




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 CCN/QVNU2, File E75596)

UL Standard 508  Switches, Industrial Control (Guide CCN/NRNT2, File E148683)

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 E189195)

UL Standard 489A  Communications Equipment (Guide CCN/DITT, File E189195)

CSA Accepted

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


CSA Certified

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

TUV Certified

 EN60934, under License No. R72041016

VDE Certified

 EN60934, VDE 0642 under File No. 10537

Electrical

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

C-SERIES TABLE A: COMPONENT SUPPLEMENTARY PROTECTORS											
CIRCUIT CONFIGURATION	VOLTAGE			CURRENT RATING		SHORT CIRCUIT CAPACITY (AMPS)		APPLICATION CODES		NOTES	
	MAX. RATING	FREQUENCY	PHASE	FULL LOAD AMPS	GENERAL PURPOSE AMPS	WITH BACKUP FUSE ¹	WITHOUT BACKUP FUSE	UL	CSA		
SERIES	32	DC	—	0.02 - 100	—	—	5000	TC1, OL1, U2	TC1, OL1, U2		
	48	DC	—	110 - 150	—	—	5000	TC1, OL1, U2	TC1, OL1, U2		
	65	DC	—	0.02 - 70	—	—	5000	TC1,2, OL1,U1	TC1,2, OL1,U1		
				—	71 -100	—	5000	TC1,2, OL0,U1	TC1,2, OL0,U1		
	80	DC	—	0.02 - 70	—	—	7500	TC1,2, OL1,U1	TC1,2, OL1,U1		
				—	71 -100	—	7500	TC1,2, OL0,U1	TC1,2, OL0,U1		
	80	DC	—	0.02 - 70	—	—	10,000	TC1,2, OL1,U1	TC1,2, OL1,U1	Must Have Agency Code "L"	
				—	71 -100	—	10,000	TC1,2, OL0,U1	TC1,2, OL0,U1	Must Have Agency Code "L"	
	125	DC	—	0.02 - 50	—	—	5000	TC1,2,OL1,U1	TC1,2,OL1,U1	Must Have Agency Code "L"	
	125 / 250	DC	—	0.02 - 50	—	—	5000	TC1,2,OL1,U1	TC1,2,OL1,U1	Must Have Agency Code "L"	
	250	DC	—	0.02 - 50	—	—	5000	TC1,2,OL1,U1	TC1,2,OL1,U1	Must Have Agency Code "L". 2 Pole Break Required for 250 Volts	
	125 / 250	50 / 60	1	0.02 - 100	—	—	3000	TC1, OL1, U2	TC1, OL1, U2	Per Pole Rating	
				0.02 - 100	—	—	5000	TC1,2,OL1,U1	TC1,2,OL1,U1	Must Have Agency Code "L"	
				71 - 100	—	—	1000	TC1,2,OL1,U1	TC1,2,OL1,U1		
			0.02 - 100	—	—	3500	TC1, OL1, U2	TC1, OL1, U2			
			0.02 - 50	—	—	3000	TC1,2,OL1,U1	TC1,2,OL1,U1	2 or 3 poles breaking single phase		
			51 - 100	—	—	1000	TC1,2,OL1,U1	TC1,2,OL1,U1	2 or 3 poles breaking single phase		
		50 / 60	1	0.02 - 100	—	—	5000	TC1,2,OL1,U1	TC1,2,OL1,U1	2 or 3 poles breaking single phase. "L" Agency Code	
				0.02 - 50	—	—	3500	TC1, OL1, U2	TC1, OL1, U2	Per Pole Rating	
				0.02 - 100	—	—	5000	TC1,2,OL1,U1	TC1,2,OL1,U1	Must Have Agency Code "L"	
3			51 - 70	—	5000	—	—	TC1,2,OL1,C1	TC1,2,OL1,C1		
			0.02 - 100	—	—	3000	—	TC1, OL0, U2	TC1, OL0, U2		
			0.02 - 70	—	5000	—	—	TC1,2,OL1,C1	TC1,2,OL1,C1	3 poles breaking 3 phase	
277	50 / 60	1	0.02 - 50	—	5000	—	TC1,2,OL1,C1	TC1,2,OL1,C1	Must Have Agency Code "L"		
480 / 277	50 / 60	3	0.02 - 30	—	5000	—	TC1,2,OL1,C1	TC1,2,OL1,C1	3 poles breaking 3 phase		
480	50 / 60	1	0.02 - 30	—	5000	—	TC1,2,OL0,C1	TC1,2,OL0,C1	2 poles breaking 1 phase		
DUAL COIL	80	DC	—	0.02 - 50	—	—	7500	TC1,2, OL1,U1	TC1,2, OL1,U1		
	125	50 / 60	1	0.02 - 50	—	—	3000	TC1, OL1, U2	TC1, OL1, U2	Per Pole Rating	
	125 / 250	50 / 60	1	0.02 - 50	—	—	3500	TC1, OL1, U2	TC1, OL1, U2	2 or 3 poles breaking single phase	
				0.02 - 50	—	—	3000	TC1,2,OL1,U1	TC1,2,OL1,U1	2 or 3 poles breaking single phase	
	250	50 / 60	3	0.02 - 50	—	—	3500	TC1, OL1, U2	TC1, OL1, U2	Per Pole Rating	
				0.02 - 50	—	—	3000	TC1, OL0, U2	TC1, OL0, U2		
	277	50 / 60	1	0.02 - 50	—	5000	—	TC1,2,OL1,C1	TC1,2,OL1,C1	3 poles breaking 3 phase	
	SHUNT	80	DC	—	0.02 - 50	—	—	7500	TC1,2, OL1,U1	TC1,2, OL1,U1	
		277	50 / 60	1	0.02 - 50	—	5000	—	TC1,2,OL1,C1	TC1,2,OL1,C1	
		250	50 / 60	3	0.02 - 50	—	5000	—	TC1,2,OL1,C1	TC1,2,OL1,C1	3 poles breaking 3 phase
480 / 277		50 / 60	3	0.02 - 30	—	5000	—	TC1,2,OL1,C1	TC1,2,OL1,C1	3 poles breaking 3 phase	
				—	31 - 50	5000	—	TC1,2,OL0,C1	TC1,2,OL0,C1		
480	50 / 60	1	0.02 - 30	—	5000	—	TC1,2,OL1,C1	TC1,2,OL1,C1	2 poles breaking 1 phase		
RELAY	80	DC	—	0.02 - 50	—	—	7500	TC1,2, OL1,U1	TC1,2, OL1,U1		
	277	50 / 60	1	0.02 - 50	—	5000	—	TC1,2,OL1,C1	TC1,2,OL1,C1		
	250	50 / 60	3	0.02 - 50	—	5000	—	TC1,2,OL1,C1	TC1,2,OL1,C1	3 poles breaking 3 phase	
SWITCH ONLY	65	DC	—	0.02 - 70	—	—	—	—	—		
	80	DC	—	0.02 - 70	—	—	—	—	—		
				—	71 -100	—	—	—	—		
	125	50 / 60	1	0.02 - 100	—	—	—	—	—		
	125 / 250	50 / 60	1	0.02 - 100	—	—	—	—	—	—	2 or 3 poles breaking single phase
				0.02 - 100	—	—	—	—	—	—	
	250	50 / 60	3	0.02 - 70	—	—	—	—	—	—	
0.02 - 50				—	—	—	—	—	—		
480 / 277	50 / 60	3	0.02 - 30	—	—	—	—	—	3 poles breaking 3 phase		
			—	31 - 50	—	—	—	—	—		

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.

Electrical

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

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

Notes for Table B:

- 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.
- UL recognized and CSA Accepted 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.

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

C-SERIES TABLE C: COMPONENT SUPPLEMENTARY PROTECTORS															
CIRCUIT CONFIGURATION	VOLTAGE			CURRENT RATING		SHORT CIRCUIT CAPACITY (AMPS)						APPLICATION CODES		CONSTRUCTION NOTES	
	MAX. RATING	FREQUENCY	PHASE	FULL LOAD AMPS	GENERAL PURPOSE AMPS ¹	UL/CSA		VDE		TUV		UL	CSA		
						WITH BACKUP FUSE	WITHOUT BACKUP FUSE	(Inc) WITH BACKUP FUSE	(Icn) WITHOUT BACKUP FUSE	(Inc) WITH BACKUP FUSE	(Icn) WITHOUT BACKUP FUSE				
SERIES	80	DC	---	0.10 - 70	---	---	7500	---	5000	5000	1500	TC1,2, OL1,U1	TC1,2, OL1,U1	Agency Code F, H, J or R Only	
			---	71 - 100	71 -100	---	10,000	---	5000	---	5000	5000	TC1,2, OL0,U1		TC1,2, OL0,U1
	125	DC	---	1 - 50	---	---	5000	---	---	---	5000	TC1,2, OL1,U1	TC1,2, OL1,U1	Agency Code J or R Only	
			---	0.10 - 50	---	---	5000	---	---	---	5000	TC1,2, OL1,U1	TC1,2, OL1,U1		
	250	50 / 60	1	---	0.10 - 50	---	---	3500	3000	1500	3000	1500	TC1, OL1, U2	TC1, OL1, U2	Per Pole Rating
				---	0.10 - 70	---	---	5000	3000	1500	3000	1500	TC1,2, OL1,U1	TC1,2, OL1,U1	
				---	71 - 100	---	---	5000	---	---	5000	5000	TC1,2, OL1,U1	TC1,2, OL1,U1	
			3	---	0.10 - 90	---	---	3000	---	---	5000	5000	TC1, OL0, U2	TC1, OL0, U2	Agency Code J or R Only
				---	0.10 - 90	---	---	5000	---	---	5000	5000	TC1,2, OL1,U1	TC1,2, OL1,U1	
				---	0.10 - 30	---	---	5000 ²	---	3000	1500	3000	1500	TC1,2, OL1,C1	
415	50 / 60	3	---	0.10 - 30	---	5000 ²	---	5000	2500	3000	1500	TC1,2, OL1,C1	TC1,2, OL1,C1	Handle/ Agency F, H, J, or R	
			---	0.10 - 30	---	---	7500	---	1500	5000	1500	TC1,2, OL1,U1	TC1,2, OL1,U1		
DUAL COIL	80	DC	---	0.10 - 30	---	---	5000	3000	1500	3000	1500	TC1,2, OL1,U1	TC1,2, OL1,U1		
	250	50 / 60	1 & 3	0.10 - 30	---	---	5000	3000	1500	3000	1500	TC1,2, OL1,U1	TC1,2, OL1,U1		
SHUNT	80	DC	---	0.10 - 70	---	---	7500	---	5000	5000	1500	TC1,2, OL1,U1	TC1,2, OL1,U1		
	250	50 / 60	1 & 3	0.10 - 70	---	---	5000	3000	1500	3000	1500	TC1,2, OL1,U1	TC1,2, OL1,U1		
				0.10 - 30	---	---	5000 ²	---	3000	1500	3000	1500	TC1,2, OL1,C1		TC1,2, OL1,C1
	415	50 / 60	3	0.10 - 30	---	---	5000 ²	---	5000	2500	3000	1500	TC1,2, OL1,C1		TC1,2, OL1,C1

Notes for Table C:

- General Purpose ratings for UL/CSA only.
- 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.

