

**1 SERIES**  
C

**2 ACTUATOR** <sup>1</sup>  
M Sealed Toggle, one per pole

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

**4 CIRCUIT**

A <sup>2</sup> Switch Only (no coil)	F <sup>3</sup> Relay Trip (current)
B Series Trip (current)	G <sup>3</sup> Relay Trip (voltage)
C Series Trip (voltage)	H <sup>3,4</sup> Dual Coil with Shunt Trip Voltage Coil
D <sup>3</sup> Shunt Trip (current)	K <sup>3,4</sup> Dual Coil with Relay Trip Voltage Coil
E <sup>3</sup> Shunt Trip (voltage)	

**5 AUXILIARY / ALARM SWITCH**

0 without Aux Switch	
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	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**

03 <sup>2</sup> DC 50/60Hz, Switch Only	30 DC 50/60Hz Instantaneous
10 <sup>6</sup> 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	42 <sup>7</sup> 50/60Hz Short, Hi-Inrush
20 <sup>6</sup> 50/60Hz Instantaneous	44 <sup>7</sup> 50/60Hz Medium, Hi-Inrush
21 50/60Hz Ultra Short	46 <sup>7</sup> 50/60Hz Long, Hi-Inrush
22 50/60Hz Short	52 <sup>7</sup> DC Short, Hi-Inrush
24 50/60Hz Medium	54 <sup>7</sup> 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 auxiliary switch is supplied, mounted in the extreme right pole.
  - Voltage coils not rated for continuous duty. Available only with delay codes 10 & 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)** <sup>9</sup>

CODE	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 <sup>9</sup>	60.000
090	0.090	512	1.250	610	10.000	670 <sup>9</sup>	70.000
095	0.095	415	1.500	710	10.500	680 <sup>9</sup>	80.000
210	0.100	517	1.750	611	11.000	685 <sup>9</sup>	85.000
215	0.150	420	2.000	711	11.500	690 <sup>9</sup>	90.000
220	0.200	522	2.250	612	12.000	695 <sup>9</sup>	95.000
225	0.250	425	2.500	712	12.500	810 <sup>9</sup>	100.000
230	0.300	527	2.750	613	13.000		

**OR VOLTAGE COIL (NORMAL RATED VOLTAGE)** <sup>7</sup>

CODE	AMPERES						
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 <sup>9</sup> Stud 10-32	6 <sup>11</sup> Stud M6
2 <sup>10</sup> Screw 10-32	7 <sup>12</sup> 0.250 Double Click Connect
3 <sup>11</sup> Stud 1/4-20	9 <sup>11</sup> 7/16" Clip Terminal
4 <sup>10</sup> Stud M5 x 0.8	A <sup>13</sup> Plug-In Stud
5 <sup>10</sup> Screw M5 x 0.8	C <sup>10</sup> 5/16" Clip Terminal

