



Designed for those applications requiring higher amperage and voltage handling capability in a compact design. Available with American Standard or Metric Threaded Stud terminals, or Saddle Clamp screw terminals. Available with optional mid-trip handle style actuator, solid color rocker actuators and Visi-rocker two color actuators. Visi-rocker can be specified to indicate either the ON or TRIPPED/OFF mode. Rockerguard and Push-To-Reset bezel help prevent inadvertent actuation.

The C-Series UL489 breakers employ a unique arc chute design which results in obtaining higher interrupting capacities, up to 50,000 amps. Thermoset glass filled polyester half shell construction for increased mechanical & electrical strength; Wiping Contacts - Mechanical linkage with two-step actuation – cleans contacts, provides high, positive contact pressure & longer contact life; 1-6 poles, 0.02 - 100 amps, up to 480 VAC or 80 VDC, UL489 up to 240 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)

UL Standard 508



Manual Motor Controls (Guide NLRV2, File E135367)

UL Standard 1500



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

UL Listed

UL Standard 489



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

UL Standard 489A



Communications Equipment (Guide CCN/DITT, File E189195)

CSA Certified



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

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



VDE Certified

EN60934, VDE 0642 under File No. 10537

Electrical

Table A: Lists UL Recognized & CSA Certified configurations and performance capabilities as a Component Supplementary Protector.

C-SERIES TABLE A: COMPONENT SUPPLEMENTARY PROTECTOR								
CIRCUIT CONFIGURATION	VOLTAGE			CURRENT RATING		INTERRUPTING CAPACITY (AMPS)		CONSTRUCTION NOTES
	MAX RATING	FREQUENCY	PHASE	FULL LOAD AMPS	GENERAL PURPOSE AMPS	UL / CSA		
						WITH BACKUP FUSE ¹	WITHOUT BACKUP FUSE	
SERIES	65	D.C.	---	0.02 - 70	71 - 100	---	5000	
	80	D.C.	---	0.02 - 70	---	---	7500	
	80	D.C.	---	---	71 - 100	---	10,000	Must have Agency Code "L"
	125	50/60	1	0.02 - 100	---	---	5000	Must have Agency Code "L"
	125	50/60	1	71 - 100	---	---	3000	1 Pole
	125/250	50/60	1	0.02 - 50	---	---	3000	2 or 3 Poles Breaking 1Ø
	125/250	50/60	1	51 - 100	---	---	1000	2 or 3 Poles Breaking 1Ø
	125/250	50/60	1	0.02 - 100	---	---	5000	2-3 Poles Breaking 1Ø "L" Agency Code
	250	50/60	1	0.02 - 100	---	---	5000	Must have Agency Code "L"
	250	50/60	1	51 - 70	---	5000	---	
	250	50/60	3	0.02 - 70	---	5000	---	3 Poles Breaking 3Ø
	240	50/60	3	71 - 90	---	---	5000	Must have Agency Code "L"
	277	50/60	1	0.02 - 50	---	5000	---	
	480/277	50/60	3	0.02 - 30	31 - 50	5000	---	3 Poles breaking 3 Ø
DUAL COIL	480	50/60	1	0.02 - 30	31 - 50	5000	---	2 Poles breaking 1 Ø
	80	DC	---	0.02 - 50	---	7500	---	---
	277	50/60	1	0.02 - 50	---	5000	---	---
SHUNT	250	50/60	3	0.02 - 50	---	5000	---	---
	80	DC	---	0.02 - 50	---	7500	---	---
	277	50/60	1	0.02 - 50	---	5000	---	---
	480/277	50/60	3	0.02 - 30	31 - 50	5000	---	3 Poles breaking 3Ø
	480	50/60	1	0.02 - 30	31 - 50	5000	---	2 Poles breaking 1Ø
RELAY	80	DC	---	0.02 - 50	---	7500	---	---
	250	50/60	3	0.02 - 50	---	5000	---	---
	277	50/60	1	0.02 - 50	---	5000	---	---
SWITCH ONLY	65	DC	---	0.02 - 100	---	---	---	---
	80	DC	---	0.02 - 70	71 - 100	---	---	---
	125	50/60	1	71 - 100	---	---	---	---
	125/250	50/60	1	0.02 - 100	---	---	---	2 or 3 Poles Breaking 1Ø
	250	50/60	1 & 3	0.02 - 70	---	---	---	---
	277	50/60	1	0.02 - 50	---	---	---	---
	480/277	50/60	3	0.02 - 30	31 - 50	---	---	3 Poles breaking 3 Ø

Notes for Table A:

- 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 amps not to exceed 125A for 50 Amp or less rating and not to exceed 175 for 51 through 100 Amp rating.

Table B: Lists UL Recognized and CSA Certified configurations and performance capabilities as a Manual Motor Controller.

C-SERIES TABLE B: MANUAL MOTOR CONTROLLER					
CIRCUIT CONFIGURATION	VOLTAGE			CURRENT RATING	HORSEPOWER RATINGS
	MAX RATING	FREQUENCY	PHASE	FULL LOAD AMPS	MAX.
SERIES, SHUNT & SWITCH ONLY	277 ¹	50/60	1	0.02 - 20	3 HP
	480 ²	50/60	3	0.02 - 20	5 HP
	250 ¹	50/60	1	0.02 - 20	3 HP
	250 ¹	50/60	3	0.02 - 20	5 HP
	120 ¹	50/60	1	0.02 - 50	3 HP
	120 ¹	50/60	3	0.02 - 50	7 1/2 HP

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 amps not to exceed 125A for 50 Amp or less rating and not to exceed 175 for 51 through 100 Amp rating.
- 2 UL recognized and CSA Certified at 480V refers to 3 & 4 pole versions used in a 3Ø, wye connected circuit or 2-pole version connected with 2 poles breaking. 1Ø and backed up with series fusing as stated above in note 1.

Electrical

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

C-SERIES TABLE C: COMPONENT SUPPLEMENTARY PROTECTOR										
CIRCUIT CONFIGURATION	VOLTAGE			CURRENT RATING		INTERRUPTING CAPACITY (AMPS)				CONSTRUCTION NOTES
	MAX RATING	FREQUENCY	PHASE	FULL LOAD AMPS	GENERAL PURPOSE AMPS ¹	UL / CSA		VDE		
						WITH BACKUP FUSE ²	WITHOUT BACKUP FUSE	(Inc) WITH BACKUP FUSE	(Icn) WITHOUT BACKUP FUSE	
SERIES	80	DC	---	0.10 - 70	---	---	7500	---	5000	---
	80	DC	---	71 - 100	71 - 100	---	10,000	---	5000	Agency Code "F" or "H" Only
	250	50/60	1 & 3	0.10 - 70	---	5000	---	3000	1500	---
	415Y/240	50/60	3	0.10 - 30	---	5000	---	3000	1500	Rocker Actuator
	415Y/240	50/60	3	0.10 - 30	---	5000	---	5000	2500	Handle Actuator/ Agency Code H only
DUAL COIL	80	DC	---	0.10 - 30	---	7500	---	---	5000	---
	250	50/60	1 & 3	0.10 - 30	---	5000	---	3000	1500	---
SHUNT	80	DC	---	0.10 - 70	---	---	7500	---	5000	---
	250	50/60	1 & 3	0.10 - 70	---	5000	---	3000	1500	---
	415Y/240	50/60	3	0.10 - 30	---	5000	---	3000	1500	Rocker Actuator
	415Y/240	50/60	3	0.10 - 30	---	5000	---	5000	2500	Handle Actuator/ Agency Code H only

Notes for Table C:

1 General Purpose ratings for UL/CSA only.

2 Requires branch circuit backup with a UL LISTED Type K5 or RK5 fuse rated 15A minimum and no more than 4 times full load amps not to exceed 125A for 50 Amp or less rating and not to exceed 175 for 51 through 100 Amp rating.

Table D: Lists UL Listed (489), CSA Certified (C22.2 No. 5.1-M) configuration and performance capabilities as a Molded Case Circuit Breaker.

C-SERIES TABLE D: UL489 LISTED BRANCH CIRCUIT BREAKER						
CIRCUIT CONFIGURATION	VOLTAGE			CURRENT RATING	INTERRUPT CAPACITY (AMPS)	CONSTRUCTION NOTES
	MAX RATING	FREQUENCY	PHASE	FULL LOAD AMPS	WITHOUT	
					BACKUP FUSE	
SERIES	80	D.C.	---	0.10 - 100	50,000 ¹	Limited to 2 Poles max from 71 - 100 Amps
	80	D.C.	---	0.10 - 100	10,000	Limited to 2 Poles max from 71 - 100 Amps
	125	D.C.	---	0.01 - 60	5,000	1 - 3 Poles
	120	50 / 60	1	0.10 - 70	10,000	1 - 3 Poles
	240	50 / 60	1	0.10 - 20	5,000	1 or 2 Poles
	240	50 / 60	1	21 - 30	5,000	1 Pole
	80DC/240AC	DC-50/60	1	0.10 - 20	5,000	1 or 2 Poles
	120/240	50 / 60	1	0.10 - 50	5,000	2 or 3 poles. 1 Pole of a 3 Pole Unit is Neutral
DUAL COIL	120	50/60	1	0.10 - 30	10,000	---

Notes from Table D:

1 Special catalog number required. Consult factory.

Table E: Lists UL Recognized, CSA Certified configurations and performance capabilities as Protectors, Supplementary for Marine Electrical and Fuel Systems (Guide PEQ22, 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.

