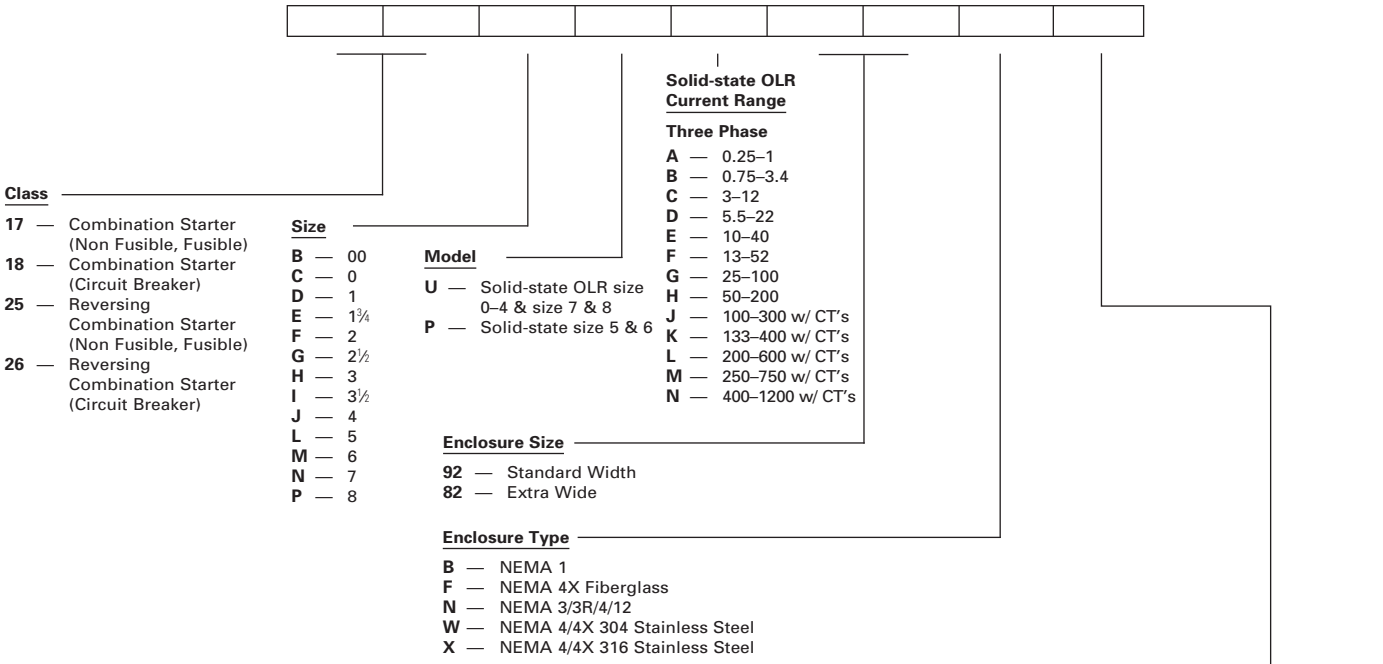
Catalog Numbering System

General



Class
- **17** — Combination Starter (Non Fusible, Fusible)
- **18** — Combination Starter (Circuit Breaker)
- **25** — Reversing Combination Starter (Non Fusible, Fusible)
- **26** — Reversing Combination Starter (Circuit Breaker)

Size
- **B** — 00
- **C** — 0
- **D** — 1
- **E** — 1¾
- **F** — 2
- **G** — 2½
- **H** — 3
- **I** — 3½
- **J** — 4
- **L** — 5
- **M** — 6
- **N** — 7
- **P** — 8

