

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.

IEC MOTOR PROTECTION CIRCUIT BREAKERS

Motor Protection Circuit Breakers with Thermal and Magnetic Trip Elements 78

Motor Protection Circuit Breakers with Magnetic Trip Elements 79

Special Operators 82

Accessories 83

Specifications 86

Circuit Diagrams 90

Trip Characteristics 91

Dimensions 92



NOTE: The scope (range, description, price, specifications, dimensions, etc.) of the product featured in this section is subject to change without notice. Refer to www.c3controls.com for product updates.

Conformity to Standards:

UL 508

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 93/68/EEC)



Visit www.c3controls.com to download product certifications.

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. See page 6 for more detailed directions.

IEC Motor Protection Circuit Breakers with Thermal and Magnetic Trip Elements

330-T25S I II

Example: To build one of our most popular Circuit Breakers, the part number would be **330-T25S + II** or **330-T25S2D16**

NEW
EXPANDED
PRODUCT
OFFERING!



I. MOTOR PROTECTION CIRCUIT BREAKER TYPE

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

Provides overload and short circuit protection.

DISCOUNT
SCHEDULE **C**

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*								PRICE
						3 PHASE kW (50Hz)				3 PHASE HP (60Hz)				
						400V	480V	230V	400/415V	500V	690V	200V	230V	
2C16	0.16	0.1 ~ 0.16	2.1	100	100	—	—	—	0.06	—	—	—	—	\$45.00
2C25	0.25	0.16 ~ 0.25	3.3	100	100	—	0.06	0.06	0.12	—	—	—	—	\$45.00
2C40	0.40	0.25 ~ 0.4	5.2	100	100	—	0.09	0.12	0.18	—	—	—	—	\$45.00
2C63	0.63	0.4 ~ 0.63	8.2	100	100	0.06	0.12	0.25	0.25	—	—	—	1/4	\$45.00
2D10	1.0	0.63 ~ 1.0	13	100	100	0.12	0.25	0.37	0.55	—	—	1/2	1/2	\$45.00
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	\$45.00
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	\$45.00
2D40	4.0	2.5 ~ 4.0	52	100	100	0.75	1.5	2.2	3	3/4	1	2	3	\$45.00
2D63	6.3	4.0 ~ 6.3	82	100	100	1.1	2.2	3	4	1-1/2	1-1/2	3	5	\$45.00
2U10	10	6.3 ~ 10	130	100	42	2.2	4	4	7.5	3	3	7-1/2	10	\$49.00
2U16	16	10 ~ 16	208	50	10	3.7	7.5	9	12.5	5	5	10	15	\$49.00
2U20	20	16 ~ 20	260	50	10	3.7	9	12.5	15	5	7-1/2	15	20	\$49.00
2U25	25	20 ~ 25	325	50	10	5.5	12.5	15	22	7-1/2	7-1/2	15	20	\$58.00
2U32	32	25 ~ 32	416	50	10	7.5	15	18.5	30	10	10	20	25	\$73.00

*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:

IEC MOTOR PROTECTION CIRCUIT BREAKERS WITH THERMAL AND MAGNETIC TRIP ELEMENTS

CATALOG NUMBER	DESCRIPTION	PRICE
330-T25S2D63	6.3A Motor Protection Circuit Breaker with Thermal and Magnetic Trip Elements	\$45.00
330-T25S2U10	10A Motor Protection Circuit Breaker with Thermal and Magnetic Trip Elements	\$49.00
330-T25S2U16	16A Motor Protection Circuit Breaker with Thermal and Magnetic Trip Elements	\$49.00
330-T25S2U20	20A Motor Protection Circuit Breaker with Thermal and Magnetic Trip Elements	\$49.00

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. See page 6 for more detailed directions.

IEC Motor Protection Circuit Breakers with Magnetic Trip Element

330-M25S

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	Motor Protection Circuit Breaker with Magnetic Trip Element

Provides short circuit protection.



II. CURRENT AND POWER RATINGS

CODE	RATED OPERATING CURRENT (A)	MAGNETIC TRIP CURRENT (A)	ULTIMATE INTERRUPTING CURRENT (Icu) (kA)		RATINGS FOR SWITCHING AC MOTORS*								PRICE
					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	—	—	—	—	\$45.00
2C25	0.25	3.3	100	100	—	0.06	0.06	0.12	—	—	—	—	\$45.00
2C40	0.40	5.2	100	100	—	0.09	0.12	0.18	—	—	—	—	\$45.00
2C63	0.63	8.2	100	100	0.06	0.12	0.25	0.25	—	—	—	1/4	\$45.00
2D10	1.0	13	100	100	0.12	0.25	0.37	0.55	—	—	1/2	1/2	\$45.00
2D16	1.6	21	100	100	0.18	0.55	0.75	1.1	1/4	1/3	3/4	1	\$45.00
2D25	2.5	33	100	100	0.37	0.75	1.1	1.5	1/2	1/2	1-1/2	1-1/2	\$45.00
2D40	4.0	52	100	100	0.75	1.5	2.2	3	3/4	1	2	3	\$45.00
2D63	6.3	82	100	100	1.1	2.2	3	4	1-1/2	1-1/2	3	5	\$45.00
2U10	10	130	100	42	2.2	4	4	7.5	3	3	7-1/2	10	\$49.00
2U16	16	208	50	10	3.7	7.5	9	12.5	5	5	10	15	\$49.00
2U20	20	260	50	10	3.7	9	12.5	15	5	7-1/2	15	20	\$49.00
2U25	25	325	50	10	5.5	12.5	15	22	7-1/2	7-1/2	15	20	\$58.00
2U32	32	416	50	10	7.5	15	18.5	30	10	10	20	25	\$73.00

*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:

IEC MOTOR PROTECTION CIRCUIT BREAKERS WITH MAGNETIC TRIP ELEMENT

CATALOG NUMBER	DESCRIPTION	PRICE
330-M25S2D63	6.3A Motor Protection Circuit Breaker with Magnetic Trip Element	\$45.00
330-M25S2U10	10A Motor Protection Circuit Breaker with Magnetic Trip Element	\$49.00
330-M25S2U16	16A Motor Protection Circuit Breaker with Magnetic Trip Element	\$49.00
330-M25S2U20	20A Motor Protection Circuit Breaker with Magnetic Trip Element	\$49.00

IEC 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 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:

- Certified as Manual Motor Controllers Suitable as Motor Disconnects for use in group motor installations in accordance with the NEC (National Electrical Code).
- Listed as a UL508 Type E Self-Protected Combination Manual Motor Controller when accessories trip indicating auxiliary contact and line side terminal barrier are assembled for circuits capable of delivering up to 50kA @ 460V.
- Two versions available – with thermal and magnetic trip elements which provide overload protection 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.
- Trip Class 10 for reliable and accurate protection against overload conditions, 330-T25S only.
- Single phase sensitivity to protect motors against damaging phase loss conditions.
- Designed for optimum performance with Series 300-S09 to 300-S32 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 and a 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.
- 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.
- 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.
- Device identification marker for labeling motor protection circuit breakers simplifies trouble shooting in panels with many devices.
- 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.