Electrical

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 BREAKERS							
CIRCUIT CONFIGURATION	VOLTAGE			CURRENT RATING FULL LOAD AMPS	INTERRUPTING CAPACITY (AMPS)		CONSTRUCTION NOTES
	MAX. RATING	FREQUENCY	PHASE		WITHOUT BACKUP FUSE		
SERIES	80	DC	---	0.10 - 100	50000 ¹	Limited to 2 Poles Max from 71 - 100 Amps.	
					10,000	Limited to 2 Poles Max from 71 - 100 Amps.	
	125	DC	---	0.10 - 100	5,000	1 - 3 Poles	
	125 / 250	DC	---	0.10 - 50	5,000	1 or 2 Poles (2 Poles Required for 250 Volts)	
	120	50 / 60	1	0.10 - 50	10,000	1 - 3 Poles	
				51 - 70	5,000	1 - 3 Poles	
	120 / 240	50 / 60	1	0.10 - 50	5,000	2 or 3 Poles, 1 Pole of a 3 Pole Unit is Neutral	
240	50 / 60	1	0.10 - 30	5,000	1 or 2 Poles		
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 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.

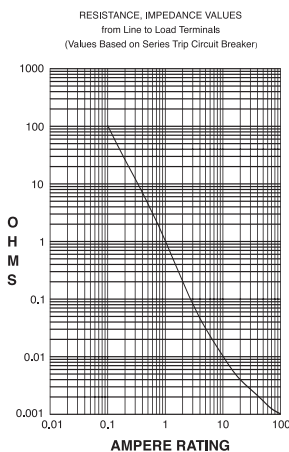
C-SERIES TABLE E: UL1500 (Marine Ignition Protected)								
CIRCUIT CONFIGURATION	VOLTAGE			CURRENT RATING FULL LOAD AMPS	INTERRUPTING CAPACITY (AMPS) WITHOUT BACKUP FUSE	APPLICATION CODES		CONSTRUCTION NOTES
	MAX. RATING	FREQUENCY	PHASE			UL	CSA	
SERIES	32	DC	---	0.02 - 100	5000	TC1,2,OL1,U2	TC1,2,OL1,U2	--
				0.02 - 100	5000	TC1,2,OL1,U2	TC1,2,OL1,U2	--
	48	DC	---	101 - 150	5000	TC1,2,OL1,U2	TC1,2,OL1,U2	--
				0.02 - 100	1500	TC1,2,OL0,U1	TC1,2,OL0,U1	--
	80	DC	---	0.02 - 70	1500	TC1,2,OL1,U1	TC1,2,OL1,U1	--
	125	50 / 60	1	0.02 - 70	5000	TC1,2,OL1,U1	TC1,2,OL1,U1	--
				71 - 100	1500	TC1,2,OL1,U1	TC1,2,OL1,U1	--
	125 / 250	50 / 60	1	0.02 - 100	3000	TC1, OL1, U2	TC1, OL1, U2	Per Pole Rating
	250	50 / 60	1	0.02 - 50	3500	TC1, OL1, U2	TC1, OL1, U2	2 or 3 Poles Breaking Single Phase
				0.02 - 70	1500	TC1, OL1, U2	TC1, OL1, U2	Per Pole Rating
				71 - 100	1500	TC1,2,OL1,U1	TC1,2,OL1,U1	--
			71 - 100	1500	TC1,2,OL1,U1	TC1,2,OL1,U1	2 Poles Breaking Single Phase	

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 GENERAL PURPOSE AMPS	INTERRUPTING CAPACITY (AMPS) WITHOUT BACKUP FUSE
	MAX. RATING	FREQUENCY		
SERIES	80	DC	110 - 250	10,000

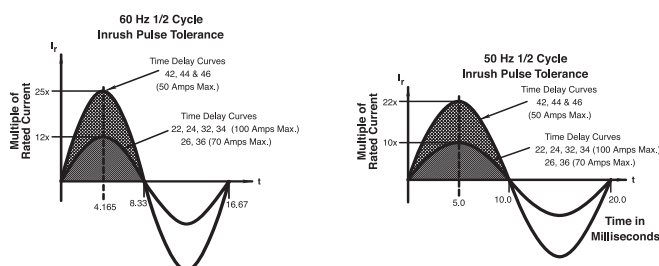
Electrical

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%

Pulse Tolerance Curves



Mechanical

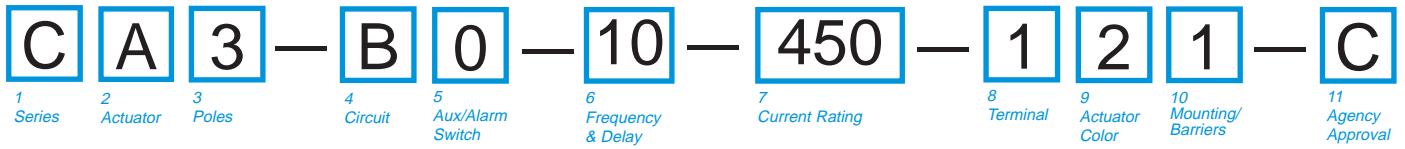
Endurance	10,000 ON-OFF operations @ 6 per minute; with rated current & voltage.
Trip Free	All C-Series circuit breakers will trip on overload, even when actuator is forcibly held in the ON position.
Trip Indication	The operating actuator moves positively to the OFF position when an overload causes the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

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 +25°C).
Operating Temperature	-40°C to +85°C



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	Four		
5	Five		
6	Six		
4 CIRCUIT³			
A ³	Switch Only (No Coil)	F ⁴	Relay Trip (Current)
B	Series Trip (Current)	G ⁴	Relay Trip (Voltage)
C	Series Trip (Voltage)	H ^{4,5}	Dual Coil with Shunt Trip Voltage Coil
D ⁴	Shunt Trip (Current)	K ^{4,5}	Dual Coil with Relay Trip Voltage Coil
E ⁴	Shunt Trip (Voltage)		
5 AUXILIARY/ALARM SWITCH⁶		5	S.P.S.T., 0.110 Q.C. Term. (Gold Contacts)
0	w/o Aux Switch	6	S.P.S.T., 0.139 Solder Lug
2	S.P.D.T., 0.110 Q.C. Term.	7	S.P.S.T., 0.110 Q.C. Term. (Gold Contacts)
3	S.P.D.T., 0.139 Solder Lug	8	S.P.S.T., 0.187 Q.C. Term.
4	S.P.D.T., 0.110 Q.C. Term. (Gold Contacts)	9	S.P.D.T., 0.187 Q.C. Term.

6 FREQUENCY & DELAY		30	DC, 50/60Hz Instantaneous
03 ³	DC 50/60Hz, Switch Only	31	DC, 50/60Hz Ultra Short
10 ⁷	DC Instantaneous	32	DC, 50/60Hz Short
11	DC Ultra Short	34	DC, 50/60Hz Medium
12	DC Short	36	DC, 50/60Hz Long
14	DC Medium	42 ⁸	50/60Hz Short, Hi-Inrush
16	DC Long	44 ⁸	50/60Hz Medium, Hi-Inrush
20 ⁷	50/60Hz Instantaneous	46 ⁸	50/60Hz Long, Hi-Inrush
21	50/60Hz Ultra Short	52 ⁸	DC, Short, Hi-Inrush
22	50/60Hz Short	54 ⁸	DC, Medium, Hi-Inrush
24	50/60Hz Medium	56	DC, Long, Hi-Inrush
26	50/60Hz Long		

- Notes:
- Actuator Code:
A: Handle tie pin spacer(s) and retainers provided assembled 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.
 - 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.
 - 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. For 55-70 amps, select Current Code 670. For 75-100 amps, select Current Code 810.
 - 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. 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.
 - 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.
 - Voltage coils not rated for continuous duty. Available only with delay codes 10 and 20. Available with Circuit Codes B & D only, and up to 50 amps maximum.
 - Current Ratings 60 - 70 are available up to four poles maximum. Ratings 71 - 100 are available up to two poles maximum.
 - Terminal Code 1 available to 60 amps maximum.
 - Terminal Codes 2,4,5 and C available to 50 amps maximum.
 - Terminal Codes 3,6 & 9 available to 100 amps maximum.
 - Terminal Code 7 available to 25 amps maximum.
 - Terminal Code A available to 100 amps maximum.
 - Terminal Codes 7,8,9 & C are not VDE approved.
 - No marking available. Consult factory. VDE/TUV Approval requires dual (I-O, ON-OFF) or I-O markings on all handles.
 - Single pole only.
 - 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.

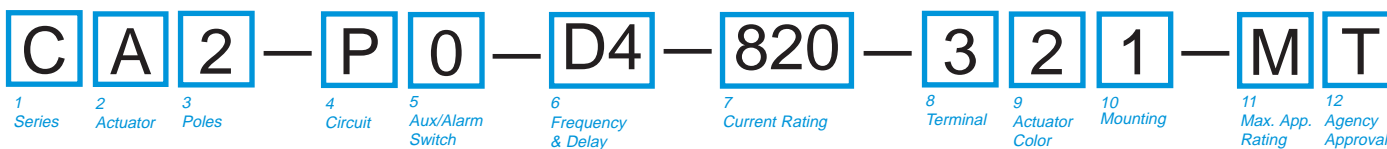
7 CURRENT RATING (AMPERES)									
020	0.020	235	0.350	430	3.000	614	14.000		
025	0.025	240	0.400	435	3.500	615	15.000		
030	0.030	245	0.450	440	4.000	616	16.000		
035	0.035	250	0.500	445	4.500	617	17.000		
040	0.040	255	0.550	450	5.000	618	18.000		
045	0.045	260	0.600	455	5.500	620	20.000		
050	0.050	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 ⁹	60.000		
090	0.090	512	1.250	610	10.000	670 ⁹	70.000		
095	0.095	415	1.500	710	10.500	680 ⁹	80.000		
210	0.100	517	1.750	611	11.000	685 ⁹	85.000		
215	0.150	420	2.000	711	11.500	690 ⁹	90.000		
220	0.200	522	2.250	612	12.000	695 ⁹	95.000		
225	0.250	425	2.500	712	12.500	810 ⁹	100.000		
230	0.300	527	2.750	613	13.000				
OR VOLTAGE COIL (NOMINAL RATED VOLTAGE)									
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		6 ¹²	Stud M6 threaded
1 ¹⁰	Stud 10-32, threaded	7 ^{13,15}	0.250 Double Quick Connect
2 ¹¹	Screw 10-32	8 ¹⁵	1/4" Clip Terminal
3 ¹²	Stud 1/4-20, threaded	9 ^{12,15}	7/16" Clip Terminal
4 ¹¹	Stud M5 x 0.8, threaded	A ¹⁴	Plug-In Stud
5 ¹¹	Screw M5 x 0.8	C ^{11,15}	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
C ¹⁸	6-32 X 0.195 inches	yes	≥ 300
2	ISO M3 x 5mm	no	< 300
B	ISO M3 x 5mm	yes	< 300
D ¹⁸	ISO M3 x 5mm	yes	≥ 300
Front panel Snap-In, 1.00" [25.4mm] wide bezel			
E ¹⁷	with Handguard	no	< 300

