



Ideally suited for higher amperage applications. Available with front and back mounting, screw terminals, stud terminals and heavy duty box wire connectors for solid wire or a pressure plate connector for stranded wire. Power selector device available, consult factory.

The E-Series is UL Listed and CSA Certified for Branch Circuit protection which does not require a fuse backup. It is also UL Recognized and CSA Certified as a Supplementary Protector and as a Manual Motor Controller.

1-6 poles, .1 - 100 amps, up to 600 VAC or 125 VDC, with choice of time delays and actuator colors.

## Agency Certifications

### UL Recognized

UL Standard 1077



Component Recognition Program as Protectors, Supplementary (Guide QVNU2, File E75596)

### CSA Accepted



Component Supplementary Protector (Class 3215 30, File 047848 0 000) CSA Standard C22.2 No. 235

UL Standard 508



Component Recognition Program as Manual Motor Controls (Guide NLRV2, File E135367)

### CSA Certified



Circuit Breaker Molded Case (Class 1432 01, File 093910), CSA Standard C22.2 No. 5.1 - M

UL Standard 1500



Protectors, Supplementary for Marine Electrical & Fuel Systems (Guide PEQZ2, File E75596) Ignition Protection

### TUV Certified



EN60934 under License No. R72031056

### UL Listed

UL Standard 489



Circuit Breakers, Molded Case (Guide DIVQ, File E129899)

### VDE Certified



EN60934, VDE 0642 under File No. 10537

## Electrical

**Table A:** Lists UL Listed (489) & CSA Certified (C22.2 No. 5) configurations & performance capabilities as a Molded Case Circuit Breaker.

| E-SERIES TABLE A : UL489 LISTED BRANCH CIRCUIT BREAKERS |             |           |       |                                  |   |
|---|-------------|-----------|-------|----------------------------------|---|
| CIRCUIT CONFIGURATION                                   | VOLTAGE     |           |       | CURRENT RATING<br>FULL LOAD AMPS | INTERRUPTING CAPACITY (AMPS)<br>WITHOUT BACKUP FUSE |
|   | MAX. RATING | FREQUENCY | PHASE |                                  |   |
| SERIES  | 80          | DC        | --    | 0,10 - 125                       | 50,000  |
|   | 125         | DC        | --    | 0,10 - 125                       | 10,000  |
|   | 120         | 50 / 60   | 1     | 0,10 - 125                       | 10,000  |
|   | 120 / 240   | 50 / 60   | 1     | 0,10 - 125                       | 10,000  |
|   | 240         | 50 / 60   | 1 & 3 | 0,10 - 100                       | 5,000   |

Electrical

**Table B:** Lists UL Recognized & CSA Accepted configurations & performance capabilities as a Component Supplementary Protector.

| E-SERIES TABLE B: COMPONENT SUPPLEMENTARY PROTECTORS |             |           |         |                                  |                               |                    |                     |                   |               |                    |
|--|-------------|-----------|---------|----------------------------------|-------------------------------|--------------------|---------------------|-------------------|---------------|--------------------|
| CIRCUIT CONFIGURATION                                | VOLTAGE     |           |         | CURRENT RATING<br>FULL LOAD AMPS | SHORT CIRCUIT CAPACITY (AMPS) |                    |                     | APPLICATION CODES |               | CONSTRUCTION NOTES |
|  | MAX. RATING | FREQUENCY | PHASE   |                                  | GENERAL PURPOSE AMPS          | UL/CSA             |                     | UL                | CSA           |                    |
|  |             |           |         |                                  |                               | WITH BACKUP FUSE 1 | WITHOUT BACKUP FUSE |                   |               |                    |
| SERIES & SHUNT                                       | 125         | DC        | ---     | 0.02 - 120                       | ---                           | ---                | 5,000               | TC1,2, OL1,U1     | TC1,2, OL1,U1 | ---                |
|  | 160         | DC        | ---     | 0.02 - 100                       | ---                           | ---                | 5,000               | TC1,2, OL0,U1     | TC1,2, OL0,U1 | ---                |
|  | 150 / 300   | DC        | ---     | 0.02 - 100                       | ---                           | ---                | 5,000               | TC1,2, OL1,U1     | TC1,2, OL1,U1 | ---                |
|  | 120 / 240   | 50 / 60   | 1       | 0.02 - 100                       | ---                           | ---                | 5,000               | TC1,2, OL1,U1     | TC1,2, OL1,U1 | ---                |
|  | 240         | 50 / 60   | 1       | 0.02 - 100                       | ---                           | ---                | 5,000               | TC1,2, OL1,U1     | TC1,2, OL1,U1 | ---                |
|  | 250         | 50 / 60   | 1       | 0.02 - 100                       | ---                           | 10,000             | ---                 | TC1,2, OL1,C1     | TC1,2, OL1,C1 | ---                |
|  | 277         | 50 / 60   | 1       | 0.02 - 100                       | ---                           | ---                | 5,000               | TC1,2, OL1,U1     | TC1,2, OL1,U1 | ---                |
|  |             |           |         | 0.02 - 100                       | ---                           | 10,000             | ---                 | TC1,2, OL1,C1     | TC1,2, OL1,C1 | ---                |
|  |             | 480       | 50 / 60 | 1 & 3                            | 0.02 - 100                    | ---                | 10,000              | ---               | TC1,2, OL1,C1 | TC1,2, OL1,C1      |
| SWITCH ONLY  | 125         | DC        | ---     | 0.02 - 120                       |                               |                    |                     |                   |               |                    |
|  | 160         | DC        | ---     | 0.02 - 100                       |                               |                    |                     |                   |               |                    |
|  | 240         | 50 / 60   | 1       | 0.02 - 100                       |                               |                    |                     |                   |               |                    |
|  | 277         | 50 / 60   | 1       | 0.02 - 100                       |                               |                    |                     |                   |               |                    |
|  | 480         | 50 / 60   | 1 & 3   | 0.02 - 100                       |                               |                    |                     |                   |               |                    |
|  | 600         | 50 / 60   | 1 & 3   | 0.02 - 100                       |                               |                    |                     |                   |               |                    |

