

MOTOR PROTECTION CIRCUIT BREAKER & CONTACTOR ASSEMBLIES

series
630

If you're looking for a line of compact, easy-to-install assembled starters that offer reliable protection for your motors against short circuit, overload, and phase loss conditions, look to c3controls. Our Series 630 assembled starters are ideal for use in multi-motor applications, and feature power and control circuit terminals that are readily accessible for easy wiring. They're perfect for where panel space is a premium and device modularity is a must.

Section 11

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PROVEN



Conformity to Standards: MOTOR PROTECTION CIRCUIT BREAKERS

UL 508, 60947-4-1
CSA C22.2 No. 14
IEC 60947-1, 60947-4-1

CONTACTORS

UL 508, 60947-4-1
CSA C22.2 No. 14
IEC 60947-1, 60947-4-1

Certifications:

UL File #: E187641 (Guide NLRV, NLRV7), E312106 (Guide NKJH, NKJH7)

CE Marked (per EU Low Voltage Directive 2006/95/EC and
RoHS Directive 2011/65/EU)

UL File #: E236197 (Guide NLDX, NLDX7), E68568 (Guide NKCR, NKCR7)

CE Marked (per EU Low Voltage Directive 2006/95/EC and
RoHS Directive 2011/65/EU)

Visit www.c3controls.com to download product certifications.

MPCB & CONTACTOR ASSEMBLIES

c3controls offers a comprehensive line of Motor Control products designed and manufactured to meet the needs of the machine builder. We promise durable products at a price that gives you an edge, and we guarantee same-day shipping. Check out all the features of our Series 630 Motor Protection Circuit Breaker and Contactor Assemblies below!

DELIVERING SUPERIOR PRODUCT QUALITY AND MANUFACTURING EXCELLENCE

✓ Proven	Our Series 630 DOL Starters are UL Listed and CE marked, meeting global standards requirements.  
✓ Modular Design	The modular design allows Series 300 and Series 330 to be mixed-and-matched in an assembled starter for any combination of a FLC and desired electrical life.
✓ Circuit Isolation	The "ON/OFF" manual operator enables individual motor circuits to be easily isolated without having to disconnect all of the circuits in a control panel.
✓ Type 2 Coordination	Designed for optimum performance in multi-motor installations, and can achieve Type 2 coordination in circuits capable of delivering up to 50kA at 460V.
✓ Wide Variety of Accessories	Including standard auxiliary contacts, trip indicating auxiliary contacts, shunt and undervoltage release modules, and many wiring accessories such as commoning links and feeder terminals for easy distribution of power to multiple motor protection circuit breakers.
✓ Easy to Install	35mm DIN rail mounting for fast and easy installation and removal, or panel mounting with mounting feet for more secure installation in high shock and vibration applications.
✓ Visible Markings	High visibility labels and markings; dual IEC and NEMA terminal markings for ease of wiring anywhere in the world.
✓ Space Savings	Control panel sizes can be reduced because the short circuit protection provided by the Series 330 enables individual motor branch circuit fuses or circuit breakers and overload relays to be eliminated.
✓ Added Safety	IP20 guarded terminals with dual terminal markings prevent accidental contact with live parts.
✓ Limited Lifetime Warranty*	Every product is backed by our limited lifetime warranty—unmatched in the industry—bringing you quality components that perform in the most demanding applications.
✓ Guaranteed Same-Day Shipping*	Product availability reduces inventory, and improves cash-flow—saving you money. With c3controls any order for standard catalog items received by 6:00pm ET is guaranteed to ship same-day.
✓ Advantage Pricing	Our approach to product development, manufacturing, and focus on servicing the OEM and Electrical Equipment Builder reduces cost. The result—the best value in the industry.

*See c3controls Terms & Conditions

“Even though they come from the factory preassembled, c3controls’ Series 630 starters are much more affordable than the individual parts from Allen Bradley.”

Larry Fontaine, EE Design/Purchasing • **Teemark Corp.**

MPCB + Contactor Assembly



Type E MPCB + Contactor Assembly

**UNIQUE PRODUCT LINE FEATURES****CONVENIENCE**

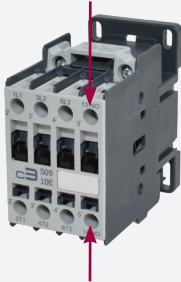
Factory assembly of a Series 330 Motor Protection Circuit Breaker and Series 300 Contactor provides the convenience of a single catalog number and shorter control panel bill of material.

SELF-PROTECTED

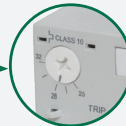
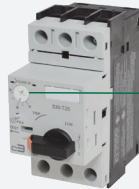
Listed as a UL 60947-4-1 Type E self-protected combination Motor Controller for circuits capable of delivering up to 50kA @ 460V.

HIGH FAULT SCCR

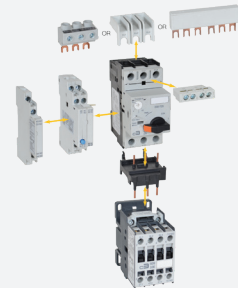
High fault short circuit current rating of 50kA @ 480V provides safety and reliability in high fault applications.

INTEGRATED AUXILIARY CONTACTS

Integral right side mounted auxiliary contacts, 3 power poles + 1 auxiliary, are standard on all c3controls 9A to 25A non-reversing contactors.

ADJUSTABLE CURRENT SETTING

Full load current adjustment ratio enables overload relay to be set to exact FLA of motor. Provides phase protection for the motor against overload currents.

SNAP-ON ACCESSORIES

Snap-on accessories are easily installed without the use of tools, lowering assembly and installation costs.

FIND IT FAST

MPCB & Contactor Assemblies



- Certifications
- Specifications
- Dimension Drawings
- Installation Instructions
- Easy to Buy

www.c3controls.com

Motor Control Device Solutions

c3controls motor control devices are the perfect solution for manufacturers who want proper motor control and superior motor protection without having to overpay or compromise on quality. In fact, we engineer so much performance and flexibility into our products, we can deliver a remarkably better value than our competitors.

c3controls
products deliver
like no other.



Seamless Compatibility

Contactors, overload relays and motor protection circuit breakers are designed by c3controls to work together, with common connections and accessories, resulting in a high functioning compact starter.

LEADING THE INDUSTRY
with our compact miniature 10HP
contactors and control relays.
One frame size (AC or DC)—28%
reduction in panel area.

Compact

The small size of c3controls motor control devices, plus features like common accessories, enable assembly into smaller control panels for lower installed costs.

Reliable Protection

Contactors provide the repeated on/off switching for the motor and are designed for motor, actuator, solenoid, and other power switching applications. Overload relays provide Trip Class 10 protection against overload and phase-loss conditions, and have ambient temperature compensation for motor protection in high temperature environments.

Ensures the protection of
equipment and user.

Motor protection circuit breakers provide overload, phase-loss and short circuit protection, can be used by themselves as manual motor controllers or with contactors in group motor installations, and can achieve Type 2 coordination for optimum performance.

Type E self-protected combination manual motor controllers provide disconnecting means, branch circuit protection, motor control and motor overload protection all in a single device.
















Proven

Our motor control devices are UL Listed and CE marked, meeting global standards requirements for use anywhere in the world.

NFPA 70 - National Electrical Code (NEC)

Understanding what functions are needed in your motor control circuit is critical when selecting motor control devices. Engineers benefit from the standards and codes established to ensure safety and protection to personnel and equipment.

More than just knowing the standards, c3controls, as a manufacturer of motor control products, has the application expertise you need to select the right products.

c3controls & Article 430 - Motors, Motor Circuits and Controllers					
	To Supply	NEC Part	c3controls Product Series		
Motor disconnecting means		Part IX			
Motor branch-circuit, short circuit, and ground-fault protection		Part IV			
Motor circuit conductor		Part II			
Motor controller		Part VII			
Motor control circuits		Part VI			
Motor overload protection		Part III			
Motor		Part I			

Our motor control products align with Article 430 Part VII, Motor Controller, of the NFPA 70, the National Electrical Code.

IT'S EASY TO BUILD YOUR OWN DIRECT-ON-LINE (DOL) STARTER

Simply pick the code number from each of the sections below and combine them to build your part number.

Direct-On-Line (DOL) Starters

630 - - - / - -

I II III IV V VI VII VIII IX

Example: To build one of our most popular DOL Starters (MPCB + Contactor), the part number would be **630 + II + III + IV + V + VI + VII + VIII + IX** or **630-S09D10-2D63-F11**



I. STARTER TYPE

CODE	DESCRIPTION	LIST
630	Direct-On-Line (DOL) Starter: Series 330 Motor Protection Circuit Breaker + Series 300 Contactor	\$ 58.00

II. NON-REVERSING CONTACTOR (3 NORMALLY OPEN POLES)

CODE	MAX. Ie (A)		RATINGS FOR SWITCHING AC MOTORS - AC-2, AC-3										CONTACTOR CAT. NO. PREFIX	LIST
			kW (50Hz)				HP (60Hz)							
			3 PHASE				1 PHASE			3 PHASE				
	AC-3	AC-1	230V	400/415V	500V	690V	115V	230V	200V	230V	460V	575V		
S09	9	25	2.2	4	5.5	5.5	1/2	1-1/2	3	3	5	7-1/2	300-S09N30	\$ 53.00
S12	12	25	3	5.5	7.5	7.5	3/4	2	3	3	7-1/2	10	300-S12N30	\$ 79.00
S18	18	32	4	7.5	10	10	1	3	5	5	10	15	300-S18N30	\$ 87.00
S25	25	45	7.5	11	15	15	2	3	7-1/2	7-1/2	15	15	300-S25N30	\$ 99.00
S32	32	60	9	15	18.5	18.5	3	5	10	10	20	25	300-S32N30	\$130.00
S40	40	60	11	18.5	25	30	3	5	10	15	30	25	300-S40N30	\$178.00

III. CONTACTOR COIL VOLTAGE CODE

AC COIL VOLTAGE CODES

VOLTAGE	12	24	48	110 / 120	208	220	230	240	277	400	400 ~ 415	480	500	550	600
50Hz	—	—	—	D	—	—	—	—	—	—	R	—	T	U	—
60Hz	—	—	—	D	L	—	—	F	P	—	—	R	—	—	T
50/60Hz	XB	XC	XJ	—	—	XAJ	XN	—	—	XAM	—	—	—	—	—

DC COIL VOLTAGE CODES

VOLTAGE	12	24	125	250	LIST
-S09 to -S25	ZB	ZC	ZQ	ZP	\$ 35.00
-S32 to -S40	ZB	ZC	ZQ	ZP	\$ 78.00

SOME OF OUR MOST POPULAR DOL STARTER CONFIGURATIONS

MAX. IE (A) AC-3	RATINGS FOR SWITCHING AC MOTORS* AC-2, AC-3						COIL VOLTAGE	CONTACTOR AUX. CONTACTS		MPCB CURRENT ADJUSTMENT RANGE (A)	MPCB STD. AUX. CONTACTS FRONT MOUNTED		CAT. NO.	LIST	
	HP (60HZ)														
	1 PHASE		3 PHASE					NO	NC		NO	NC			
115V	230V	200V	230V	460V	575V										
9						1/2	120V 60Hz/110V 50Hz	1	0	0.63 ~ 1.0	1	1	630-S09D10-2D10-F11	\$289.00	
					1/2	3/4	120V 60Hz/110V 50Hz	1	0	1.0 ~ 1.6	1	1	630-S09D10-2D16-F11	\$289.00	
					3/4	1	120V 60Hz/110V 50Hz	1	0	1.6 ~ 2.5	1	1	630-S09D10-2D25-F11	\$289.00	
		1/6		1/2	1	1-1/2	120V 60Hz/110V 50Hz	1	0		1	1			
		1/4	1/2	3/4	1-1/2	2	120V 60Hz/110V 50Hz	1	0	2.5 ~ 4.0	1	1	630-S09D10-2D40-F11	\$289.00	
		1/3	3/4		2	3	120V 60Hz/110V 50Hz	1	0		1	1			
		1/6	1/2	1	1	3	5	120V 60Hz/110V 50Hz	1	0	4.0 ~ 6.3	1	1	630-S09D10-2D63-F11	\$298.00
		1/4						120V 60Hz/110V 50Hz	1	0		1	1		
		1/3	3/4	1-1/2	1-1/2	5	7-1/2	120V 60Hz/110V 50Hz	1	0	6.3 ~ 10	1	1	630-S09D10-2U10-F11	\$304.00
		1/2	1	2	2			120V 60Hz/110V 50Hz	1	0		1	1		
			3				120V 60Hz/110V 50Hz	1	0	1		1			
		1-1/2	3				120V 60Hz/110V 50Hz	1	0	10 ~ 16	1	1	630-S09D10-2U16-F11	\$320.00	
12	3/4	2			7-1/2	10	120V 60Hz/110V 50Hz	1	0	10 ~ 16	1	1	630-S12D10-2U16-F11	\$346.00	
18				5	10		120V 60Hz/110V 50Hz	1	0	10 ~ 16	1	1	630-S18D10-2U16-F11	\$354.00	
	1	3	5			15	120V 60Hz/110V 50Hz	1	0	16 ~ 20	1	1	630-S18D10-2U20-F11	\$369.00	
25	2		7-1/2	7-1/2	15		120V 60Hz/110V 50Hz	1	0	20 ~ 25	1	1	630-S25D10-2U25-F11	\$414.00	
32		5	10	10	20	25	120V 60Hz/110V 50Hz	1	0	25 ~ 32	1	1	630-S32D10-2U32-F11	\$445.00	

*NOTE: HP and kW ratings shown in the table above are for reference. The final selection of the motor protection circuit breaker must be based on the actual motor full load current.