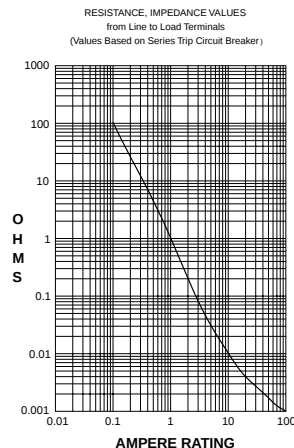
C-SERIES TABLE E: UL1500 (MARINE IGNITION PROTECTED)						
CIRCUIT CONFIGURATION	VOLTAGE			CURRENT RATING	INTERRUPTING CAPACITY (AMPS)	CONSTRUCTION NOTES
	MAX RATING	FREQUENCY	PHASE	FULL LOAD AMPS	WITHOUT BACKUP FUSE	
SERIES	48	DC	---	0.02 - 100	5000	---
	65	DC	---	0.02 - 100	1500	---
	80	DC	---	0.02 - 70	1500	---
	125	50/60	1	0.02 - 100	1500	---
	250	50/60	1	0.02 - 70	1500	---
	250	50/60	1	71 - 100	1500	2 Poles Breaking 1Ø

Table F: Lists UL Listed configurations and performance capabilities as Circuit Breakers for use in Communications Equipment (Guide DITT, File E189195), under UL489A.

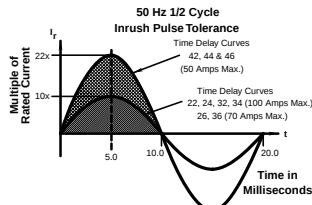
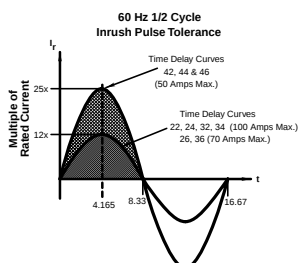
C-SERIES TABLE F: PARALLEL POLE CONSTRUCTION UL489A LISTED FOR COMMUNICATIONS EQUIPMENT					
CIRCUIT CONFIGURATION	VOLTAGE			CURRENT RATING	INTERRUPTING CAPACITY (AMPS)
	MAX RATING	FREQUENCY	PHASE	UL GENERAL PURPOSE (AMPS)	WITHOUT BACKUP FUSE
SERIES	80	DC	---	110 - 250	50,000

Electrical

Maximum Voltage	AC, 480 WYE/277 VAC, 50/60 Hz (see Table A.) UL489: AC, 240 VAC. (See Table D), 50/60 Hz, 125 VDC
Current Rating	Standard current coils: 0.100, 0.250, 0.500, 0.750, 1.00, 2.50, 5.00, 7.50, 10.0, 15.0, 25.0, 30.0, 35.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0 and 100 amps. Other ratings available, see Ordering Scheme.
Standard Voltage Coils	DC - 6V, 12V; AC - 120V; other ratings available, see Ordering Scheme.
Auxiliary Switch Rating	SPDT; 10.1 amps-250VAC, DC Aux. Switch 1.0A, 65 VDC. 0.5A, 80VDC, 1/4 HP, 125VAC, VDE & TUV 1.0 125 VAC.
Insulation Resistance Dielectric Strength	Minimum of 100 Megohms at 500 VDC. UL, CSA: 1960 V 50/60 Hz for one minute between all electrically isolated terminals. C-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.



CURRENT (AMPS)	TOLERANCE (%)
0.10 - 5.0	± 15%
5.1 - 20.0	± 25%
20.1 - 100.0	± 35%



Mechanical

Endurance	10,000 ON-OFF operations @ 6 per minute; with rated current & voltage.
Trip Free	All C-Series circuit breakers will trip on overload, even when actuator is forcibly held in the ON position.
Trip Indication	The operating actuator moves positively to the OFF position when an overload causes the breaker to trip. With mid-trip, handle moves to the mid position on electrical trip of the circuit breaker. With mid trip handle with alarm switch, handle moves to the mid position and the alarm switch actuates when the circuit

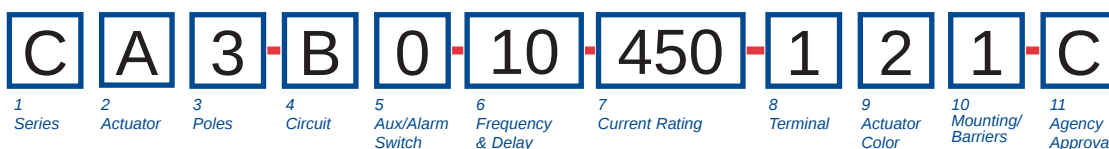
Physical

Number of Poles	1-6 poles ≤ 50A; 1-4 poles @ 51-70A; 1-2 poles 71-100A. UL489 Handle: 1 pole ≤ 100A, 2 pole ≤ 50A; Rocker: 1 pole ≤ 100A.
Internal Circuit Configurations	Series (with or without auxiliary switch, mid trip & mid trip with alarm switch) Shunt & Relay with current or voltage trip coils, Dual Coil, Switch Only (with or without aux. switch). UL489: Series (with or without auxiliary switch, mid-trip & mid-trip with alarm switch).
Weight	Approx. 112 grams/pole (3.95 oz).
Standard Colors	Housing: Black

Environmental

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

Shock	Withstands 100 Gs, 6ms sawtooth while carrying rated current per Method 213, Test Condition "I". Instantaneous and ultrashort curves tested @ 90% of rated current.
Vibration	Withstands 0.060" excursion from 10-55 Hz & 10 Gs 55-500 Hz, @ rated current per Method 204C, Test Cond. A. Instantaneous & ultrashort curves tested @ 90% of rated current.
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


1 SERIES
C
2 ACTUATOR¹

A Handle, one per pole
B Handle, one per multipole unit
S Mid-Trip Handle, one per pole
T Mid-Trip Handle, one per pole & Alarm Switch

3 POLES²

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

4 CIRCUIT³

A³ Switch Only (No Coil)	F⁴ Relay Trip (Current)	
B Series Trip (Current)	G⁴ Relay Trip (Voltage)	
C Series Trip (Voltage)	H^{4,5} Dual Coil with Shunt Trip	
D⁴ Shunt Trip (Current)	K^{4,5} Dual Coil with Relay Trip	
E⁴ Shunt Trip (Voltage)	Voltage Coil	

5 AUXILIARY/ALARM SWITCH⁶

0 w/o Aux Switch	5 S.P.S.T., 0.110 Q.C. Term. (Gold Contacts)	
2 S.P.D.T., 0.110 Q.C. Term.	6 S.P.S.T., 0.139 Solder Lug	
3 S.P.D.T., 0.139 Solder Lug	7 S.P.S.T., 0.110 Q.C. Term. (Gold Contacts)	
4 S.P.D.T., 0.110 Q.C. Term. (Gold Contacts)	8 S.P.S.T., 0.187 Q.C. Term.	
	9 S.P.D.T., 0.187 Q.C. Term.	

6 FREQUENCY & DELAY

03³ DC 50/60Hz, Switch Only	30 DC, 50/60Hz Instantaneous	
10⁷ DC Instantaneous	31 DC, 50/60Hz Ultra Short	
11 DC Ultra Short	32 DC, 50/60Hz Short	
12 DC Short	34 DC, 50/60Hz Medium	
14 DC Medium	36 DC, 50/60Hz Long	
16 DC Long	42⁸ 50/60Hz Short, Hi-Inrush	
20⁷ 50/60Hz Instantaneous	44⁸ 50/60Hz Medium, Hi-Inrush	
21 50/60Hz Ultra Short	46⁸ 50/60Hz Long, Hi-Inrush	
22 50/60Hz Short	52⁸ DC, Short, Hi-Inrush	
24 50/60Hz Medium	54⁸ DC, Medium, Hi-Inrush	
26 50/60Hz Long	56 DC, Long, Hi-Inrush	

7 CURRENT RATING (AMPERES)⁹

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	635⁵	35.000
075	0.075	290	0.900	485	8.500	640⁵	40.000
080	0.080	295	0.950	490	9.000	650⁵	50.000
085	0.085	410	1.000	495	9.500	660⁵	60.000
090	0.090	512	1.250	610	10.000	670⁵	70.000
095	0.095	415	1.500	710	10.500	680⁵	80.000
210	0.100	517	1.750	611	11.000	685⁵	85.000
215	0.150	420	2.000	711	11.500	690⁵	90.000
220	0.200	522	2.250	612	12.000	695⁵	95.000
225	0.250	425	2.500	712	12.500	810⁵	100.000
230	0.300	527	2.750	613	13.000		

OR VOLTAGE COIL (NOMINAL RATED VOLTAGE)⁷

A06	6 DC	A32	32 DC	J12	12 AC	J65	65 AC
A12	12 DC	A48	48 DC	J18	18 AC	K20	120 AC
A18	18 DC	A65	65 DC	J24	24 AC	L40	240 AC
A24	24 DC	J06	6 AC	J48	48 AC		

8 TERMINAL¹⁵

1¹⁰ Stud 10-32, threaded .625 long	5¹¹ Screw M5 x 0.8 w/saddle & washer clamp	
2¹¹ Screw 8-32 w/saddle & washer clamps	6¹² Stud M6 threaded, 17mm long	
3¹² Stud 1/4-20, threaded .625	7¹³ 0.250 Double Quick Connect	
4¹¹ Stud M5 x 0.8, threaded 16mm long	8 1/4" Clip Terminal	
	9 7/16" Clip Terminal	
	A¹⁴ Plug-In Stud	
	C 5/16" Clip Terminal	

9 ACTUATOR COLOR & LEGEND¹⁶

Actuator Color	I-O	ON-OFF	Dual	Legend Color
White	A	B	1	Black
Black	C	D	2	White
Red	F	G	3	White
Green	H	J	4	White
Blue	K	L	5	White
Yellow	M	N	6	Black
Gray	P	Q	7	Black
Orange	R	S	8	Black
Black (short handle) ¹⁷	T	U	9	White

10 MOUNTING/BARRIERS

	MOUNTING STYLE	BARRIERS	VOLTAGE
	Threaded Insert		
1	6-32 x 0.195 inches	no	< 300
A	6-32 X 0.195 inches	yes	< 300
C¹⁸	6-32 X 0.195 inches	yes	≥ 300
2	ISO M3 x 5mm	no	< 300
B	ISO M3 x 5mm	yes	< 300
D¹⁸	ISO M3 x 5mm	yes	≥ 300
	Front panel Snap-In, 1.00" [25.4mm] wide bezel		
E¹⁷	with Handleguard	no	< 300