IEC MOTOR PROTECTION CIRCUIT BREAKERS

While 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 508 Type E 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 Type E fully assembled as Direct-On-Line (DOL) Starters, refer to pages 106-113 in our Series 630 section.

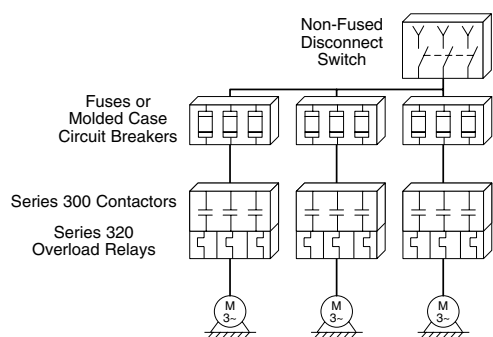


Line Side Terminal Barrier

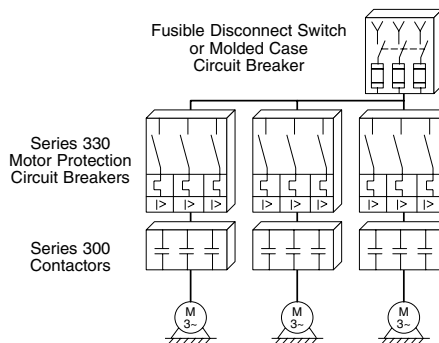


Trip Indicating Auxiliary Contact

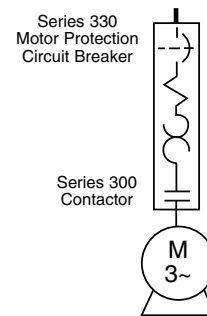
TRADITIONAL MULTI-MOTOR APPLICATION



GROUP MOTOR APPLICATION



TYPE E MOTOR APPLICATION



IT'S EASY TO BUILD YOUR OWN OPERATING HANDLE

Simply pick the code number from each of the sections below and combine them to build your part number. See page 6 for more detailed directions.

Motor Protection Circuit Breaker External Operating Handle

330 - **II** **III** **06**
I II III IV

Example: To build one of our most popular External Operating Handles, the part number would be **330 + II + III + 06** or **330-PHGRY06**



I. PRODUCT FAMILY

CODE	DESCRIPTION	PRICE
330	Motor Protection Circuit Breaker External Operating Handle	\$15.00

Each operating handle includes support bracket and coupling to ensure alignment with the motor protection circuit breaker even in deep enclosures.

II. OPERATING HANDLE TYPE

CODE	DESCRIPTION	PRICE
MPHG	Padlockable Lever (IP65)	\$ 4.50
PHG	Round (Type 1, 2, 3, 3R, 4/4X, 12, 13 and IP65)	\$ 5.25

DISCOUNT
SCHEDULE **C**

III. OPERATING HANDLE COLOR

CODE	OPERATOR COLOR	BELZ COLOR
RY	Red	Yellow
BG	Black	Grey

IV. OPERATING SHAFT LENGTH

CODE	DESCRIPTION	PRICE
06	150mm (5-57/64")	\$ 2.50

UNIQUE PRODUCT FEATURES

c3controls stylish operating handles are easy to install in standard 4-hole panel drilling layouts [36mm x 36mm (1-7/16" x 1-7/16")]. Operating handles can be installed in enclosures with door thicknesses up to 5mm (3/16"). Ingress protection ratings for the most demanding industrial environments: PHG (Type 1, 2, 3, 3R, 4/4X, 12, 13 and IP65) and MPHG (IP65).



NOTE: Motor Protection Circuit Breaker sold separately.



1. Provide reliable actuation of Series 330 Motor Protection Circuit Breakers and Series 630 Direct-On-Line (DOL) Starters from the outside of the enclosure and can be locked OFF for extra safety. Refer to pages 78-79 and 102-103 for our complete selection of Series 330 Motor Protection Circuit Breakers and Series 630 Direct-On-Line (DOL) Starters.
2. Handles can be padlocked OFF with up to three padlocks on our PHG handle, and one padlock on our MPHG handle.
3. Operating handles with ON/OFF and I/O markings.
4. Door interlock — can only be opened in the OFF position.
5. Positive, reliable actuation of our Series 330 Motor Protection Circuit Breaker is ensured through the rigid steel operating shaft that can be cut to length to fit in enclosures up to 265mm (10-3/8") deep.

MIX AND MATCH ANY COLOR AND EXTERNAL OPERATING HANDLE



PHG
[64mm x 64mm
(2-17/32" x 2-17/32")]



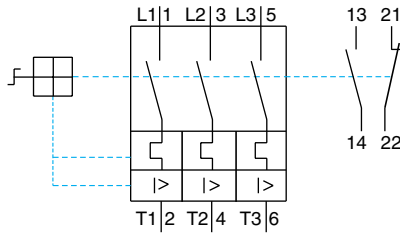
MPHG
[44mm x 44mm
(1-3/4" x 1-3/4")]

SOME OF OUR POPULAR CONFIGURATIONS:

MOTOR PROTECTION CIRCUIT BREAKER EXTERNAL OPERATING HANDLE

CATALOG NUMBER	OPERATING HANDLE TYPE	OPERATING HANDLE COLOR	PRICE
330-PHGRY06	Round	Red/Yellow	\$22.75
330-MPHGRY06	Padlockable Lever	Red/Yellow	\$22.00

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. NOTE: See chart on right for maximum number of front mounted auxiliary contacts.