DIRECT-ON-LINE (DOL) STARTER PART BUILDER (CONT.)**IV. CONTACTOR AUXILIARY CONTACT CONFIGURATION**

CODE	DESCRIPTION	LIST
00	Without Auxiliary Contacts (Contactors S32 - S40 only)	—
10	Normally Open*	\$ 18.00
01	Normally Closed*	\$ 18.00

*NOTE: Integral right side mounted on S09 to S25 contactors, front mounted on S32 to S40 contactors.

DISCOUNT
SCHEDULE

F

V. MOTOR PROTECTION CIRCUIT BREAKER WITH THERMAL AND MAGNETIC TRIP ELEMENTS

CODE	RATED OPER. CURRENT (A)	ADJUSTMENT RANGE (A)	MAGNETIC TRIP CURRENT (A)	ULTIMATE INTERRUPTING CURRENT (Icu) (kA)		RATINGS FOR SWITCHING AC MOTORS*								MOTOR PROTECTION CIRCUIT BREAKER CAT. NO.	LIST
						3 PHASE kW (50Hz)				3 PHASE HP (60Hz)					
						400V	480V	230V	400/415V	500V	690V	200V	230V		
2C16	0.16	0.10 ~ 0.16	2.1	100	100	—	—	—	0.06	—	—	—	—	330-T25S2C16	\$122.00
2C25	0.25	0.16 ~ 0.25	3.3	100	100	—	0.06	0.06	0.12	—	—	—	—	330-T25S2C25	\$122.00
2C40	0.40	0.25 ~ 0.40	5.2	100	100	—	0.09	0.12	0.18	—	—	—	—	330-T25S2C40	\$132.00
2C63	0.63	0.40 ~ 0.63	8.2	100	100	0.06	0.12	0.25	0.25	—	—	—	1/4	330-T25S2C63	\$136.00
2D10	1.0	0.63 ~ 1.0	13	100	100	0.12	0.25	0.37	0.55	—	—	1/2	1/2	330-T25S2D10	\$139.00
2D16	1.6	1.0 ~ 1.6	21	100	100	0.18	0.55	0.75	1.1	1/4	1/3	3/4	1	330-T25S2D16	\$139.00
2D25	2.5	1.6 ~ 2.5	33	100	100	0.37	0.75	1.1	1.5	1/2	1/2	1-1/2	1-1/2	330-T25S2D25	\$139.00
2D40	4.0	2.5 ~ 4.0	52	100	100	0.75	1.5	2.2	3	3/4	1	2	3	330-T25S2D40	\$139.00
2D63	6.3	4.0 ~ 6.3	82	100	100	1.1	2.2	3	4	1-1/2	1-1/2	3	5	330-T25S2D63	\$148.00
2U10	10	6.3 ~ 10	130	100	42	2.2	4	4	7.5	3	3	7-1/2	10	330-T25S2U10	\$154.00
2U16	16	10 ~ 16	208	50	10	3.7	7.5	9	12.5	5	5	10	15	330-T25S2U16	\$170.00
2U20	20	16 ~ 20	260	50	10	3.7	9	12.5	15	5	7-1/2	15	20	330-T25S2U20	\$185.00
2U25	25	20 ~ 25	325	50	10	5.5	12.5	15	22	7-1/2	7-1/2	15	20	330-T25S2U25	\$218.00
2U32	32	25 ~ 32	416	50	10	7.5	15	18.5	30	10	10	20	25	330-T25S2U32	\$218.00

*NOTE: HP and kW ratings shown in the table above are for reference. The final selection of the motor protection circuit breaker must be based on the actual motor full load current.

VI. MOTOR PROTECTION CIRCUIT BREAKER STANDARD AUXILIARY CONTACT CONFIGURATION (FRONT MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
F11	1NO + 1NC Std. Auxiliary Contacts	330-FA11S25	\$ 21.00

VII. MOTOR PROTECTION CIRCUIT BREAKER STANDARD AUXILIARY CONTACT CONFIGURATION (LEFT SIDE MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
S11	1NO + 1NC Std. Auxiliary Contacts	330-SA11S25	\$ 21.00
S20	2NO Std. Auxiliary Contacts	330-SA20S25	\$ 21.00

VIII. MOTOR PROTECTION CIRCUIT BREAKER TRIP INDICATING AUXILIARY CONTACT CONFIGURATION (LEFT SIDE MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
T22	1NO + 1NC Overload and 1NO + 1NC Short Circuit Trip Indicating Auxiliary Contacts	330-STA22S25	\$ 57.00

IX. MOTOR PROTECTION CIRCUIT BREAKER LINE SIDE TERMINAL BARRIER

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
L	Line Side Terminal Barrier	330-LSTBS25	\$ 54.00



DIRECT-ON-LINE (DOL) STARTERS

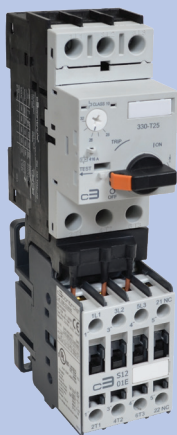
c3controls Series 630 Direct-On-Line (DOL) Starters are assemblies of a Series 330 Motor Protection Circuit Breaker and a Series 300 Contactor. The motor protection circuit breaker includes both thermal and magnetic trip elements for overload and short circuit protection of the motor, and motor branch circuit components including the conductors. The contactor provides the repeated ON/OFF switching for the motor. These assemblies are ideal for use in multi-motor installations where panel space is at a premium and device modularity is required to satisfy virtually any application requirement. Small size, IP20 guarded terminals with dual terminal markings, and shared accessories will help reduce your total installed costs and enhance the features and performance of your equipment. Just look and see what our Series 630 assembled starters have to offer.

Product features include:

- The Line Side Terminal Barrier accessory snaps on and installs without the use of tools.
- Removable and replaceable identification marker, standard on all c3controls Series 630 DOL Starters, simplifies troubleshooting in panels with many devices.
- Modular design and a wide variety of contactor and motor protection circuit breaker accessories including standard auxiliary contacts, trip indicating auxiliary contacts, shunt release modules and surge suppressors.
- Many wiring accessories such as commoning links and feeder terminals for easy distribution of power to multiple starters.
- Snap-on accessories are easily installed without the use of tools, lowering assembly and installation costs.
- Compact size – only 45mm (1-49/64”) wide up to 20HP @ 460V (15kW @ 400V) to minimize the amount of panel area required.
- The “ON/OFF” manual operator enables individual motor circuits to be easily isolated without having to disconnect all of the circuits in a control panel.
- Operators can be padlocked in the “OFF” position (max. one 4.9mm [3/16”] padlock) preventing the motor protection circuit breaker from being turned “ON” when the equipment is being serviced.
- Visible trip indication for fast identification of which device tripped in a control panel where multiple starters with motor protection circuit breakers are installed.
- Trip indicating auxiliary contacts can be used to identify the trip cause - overload (1 NO and 1 NC) or short circuit (1 NO and 1 NC), to help determine the type of service/maintenance that may be required.
- IP20 guarded terminals with dual terminal markings prevent accidental contact with live parts.
- The contactor and motor protection circuit breaker are assembled with a contactor-circuit breaker link module, enabling the starter to be installed on a single 35mm DIN rail. Installation is fast and the starter can be removed from the DIN rail easily without tools.
- Unobstructed access to the two contactor coil terminals on the load-side of the starter makes control circuit wiring simple.
- Designed for optimum performance in multi-motor installations, and can achieve Type 2 coordination in circuits capable of delivering up to 50kA at 460V.
- All Series 300 Contactor and Series 330 Motor Protection Circuit Breaker features.



UNIQUE PRODUCT FEATURES



SPACE SAVINGS

Control panel sizes can be reduced because the short circuit protection provided by the Series 330 Motor Protection Circuit Breaker enables individual motor branch circuit fuses or circuit breakers and overload relays to be eliminated.

LABOR SAVINGS

Starter assembly and installation of the starter assemblies in Group Motor Installations is easier and faster with the use of connection modules between the contactor and motor protection circuit breaker and commoning links to conveniently distribute power to multiple starter assemblies. In addition to labor savings, the components look nice too, and provide IP20 protection to guard against accidental contact with live parts.

COST SAVINGS

Smaller size enclosures, reduced wiring, and DIN rail installation all combine to provide a lower cost control panel with superior performance in normal operating conditions as well as in overload or short circuit conditions.

TYPE E DIRECT-ON-LINE (DOL) STARTERS

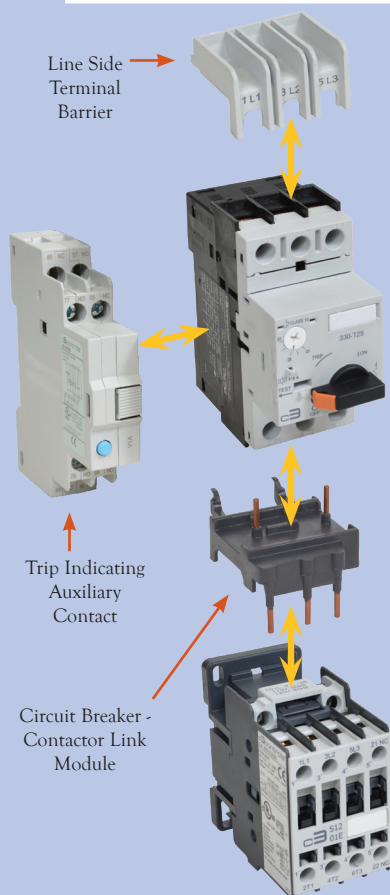
Traditionally, motor short circuit protection has been provided by fuses or molded case circuit breakers that are often cumbersome and costly. Type E has proven to be a simple and cost-effective alternative, providing all the protection required for your motor circuit. As you search for ways to reduce panel size, expense and total cost of installation, Discover Type E and simplify your motor circuit.

Product features include:

- A Type E self-protected combination motor controller integrates protective functions into a single unit suitable for use in circuits delivering up to 50kA at 480V.
- Type E devices provide motor disconnecting means, branch short circuit and ground fault protection, motor control and motor overload protection, reducing size and eliminating upstream fuses or circuit breakers for a motor circuit.
- Modular design and a wide variety of contactor and motor protection circuit breaker accessories including standard auxiliary contacts, trip indicating auxiliary contacts, and line side terminal barriers.
- Snap-on accessories are easily installed without the use of tools, lowering assembly and installation costs.
- Trip indicating auxiliary contacts can be used to identify the trip cause – overload (1 NO and 1 NC) or short circuit (1 NO and 1 NC), to help determine the type of service/maintenance that may be required.
- Trip Class 10 overload protection.
- All Series 300 Contactor, Series 330 Motor Protection Circuit Breaker, and standard Series 630 DOL Starter features.



UNIQUE PRODUCT FEATURES



The trip indicating auxiliary contact accessory distinguishes between overload and short circuit fault conditions. This enhances functionality, minimizes downtime and reduces cost after a fault because the fault can be easily identified.

Trip indicating auxiliary and line side terminal barrier accessories are required to construct a UL 60947-4-1 combination motor controller.

SELECTING THE COMPONENTS NEEDED TO CONFIGURE A TYPE E OR TYPE F COMBINATION MOTOR CONTROLLER

c3controls makes it easy to identify and select the components needed to configure our Series 630 Direct-On-Line (DOL) Starters listed as a UL 60947-4-1 self-protected combination motor controller.

The Type E and Type F parts configurator charts on pages 10-17 of this catalog are broken down by motor voltage, therefore you will need to know your Motor Voltage and Motor Size prior to configuring a Type E or Type F Direct-On-Line (DOL) Starter.

