

MOTOR PROTECTION CIRCUIT BREAKERS



c3controls' Series 330 Motor Protection Circuit Breakers provide reliable overload and short circuit protection for all your motor control applications. Our motor protection circuit breakers are ideal for use in multi-motor applications – providing space savings, labor savings, and cost savings. They install on a standard 35mm DIN rail, and they work with a variety of accessories to make wiring as easy as possible.



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PROVEN



Conformity to Standards:

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)

Visit www.c3controls.com to download product certifications.

MOTOR PROTECTION CIRCUIT BREAKERS

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 330 Motor Protection Circuit Breakers below!

DELIVERING SUPERIOR PRODUCT QUALITY AND MANUFACTURING EXCELLENCE

✓ Proven	Our Series 330 Motor Protection Circuit Breakers are UL Listed and CE marked meeting global standards requirements.	
✓ Self-Protected	Our self-protected devices eliminate the need for upstream fuses and circuit breakers, and they provide reliable motor protection.	
✓ Compact	Only 45mm (1-49/64") wide up to 20HP @ 460V (15kW @ 400V) in both thermal and magnetic and magnetic only versions.	
✓ 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.	
✓ Modular Design	Modular design allows Series 330 Motor Protection Circuit Breakers to be easily used with the complete range of Series 300 Contactors and accessories.	
✓ 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

“We began to think we weren’t going to find a vendor who could provide us with Motor Protection Circuit Breakers at a price that made replacing fuses affordable. And then we found c3controls.”

Joe O’Leary, Chief Engineer • **Aztec Machinery Company**

MPCB w/Thermal & Magnetic Trip Elements



MPCB w/Magnetic Trip Elements



Type E MPCB



UNIQUE PRODUCT LINE FEATURES

MULTI-FUNCTION DEVICE

ARTICLE 430 PART VII - NFPA 70

	To Supply	NEC Part
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 Series 330 MPCBs are certified as Manual Motor Controllers Suitable as Motor Disconnects, can be used in Group Motor Installations, and can be used to manually control individual motors and protect them against overload and short circuit currents.

SELF-PROTECTED



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

HIGH FAULT SCCR



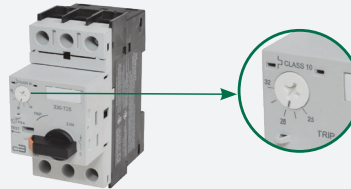
High fault short circuit current rating of 50kA @ 480V provides safety and reliability in high fault applications.

SEAMLESS COMPATIBILITY



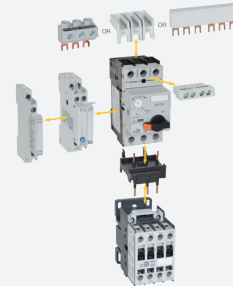
The modular design of our Series 330 MPCB allows for direct mounting onto Series 310 (9A to 40A) AC/DC Contactors and Series 300 and 310 AC/DC Miniature Contactors.

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

Motor Protection Circuit Breakers



- 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			
			330	630	Type E 330 630
Motor branch-circuit, short circuit, and ground-fault protection		Part IV			
					Type E 330 630
Motor circuit conductor		Part II			
Motor controller		Part VII			
			300/310 330 620 630	Type E 330 630	
Motor control circuits		Part VI			
Motor overload protection		Part III			
			320 330 620 630	Type E 330 630	
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 CIRCUIT BREAKER

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

Motor Protection Circuit Breakers with Thermal and Magnetic Trip Elements

330-T25S

/ II

Example: To build one of our most popular Circuit Breakers, the part number would be **330-T25S + II** or **330-T25S2U32**



I. MOTOR PROTECTION CIRCUIT BREAKER TYPE

CODE	DESCRIPTION
330-T25S	32A Motor Protection Circuit Breaker with Thermal and Magnetic Trip Elements

Provides overload and short circuit protection.

DISCOUNT
SCHEDULE **F**

II. CURRENT AND POWER RATINGS

CODE	RATED OPER. CURRENT (A)	ADJUSTMENT RANGE (A)	MAGNETIC TRIP CURRENT (A)	ULTIMATE INTERRUPTING CURRENT (Icu) (kA)		RATINGS FOR SWITCHING AC MOTORS*								LIST
						3 PHASE kW (50Hz)				3 PHASE HP (60Hz)				
				400V	480V	230V	400/415V	500V	690V	200V	230V	460V	575V	
2C16	0.16	0.10 ~ 0.16	2.1	100	100	—	—	—	0.06	—	—	—	—	\$122.00
2C25	0.25	0.16 ~ 0.25	3.3	100	100	—	0.06	0.06	0.12	—	—	—	—	\$122.00
2C40	0.40	0.25 ~ 0.40	5.2	100	100	—	0.09	0.12	0.18	—	—	—	—	\$132.00
2C63	0.63	0.40 ~ 0.63	8.2	100	100	0.06	0.12	0.25	0.25	—	—	—	1/4	\$136.00
2D10	1.0	0.63 ~ 1.0	13	100	100	0.12	0.25	0.37	0.55	—	—	1/2	1/2	\$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	\$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	\$139.00
2D40	4.0	2.5 ~ 4.0	52	100	100	0.75	1.5	2.2	3	3/4	1	2	3	\$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	\$148.00
2U10	10	6.3 ~ 10	130	100	42	2.2	4	4	7.5	3	3	7-1/2	10	\$154.00
2U16	16	10 ~ 16	208	50	10	3.7	7.5	9	12.5	5	5	10	15	\$170.00
2U20	20	16 ~ 20	260	50	10	3.7	9	12.5	15	5	7-1/2	15	20	\$185.00
2U25	25	20 ~ 25	325	50	10	5.5	12.5	15	22	7-1/2	7-1/2	15	20	\$218.00
2U32	32	25 ~ 32	416	50	10	7.5	15	18.5	30	10	10	20	25	\$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.

SOME OF OUR POPULAR CONFIGURATIONS:

MOTOR PROTECTION CIRCUIT BREAKERS WITH THERMAL AND MAGNETIC TRIP ELEMENTS

CATALOG NUMBER	DESCRIPTION	LIST
330-T25S2D63	6.3A Motor Protection Circuit Breaker with Thermal and Magnetic Trip Elements	\$148.00
330-T25S2U10	10A Motor Protection Circuit Breaker with Thermal and Magnetic Trip Elements	\$154.00
330-T25S2U16	16A Motor Protection Circuit Breaker with Thermal and Magnetic Trip Elements	\$170.00
330-T25S2U20	20A Motor Protection Circuit Breaker with Thermal and Magnetic Trip Elements	\$185.00

IT'S EASY TO BUILD YOUR OWN CIRCUIT BREAKER

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

Motor Protection Circuit Breakers with Magnetic Trip Element

330-M25S

/ II

Example: To build one of our most popular Circuit Breakers, the part number would be **330-M25S + II** or **330-M25S2D16**



I. MOTOR PROTECTION CIRCUIT BREAKER TYPE

CODE	DESCRIPTION
330-M25S	32A Motor Protection Circuit Breaker with Magnetic Trip Element

Provides short circuit protection.