CODE	CONTACT CONFIGURATION	PRICE
330-FA11S25	1 Normally Open and 1 Normally Closed	\$ 7.00

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.

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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.

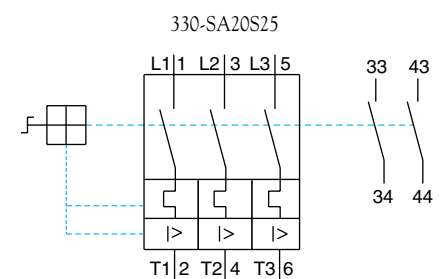
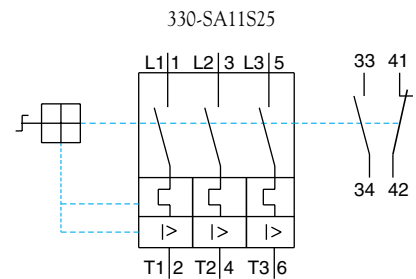
FRAME SIZE 1 (55MM INTERNAL MOUNTING WIDTH)

CODE	DESCRIPTION	PRICE
330-BABS1RY	Motor Protection Circuit Breaker Enclosure with ABS Plastic and Red/Yellow Handle	\$21.00
330-BABS1BG	Motor Protection Circuit Breaker Enclosure with ABS Plastic and Black/Grey Handle	\$21.00

FRAME SIZE 2 (65MM INTERNAL MOUNTING WIDTH)

330-BABS2RY	Motor Protection Circuit Breaker Enclosure with ABS Plastic and Red/Yellow Handle	\$26.00
330-BABS2BG	Motor Protection Circuit Breaker Enclosure with ABS Plastic and Black/Grey Handle	\$26.00

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. NOTE: See chart below for maximum number of side mounted auxiliary contacts.

CODE	CONTACT CONFIGURATION	PRICE
330-SA11S25	1 Normally Open and 1 Normally Closed	\$ 7.00
330-SA20S25	2 Normally Open	\$ 7.00

MAXIMUM NUMBER OF FRONT OR SIDE MOUNTED AUXILIARY CONTACTS

MOTOR PROTECTION CIRCUIT BREAKER	MAXIMUM NUMBER
330-T25S2, 330-M25S2	8 (one front mounted auxiliary contact module, one side mounted auxiliary contact module, and one side mounted trip indicating auxiliary contact module.)

MOUNTING FOOT KIT

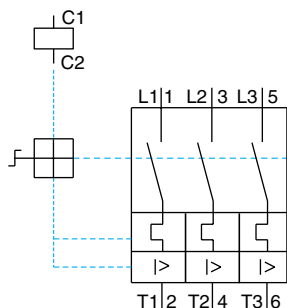


The mounting foot kit enables motor protection circuit breakers to be panel mounted instead of installed on a 35mm DIN rail.

CODE	DESCRIPTION	PRICE/PC.
330-MF1	Mounting Foot Kit (2 per pkg.)	\$ 0.50

DISCOUNT
SCHEDULE **C**

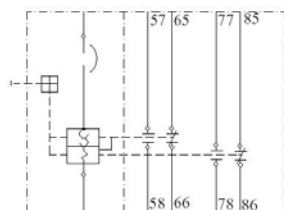
SHUNT RELEASE MODULES



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	PRICE
330-SR25XC	20 ~ 24V 50/60Hz	\$16.50
330-SR25XJ	40 ~ 48V 50/60Hz	\$16.50
330-SR25XAH	100 ~ 127V 50/60Hz	\$16.50
330-SRXF	200 ~ 240V 50/60Hz	\$16.50
330-SRXQ	365 ~ 440V 50/60Hz	\$16.50

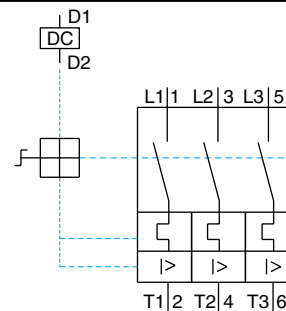
TRIP INDICATING AUXILIARY CONTACTS



The trip indicating auxiliary contact module includes 1 NO and 1 NC Overload Contacts and 1 NO and 1 NC Short Circuit Contacts. When an overload trip occurs the 1 NO and 1 NC Overload Contacts change state. When a short circuit trip occurs, the 1 NO and 1 NC Overload Contacts and 1 NO and 1 NC 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	PRICE
330-STA22S25	Left Side Mounted Trip Indicating Auxiliary Contact (1 NO and 1 NC overload and 1 NO and 1 NC short circuit)	\$19.00

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 and 60Hz operating voltages. Can be used in conjunction with front mounted and side mounted auxiliary contacts.

CODE	VOLTAGE RANGE	PRICE
330-UR25C	20V 50Hz / 24V 60Hz	\$16.50
330-UR25XC	24V 50/60Hz	\$16.50
330-UR25H	24V 50Hz / 28V 60Hz	\$16.50
330-UR25AG	95V 50Hz / 110V 60Hz	\$16.50
330-UR25D	110V 50Hz / 120V 60Hz	\$16.50
330-UR25AH	110 ~ 115V 50Hz / 127V 60Hz	\$16.50
330-UR25L	180V 50Hz / 208V 60Hz	\$16.50
330-UR25AJ	190V 50Hz / 220V 60Hz	\$16.50
330-UR25F	208V 50Hz / 240V 60Hz	\$16.50
330-UR25P	230 ~ 240V 50Hz / 277V 60Hz	\$16.50
330-UR25AL	325V 50Hz / 380V 60Hz	\$16.50
330-UR25Q	380V 50Hz / 440V 60Hz	\$16.50
330-UR25R	400 ~ 415V 50Hz / 480V 60Hz	\$16.50
330-UR25T	500V 50Hz / 600V 60Hz	\$16.50

LINE SIDE TERMINAL BARRIER

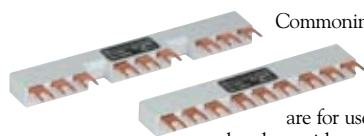


The line side terminal barrier provides increased electrical clearances to comply with the UL 508 Self-Protected Combination Motor Controller (Type E) requirements. The terminal barrier can be field installed on Series 330-T25S and 330-M25S Motor Protection Circuit Breakers. NOTE: The Line Side Terminal Barrier and the Trip Indicating Auxiliary Contact are required to achieve Type E construction with a Series 330-T25S device.