1. Select your appropriate Motor Voltage: 200V, 240V, 480Y/277V or 600Y/347V. Motor Voltages are located at the top of pages 10-17 for easy reference.
2. Follow the step-by-step parts configurator by simply choosing a code from each of the sections and create the exact product match for your needs. If a code is pre-filled, that means there is no option for that part, but you MUST include that code in your part builder number. Don't forget to include hyphens and slashes where indicated.
3. The motor protection circuit breaker options are broken down by type of contactor and motor size. Select the appropriate motor protection circuit breaker by choosing from the options listed below the Motor Size.
4. Type E self-protected combination motor controllers as fully assembled Direct-On-Line (DOL) Starters are available in up to 10A relay ranges. Type F combination motor controllers as fully assembled Direct-On-Line (DOL) Starters are available in up to 32A.

Our complete line of Type E and Type F Direct-On-Line (DOL) Starters can be found on our website at www.c3controls.com, and have the same easy step-by-step configurator to help you create the exact product match for your needs.

IT'S EASY TO BUILD YOUR OWN TYPE E DIRECT-ON-LINE (DOL) STARTER

Simply pick the code number from each of the sections below and combine them to build your part number.

Type E Direct-On-Line (DOL) Starters (FOR MOTOR VOLTAGE 200V)

630 - - - / - **T22** - **L**
I II III IV V VI VII VIII IX

Example: To build one of our most popular Type E DOL Starters (MPCB + Contactor), the part number would be **630 + II + III + IV + V + VI + VII + T22 + L**
or **630-S09D10-2D63-F11-T22-L**



I. STARTER TYPE

CODE	DESCRIPTION	LIST
630	Type E Direct On-Line (DOL) Starter: Series 330 Motor Protection Circuit Breaker + Series 300 Contactor	\$ 58.00

II. NON-REVERSING CONTACTOR (3 NORMALLY OPEN POLES)

CODE	MAX. Ie (A)	MOTOR SIZE @ 3 PHASE 200V									CONTACTOR CAT.	LIST
	AC-3	< 1/4HP	1/3HP	1/2HP	1HP	1-1/2HP	3HP	5HP	7-1/2HP	10HP	NO. PREFIX	
S09	9	✓	✓	✓	✓	✓	✓	—	—	—	300-S09N30	\$ 53.00
S18	18	—	—	—	—	—	—	✓	—	—	300-S18N30	\$ 87.00
S25	25	—	—	—	—	—	—	✓	—	—	300-S25N30	\$ 99.00
S32	32	—	—	—	—	—	—	—	✓	—	300-S32N30	\$130.00
S40	40	—	—	—	—	—	—	—	—	✓	300-S40N30	\$178.00

III. CONTACTOR COIL VOLTAGE CODE

AC COIL VOLTAGE CODES															
VOLTAGE	12	24	48	110 / 120	208	220	230	240	277	400	400 ~ 415	480	500	550	600
50Hz	—	—	—	D	—	—	—	—	—	—	R	—	T	U	—
60Hz	—	—	—	D	L	—	—	F	P	—	—	R	—	—	T
50/60Hz	XB	XC	XJ	—	—	XAJ	XN	—	—	XAM	—	—	—	—	—
DC COIL VOLTAGE CODES															
VOLTAGE	12			24			125			250			LIST		
-S09 to -S25	ZB			ZC			ZQ			ZP			\$ 35.00		
-S32 to -S40	ZB			ZC			ZQ			ZP			\$ 78.00		

IV. CONTACTOR AUXILIARY CONTACT CONFIGURATION

CODE	DESCRIPTION	LIST
00	Without Auxiliary Contacts (Contactors S32 to S40 only)	—
10	Normally Open*	\$ 18.00
01	Normally Closed*	\$ 18.00

*NOTE: Integral right side mounted on S09 to S25 contactors, front mounted on S32 to S40 contactors.



**SEE OPPOSITE PAGE FOR
PART BUILDER CHARTS V-IX.**



TYPE E DIRECT-ON-LINE (DOL) STARTER PART BUILDER (CONT.)

V. MOTOR PROTECTION CIRCUIT BREAKER WITH THERMAL AND MAGNETIC TRIP ELEMENTS

CODE	ADJUSTMENT RANGE (A)	MAGNETIC TRIP CURRENT (A)	ULTIMATE INTERRUPTING CURRENT (Icu) (kA)		MOTOR PROTECTION CIRCUIT BREAKER CAT. NO.	LIST
			400V	480V		
FOR CONTACTORS S09 & MOTOR SIZE <1/4HP						
2C16	0.10 ~ 0.16	2.1	100	100	330-T25S2C16	\$122.00
2C25	0.16 ~ 0.25	3.3	100	100	330-T25S2C25	\$122.00
2C40	0.25 ~ 0.40	5.2	100	100	330-T25S2C40	\$132.00
2C63	0.40 ~ 0.63	8.2	100	100	330-T25S2C63	\$136.00
2D10	0.63 ~ 1.0	13	100	100	330-T25S2D10	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 1/3HP						
2D16	1.0 ~ 1.6	21	100	100	330-T25S2D16	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 1/2HP						
2D25	1.6 ~ 2.5	33	100	100	330-T25S2D25	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 1HP						
2D40	2.5 ~ 4.0	52	100	100	330-T25S2D40	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 1-1/2HP						
2D63	4.0 ~ 6.3	82	100	100	330-T25S2D63	\$148.00
FOR CONTACTORS S09 & MOTOR SIZE 3HP						
2U10	6.3 ~ 10	130	100	42	330-T25S2U10	\$154.00
FOR CONTACTORS S18 & MOTOR SIZE 5HP						
2U16*	10 ~ 16	208	50	10	330-T25S2U16	\$170.00
FOR CONTACTORS S25 & MOTOR SIZE 5HP						
2U20*	16 ~ 20	260	50	10	330-T25S2U20	\$185.00
FOR CONTACTORS S32 & MOTOR SIZE 7-1/2HP						
2U25*	20 ~ 25	325	50	10	330-T25S2U25	\$218.00
2U32*	25 ~ 32	416	50	10	330-T25S2U32	\$218.00
FOR CONTACTORS S40 & MOTOR SIZE 10HP						
2U32*	25 ~ 32	416	50	10	330-T25S2U32	\$218.00

*NOTE: Type F combination motor controller configuration only.

*NOTE: Type F combination motor controller configuration only.

VI. MOTOR PROTECTION CIRCUIT BREAKER STANDARD AUXILIARY CONTACT CONFIGURATION (FRONT MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
F11	1NO + 1NC Std. Auxiliary Contacts	330-FA11S25	\$ 21.00

VII. MOTOR PROTECTION CIRCUIT BREAKER STANDARD AUXILIARY CONTACT CONFIGURATION (LEFT SIDE MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
S11	1NO + 1NC Std. Auxiliary Contacts	330-SA11S25	\$ 21.00
S20	2NO Std. Auxiliary Contacts	330-SA20S25	\$ 21.00

VIII. MOTOR PROTECTION CIRCUIT BREAKER TRIP INDICATING AUXILIARY CONTACT CONFIGURATION (LEFT SIDE MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
T22	1NO + 1NC Overload and 1NO + 1NC Short Circuit Trip Indicating Auxiliary Contacts	330-STA22S25	\$ 57.00

IX. MOTOR PROTECTION CIRCUIT BREAKER LINE SIDE TERMINAL BARRIER

CODE	DESCRIPTION	CAT. NO.	LIST
L	Line Side Terminal Barrier	330-LSTBS25	\$ 54.00

SOME OF OUR MOST POPULAR TYPE E DOL STARTER CONFIGURATIONS

MAX. LE (A) AC-3	3Φ HP @200V AC	COIL VOLTAGE	CONTACTOR AUXILIARY CONTACTS		CURRENT ADJUSTMENT RANGE (A)	MPCB STANDARD AUXILIARY CONTACTS, FRONT MOUNTED		MPCB TRIP INDICATING AUXILIARY CONTACTS, LEFT SIDE MOUNTED		CATALOG NUMBER	LIST
			NO	NC		NO	NC	NO	NC		
9	1-1/2	120V 60Hz/110V 50Hz	1	0	4.0 ~ 6.3	1	1	2	2	630-S09D10-2D63-F11-T22-L	\$409.00
9	3	120V 60Hz/110V 50Hz	1	0	6.3 ~ 10	1	1	2	2	630-S09D10-2U10-F11-T22-L	\$415.00
25	5	120V 60Hz/110V 50Hz	1	0	16 ~ 20	1	1	2	2	630-S25D10-2U20-F11-T22-L	\$492.00
32	7-1/2	120V 60Hz/110V 50Hz	0	0	20 ~ 25	1	1	2	2	630-S32D00-2U25-F11-T22-L	\$538.00

IT'S EASY TO BUILD YOUR OWN TYPE E DIRECT-ON-LINE (DOL) STARTER

Simply pick the code number from each of the sections below and combine them to build your part number.

Type E Direct-On-Line (DOL) Starters (FOR MOTOR VOLTAGE 240V)

630 - **I** - **II** - **III** - **IV** - **V** - **VI** / **VII** - **VIII** - **IX** - **T22** - **L**

Example: To build one of our most popular Type E DOL Starters (MPCB + Contactor), the part number would be **630 + II + III + IV + V + VI + VII + T22 + L**
or **630-S09D10-2D63-F11-T22-L**



I. STARTER TYPE

CODE	DESCRIPTION	LIST
630	Type E Direct-On-Line (DOL) Starter: Series 330 Motor Protection Circuit Breaker + Series 300 Contactor	\$ 58.00

II. NON-REVERSING CONTACTOR (3 NORMALLY OPEN POLES)

CODE	MAX. Ie (A)	MOTOR SIZE @ 240V 3 PHASE									CONTACTOR CAT.	LIST
	AC-3	< 1/4HP	1/3HP	1/2HP	1HP	1-1/2HP	3HP	5HP	7-1/2HP	10HP	NO. PREFIX	
S09	9	✓	✓	✓	✓	✓	✓	—	—	—	300-S09N30	\$ 53.00
S18	18	—	—	—	—	—	—	✓	—	—	300-S18N30	\$ 87.00
S25	25	—	—	—	—	—	—	—	✓	—	300-S25N30	\$ 99.00
S32	32	—	—	—	—	—	—	—	✓	—	300-S32N30	\$130.00
S40	40	—	—	—	—	—	—	—	—	✓	300-S40N30	\$178.00

III. CONTACTOR COIL VOLTAGE CODE

AC COIL VOLTAGE CODES															
VOLTAGE	12	24	48	110 / 120	208	220	230	240	277	400	400 ~ 415	480	500	550	600
50Hz	—	—	—	D	—	—	—	—	—	—	R	—	T	U	—
60Hz	—	—	—	D	L	—	—	F	P	—	—	R	—	—	T
50/60Hz	XB	XC	XJ	—	—	XAJ	XN	—	—	XAM	—	—	—	—	—
DC COIL VOLTAGE CODES															
VOLTAGE	12			24			125			250			LIST		
-S09 to -S25	ZB			ZC			ZQ			ZP			\$ 35.00		
-S32 to -S40	ZB			ZC			ZQ			ZP			\$ 78.00		

IV. CONTACTOR AUXILIARY CONTACT CONFIGURATION

CODE	DESCRIPTION	LIST
00	Without Auxiliary Contacts (Contactors S32 to S40 only)	—
10	Normally Open*	\$ 18.00
01	Normally Closed*	\$ 18.00

*NOTE: Integral right side mounted on S09 to S25 contactors, front mounted on S32 to S40 contactors.



**SEE OPPOSITE PAGE FOR
PART BUILDER CHARTS V-IX.**



TYPE E DIRECT-ON-LINE (DOL) STARTER PART BUILDER (CONT.)

V. MOTOR PROTECTION CIRCUIT BREAKER WITH THERMAL AND MAGNETIC TRIP ELEMENTS

CODE	ADJUSTMENT RANGE (A)	MAGNETIC TRIP CURRENT (A)	ULTIMATE INTERRUPTING CURRENT (Icu) (kA)		MOTOR PROTECTION CIRCUIT BREAKER CAT. NO.	LIST
			400V	480V		
FOR CONTACTORS S09 & MOTOR SIZE <1/4HP						
2C16	0.10 ~ 0.16	2.1	100	100	330-T25S2C16	\$122.00
2C25	0.16 ~ 0.25	3.3	100	100	330-T25S2C25	\$122.00
2C40	0.25 ~ 0.40	5.2	100	100	330-T25S2C40	\$132.00
2C63	0.40 ~ 0.63	8.2	100	100	330-T25S2C63	\$136.00
2D10	0.63 ~ 1.0	13	100	100	330-T25S2D10	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 1/3HP						
2D16	1.0 ~ 1.6	21	100	100	330-T25S2D16	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 1/2HP						
2D25	1.6 ~ 2.5	33	100	100	330-T25S2D25	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 1HP						
2D40	2.5 ~ 4.0	52	100	100	330-T25S2D40	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 1-1/2HP						
2D63	4.0 ~ 6.3	82	100	100	330-T25S2D63	\$148.00
FOR CONTACTORS S09 & MOTOR SIZE 3HP						
2U10	6.3 ~ 10	130	100	42	330-T25S2U10	\$154.00
FOR CONTACTORS S18 & MOTOR SIZE 5HP						
2U16*	10 ~ 16	208	50	10	330-T25S2U16	\$170.00
FOR CONTACTORS S25 & MOTOR SIZE 7-1/2HP						
2U20*	16 ~ 20	260	50	10	330-T25S2U20	\$185.00
FOR CONTACTORS S32 & MOTOR SIZE 7-1/2HP						
2U25*	20 ~ 25	325	50	10	330-T25S2U25	\$218.00
2U32*	25 ~ 32	416	50	10	330-T25S2U32	\$218.00
FOR CONTACTORS S40 & MOTOR SIZE 10HP						
2U32*	25 ~ 32	416	50	10	330-T25S2U32	\$218.00

*NOTE: Type F combination motor controller configuration only.