DISCOUNT
SCHEDULE

F

II. CURRENT AND POWER RATINGS

CODE	RATED OPERATING CURRENT (A)	MAGNETIC TRIP CURRENT (A)	ULTIMATE INTERRUPTING CURRENT (Icu) (kA)		RATINGS FOR SWITCHING AC MOTORS*								LIST
					3 PHASE kW (50Hz)				3 PHASE HP (60Hz)				
					400V	480V	230V	400/415V	500V	690V	200V	230V	
2C16	0.16	2.1	100	100	—	—	—	0.06	—	—	—	—	\$122.00
2C25	0.25	3.3	100	100	—	0.06	0.06	0.12	—	—	—	—	\$122.00
2C40	0.40	5.2	100	100	—	0.09	0.12	0.18	—	—	—	—	\$132.00
2C63	0.63	8.2	100	100	0.06	0.12	0.25	0.25	—	—	—	1/4	\$136.00
2D10	1.0	13	100	100	0.12	0.25	0.37	0.55	—	—	1/2	1/2	\$139.00
2D16	1.6	21	100	100	0.18	0.55	0.75	1.1	1/4	1/3	3/4	1	\$139.00
2D25	2.5	33	100	100	0.37	0.75	1.1	1.5	1/2	1/2	1-1/2	1-1/2	\$139.00
2D40	4.0	52	100	100	0.75	1.5	2.2	3	3/4	1	2	3	\$139.00
2D63	6.3	82	100	100	1.1	2.2	3	4	1-1/2	1-1/2	3	5	\$148.00
2U10	10	130	100	42	2.2	4	4	7.5	3	3	7-1/2	10	\$154.00
2U16	16	208	50	10	3.7	7.5	9	12.5	5	5	10	15	\$170.00
2U20	20	260	50	10	3.7	9	12.5	15	5	7-1/2	15	20	\$185.00
2U25	25	325	50	10	5.5	12.5	15	22	7-1/2	7-1/2	15	20	\$218.00
2U32	32	416	50	10	7.5	15	18.5	30	10	10	20	25	\$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.

SOME OF OUR POPULAR CONFIGURATIONS:

MOTOR PROTECTION CIRCUIT BREAKERS WITH MAGNETIC TRIP ELEMENT

CATALOG NUMBER	DESCRIPTION	LIST
330-M25S2D63	6.3A Motor Protection Circuit Breaker with Magnetic Trip Element	\$148.00
330-M25S2U10	10A Motor Protection Circuit Breaker with Magnetic Trip Element	\$154.00
330-M25S2U16	16A Motor Protection Circuit Breaker with Magnetic Trip Element	\$170.00
330-M25S2U20	20A Motor Protection Circuit Breaker with Magnetic Trip Element	\$185.00

MOTOR PROTECTION CIRCUIT BREAKERS

c3controls Series 330-T25S Motor Protection Circuit Breakers include both thermal and magnetic trip elements for overload and short circuit protection. They are ideal for use with Series 300 Contactors in group motor installations where panel space is at a premium and device modularity is required to satisfy virtually any application requirement. For the simplest applications, they can also be used by themselves as manual motor controllers. cULus and CE Markings make them suitable for use anywhere in the world. 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 the Series 330-T25S and 330-M25S have to offer.

Product features include:

- Series 330 Motor Protection Circuit Breakers direct mount onto:
 - Series 300 Non-Reversing and Series 310 Reversing, 9A to 40A AC and DC, Contactors
 - Series 300-M Miniature Non-Reversing and Series 310-M Miniature Reversing AC and DC Contactors
- Line side terminal barrier accessory snaps-on and installs without the use of tools.
- Removable and replaceable identification marker, standard on all c3controls Series 330 Motor Protection Circuit Breakers, simplifies troubleshooting in panels with many devices.
- High fault short circuit current rating of 50kA @ 480V provides safety and reliability in high fault applications.
- Certified as Manual Motor Controllers Suitable as Motor Disconnects for use in group motor installations in accordance with the NEC (National Electrical Code).
- Two versions available – with thermal and magnetic trip elements which provide overload (Trip Class 10) and short circuit protection, and magnetic trip element only for short circuit protection. Use the magnetic trip element only version with Series 320 Overload Relays for overload protection and the other outstanding features of the Series 320.
- Single phase sensitivity to protect motors against damaging phase loss conditions.
- Designed for optimum performance with Series 300-S09 to 300-S40 Contactors in group motor installations, and can achieve Type 2 coordination in circuits capable of delivering up to 50kA at 460V.
- Meets IEC 60947 requirements for starters and circuit breakers and provides isolation functionality.
- Modular design accommodates a wide variety of accessories, some of which snap-on without tools, lowering assembly and installation costs.
- 18mm wide 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.
- 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 motor protection circuit breakers are installed.
- IP20 guarded terminals with dual terminal markings prevent accidental contact with live parts.
- Combination head terminal screws allow the use of “straight”, “phillips”, or “posidrive” screwdrivers for fast and reliable wiring.
- Universal ratings and markings: A, kW, and HP ratings as well as applicable 3rd party certification markings.
- Test function to verify the performance of the device and the proper operation of the control circuit and accessories.



MOTOR PROTECTION CIRCUIT BREAKERS

While our Series 330 Motor Protection Circuit Breakers are certified as Manual Motor Controllers Suitable as Motor Disconnects, and can be used to manually control individual motors and protect them against overload and short circuit currents, the greatest benefits can be realized by using the Series 330 Motor Protection Circuit Breakers in conjunction with Series 300 Contactors and Series 330 wiring accessories in Group Motor Installations.

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

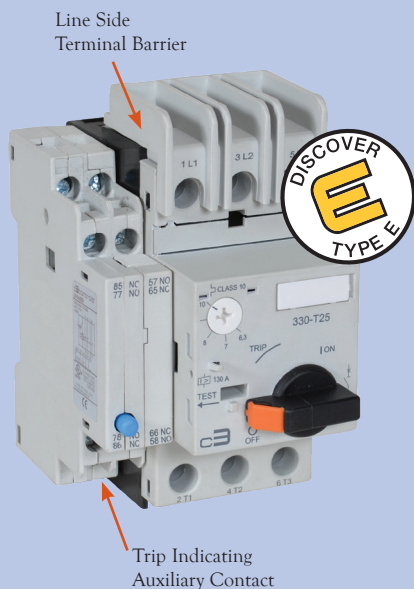
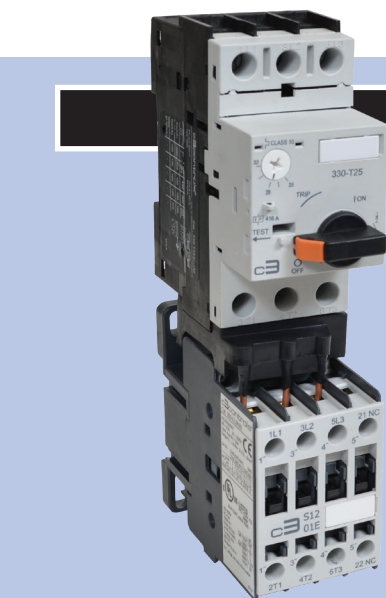
Smaller size enclosures, reduced wiring, and DIN rail installation all combine to provide a lower cost control panel with superior performance in normal operating conditions as well as in overload or short circuit conditions.