Notes for Table B:

- 1 Requires branch circuit backup with a UL LISTED Type K5 or RK5 fuse rated 15A minimum and no more than 4 times full load amp rating and not to exceed 225 amps

**Table C:** Lists UL Recognized, CSA Accepted and VDE Certified configurations and performance capabilities as a Component Supplementary Protector.

| E-SERIES TABLE C: COMPONENT SUPPLEMENTARY PROTECTORS |             |           |       |                                  |                               |                     |                               |                   |               |                    |  |
|--|-------------|-----------|-------|----------------------------------|-------------------------------|---------------------|-------------------------------|-------------------|---------------|--------------------|--|
| CIRCUIT CONFIGURATION                                | VOLTAGE     |           |       | CURRENT RATING<br>FULL LOAD AMPS | SHORT CIRCUIT CAPACITY (AMPS) |                     |                               | APPLICATION CODES |               | CONSTRUCTION NOTES |  |
|  | MAX. RATING | FREQUENCY | PHASE |                                  | UL/CSA                        |                     | VDE (Icn) WITHOUT BACKUP FUSE | UL                | CSA           |                    |  |
|  |             |           |       |                                  | WITH BACKUP FUSE 1            | WITHOUT BACKUP FUSE |                               |                   |               |                    |  |
| SERIES & SHUNT                                       | 125         | DC        | ---   | 0.02 - 120                       | ---                           | ---                 | 5,000                         | 5,000             | TC1,2, OL1,U1 | TC1,2, OL1,U1      | 1 - 2 Pole   |
|  | 240         | 50 / 60   | 1 & 3 | 0.02 - 100                       | ---                           | ---                 | 5,000                         | 5,000             | TC1,2, OL1,U1 | TC1,2, OL1,U1      | 1 - 5 Poles; Up to 4 Current Poles, 1 Voltage Pole |
|  | 415         | 50 / 60   | 1 & 3 | 0.02 - 100                       | 10,000                        | ---                 | ---                           | 4,000             | TC1,2, OL1,C1 | TC1,2, OL1,C1      | 2 - 5 Poles; Up to 4 Current Poles, 1 Voltage Pole |
| SWITCH ONLY  | 125         | DC        | ---   | 0.02 - 120                       |                               |                     |                               |                   |               |                    |  |
|  | 240         | 50 / 60   | 1 & 3 | 0.02 - 100                       |                               |                     |                               |                   |               |                    |  |
|  | 415         | 50 / 60   | 1 & 3 | 0.02 - 100                       |                               |                     |                               |                   |               |                    |  |

Notes for Table C:

- 1 Requires branch circuit backup with a UL LISTED Type K5 or RK5 fuse rated 15A minimum and no more than 4 times full load amp rating and not to exceed 225 amps.

**Table D:** Lists UL Recognized, CSA Accepted configurations and performance capabilities as Protectors, Supplementary for Marine Electrical and Fuel Systems (Guide PEQZ2, File E75596). Ignition Protected per UL 1500. UL Classified Small Craft Electrical Devices, Marine in accordance with ISO 8846 (Guide UZMK, File MQ1515) as Marine Supplementary Protectors.

| E-SERIES TABLE D: UL1500 (Marine Ignition Protected) |             |           |       |                                  |  |                   |              |
|--|-------------|-----------|-------|----------------------------------|--|-------------------|--------------|
| CIRCUIT CONFIGURATION                                | VOLTAGE     |           |       | CURRENT RATING<br>FULL LOAD AMPS | SHORT CIRCUIT CAPACITY (AMPS)<br>WITHOUT BACKUP FUSE | APPLICATION CODES |              |
|  | MAX. RATING | FREQUENCY | PHASE |                                  |  | UL                | CSA          |
| SERIES   | 65          | DC        | ---   | 0.02 - 100                       | 5000   | TC1,2,OL1,U1      | TC1,2,OL1,U1 |
|  | 125         | 50 / 60   | 1     | 0.02 - 100                       | 1500   | TC1,2,OL1,U1      | TC1,2,OL1,U1 |
|  | 250         | 50 / 60   | 1     | 0.02 - 100                       | 1500   | TC1,2,OL1,U1      | TC1,2,OL1,U1 |

**Electrical**

Maximum Voltage 600VAC 50/60 Hz, 125VDC (See Table A)

Current Ratings Standard current coils: 0.100, 0.250, 0.500, 1.00, 2.50, 5.00, 7.50, 10.0, 15.0, 20.0, 25.0, 30.0, 50.0, 60.0, 70.0 & 100 Amp.