CODE	DESCRIPTION	PRICE
330-LSTBS25	Line Side Terminal Barrier	\$18.00

DISCOUNT
SCHEDULE **C**

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-FT1 Feeder Module.

CODE	FOR USE WITH	CONTINUOUS CURRENT RATING	LENGTH	PRICE
45MM SPACING				
330-CL452	2 Motor Protection Circuit Breakers	63A	91mm	\$11.25
330-CL453	3 Motor Protection Circuit Breakers	63A	136mm	\$13.25
330-CL454	4 Motor Protection Circuit Breakers	63A	181mm	\$15.00
330-CL455	5 Motor Protection Circuit Breakers	63A	226mm	\$16.00
54MM SPACING				
330-CL542	2 Motor Protection Circuit Breakers	63A	100mm	\$11.75
330-CL543	3 Motor Protection Circuit Breakers	63A	154mm	\$13.50
330-CL544	4 Motor Protection Circuit Breakers	63A	208mm	\$16.00
330-CL545	5 Motor Protection Circuit Breakers	63A	262mm	\$17.00

STARTER ASSEMBLY MOUNTING PLATES

Starter assembly mounting plates provide a simple means of assembling Series 330 Motor Protection Circuit Breakers and Series 300 Contactors on a mounting plate, enabling the assembly to be installed on a single 35mm DIN rail. The mounting plate can also be secured to a panel with screws for high shock and vibration applications. The mounting plates feature integral fixed and sliding DIN rails to make starter assembly fast and easy. Three different mounting plates are available for direct-on-line starters, reversing starters, two-speed starters, and wye-delta starters.



CODE	DESCRIPTION	WIDTH	PRICE
330-MA451	Mounting Plate for Direct-On-Line Starters	45mm (1-49/64")	\$13.00
330-MA901	Mounting Plate for Reversing Starters	90mm (3-35/64")	\$18.00
330-MA902	Mounting Plate for Two-Speed and Wye-Delta Starters	90mm (3-35/64")	\$22.00

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	PRICE
330-CLS	Shroud	\$ 3.50

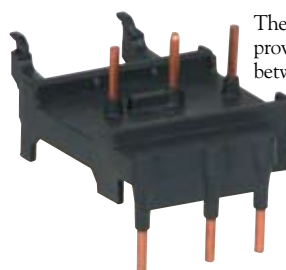
FEEDER TERMINAL



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. Accepts 6 ~ 25mm² (#10 ~ #4 AWG) conductors. Continuous current rating: 63A.

CODE	DESCRIPTION	PRICE
330-FT1	Feeder Terminal	\$13.00

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	PRICE
330-CM16	Series 300-M07 to 300-M16 AC or DC Operated Contactors	\$ 8.50
330-CM25	Series 300-S09 to 300-S25 AC Operated Contactors	\$ 8.50
330-CM40	Series 300-S32 to 300-S40 AC Operated Contactors	\$ 8.50

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	PRICE/PC.
330-SC1	Adjustment Scale Cover (5 per pkg.)	\$ 1.75



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	0.1 ~ 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
Rated Operating Frequency	Hz	50/60													
Heat Dissipation	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															
Rated Operating Voltage, Ue	VAC	600													
RATED 1 PHASE OPERATING POWER, P_e															
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, P_e															
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 CURRENT②															
@ 480V	kA	50	50	50	50	50	50	50	50	50	50	50	50	50	42
@ 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 CURRENT②															
@ 480V	kA	50	50	50	50	50	50	50	50	50	50	50	50	50	42
Maximum Fuse③	A	250	250	250	250	250	250	250	250	250	250	250	250	250	250
@ 600V	kA	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maximum Fuse③	A	250	250	250	250	250	250	250	250	250	250	250	250	250	250
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	42
Maximum Fuse or Circuit Breaker③	A	125	125	125	125	125	125	125	125	125	125	160	250	250	250
@ 600V	kA	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Maximum Fuse or Circuit Breaker③	A	125	125	125	125	125	125	125	125	125	125	160	250	250	250

① 330-T25S only.

② When protected by Class J fuses.

③ Not to exceed the maximum fuse/circuit breaker size. Per the National Electrical Code.

ELECTRICAL SPECIFICATIONS

		CAT. NO. 330-T25S**** AND 330-M25S****													
		2C16	2C25	2C40	2C63	2D10	2D16	2D25	2D40	2D63	2U10	2U16	2U20	2U25	2U32
ELECTRICAL IEC APPLICATIONS															
	UNITS														
Rated Insulation Voltage, Ui	V	690													
Rated Impulse Voltage, Uimp	kV	6													
Rated Operating Voltage, Ue	VAC	690													
RATED 3 PHASE AC-3 OPERATING POWER, Pe															
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, Icu															
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, Ics															
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^④															
230V	A	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤
400/415V	A	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	100	125	125	125
400V	A	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	80	80	80	100	100
500V	A	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	63	80	80	80	80
690V	A	⑤	⑤	⑤	⑤	⑤	⑤	25	32	50	50	63	63	63	63
MECHANICAL															
Mechanical Life	Ops.	100,000													
ENVIRONMENTAL															
Ambient Operating Temperature		-20 ~ 60° C (-4 to 140° F)													
Ambient Storage Temperature		-50 ~ 80° C (58 to 176° F)													
Altitude		2,000m/6,562ft.													
Shock	g	15													

④ Back-up fuse required only if Icc > Icu.

⑤ No back-up fuse required.