DISCOVER TYPE E

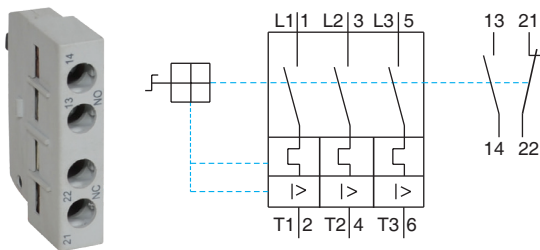
Listed as a UL 60947-4-1 Self-protected Combination Manual Motor Controller when accessories trip indicating auxiliary contact (330-STA22S25) and line side terminal barrier (330-LSTBS25) are assembled for circuits capable of delivering up to 50kA @ 460V. For field assembly only.

Type E devices provide motor disconnect means, branch short circuit and ground fault protection, motor control and motor overload protection, reducing panel size and eliminating upstream fuses or circuit breakers for a motor circuit.

We also offer fully assembled Type E and Type F Direct-On-Line (DOL) Starters, refer to pages 159-166 in our Series 630 section. For Enclosed Type E and Type F assemblies refer to pages 185-192 in our Series E630 section.



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.

CODE	CONTACT CONFIGURATION	LIST
330-FA11S25	1 Normally Open and 1 Normally Closed	\$21.00

MOTOR PROTECTION CIRCUIT BREAKER ENCLOSURES



Our Motor Protection Circuit Breaker Enclosure accessory is a custom fit enclosure design specifically for use with our Series 330 Motor Protection Circuit Breaker providing reliable operation and superior performance. CE certified with an IP55 environmental rating.

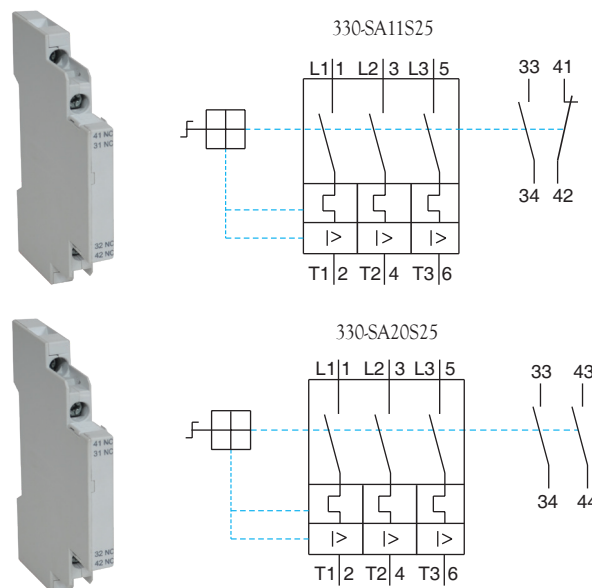
Available in two frame sizes: Frame Size 1– 55mm internal mounting width allows the assembly of a side mounted auxiliary contact, and Frame Size 2 – 65mm internal mounting width allows the assembly of a shunt release module or undervoltage module.

The enclosure has integrated ground and neutral connections, and four (4) standard PG16 knock outs (2 on the top and 2 on the bottom).

The operating handle, which is available in two colors, can be padlocked in the “OFF” position with up to three padlocks for extra safety and the security necessary during maintenance activities.

FRAME SIZE 1 (55MM INTERNAL MOUNTING WIDTH)		
CODE	DESCRIPTION	LIST
330-BABS1RY	Motor Protection Circuit Breaker Enclosure with ABS Plastic and Red/Yellow Handle	\$63.00
330-BABS1BG	Motor Protection Circuit Breaker Enclosure with ABS Plastic and Black/Grey Handle	\$63.00
FRAME SIZE 2 (65MM INTERNAL MOUNTING WIDTH)		
330-BABS2RY	Motor Protection Circuit Breaker Enclosure with ABS Plastic and Red/Yellow Handle	\$78.00
330-BABS2BG	Motor Protection Circuit Breaker Enclosure with ABS Plastic and Black/Grey Handle	\$78.00

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.

CODE	CONTACT CONFIGURATION	LIST
330-SA11S25	1 Normally Open and 1 Normally Closed	\$21.00
330-SA20S25	2 Normally Open	\$21.00

MOUNTING FOOT KIT



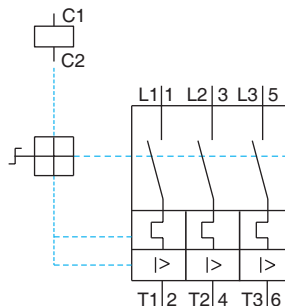
The mounting foot kit enables motor protection circuit breakers to be panel mounted instead of installed on a 35mm DIN rail.

CODE	DESCRIPTION	LIST/PC.
330-MF1	Mounting Foot Kit (2 per pkg.)	\$ 1.50

DISCOUNT
SCHEDULE

F

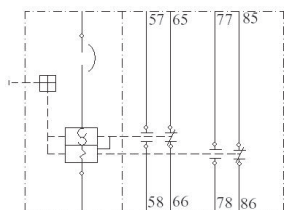
SHUNT RELEASE MODULES



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.

CODE	VOLTAGE RANGE	LIST
330-SR25XC	20 ~ 24V 50/60Hz	\$50.00
330-SR25XJ	40 ~ 48V 50/60Hz	\$50.00
330-SR25XAH	100 ~ 127V 50/60Hz	\$50.00
330-SR25XF	200 ~ 240V 50/60Hz	\$50.00
330-SR25XQ	365 ~ 440V 50/60Hz	\$50.00

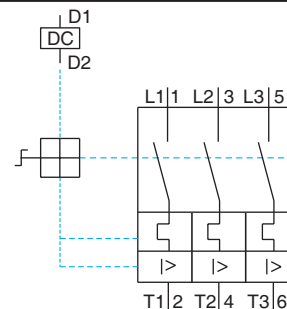
TRIP INDICATING AUXILIARY CONTACTS



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.

CODE	DESCRIPTION	LIST
330-STA22S25	18mm Wide - Left Side Mounted Trip Indicating Auxiliary Contact (1 NO and 1 NC overload and 1 NO and 1 NC short circuit)	\$57.00

UNDERVOLTAGE RELEASE MODULES



The undervoltage release module automatically trips the motor protection circuit breaker when the supply voltage is less than 70 - 35% of the rated voltage of the undervoltage release module. Undervoltage release modules are ideal to ensure motors do not automatically restart after a power outage when the motor protection circuit breaker is being used by itself as a manual motor controller. 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.

