

When you need reliable overload and short circuit protection for your motor control application, look to c3controls. Our Series E330 Enclosed Motor Protection Circuit Breakers are ideal for use in multi-motor applications providing space, labor, and cost savings. The ABS plastic enclosure is rated IP55 and is CE certified, making them suitable for use anywhere in the world.

PROTECTION

Enclosed IEC 96 Motor Protection Circuit Breakers

> 98 Accessories

Specifications 99

Dimensions 100

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:

Series 330 - Motor Protection Circuit Breakers UL 508

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

Series E330 - Enclosures IEC 60529

Directive 2006/95/EC and 93/68/EEC)

CE

CE Marked (per EU Low Voltage

CE Marked (per EU Low Voltage Directive 2006/95/EC and 93/68/EEC)

Visit www.c3controls.com to download product certifications.

Certifications:

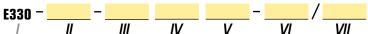
UL File #: E187641 (Guide NLRV, NLRV7), E312106 (Guide NKJH, NKJH7)



<u>IT'S EASY TO BUILD YOUR OWN ENCLOSED MOTOR PROTECTION CIRCUIT BREAKER</u>

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.

Enclosed IEC Motor Protection Circuit Breakers



Example: To build one of our most popular Enclosed IEC MPCBs, the part number would be E330 + II + III + E + V + F11 + VII or E330-T2U10-ABS1ERY-F11





| I. OPERATOR TYPE | |
|------------------|-------------|
| DESCRIPTION | PRICE |
| Series 330 | \$ 6.00 |
| | DESCRIPTION |

| _ | | _ | _ |
|---|----------|---|---|
| | DISCOUNT | r | |
| | SCHEDULE | L | |
| | | _ | |

| | II | . MOTOR I | PROTECT | ION CIR | CUIT BI | REAK | ERS (TH | ERM | AL A | ND N | AGNE | TIC T | RIP EL | LEMENTS) | |
|-------|---------------------------|---------------------|-----------------------------|---------|------------------------------|------|---------------------|------|------|-------|------------------|------------------|--------|----------------------------------|---------|
| | RATED OPER. CURRENT | ADJUSTMENT RANGE | MAGNETIC TRIP CURRENT | INTERR | MATE Upting (Icu) (ka) | | RATIN 3 PHASE KV | | | | AC MOT 3 Phas | ORS* E HP (60 | lHz) | MOTOR PROTECTION CIRCUIT BREAKER | |
| CODE | (A) | (A) | (A) | 400V | 480V | 230V | 400/415V | 500V | 690V | 200V | 230V | 460V | 575V | CAT. NO. | PRICE |
| T2C16 | 0.16 | 0.1 ~ 0.16 | 2.1 | 100 | 100 | | _ | _ | 0.06 | _ | _ | _ | _ | 330-T25S2C16 | \$45.00 |
| T2C25 | 0.25 | 0.16 ~ 0.25 | 3.3 | 100 | 100 | | 0.06 | 0.06 | 0.12 | _ | _ | | _ | 330-T25S2C25 | \$45.00 |
| T2C40 | 0.40 | 0.25 ~ 0.4 | 5.2 | 100 | 100 | _ | 0.09 | 0.12 | 0.18 | _ | _ | _ | | 330-T25S2C40 | \$45.00 |
| T2C63 | 0.63 | 0.4 ~ 0.63 | 8.2 | 100 | 100 | 0.06 | 0.12 | 0.25 | 0.25 | _ | _ | | 1/4 | 330-T25S2C63 | \$45.00 |
| T2D10 | 1.0 | 0.63 ~ 1.0 | 13 | 100 | 100 | 0.12 | 0.25 | 0.37 | 0.55 | _ | _ | 1/2 | 1/2 | 330-T25S2D10 | \$45.00 |
| T2D16 | 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 | \$45.00 |
| T2D25 | 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 | \$45.00 |
| T2D40 | 4.0 | 2.5 ~ 4.0 | 52 | 100 | 100 | 0.75 | 1.5 | 2.2 | 3 | 3/4 | 1 | 2 | 3 | 330-T25S2D40 | \$45.00 |
| T2D63 | 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 | \$45.00 |
| T2U10 | 10 | 6.3 ~ 10 | 130 | 100 | 42 | 2.2 | 4 | 4 | 7.5 | 3 | 3 | 7-1/2 | 10 | 330-T25S2U10 | \$49.00 |
| T2U16 | 16 | 10 ~ 16 | 208 | 50 | 10 | 3.7 | 7.5 | 9 | 12.5 | 5 | 5 | 10 | 15 | 330-T25S2U16 | \$49.00 |
| T2U20 | 20 | 16 ~ 20 | 260 | 50 | 10 | 3.7 | 9 | 12.5 | 15 | 5 | 7-1/2 | 15 | 20 | 330-T25S2U20 | \$49.00 |
| T2U25 | 25 | 20 ~ 25 | 325 | 50 | 10 | 5.5 | 12.5 | 15 | 22 | 7-1/2 | 7-1/2 | 15 | 20 | 330-T25S2U25 | \$58.00 |
| T2U32 | 32 | 25 ~ 32 | 416 | 50 | 10 | 7.5 | 15 | 18.5 | 30 | 10 | 10 | 20 | 25 | 330-T25S2U32 | \$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.