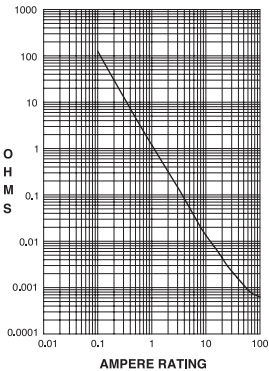
Auxiliary Switch Rating SPDT; 10.1A 250VAC, 1.0A 65VDC; 0.5A 80VDC, 0.1A 125VAC (with gold contacts).

Insulation Resistance Minimum of 100 Megohms at 500 VDC.

Dielectric Strength UL, CSA: 2200 V 50/60 Hz for one minute between all electrically isolated terminals. E-Series Circuit Breakers comply with the 8mm spacing and 3750V 50/60 Hz dielectric requirements from hazardous voltage to operator accessible surfaces, between adjacent poles and from main circuits to auxiliary circuits per Publications EN 60950 and VDE 0805.

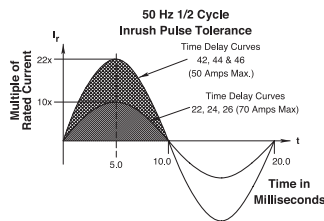
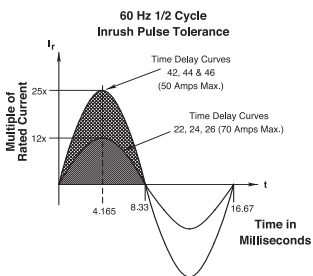
Resistance, Impedance Values from Line to Load Terminal - based on Series Trip Circuit Breaker.

RESISTANCE, IMPEDANCE VALUES from Line to Load Terminals (Values Based on Series Trip Circuit Breaker)



| CURRENT (AMPS) | TOLERANCE (%) |
|----------------|---------------|
| 0.10 - 5.0     | ± 15%         |
| 5.1 - 20.0     | ± 25%         |
| 20.1 - 125.0   | ± 35%         |

**Pulse Tolerance Curves**



**Mechanical**

Endurance 10,000 ON-OFF operations @ 6 per minute; with rated Current and Voltage.

Trip Free All E-Series Circuit Breakers will trip on overload, even when Handle is forcibly held in the ON position.

Trip Indication The operating Handle moves positively to the OFF position when an overload causes the breaker to trip.

**Physical**

Number of Poles 1 - 6

Mounting A 3" minimum spacing must be provided between the circuit breaker arc venting area on back connected E-Series circuit breakers and grounded obstructions. E-Series circuit breakers must be mounted on a vertical surface.

Connectors, Box Type Front connected E-Series circuit breakers are supplied with box type pressure connectors that accept copper or aluminum conductors as follows: 1/0-14 Copper, 1/0-12 Aluminum.

Internal Circuit Configuration Series and Switch Only, (with or without auxiliary switch). Shunt with current coils.

Weight Approximately 252 grams/pole (Approximately 9 ounces/pole)

Standard Colors Housing-Black; Actuator - See Ordering Scheme.

**Environmental**

Designed and tested in accordance with requirements of specification MIL-PRF- 55629 and MIL-STD-202 as follows:

Shock Withstands 100 Gs, 6ms, sawtooth while carrying rated current per Method 213, Test Condition "I".

Vibration Withstands 0.060" excursion from 10-55 Hz, and 10 Gs 55-500 Hz, at rated current per Method 204C, Test Condition A.

Moisture Resistance Method 106D, i.e., ten 24-hour cycles @ + 25°C to +65°C, 80-98% RH.

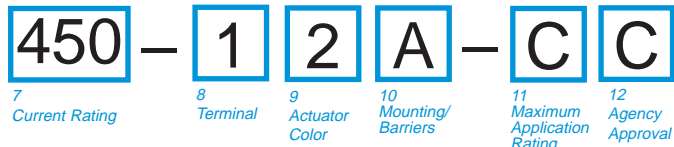
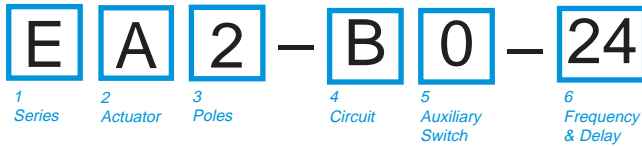
Salt Spray Method 101, Condition A (90-95% RH @ 5% NaCl Solution, 96 hrs).

Thermal Shock Method 107D, Condition A (Five cycles @ -55°C to +25°C to +85°C to +25°C).