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														
Over Voltage Category	—	III													
Pollution Degree	—	3													
INGRESS PROTECTION															
Main Terminals		IP20													
WEIGHT	kg	330-T25S: 0.322 330-M25S: 0.320													
	lbs	330-T25S: 0.71 330-M25S: 0.70													
CONDUCTOR CROSS SECTION															
Solid Wire	mm ²	1 x 1.5 ~ 6 or 2 x 1.5 ~ 6													
Stranded Wire	mm ²	2 x 1.5 ~ 6													
Solid or Stranded Wire	AWG	2 x 14 ~ 10													
TIGHTENING TORQUE	Nm	2 ~ 2.5													
	Lb-in.	17.7 ~ 22.1													
ROHS COMPLIANCE		For RoHS compliance documentation by product, refer to www.c3controls.com													

TYPE 2 COORDINATION SPECIFICATIONS^①

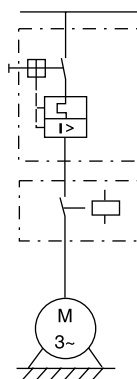
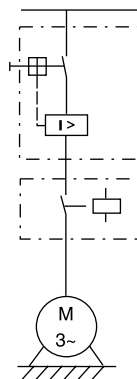
MOTOR PROTECTION CIRCUIT BREAKER		MAXIMUM SHORT CIRCUIT CURRENT @ 480V	MAXIMUM FUSE OR CIRCUIT BREAKER (AMP) ^②	CONTACTOR ^③
WITH THERMAL AND MAGNETIC TRIP ELEMENTS	WITH MAGNETIC TRIP ELEMENT ONLY			
330-T25S2C16	330-M25S2C16	50kA	125	300-S09
330-T25S2C25	330-M25S2C25	50kA	125	300-S09
330-T25S2C40	330-M25S2C40	50kA	125	300-S09
330-T25S2C63	330-M25S2C63	50kA	125	300-S09
330-T25S2D10	330-M25S2D10	50kA	125	300-S09
330-T25S2D16	330-M25S2D16	50kA	125	300-S09
330-T25S2D25	330-M25S2D25	50kA	125	300-S09
330-T25S2D40	330-M25S2D40	50kA	125	300-S09
330-T25S2D63	330-M25S2D63	50kA	125	300-S09
330-T25S2U10	330-M25S2U10	50kA	125	300-S09
330-T25S2U16	330-M25S2U16	50kA	160	300-S12
330-T25S2U20	330-M25S2U20	50kA	250	300-S18
330-T25S2U25	330-M25S2U25	50kA	250	300-S25
330-T25S2U32	330-M25S2U32	42kA	250	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.

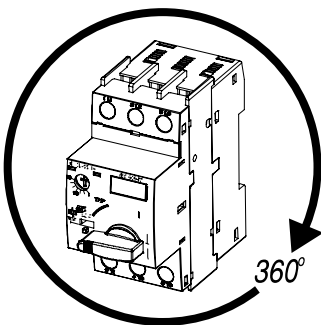
③ Minimum size contactor shown. Type 2 Coordination can also be achieved with a larger size contactor. For example: a 300-S12 instead of a 300-S09, or a 300-S18 instead of a 300-S12.

330-T25S & 300-S

330-M25S & 300-S


AUXILIARY CONTACTS SPECIFICATIONS

		SIDE MOUNTED AUXILIARY CONTACT	FRONT MOUNTED AUXILIARY CONTACT
		330-SA	330-FA
ELECTRICAL GENERAL			
	UNITS		
Minimum Switching Capacity		5mA @ 17V	5mA @ 17V
ELECTRICAL UL/CSA APPLICATIONS			
Rated Operating Voltage, Ue	V	600	300
PILOT DUTY RATING			
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	0.15
60V	A	0.5	—
110V	A	0.5	—
220V	A	0.25	—
Short Circuit Protection with Fuses (gG/gL)	A	10	10
CONSTRUCTION			
Over Voltage Category		III	III
Pollution Degree		3	3
INGRESS PROTECTION			
Control Circuit Terminals		IP20	IP20
WEIGHT			
	g	20	38
	oz.	0.71	1.34
CONDUCTOR CROSS SECTION			
Solid Wire	mm ²	1 x 0.5 ~ 2.5 or 2 x 0.5 ~ 2.5	1 x 0.5 ~ 2.5 or 2 x 0.5 ~ 2.5
Stranded Wire	mm ²	1 x 0.5 ~ 2.5 or 2 x 0.5 ~ 2.5	1 x 0.5 ~ 2.5 or 2 x 0.5 ~ 2.5
Solid or Stranded Wire	AWG	1 x 18 ~ 14 or 2 x 18 ~ 14	1 x 18 ~ 14 or 2 x 18 ~ 14
TIGHTENING TORQUE			
	Nm	1 ~ 1.25	1 ~ 1.25
	Lb-in.	8.9 ~ 11.1	8.9 ~ 11.1
ROHS COMPLIANCE		For RoHS compliance documentation by product, refer to www.c3controls.com	

OPERATING POSITION



RELEASE MODULES SPECIFICATIONS
UNDERVOLTAGE RELEASE MODULES
330-UR
ELECTRICAL

	UNITS
Rated Operating Voltage, Ue	V
Pick-Up Voltage	—
Drop-Out Voltage	—

24 ~ 600

85 ~ 110%

70 ~ 35%

CONSTRUCTION
INGRESS PROTECTION

Control Circuit Terminals	
---------------------------	--

IP20

WEIGHT

	g
--	---

115

	oz.
--	-----

4.1

CONDUCTOR CROSS SECTION

Solid Wire	mm ²
------------	-----------------

1 x 0.5 ~ 2.5 or 2 x 0.5 ~ 2.5

Stranded Wire	mm ²
---------------	-----------------

1 x 0.5 ~ 2.5 or 2 x 0.5 ~ 2.5

Solid or Stranded Wire	AWG
------------------------	-----

1 x 18 ~ 14 or 2 x 18 ~ 14

TIGHTENING TORQUE

	Nm
--	----

1 ~ 1.25

	Lb-in.
--	--------

8.9 ~ 11.1

ROHS COMPLIANCE

For RoHS compliance documentation by product, refer to www.c3controls.com
SHUNT RELEASE MODULES
330-SR
ELECTRICAL