11 AGENCY APPROVAL

C	UL Recognized & CSA Certified
D	VDE Certified, UL Recognized & CSA Certified
H	UL489 Construction: VDE Certified, UL Recognized & CSA Certified
I	UL Rec. STD 1077, UL Rec. 1500 (ignition protected), & CSA Certified

Notes:

- 1 Actuator Code:
 A: Handle tie pin spacer(s) and retainers provided unassembled with multi-pole units.
 B: Handle location as viewed from front of breaker:
 2 pole - left pole 3 pole - center pole
 4 pole - two handles at center poles 5 pole - three handles at center poles
 6 pole - four handles at center poles
 S: Handle moves to mid-position only upon electrical trip of the breaker. Available with circuit codes B, C, D, E, F, G, H and K.
 T: Handle moves to mid-position and alarm switch activates only upon electrical trip of the breaker. Available with circuit codes B & C.
- 2 Standard multipole units have all poles identical except when specifying auxiliary switch and/or mixed poles. 4 pole max w/VDE. 5th pole available as Series Trip w/Voltage Coil only.
- 3 Switch Only circuits, rated up to 50 amps and 6 poles, and only available with VDE Certification when tied to a protected pole (Circuit Code B, C, D or H.). For .02 to 30 amps, select Current Code 630. For 35 - 50 amps, select Current Code 650.
- 4 Circuit Codes D,E,F,G,H & K available with Terminal Codes 1,2,4 & 5 only. Circuit Codes D, F, H & K available up to 50 amps maximum Current Rating.
- 5 Consult factory for available Dual Coil options, as special catalog number is required. Dual Coil Voltage Coils with Shunt Trip Construction trip instantaneously on line voltage. Dual Coil Voltage Coils require 30VA minimum power to trip instantaneously and are rated for intermittent duty only.
- 6 Auxiliary Switch available with Series Trip and Switch Only circuits. On multi-pole breakers, one aux. switch is supplied, mounted in the extreme right pole.
- 7 Voltage coils not rated for continuous duty. Available only with delay codes 10 and 20.
- 8 Available with Circuit Codes B & D only, and up to 50 amps maximum.
- 9 Current rating Codes 660 through 810 are available with Circuit Codes A & B only. Current Ratings 60 - 70 are available up to four poles maximum. Ratings 71 - 100 are available up to two poles maximum.
- 10 Terminal Code 1 available to 60 amps maximum.
- 11 Terminal Codes 2,4,5 and C available to 50 amps maximum.
- 12 Terminal Codes 3,6 & 9 available to 100 amps maximum.
- 13 Terminal Code 7 available to 25 amps maximum.
- 14 Terminal Code A available to 100 amps maximum.
- 15 Terminal Codes 7,8,9 & C are not VDE approved.
- 16 No marking available. Consult factory. VDE Approval requires dual (I-O, ON-OFF) or I-O markings on all handles.
- 17 Single pole only.
- 18 VDE/TUV: 30 amps max.; UL/CSA: 50 amps max.; Available in 2 - 4 poles only and limited to AC Delays. "General Purpose amps" not rated for "full load amps" or to be used in applications with a motor.

C	A	2	P	0	D4	820	3	2	1	M	T
1 Series	2 Actuator	3 Poles	4 Circuit	5 Aux/Alarm Switch	6 Frequency & Delay	7 Current Rating	8 Terminal	9 Actuator Color	10 Mounting	11 Max. App. Rating	12 Agency Approval

1 SERIES

C

2 ACTUATOR¹

A Handle, one per pole
S Mid-Trip Handle, one per pole
T Mid-Trip Handle, one per pole & Alarm Switch

3 POLES³

2 Two **3** Three

4 CIRCUIT

P Series Trip (Parallel Pole)

5 AUXILIARY/ALARM SWITCH

0 w/o Aux Switch	5 S.P.S.T., 0.093 Q.C. Term. (Gold Contacts)
2 S.P.D.T., 0.110 Q.C. Term.	6 S.P.S.T., 0.139 Solder Lug
3 S.P.D.T., 0.139 Solder Lug	7 S.P.S.T., 0.110 Q.C. Term. (Gold Contacts)
4 S.P.D.T., 0.110 Q.C. Term. (Gold Contacts)	8 S.P.S.T., 0.187 Q.C. Term.
	9 S.P.D.T., 0.187 Q.C. Term.

6 FREQUENCY & DELAY

D1 DC Ultra Short	D4 DC Medium
D2 DC Short	D6 DC Long

7 CURRENT RATING (AMPERES)

811 110.000	814 140.000	917 175.000	922³ 225.000
812 120.000	815 150.000	818 180.000	825³ 250.000
912 125.000	816 160.000	819 190.000	
813 130.000	817 170.000	820 200.000	

8 TERMINAL²

3 1/4 - 20 Threaded Stud, .675 long
6 M6 Threaded Stud, 17 mm long
A Plug-In Stud

9 ACTUATOR COLOR

LEGEND			
	ON-OFF	Dual	Legend Color
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

MOUNTING STYLE
Threaded Insert
1 6-32 x 0.195 inches
2 ISO M3 x 5mm

11 MAXIMUM APPLICATION RATING

M 80 DC

12 AGENCY APPROVAL

T UL489A Listed

Notes:

- Actuator Code:
A: Handle tie pin spacer(s) and retainers provided unassembled with multi-pole units.
S: Handle moves to mid-position only upon electrical trip of the breaker.
T: Handle moves to mid-position and alarm switch activates only upon electrical trip of the breaker.
- Terminal Code:
3 & 6: Supplied with bus bars connecting the Line and Load Terminals.
A: Line and Load Terminals must be connected to a copper bus bar having a minimum cross section of 0.078 square inches.
- Above 200 amps, 3 poles are required.

C	A	3	B	0	14	450	1	2	1	K	G
1 Series	2 Actuator	3 Poles	4 Circuit	5 Aux/Alarm Switch	6 Frequency & Delay	7 Current Rating	8 Terminal	9 Actuator Color	10 Mounting/Barriers	11 Max. App. Rating	12 Agency Approval

1 SERIES
C
2 ACTUATOR¹

A Handle, one per pole
B Handle, one per multipole unit
S Mid-Trip Handle, one per pole
T Mid-Trip Handle, one per pole & Alarm Switch

3 POLES²

1 One **2** Two **3** Three

4 CIRCUIT

B Series Trip (Current)

5 AUXILIARY/ALARM SWITCH³

0 w/o Aux Switch	5 S.P.S.T., 0.110 Q.C. Term. (Gold Contacts)
2 S.P.D.T., 0.110 Q.C. Term.	6 S.P.S.T., 0.139 Solder Lug
3 S.P.D.T., 0.139 Solder Lug	7 S.P.S.T., 0.110 Q.C. Term. (Gold Contacts)
4 S.P.D.T., 0.110 Q.C. Term. (Gold Contacts)	8 S.P.S.T., 0.187 Q.C. Term.
	9 S.P.D.T., 0.187 Q.C. Term.

6 FREQUENCY & DELAY

11 DC Ultra Short	26 50/60Hz Long
12 DC Short	42⁴ 50/60Hz Short, Hi-Inrush
14 DC Medium	44⁴ 50/60Hz Medium, Hi-Inrush
16 DC Long	46⁴ 50/60Hz Long, Hi-Inrush
21 50/60Hz Ultra Short	52⁴ DC, Short, Hi-Inrush
22 50/60Hz Short	54⁴ DC, Medium, Hi-Inrush
24 50/60Hz Medium	56⁴ DC, Long, Hi-Inrush

7 CURRENT RATING (AMPERES)⁵

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
095 0.095	415 1.500	710 10.500	680 80.000
210 0.100	517 1.750	611 11.000	685 80.000
215 0.150	420 2.000	711 11.500	690 90.000
220 0.200	522 2.250	612 12.000	695 90.000
225 0.250	425 2.500	712 12.500	810 100.000
230 0.300	527 2.750	613 13.000	

8 TERMINAL ⁶

1⁷ Stud 10-32, threaded .625 long	5⁸ Screw M5 x 0.8 w/saddle & washer clamp
2⁸ Screw 8-32 w/saddle & washer clamps	6⁹ Stud M6 threaded, 17mm long
3⁹ Stud 1/4-20, threaded .625 long	8 1/4" Clip Terminal
4⁸ Stud M5 x 0.8, threaded 16mm long	9⁹ 7/16" Clip Terminal
	A¹⁰ Push-In Stud
	C 5/16" Clip Terminal

9 ACTUATOR COLOR & LEGEND¹¹

Actuator Color	ON-OFF	Dual	Legend Color
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

MOUNTING STYLE	BARRIERS
Threaded Insert	
1 6-32 x 0.195 inches	yes
2 ISO M3 x 5mm	yes

11 MAXIMUM APPLICATION RATING

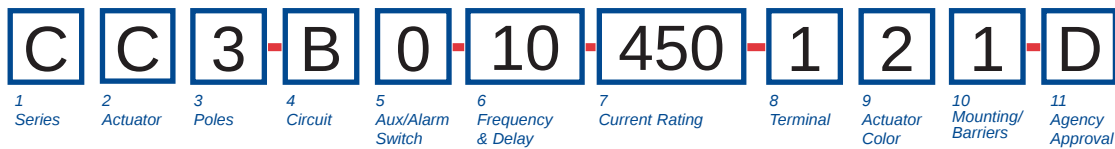
A 65 DC
B 125 DC
C 120/240 AC ²
D 240 AC
K 120 AC
M 80 DC

12 AGENCY APPROVAL ¹¹

A w/o approvals
F UL489 Listed, CSA Certified & VDE Certified
G UL489 Listed & CSA Certified
J UL489 Listed, CSA Certified & TUV Certified

Notes:

- Actuator Code:
A: Handle tie pin spacer(s) and retainers provided unassembled with multi-pole units.
B: Handle located, as viewed from front of breaker in left pole. 2 pole maximum.
S: Handle moves to mid-position only upon electrical trip of the breaker.
T: Handle moves to mid-position and alarm switch activates only upon electrical trip of the breaker.
- Standard multipole units have all poles identical except when specifying auxiliary switch and/or mixed poles.
2 & 3 pole circuit breakers required for 120/240 VAC (Maximum application rating code C) applications, have all poles identical except when specifying auxiliary / alarm switch which is normally supplied in extreme right pole per figure B. These units are available with one handle per pole only and terminal barrier is required.
Third pole is for 120/240 VAC applications requiring neutral disconnect. The 3rd pole has the same construction as poles 1 & 2.
- On multi-pole breakers, one auxiliary switch is supplied, mounted in the extreme right pole. VDE approval on auxiliary switch codes 2, 3 & 4 only.
Auxiliary / Alarm Switch with Independent Circuit ie: separate from breaker circuit, only available with circuit breakers rated 50 amp maximum at 80 VDC, 125 VDC, and 120 VAC.
Auxiliary / Alarm Switch with Dependent Circuit ie: same as circuit breaker, is supplied from factory with common terminal of auxiliary / alarm switch connected to line terminal on 120/240 and 240 VAC ratings. Circuit breakers rated 120 VAC 50 amp maximum can be supplied with Auxiliary/Alarm switch common terminal connected to breaker line terminal. Consult factory for special catalog number.
Available up to 50 amps maximum.
- Current ratings 71 - 100 with VDE approvals are available up to two poles maximum.
- Terminal Codes 8, 9 & C are not VDE approved.
- Terminal Code 1 available to 60 amps maximum.
- Terminal Codes 2, 4, 5 & C available to 50 amps maximum.
- Terminal Codes 3, 6 & 9 available to 100 amps maximum.
- Terminal Code A available to 100 amps maximum.
- VDE and TUV approvals require Dual (I-O, ON-OFF) markings on all handles.


1 SERIES
C
2 ACTUATOR ¹
Two Color Visi-Rocker

C Indicate ON, vertical legend
D Indicate ON, horizontal legend
E Indicate ON, no legend
F Indicate OFF, vertical legend
G Indicate OFF, horizontal legend
H Indicate OFF, no legend

Push-To-Reset, Visi-Rocker

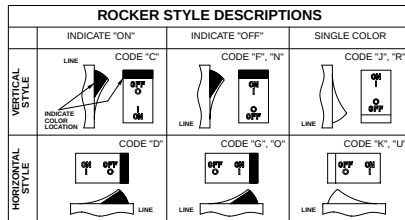
N Indicate OFF, vertical legend
O Indicate OFF, horizontal legend
P Indicate OFF, no legend

Single color

J Vertical legend
K Horizontal legend
L No legend

Push-To-Reset, Single color

R Vertical legend
U Horizontal legend
V No legend


3 POLES²

1 One **2** Two **3** Three

4 CIRCUIT

A³ Switch Only (No Coil)
B Series Trip (Current)
C Series Trip (Voltage)
D⁴ Shunt Trip (Current)
E⁴ Shunt Trip (Voltage)

F⁴ Relay Trip (Current)
G⁴ Relay Trip (Voltage)
H^{4,5} Dual Coil with Shunt Trip Voltage Coil
K^{4,5} Dual Coil with Relay Trip Voltage Coil

5 AUXILIARY/ALARM SWITCH⁶

0 w/o Aux Switch
2 S.P.D.T., 0.110 Q.C. Term.
3 S.P.D.T., 0.139 Solder Lug
4 S.P.D.T., 0.110 Q.C. Term. (Gold Contacts)

5 S.P.S.T., 0.093 Q.C. Term. (Gold Contacts)
6 S.P.S.T., 0.139 Solder Lug
7 S.P.S.T., 0.110 Q.C. Term. (Gold Contacts)
8 S.P.S.T., 0.187 Q.C. Term.
9 S.P.D.T., 0.187 Q.C. Term.

6 FREQUENCY & DELAY

03 DC 50/60Hz, Switch Only
10⁷ DC Instantaneous
11 DC Ultra Short
12 DC Short
14 DC Medium
16 DC Long
20⁷ 50/60Hz Instantaneous
21 50/60Hz Ultra Short
22 50/60Hz Short
24 50/60Hz Medium
26 50/60Hz Long

30 DC, 50/60Hz Instantaneous
31 DC, 50/60Hz Ultra Short
32 DC, 50/60Hz Short
34 DC, 50/60Hz Medium
36 DC, 50/60Hz Long
42⁸ 50/60Hz Short, Hi-Inrush
44⁸ 50/60Hz Medium, Hi-Inrush
46⁸ 50/60Hz Long, Hi-Inrush
52⁸ DC, Short, Hi-Inrush
54⁸ DC, Medium, Hi-Inrush
56⁸ DC, Long, Hi-Inrush

Notes:

- 1 Push-To-Reset actuators have OFF portion of rocker shrouded.
- 2 Multi-pole breakers have all poles identical except when specifying Aux. switch and/or mixed poles, and have one rocker per breaker. Rocker location as viewed from front panel: 2 pole – left pole; 3 pole – center pole.
- 3 Switch Only circuits, rated up to 50 amps and 3 poles, and only available with VDE Certification when tied to a protected pole (Circuit Code B, C, D or H.). For .02 to 30 amps, select Current Code 630. For 35 - 50 amps, select Current Code 650.
- 4 Circuit Codes D,E,F,G,H & K available with Terminal Codes 1,2,4 & 5 only. Circuit Codes D,F,H & K available up to 50 amps maximum Current Rating.
- 5 Consult factory for available Dual Coil options, as special catalog number is required. Dual Coil Voltage Coils with Shunt Trip Construction trip instantaneously on line voltage. Dual Coil Voltage Coils require 30VA minimum power to trip instantaneously and are rated for intermittent duty only.
- 6 Auxiliary Switch available with Series Trip and Switch Only circuits. On multi-pole breakers, one aux. switch is supplied, mounted in the extreme right pole. Auxiliary switch codes 2,3 & 4 are VDE approved.
- 7 Voltage coils not rated for continuous duty. Available only with delay codes 10 and 20.
- 8 Available with Circuit Codes B & D only, and up to 50 amps maximum.
- 9 Current rating Codes 660 through 810 are available with Circuit Codes A & B only. Ratings 71 - 100 are available up to two poles maximum. Ratings 60-70 are available up to four poles maximum.
- 10 Terminal Code 1 available to 60 amps maximum.
- 11 Terminal Codes 2,4,5 & C available to 50 amps maximum.
- 12 Terminal Codes 3,6 & 9 available to 100 amps maximum.
- 13 Terminal Code 7 available to 25 amps maximum.
- 14 Terminal Code A available to 100 amps maximum.
- 15 Terminal Codes 7,8,9 & C are not VDE approved.
- 16 Color shown is visi and legend with remainder of rocker black.
- 17 Legend on Push-to-reset bezel/shroud is white when single color rocker is ordered. Dual = ON-OFF/I-O leg-end with actuator codes C - G, and J, K, N, O, R, & U. None = no legend with actuator codes H, L, P, V. Rockerguard available with actuator codes C - L. Push-to-reset available with actuator codes N, O, P, R, U, V. VDE approval requires Dual (I-O, ON-OFF) or I-O markings on rocker.
- 18 VDE/TUV: 30 amps max.; UL/CSA: 50 amps max.; Available in 2 - 4 poles only and limited to AC Delays.
- 19 "General Purpose amps" not rated for "full load amps" or to be used in applications with a motor.

7 CURRENT RATING (AMPERES)⁹

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 ⁵	35.000
075	0.075	290	0.900	485	8.500	640 ⁵	40.000
080	0.080	295	0.950	490	9.000	650 ⁵	50.000
085	0.085	410	1.000	495	9.500	660 ⁵	60.000
090	0.090	512	1.250	610	10.000	670 ⁵	70.000
095	0.095	415	1.500	710	10.500	680 ⁵	80.000
210	0.100	517	1.750	611	11.000	685 ⁵	85.000
215	0.150	420	2.000	711	11.500	690 ⁵	90.000
220	0.200	522	2.250	612	12.000	695 ⁵	95.000
225	0.250	425	2.500	712	12.500	810 ⁵	100.000
230	0.300	527	2.750	613	13.000		

OR VOLTAGE COIL (NOMINAL RATED VOLTAGE)⁷

A06	6 DC	A32	32 DC	J12	12 AC	J65	65 AC
A12	12 DC	A48	48 DC	J18	18 AC	K20	120 AC
A18	18 DC	A65	65 DC	J24	24 AC	L40	240 AC
A24	24 DC	J06	6 AC	J48	48 AC		

8 TERMINAL

1 ¹⁰	Stud 10-32, threaded .625 long	5 ¹¹	Screw M5 x 0.8 w/saddle & washer clamp
2 ¹¹	Screw 8-32 w/saddle & washer clamps	6 ¹²	Stud M6 threaded, 17mm long
3 ¹²	Stud 1/4-20, threaded .625 long	7 ¹³	0.250 Double Quick Connect
4 ¹¹	Stud M5 x 0.8, threaded 16mm long	8	1/4" Clip Terminal
		9	7/16" Clip Terminal
		A ¹⁴	Plug-In Stud
		C	5/16" Clip Terminal

9 ACTUATOR COLOR & LEGEND^{16, 17, 18}

Actuator or Visi-Color	Marking:	Marking Color:
		Single Color
Color:	I-O ON-OFF Dual/None	Rocker/Handle Visi-Rocker
White	A B 1	Black White
Black	C D 2	White n/a
Red	F G 3	White Red
Green	H J 4	White Green
Blue	K L 5	White Blue
Yellow	M N 6	Black Yellow
Gray	P Q 7	Black Gray
Orange	R S 8	Black Orange