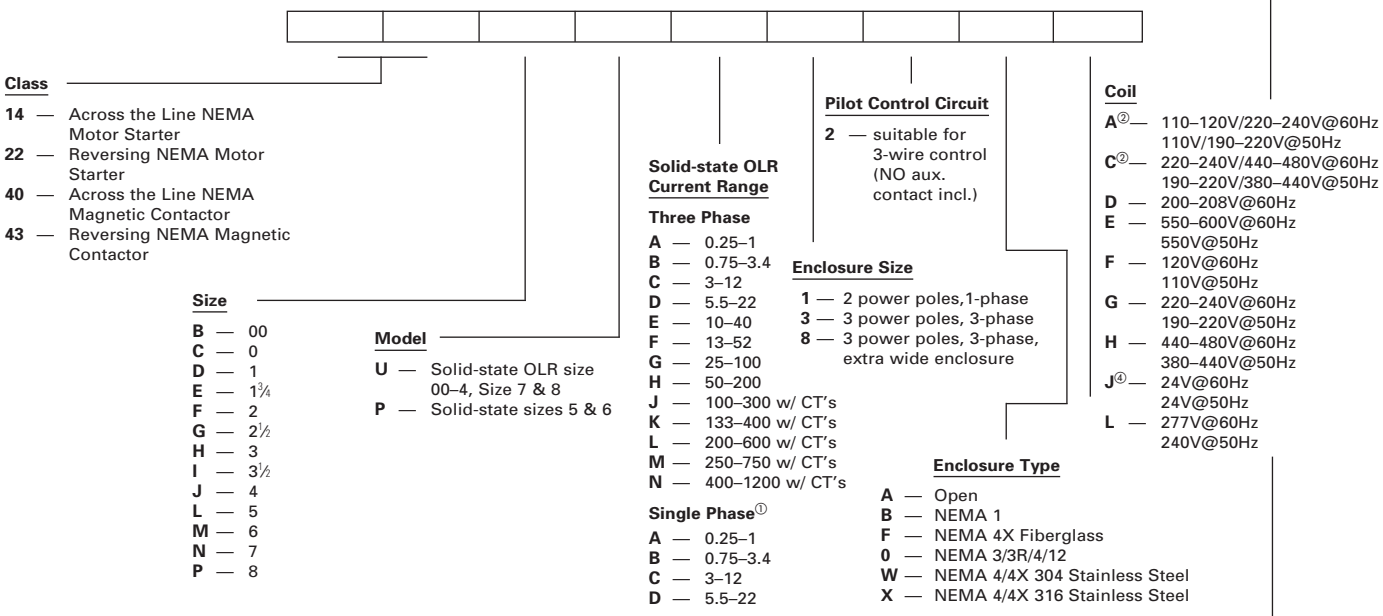
Model
- **U** — Solid-state OLR size 0–4 & size 7 & 8
- **P** — Solid-state size 5 & 6

Solid-state OLR Current Range

Three Phase
- **A** — 0.25–1
- **B** — 0.75–3.4
- **C** — 3–12
- **D** — 5.5–22
- **E** — 10–40
- **F** — 13–52
- **G** — 25–100
- **H** — 50–200
- **J** — 100–300 w/ CT's
- **K** — 133–400 w/ CT's
- **L** — 200–600 w/ CT's
- **M** — 250–750 w/ CT's
- **N** — 400–1200 w/ CT's

Enclosure Size
- **92** — Standard Width
- **82** — Extra Wide

Enclosure Type
- **B** — NEMA 1
- **F** — NEMA 4X Fiberglass
- **N** — NEMA 3/3R/4/12
- **W** — NEMA 4/4X 304 Stainless Steel
- **X** — NEMA 4/4X 316 Stainless Steel



Class
- **14** — Across the Line NEMA Motor Starter
- **22** — Reversing NEMA Motor Starter
- **40** — Across the Line NEMA Magnetic Contactor
- **43** — Reversing NEMA Magnetic Contactor

Size
- **B** — 00
- **C** — 0
- **D** — 1
- **E** — 1¾
- **F** — 2
- **G** — 2½
- **H** — 3
- **I** — 3½
- **J** — 4
- **L** — 5
- **M** — 6
- **N** — 7
- **P** — 8

Model
- **U** — Solid-state OLR size 00–4, Size 7 & 8
- **P** — Solid-state sizes 5 & 6