Rated Operating Voltage, Ue	V
-----------------------------	---

24 ~ 600

Operating Range	—
-----------------	---

70 ~ 110%

POWER CONSUMPTION

Pick-Up	VA
---------	----

20.2

Sealed	VA
--------	----

7.2

CONSTRUCTION
INGRESS PROTECTION

Control Circuit Terminals	
---------------------------	--

IP20

WEIGHT

	g
--	---

115

	oz.
--	-----

4.1

CONDUCTOR CROSS SECTION

Solid Wire	mm ²
------------	-----------------

1 x 0.5 ~ 2.5 or 2 x 0.5 ~ 2.5

Stranded Wire	mm ²
---------------	-----------------

1 x 0.5 ~ 2.5 or 2 x 0.5 ~ 2.5

Solid or Stranded Wire	AWG
------------------------	-----

1 x 18 ~ 14 or 2 x 18 ~ 14

TIGHTENING TORQUE

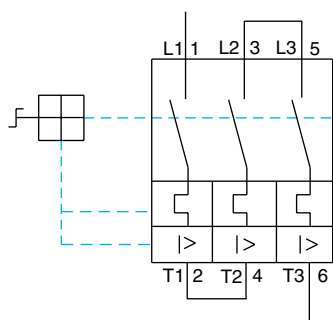
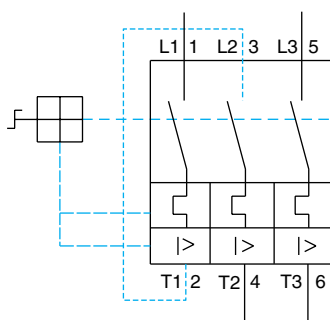
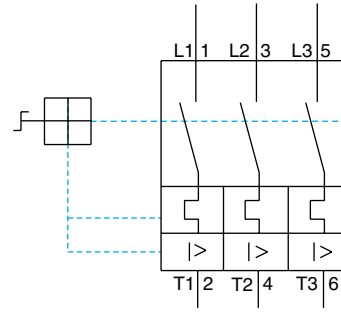
	Nm
--	----

1 ~ 1.25

	Lb-in.
--	--------

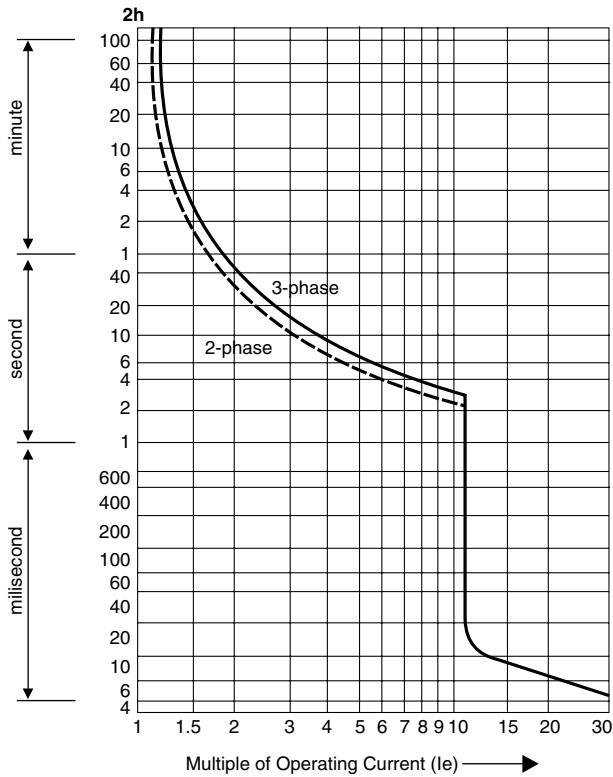
8.9 ~ 11.1

ROHS COMPLIANCE

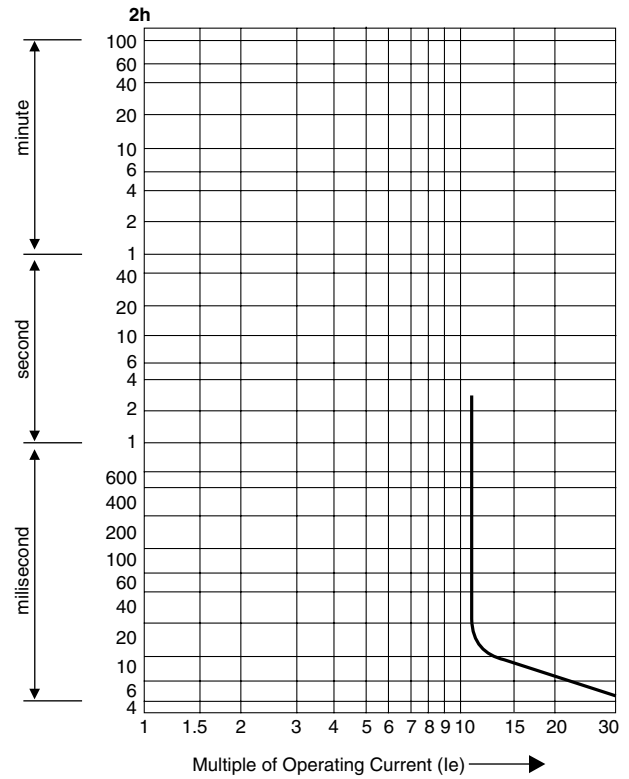
For RoHS compliance documentation by product, refer to www.c3controls.com
CIRCUIT DIAGRAMS
1 PHASE – 1 POLE

1 PHASE – 2 POLE

3 PHASE – 3 POLE


TRIP CHARACTERISTICS

330-T25S



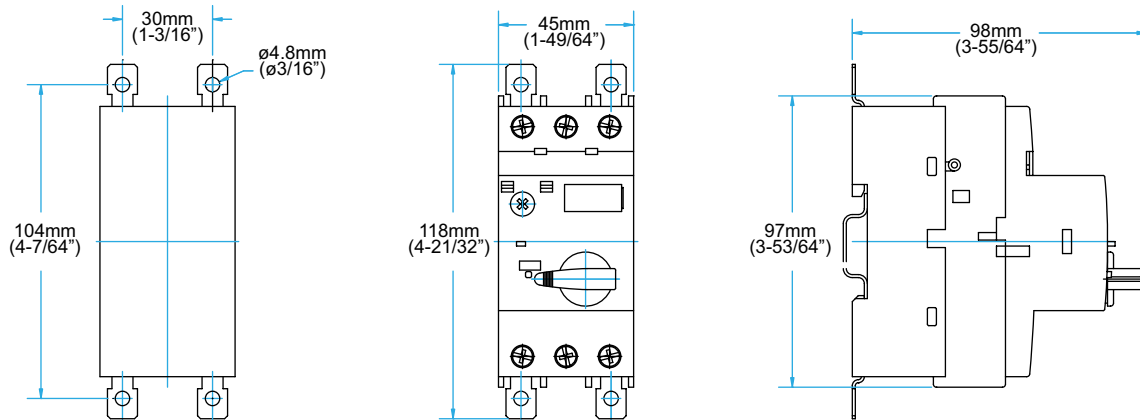
330-M25S*



*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).