VI. MOTOR PROTECTION CIRCUIT BREAKER STANDARD AUXILIARY CONTACT CONFIGURATION (FRONT MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
F11	1NO + 1NC Std. Auxiliary Contacts	330-FA11S25	\$ 21.00

VII. MOTOR PROTECTION CIRCUIT BREAKER STANDARD AUXILIARY CONTACT CONFIGURATION (LEFT SIDE MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
S11	1NO + 1NC Std. Auxiliary Contacts	330-SA11S25	\$ 21.00
S20	2NO Std. Auxiliary Contacts	330-SA20S25	\$ 21.00

VIII. MOTOR PROTECTION CIRCUIT BREAKER TRIP INDICATING AUXILIARY CONTACT CONFIGURATION (LEFT SIDE MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
T22	1NO + 1NC Overload and 1NO + 1NC Short Circuit Trip Indicating Auxiliary Contacts	330-STA22S25	\$ 57.00

IX. MOTOR PROTECTION CIRCUIT BREAKER LINE SIDE TERMINAL BARRIER

CODE	DESCRIPTION	CAT. NO.	LIST
L	Line Side Terminal Barrier	330-LSTBS25	\$ 54.00

SOME OF OUR MOST POPULAR TYPE E DOL STARTER CONFIGURATIONS

MAX. LE (A) AC-3	3Φ HP @240V AC	COIL VOLTAGE	CONTACTOR AUXILIARY CONTACTS		CURRENT ADJUSTMENT RANGE (A)	MPCB STANDARD AUXILIARY CONTACTS, FRONT MOUNTED		MPCB TRIP INDICATING AUXILIARY CONTACTS, LEFT SIDE MOUNTED		CATALOG NUMBER	LIST
			NO	NC		NO	NC	NO	NC		
9	1-1/2	120V 60Hz/110V 50Hz	1	0	4.0 ~ 6.3	1	1	2	2	630-S09D10-2D63-F11-T22-L	\$409.00
9	3	120V 60Hz/110V 50Hz	1	0	6.3 ~ 10	1	1	2	2	630-S09D10-2U10-F11-T22-L	\$415.00
18	5	120V 60Hz/110V 50Hz	1	0	10 ~ 16	1	1	2	2	630-S18D10-2U16-F11-T22-L	\$465.00
32	7-1/2	120V 60Hz/110V 50Hz	0	0	20 ~ 25	1	1	2	2	630-S32D00-2U25-F11-T22-L	\$538.00

IT'S EASY TO BUILD YOUR OWN TYPE E DIRECT-ON-LINE (DOL) STARTER

Simply pick the code number from each of the sections below and combine them to build your part number.

Type E Direct-On-Line (DOL) Starters (FOR MOTOR VOLTAGE 480Y/277V)

630 - **II** **III** **IV** - **V** - **VI** / **VII** - **T22** - **L**
I II III IV V VI VII VIII IX

Example: To build one of our most popular Type E DOL Starters (MPCB + Contactor), the part number would be **630 + II + III + IV + V + VI + VII + T22 + L** or **630-S09D10-2D63-F11-T22-L**



I. STARTER TYPE

CODE	DESCRIPTION	LIST
630	Type E Direct-On-Line (DOL) Starter: Series 330 Motor Protection Circuit Breaker + Series 300 Contactor	\$ 58.00

II. NON-REVERSING CONTACTOR (3 NORMALLY OPEN POLES)

CODE	MAX. Ie (A)	MOTOR SIZE @ 480V 3 PHASE										CONTACTOR CAT.	LIST
	AC-3	< 1/2HP	1/2HP	3/4HP	1-1/2HP	2HP	3HP	5HP	10HP	15HP	20HP	NO. PREFIX	
S09	9	✓	✓	✓	✓	✓	✓	✓	—	—	—	300-S09N30	\$ 53.00
S18	18	—	—	—	—	—	—	—	✓	—	—	300-S18N30	\$ 87.00
S25	25	—	—	—	—	—	—	—	—	✓	—	300-S25N30	\$ 99.00
S32	32	—	—	—	—	—	—	—	—	✓	—	300-S32N30	\$130.00
S40	40	—	—	—	—	—	—	—	—	—	✓	300-S40N30	\$178.00

III. CONTACTOR COIL VOLTAGE CODE

AC COIL VOLTAGE CODES															
VOLTAGE	12	24	48	110 / 120	208	220	230	240	277	400	400 ~ 415	480	500	550	600
50Hz	—	—	—	D	—	—	—	—	—	—	R	—	T	U	—
60Hz	—	—	—	D	L	—	—	F	P	—	—	R	—	—	T
50/60Hz	XB	XC	XJ	—	—	XAJ	XN	—	—	XAM	—	—	—	—	—
DC COIL VOLTAGE CODES															
															LIST
VOLTAGE	12			24			125			250					
-S09 to -S25	ZB			ZC			ZQ			ZP			\$ 35.00		
-S32 to -S40	ZB			ZC			ZQ			ZP			\$ 78.00		

IV. CONTACTOR AUXILIARY CONTACT CONFIGURATION

CODE	DESCRIPTION	LIST
00	Without Auxiliary Contacts (Contactors S32 to S40 only)	—
10	Normally Open*	\$ 18.00
01	Normally Closed*	\$ 18.00

*NOTE: Integral right side mounted on S09 to S25 contactors, front mounted on S32 to S40 contactors.



**SEE OPPOSITE PAGE FOR
PART BUILDER CHARTS V-IX.**

DISCOUNT
SCHEDULE

F

TYPE E DIRECT-ON-LINE (DOL) STARTER PART BUILDER (CONT.)

V. MOTOR PROTECTION CIRCUIT BREAKER WITH THERMAL AND MAGNETIC TRIP ELEMENTS

CODE	ADJUSTMENT RANGE (A)	MAGNETIC TRIP CURRENT (A)	ULTIMATE INTERRUPTING CURRENT (Icu) (kA)		MOTOR PROTECTION CIRCUIT BREAKER CAT. NO.	LIST
			400V	480V		
FOR CONTACTORS S09 & MOTOR SIZE <1/2HP						
2C16	0.10 ~ 0.16	2.1	100	100	330-T25S2C16	\$122.00
2C25	0.16 ~ 0.25	3.3	100	100	330-T25S2C25	\$122.00
2C40	0.25 ~ 0.40	5.2	100	100	330-T25S2C40	\$132.00
2C63	0.40 ~ 0.63	8.2	100	100	330-T25S2C63	\$136.00
FOR CONTACTORS S09 & MOTOR SIZE 1/2HP						
2D10	0.63 ~ 1.0	13	100	100	330-T25S2D10	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 3/4HP						
2D16	1.0 ~ 1.6	21	100	100	330-T25S2D16	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 1-1/2HP						
2D25	1.6 ~ 2.5	33	100	100	330-T25S2D25	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 2HP						
2D40	2.5 ~ 4.0	52	100	100	330-T25S2D40	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 3HP						
2D63	4.0 ~ 6.3	82	100	100	330-T25S2D63	\$148.00
FOR CONTACTORS S09 & MOTOR SIZE 5HP						
2U10	6.3 ~ 10	130	100	42	330-T25S2U10	\$154.00
FOR CONTACTORS S18 & MOTOR SIZE 10HP						
2U16*	10 ~ 16	208	50	10	330-T25S2U16	\$170.00
FOR CONTACTORS S25 & MOTOR SIZE 15HP						
2U20*	16 ~ 20	260	50	10	330-T25S2U20	\$185.00
FOR CONTACTORS S32 & MOTOR SIZE 15HP						
2U25*	20 ~ 25	325	50	10	330-T25S2U25	\$218.00
2U32*	25 ~ 32	416	50	10	330-T25S2U32	\$218.00
FOR CONTACTORS S40 & MOTOR SIZE 20HP						
2U32*	25 ~ 32	416	50	10	330-T25S2U32	\$218.00

*NOTE: Type F combination motor controller configuration only.

VI. MOTOR PROTECTION CIRCUIT BREAKER STANDARD AUXILIARY CONTACT CONFIGURATION (FRONT MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
F11	1NO + 1NC Std. Auxiliary Contacts	330-FA11S25	\$ 21.00

VII. MOTOR PROTECTION CIRCUIT BREAKER STANDARD AUXILIARY CONTACT CONFIGURATION (LEFT SIDE MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
S11	1NO + 1NC Std. Auxiliary Contacts	330-SA11S25	\$ 21.00
S20	2NO Std. Auxiliary Contacts	330-SA20S25	\$ 21.00

VIII. MOTOR PROTECTION CIRCUIT BREAKER TRIP INDICATING AUXILIARY CONTACT CONFIGURATION (LEFT SIDE MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
T22	1NO + 1NC Overload and 1NO + 1NC Short Circuit Trip Indicating Auxiliary Contacts	330-STA22S25	\$ 57.00

IX. MOTOR PROTECTION CIRCUIT BREAKER LINE SIDE TERMINAL BARRIER

CODE	DESCRIPTION	CAT. NO.	LIST
L	Line Side Terminal Barrier	330-LSTBS25	\$ 54.00

SOME OF OUR MOST POPULAR TYPE E DOL STARTER CONFIGURATIONS

MAX. LE (A) AC-3	3Φ HP @480V AC	COIL VOLTAGE	CONTACTOR AUXILIARY CONTACTS		CURRENT ADJUSTMENT RANGE (A)	MPCB STANDARD AUXILIARY CONTACTS, FRONT MOUNTED		MPCB TRIP INDICATING AUXILIARY CONTACTS, LEFT SIDE MOUNTED		CATALOG NUMBER	LIST
			NO	NC		NO	NC	NO	NC		
9	3	120V 60Hz/110V 50Hz	1	0	4.0 ~ 6.3	1	1	2	2	630-S09D10-2D63-F11-T22-L	\$409.00
9	5	120V 60Hz/110V 50Hz	1	0	6.3 ~ 10	1	1	2	2	630-S09D10-2U10-F11-T22-L	\$415.00
18	10	120V 60Hz/110V 50Hz	1	0	10 ~ 16	1	1	2	2	630-S18D10-2U16-F11-T22-L	\$465.00
32	15	120V 60Hz/110V 50Hz	0	0	20 ~ 25	1	1	2	2	630-S32D00-2U25-F11-T22-L	\$538.00

IT'S EASY TO BUILD YOUR OWN TYPE E DIRECT-ON-LINE (DOL) STARTER

Simply pick the code number from each of the sections below and combine them to build your part number.

Type E Direct-On-Line (DOL) Starters (FOR MOTOR VOLTAGE 600Y/347V)

630 - **II** **III** **IV** - **V** - **VI** / **VII** - **T22** - **L**
I II III IV V VI VII VIII IX

Example: To build one of our most popular Type E DOL Starters (MPCB + Contactor), the part number would be **630 + II + III + IV + V + VI + VII + T22 + L**
or **630-S09D10-2D63-F11-T22-L**



I. STARTER TYPE

CODE	DESCRIPTION	LIST
630	Type E Direct-On-Line (DOL) Starter: Series 330 Motor Protection Circuit Breaker + Series 300 Contactor	\$ 58.00

II. NON-REVERSING CONTACTOR (3 NORMALLY OPEN POLES)

CODE	MAX. I _e (A)	MOTOR SIZE @ 600V 3 PHASE											CONTACTOR CAT. NO. PREFIX	LIST
	AC-3	< 1/4HP	1/4HP	1/2HP	1HP	1-1/2HP	3HP	5HP	7-1/2HP	15HP	20HP	25HP		
S09	9	✓	✓	✓	✓	✓	✓	✓	✓	—	—	—	300-S09N30	\$ 53.00
S18	18	—	—	—	—	—	—	—	—	✓	—	—	300-S18N30	\$ 87.00
S25	25	—	—	—	—	—	—	—	—	✓	—	—	300-S25N30	\$ 99.00
S32	32	—	—	—	—	—	—	—	—	—	✓	—	300-S32N30	\$130.00
S40	40	—	—	—	—	—	—	—	—	—	—	✓	300-S40N30	\$178.00

III. CONTACTOR COIL VOLTAGE CODE

AC COIL VOLTAGE CODES															
VOLTAGE	12	24	48	110 / 120	208	220	230	240	277	400	400 ~ 415	480	500	550	600
50Hz	—	—	—	D	—	—	—	—	—	—	R	—	T	U	—
60Hz	—	—	—	D	L	—	—	F	P	—	—	R	—	—	T
50/60Hz	XB	XC	XJ	—	—	XAJ	XN	—	—	XAM	—	—	—	—	—
DC COIL VOLTAGE CODES															
															LIST
VOLTAGE	12			24			125			250					
-S09 to -S25	ZB			ZC			ZQ			ZP			\$ 35.00		
-S32 to -S40	ZB			ZC			ZQ			ZP			\$ 78.00		

IV. CONTACTOR AUXILIARY CONTACT CONFIGURATION

CODE	DESCRIPTION	LIST
00	Without Auxiliary Contacts (Contactors S32 to S40 only)	—
10	Normally Open*	\$ 18.00
01	Normally Closed*	\$ 18.00

*NOTE: Integral right side mounted on S09 to S25 contactors, front mounted on S32 to S40 contactors.