Solid-state OLR Current Range

Three Phase
- **A** — 0.25–1
- **B** — 0.75–3.4
- **C** — 3–12
- **D** — 5.5–22
- **E** — 10–40
- **F** — 13–52
- **G** — 25–100
- **H** — 50–200
- **J** — 100–300 w/ CT's
- **K** — 133–400 w/ CT's
- **L** — 200–600 w/ CT's
- **M** — 250–750 w/ CT's
- **N** — 400–1200 w/ CT's

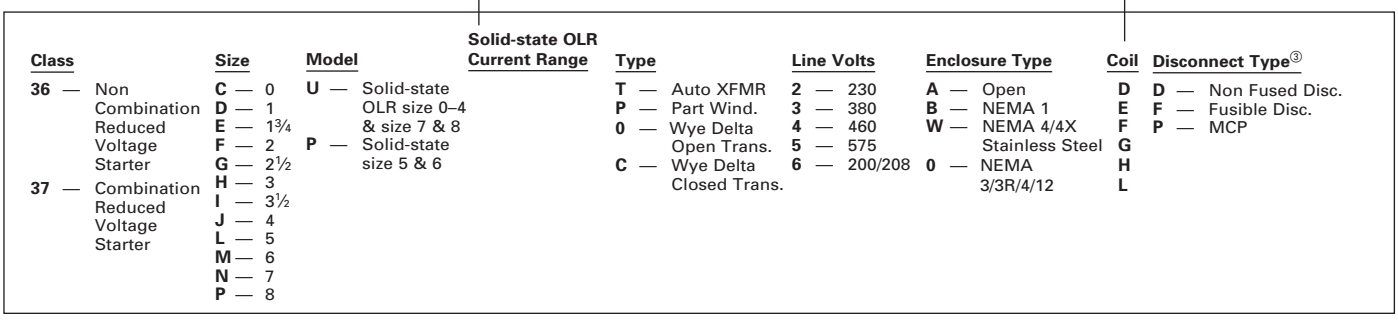
Single Phase①
- **A** — 0.25–1
- **B** — 0.75–3.4
- **C** — 3–12
- **D** — 5.5–22

Pilot Control Circuit
- **2** — suitable for 3-wire control (NO aux. contact incl.)

Enclosure Size
- **1** — 2 power poles,1-phase
- **3** — 3 power poles, 3-phase
- **8** — 3 power poles, 3-phase, extra wide enclosure

Enclosure Type
- **A** — Open
- **B** — NEMA 1
- **F** — NEMA 4X Fiberglass
- **0** — NEMA 3/3R/4/12
- **W** — NEMA 4/4X 304 Stainless Steel
- **X** — NEMA 4/4X 316 Stainless Steel

Coil
- **A**②— 110–120V/220–240V@60Hz 110V/190–220V@50Hz
- **C**②— 220–240V/440–480V@60Hz 190–220V/380–440V@50Hz
- **D** — 200–208V@60Hz
- **E** — 550–600V@60Hz 550V@50Hz
- **F** — 120V@60Hz 110V@50Hz
- **G** — 220–240V@60Hz 190–220V@50Hz
- **H** — 440–480V@60Hz 380–440V@50Hz
- **J**④— 24V@60Hz 24V@50Hz
- **L** — 277V@60Hz 240V@50Hz



Class
- **36** — Non Combination Reduced Voltage Starter
- **37** — Combination Reduced Voltage Starter

Size
- **C** — 0
- **D** — 1
- **E** — 1¾
- **F** — 2
- **G** — 2½
- **H** — 3
- **I** — 3½
- **J** — 4
- **L** — 5
- **M** — 6
- **N** — 7
- **P** — 8

Model
- **U** — Solid-state OLR size 0–4 & size 7 & 8
- **P** — Solid-state size 5 & 6

Solid-state OLR Current Range

Type
- **T** — Auto XFMR
- **P** — Part Wind.
- **0** — Wye Delta Open Trans.
- **C** — Wye Delta Closed Trans.