CODE	VOLTAGE RANGE	LIST
330-UR25C	20V 50Hz / 24V 60Hz	\$50.00
330-UR25XC	24V 50/60Hz	\$50.00
330-UR25H	24V 50Hz / 28V 60Hz	\$50.00
330-UR25AG	95V 50Hz / 110V 60Hz	\$50.00
330-UR25D	110V 50Hz / 120V 60Hz	\$50.00
330-UR25AH	110 ~ 115V 50Hz / 127V 60Hz	\$50.00
330-UR25L	180V 50Hz / 208V 60Hz	\$50.00
330-UR25AJ	190V 50Hz / 220V 60Hz	\$50.00
330-UR25F	208V 50Hz / 240V 60Hz	\$50.00
330-UR25P	230 ~ 240V 50Hz / 277V 60Hz	\$50.00
330-UR25AL	325V 50Hz / 380V 60Hz	\$50.00
330-UR25Q	380V 50Hz / 440V 60Hz	\$50.00
330-UR25R	400 ~ 415V 50Hz / 480V 60Hz	\$50.00
330-UR25T	500V 50Hz / 600V 60Hz	\$50.00

LINE SIDE TERMINAL BARRIER



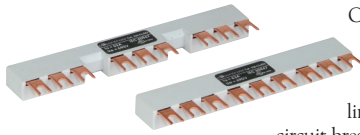
The line side terminal barrier provides increased electrical clearances to comply with the UL 60947-4-1 Self-Protected Combination Motor Controller (Type E) requirements. The terminal barrier can be field installed on Series 330-T25S and 330-M25S Motor Protection Circuit Breakers. NOTE: The Line Side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

CODE	DESCRIPTION	LIST
330-LSTBS25	Line Side Terminal Barrier	\$30.75

DISCOUNT
SCHEDULE

F

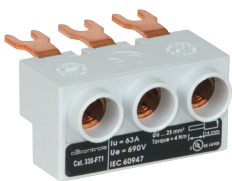
COMMONING LINKS



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-FA11S25). 54mm spacing commoning links are for use with motor protection circuit breakers with a side mounted auxiliary contact module (330-SA11S25 or 330-SA20S25). IP20 construction to guard against accidental contact with live parts. Used in conjunction with 330-FT1S2 Feeder Module.

CODE	FOR USE WITH	CONTINUOUS CURRENT RATING	LENGTH	LIST
45MM SPACING				
330-CL452S2	2 Motor Protection Circuit Breakers	63A	91mm	\$34.00
330-CL453S2	3 Motor Protection Circuit Breakers	63A	136mm	\$40.00
330-CL454S2	4 Motor Protection Circuit Breakers	63A	181mm	\$45.00
330-CL455S2	5 Motor Protection Circuit Breakers	63A	226mm	\$48.00
54MM SPACING				
330-CL542S2	2 Motor Protection Circuit Breakers	63A	100mm	\$35.00
330-CL543S2	3 Motor Protection Circuit Breakers	63A	154mm	\$41.00
330-CL544S2	4 Motor Protection Circuit Breakers	63A	208mm	\$48.00
330-CL545S2	5 Motor Protection Circuit Breakers	63A	262mm	\$51.00

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 to protect against accidental contact with live parts. Continuous current rating: 63A.

CODE	DESCRIPTION	LIST
330-FT1S2	Feeder Terminal	\$39.00

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.

CODE	DESCRIPTION	LIST/PC.
330-SCS2	Adjustment Scale Cover (5 per pkg.)	\$ 5.50

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.

CODE	DESCRIPTION	LIST
330-CLSS2	Shroud	\$11.00

CIRCUIT BREAKER - CONTACTOR LINK MODULE



The circuit breaker - contactor link module provides a mechanical and electrical linkage between a motor protection circuit breaker and a Series 300 Contactor. The circuit breaker - contactor link module makes starter assembly easy and enables the starter assembly to be installed on a single or two 35mm DIN rails.

CODE	FOR USE WITH	LIST
330-CMS216	Series 300-M07 to 300-M16 AC or DC Operated Contactors	\$26.00
330-CMS225A	Series 300-S09 to 300-S25 AC Operated Contactors	\$26.00
330-CMS225D	Series 300-S09 to 300-S25 DC Operated Contactors	\$26.00
330-CMS240A	Series 300-S32 to 300-S40 AC Operated Contactors	\$26.00
330-CMS240D	Series 300-S32 to 300-S40 DC Operated Contactors	\$26.00

SPECIFICATIONS:

ELECTRICAL SPECIFICATIONS

		CAT. NO. 330-T25S**** AND 330-M25S****													
		2C16	2C25	2C40	2C63	2D10	2D16	2D25	2D40	2D63	2U10	2U16	2U20	2U25	2U32
ELECTRICAL GENERAL															
	UNITS														
Rated Operating Current	A	0.16	0.25	0.40	0.63	1.0	1.6	2.5	4.0	6.3	10	16	20	25	32
Current Setting Range①	A	0.10 ~ 0.16	0.16 ~ 0.25	0.25 ~ 0.40	0.40 ~ 0.63	0.63 ~ 1.0	1.0 ~ 1.6	1.6 ~ 2.5	2.5 ~ 4.0	4.0 ~ 6.3	6.3 ~ 10	10 ~ 16	16 ~ 20	20 ~ 25	25 ~ 32
Magnetic Trip Current	A	2.1	3.3	5.2	8.2	13	21	33	52	82	130	208	260	325	416
Operating Frequency	Hz	50/60													
Power Dissipation per pole	W	5	5	5	5	6	6	6	6	6	7	8	8	8	8
Electrical Life	Ops.	100,000													
Maximum Operating Rate	Ops./Hr.	15													
ELECTRICAL UL/CSA APPLICATIONS															
MAIN CIRCUITS															
Rated Operating Voltage, Ue	VAC	600													
RATED 1 PHASE OPERATING POWER, Pe															
115V	HP	—	—	—	—	—	—	—	1/8	1/4	1/2	1	1-1/2	2	—
230V	HP	—	—	—	—	—	1/10	1/6	1/3	3/4	1-1/2	3	3	3	5
RATED 3 PHASE OPERATING POWER, Pe															
200V	HP	—	—	—	—	—	1/4	1/2	3/4	1-1/2	3	5	5	7-1/2	10
230V	HP	—	—	—	—	—	1/3	1/2	1	1-1/2	3	5	7-1/2	7-1/2	10
460V	HP	—	—	—	—	1/2	3/4	1-1/2	2	3	7-1/2	10	15	15	20
575V	HP	—	—	—	1/4	1/2	1	1-1/2	3	5	10	15	20	20	25
MANUAL MOTOR CONTROLLER, MAXIMUM SHORT CIRCUIT CURRENT															
@ 480V	kA	50	50	50	50	50	50	50	50	50	50	50	50	50	50
@ 600V	kA	25	25	25	25	25	25	25	25	25	25	25	25	25	25
MANUAL MOTOR CONTROLLER IN GROUP INSTALLATIONS, MAXIMUM SHORT CIRCUIT CURRENT															
@ 480V	kA	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maximum Fuse②	A	450	450	450	450	450	450	450	450	450	450	450	450	450	450
@ 600V	kA	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maximum Fuse②	A	450	450	450	450	450	450	450	450	450	450	450	450	450	450
MANUAL MOTOR CONTROLLER SUITABLE FOR TAP CONDUCTOR PROTECTION IN GROUP INSTALLATIONS, MAXIMUM SHORT CIRCUIT CURRENT															
@ 480V	kA	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Maximum Fuse ②	A	450	450	450	450	450	450	450	450	450	450	450	450	450	450
@ 600V	kA	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maximum Fuse ②	A	450	450	450	450	450	450	450	450	450	450	450	450	450	450

① 330-T25S only.