Operating Temperature -40° C to +85° C







**1 SERIES**  
E

**2 ACTUATOR Handle**  
A Handle, one per pole

**3 POLES<sup>1</sup>**

|   |     |   |       |   |      |
|---|-----|---|-------|---|------|
| 1 | One | 3 | Three | 5 | Five |
| 2 | Two | 4 | Four  | 6 | Six  |

**4 CIRCUIT<sup>2</sup>**

|   |                       |                |                       |
|---|-----------------------|----------------|-----------------------|
| B | Series Trip (Current) | C <sup>3</sup> | Series Trip (Voltage) |
|---|-----------------------|----------------|-----------------------|

**5 AUXILIARY SWITCH<sup>4</sup>**

|   |   |   |   |
|---|---|---|---|
| 0 | without Auxiliary Switch                      | 6 | S.P.D.T. 0.110 Q.C. Terminals                 |
| 2 | S.P.D.T. 0.110 Q.C. Terminals                 | 7 | S.P.D.T. 0.110 Q.C. Terminals (Gold Contacts) |
| 3 | S.P.D.T. 0.139 Solder Lug                     | 8 | S.P.D.T. 0.187 Q.C. Terminals                 |
| 4 | S.P.D.T. 0.110 Q.C. Terminals (Gold Contacts) | 9 | S.P.D.T. 0.187 Q.C. Terminals                 |

**6 FREQUENCY & DELAY**

|                 |                       |                 |                               |
|-----------------|-----------------------|-----------------|-------------------------------|
| 10 <sup>5</sup> | DC Instantaneous      | 62              | 50/60Hz Short, Hi-Inrush      |
| 12              | DC Short              | 64              | 50/60Hz Medium, Hi-Inrush     |
| 14              | DC Medium             | 66              | 50/60Hz Long, Hi-Inrush       |
| 16              | DC Long               | 72              | DC, Short, Hi-Inrush          |
| 20 <sup>5</sup> | 50/60Hz Instantaneous | 74              | DC, Medium, Hi-Inrush         |
| 22              | 50/60Hz Short         | 76              | DC, Long, Hi-Inrush           |
| 24              | 50/60Hz Medium        | 92 <sup>6</sup> | DC, 50/60Hz Short, Hi-Inrush  |
| 26              | 50/60Hz Long          | 94 <sup>6</sup> | DC, 50/60Hz Medium, Hi-Inrush |
| 32              | DC, 50/60Hz Short     | 96 <sup>6</sup> | DC, 50/60Hz Long, Hi-Inrush   |
| 34              | DC, 50/60Hz Medium    |                 |                               |
| 36              | DC, 50/60Hz Long      |                 |                               |

**7 CURRENT RATING (AMPERES)<sup>7</sup>**

|     |       |     |       |     |        |     |         |
|-----|-------|-----|-------|-----|--------|-----|---------|
| 020 | 0.020 | 235 | 0.350 | 430 | 3.000  | 614 | 14.000  |
| 025 | 0.025 | 240 | 0.400 | 435 | 3.500  | 615 | 15.000  |
| 030 | 0.030 | 245 | 0.450 | 440 | 4.000  | 616 | 16.000  |
| 035 | 0.035 | 250 | 0.500 | 445 | 4.500  | 617 | 17.000  |
| 040 | 0.040 | 255 | 0.550 | 450 | 5.000  | 618 | 18.000  |
| 045 | 0.045 | 260 | 0.600 | 455 | 5.500  | 620 | 20.000  |
| 050 | 0.050 | 265 | 0.650 | 460 | 6.000  | 622 | 22.000  |
| 055 | 0.055 | 270 | 0.700 | 465 | 6.500  | 624 | 24.000  |
| 060 | 0.060 | 275 | 0.750 | 470 | 7.000  | 625 | 25.000  |
| 065 | 0.065 | 280 | 0.800 | 475 | 7.500  | 630 | 30.000  |
| 070 | 0.070 | 285 | 0.850 | 480 | 8.000  | 635 | 35.000  |
| 075 | 0.075 | 290 | 0.900 | 485 | 8.500  | 640 | 40.000  |
| 080 | 0.080 | 295 | 0.950 | 490 | 9.000  | 650 | 50.000  |
| 085 | 0.085 | 410 | 1.000 | 495 | 9.500  | 660 | 60.000  |
| 090 | 0.090 | 512 | 1.250 | 610 | 10.000 | 670 | 70.000  |
| 090 | 0.095 | 415 | 1.500 | 710 | 10.500 | 680 | 80.000  |
| 210 | 0.100 | 517 | 1.750 | 611 | 11.000 | 690 | 90.000  |
| 215 | 0.150 | 420 | 2.000 | 711 | 11.500 | 810 | 100.000 |
| 220 | 0.200 | 522 | 2.250 | 612 | 12.000 | 912 | 125.000 |
| 225 | 0.250 | 425 | 2.500 | 712 | 12.500 |     |         |
| 230 | 0.300 | 527 | 2.750 | 613 | 13.000 |     |         |

**OR VOLTAGE COIL (MIN. TRIP RATING, VOLTS)<sup>8</sup>**

|     |              |     |                |     |                |
|-----|--------------|-----|----------------|-----|----------------|
| A06 | 6 DC, 5 DC   | A65 | 65 DC, 55 DC   | J48 | 48 AC, 40 AC   |
| A12 | 12 DC, 10 DC | B25 | 125 DC, 100 DC | J65 | 65 AC, 55 AC   |
| A18 | 18 DC, 15 DC | J06 | 6 AC, 5 AC     | K20 | 120 AC, 65 AC  |
| A24 | 24 DC, 20 DC | J12 | 12 AC, 10 AC   | L40 | 240 AC, 130 AC |
| A32 | 32 DC, 25 DC | J18 | 18 AC, 15 AC   |     |                |
| A48 | 48 DC, 40 DC | J24 | 24 AC, 20 AC   |     |                |