Line Volts
- **2** — 230
- **3** — 380
- **4** — 460
- **5** — 575
- **6** — 200/208

Enclosure Type
- **A** — Open
- **B** — NEMA 1
- **W** — NEMA 4/4X Stainless Steel
- **0** — NEMA 3/3R/4/12

Coil
- **D**
- **E**
- **F**
- **G**
- **H**
- **L**

Disconnect Type③
- **D** — Non Fused Disc.
- **F** — Fusible Disc.
- **P** — MCP

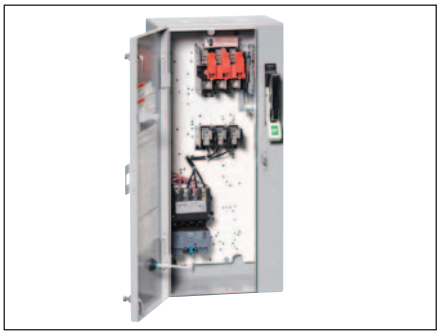
① Single phase solid-state OLR available on Class 14 Starters only.

② Not available on sizes 5–8.

③ For Class 37 only.

④ Not available on sizes 7 and 8.

Features and Benefits



Combination Starter Features

Combination starters include the following features:

- Manufactured with Cold Forming "TOX" Process
- Solid State Overloads Standard on Sizes 5–8
- Easy to Install
- Wide Range of Enclosure Types Available
- Heavy Duty Quarter Turns
- 100kA Short Circuit Current Rating when Protected with Class R Fuses to 600V or MCP to 480V
- Visible Blade Disconnect
- Industrial Type Disconnect Handle
- UL listed file #E185287 (class 17, 18, 25, 26 & 32)
- CSA certified file #LR 6535 (class 17, 18, 25, 26 & 32)

Application

A combination starter meets National Electrical Code requirements for:

1. A means of providing short circuit motor protection with fused or breaker disconnection of line voltage.

2. A means of safeguarding personnel from contact with live parts and from accidental starting of machinery by disconnecting the motor and the controller.

3. A motor controller with overload protection.

Prewired combination starters eliminate the cost of wiring between separate disconnect and starter. Factory testing assures field performance. Combination starters also provide a more compact and attractive installation than separate units.

Enclosure Types

Combination starters are available in NEMA 1, 12/3/3R/4 (painted), 4/4X (stainless), and 4X fiberglass enclosures. Enclosures protect personnel from contact with live parts and depending upon the construction, protect the control in varying degrees from physical damage and harmful atmospheres. All enclosures are supplied with corrosion resistant finishes.

Heavy Duty Disconnect Switches

The disconnect switch that goes the distance in durability, performance and reliability has the following advantages:

- Visible blades for the highest level of safety
- Double break switching action to reduce arcing, increase lifetime and eliminate the "electric hinge"
- More rugged positive action switch
- Oversized lugs are standard
- Line side shield to help guard personnel from contact with live parts
- Higher horsepower rating for design E high efficiency motors
- UL listed for Ilsco, Burndy and T&B crimp type lugs
- The 200A switch accepts up to 300 MCM versus 250 MCM wire size

Its rugged construction - with a high fault withstand rating of 100kA at 600 VAC when fused with class R rated fuses - meets the most stringent industry standards set forth by the automotive, petro-chemical, and pulp and paper industries. UL recognized and CSA certified, our disconnect switches are available either non-fusible or fusible with class R and class J fuse clips.

Enclosure Kits for NEMA Combination Starters Description

You can assemble a non-stocked combination starter per your unanticipated needs in minutes. Say, for example, your customer needs a fusible combination starter that you don't have in stock. You need in now, but don't sweat it.

Simply start with the enclosure kit which has the handle preinstalled. You install the required starter and fusible disconnect, connect the power wire and you are finished. Within minutes, you have the required combination starter in your hands. No more waiting on the factory. You need it, you got it!

What Is In It For You!