② Not to exceed the maximum fuse/circuit breaker size, per the National Electrical Code.

NOTE: **** Represents the current and power ratings code. Refer to pages 121 & 122.

ELECTRICAL, MECHANICAL & ENVIRONMENTAL SPECIFICATIONS															
		CAT. NO. 330-T25S**** AND 330-M25****													
		2C16	2C25	2C40	2C63	2D10	2D16	2D25	2D40	2D63	2U10	2U16	2U20	2U25	2U32
ELECTRICAL IEC APPLICATIONS															
	UNITS														
MAIN CIRCUITS															
Rated Insulation Voltage, U_i	V	690													
Rated Impulse Voltage, U_{imp}	kV	6													
Rated Operating Voltage, U_e	VAC	690													
RATED 3 PHASE AC-3 OPERATING POWER, P_e															
230V	kW	—	—	—	0.06	0.12	0.18	0.37	0.75	1.1	2.2	3.7	3.7	5.5	7.5
400/415V	kW	—	0.06	0.09	0.12	0.25	0.55	0.75	1.5	2.2	4	7.5	9	12.5	15
500V	kW	—	0.06	0.12	0.25	0.37	0.75	1.1	2.2	3	4	9	12.5	15	18.5
690V	kW	0.06	0.12	0.18	0.25	0.55	1.1	1.5	3	4	7.5	12.5	15	22	30
ULTIMATE SHORT CIRCUIT BREAKING CAPACITY, I_{cu}															
230V	kA	100	100	100	100	100	100	100	100	100	100	100	100	100	100
400/415V	kA	100	100	100	100	100	100	100	100	100	50	50	50	50	50
440V	kA	100	100	100	100	100	100	100	100	100	50	50	50	50	50
500V	kA	100	100	100	100	100	100	100	100	100	42	10	10	10	10
690V	kA	100	100	100	100	100	100	8	6	6	6	4	4	4	4
RATED SERVICE SHORT CIRCUIT BREAKING CAPACITY, I_{cs}															
230V	kA	100	100	100	100	100	100	100	100	100	100	100	100	100	100
400/415V	kA	100	100	100	100	100	25	25	25	25	25	25	25	25	25
440V	kA	100	100	100	100	100	100	100	100	100	25	15	15	15	15
500V	kA	100	100	100	100	100	100	100	100	100	21	8	8	8	8
690V	kA	100	100	100	100	100	100	8	3	3	3	3	3	3	3
BACK-UP FUSES, gG/gL^③															
230V	A	④	④	④	④	④	④	④	④	④	④	④	④	④	④
400/415V	A	④	④	④	④	④	④	④	④	④	④	100	125	125	125
400V	A	④	④	④	④	④	④	④	④	④	80	80	80	100	100
500V	A	④	④	④	④	④	④	④	④	④	63	80	80	80	80
690V	A	④	④	④	④	④	④	25	32	50	50	63	63	63	63
MECHANICAL															
Mechanical Life	Ops.	100,000													
ENVIRONMENTAL															
Ambient Operating Temperature	°C / °F	-20 to 60 / -4 to 140													
Ambient Storage Temperature	°C / °F	-50 to 80 / 58 to 176													
Altitude	m / ft.	2,000 / 6,562													
Shock	g	15													
③ Back-up fuse required only if $I_{cc} > I_{cu}$.															
④ No back-up fuse required.															
NOTE: **** Represents the current and power ratings code. Refer to pages 121 & 122.															

CONSTRUCTION SPECIFICATIONS

		CAT. NO. 330-T25S**** AND 330-M25S****													
		2C16	2C25	2C40	2C63	2D10	2D16	2D25	2D40	2D63	2U10	2U16	2U20	2U25	2U32
CONSTRUCTION															
	UNITS														
Number of Poles	ul	3													
Trip Class	ul	10													
Over Voltage Category	ul	III													
Pollution Degree	ul	3													
INGRESS PROTECTION															
Main Circuit Terminals		IP20													
Control Circuit Terminals		IP20													
WEIGHT															
	kg	0.32													
	lbs	0.7													
CONDUCTOR SIZE															
UL/CSA	AWG	2 x 14 ~ 10													
Solid	mm²	2 x 1 ~ 2.5													
Stranded	mm²	2 x 1 ~ 2.5													
Fine Stranded	mm²	2 x 1 ~ 2.5													
TERMINAL TORQUE															
	Nm	2 ~ 2.5													
	Lb-in.	17.7 ~ 22.1													
ROHS COMPLIANCE		For RoHS compliance documentation by product, refer to www.c3controls.com													
NOTE: **** Represents the current and power ratings code. Refer to pages 121 & 122.															

NOTE: **** Represents the current and power ratings code. Refer to pages 121 & 122.

TYPE 2 COORDINATION SPECIFICATIONS^①

MOTOR PROTECTION CIRCUIT BREAKER		MAXIMUM SHORT CIRCUIT CURRENT @ 480V	MAXIMUM FUSE OR CIRCUIT BREAKER (AMP) ^②	CONTACTOR ^③
WITH THERMAL AND MAGNETIC TRIP ELEMENTS	WITH MAGNETIC TRIP ELEMENT ONLY			
330-T25S2C16	330-M25S2C16	50kA	450A	300-S09
330-T25S2C25	330-M25S2C25	50kA	450A	300-S09
330-T25S2C40	330-M25S2C40	50kA	450A	300-S09
330-T25S2C63	330-M25S2C63	50kA	450A	300-S09
330-T25S2D10	330-M25S2D10	50kA	450A	300-S09
330-T25S2D16	330-M25S2D16	50kA	450A	300-S09
330-T25S2D25	330-M25S2D25	50kA	450A	300-S09
330-T25S2D40	330-M25S2D40	50kA	450A	300-S09
330-T25S2D63	330-M25S2D63	50kA	450A	300-S09
330-T25S2U10	330-M25S2U10	50kA	450A	300-S09
330-T25S2U16	330-M25S2U16	50kA	450A	300-S12
330-T25S2U20	330-M25S2U20	50kA	450A	300-S18
330-T25S2U25	330-M25S2U25	50kA	450A	300-S25
330-T25S2U32	330-M25S2U32	50kA	450A	300-S32

① Type 2 Coordination requires that, under short-circuit conditions, the contactor or starter shall cause no danger to persons or installation and shall be suitable for further use. The risk of contact welding is recognized, in which case the manufacturer shall indicate the measures to be taken with regard to the maintenance of the equipment.

② Per the National Electrical Code.

③ Minimum size contactor shown. Type 2 Coordination can also be achieved with a larger size contactor. For example: a 300-S12 instead of a 300-S09, or a 300-S18 instead of a 300-S12.