11 AGENCY APPROVAL	
C	UL Recognized & CSA Accepted
D	VDE Certified, UL Recognized & CSA Accepted
E	TUV Certified, UL Recognized & CSA Accepted
H	UL489 Construction: VDE Certified, UL Recognized & CSA Accepted
I	UL Rec. STD 1077, UL Rec. 1500 (ignition protected), & CSA Accepted
L	UL489 Construction: UL Recognized & CSA Accepted
R	UL489 Construction: TUV Certified, UL Recognized & CSA Accepted



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., 0.110 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			
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	922 ³ 225.000
812 120.000	815 150.000	818 180.000	825 ³ 250.000
912 125.000	816 160.000	819 190.000	
813 130.000	817 170.000	820 200.000	

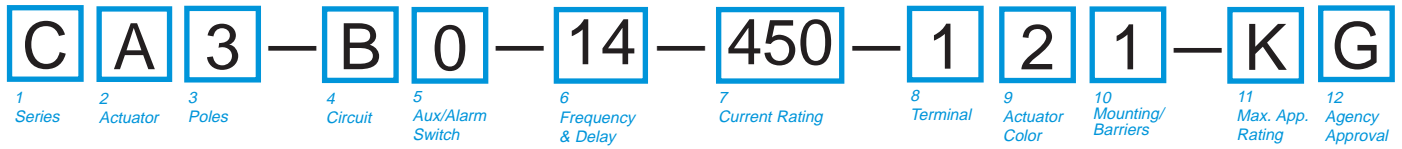
8 TERMINAL²			
3	1/4 - 20 Threaded Stud		
6	M6 Threaded Stud		
A	Plug-In Stud		
9 ACTUATOR COLOR			
LEGEND			
	ON-OFF	Dual	Legend Color
White	B	1	Black
Black	D	2	White
Red	G	3	White
Green	J	4	White
Blue	L	5	White
Yellow	N	6	Black
Gray	Q	7	Black
Orange	S	8	Black
10 MOUNTING			
MOUNTING STYLE			
Threaded 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 (up to 250 amps)		
K	UL489A Listed, VDE Certified (up to 200 amps)		

Notes:

1 Actuator Code:
 A: Handle tie pin spacer(s) and retainers provided assembled 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.

2 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.

3 Above 200 amps, 3 poles are required.



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
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., 0.110 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
12	DC Short
14	DC Medium
16	DC Long
21	50/60Hz Ultra Short
22	50/60Hz Short
24	50/60Hz Medium
26	50/60Hz Long
42⁴	50/60Hz Short, Hi-Inrush
44⁴	50/60Hz Medium, Hi-Inrush
46⁴	50/60Hz Long, Hi-Inrush
52⁴	DC, Short,Hi-Inrush
54⁴	DC,Medium, Hi-Inrush
56⁴	DC, Long, Hi-Inrush

7 CURRENT RATING (AMPERES)⁵									
210	0.100	295	0.950	470	7.000	618	18.000		
215	0.150	410	1.000	475	7.500	620	20.000		
220	0.200	512	1.250	480	8.000	622	22.000		
225	0.250	415	1.500	485	8.500	624	24.000		
230	0.300	517	1.750	490	9.000	625	25.000		
235	0.350	420	2.000	495	9.500	630	30.000		
240	0.400	522	2.250	610	10.000	635	35.000		
245	0.450	425	2.500	710	10.500	640	40.000		
250	0.500	527	2.750	611	11.000	650	50.000		
255	0.550	430	3.000	711	11.500	660	60.000		
260	0.600	435	3.500	612	12.000	670	70.000		
265	0.650	440	4.000	712	12.500	680	80.000		
270	0.700	445	4.500	613	13.000	685	85.000		
275	0.750	450	5.000	614	14.000	690	90.000		
280	0.800	455	5.500	615	15.000	695	95.000		
285	0.850	460	6.000	616	16.000	810	100.000		
290	0.900	465	6.500	617	17.000				

8 TERMINAL⁶			
1⁷	Stud 10-32, threaded	6⁹	Stud M6 threaded
2⁸	Screw 10-32	8	1/4" Clip Terminal
3⁹	Stud 1/4-20, threaded	9⁹	7/16" Clip Terminal
4⁸	Stud M5 x 0.8, threaded	A¹⁰	Push-In Stud
5⁸	Screw M5 x 0.8	C	5/16" Clip Terminal

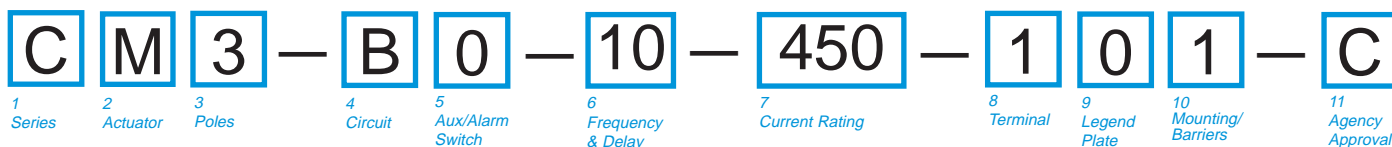
9 ACTUATOR COLOR & LEGEND¹¹			
Actuator Color	ON-OFF	Dual	Legend Color
White	B	1	Black
Black	D	2	White
Red	G	3	White
Green	J	4	White
Blue	L	5	White
Yellow	N	6	Black
Gray	Q	7	Black
Orange	S	8	Black

10 MOUNTING/BARRIERS		
MOUNTING STYLE		BARRIERS ¹²
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 APPROVAL¹¹	
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 assembled 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. Terminal barriers are required on all multipole breakers.
 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.
 - Barriers supplied on multi-pole units only.



1 SERIES	
C	
2 ACTUATOR¹	
M Sealed Toggle, one per pole	
3 POLES	
1 One	2 Two
3 Three	
4 CIRCUIT	
A² Switch Only (No Coil)	F³ Relay Trip (Current)
B Series Trip (Current)	G³ Relay Trip (Voltage)
C Series Trip (Voltage)	H^{3,4} Dual Coil with Shunt Trip Voltage Coil
D³ Shunt Trip (Current)	K^{3,4} Dual Coil with Relay Trip Voltage Coil
E³ Shunt Trip (Voltage)	
5 AUXILIARY/ALARM SWITCH⁵	
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	
03² DC 50/60Hz, Switch Only	30 DC, 50/60Hz Instantaneous
10⁶ 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	42⁷ 50/60Hz Short, Hi-Inrush
20⁶ 50/60Hz Instantaneous	44⁷ 50/60Hz Medium, Hi-Inrush
21 50/60Hz Ultra Short	46⁷ 50/60Hz Long, Hi-Inrush
22 50/60Hz Short	52⁷ DC, Short,Hi-Inrush
24 50/60Hz Medium	54⁷ DC,Medium, Hi-Inrush
26 50/60Hz Long	56 DC, Long, Hi-Inrush

- Notes:
- Actuator Code M: Handle location as viewed from front of breaker:
2 pole - right pole 3 pole - center pole
 - Switch Only circuits, rated up to 50 amps and 3 poles, and only available with VDE. For .02 to 30 amps, select Current Code 630. For 35 - 50 amps, select Current Code 650. For 55-70 amps, select Current Code 670. For 75-100 amps, select Current Code 810.
 - Circuit Codes D,E,F,G,H & K available with Terminal Codes 1,2,4 & 5 only.
 - 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.
 - 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.
 - Voltage coils not rated for continuous duty. Available only with delay codes 10 and 20.
 - Available with Circuit Codes B & D only, and up to 50 amps maximum.
 - Consult factory for current ratings 71-100, in three pole units, available as special catalog number only.
 - Terminal Code 1 available to 60 amps maximum.
 - Terminal Codes 2,4,5 and C available to 50 amps maximum.
 - Terminal Codes 3,6 & 9 available to 100 amps maximum.
 - Terminal Code 7 available to 25 amps maximum.
 - Terminal Code A available to 100 amps maximum.

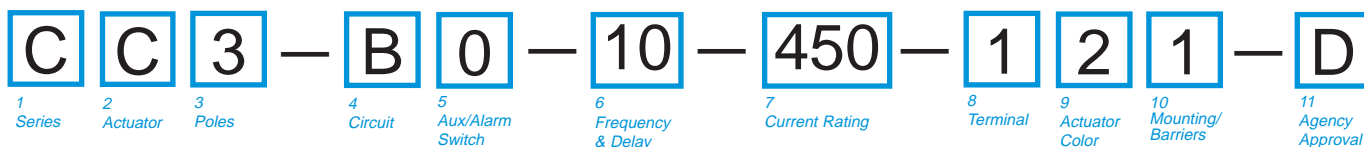
7 CURRENT RATING (AMPERES)⁶					
020 0.020	235 0.350	430 3.000	614 14.000		
025 0.025	240 0.400	435 3.500	615 15.000		
030 0.030	245 0.450	440 4.000	616 16.000		
035 0.035	250 0.500	445 4.500	617 17.000		
040 0.040	255 0.550	450 5.000	618 18.000		
045 0.045	260 0.600	455 5.500	620 20.000		
050 0.050	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	680⁹ 80.000		
210 0.100	517 1.750	611 11.000	685⁹ 85.000		
215 0.150	420 2.000	711 11.500	690⁹ 90.000		
220 0.200	522 2.250	612 12.000	695⁹ 95.000		
225 0.250	425 2.500	712 12.500	810⁹ 100.000		
230 0.300	527 2.750	613 13.000			
OR VOLTAGE COIL (NOMINAL RATED VOLTAGE)⁶					
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			
1⁹ Stud 10-32, threaded	7¹² 0.250 Double Quick Connect		
2¹⁰ Screw 10-32	8 1/4" Clip Terminal		
3¹¹ Stud 1/4-20	9¹¹ 7/16" Clip Terminal		
4¹⁰ Stud M5 x 0.8	A¹³ Plug-In Stud		
5¹⁰ Screw M5 x 0.8	C¹⁰ 5/16" Clip Terminal		
6¹¹ Stud M6 threaded			

9 LEGEND PLATE	
0	No Legend

10 MOUNTING/BARRIERS		
MOUNTING STYLE		BARRIERS
1	Standard Hex Nut	no
A	Standard Hex Nut (multi-pole units only)	yes

11 AGENCY APPROVAL	
C	UL Recognized & CSA Accepted
L	UL Recognized & CSA Accepted with listed construction



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

	INDICATE "ON"	INDICATE "OFF"	SINGLE COLOR
VERTICAL STYLE	CODE "C" 	CODE "F", "N" 	CODE "J", "R"
	CODE "D" 	CODE "G", "O" 	CODE "K", "U"
	CODE "E", "H" 	CODE "L" 	CODE "V"

3 POLES²
 1 One 2 Two 3 Three

4 CIRCUIT

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 Voltage Coil
D⁴ Shunt Trip (Current)	K^{4,5} Dual Coil with Relay Trip Voltage Coil
E⁴ Shunt Trip (Voltage)	

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

03 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	56⁸ DC, Long, Hi-Inrush

- Notes:
- Push-To-Reset actuators have OFF portion of rocker shrouded.
 - 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.
 - 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. For 55-70 amps, select Current Code 670. For 75-100 amps, select Current Code 810.
 - 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.
 - 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.
 - 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.
 - Voltage coils not rated for continuous duty. Available only with delay codes 10 and 20.
 - Available with Circuit Codes B & D only, and up to 50 amps maximum.
 - Current Ratings 60 - 70 are available up to four poles maximum. Ratings 71 - 100 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 available to 100 amps maximum.
 - Terminal Code 7 available to 25 amps maximum.
 - Terminal Code A available to 100 amps maximum.
 - Terminal Codes 7,8,9 & C are not VDE approved.
 - Color shown is visi and legend with remainder of rocker black
 - Legend on Push-to-reset bezel/shroud is white when single color rocker is ordered. Dual = ON-OFF/I-O legend 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/TUV approval requires Dual (I-O, ON-OFF) or I-O markings on rocker.
 - 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.