- **Reduce Lead-time -** What used to take days to get now takes minutes
- **Reduced Inventory -** Instead of stocking scores of various combination starters, simply stock a few enclosure kits, disconnect kits, circuit breaker kits and open starters. With these basic "building blocks" you virtually have hundreds of products on-hand
- **Quality -** The same high level of quality you have been accustomed to with our products will also be found in these new enclosure kits
- **UL Listed -** By correctly following the instructions included with the kits, the product you build is UL/CSA Listed

Refer to page 9/110 for more details.

Siemens Type ETI Circuit Breaker

The ETI circuit breaker is a device designed specifically for application in motor circuits. The ETI is a magnetic only protective device designed to provide protection against short circuit current.

The instantaneous-only type ETI circuit breaker employs adjustable magnetic trip settings to allow broader application ranges and a higher degree of motor short circuit protection.

Heavy Duty Starters

These combination starters use the same starters described in the heavy duty starter section of this catalog.

Fusible with Solid State Overload, Class 17

Selection

Ordering Information

- Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order.
- Field Modification Kits see page 9/100.
- Factory Modifications see page 9/112.
- Dimensions see page 9/141.
- Wiring Diagrams see page 9/155.
- Replacement Parts see page 9/118.

Coil Table

60Hz Voltage	Letter
24	J
120	F
110–120/220–240①	A
200–208	D
220–240	G
277	L
220–240/440–480①	C
440–480	H
575–600	E

For other voltages and frequencies, see Factory Modifications page 9/112.