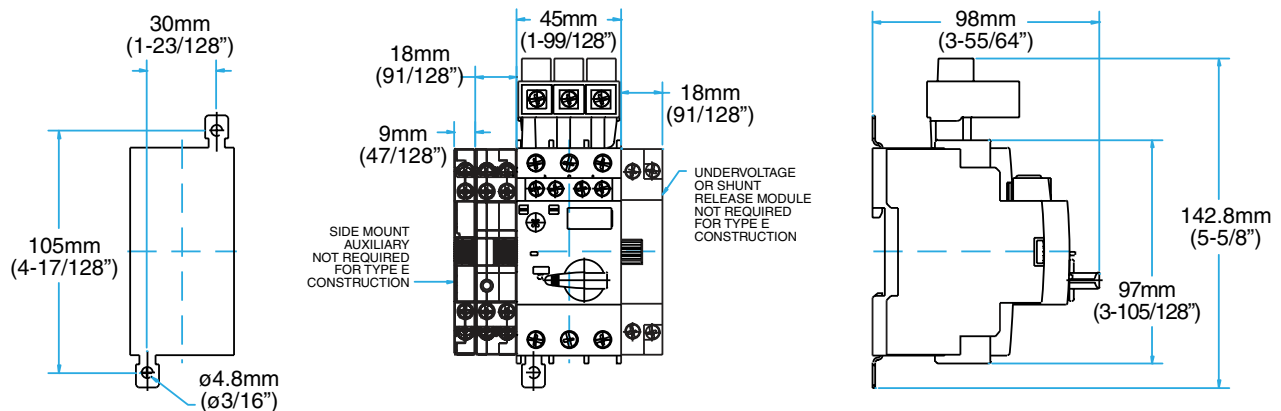
MOTOR PROTECTION CIRCUIT BREAKER

330-T25S OR 330-M25S



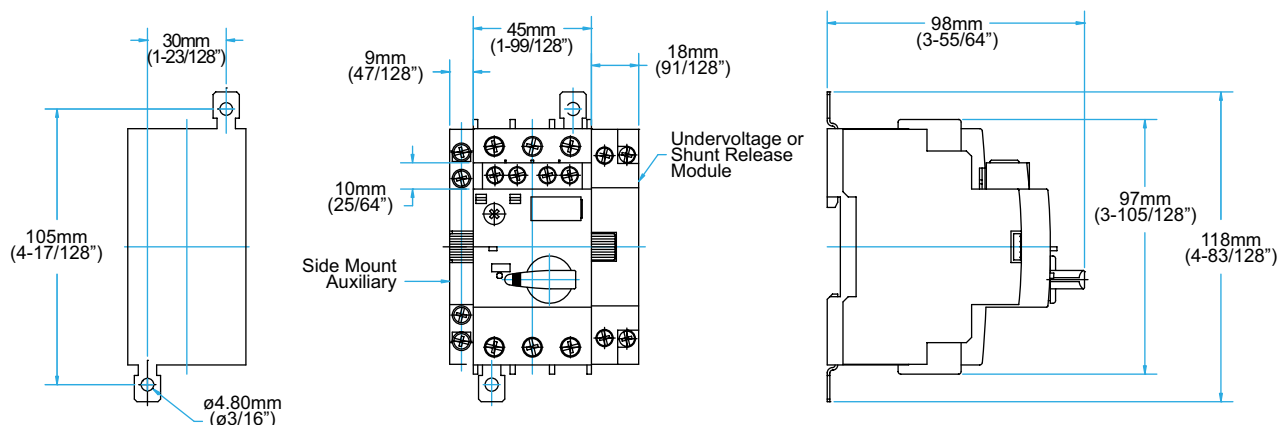
***MOTOR PROTECTION CIRCUIT BREAKER —
TYPE E CONSTRUCTION***

330-T25S WITH LINE SIDE TERMINAL BARRIER AND TRIP INDICATING AUXILIARY CONTACT



***MOTOR PROTECTION CIRCUIT BREAKER W/ AUXILIARY CONTACTS,
SHUNT RELEASE, UNDERVOLTAGE RELEASE AND MOUNTING FOOT KIT***

330-T25S OR 330-M25S WITH AUXILIARY CONTACTS, SHUNT RELEASE, UNDERVOLTAGE RELEASE AND MOUNTING FOOT KIT

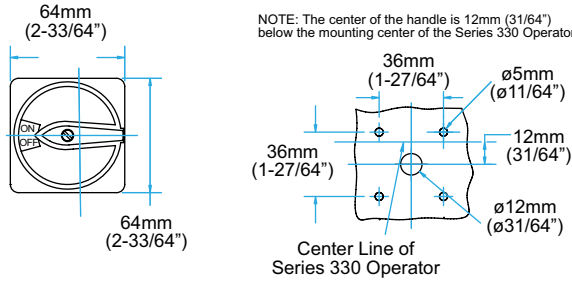


EXTERNAL OPERATING HANDLES

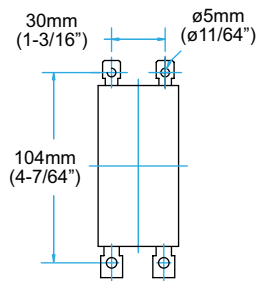
SERIES PHG

PANEL LAYOUT

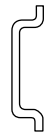
NOTE: The center of the handle is 12mm (31/64") below the mounting center of the Series 330 Operator.