| III. ENCLOSURE TYPE | | | | | | | | | | |
|---------------------|-------------|----------------|-----------|---------|--|--|--|--|--|--|
| CODE | DESCRIPTION | DIMENSION REF. | CAT. NO. | PRICE | | | | | | |
| ABS1 | ABS Plastic | 1 | 330-BABS1 | \$21.00 | | | | | | |
| ABS2 | ABS Plastic | 2 | 330-BABS2 | \$26.00 | | | | | | |

| IV. OPERATING HANDLE TYPE | | | | | | | | |
|---------------------------|--------------------|----------------|--------------|--|--|--|--|--|
| CODE | FOR ENCLOSURE TYPE | DIMENSION REF. | DESCRIPTION | | | | | |
| Е | ABS | 1, 2 | Round (IP55) | | | | | |

AVAILABLE FRAME SIZES AND HANDLE COLOR OPTIONS FOR ENCLOSED MOTOR PROTECTION CIRCUIT BREAKERS



Frame Size 1 92mm (3-5/8")



Frame Size 2 108mm (4-1/4")

Some of Our Popular Configurations:

| ENCLOSED IEC MOTOR PROTECTION CIRCUIT BREAKERS | | | | | | | | | |
|--|---|---------|--|--|--|--|--|--|--|
| CATALOG NUMBER | DESCRIPTION | PRICE | | | | | | | |
| E330-T2D63-ABS1ERY | Enclosed Motor Protection Circuit Breaker, Thermal and Magnetic Version, 4.0 ~ 6.3A Adj. Range, ABS Box Dimension 1, Round (IP55) Red/Yellow Handle | \$72.00 | | | | | | | |
| E330-T2D63-ABS1EBG | Enclosed Motor Protection Circuit Breaker, Thermal and Magnetic Version, 4.0 ~ 6.3A Adj. Range, ABS Box Dimension 1, Round (IP55) Black/Grey Handle | | | | | | | | |
| E330-T2D63-ABS1ERY-F11 | Enclosed Motor Protection Circuit Breaker, Thermal and Magnetic Version, $4.0\sim6.3A$ Adj. Range, ABS Box Dimension 1, Round (IP55) Red/Yellow Handle, Front Mounted 1 NO + 1 NC Auxiliary | \$79.00 | | | | | | | |
| E330-T2U10-ABS1ERY-F11 | Enclosed Motor Protection Circuit Breaker, Thermal and Magnetic Version, $6.3\sim10A$ Adj. Range, ABS Box Dimension 1, Round (IP55) Red/Yellow Handle, Front Mounted 1 NO + 1 NC Auxiliary | \$83.00 | | | | | | | |



ENCLOSED MOTOR PROTECTION CIRCUIT BREAKER (CONT.,

| | V. HANDLE COLOR |
|------|-----------------|
| CODE | DESCRIPTION |
| BG | Black/Grey |
| RY | Red/Yellow |
| | |

| VI. FRONT MOUNTED OPTIONS | | | | | | | | | |
|---------------------------|------------------------------|-----------------------------|-------------|---------|--|--|--|--|--|
| CODE | FOR ENCLOSURE DIMENSION REF. | DESCRIPTION | CAT. NO. | PRICE | | | | | |
| (Blank) | _ | None | _ | | | | | | |
| F11 | 1, 2 | Front Mounted 1 NO and 1 NC | 330-FA11S25 | \$ 7.00 | | | | | |