Standard Width Enclosure, 3-Phase, 3-Pole③

Max Hp						Overload		Disc.		Enclosure							
										NEMA 1 General Purpose		NEMA 4/4X Stainless Watertight, Dust-tight, Corrosion Resistant @ = W for 304 Stainless Steel @ = X for 316 Stainless Steel		NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant		NEMA 3/3R/4/12 Watertight, Dust-tight, Weatherproof	
200 Volts	230 Volts	460 Volts	575 Volts	NEMA Size	Half Size	Amp Range	Frame Size	Amp Range	Fuse Clip Amp/Volts	Catalog Number	List Price $	Catalog Number	List Price $	Catalog Number	List Price $	Catalog Number	List Price $
⅛	⅛	—	—	0	—	0.25–1	A	30	30A/250V	17CUA92B*10		17CUA92@*10		17CUA92F*10		17CUA92N*10	
—	—	⅓	½	0	—	0.25–1	A	30	30A/600V	17CUA92B*11		17CUA92@*11		17CUA92F*11		17CUA92N*11	
½	¾	—	—	0	—	0.75–3.4	A	30	30A/250V	17CUB92B*10		17CUB92@*10		17CUB92F*10		17CUB92N*10	
—	—	1½	2	0	—	0.75–3.4	A	30	30A/600V	17CUB92B*11		17CUB92@*11		17CUB92F*11		17CUB92N*11	
2	2	—	—	0	—	3–12	A1	30	30A/250V	17CUC92B*10		17CUC92@*10		17CUC92F*10		17CUC92N*10	
—	—	5	5	0	—	3–12	A1	30	30A/600V	17CUC92B*11		17CUC92@*11		17CUC92F*11		17CUC92N*11	
3	3	—	—	0	—	5.5–22	A1	30	30A/250V	17CUD92B*10		17CUD92@*10		17CUD92F*10		17CUD92N*10	
⅛	⅛	—	—	1	—	0.25–1	A	30	30A/250V	17DUA92B*10		17DUA92@*10		17DUA92F*10		17DUA92N*10	
—	—	⅓	½	1	—	0.25–1	A	30	30A/600V	17DUA92B*11		17DUA92@*11		17DUA92F*11		17DUA92N*11	
½	¾	—	—	1	—	0.75–3.4	A	30	30A/250V	17DUB92B*10		17DUB92@*10		17DUB92F*10		17DUB92N*10	
—	—	1½	2	1	—	0.75–3.4	A	30	30A/600V	17DUB92B*11		17DUB92@*11		17DUB92F*11		17DUB92N*11	
2	2	—	—	1	—	3–12	A1	30	30A/250V	17DUC92B*10		17DUC92@*10		17DUC92F*10		17DUC92N*10	
—	—	5	5	1	—	3–12	A1	30	30A/600V	17DUC92B*11		17DUC92@*11		17DUC92F*11		17DUC92N*11	
3	3	—	—	1	—	5.5–22	A1	30	30A/250V	17DUD92B*10		17DUD92@*10		17DUD92F*10		17DUD92N*10	
—	—	10	10	1	—	5.5–22	A1	30	30A/600V	17DUD92B*11		17DUD92@*11		17DUD92F*11		17DUD92N*11	
7½	7½	—	—	1	—	10–40	A1	30	30A/250V	17DUE92B*10		17DUE92@*10		17DUE92F*10		17DUE92N*10	
7½	7½	—	—	1	—	10–40	A1	60	60A/250V	17DUE92B*12		17DUE92@*12		17DUE92F*12		17DUE92N*12	
—	—	15	15	—	1¾	10–40	A1	60	60A/600V	17EUE92B*13		17EUE92@*13		17EUE92F*13		17EUE92N*13	
10	10	—	—	—	1¾	10–40	A1	60	60A/250V	17EUE92B*12		17EUE92@*12		17EUE92F*12		17EUE92N*12	
10	15	—	—	2	—	13–52	B	60	60A/250V	17FUF92B*12		17FUF92@*12		17FUF92F*12		17FUF92N*12	
—	—	25	25	2	—	13–52	B	60	60A/600V	17FUF92B*13		17FUF92@*13		17FUF92F*13		17FUF92N*13	
—	—	—	30	—	2½	25–100	B	60	60A/600V	17GUG92B*13		17GUG92@*13		17GUG92F*13		17GUG92N*13	
—	—	30	—	—	2½	25–100	B	100	100A/600V	17GUG92B*15		17GUG92@*15		17GUG92F*15		17GUG92N*15	
15	20	—	—	—	2½	25–100	B	100	100A/250V	17GUG92B*14		17GUG92@*14		17GUG92F*14		17GUG92N*14	
20	25	—	—	3	—	25–100	B	100	100A/250V	17HUG92B*14		17HUG92@*14		17HUG92F*14		17HUG92N*14	
—	—	50	50	3	—	25–100	B	100	100A/600V	17HUG92B*15		17HUG92@*15		17HUG92F*15		17HUG92N*15	
25	30	—	—	3	—	25–100	B	200	200A/250V	17HUG92B*16		17HUG92@*16		17HUG92F*16		17HUG92N*16	
30	40	—	—	—	3½	50–200	B	200	200A/250V	17IUH92B*16		17IUH92@*16		17IUH92F*16		17IUH92N*16	
—	—	75	75	—	3½	50–200	B	200	200A/600V	17IUH92B*17		17IUH92@*17		17IUH92F*17		17IUH92N*17	
40	50	—	—	4	—	50–200	B	200	200A/250V	17JUH92B*16		17JUH92@*16		17JUH92F*16		17JUH92N*16	
—	—	100	100	4	—	50–200	B	200	200A/600V	17JUH92B*17		17JUH92@*17		17JUH92F*17		17JUH92N*17	
75	100	—	—	5	—	55–250	—	400	400A/250V	17LPU92B*18		—	—	—	—	17LPU92N*18	
—	100	—	—	5	—	55–250	—	600	600A/250V②	17LPU92B*20		—	—	—	—	17LPU92N*20	
—	—	—	125	5	—	55–250	—	200	200A/600V	17LPU92B*17		—	—	—	—	17LPU92N*17	
—	—	200	200	5	—	55–250	—	400	400A/600V	17LPU92B*19		—	—	—	—	17LPU92N*19	
—	—	200	—	5	—	55–250	—	600	600A/600V②	17LPU92B*21		—	—	—	—	17LPU92N*21	
150	200	—	—	6	—	160–630	—	600	600A/250V	17MPX92B*20		—	—	—	—	17MPX92N*20	
—	—	400	400	6	—	160–630	—	600	600A/600V	17MPX92B*21		—	—	—	—	17MPX92N*21	
—	—	400	400	6	—	160–630	—	800	800A/600V	17MPX92B*23		—	—	—	—	17MPX92N*23	
—	—	600	600	7④	—	400–1220	A1+CT	1200	1200A/600V	17NUN92B*24		—	—	—	—	17NUN92N*24	
—	—	900	900	8⑤	—	400–1220	A1+CT	1600	1600A/600V	17PUN92B*25		—	—	—	—	17PUN92N*25	

Note: All starter sizes carry one maximum Hp rating (per the National Electric Code).