**SEE OPPOSITE PAGE FOR
PART BUILDER CHARTS V-IX.**

DISCOUNT
SCHEDULE **F**

TYPE E DIRECT-ON-LINE (DOL) STARTER PART BUILDER (CONT.)

V. MOTOR PROTECTION CIRCUIT BREAKER WITH THERMAL AND MAGNETIC TRIP ELEMENTS

CODE	ADJUSTMENT RANGE (A)	MAGNETIC TRIP CURRENT (A)	ULTIMATE INTERRUPTING CURRENT (Icu) (kA)		MOTOR PROTECTION CIRCUIT BREAKER CAT. NO.	LIST
			400V	480V		
FOR CONTACTORS S09 & MOTOR SIZE <1/4HP						
2C16	0.10 ~ 0.16	2.1	100	100	330-T25S2C16	\$122.00
2C25	0.16 ~ 0.25	3.3	100	100	330-T25S2C25	\$122.00
2C63	0.40 ~ 0.63	8.2	100	100	330-T25S2C63	\$136.00
FOR CONTACTORS S09 & MOTOR SIZE 1/4HP						
2C40	0.25 ~ 0.40	5.2	100	100	330-T25S2C40	\$132.00
FOR CONTACTORS S09 & MOTOR SIZE 1/2HP						
2D10	0.63 ~ 1.0	13	100	100	330-T25S2D10	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 1HP						
2D16	1.0 ~ 1.6	21	100	100	330-T25S2D16	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 1-1/2HP						
2D25	1.6 ~ 2.5	33	100	100	330-T25S2D25	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 3HP						
2D40	2.5 ~ 4.0	52	100	100	330-T25S2D40	\$139.00
FOR CONTACTORS S09 & MOTOR SIZE 5HP						
2D63	4.0 ~ 6.3	82	100	100	330-T25S2D63	\$148.00
FOR CONTACTORS S09 & MOTOR SIZE 7-1/2HP						
2U10	6.3 ~ 10	130	100	42	330-T25S2U10	\$154.00
FOR CONTACTORS S18 & MOTOR SIZE 15HP						
2U16*	10 ~ 16	208	50	10	330-T25S2U16	\$170.00
FOR CONTACTORS S25 & MOTOR SIZE 15HP						
2U20*	16 ~ 20	260	50	10	330-T25S2U20	\$185.00
FOR CONTACTORS S32 & MOTOR SIZE 20HP						
2U25*	20 ~ 25	325	50	10	330-T25S2U25	\$218.00
2U32*	25 ~ 32	416	50	10	330-T25S2U32	\$218.00
FOR CONTACTORS S40 & MOTOR SIZE 25HP						
2U32*	25 ~ 32	416	50	10	330-T25S2U32	\$218.00

*NOTE: Type F combination motor controller configuration only.

VI. MOTOR PROTECTION CIRCUIT BREAKER STANDARD AUXILIARY CONTACT CONFIGURATION (FRONT MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
F11	1NO + 1NC Std. Auxiliary Contacts	330-FA11S25	\$ 21.00

VII. MOTOR PROTECTION CIRCUIT BREAKER STANDARD AUXILIARY CONTACT CONFIGURATION (LEFT SIDE MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
(Blank)	None	—	—
S11	1NO + 1NC Std. Auxiliary Contacts	330-SA11S25	\$ 21.00
S20	2NO Std. Auxiliary Contacts	330-SA20S25	\$ 21.00

VIII. MOTOR PROTECTION CIRCUIT BREAKER TRIP INDICATING AUXILIARY CONTACT CONFIGURATION (LEFT SIDE MOUNTED)

CODE	DESCRIPTION	CAT. NO.	LIST
T22	1NO + 1NC Overload and 1NO + 1NC Short Circuit Trip Indicating Auxiliary Contacts	330-STA22S25	\$ 57.00

IX. MOTOR PROTECTION CIRCUIT BREAKER LINE SIDE TERMINAL BARRIER

CODE	DESCRIPTION	CAT. NO.	LIST
L	Line Side Terminal Barrier	330-LSTBS25	\$ 54.00

SOME OF OUR MOST POPULAR TYPE E DOL STARTER CONFIGURATIONS

MAX. LE (A) AC-3	3Φ HP @600V AC	COIL VOLTAGE	CONTACTOR AUXILIARY CONTACTS		CURRENT ADJUSTMENT RANGE (A)	MPCB STANDARD AUXILIARY CONTACTS, FRONT MOUNTED		MPCB TRIP INDICATING AUXILIARY CONTACTS, LEFT SIDE MOUNTED		CATALOG NUMBER	LIST
			NO	NC		NO	NC	NO	NC		
9	5	120V 60Hz/110V 50Hz	1	0	4.0 ~ 6.3	1	1	2	2	630-S09D10-2D63-F11-T22-L	\$409.00
9	7-1/2	120V 60Hz/110V 50Hz	1	0	10 ~ 16	1	1	2	2	630-S09D10-2U16-F11-T22-L	\$431.00
25	15	120V 60Hz/110V 50Hz	1	0	16 ~ 20	1	1	2	2	630-S25D10-2U20-F11-T22-L	\$492.00
32	20	120V 60Hz/110V 50Hz	0	0	20 ~ 25	1	1	2	2	630-S32D00-2U25-F11-T22-L	\$538.00

ACCESSORIES FOR SERIES 300 CONTACTORS

Modular contactor accessories can be installed in the field on all starters. Front and side mounted auxiliary contacts are common to all starter sizes. Surge suppressors install easily and securely to the contactor coil terminals.

FRONT MOUNTED AUXILIARY CONTACTS



Our front mounted auxiliary contacts feature IP20 guarded terminals to protect against accidental contact with live parts. The device identification marker simplifies trouble shooting in panels with many contactors. These contacts snap-on and install without the use of tools. NOTE: See chart below for maximum number of front mounted auxiliary contacts. See Contactor Section 4 Page 10 for front mounted auxiliary contact part number and ordering information.

MAXIMUM NUMBER OF FRONT OR SIDE MOUNTED AUXILIARY CONTACTS

CONTACTOR	MAXIMUM NUMBER
S09, S12, S18, S25	4
S32, S40	6

SURGE SUPPRESSORS



Coil mounted surge suppressors protect sensitive electronic components in control circuits from damaging line voltage spikes. See Contactor Section 4 Page 11 for surge suppressor part number and ordering information.

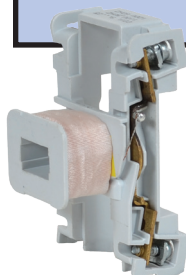
DISCOUNT
SCHEDULE **F**

SIDE MOUNTED AUXILIARY CONTACTS



Side mounted auxiliary contacts feature IP20 guarded terminals to protect against accidental contact with live parts. NOTE: See chart at left for maximum number of side mounted auxiliary contacts. See Contactor Section 4 Page 10 for side mounted auxiliary contact part number and ordering information.

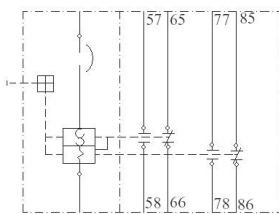
OPERATING COILS



Replacement coils for use with S09 - S40 Contactors. See Contactor Section 4 Page 12 for operating coil part number and ordering information.

ACCESSORIES FOR SERIES 330 MOTOR PROTECTION CIRCUIT BREAKERS

TRIP INDICATING AUXILIARY CONTACTS



The trip indicating auxiliary contact module includes Overload Contacts and Short Circuit Contacts.

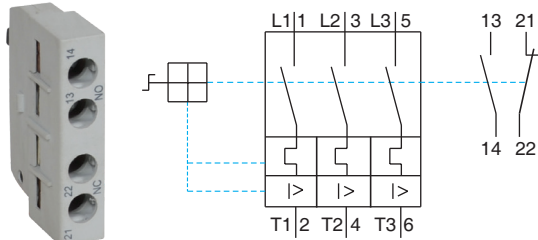
When an overload trip occurs the Overload Contacts change state. When a short circuit trip occurs, the Overload Contacts and Short Circuit Contacts change state. In addition to the electrical contacts, the trip indicating auxiliary contact module includes a mechanical trip indication - the blue button protrudes from the module after a short circuit trip. The trip indicating contact module can be field installed without the use of tools on Series 330-T25S and 330-M25S Motor Protection Circuit Breakers and can be used in conjunction with standard front mounted (330-FA) and side mounted (330-SA) auxiliary contacts. NOTE: The Trip Indicating Auxiliary Contact and the Line Side Terminal Barrier are required to achieve Type E construction with a Series 330-T25S device. See MPCB Section 9 Page 11 for trip indicating auxiliary contact part number and ordering information.

LINE SIDE TERMINAL BARRIER

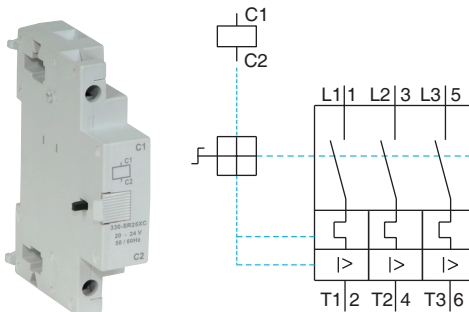


The line side terminal barrier provides increased electrical clearances to comply with the UL 60947-4-1 Self-protected Combination Motor Controller (Type E) requirements. The terminal barrier can be field installed on Series 330-T25S and 330-M25S Motor Protection Circuit Breakers. NOTE: The Line Side Terminal Barrier and the Trip Indicating Auxiliary Contact are required to achieve Type E construction with a Series 330-T25S device. See MPCB Section 9 Page 11 for line side terminal barrier part number and ordering information.

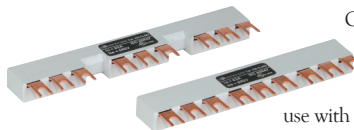
DISCOUNT
SCHEDULE **F**

ACCESSORIES FOR SERIES 330 MOTOR PROTECTION CIRCUIT BREAKERS**FRONT MOUNTED AUXILIARY CONTACTS**

Our front mounted auxiliary contacts do not add depth to the motor protection circuit breaker and installs within its foot print – no extra panel area is required. IP20 guarded terminals protect against accidental contact with live parts. These contacts snap-on and install without the use of tools. See MPCB Section 9 Page 10 for front mounted auxiliary contact part number and ordering information.

SHUNT RELEASE MODULES

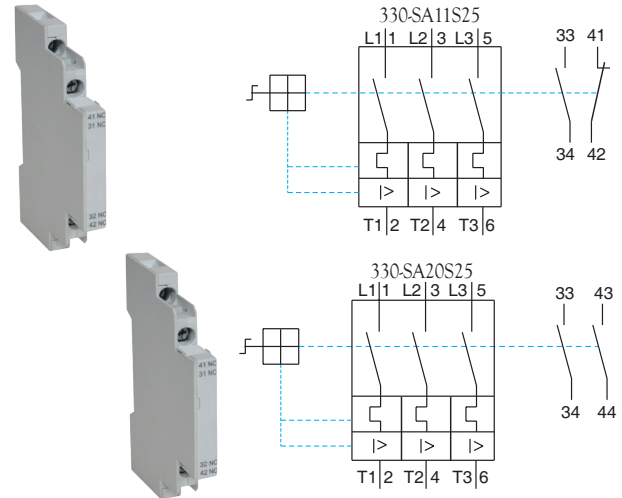
The shunt release module enables the motor protection circuit breaker to be turned "OFF" from a remote location. Snaps on and installs on the right side of the motor protection circuit breaker without the use of tools. IP20 guarded terminals to protect against accidental contact with live parts. Wide range of 50/60Hz operating voltages. Can be used in conjunction with front mounted and side mounted auxiliary contacts. See MPCB Section 9 Page 11 for shunt release module part number and ordering information.

