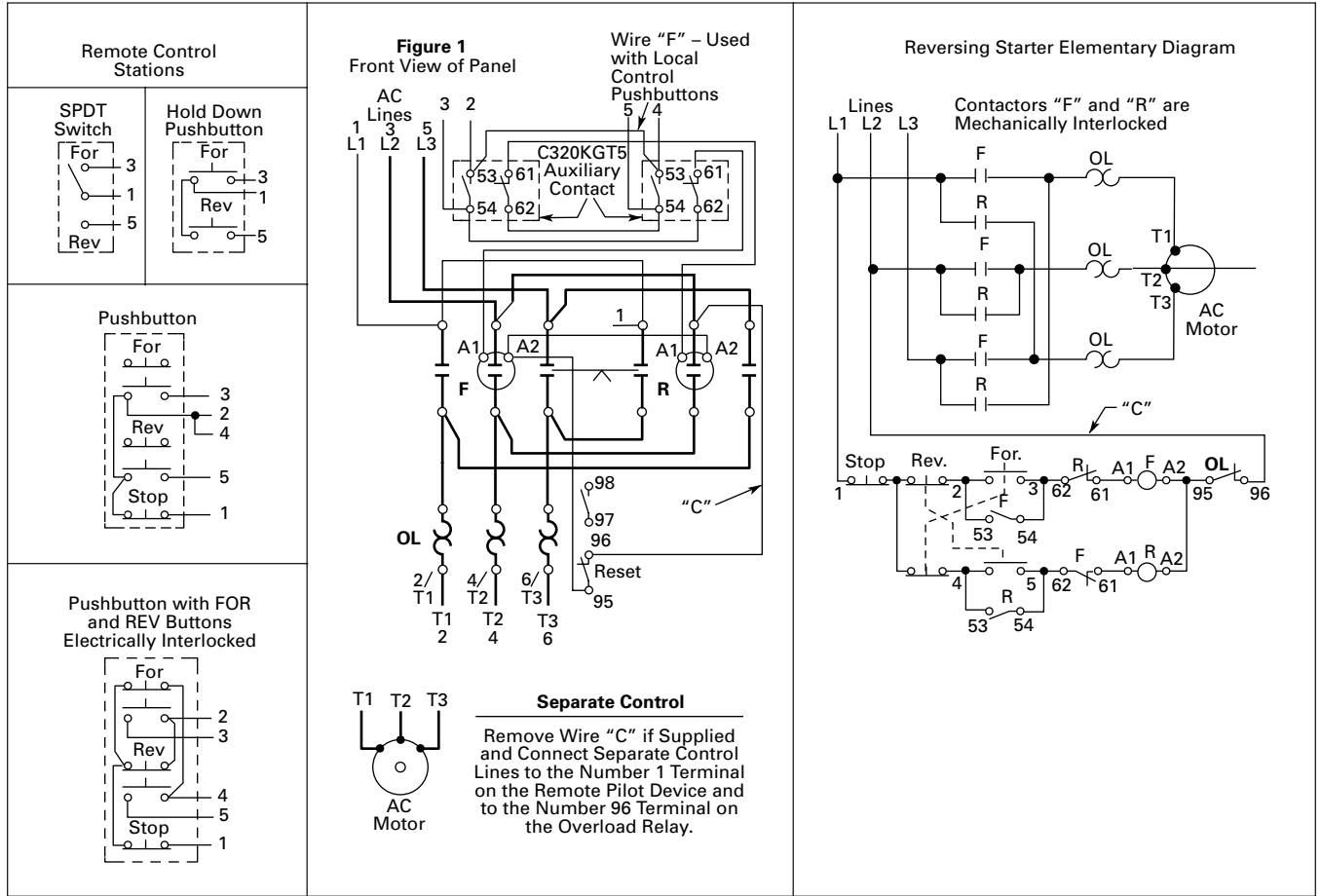


Figure 34-61. Typical Wiring Diagram