① Dual voltage coils not available in starter sizes 5–8.
② Use Class J fuses only.
③ Single phase wiring page 9/154.
④ F coil 100-250V AC 50/60Hz, or DC, H coil 150-500V AC 50/60Hz, or DC
⑤ Only available F coil 100-250V AC 50/60Hz, or DC

Dimensions

Figure 1

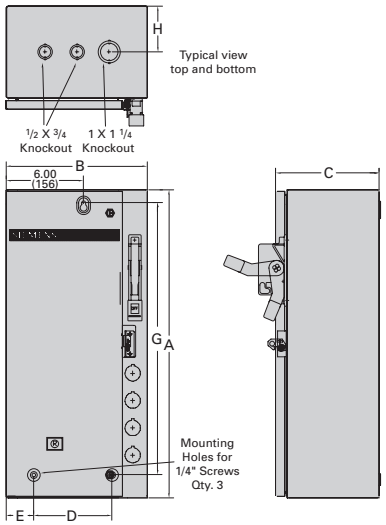


Figure 2

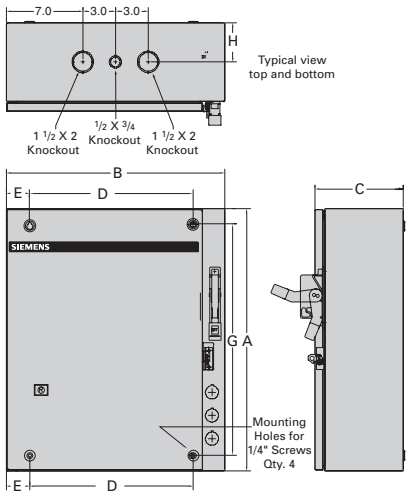


Figure 3

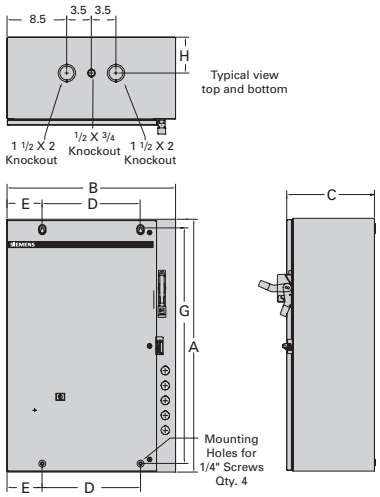
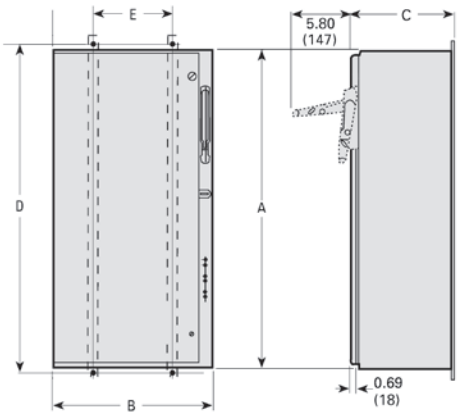