COMMONING LINKS

Commoning links provide a convenient means of distributing 3-phase power to a group of motor protection circuits. 45mm spacing commoning links are for use with motor protection circuit breakers without auxiliary contact modules or with a front mounted auxiliary contact module (330-FA). 54mm spacing commoning links are for use with motor protection circuit breakers with a side mounted auxiliary contact module (330-SA). IP20 construction to guard against accidental contact with live parts. Used in conjunction with 330-FT1S2 Feeder Module. See MPCB Section 9 Page 12 for commoning link part number and ordering information.

EXTERNAL OPERATING HANDLE

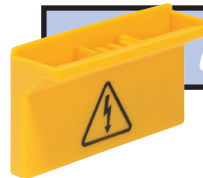
Our external operating handle provides reliable actuation of Series 630 Direct-On-Line (DOL) Starters from the outside of the enclosure and can be locked "OFF" for extra safety. Operating handles can be installed in enclosures with door thicknesses up to 4mm (5/32"). IP65 Ingress protection rating for the most demanding industrial environments. See MPCB Section 9 Page 10 for external operating handle part number and ordering information.

SIDE MOUNTED AUXILIARY CONTACTS

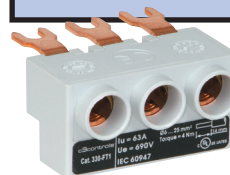
Our side mounted auxiliary contacts feature IP20 guarded terminals to protect against accidental contact with live parts. These contacts snap-on to the left side of the motor protection circuit breaker and install without the use of tools. See MPCB Section 9 Page 10 for side mounted auxiliary contact part number and ordering information.

ADJUSTMENT SCALE COVER

The adjustment scale cover prevents inadvertent or unauthorized adjustment of the full load current dial setting of the motor protection circuit breaker. See MPCB Section 9 Page 12 for adjustment scale cover part number and ordering information.

SHROUD FOR UNUSED COMMONING LINK TERMINALS

The highly visible yellow terminal shroud with the hazard symbol is for covering unused terminals of the 330-CL commoning links. Use of the shroud insulates the unused terminals and enables the easy installation of additional motor protection circuit breakers in the future. See MPCB Section 9 Page 12 for shroud part number and ordering information.

FEEDER TERMINAL FOR COMMONING LINK TERMINALS

The feeder terminal accepts the main branch circuit conductors and distributes power to the 330-CL Commoning Links. The feeder terminal overlaps the commoning link when installed. IP20 guarded terminals protect against accidental contact with live parts. Continuous current rating: 63A. See MPCB Section 9 Page 12 for feeder terminal part number and ordering information.

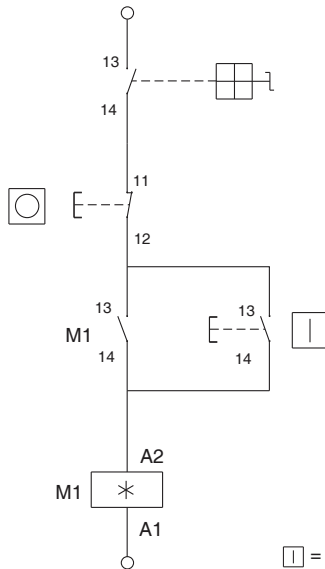
DISCOUNT
SCHEDULE **F**

SPECIFICATIONS:
SERIES 630 DIRECT ON-LINE (DOL) STARTER SPECIFICATIONS

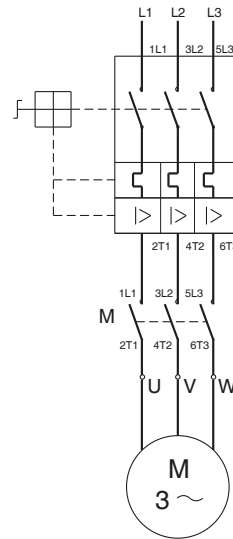
		STARTER CURRENT RATING CODE						
	UNITS	S09	S12	S18	S25	S32	S40	
ELECTRICAL GENERAL		For detailed contactor specifications by starter rating code, see Section 4 Page 13						
		For detailed motor protection circuit breaker specifications by catalog number, see Section 9 Page 13						
Rated Operating Frequency	Hz	50/60						
Rated Control Frequencies	Hz	AC: 50Hz, 60Hz, 50/60Hz and DC						
ELECTRICAL UL/CSA APPLICATIONS		For detailed contactor specifications by starter rating code, see Section 4 Page 13						
		For detailed motor protection circuit breaker specifications by catalog number, see Section 9 Page 13						
Rated Operating Voltage, Ue	VAC	600						
Short Circuit Current Rating @ 460V AC	kA	50						
Maximum Fuse or Circuit Breaker Size	A	450						
Short Circuit Current Rating @ 600V AC	kA	25						
Maximum Fuse or Circuit Breaker Size	A	450						
ELECTRICAL IEC APPLICATIONS		For detailed contactor specifications by starter rating code, see Section 4 Page 13						
		For detailed motor protection circuit breaker specifications by catalog number, see Section 9 Page 14						
Rated Insulation Voltage, Ui	V	690						
Rated Impulse Voltage, Uimp	kV	6						
Rated Operating Voltage, Ue	VAC	690						
COIL CHARACTERISTICS		For detailed contactor specifications by starter rating code, see Section 4 Page 14						
Rated Insulation Voltage, Ui	V	1,000						
Operating Limits		80 ~ 110% of Rated Coil Voltage						
MECHANICAL		For detailed contactor specifications by starter rating code, see Section 4 Page 15						
		For detailed motor protection circuit breaker specifications by catalog number, see Section 9 Page 14						
ENVIRONMENTAL		For detailed contactor specifications by starter rating code, see Section 4 Page 15						
		For detailed motor protection circuit breaker specifications by catalog number, see Section 9 Page 14						
Ambient Operating Temperature	°C / °F	-20 to +55 / -4 to +131						
Ambient Storage Temperature	°C / °F	-50 to +80 / -58 to +176						
Altitude	m / ft.	2,000 / 6,562						
CONSTRUCTION - GENERAL		For detailed contactor specifications by starter rating code, see Section 4 Page 15						
		For detailed motor protection circuit breaker specifications by catalog number, see Section 9 Page 15						
Number of Poles		3						
Pollution Degree		3						
Trip Class		10						
INGRESS PROTECTION								
Main Terminals (with conductors connected)		IP20						
Coil Terminals		IP20						
Auxiliary Contact Terminals		IP20						
CONSTRUCTION - CONDUCTOR CROSS SECTIONS		For detailed contactor specifications by starter rating code, see Section 4 Page 15						
		For detailed motor protection circuit breaker specifications by catalog number, see Section 9 Page 15						
ROHS COMPLIANCE		For RoHS compliance documentation by product, refer to www.c3controls.com .						

SERIES 630 DOL STARTER CIRCUIT DIAGRAMS

CONTROL CIRCUIT



POWER CIRCUIT



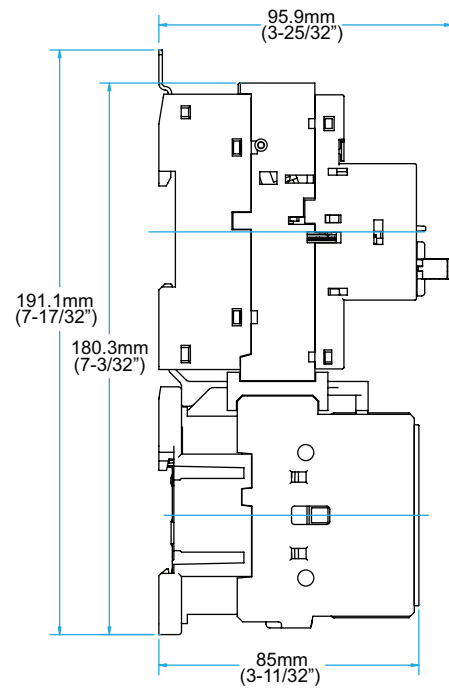
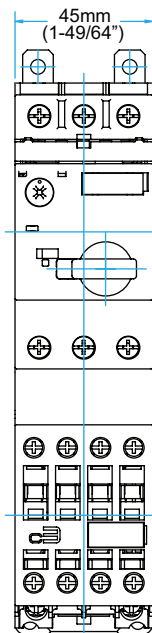
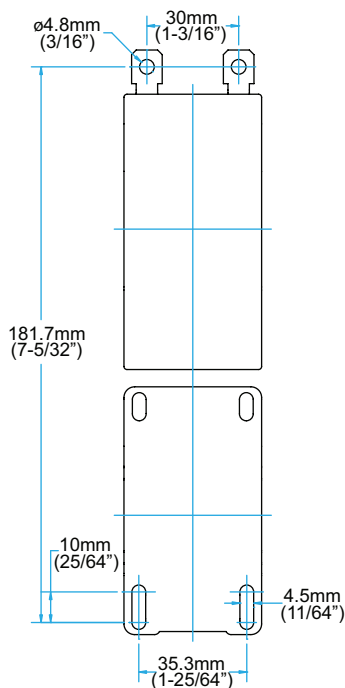
□ = Start Push Button

⊞ = Emergency Stop Push Button

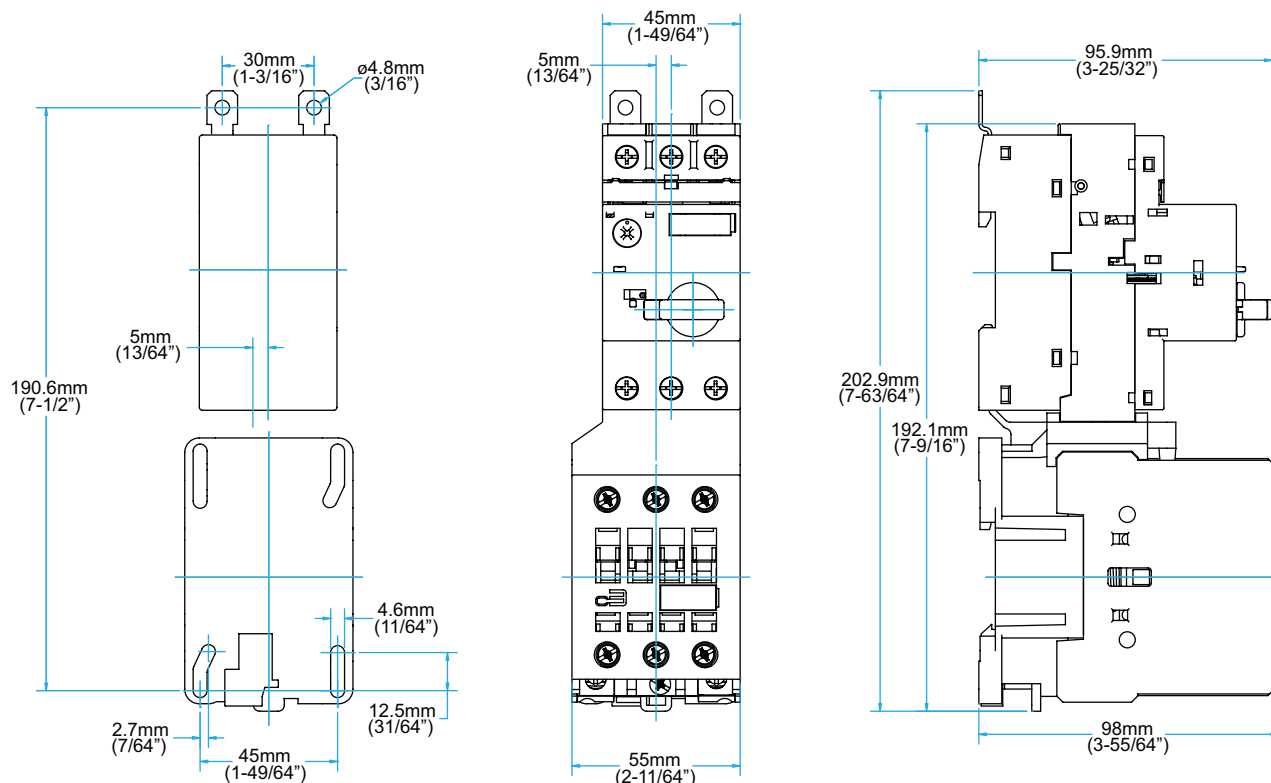
MPCB = Equipped for Thermal/Magnetic Protection