7 CURRENT RATING (AMPERES)

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	660⁹ 60.000
090 0.090	512 1.250	610 10.000	670⁹ 70.000
095 0.095	415 1.500	710 10.500	680⁹ 80.000
210 0.100	517 1.750	611 11.000	685⁹ 85.000
215 0.150	420 2.000	711 11.500	690⁹ 90.000
220 0.200	522 2.250	612 12.000	695⁹ 95.000
225 0.250	425 2.500	712 12.500	810⁹ 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

1¹⁰ Stud 10-32, threaded	6¹² Stud M6 threaded
2¹¹ Screw 10-32	7¹³ 0.250 Double Quick Connect
3¹² Stud 1/4-20, threaded	8 1/4" Clip Terminal
4¹¹ Stud M5 x 0.8, threaded	9 7/16" Clip Terminal
5¹¹ Screw M5 x 0.8	A¹⁴ Plug-In Stud
	C 5/16" Clip Terminal

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

Actuator or Visi-Color	Marking:	Marking Color:	Single Color	Visi-Rocker
Color:	I-O	ON-OFF	Dual/None	Rocker/Handle
White	A	B	1	Black
Black	C	D	2	White
Red	F	G	3	n/a
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

10 MOUNTING/BARRIERS¹⁹

	STANDARD ROCKER BEZEL	BARRIERS	VOLTAGE
1	6-32 x 0.195 inches	no	<300
2	6-32 x 0.195 inches	yes	<300
3¹⁹	6-32 x 0.195 inches	yes	≥300
4	ISO M3 x 5mm	no	<300
5	ISO M3 x 5mm	yes	<300
6¹⁹	ISO M3 x 5mm	yes	≥300

ROCKERGARD BEZEL

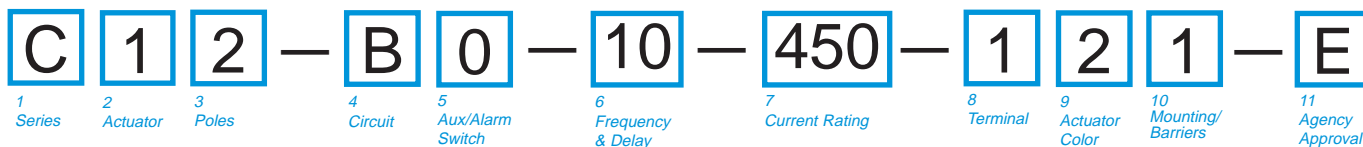
A	6-32 x 0.195 inches	no	<300
C	6-32 x 0.195 inches	yes	<300
E¹⁹	6-32 x 0.195 inches	yes	≥300
G	ISO M3 x 5mm	no	<300
J	ISO M3 x 5mm	yes	<300
L¹⁹	ISO M3 x 5mm	yes	≥300

PUSH-TO-RESET BEZEL

B	6-32 x 0.195 inches	no	<300
D	6-32 x 0.195 inches	yes	<300
F¹⁹	6-32 x 0.195 inches	yes	≥300
H	ISO M3 x 5mm	no	<300
J	ISO M3 x 5mm	yes	<300
M¹⁹	ISO M3 x 5mm	yes	≥300

11 AGENCY APPROVAL

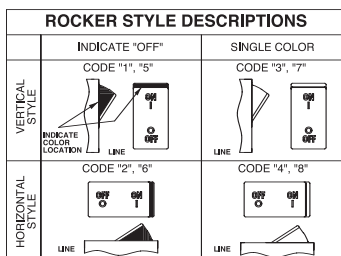
C	UL Recognized & CSA Accepted
D	VDE Certified, UL Recognized & CSA Accepted
E	TUV Certified, UL Recognized & CSA Accepted
H	UL489 Construction: VDE Certified, UL Recognized & CSA Accepted
I	UL Rec. STD 1077, UL Rec. 1500 (ignition protected), & CSA Accepted
L	UL489 Construction: UL Recognized & CSA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



1 SERIES
C

2 ACTUATOR ¹

- Two Color Visi-Rocker**
 1 Indicate OFF, vertical legend
 2 Indicate OFF, horizontal legend
Single color
 3 Vertical legend
 4 Horizontal legend
Push-To-Reset, Visi-Rocker
 5 Indicate OFF, vertical legend
 6 Indicate OFF, horizontal legend
Push-To-Reset, Single color
 7 Vertical legend
 8 Horizontal 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., 0.110 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:

- Push-to-reset actuators have OFF portion of rocker shrouded.
- 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.
- 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. For 55-70 amps, select Current Code 670. For 75-100 amps, select Current Code 810.
- 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.
- 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.
- 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.
- Voltage coils not rated for continuous duty. Available only with delay codes 10 and 20.
- Available with Circuit Codes B & D only, and up to 50 amps maximum.
- Current ratings 60-70 are available up to four poles maximum. Current ratings 71 - 100 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 available to 100 amps maximum.
- Terminal Code 7 available to 25 amps maximum.
- Terminal Code A available to 100 amps maximum.
- Terminal Codes 7,8,9 & C are not VDE approved.
- Color shown is visi & legend with remainder of rocker black. Dual = ON-OFF/I-O legend.
- Legend on Push-to-reset bezel/shroud is white with single color actuator codes 7 & 8. Legend on Push-to-reset bezel/shroud matches visi-color of rocker with actuator codes 5 & 6.
- VDE/TUV approval requires Dual (I-O, ON-OFF) or I-O markings on rocker.
- VDE/TUV: 30 amps max.; UL/CSA: 50 amps max.; Available in 2 & 3 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.
- Recessed "OFF SIDE" available with actuator codes 1,2,3&4. Legends on rocker are available in ink stamping only.

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	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 ⁹	60.000
090	0.090	512	1.250	610	10.000	670 ⁹	70.000
095	0.095	415	1.500	710	10.500	680 ⁹	80.000
210	0.100	517	1.750	611	11.000	685 ⁹	85.000
215	0.150	420	2.000	711	11.500	690 ⁹	90.000
220	0.200	522	2.250	612	12.000	695 ⁹	95.000
225	0.250	425	2.500	712	12.500	100 ⁹	100.000
230	0.300	527	2.750	613	13.000		

OR VOLTAGE COIL (NOMINAL RATED VOLTAGE)⁹

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

- 1¹⁰** Stud 10-32, threaded
2¹¹ Screw 10-32
3¹² Stud 1/4-20, threaded
4¹¹ Stud M5 x 0.8, threaded
5¹¹ Screw M5 x 0.8
6¹² Stud M6 threaded
7¹³ 0.250 Double Quick Connect
8 1/4" Clip Terminal
9 7/16" Clip Terminal
A¹⁴ Plug-In Stud
C 5/16" Clip Terminal

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

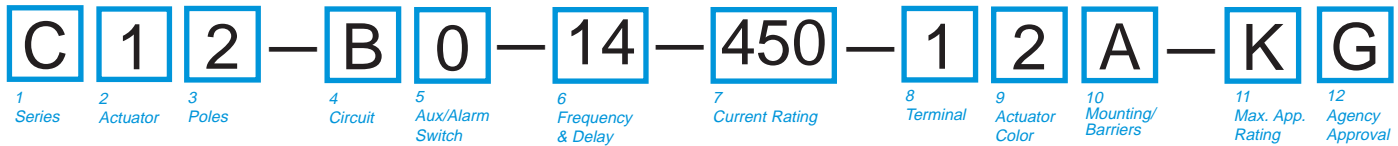
Actuator or Visi-Color	Marking:	Marking Color:	Single Color Rocker/Handle	Visi-Rocker
Color: White	I-O A B	1	Black	White
Black	C D	2	White	n/a
Red	F G	3	White	Red
Green	H J	4	White	Green
Blue	K L	5	White	Blue
Yellow	M N	6	Black	Yellow
Gray	P Q	7	Black	Gray
Orange	R S	8	Black	Orange

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
	RECESSED OFF ROCKER		
7	6-32 x 0.195 inches	no	<300
8	6-32 x 0.195 inches	yes	<300
9	6-32 x 0.195 inches	yes	≥300
A	ISO M3 x 5mm	no	<300
C	ISO M3 x 5mm	yes	<300
E	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 Accepted
E TUV Certified, UL Recognized & CSA Accepted
I UL Rec. STD 1077, UL Rec. 1500 (ignition protected), & CSA Accepted
L UL489 Construction: UL Recognized & CSA Accepted
R UL489 Construction: TUV Certified, UL Recognized & CSA Accepted



1 SERIES
C

2 ACTUATOR 1
Two Color Visi-Rocker
 1 Indicate OFF, vertical legend
 2 Indicate OFF, horizontal legend
Single color
 3 Vertical legend
 4 Horizontal legend
Push-To-Reset, Visi-Rocker
 5 Indicate OFF, vertical legend
 6 Indicate OFF, horizontal legend
Push-To-Reset, Single color
 7 Vertical legend
 8 Horizontal legend

	INDICATE "OFF" CODE "1", "5"	SINGLE COLOR CODE "3", "7"
VERTICAL STYLE		
HORIZONTAL STYLE		

3 POLES²
 1 One 2 Two 3 Three

4 CIRCUIT
 B Series Trip (Current)

5 AUXILIARY/ALARM SWITCH³	5	S.P.S.T., 0.093 Q.C. Term. (Gold Contacts)
0 w/o Aux Switch	6	S.P.S.T., 0.139 Solder Lug
2 S.P.D.T., 0.110 Q.C. Term.	7	S.P.S.T., 0.110 Q.C. Term. (Gold Contacts)
3 S.P.D.T., 0.139 Solder Lug	8	S.P.S.T., 0.187 Q.C. Term.
4 S.P.D.T., 0.110 Q.C. Term. (Gold Contacts)	9	S.P.D.T., 0.187 Q.C. Term.