Figure 4

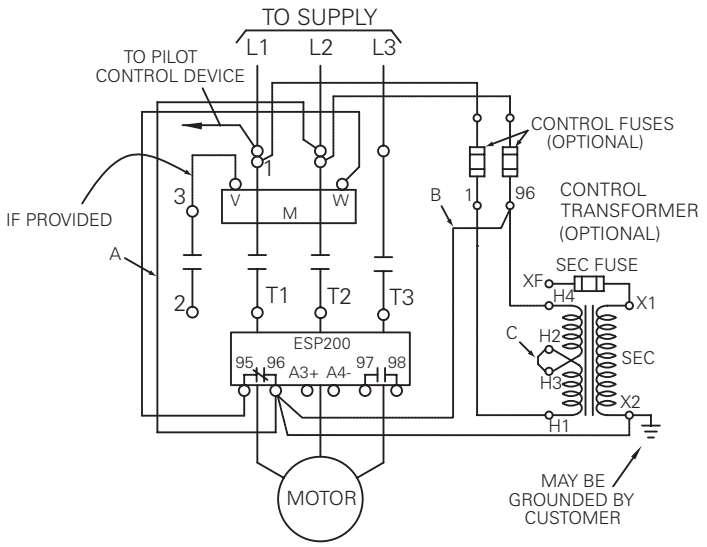


Enclosure Type	Size	Fig.	Outline Dimensions			Mounting Dimensions				Approx. Ship Wt Lbs	Reference Drawing
			A	B	C	D	E	G	H		
1 (Standard width)	0–2	1	24.00	11.00	8.00	6.13	2.13	21.00	3.50	35	D68774001
	2 1/2, 3 (except 200A Disc.)	2	24.00	20.00	8.00	15.00	2.13	21.00	3.50	48	D68774002
	3 (200A Disc.), 3 1/2, 4	3	36.00	24.00	8.00	14.00	5.00	33.50	5.00	101	D68774003
	5	4	72.16	20.00	11.03	71.00	16.00	—	—	250	D56032005
	6	4	60.00	38.00	12.00	36.50	0.75	61.56	—	275	D56032006
1 (Extra wide)	0–2	2	24.00	20.00	8.00	15.00	2.13	21.00	3.50	48	D68774002
	2 1/2, 3	3	36.00	24.00	8.00	14.00	5.00	33.50	5.00	101	D68774003

Note: Dimensions are in inches.

3-Phase

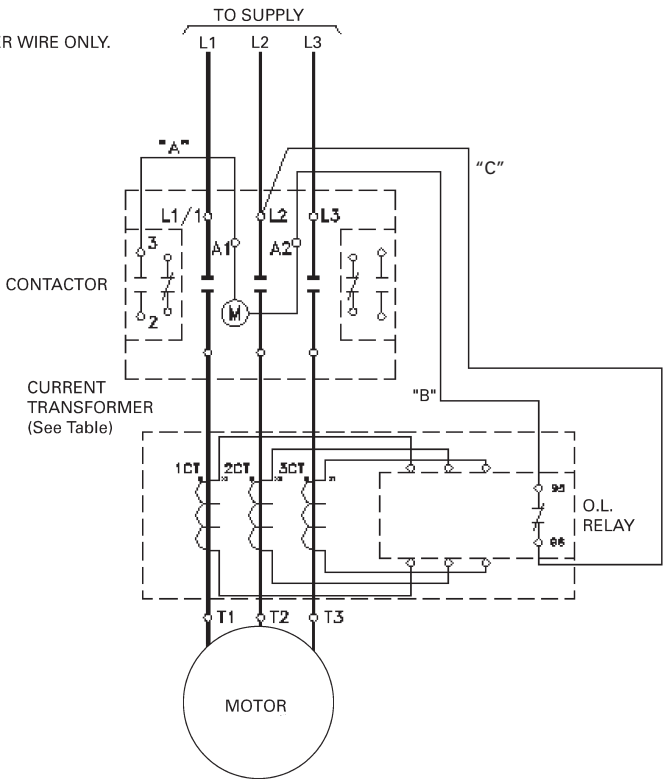
Size 00–4①



Size 5–8②

POWER WIRING:
USE 75°C COPPER WIRE ONLY.

SIZE	CT RATIO
5	300:5
6	600:5
7	750:5
8	1200:5



① Remove wire "C" if control transformer is used. For separate control voltage source, remove jumpers "A" and "B" and connect source to control fuse line terminals.

② Remove wire "C" if the contactor coil is to operate on a voltage other than line voltage or in a separate control source.