10 MOUNTING/BARRIERS¹

	STANDARD ROCKER BEZEL	BARRIERS	VOLTAGE
1	6-32 x 0.195 inches	no	<300
2	6-32 x 0.195 inches	yes	<300
3 ¹⁹	6-32 x 0.195 inches	yes	≥300
4	ISO M3 x 5mm	no	<300
5	ISO M3 x 5mm	yes	<300
6 ¹⁹	ISO M3 x 5mm	yes	≥300
	ROCKERGARD BEZEL		
A	6-32 x 0.195 inches	no	<300
C	6-32 x 0.195 inches	yes	<300
E ¹⁹	6-32 x 0.195 inches	yes	≥300
G	ISO M3 x 5mm	no	<300
J	ISO M3 x 5mm	yes	<300
L ¹⁹	ISO M3 x 5mm	yes	≥300
	PUSH-TO-RESET BEZEL		
B	6-32 x 0.195 inches	no	<300
D	6-32 x 0.195 inches	yes	<300
F ¹⁹	6-32 x 0.195 inches	yes	≥300
H	ISO M3 x 5mm	no	<300
J	ISO M3 x 5mm	yes	<300
M ¹⁹	ISO M3 x 5mm	yes	≥300

11 AGENCY APPROVAL

C	UL Recognized & CSA Certified
D	VDE Certified, UL Recognized & CSA Certified
H	UL489 Construction: VDE Certified, UL Recognized & CSA Certified
I	UL Rec. STD 1077, UL Rec. 1500 (ignition protected), & CSA Certified

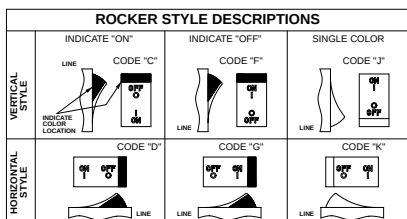
C	C	3	B	0	14	450	1	2	A	K	G
1 Series	2 Actuator	3 Poles	4 Circuit	5 Aux/Alarm Switch	6 Frequency & Delay	7 Current Rating	8 Terminal	9 Actuator Color	10 Mounting/ Barriers	11 Max. App. Rating	12 Agency Approval

1 SERIES
C
2 ACTUATOR ¹
Two Color Visi-Rocker

C Indicate ON, vertical legend
D Indicate ON, horizontal legend
F Indicate OFF, vertical legend
G Indicate OFF, horizontal legend

Single color

J Vertical legend
K Horizontal legend


3 POLES¹

1 One **2** Two **3** Three

4 CIRCUIT

B Series Trip (Current)

5 AUXILIARY/ALARM SWITCH²

0 w/o Aux Switch
2 S.P.D.T., 0.110 Q.C. Term.
3 S.P.D.T., 0.139 Solder Lug
4 S.P.D.T., 0.110 Q.C. Term. (Gold Contacts)
5 S.P.S.T., 0.093 Q.C. Term. (Gold Contacts)
6 S.P.S.T., 0.139 Solder Lug
7 S.P.S.T., 0.110 Q.C. Term. (Gold Contacts)
8 S.P.S.T., 0.187 Q.C. Term.
9 S.P.D.T., 0.187 Q.C. Term.

6 FREQUENCY & DELAY

11 DC Ultra Short **26** 50/60Hz Long
12 DC Short **42³** 50/60Hz Short, Hi-Inrush
14 DC Medium **44³** 50/60Hz Medium, Hi-Inrush
16 DC Long **46³** 50/60Hz Long, Hi-Inrush
21 50/60Hz Ultra Short **52³** DC, Short, Hi-Inrush
22 50/60Hz Short **54³** DC, Medium, Hi-Inrush
24 50/60Hz Medium **56³** DC, Long, Hi-Inrush

7 CURRENT RATING (AMPERES)⁴

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
095	0.095	415	1.500	710	10.500	680	80.000
210	0.100	517	1.750	611	11.000	685	85.000
215	0.150	420	2.000	711	11.500	690	90.000
220	0.200	522	2.250	612	12.000	695	95.000
225	0.250	425	2.500	712	12.500	810	100.000
230	0.300	527	2.750	613	13.000		

8 TERMINAL

1⁵ Stud 10-32, threaded .625 long	5⁶ Screw M5 x 0.8 w/saddle & washer clamp
2⁶ Screw 8-32 w/saddle & washer clamps	6⁷ Stud M6 threaded, 17mm long
3⁷ Stud 1/4-20, threaded .625 long	8⁸ 1/4" Clip Terminal
4⁶ Stud M5 x 0.8, threaded 16mm long	9^{7,8} 7/16" Clip Terminal
	A^{7,8} Push-In Stud
	C^{6,8} 5/16" Clip Terminal

9 ACTUATOR COLOR & LEGEND¹¹
Actuator or
Visi-Color⁹
Marking:
Marking Color:

Color:	ON-OFF	Dual ¹⁰	Single Color Rocker/Handle	Visi-Rocker
White	B	1	Black	White
Black	D	2	White	n/a
Red	G	3	White	Red
Green	J	4	White	Green
Blue	L	5	White	Blue
Yellow	N	6	Black	Yellow
Gray	Q	7	Black	Gray
Orange	S	8	Black	Orange

10 MOUNTING/BARRIERS¹²

	STANDARD ROCKER BEZEL Threaded Insert, 2 per pole	BARRIERS
A	6-32 X 0.195 inches	yes
C	ISO M3 x 5mm	yes
	ROCKERGUARD BEZEL Threaded Insert, 2 per pole	
B	6-32 x 0.195 inches	yes
D	ISO M3 x 5mm (multi-pole units only)	yes

11 MAXIMUM APPLICATION RATING

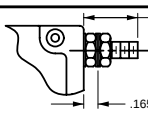
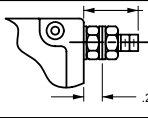
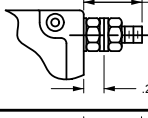
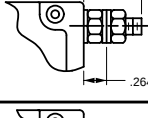
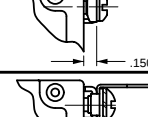
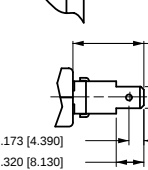
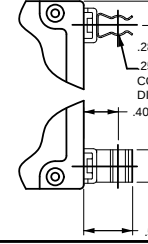
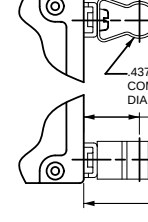
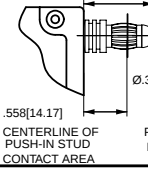
A 65 DC
B 125 DC
C 120/240 AC
D 240 AC
K 120 AC
M 80 DC

12 AGENCY APPROVAL

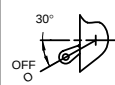
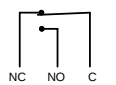
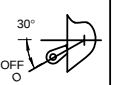
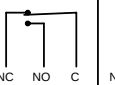
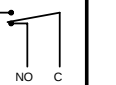
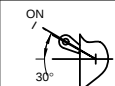
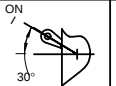
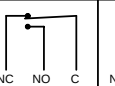
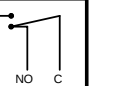
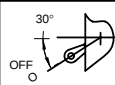
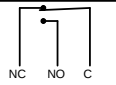
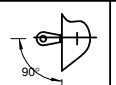
A without approvals
F UL 489 Listed, CSA Certified, & VDE Certified
G UL 489 Listed & CSA Certified
J UL489 Listed, CSA Certified & TUV Certified

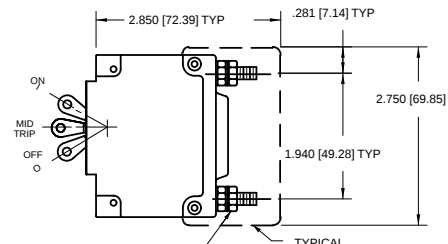
Notes:

- Multi-pole breakers have all breakers identical except when specifying Aux. switch and/or mixed poles, and have one rocker per breaker.
- On multi-pole breakers, one aux. switch is supplied, mounted in the extreme right pole.
- Available up to 50 amps maximum.
- Current ratings 71 - 100 with VDE approvals are available up to two poles maximum.
- Terminal Code 1 available to 60 amps maximum.
- Terminal Codes 2, 4, 5 & C available to 50 amps maximum.
- Terminal Codes 3, 6, 9 & A available to 100 amps maximum.
- Terminal Codes 8, 9 & C are not VDE approved.
- Color shown is visi and legend with remainder of rocker black
- Dual = ON-OFF/I-O legend on actuator.
- VDE and TUV approval requires Dual (I-O, ON-OFF) markings on rocker.
- Rockerguard available with all actuator codes.