**8 TERMINAL<sup>7</sup>**

|   |                    |
|---|--------------------|
| <b>BACK CONNECTED (FRONT MOUNTED ONLY)</b>  | <b>MAX. RATING</b> |
| 1 <sup>8</sup> 10-32 Stud (All Terminals)   | 50 A               |
| 2 <sup>8</sup> 1/4-20 Stud (All Terminals)  | 100 A              |
| <b>FRONT CONNECTED (BACK MOUNTED ONLY)</b>  | <b>MAX. RATING</b> |
| 3 <sup>9</sup> Box Wire Connector (Line & Load)   | 100 A              |
| C <sup>10</sup> Box Wire Connector w/ Pressure Plate (Line & Load)                          | 100 A              |
| 4 10-32 Screw (Line & Load)   | 50 A               |
| 5 10-32 "Bus-Type" Screw (Line), 10-32 Screw (Load)   | 50 A               |
| 6 <sup>9</sup> 10-32 "Bus-Type" Screw (Line), Box Wire Connector (Load)                     | 100 A              |
| F <sup>10</sup> 10-32 "Bus-Type" Screw (Line), Box Wire Connector w/ Pressure Plate (Load)  | 100 A              |
| 7 1/4-20 Screw (Line & Load)  | 100 A              |
| 8 1/4-20 "Bus-Type" Screw (Line), 1/4-20 Screw (Load)                                       | 100 A              |
| 9 <sup>9</sup> 1/4-20 "Bus-Type" Screw (Line), Box Wire Connector (Load)                    | 100 A              |
| J <sup>10</sup> 1/4-20 "Bus-Type" Screw (Line), Box Wire Connector w/ Pressure Plate (Load) | 100 A              |

**9 ACTUATOR COLOR & LEGEND<sup>12</sup>**

|                         |                 |                       |
|-------------------------|-----------------|-----------------------|
| <b>Actuator Color :</b> | <b>Marking:</b> | <b>Marking Color:</b> |
| Color:                  | ON-OFF Dual     |                       |
| White                   | B 1             | Black                 |
| Black                   | D 2             | White                 |
| Red                     | G 3             | White                 |
| Green                   | J 4             | White                 |
| Blue                    | L 5             | White                 |
| Yellow                  | N 6             | Black                 |
| Gray                    | Q 7             | Black                 |
| Orange                  | S 8             | Black                 |

**10 MOUNTING/BARRIERS**

BACK CONNECTED (FRONT MOUNTED ONLY)

**Mounting Inserts**

|   |        |
|---|--------|
| A | 6-32   |
| B | ISO M3 |

FRONT CONNECTED (BACK MOUNTED ONLY)<sup>11</sup>

|                                |  |
|--------------------------------|--|
| <b>Back Mounting Foot Type</b> | <b>Front Mounting Inserts (Optional Use)</b> |
| C                              | Short 6-32                                   |
| D                              | Short ISO M3                                 |
| E                              | Long 6-32                                    |
| F                              | Long ISO M3                                  |

**11 MAXIMUM APPLICATION RATING**

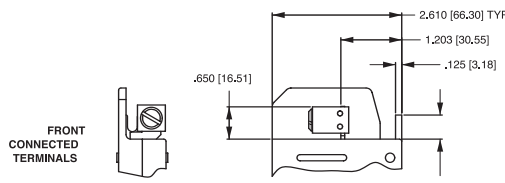
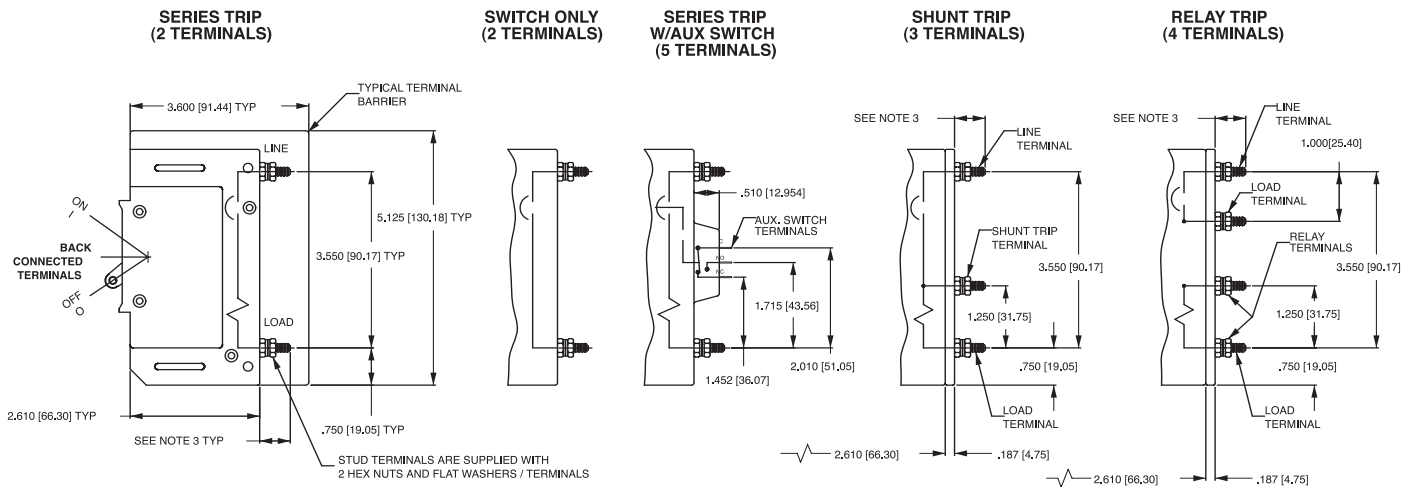
|                 |                   |
|-----------------|-------------------|
| B               | 125 VDC, 100A     |
| C <sup>13</sup> | 120/240 VAC, 100A |
| D               | 240 VAC, 100A     |