PANEL MOUNTING



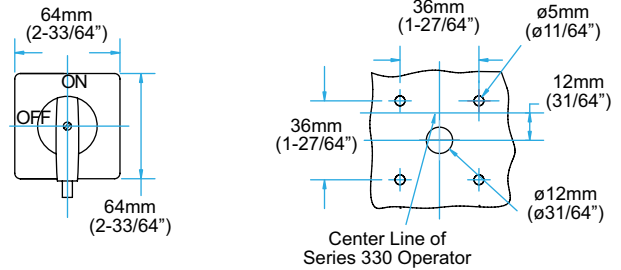
35mm DIN RAIL MOUNTING



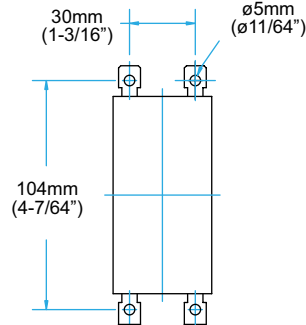
SERIES MPHG

PANEL LAYOUT

NOTE: The center of the handle is 12mm (31/64") below the mounting center of the Series 330 Operator.



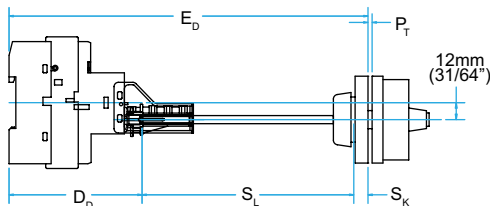
PANEL MOUNTING



35mm DIN RAIL MOUNTING



SHAFT CUTTING INSTRUCTIONS



E_D = Enclosure Depth
 P_T = Panel Thickness
 D_D = Device Depth
 S_L = Shaft Length
 S_K = Shaft Constant = 8.4mm (1/3")

$$S_L = E_D - D_D - 8.4\text{mm (21/64")}$$

Minimum Panel Thickness (P_T) = 1mm (3/64")

Maximum Panel Thickness (P_T) = 4mm (5/32")

Minimum Enclosure Depth (E_D) = 58mm (2-9/32") + 8.4mm (21/64") + D_D

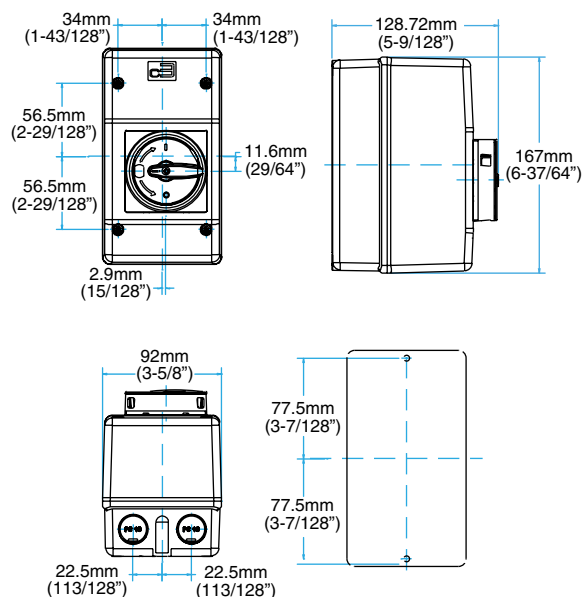
Maximum Enclosure Depth (E_D) = 158mm (6-7/32") + 8.4mm (21/64") + D_D

*NOTE: Subtract an additional 2.3mm (3/32") when mounting the motor protection circuit breaker onto a DIN rail.

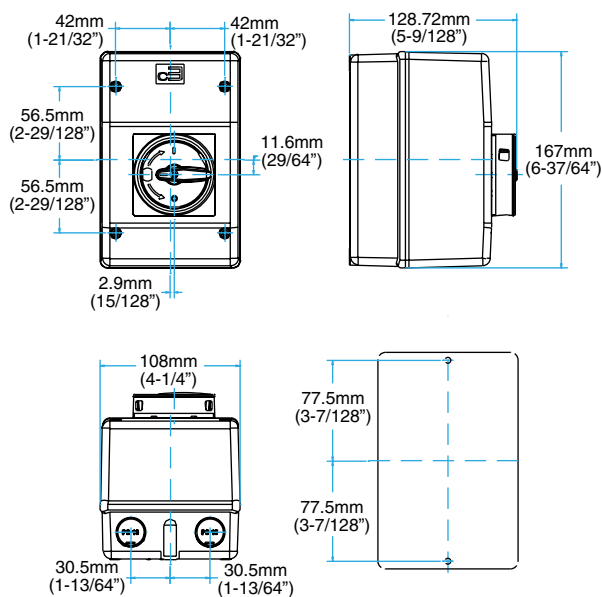
**VISIT WWW.C3CONTROLS.COM
TO DOWNLOAD CAD DRAWINGS**

MOTOR PROTECTION CIRCUIT BREAKER ENCLOSURES

FRAME SIZE 1

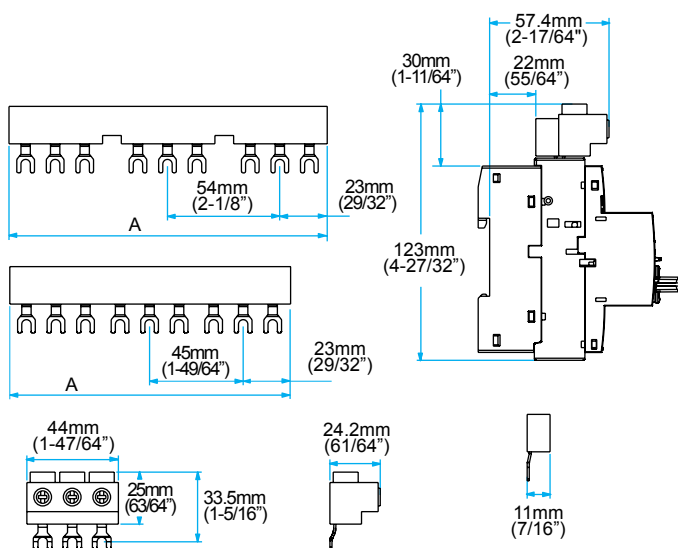


FRAME SIZE 2



COMMONING LINKS AND FEEDER TERMINAL

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



CODE	A
330-CL452	91mm (3-37/64")
330-CL453	136mm (5-23/64")
330-CL454	181mm (7-1/8")
330-CL455	226mm (8-29/32")
330-CL542	100mm (3-15/16")
330-CL543	154mm (6-1/16")
330-CL544	208mm (8-3/16")
330-CL545	262mm (10-5/16")