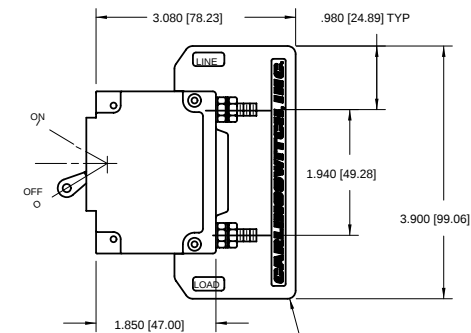
DESCRIPTION	CODE	TERMINAL DIMENSIONAL DETAIL	RATING (AMPS)		
			25	50	100
#10-32 STUD	1	 .625 [15.880] .165 [4.190]			
M5 STUD	4	 .630 [16.000] .215 [5.460]			
#1/4-20 STUD	3	 .675 [17.15] .235 [5.970]			
M6 STUD	6	 .669 [17.000] .264 [6.710]			
#10-32 SCREW	2	 ±.015 ±.38 .150 [3.810]			
M-5 SCREW	5				
.250 DOUBLE Q.C.	7	 .400 [10.60] .820 [20.830] .250 [6.350] 1.73 [4.390] .320 [8.130]			
1/4" CLIP TERMINALS	8	 .281 [7.14] 250 DIA [Ø6.35] COMPONENT DIA .401 [10.18] .375 [9.53] .566 [14.38]			
7/16" CLIP TERMINALS	9	 .437 DIA [Ø11.10] COMPONENT DIA .644 [16.36] .901 [22.89]			
PUSH-IN STUD	A	 .960 [24.38] +.002 -.000 +.05 -.00 Ø.311 [7.90] 558 [14.17] CENTERLINE OF PUSH-IN STUD CONTACT AREA PUSH-IN STUD MATING HOLE			

NOTE: TOLERANCE ON STUD LENGTHS IS ±.031 [±.79] UNLESS OTHERWISE SPECIFIED

HANDLE POSITION VS. AUX/ALARM SWITCH MODE					
CIRCUIT BREAKER MODE	STANDARD C/B			MID TRIP C/B	
	HANDLE POSITION	AUX. SWITCH MODE	HANDLE POSITION	STANDARD ALARM SWITCH MODE	REVERSE ALARM SWITCH MODE ⁴
OFF	 30° OFF O	 NC NO C	 30° OFF O	 NC NO C	 NC NO C
ON	 ON 30°	 NC NO C	 ON 30°	 NC NO C	 NC NO C
ELECTRICAL TRIP	 30° OFF O	 NC NO C	 90°	 NC NO C	 NC NO C

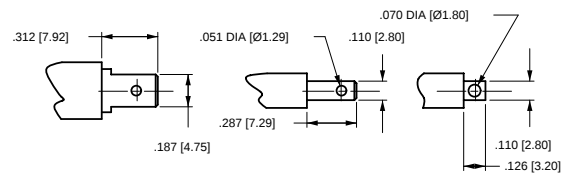


TYPICAL TERMINAL BARRIER
STUD TERMINAL VERSION IS SUPPLIED WITH 2 HEX NUTS AND FLAT WASHERS/TERMINAL SCREW TERMINAL VERSION IS SUPPLIED WITH #10-32 SCREW, FLAT WASHER AND SADDLE CLAMP/TERMINAL THE SADDLE CLAMP IS FOR DIRECT WIRE CONNECTION USE. DISCARD SADDLE CLAMP IF WIRE TERMINAL LUG IS USED



SPECIAL TERMINAL BARRIER
REQUIRED FOR U.L. 489 LISTED
CIRCUIT BREAKERS WITH
120/240 VAC RATINGS

AUXILIARY / ALARM SWITCH TERMINAL DETAIL ³



TAB (Q.C.) .187

TAB (Q.C.) .110

SOLDER TYPE

Notes:

- All dimensions are in inches [millimeters].
- Tolerance ±.010 [.25] unless otherwise specified.
- Available on Series Trip and Switch Only Circuits when called for on multi-pole units. Only one aux. switch is normally supplied, as viewed in multi-pole identification scheme.
- Available only as special catalog number.

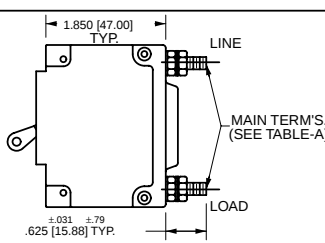
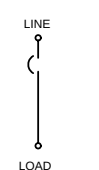
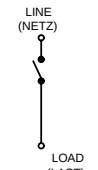
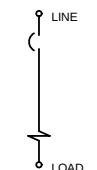
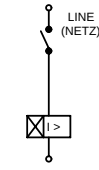
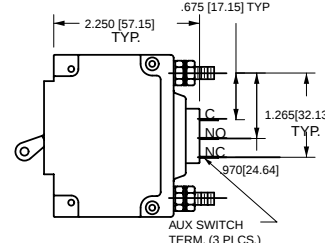
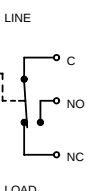
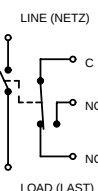
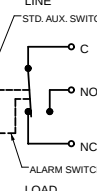
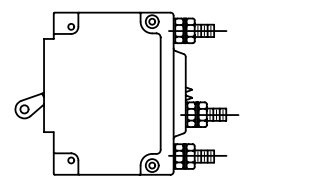
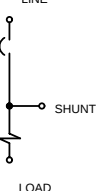
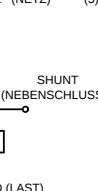
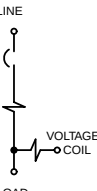
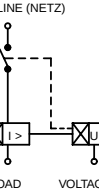
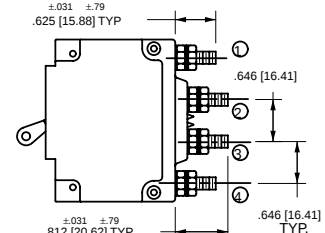
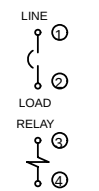
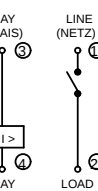
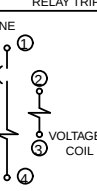
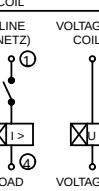
	CIRCUIT SCHEMATIC		CIRCUIT CODE	AUX SWITCH CODE	CIRCUIT SCHEMATIC		CIRCUIT CODE	AUX SWITCH CODE
	ANSI	IEC			ANSI	IEC		
	SWITCH ONLY (NO COIL)				SERIES TRIP			
			A	O			B C	O
			A	2 3 4			B C	2 3 4
			D E	0			H	0
			F G	0			K	0

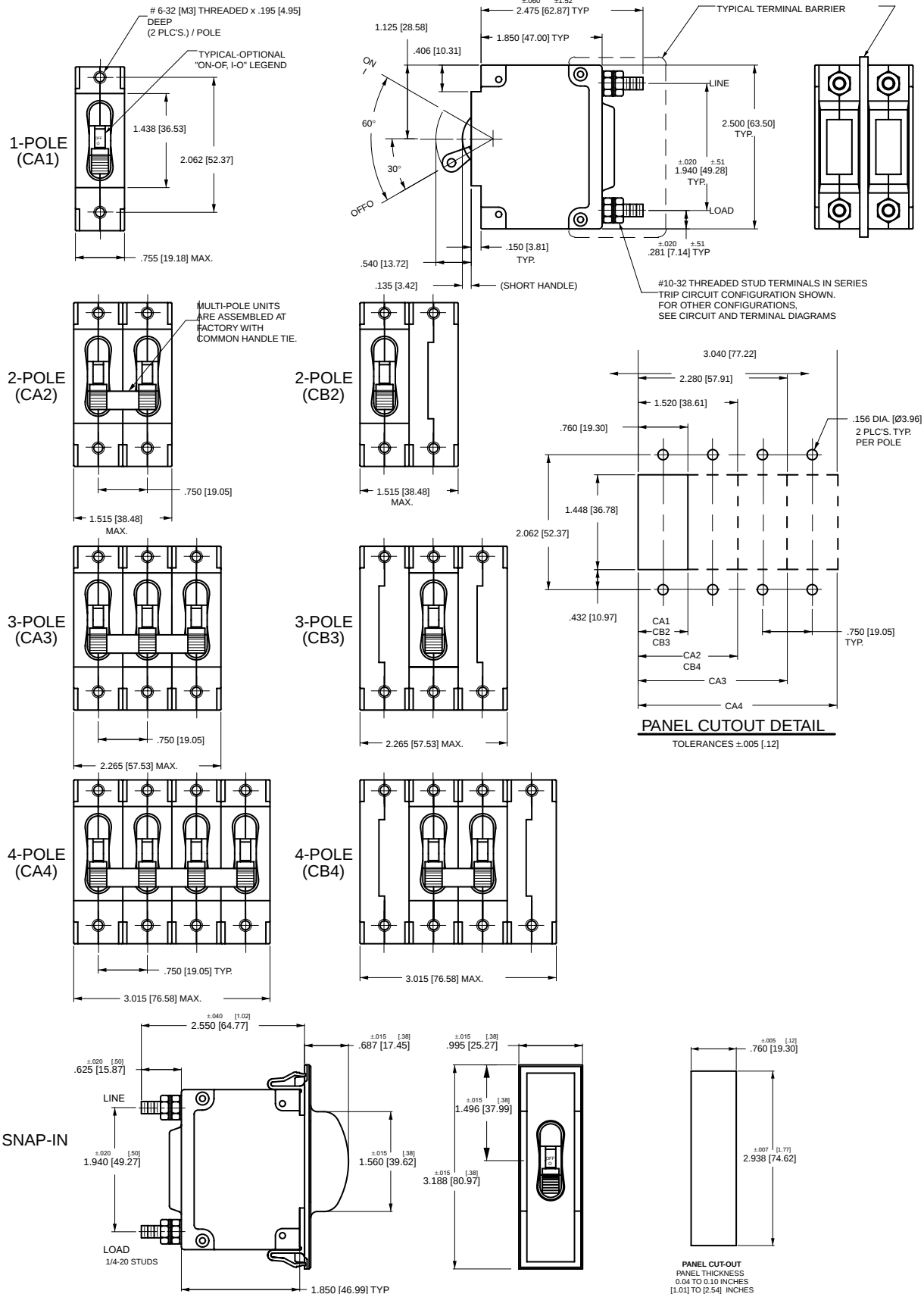
TABLE A

TIGHTENING TORQUE SPECIFICATIONS

THREAD SIZE	TORQUE
#6-32 [M3] MOUNTING INSERTS	7-9 IN-LBS [0.8-1.0 NM]
#10-32 & M5 THD STUDS	15-20 IN-LBS [1.7-2.3 NM]
#10-32 THD SCREW	15-20 IN-LBS [1.7-2.3 NM]
#1/4-20 & M6 THD STUDS	30-35 IN-LBS [3.4-4.0 NM]

Notes:

- All dimensions are in inches [millimeters].
- Tolerance ± 0.015 [.38] unless otherwise specified.
- Schematic shown represents current trip circuits.