6 FREQUENCY & DELAY		
11 DC Ultra Short	26	50/60Hz Long
12 DC Short	42 ⁴	50/60Hz Short, Hi-Inrush
14 DC Medium	44 ⁴	50/60Hz Medium, Hi-Inrush
16 DC Long	46 ⁴	50/60Hz Long, Hi-Inrush
21 50/60Hz Ultra Short	52 ⁴	DC, Short, Hi-Inrush
22 50/60Hz Short	54 ⁴	DC, Medium, Hi-Inrush
24 50/60Hz Medium	56 ⁴	DC, Long, Hi-Inrush

7 CURRENT RATING (AMPERES)⁵

210	0.100	295	0.950	470	7.000	618	18.000
215	0.150	410	1.000	475	7.500	620	20.000
220	0.200	512	1.250	480	8.000	622	22.000
225	0.250	415	1.500	485	8.500	624	24.000
230	0.300	517	1.750	490	9.000	625	25.000
235	0.350	420	2.000	495	9.500	630	30.000
240	0.400	522	2.250	610	10.000	635	35.000
245	0.450	425	2.500	710	10.500	640	40.000
250	0.500	527	2.750	611	11.000	650	50.000
255	0.550	430	3.000	711	11.500	660	60.000
260	0.600	435	3.500	612	12.000	670	70.000
265	0.650	440	4.000	712	12.500	680	80.000
270	0.700	445	4.500	613	13.000	685	85.000
275	0.750	450	5.000	614	14.000	690	90.000
280	0.800	455	5.500	615	15.000	695	95.000
285	0.850	460	6.000	616	16.000	100	100.000
290	0.900	465	6.500	617	17.000		

8 TERMINAL

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

9 ACTUATOR COLOR & LEGEND¹²

Actuator or Visi-Color¹⁰ Marking:		Marking Color:
Color:	ON-OFF	Dual¹¹
White	B	1
Black	D	2
Red	G	3
Green	J	4
Blue	L	5
Yellow	N	6
Gray	Q	7
Orange	S	8

Single Color Rocker/Handle	Visi-Rocker
Black	White
White	n/a
White	Red
White	Green
White	Blue
Black	Yellow
Black	Gray
Black	Orange

10 MOUNTING/BARRIERS¹²

STANDARD ROCKER BEZEL	BARRIERS¹⁵
Threaded Insert, 2 per pole	
A 6-32 X 0.195 inches	yes
C ISO M3 x 5mm	yes
RECESSED OFF ROCKER¹⁴	
Threaded Insert, 2 per pole	
E 6-32 x 0.195 inches	yes
F ISO M3 x 5mm	yes
PUSH-TO-RESET BEZEL¹³	
Threaded Insert, 2 per pole	
B 6-32 x 0.195 inches	yes
D ISO M3 x 5mm	yes

11 MAXIMUM APPLICATION RATING

A	65 DC
B	125 DC
C	120/240 AC ¹⁶
D	240 AC
K	120 AC
M	80 DC

12 AGENCY APPROVAL

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

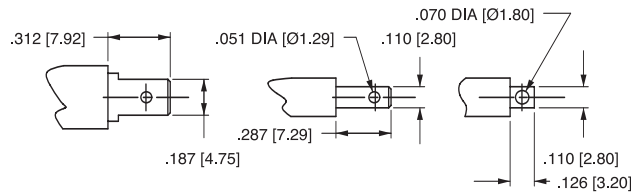
Notes:
 1 Push-to-reset actuators have OFF portion of rocker shrouded.
 2 Multi-pole breakers have all breakers identical except when specifying Aux. switch and/or mixed poles, and have one rocker per breaker.
 3 On multi-pole breakers, one aux. switch is supplied, mounted in the extreme right pole.
 4 Available up to 50 amps maximum.
 5 Current ratings 71 - 100 with VDE approvals are available up to two poles maximum.
 6 Terminal Code 1 available to 60 amps maximum.
 7 Terminal Codes 2, 4, 5 & C available to 50 amps maximum.
 8 Terminal Codes 3, 6, 9 & A available to 100 amps maximum.
 9 Terminal Codes 8, 9 & C are not VDE approved.
 10 Color shown is visi and legend with remainder of rocker black
 11 Dual = ON-OFF/I-O legend on actuator.
 12 VDE and TUV approval requires Dual (I-O, ON-OFF) markings on rocker.
 13 Legend on push-to-reset bezel/shroud is white when single color rocker is ordered. Legend on push-to-reset bezel/shroud matches visi-color of rocker with actuator codes 5 & 6.
 14 Recessed "OFF-SIDE" available with actuator codes 1, 2, 3, & 4. Legends on rocker are available in ink stamping only.
 15 Barriers supplied on multi-pole units only.
 16 2 & 3 pole circuit breakers required for 120/240 AC rating.

TERMINAL		DIMENSIONAL DETAIL	RATING (AMPS)		
DESCRIPTION	CODE		25	50	100
#10-32 STUD	1				
M5 STUD	4				
#1/4-20 STUD	3				
M6 STUD	6				
#1/4-20 STUD	3				
M6 STUD	6				
#10-32 SCREW	2				
M-5 SCREW	5				

TERMINAL		DIMENSIONAL DETAIL	RATING (AMPS)		
DESCRIPTION	CODE		25	50	100
.250 DOUBLE Q.C.	7				
7/16" CLIP TERMINALS	9				
PUSH-IN STUD	A				

NOTES: TOLERANCE ON STUD LENGTHS IS ± 0.01 [± 0.25] UNLESS OTHERWISE SPECIFIED.

AUXILIARY / ALARM SWITCH TERMINAL DETAIL³



TAB (Q.C.) .187

TAB (Q.C.) .110

SOLDER TYPE

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]

TERMINAL HARDWARE				
TERMINAL DESCRIPTION	CODE	AGENCY APPROVAL	AMPERE RATING	HARDWARE SUPPLIED
#10-32 STUD	1	ALL	.02 - 50	LOCK WASHER - FLAT WASHER - NUT
M5 STUD	4	ALL	.02 - 50	LOCK WASHER - FLAT WASHER - NUT
#1/4-20 STUD	3	ALL	.02 - 80	LOCK WASHER - FLAT WASHER - NUT
			81 - 100	LOCK WASHER - NUT - (2)FLAT WASHER - NUT
M6 STUD	6	ALL	.02 - 80	LOCK WASHER - FLAT WASHER - NUT
			81 - 100	LOCK WASHER - NUT - (2)FLAT WASHER - NUT
#10-32 SCREW	2 & 5	UL RECOGNIZED	.02 - 50	* SADDLE CLAMP - FLAT WASHER - SCREW
		UL-489 LISTED	.02 - 50	LOCK WASHER - FLAT WASHER - SCREW
		TUV & VDE CERTIFIED	.02 - 16	* SADDLE CLAMP - FLAT WASHER - SCREW
		TUV & VDE CERTIFIED	16.1 - 50	LOCK WASHER - FLAT WASHER - SCREW

* THE SADDLE CLAMP IS FOR DIRECT WIRE CONNECTION USE. DISCARD SADDLE CLAMP IF WIRE TERMINAL LUG IS USED

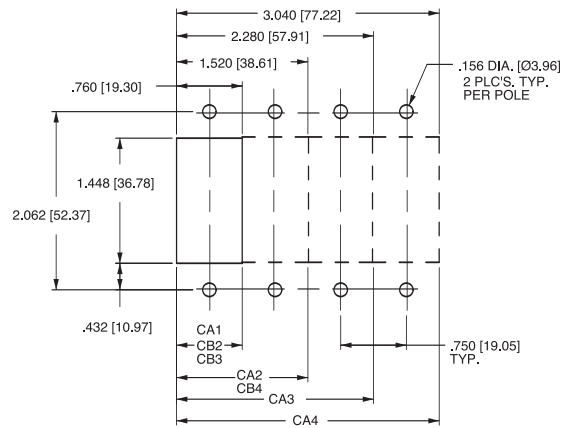
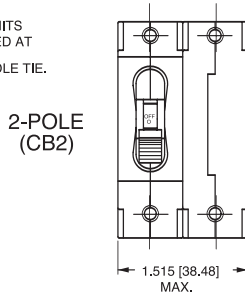
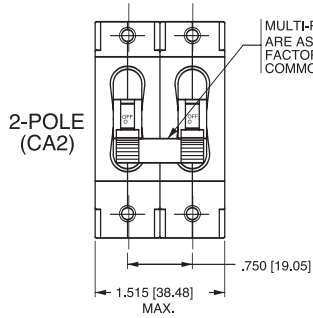
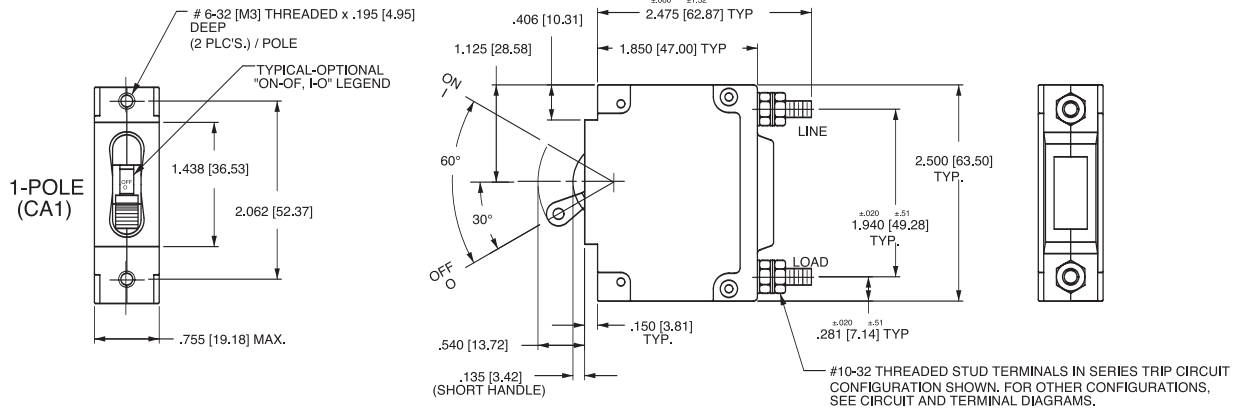
Notes:

- All dimensions are in inches [millimeters].
- Tolerance ± 0.020 [± 0.51] 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.