* = Coil Voltage Code

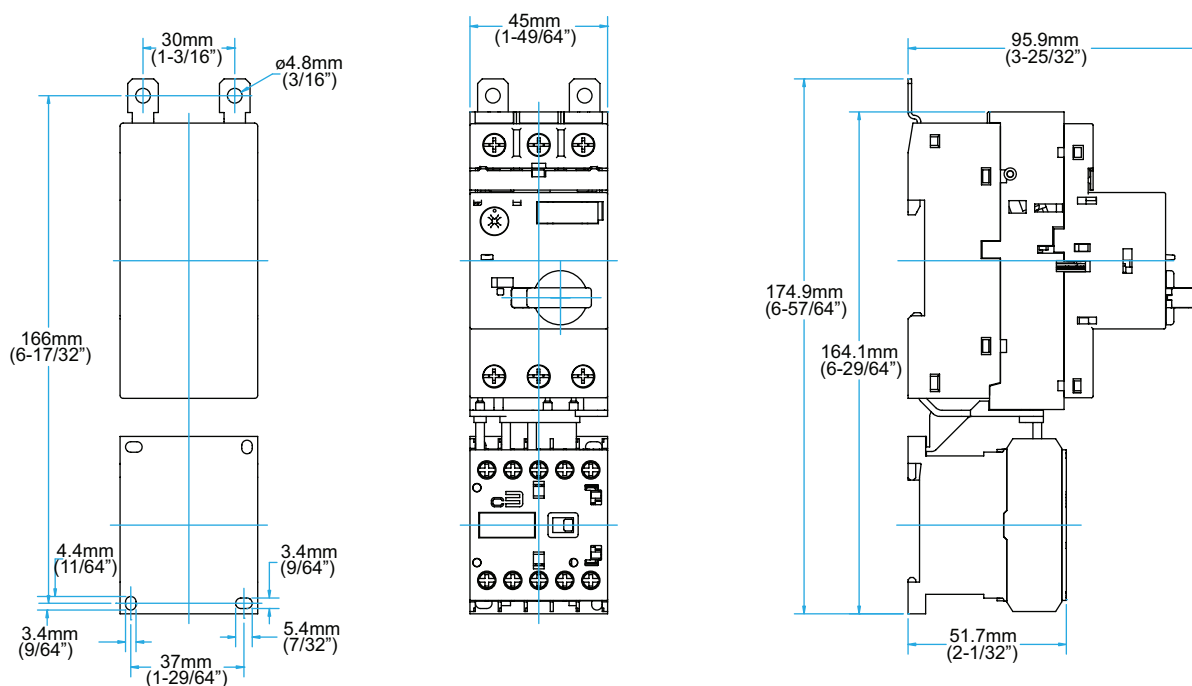
**MOTOR PROTECTION CIRCUIT BREAKER
AND S09, S12, S18 OR S25 AC CONTACTOR ASSEMBLY**



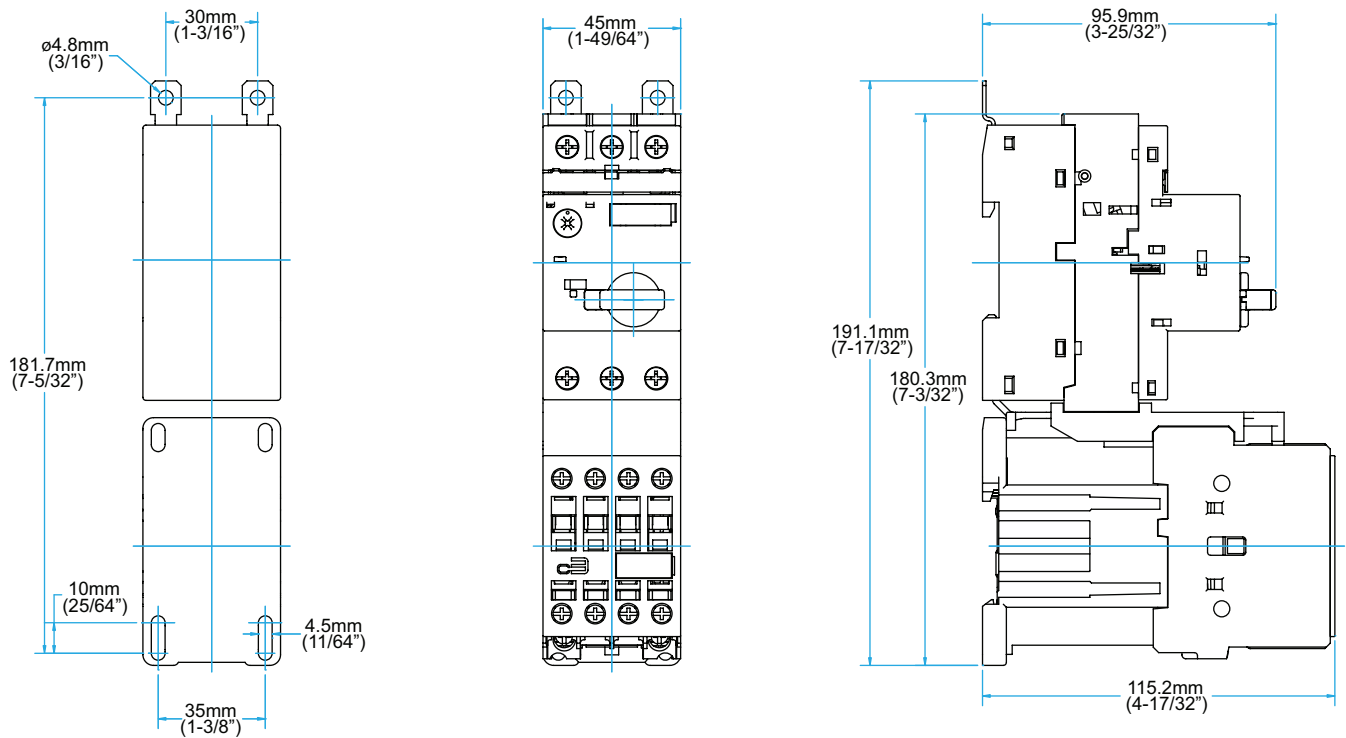
**MOTOR PROTECTION CIRCUIT BREAKER
AND S32 OR S40 AC CONTACTOR ASSEMBLY**



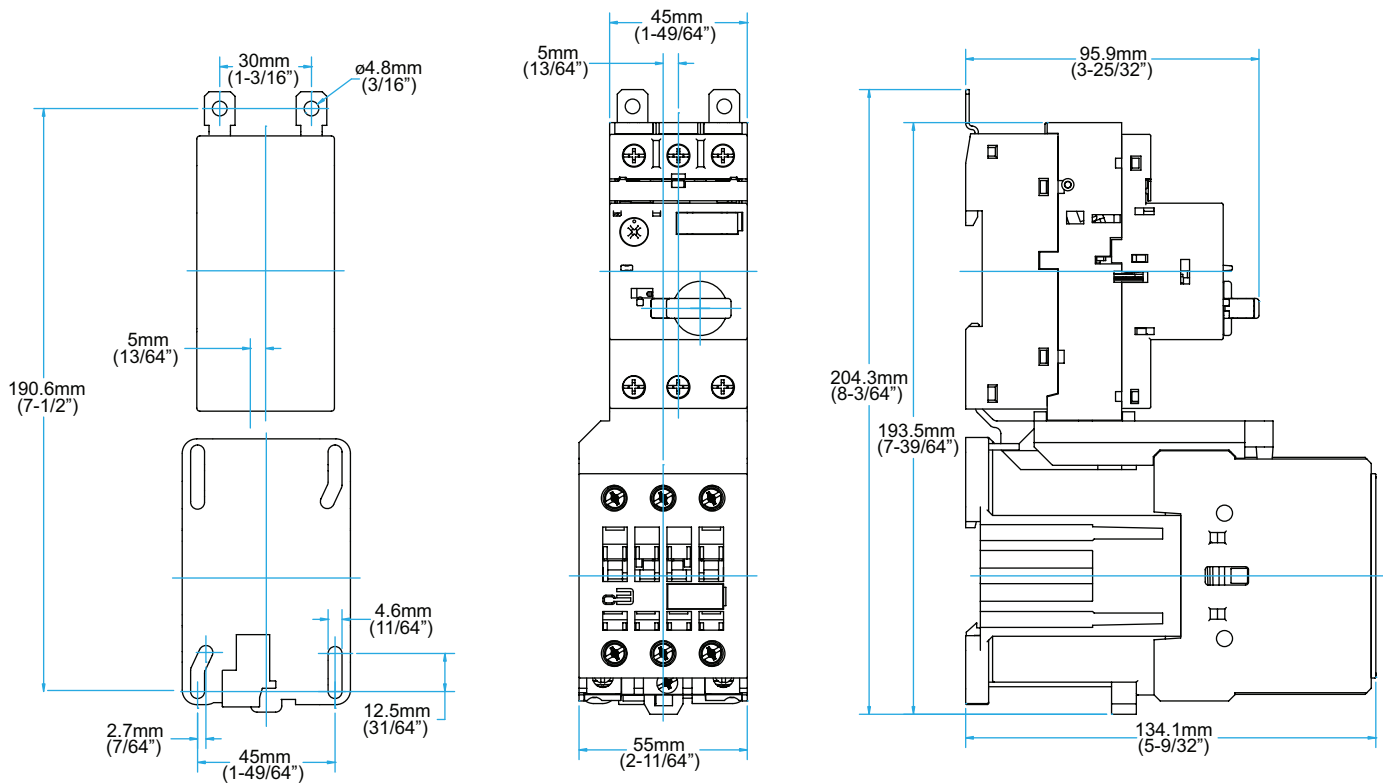
**MOTOR PROTECTION CIRCUIT BREAKER AND
M07, M09, M12 OR M16 MINIATURE CONTACTOR ASSEMBLY**



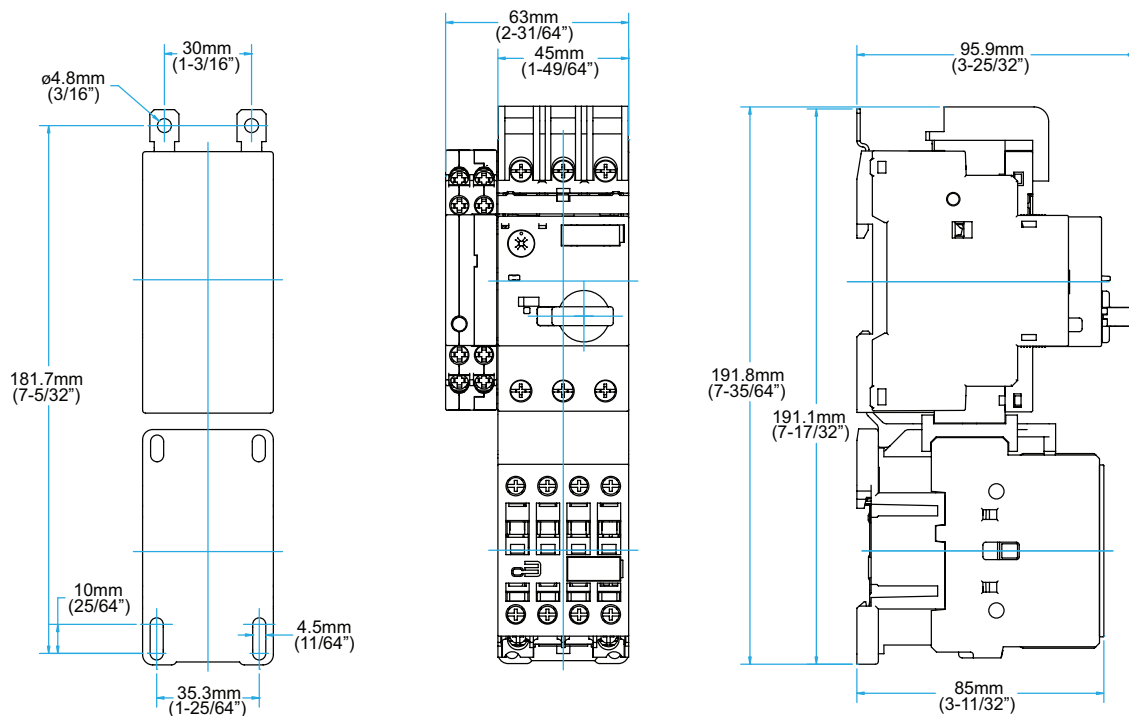
**MOTOR PROTECTION CIRCUIT BREAKER
AND S09, S12, S18 OR S25 DC CONTACTOR ASSEMBLY**