AUXILIARY CONTACTS SPECIFICATIONS

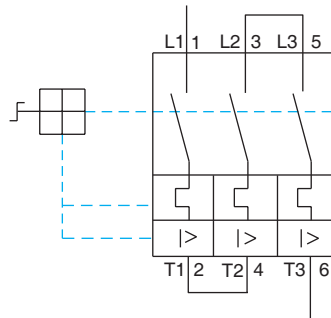
		SIDE MOUNTED AUXILIARY CONTACT 330-SA	FRONT MOUNTED AUXILIARY CONTACT 330-FA
ELECTRICAL GENERAL			
	UNITS		
Minimum Switching Capacity	A	5mA @ 17V	5mA @ 17V
ELECTRICAL UL/CSA APPLICATIONS			
Rated Operating Voltage, Ue	V	600	300
PILOT DUTY RATING		50/60	
AC		A600	C300
DC		Q600	R300
General Use		10A @ 600V	2.5A @ 240V
ELECTRICAL IEC APPLICATIONS			
Rated Insulation Voltage, Ui	V	690	250
Rated Operating Voltage, Ue	V	690	250
RATED AC-15 OPERATING CURRENT, Ie			
24V	A	6	2
230V	A	4	0.5
380-415V	A	3	—
440-500V	A	2	—
RATED DC-13 OPERATING CURRENT, Ie			
24V	A	2	1
60V	A	0.5	0.15
110V	A	0.5	—
220V	A	0.25	—
Short Circuit Protection with Fuses (gG/gL)	A	10	10
CONSTRUCTION			
Over Voltage Category	ul	III	III
Pollution Degree	ul	3	3
INGRESS PROTECTION			
Control Circuit Terminals	ul	IP20	IP20
WEIGHT			
	g	20	38
	oz.	0.71	1.34
CONDUCTOR SIZE			
UL/CSA	AWG	2 x 18 ~ 14	2 x 18 ~ 14
Solid	mm ²	2 x 0.5 ~ 2.5	2 x 0.5 ~ 2.5
Stranded	mm ²	2 x 0.5 ~ 2.5	2 x 0.5 ~ 2.5
Fine Stranded	mm ²	2 x 0.5 ~ 2.5	2 x 0.5 ~ 2.5
Terminal Torque	Nm	1 ~ 1.25	1 ~ 1.25
	Lb-in.	8.9 ~ 11.1	8.9 ~ 11.1

RELEASE MODULES SPECIFICATIONS

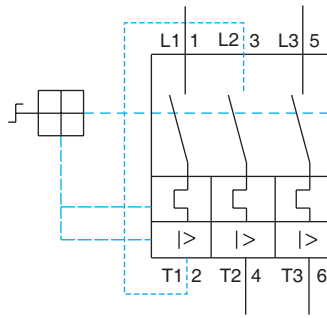
		UNDER VOLTAGE RELEASE MODULES 330-UR	SHUNT RELEASE MODULES 330-SR
ELECTRICAL			
	UNITS		
Rated Operating Voltage, Ue	V	24 ~ 600	24 ~ 440
Operating Range	ul	—	70 ~ 110%
Pick-Up Voltage	ul	85 ~ 110%	—
Drop-Out Voltage	ul	70 ~ 35%	—
POWER CONSUMPTION			
Pick-Up	VA	—	20.2
Sealed	VA	—	7.2
CONSTRUCTION			
INGRESS PROTECTION			
Control Circuit Terminals	ul	IP20	IP20
WEIGHT			
	g	115	115
	oz.	4.1	4.1
CONDUCTOR SIZE			
UL/CSA	AWG	2 x 18 ~ 14	2 x 18 ~ 14
Solid	mm ²	2 x 0.5 ~ 2.5	2 x 0.5 ~ 2.5
Stranded	mm ²	2 x 0.5 ~ 2.5	2 x 0.5 ~ 2.5
Fine Stranded	mm ²	2 x 0.5 ~ 2.5	2 x 0.5 ~ 2.5
Terminal Torque	Nm	1 ~ 1.25	1 ~ 1.25
	Lb-in.	8.9 ~ 11.1	8.9 ~ 11.1