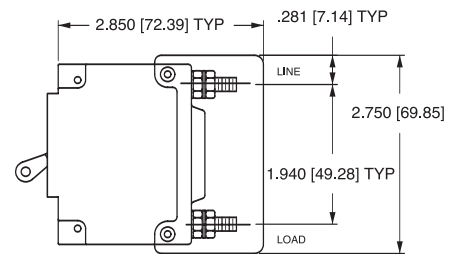
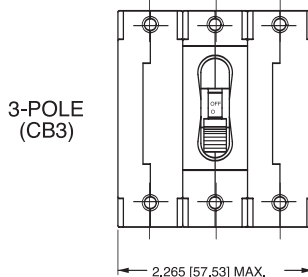
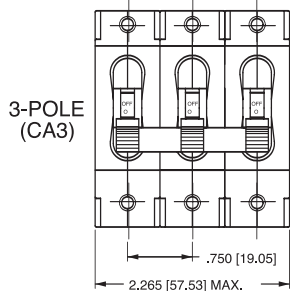
	CIRCUIT SCHEMATIC		CIRCUIT CODE	AUX SWITCH CODE	CIRCUIT SCHEMATIC		CIRCUIT CODE	AUX SWITCH CODE
	ANSI	IEC			ANSI	IEC		
	SWITCH ONLY (NO COIL)				SERIES TRIP			
			A	O			B C	O
	SWITCH ONLY (NO COIL) WITH AUXILIARY SWITCH		A	2 3 4	SERIES TRIP WITH AUXILIARY / ALARM SWITCH		B C	2 3 4
	SHUNT TRIP		D E	0	DUAL COIL: SERIES TRIP CURRENT COIL, SHUNT TRIP VOLTAGE COIL		H	0
	RELAY TRIP		F G	0	DUAL COIL: SERIES TRIP CURRENT COIL, RELAY TRIP VOLTAGE COIL		K	0

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					
ON					
ELECTRICAL TRIP					

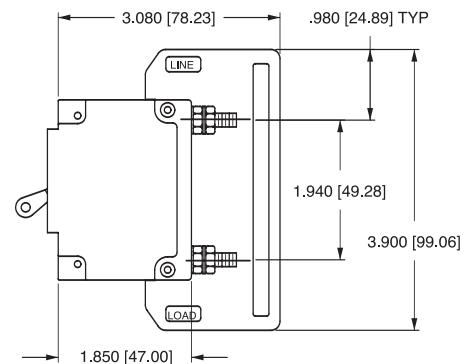
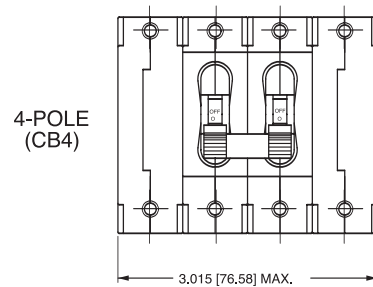
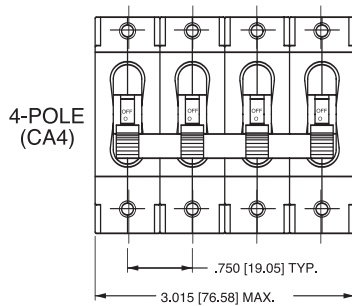
- Notes:
- All dimensions are in inches [millimeters].
 - Tolerance $\pm .020$ [.51] unless otherwise specified.
 - Schematic shown represents current trip circuits.
 - Available only as special catalog number.



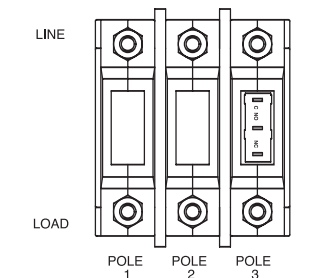
PANEL CUTOUT DETAIL
TOLERANCES ±.005 [.12]



BARRIER FOR UL-RECOGNIZED MULTI-POLE BREAKERS

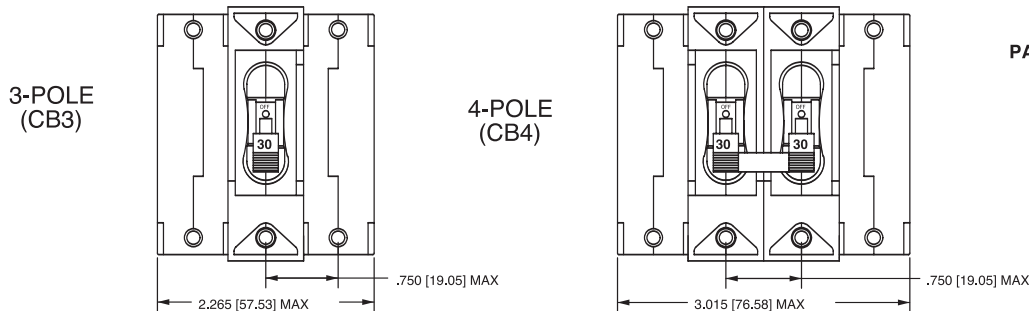
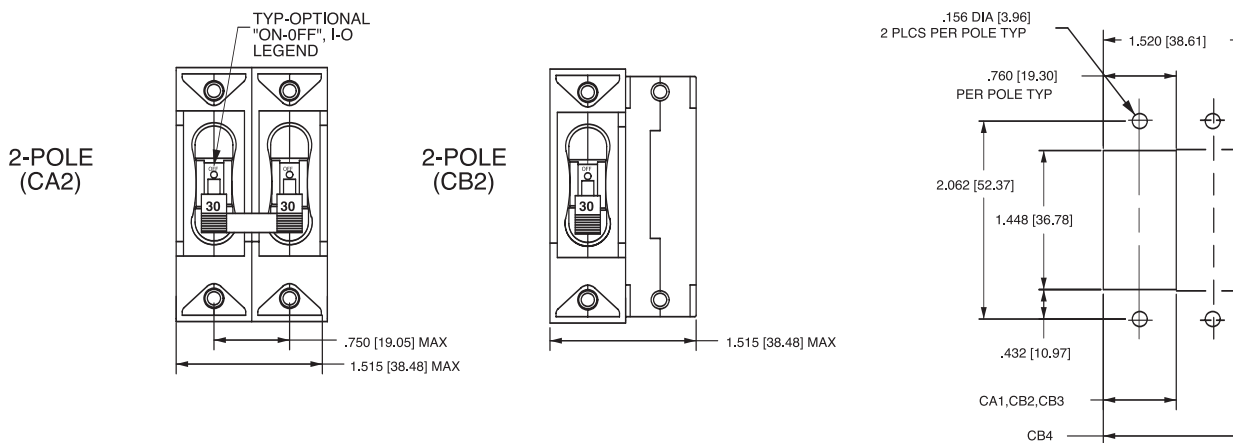
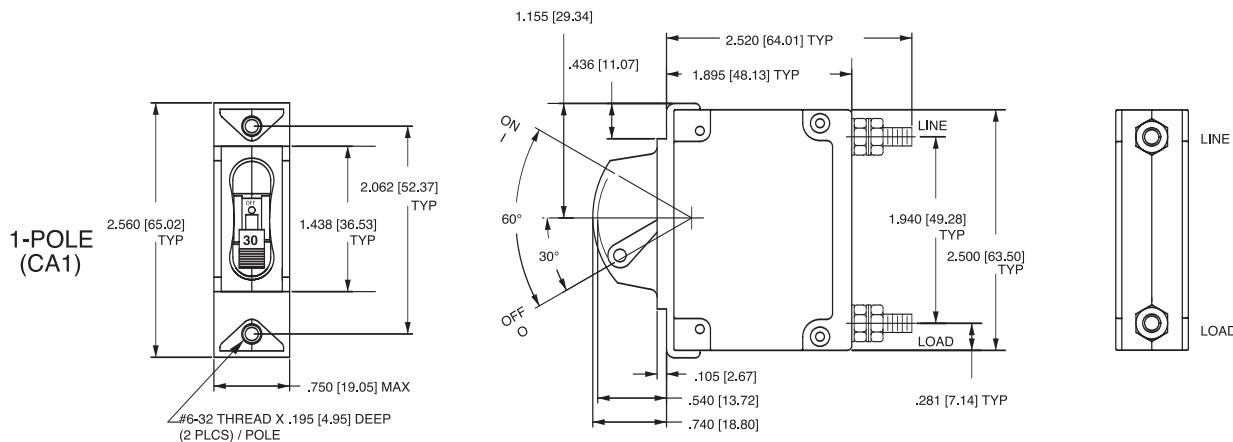


BARRIER FOR UL-489 LISTED MULTI-POLE BREAKERS



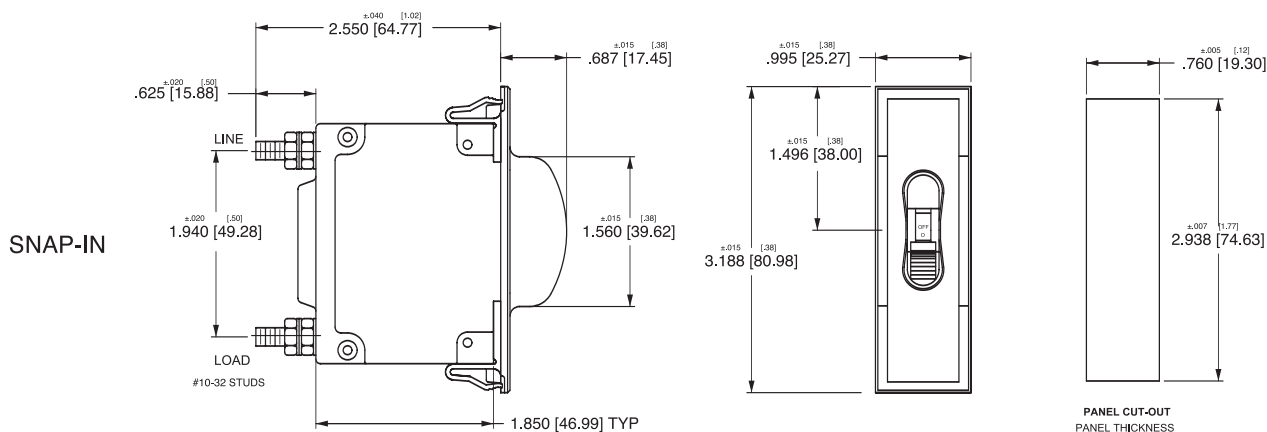
MULTI-POLE IDENTIFICATION SCHEME AS VIEWED FROM TERMINAL END OF BREAKER.

- Notes:
- 1 All dimensions are in inches [millimeters].
 - 2 Tolerance ±.020 [.51] unless otherwise specified.



PANEL CUTOUT DETAIL

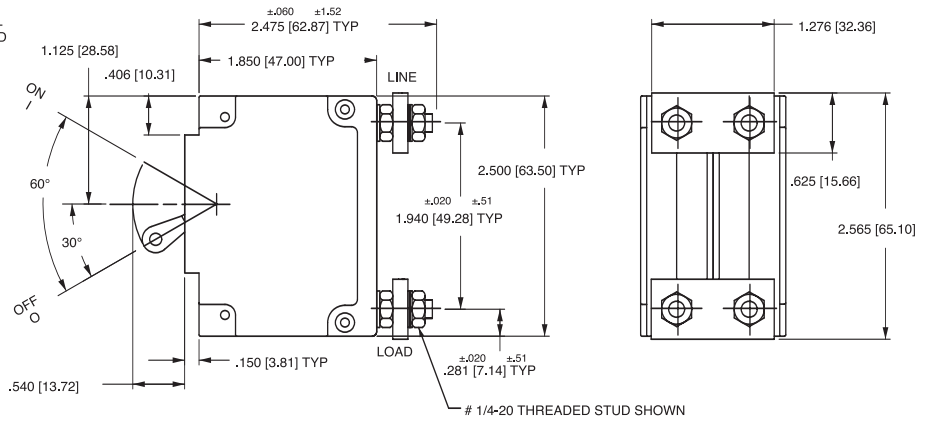
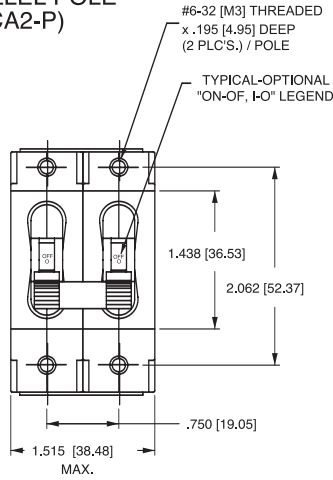
*Handleguard available as special catalog number only



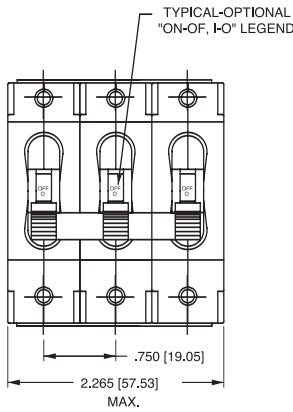
PANEL CUT-OUT
PANEL THICKNESS
0.04 TO 0.10 INCHES
[1.01] TO [2.54] INCHES

- Notes:
- 1 All dimensions are in inches [millimeters].
 - 2 Tolerance $\pm .020$ [1.51] unless otherwise specified.