**9 LEGEND PLATE**  
0 No Legend

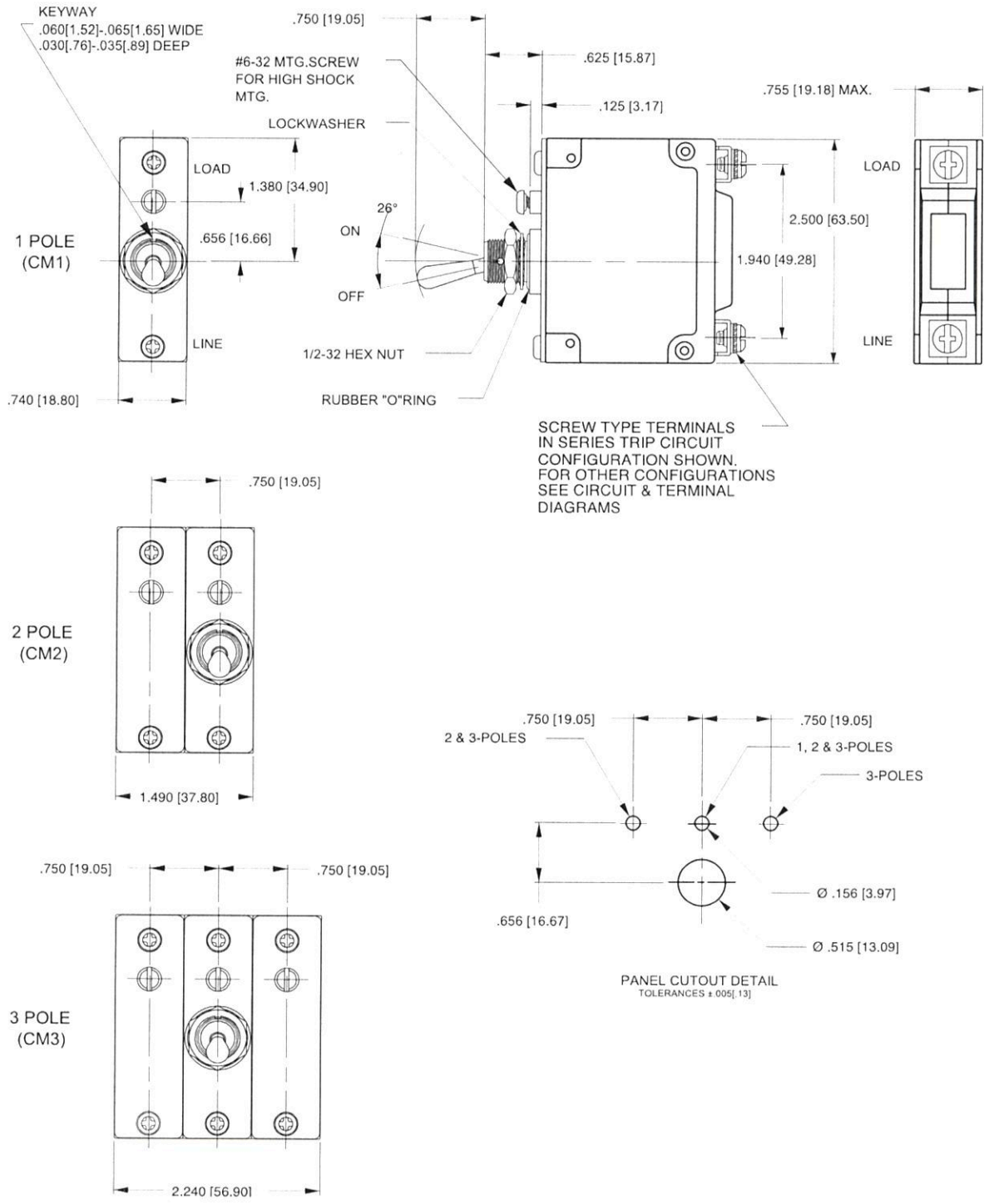
**10 MOUNTING / BARRIERS**

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

**11 AGENCY APPROVAL**

C	UL Recognized & CSA Accepted
I	UL Recognized & CSA Accepted, UL1500 ignition protection
L	UL Recognized & CSA Accepted with listed construction

Dimensional Specifications: in. [mm]

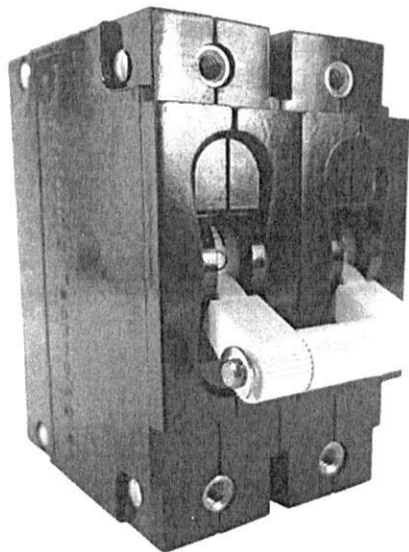


- Notes:
- 1 All dimensions are in inches [millimeters].
  - 2 Tolerance ±.020 [.51] unless otherwise specified.

# C-Series

## CIRCUIT BREAKER

The C-Series hydraulic-magnetic circuit breakers are ideal for applications that require higher amperage and voltage handling capability in a smaller package. They are available in 1-6 poles, 0.02-100amps, UL Recognized up to 480VAC or 150VDC, UL489 Listed up to 240VAC or 125VDC, with choice of time delays, terminal options, actuator styles and colors. The C-Series employs a unique arc chute design which allows for higher interrupting capacities of up to 10,000 amps. Thermoset glass filled polyester half shell construction provides for increased mechanical and electrical strength. The wiping contacts mechanical linkage, with two step actuation, cleans contacts providing high, positive contact pressure and longer contact life. Available with American Standard or Metric Threaded Stud terminals, or Saddle Clamp screw terminals. The optional mid-trip handle style actuator allows a visual indication of electrical overload with or without alarm feature.



### Product Highlights:

- Extensive list of Agency Approvals
- Available with Standard or Metric Stud terminals, or Saddle Clamp screw terminals
- Optional mid-trip handle style actuator
- Unique arc chute design which allows for higher interrupting capacities of up to 10,000 amps
- Exclusive Rockerguard and Push-To-Reset bezel
- Available with new solid color and two-color Visi-rocker® actuators
- New thermoset glass filled polyester half shell construction

### Typical Applications:

- Marine
- Telecom/Datacom
- Military
- Renewable Energy
- Generators & Welders



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**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.