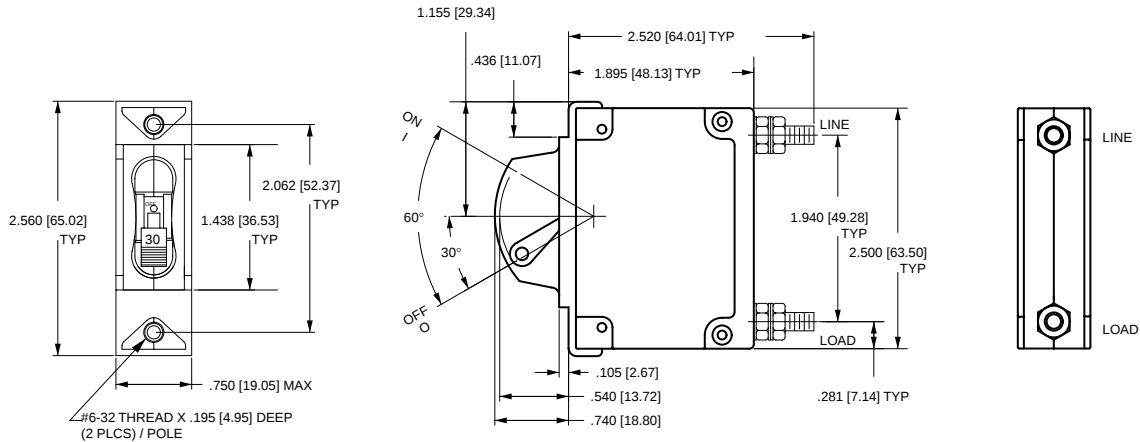


Notes:

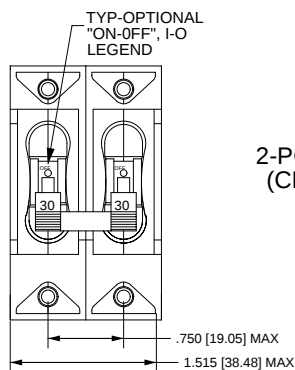
1 All dimensions are in inches [millimeters].

2 Tolerance ± 0.010 [.25] unless otherwise specified.

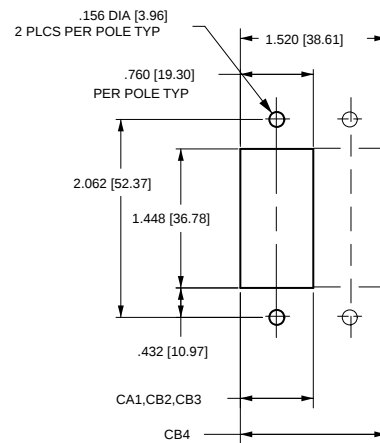
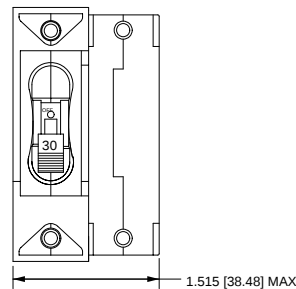
**1-POLE
(CA1)**



**2-POLE
(CA2)**

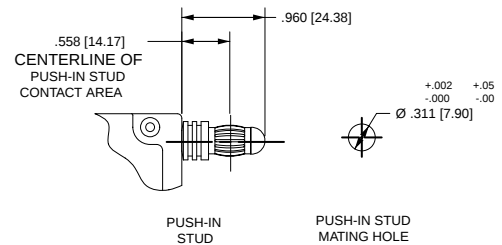
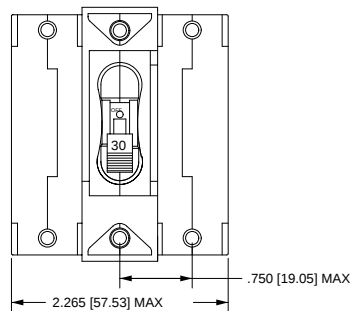


**2-POLE
(CB2)**



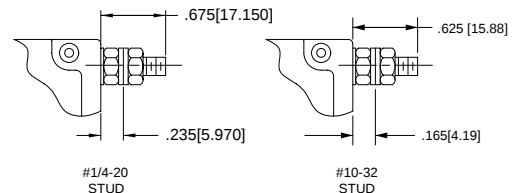
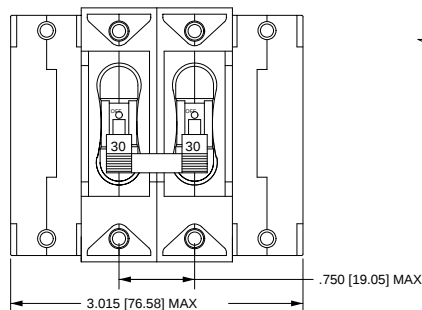
PANEL CUTOUT DETAIL

**3-POLE
(CB3)**



TERMINAL DETAILS

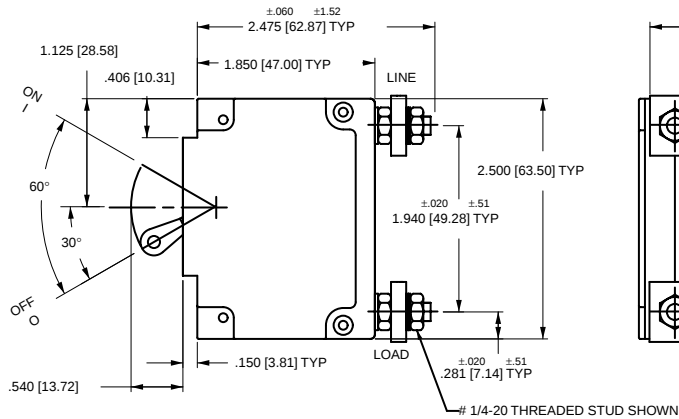
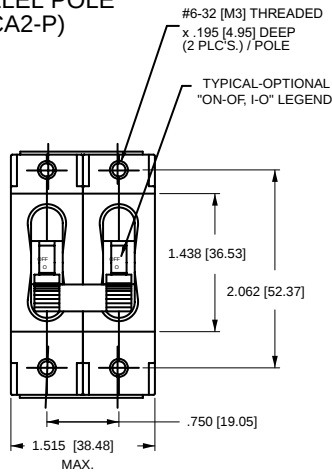
**4-POLE
(CB4)**



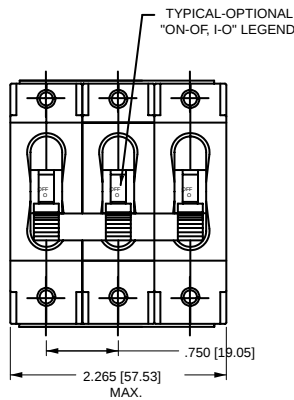
Notes:

- 1 All dimensions are in inches [millimeters].
- 2 Tolerance ± 0.10 [.25] unless otherwise specified.
- 3 Available as special catalog number only.

**PARALLEL POLE
(CA2-P)**

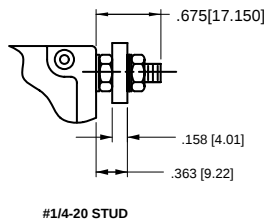
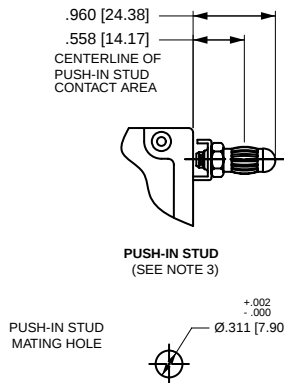


**PARALLEL POLE
(CA3-P)**



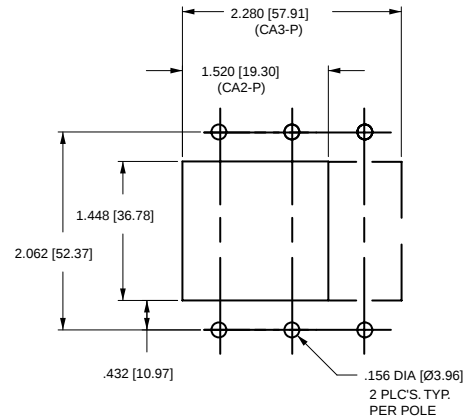
CIRCUIT BREAKER PROFILE	CIRCUIT SCHEMATIC		CIRCUIT CODE	AUX SWITCH CODE
	ANSI	IEC		
			P	0
			P	2 3 4

TERMINAL DETAILS



PANEL CUTOUT DETAIL

TOLERANCES ± 0.05 [.12]



Notes:

- 1 All dimensions are in inches [millimeters].
- 2 Tolerance ± 0.10 [.25] unless otherwise specified.
- 3 Line and Load terminals must be paralleled with copper bus with a minimum cross section of .078 square inches [50.32 sq. mm.].