PARALLEL POLE (CA2-P)

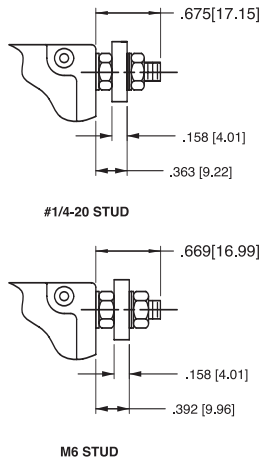
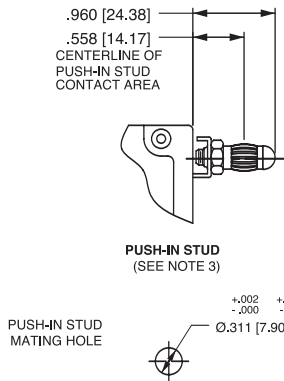


PARALLEL POLE (CA3-P)



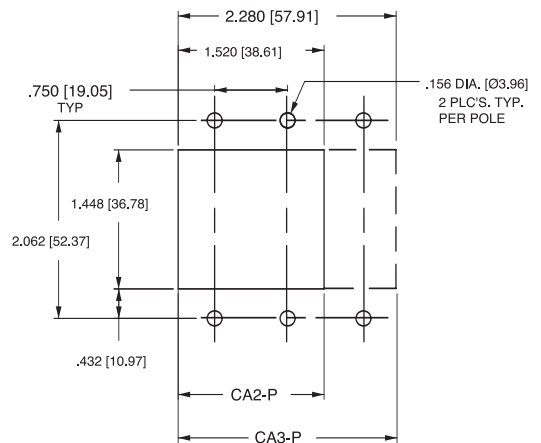
CIRCUIT BREAKER PROFILE	CIRCUIT SCHEMATIC (CA2-P SHOWN)		CIRCUIT CODE	AUX SWITCH CODE
	ANSI	IEC		
<p>±.060 ±1.52 1.388 [47.00] TYP</p>	<p>SERIES TRIP</p>		P	0
	<p>LINE</p> <p>LOAD</p>	<p>LINE (NETZ)</p> <p>LOAD (LAST)</p>		
<p>PUSH-IN STUD</p> <p>.400 [10.16]</p> <p>.225 [5.72]</p>	<p>SERIES TRIP WITH AUXILIARY SWITCH</p>		P	2 3 4
	<p>LINE</p> <p>LOAD</p> <p>C</p> <p>NO</p> <p>NC</p>	<p>LINE (NETZ)</p> <p>LOAD (LAST)</p> <p>C</p> <p>NO</p> <p>NC</p>		

TERMINAL DETAILS



PANEL CUTOUT DETAIL

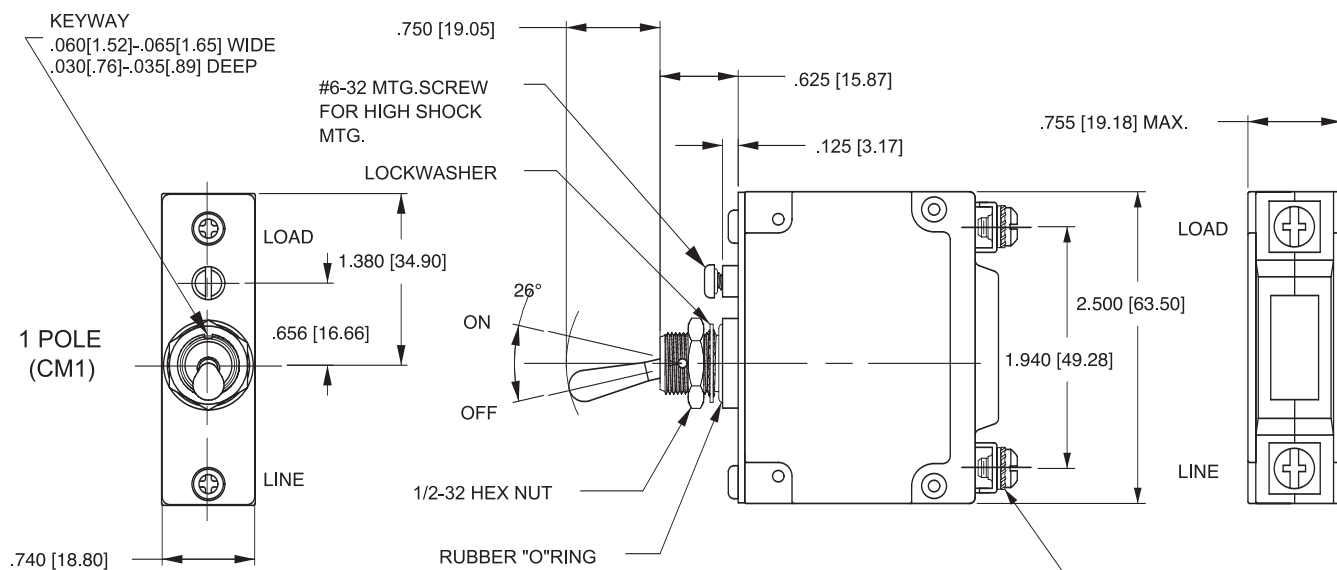
TOLERANCES ±.005 [.12]



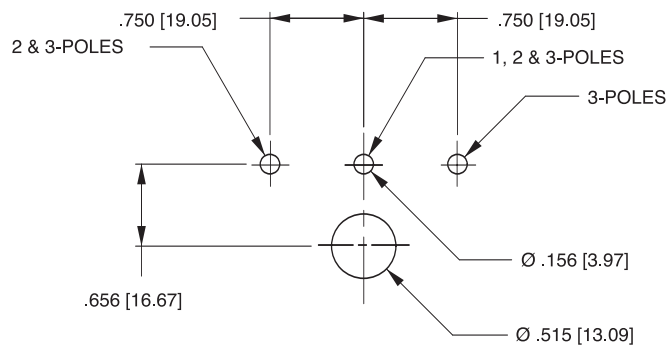
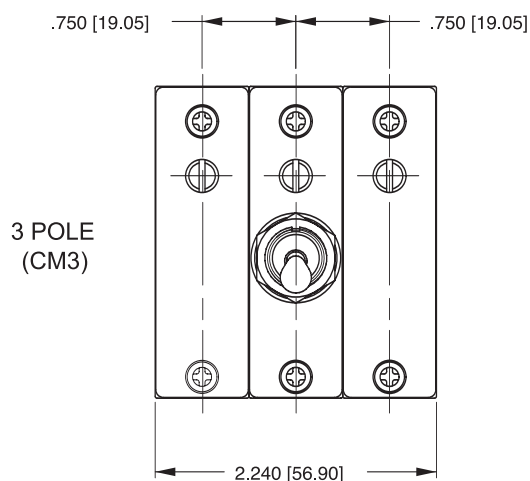
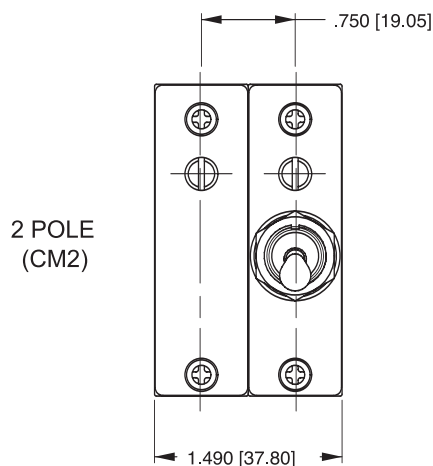
Notes:

- 1 All dimensions are in inches [millimeters].
- 2 Tolerance ±.020 [.51] 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.].

C-Series Sealed Toggle – Form & Fit Drawings



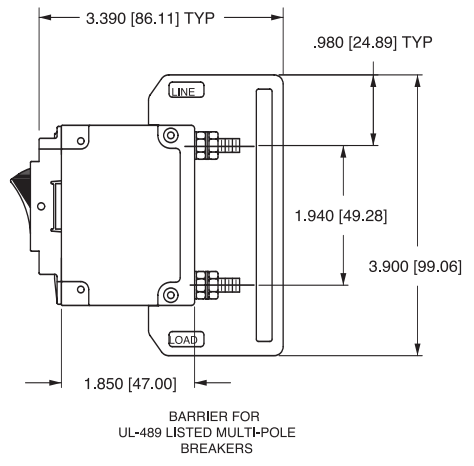
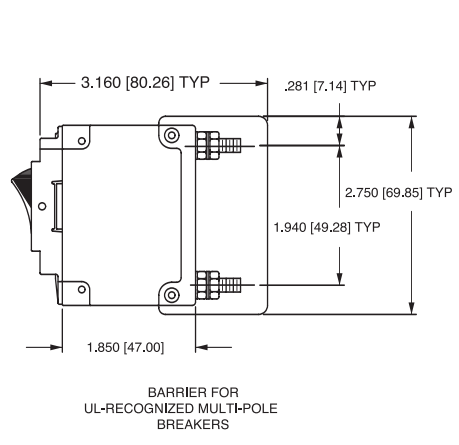
SCREW TYPE TERMINALS
IN SERIES TRIP CIRCUIT
CONFIGURATION SHOWN.
FOR OTHER CONFIGURATIONS
SEE CIRCUIT & TERMINAL
DIAGRAMS



PANEL CUTOUT DETAIL
TOLERANCES ±.005[.13]

- Notes:
 1 All dimensions are in inches [millimeters].
 2 Tolerance ±.020 [.51] unless otherwise specified.