**12 AGENCY APPROVAL**

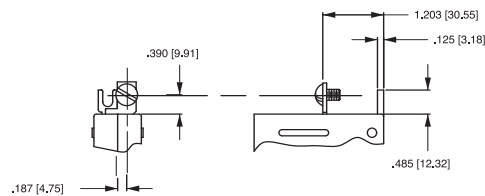
|   |   |
|---|---|
| C | UL 489 Listed & CSA Certified                 |
| F | UL 489 Listed, CSA Certified, & VDE Certified |

**NOTES**

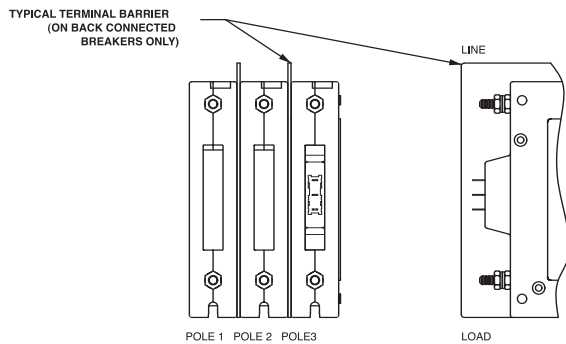
- Standard multi-pole units identical poles except when specifying auxiliary switch - (see Note 4). For mixed ratings, consult factory. VDE Certification on 1-5 poles only.
- Series Trip construction available w/ either front or back connected terminals.
- Series Trip construction with a voltage coil is not available as a single pole unit and must be tied to a protected pole.
- On multi-pole units, only one auxiliary switch is normally supplied mounted in the extreme right pole per Figure A. Back mounted units require special mounting provisions when auxiliary switch is specified. VDE Certification on auxiliary switch codes 0, 2, 3 & 4 only.
- Voltage Trip Coils are not rated for continuous duty. Available only with Frequency & Delay Codes 10 & 20.
- Frequency & Delay Codes 92, 94 & 96 are not VDE Certified.
- Current Ratings under 0.100 amps are not VDE Certified.
- An Anti-Flash Over Barrier is supplied between poles on multi-pole units with 10-32 Stud (Terminal Code 1) or 1/4-20 Stud (Code 2) terminals per UL requirement.
- Box Wire Connector will accept #14 through 0 AWG. copper wire or #12 through 0 AWG. aluminum wire.
- Box Wire Connector with Pressure Plate for stranded wire, consult factory for details.
- Back Mounted breakers can also be front mounted by utilizing the proper front panel mounting inserts normally supplied. However, terminal connections must be made prior to mounting.
- VDE Certification requires dual (I-O, ON-OFF) markings on all handles.
- Not available with VDE Certification.