| | | VII. SIDE MOUNTED OPTIONS | | |
|---------|------------------------------|---|-------------|---------|
| CODE | FOR ENCLOSURE DIMENSION REF. | DESCRIPTION | CAT. NO. | PRICE |
| (Blank) | _ | None | _ | |
| S11 | 1 | Side Mounted 1 Normally Open and 1 Normally Closed | 330-SA11S25 | \$ 7.00 |
| S20 | 1 | Side Mounted 2 Normally Open | 330-SA20S25 | \$ 7.00 |
| SR25XC | 2 | Shunt Release Module 20 ~ 24V 50/60Hz | 330-SR25XC | \$16.50 |
| SR25XJ | 2 | Shunt Release Module 40 ~ 48V 50/60Hz | 330-SR25XJ | \$16.50 |
| SR25XAH | 2 | Shunt Release Module 100 ~ 127V 50/60Hz | 330-SR25XAH | \$16.50 |
| SR25XF | 2 | Shunt Release Module 200 ~ 240V 50/60Hz | 330-SR25XF | \$16.50 |
| SR25XQ | 2 | Shunt Release Module 365 ~ 440V 50/60Hz | 330-SR25XQ | \$16.50 |
| UR25C | 2 | Undervoltage Release Module 20V 50Hz / 24V 60Hz | 330-UR25C | \$16.50 |
| UR25XC | 2 | Undervoltage Release Module 24V 50/60Hz | 330-UR25XC | \$16.50 |
| UR25H | 2 | Undervoltage Release Module 24V 50Hz / 28V 60Hz | 330-UR25H | \$16.50 |
| UR25AG | 2 | Undervoltage Release Module 95V 50Hz / 110V 60Hz | 330-UR25AG | \$16.50 |
| UR25D | 2 | Undervoltage Release Module 110V 50Hz / 120V 60Hz | 330-UR25D | \$16.50 |
| UR25AH | 2 | Undervoltage Release Module 110 ~ 115V 50Hz / 127V 60Hz | 330-UR25AH | \$16.50 |
| UR25L | 2 | Undervoltage Release Module 180V 50Hz / 208V 60Hz | 330-UR25L | \$16.50 |
| UR25AJ | 2 | Undervoltage Release Module 190V 50Hz / 220V 60Hz | 330-UR25AJ | \$16.50 |
| UR25F | 2 | Undervoltage Release Module 208V 50Hz / 240V 60Hz | 330-UR25F | \$16.50 |
| UR25P | 2 | Undervoltage Release Module 230 ~ 240V 50Hz / 277V 60Hz | 330-UR25P | \$16.50 |
| UR25AL | 2 | Undervoltage Release Module 325V 50Hz / 380V 60Hz | 330-UR25AL | \$16.50 |
| UR25Q | 2 | Undervoltage Release Module 380V 50Hz / 440V 60Hz | 330-UR25Q | \$16.50 |
| UR25R | 2 | Undervoltage Release Module 400 ~ 415V 50Hz / 480V 60Hz | 330-UR25R | \$16.50 |
| UR25T | 2 | Undervoltage Release Module 500V 50Hz / 600V 60Hz | 330-UR25T | \$16.50 |

UNIQUE PRODUCT FEATURES

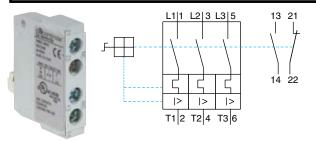




- 1. The 330 Motor Protection Circuit Breaker Enclosure Accessory is a custom fit enclosure design specifically for the Motor Protection Circuit Breaker, allowing superior performance.
- **2.** ABS Plastic enclosure has integrated ground and neutral connections, and four (4) standard PG16 knock outs (2 on the top and 2 on the bottom).
- 3. ABS Plastic enclosure handle can be padlocked in the "OFF" position with up to three padlocks for extra safety and the security needed during maintenance activities.
- **4.** The lift off ABS Plastic enclosure has an IP55 environmental rating and is CE certified.



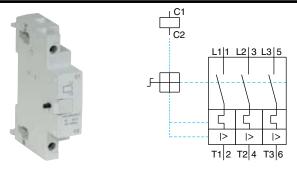
FRONT MOUNTED AUXILIARY CONTACTS



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 below for maximum number of front mounted auxiliary contacts. See IEC MPCB section, page 83, for front mounted auxiliary contact part number and ordering information.

| | NUMBER OF FRONT OR SIDE ED 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.) |

SHUNT RELEASE MODULES



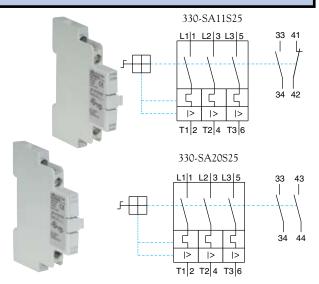
The shunt release module enables the motor protection circuit breaker to be turned "OFF" from a remote location. Snaps-on and installs on the right side of the motor protection circuit breaker without the use of tools. IP20 guarded terminals to protect against accidental contact with live parts. Wide range of 50/60Hz operating voltages. Can be used in conjunction with front mounted and side mounted auxiliary contacts. See IEC MPCB section, page 84, for shunt release module part number and ordering information.

ADJUSTMENT SCALE COVER



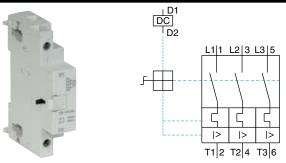
The adjustment scale cover prevents inadvertent or unauthorized adjustment of the full load current dial setting of the motor protection circuit breaker. See IEC MPCB section, page 85, for adjustment scale cover part number and ordering information.