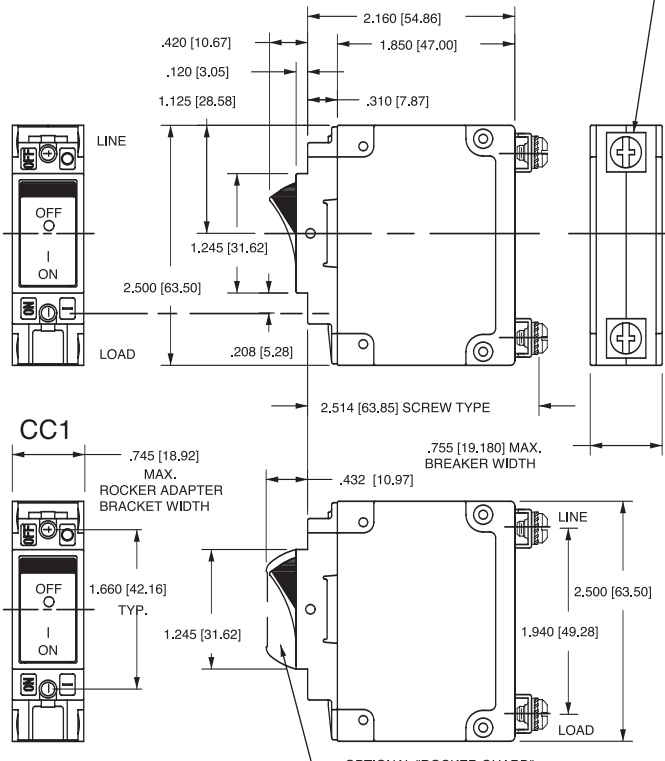
CIRCUIT BREAKER PROFILE	CIRCUIT SCHEMATIC		CIRCUIT CODE	AUX SWITCH CODE	CIRCUIT SCHEMATIC		CIRCUIT CODE	AUX SWITCH CODE
	ANSI	IEC			ANSI	IEC		
<p>SERIES TRIP (2 TERM'S.)</p>	<p>SWITCH ONLY (NO COIL)</p>		A	0	<p>SWITCH TRIP</p>		BC	0
<p>SERIES TRIP W/AUX. SWITCH (5 TERM'S.)</p>	<p>SWITCH ONLY (NO COIL) WITH AUXILIARY SWITCH</p>		A	2 3 4	<p>SERIES TRIP WITH AUXILIARY SWITCH</p>		BC	2 3 4
<p>SHUNT TRIP (3 TERM'S.)</p>	<p>SHUNT TRIP</p>		DE	0	<p>DUAL COIL: SERIES TRIP CURRENT COIL, SHUNT TRIP VOLTAGE COIL</p>		H	0
<p>SHUNT TRIP (4 TERM'S.)</p>	<p>RELAY TRIP</p>		FG	0	<p>DUAL COIL: SERIES TRIP CURRENT COIL, RELAY TRIP VOLTAGE COIL</p>		K	0



- Notes:
- 1 All dimensions are in inches [millimeters].
 - 2 Tolerance ± 0.020 [.51] unless otherwise specified.
 - 3 Schematic shown represents current trip circuit.

INDICATE "ON"

SCREW TYPE TERMINALS IN SERIES TRIP CIRCUIT CONFIGURATION SHOWN. FOR OTHER CONFIGURATIONS SEE CIRCUIT AND TERMINAL DIAGRAMS.

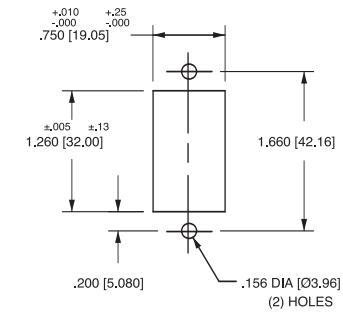


CC1

CC2

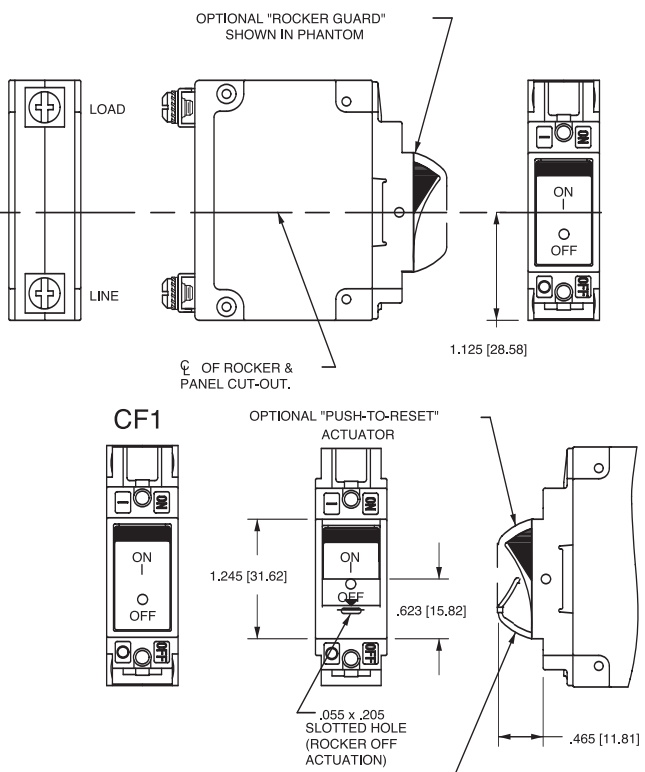
CC3

PANEL CUT-OUT DETAIL



INDICATE "OFF" & SINGLE COLOR

(INDICATE "OFF" SHOWN)



CF1

CF2

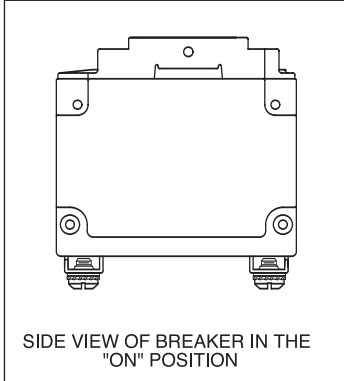
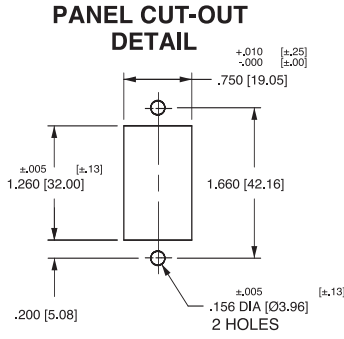
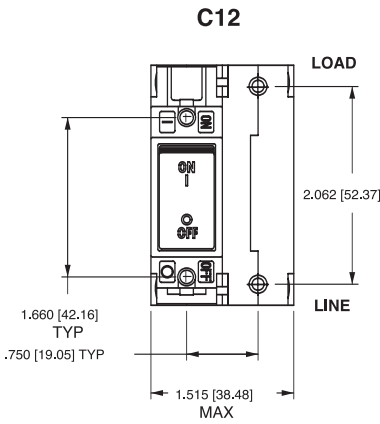
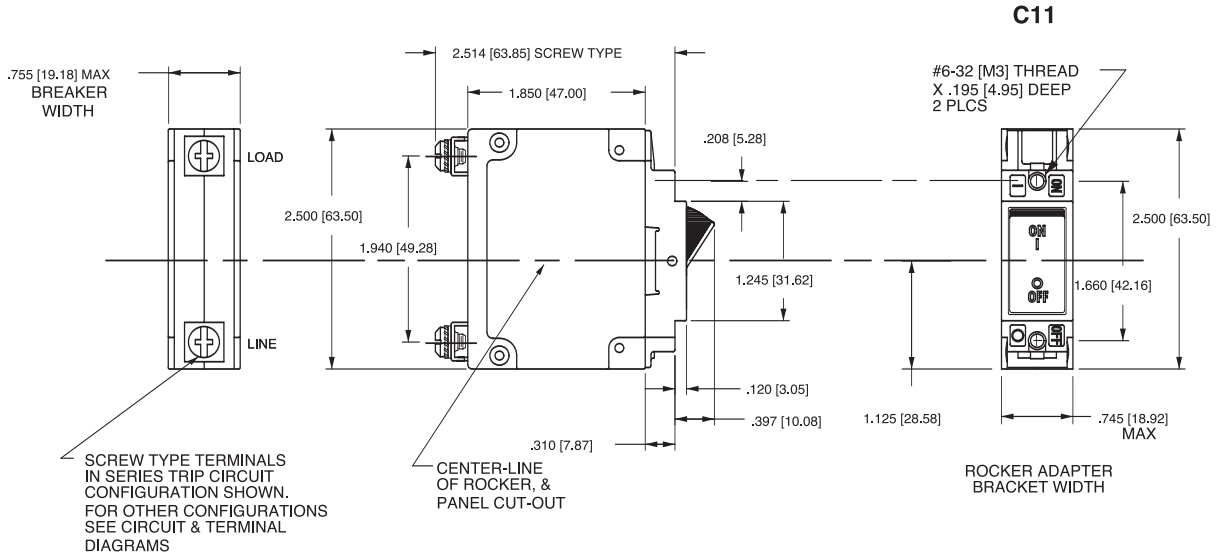
CF3

REAR VIEW OF INDICATE "ON" SERIES TRIP W/ AUX SWITCH CIRCUIT CONFIGURATION.

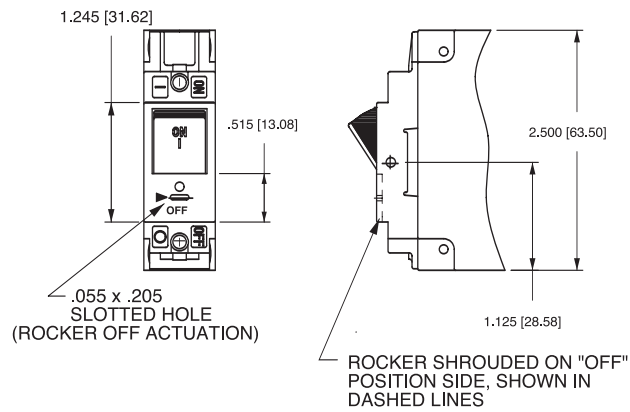
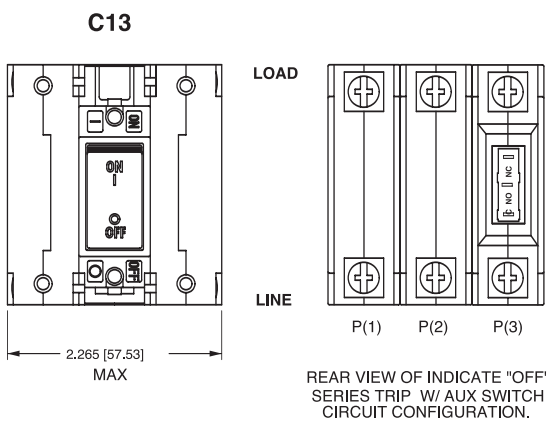
REAR VIEW OF INDICATE "OFF" SERIES TRIP W/ AUX SWITCH CIRCUIT CONFIGURATION.

- 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 ±.020 [.51] unless otherwise specified.

INDICATE "OFF" & SINGLE COLOR



PUSH-TO-RESET ACTUATOR



ACTUATOR SIDE VIEW (SURFACE CONTOURS)



- Notes:
- 1 For pole orientation with horizontal legend, rotate front view clockwise 90°.
 - 2 All dimensions are in inches [millimeters].
 - 3 Tolerance $\pm .020$ [.51] unless otherwise specified.