CIRCUIT DIAGRAMS

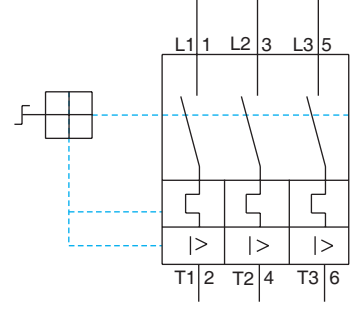
1 PHASE – 1 POLE



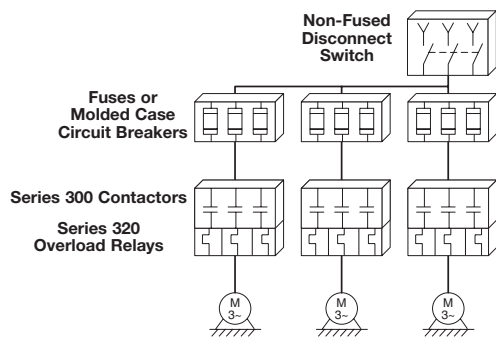
1 PHASE – 2 POLE



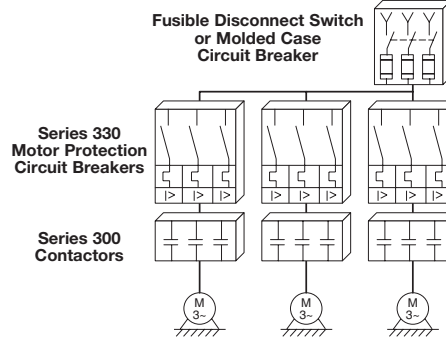
3 PHASE – 3 POLE



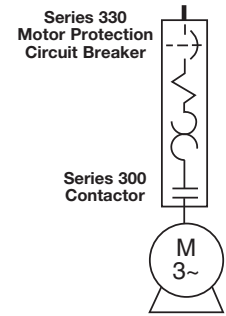
TRADITIONAL MULTI-MOTOR APPLICATION



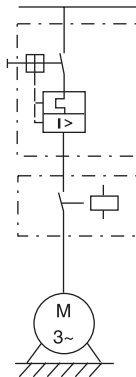
GROUP MOTOR APPLICATION



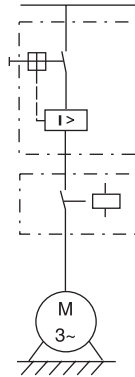
SELF-PROTECTED
MOTOR APPLICATION



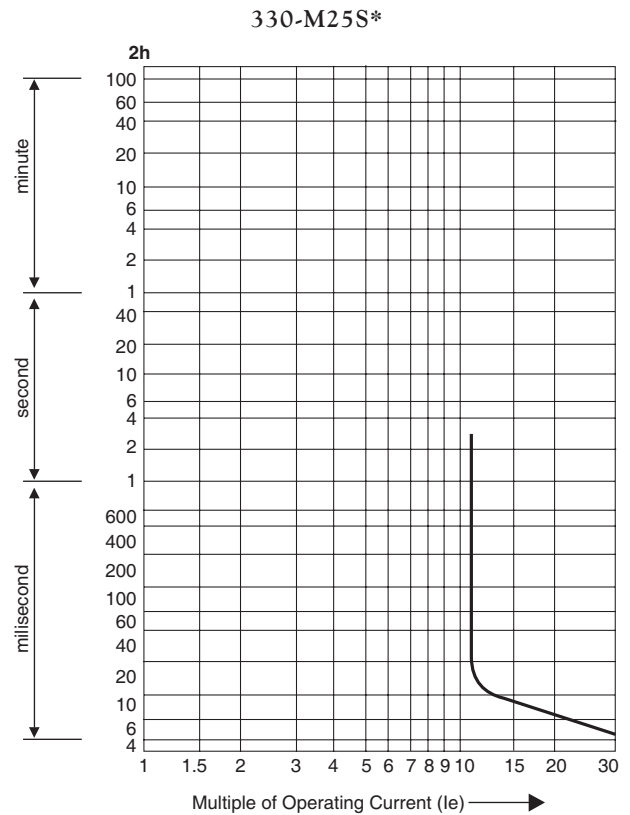
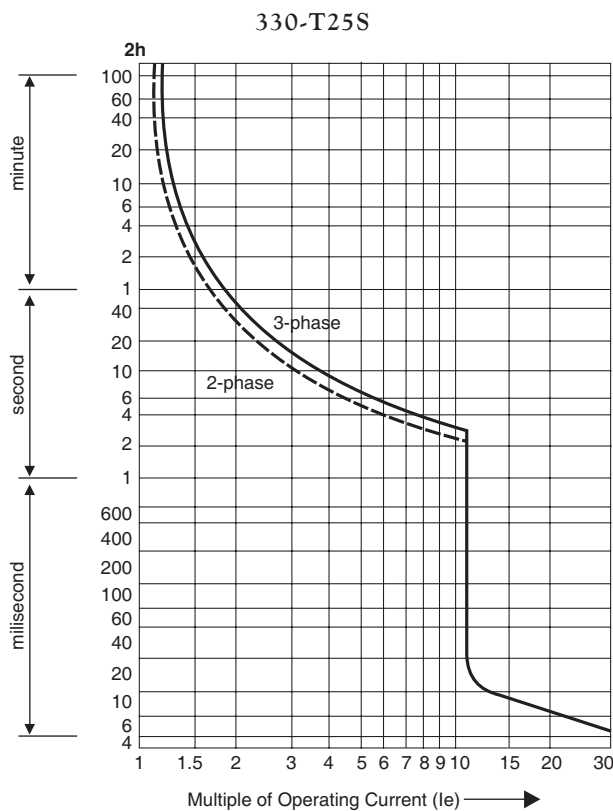
330-T25S & 300-S



330-M25S & 300-S

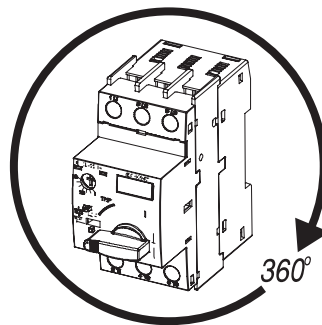


TRIP CHARACTERISTICS

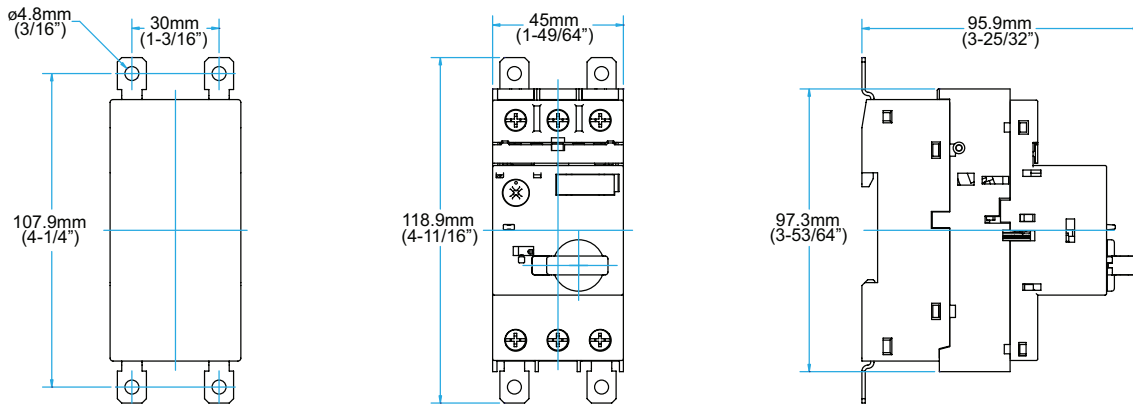


*NOTE: Protection below short circuit rating (12x Full Load Current) is provided by an overload protective device (ex. Series 320 or similar function built into the motor).