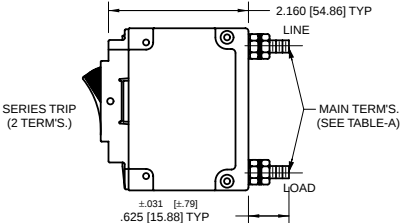
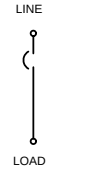
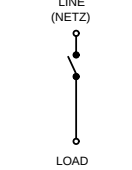
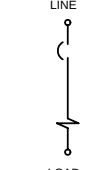
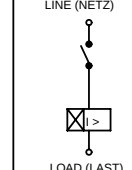
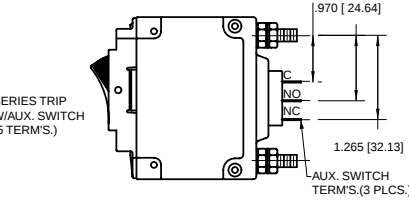
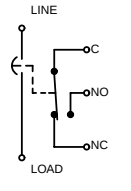
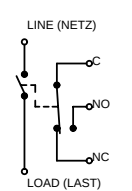
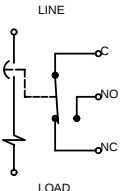
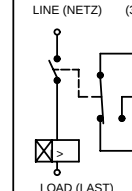
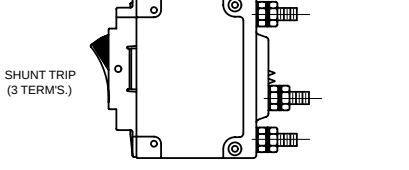
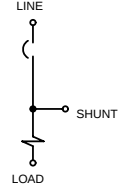
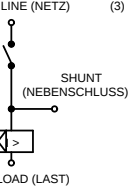
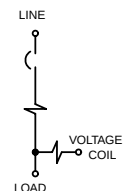
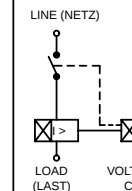
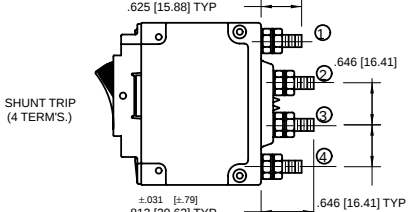
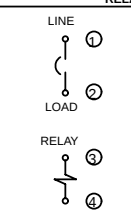
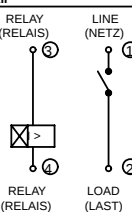
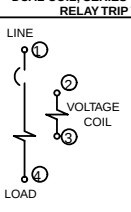
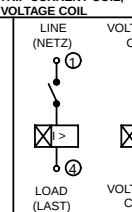
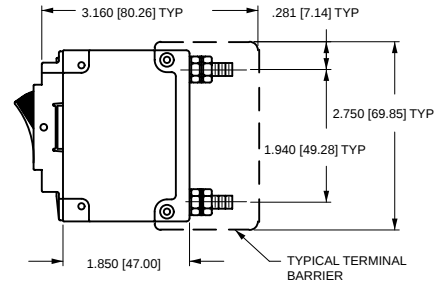
CIRCUIT BREAKER PROFILE	CIRCUIT SCHEMATIC		CIRCUIT CODE	AUX. SWITCH CODE	CIRCUIT SCHEMATIC		CIRCUIT CODE	AUX. SWITCH CODE
	ANSI	IEC			ANSI	IEC		
	SWITCH ONLY (NO COIL)		A	0	SWITCH TRIP		BC	0
								
	SWITCH ONLY (NO COIL) WITH AUXILIARY SWITCH		A	2 3 4	SERIES TRIP WITH AUXILIARY SWITCH		BC	2 3 4
								
	SHUNT TRIP		DE	0	DUAL COIL; SERIES TRIP CURRENT COIL, SHUNT TRIP VOLTAGE COIL		H	0
								
	RELAY TRIP		FG	0	DUAL COIL; SERIES TRIP CURRENT COIL, RELAY TRIP VOLTAGE COIL		K	0
								

TABLE A	
TIGHTENING TORQUE SPECIFICATIONS	
THREAD SIZE	TORQUE
#6-32 [M3] MOUNTING INSERTS	7-9 IN-LBS [0.8-1.0] NM
#10-32 & M5 THD STUDS	15-20 IN-LBS [1.7-2.3] NM
#10-32 & M5 THD SCREW	15-20 IN-LBS [1.7-2.3] NM
#1/4-20 & M6 THD STUDS	30-35 IN-LBS [3.4-4.0] NM

Notes:
 1 All dimensions are in inches [millimeters].
 2 Tolerance ± 0.015 [.38] unless otherwise specified.

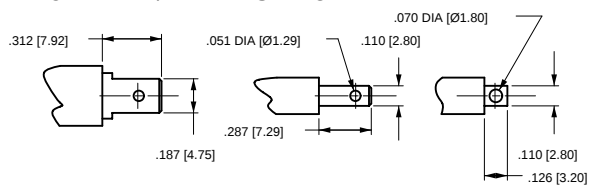
TERMINAL			RATING (AMPS)		
DESCRIPTION	CODE	DIMENSIONAL DETAIL	25	50	100
#10-32 STUD	1				
M5 STUD	4				
#1/4-20 STUD	3				
M6 STUD	6				
#10-32 SCREW	2				
M-5 SCREW	5				
.250 DOUBLE Q.C.	7				
1/4" CLIP TERMINALS	8				
7/16" CLIP TERMINALS	9				
PUSH-IN STUD	A				

NOTE: TOLERANCE ON STUD LENGTHS IS $\pm .031$ [$\pm .79$] UNLESS OTHERWISE SPECIFIED



STUD TERMINAL VERSION IS SUPPLIED WITH 2 HEX NUTS AND FLAT WASHERS / TERMINAL. SCREW TERMINAL VERSION IS SUPPLIED WITH #10-32 SCREW, FLAT WASHER AND SADDLE CLAMP / TERMINAL. THE SADDLE CLAMP IS FOR DIRECT WIRE CONNECTION USE. DISCARD SADDLE CLAMP IF WIRE TERMINAL LUG IS USED

AUXILIARY / ALARM SWITCH TERMINAL DETAIL³



TAB (Q.C.) .187

TAB (Q.C.) .110

SOLDER TYPE

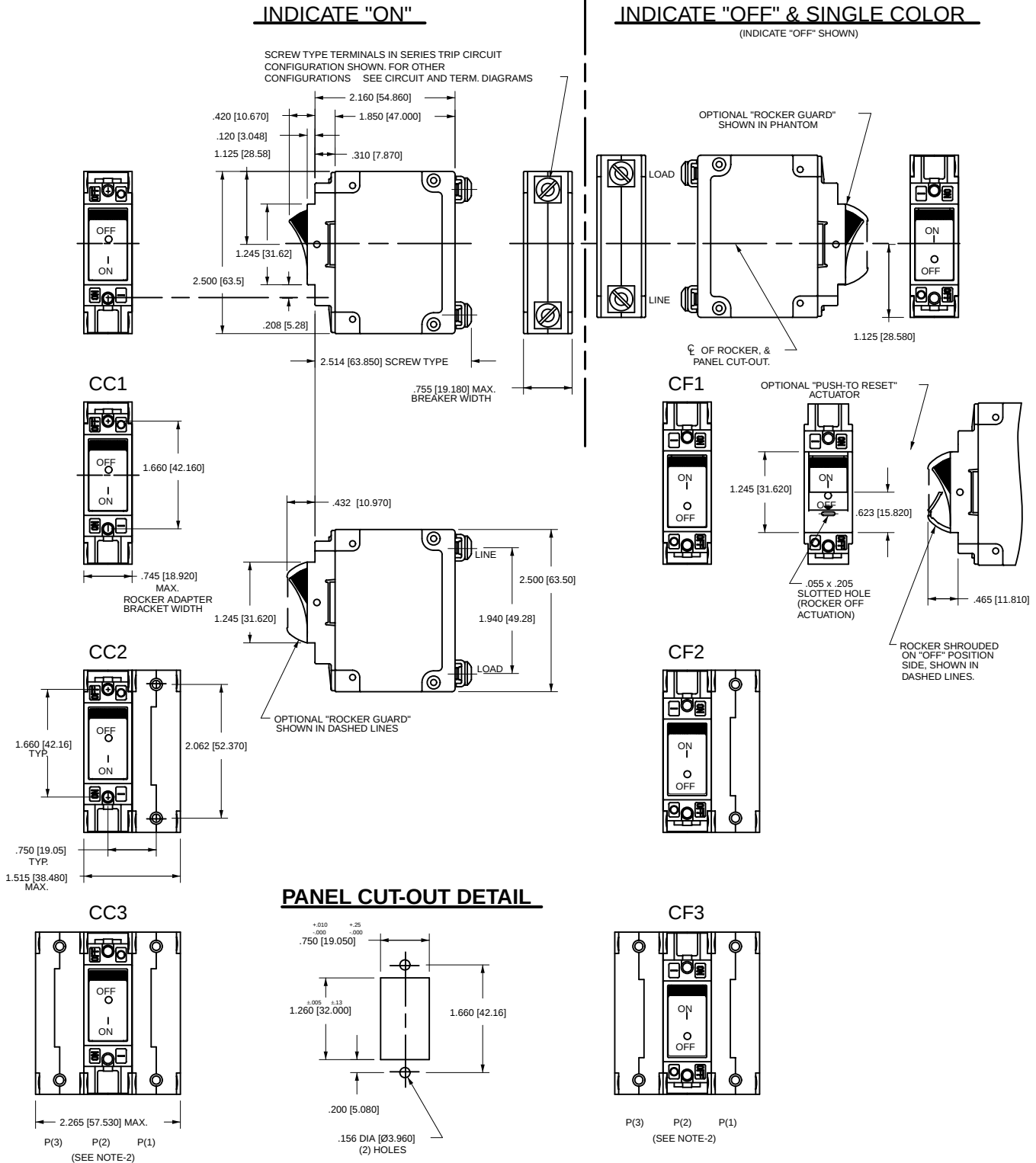
NOTES:

1. ALL DIMENSIONS ARE IN INCHES [mm]
2. TOLERANCE $\pm .020$ [$\pm .51$] UNLESS OTHERWISE SPECIFIED.
3. AVAILABLE ON SERIES TRIP AND SWITCH ONLY CIRCUITS WHEN CALLED FOR ON MULTI-POLE UNITS, ONLY ONE AUX. SWITCH IS NORMALLY SUPPLIED, AS VIEWED IN MULTI-POLE IDENTIFICATION SCHEME.

TABLE A	
TIGHTENING TORQUE SPECIFICATIONS	
THREAD SIZE	TORQUE
#6-32 [M3] MOUNTING INSERTS	7-9 IN-LBS
#10-32 & M5 THD STUDS	15-20 IN-LBS
#10-32 & M5 THD SCREW	15-20 IN-LBS
#1/4-20 & M6 THD STUDS	30-35 IN-LBS

Notes:

1. All dimensions are in inches [millimeters].
2. Tolerance $\pm .010$ [$\pm .25$] unless otherwise specified.



Notes:

- 1 Dimensions apply to all variations shown. Notice that circuit breaker line and load terminal orientation on indicate OFF is opposite of indicate ON.
- 2 For pole orientation with horizontal legend, rotate front view clockwise 90°.
- 3 All dimensions are in inches [millimeters].
- 4 Tolerance ± 0.015 [.38] unless otherwise specified.