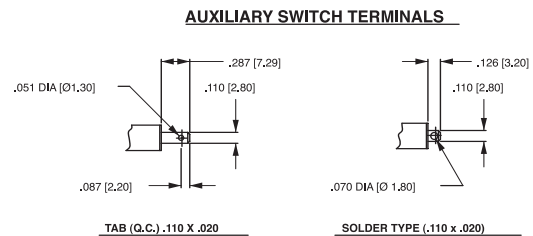
**BOX TYPE WIRE CONNECTORS**



**BUS TYPE SCREW TERMINALS**



**MULTI-POLE IDENTIFICATION SCHEME**

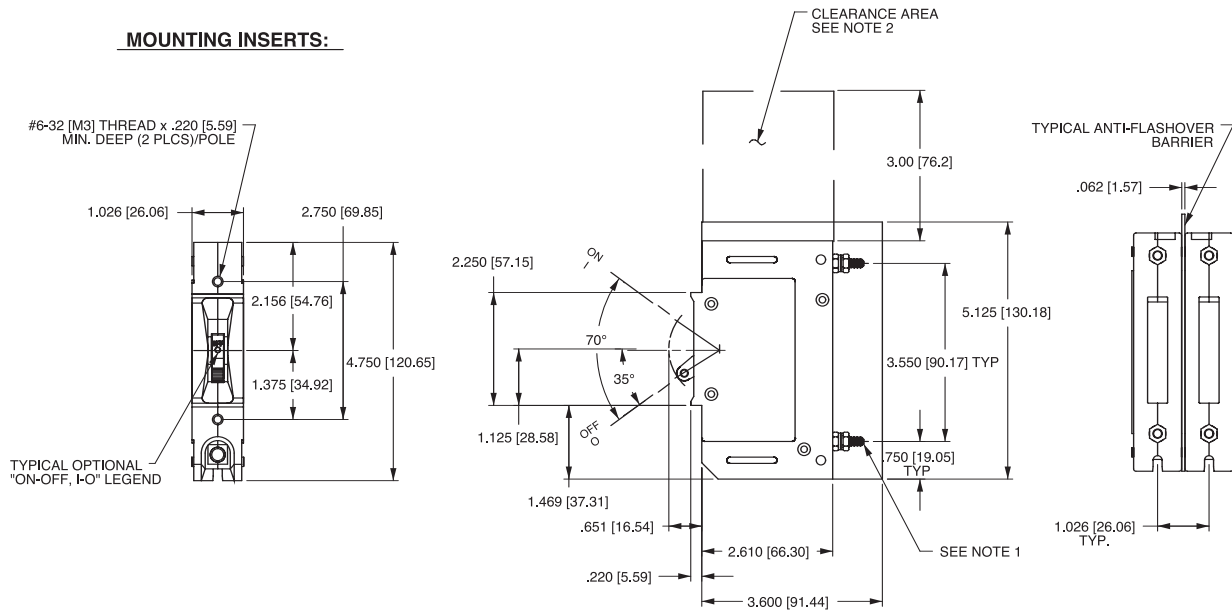


**AUXILIARY SWITCH TERMINALS**

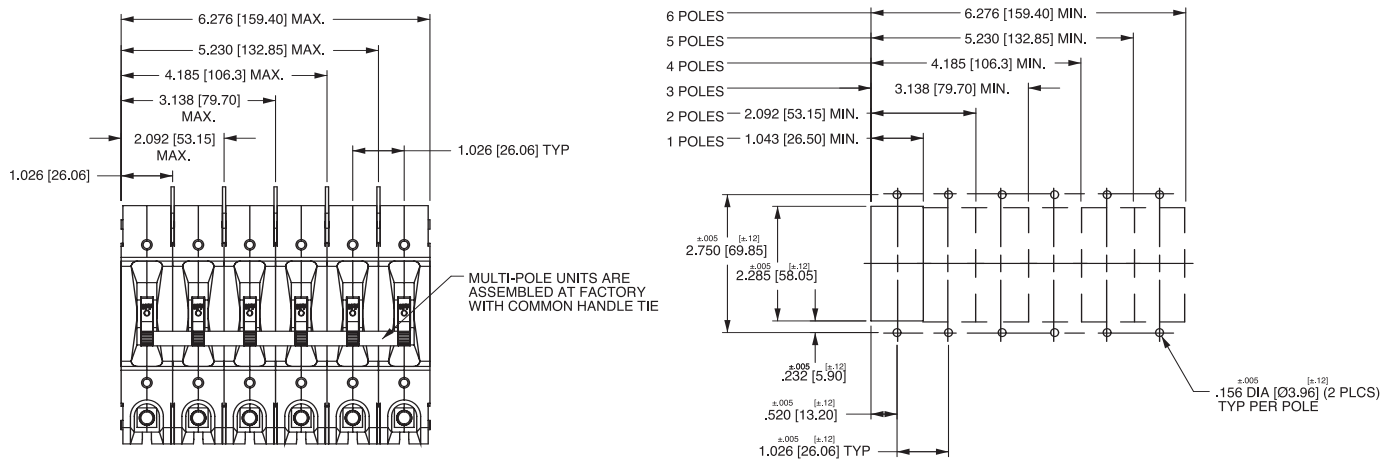
| TABLE A<br>TIGHTENING TORQUE SPECIFICATIONS |              |                              |
|---|--------------|------------------------------|
| THREAD SIZE<br>TERMINAL TYPE                | WIRE<br>SIZE | TORQUE                       |
| #6-32 [M3] HARDWARE                         | —            | 7-9 IN-LBS<br>[0.8-1.0 NM]   |
| #10-32 THD<br>TERMINAL SCREW                | ALL          | 15-20 IN-LBS<br>[1.7-2.3 NM] |
| 1/4-20 THD<br>TERMINAL SCREW                | ALL          | 30-35 IN-LBS<br>[3.4-4.0 NM] |
| #10-32 STUDS                                | ALL          | 15-20 IN-LBS<br>[1.7-2.3 NM] |
| 1/4-20 STUDS                                | ALL          | 30-35 IN-LBS<br>[3.4-4.0 NM] |
| BOX WIRE<br>CONNECTOR                       | 14-10 AWG    | 35 IN-LBS<br>[4.0 NM]        |
|   | 8 AWG        | 40 IN-LBS<br>[4.5 NM]        |
|   | 6-4 AWG      | 45 IN-LBS<br>[5.1 NM]        |
|   | 3-1/0 AWG    | 50 IN-LBS<br>[5.7 NM]        |

- Notes:
- All dimensions are in inches [millimeters].
  - Tolerance  $\pm .020$  [.51] unless otherwise specified.
  - 0-50 amps: 10-32 & M5 Studs .625<sup>+0.02</sup>/15.88<sup>+1.574</sup> long.  
51-120 amps: 1/4-20 & M6 Studs .750<sup>+0.02</sup>/19.05<sup>+1.574</sup> long.