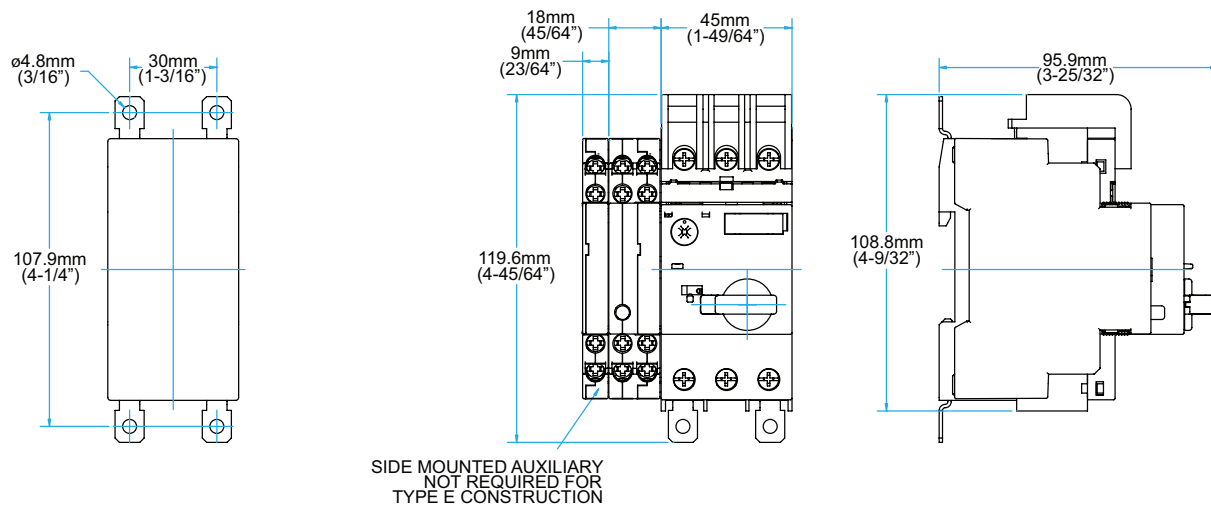
OPERATING POSITION



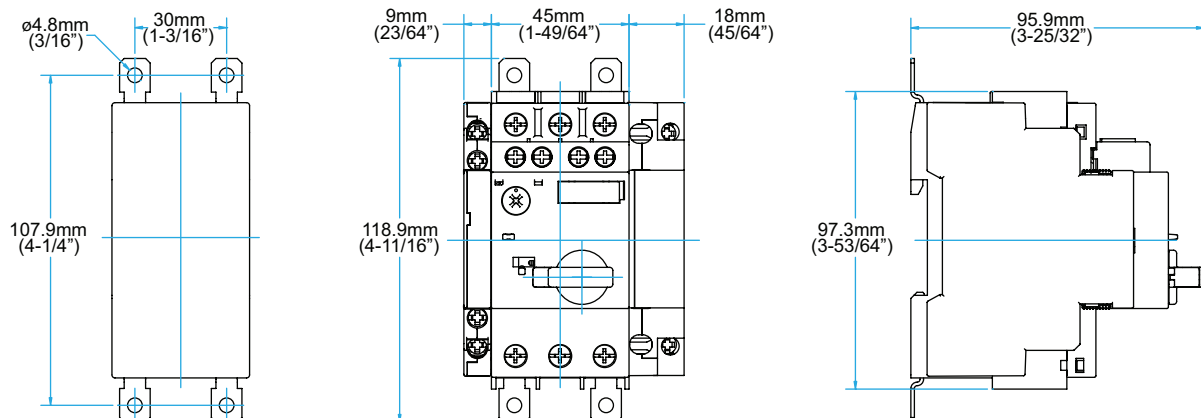
MOTOR PROTECTION CIRCUIT BREAKER



TYPE E CONSTRUCTION - MOTOR PROTECTION CIRCUIT BREAKER

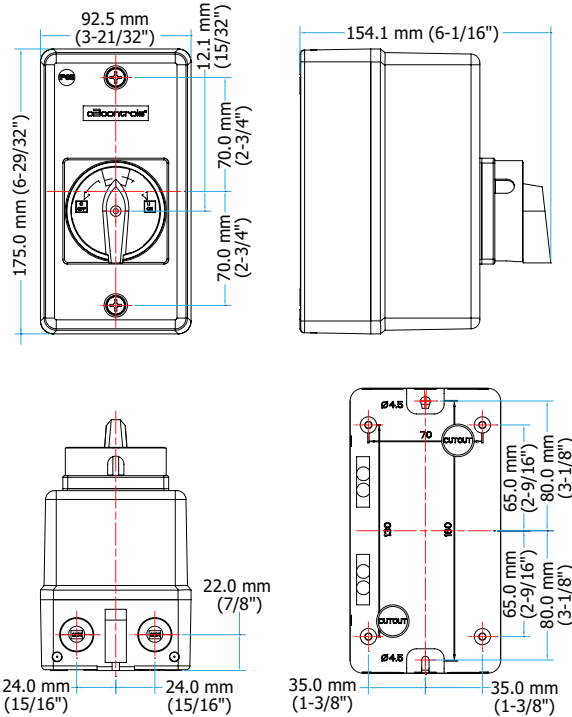


MOTOR PROTECTION CIRCUIT BREAKER WITH SIDE MOUNTED AUXILIARY, FRONT MOUNTED AUXILIARY, SHUNT RELEASE AND UNDERVOLTAGE RELEASE MODULES

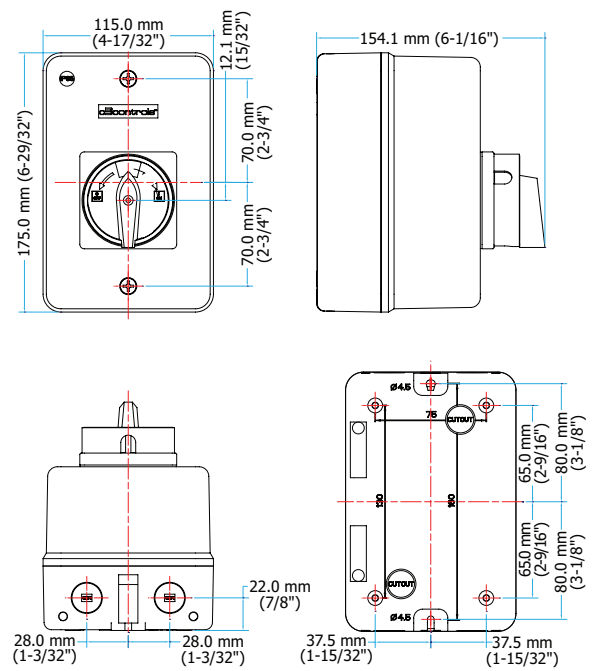


MOTOR PROTECTION CIRCUIT BREAKER ENCLOSURES

FRAME SIZE 1

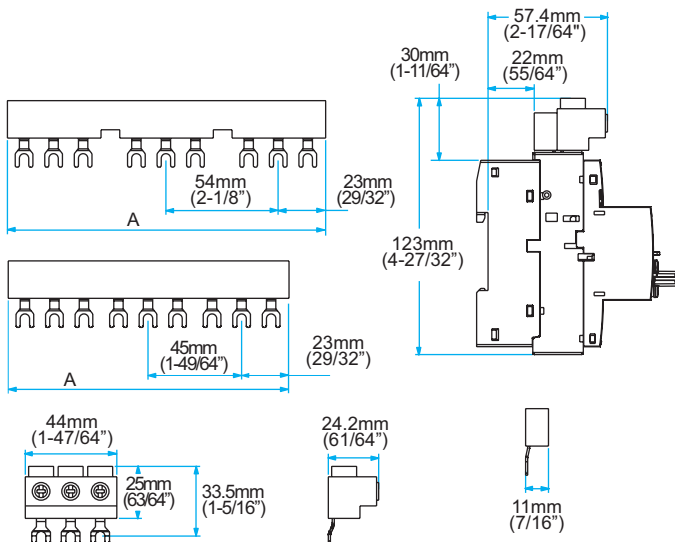


FRAME SIZE 2



COMMONING LINKS AND FEEDER TERMINAL

330-T25S AND 330-M25S WITH COMMONING LINKS (330-CL45*S2 AND 330-CL54*S2) AND FEEDER TERMINAL (330-FT1)



COMMONING LINKS

CODE	FOR USE WITH	A (LENGTH)
45MM SPACING		
330-CL452	2 Motor Protection Circuit Breakers	91mm (3-37/64")
330-CL453	3 Motor Protection Circuit Breakers	136mm (5-23/64")
330-CL454	4 Motor Protection Circuit Breakers	181mm (7-1/8")
330-CL455	5 Motor Protection Circuit Breakers	226mm (8-29/32")
54MM SPACING		
330-CL542	2 Motor Protection Circuit Breakers	100mm (3-15/16")
330-CL543	3 Motor Protection Circuit Breakers	154mm (6-1/16")
330-CL544	4 Motor Protection Circuit Breakers	208mm (8-3/16")
330-CL545	5 Motor Protection Circuit Breakers	262mm (10-5/16")

NOTE: *Represents the code for the number of motor protection circuit breakers. Refer to the chart above or page 128.

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