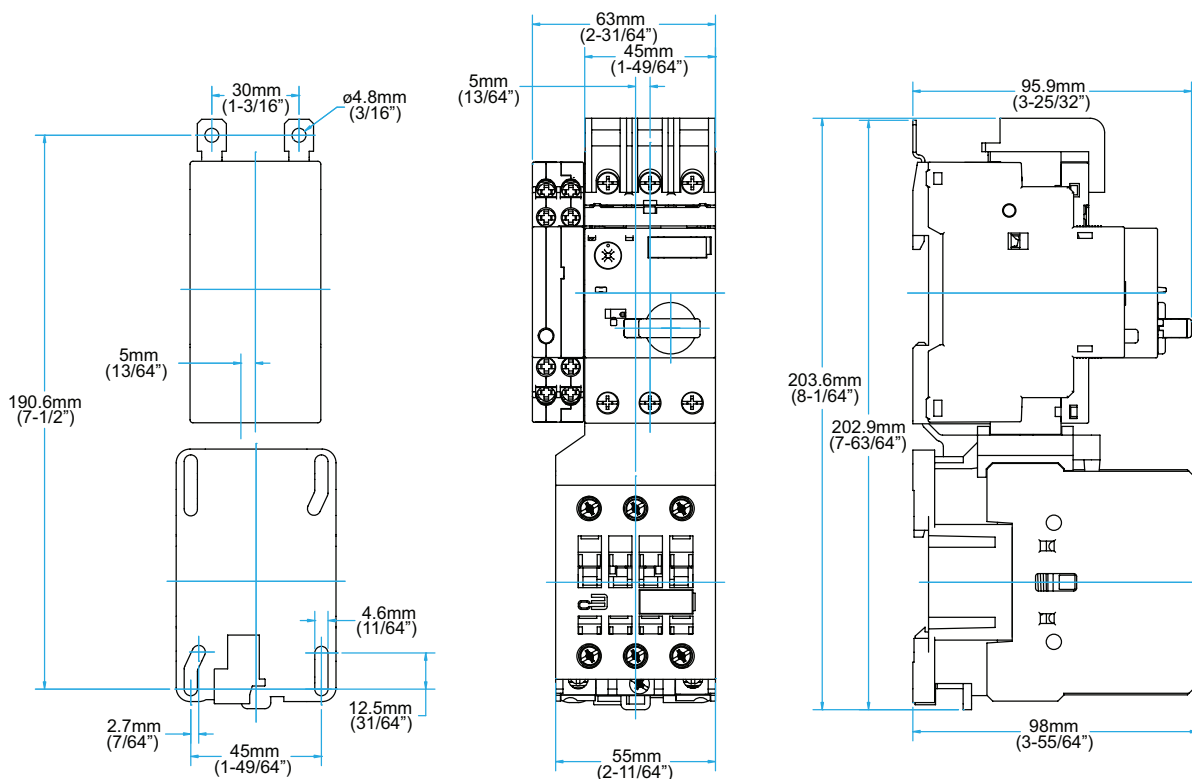
**MOTOR PROTECTION CIRCUIT BREAKER
AND S32 OR S40 DC CONTACTOR ASSEMBLY**

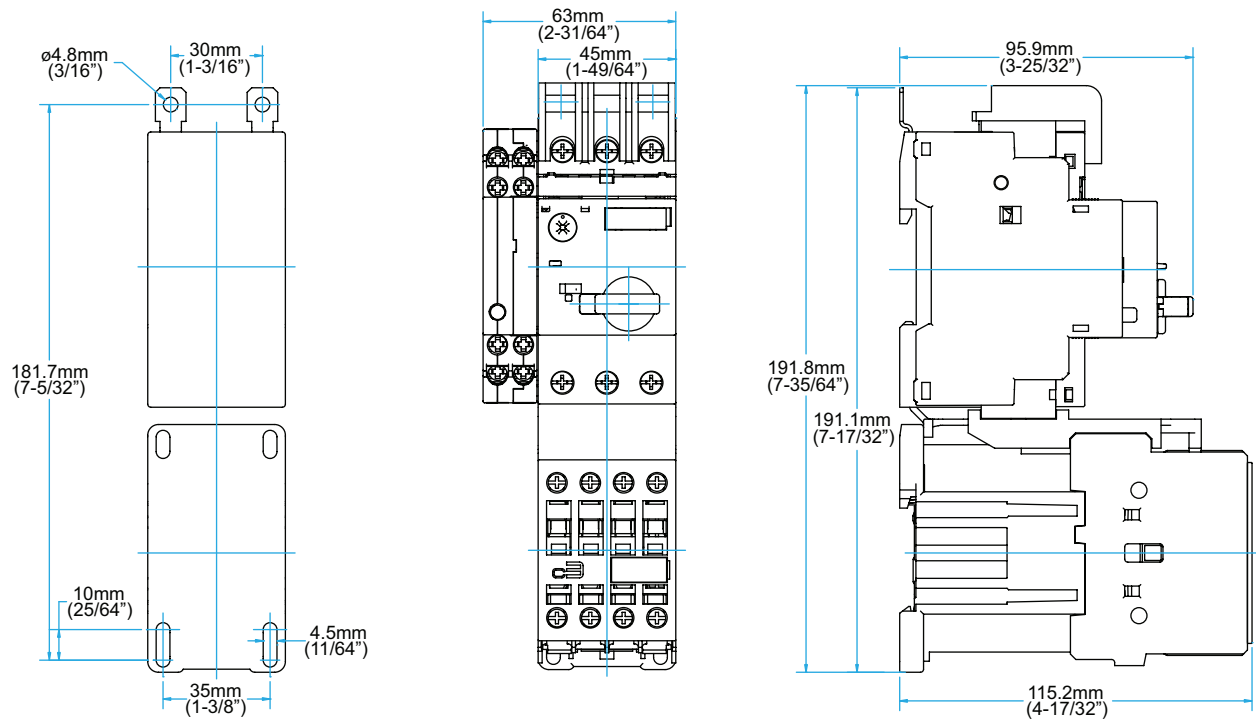
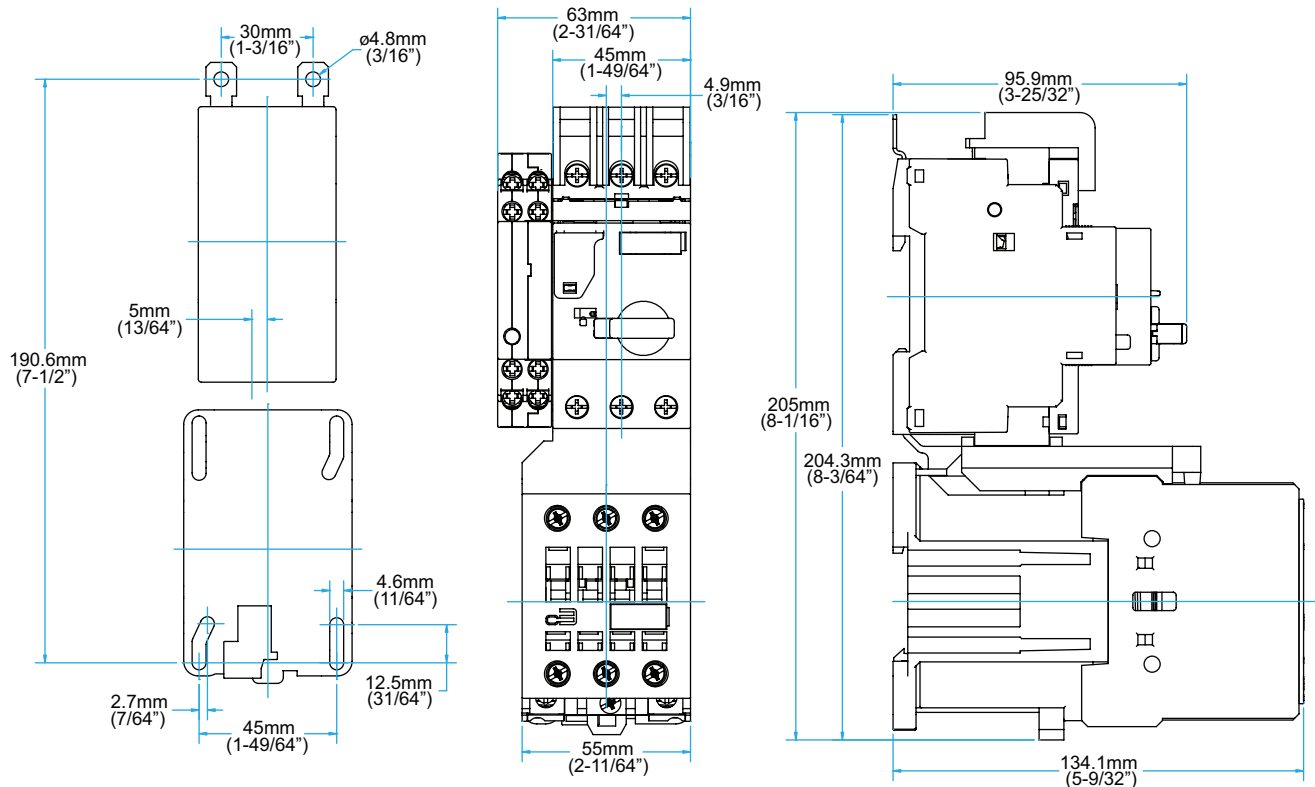


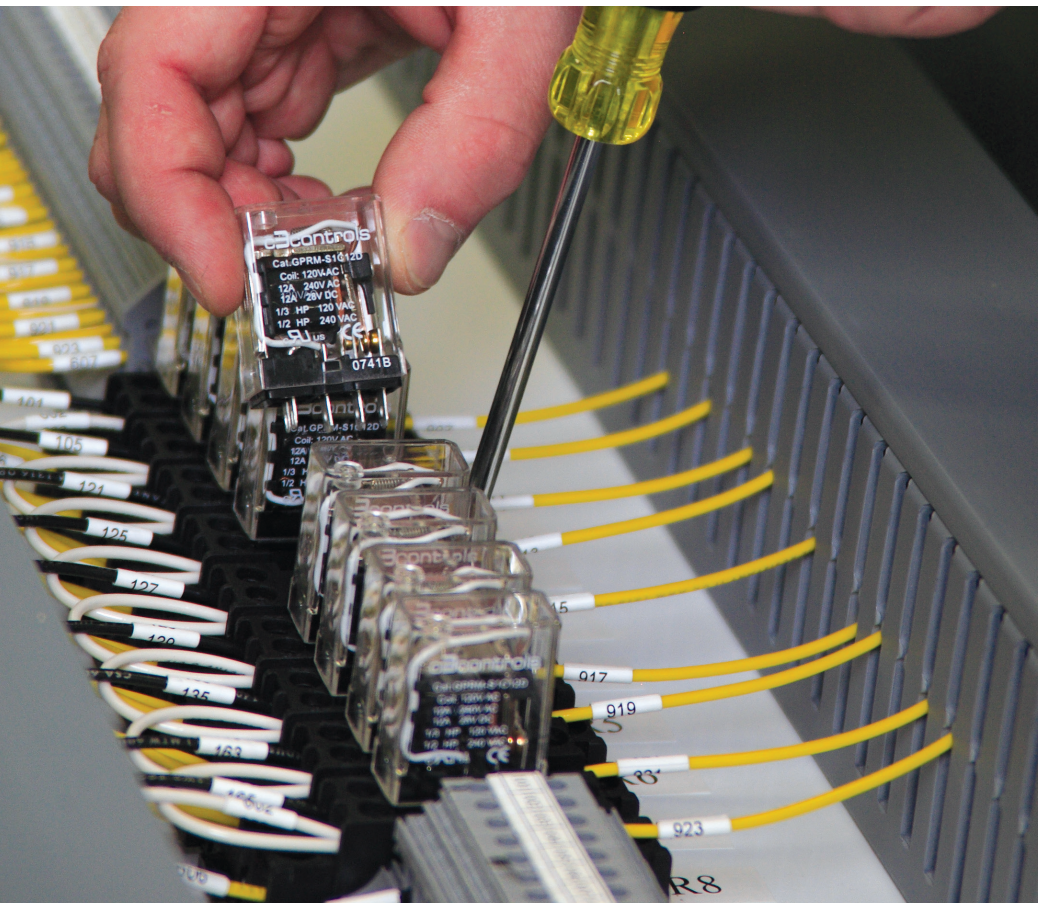
**TYPE E CONSTRUCTION - MOTOR PROTECTION CIRCUIT BREAKER
AND S09, S12, S18 OR S25 AC CONTACTOR ASSEMBLY**



**TYPE E CONSTRUCTION - MOTOR PROTECTION CIRCUIT BREAKER
AND S32 OR S40 AC CONTACTOR ASSEMBLY**



**TYPE E CONSTRUCTION - MOTOR PROTECTION CIRCUIT BREAKER
AND S09, S12, S18 OR S25 DC CONTACTOR ASSEMBLY****TYPE E CONSTRUCTION - MOTOR PROTECTION CIRCUIT BREAKER
AND S32 OR S40 DC CONTACTOR ASSEMBLY**



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