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. NOTE: See chart at left for maximum number of side mounted auxiliary contacts. See IEC MPCB section, page 83, for side mounted auxiliary contact part number and ordering information.

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. See IEC MPCB section, page 84, for undervoltage release module part number and ordering information.





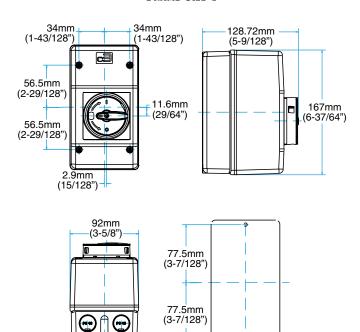
SPECIFICATIONS:

| | | | | | | | SWIT | CH CURI | RENT RA | TING CO | DDE | | | | |
|---|-------|----------|---|----------|----------|-----------|-----------|---------|-----------|----------|----------|---------|-----------|---------|-------|
| | UNITS | T2C16 | T2C25 | T2C40 | T2C63 | T2D10 | T2D16 | T2D25 | T2D40 | T2D63 | T2U10 | T2U16 | T2U20 | T2U25 | T2U32 |
| ELECTRICAL GENERAL | | | | | | • | | | | | • | | | | |
| | | For | detaile | d motor | protec | tion circ | uit brea | aker sp | ecificati | ons by | catalog | number | , see pa | age 86 | |
| Rated Operating Frequency | Hz | | | | | | | 50/6 |) | | | | | | |
| ELECTRICAL UL/CSA APPLICATIONS | | | | | | | | | | | | | | | |
| | | Fo | r detail | ed moto | r prote | ction ci | cuit bre | aker sp | ecifica | tions by | catalo | g numbe | er, see p | age 86 | |
| Rated Operating Voltage, Ue | VAC | | | | | | | 600 | | | | | | | |
| Short Circuit Current Ratings @ 480V AC | kA | 50 | | | | | | | | | | | | | 42 |
| Maximum Fuse or Circuit Breaker Size ^① | kA | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 160 | 250 | 250 |
| Short Circuit Current Ratings @ 600V AC | kA | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Maximum Fuse or Circuit Breaker Size® | kA | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 160 | 250 | 250 |
| ELECTRICAL IEC APPLICATIONS | | | | | | | | | | | | | | | |
| | | Fo | For detailed motor protection circuit breaker specifications by catalog number, see page 87 | | | | | | | | | | | | |
| Rated Insulation Voltage, Ui | V | | 690 | | | | | | | | | | | | |
| Rated Impulse Voltage, Uimp | kV | | 6 | | | | | | | | | | | | |
| Rated Operating Voltage, Ue | VAC | | 690 | | | | | | | | | | | | |
| MECHANICAL | | | | | | | | | | | | | | | |
| | | Fo | r detaile | ed moto | r proted | ction cir | cuit bre | aker sp | ecificat | ions by | catalog | g numbe | r, see p | age 87 | |
| ENVIRONMENTAL | | | | | | | | | | | | | | | |
| | | Fo | r detaile | ed moto | r proted | ction cir | | | | | catalog | g numbe | r, see p | age 87 | |
| Ambient Operating Temperature | °C/°F | | | | | | | | to +13 | | | | | | |
| Ambient Storage Temperature | °C/°F | | | | | | -50 to | | 8 to +17 | (6) | | | | | |
| Altitude | m/ft. | | | | | | | 2,000/6 | ,562 | | | | | | |
| CONSTRUCTION - GENERAL | | | | | | | | | | | | | | | |
| N. I. (D.I. | | | For deta | illea mo | tor prot | ection | circuit b | reaker | • | ations | by catai | og num | ber, see | page 8 | 8 |
| Number of Poles | | | | | | | | | 3 | | | | | | |
| Pollution Degree | | | | | | | | | 3 | | | | | | |
| Trip Class INGRESS PROTECTION | | | | | | | | | 10 | | | | | | |
| Main Terminals | | | | | | | | | | | | | | | |
| (with conductors connected) | | | | | | | | | P20 | | | | | | |
| Operating Handle | | | | | | | | | | | | | | | |
| Code E | | | | | | | | | IP55 | | | | | | |
| Enclosure | | | | | | | | | | | | | | | |
| Code ABS | | | | | | | | | P55 | | | | | | |
| CONSTRUCTION - | | | | | | | | | | | | | | | |
| CONDUCTOR CROSS SECTIONS | | F | or detai | iled mot | or prote | ection c | ircuit hi | eaker s | pecific | ations h | v catalo | og numb | er, see | page 88 | 3 |
| RoHS Compliance | | <u> </u> | | | | | | | | | r to ww | | | | |



MOTOR PROTECTION CIRCUIT BREAKER ENCLOSURES

Frame Size 1



Frame Size 2

22.5mm (113/128")

22.5mm (113/128")