## MOUNTING INSERTS:



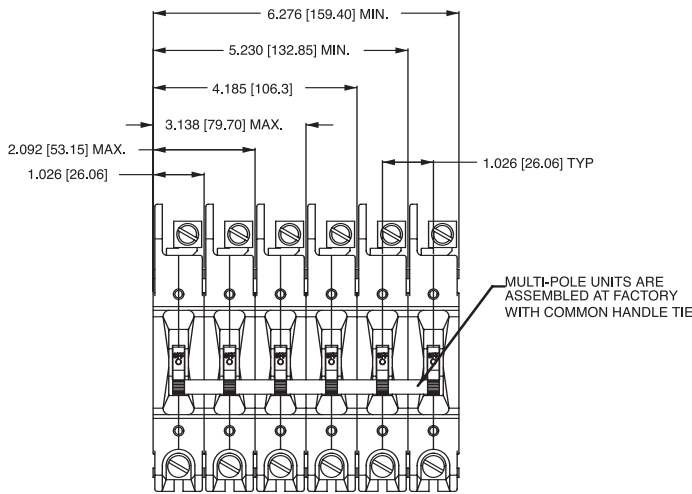
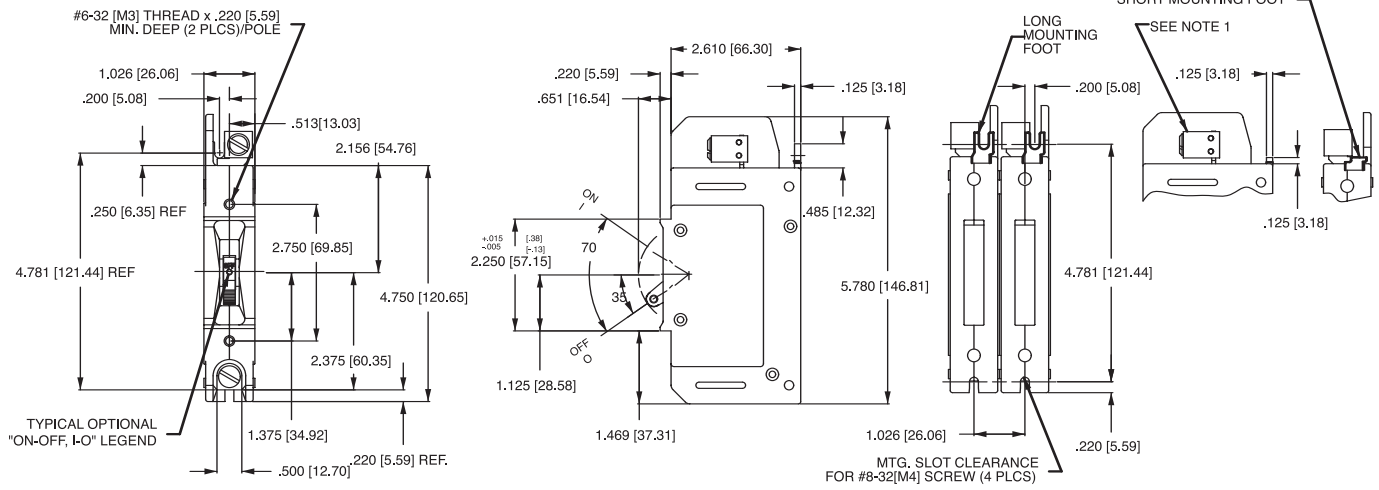
## PANEL CUTOUT DETAIL



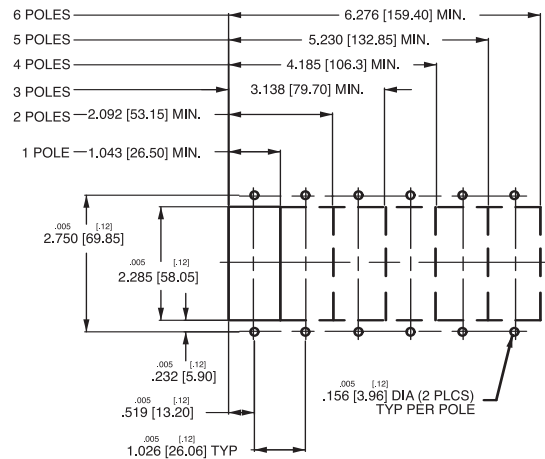
### Notes:

- 1 1/4 -20 stud terminal in Series Trip circuit configuration shown.
- 2 A 3" min spacing must be provided between the circuit breaker arc venting area of back connected E-Series circuit breaker and grounded obstructions.
- 3 All dimensions are in inches [millimeters].
- 4 Tolerance  $\pm .020$  [.51] unless otherwise specified.
- 5 Circuit breakers must be mounted on vertical surface.

**MOUNTING INSERTS:**



**PANEL CUTOUT DETAIL**



Notes:

- 1 All dimensions are in inches [millimeters].
- 2 Tolerance ±.020 [0.51] unless otherwise specified.
- 3 Box wire connector terminal in Series Trip circuit configuration shown.
- 4 Circuit breakers must be mounted on vertical surface.