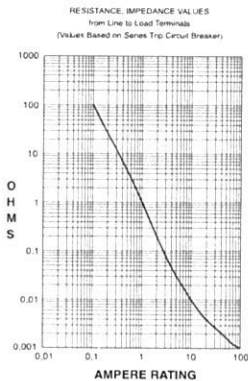
**Standard Voltage Coils** DC - 6V, 12V; AC - 120V; other ratings available, see Ordering Scheme.

**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** Minimum of 100 Megohms at 500 VDC.

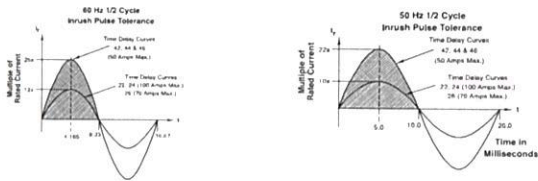
**Dielectric Strength** UL, CSA: 1960 V 50/60 Hz for one minute between all electrically isolated terminals. C-Series Circuit Breakers comply with the 8mm spacing and 3750V 50/60 Hz dielectric requirements from hazardous voltage to operator accessible surfaces, between adjacent poles and from main circuits 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 - 50.0	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 Config.** 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 & midtrip 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

\*Manufacturer reserves the right to change product specification without prior notice.

Electrical Tables

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		Construction Notes		
	Max. Rating	Frequency	Phase	Full Load Amps	General Purpose Amps	UL / CSA		UL	CSA			
						With Backup Fuse	Without Backup Fuse					
Series	32	DC	---	0.02 - 100	---	---	5,000	---	---	---		
	48	DC	---	110 - 150	---	---	5,000	TC1, OL1, U2	TC1, OL1, U2	---		
	65	DC	---	0.02 - 70	---	---	5,000	---	---	---	---	
				71 - 100	---	---	5,000	TC1, 2, OL1, U1	TC1, 2, OL1, U1	---		
	80	DC	---	0.02 - 70	---	---	7,500	---	---	---	---	
				71 - 100	---	---		7,500	TC1, 2, OL1, U1	TC1, 2, OL1, U1	---	
				0.02 - 70	---	---	10,000	---	---	---	---	---
				71 - 100	---	---		10,000	TC1, 2, OL1, U1	TC1, 2, OL1, U1	Must have Agency "L"	
	125	DC	---	0.02 - 50	---	---	5,000	TC1, 2, OL1, U1	TC1, 2, OL1, U1	Must have Agency "L"		
	125/250	DC	---	0.02 - 50	---	---	5,000	TC1, 2, OL1, U1	TC1, 2, OL1, U1	Must have Agency "L"		
	250	DC	---	0.02 - 50	---	---	5,000	5,000	TC1, 2, OL1, U1	TC1, 2, OL1, U1	Must have Agency "L". 250 volts requires 2 pole	
												50 / 60
	150	DC	---	---	---	80 - 100	---	5,000	TC1, 2, OL0, U3	---	Must have Agency "L"	
												101 - 175
	125/250	50 / 60	1	0.02 - 100	---	---	---	3,500	TC1, OL1, U2	TC1, OL1, U2	---	
				0.02 - 50	---	---		3,000	TC1, 2, OL1, U1	TC1, 2, OL1, U1	2 or 3 poles breaking single phase	
				51 - 100	---	---		1,000	TC1, 2, OL1, U1	TC1, 2, OL1, U1	2 or 3 poles breaking single phase	
				0.02 - 100	---	---		5,000	TC1, 2, OL1, U2	TC1, 2, OL1, U2	2 or 3 poles breaking single phase. Agency "L"	
	250	50 / 60	1	0.02 - 50	---	---	---	3,500	TC1, 2, OL1, U2	TC1, 2, OL1, U2	Per pole rating	
				0.02 - 100	---	---		5,000	TC1, 2, OL1, U1	TC1, 2, OL1, U1	Must have Agency "L"	
51 - 70				---	5,000	---		TC1, 2, OL1, C1	TC1, 2, OL1, C1	---		
---				0.02 - 100	---	3,000		TC1, 2, OL0, U2	TC1, 2, OL0, U2	---		
277	50 / 60	1	0.02 - 70	---	---	5,000	---	---	---	3 poles breaking 3 phase		
			---	0.02 - 90	---	5,000	TC1, 2, OL0, U1	TC1, 2, OL0, U1	Must have Agency "L"			
480/277	50 / 60	3	0.02 - 30	---	---	5,000	---	---	---	3 poles breaking 3 phase		
			---	---	---	5,000	TC1, 2, OL1, C1	TC1, 2, OL1, C1	---			
480	50 / 60	1	0.02 - 30	---	---	5,000	---	---	---	2 poles breaking 1 phase		
			---	---	---	5,000	TC1, 2, OL1, C1	TC1, 2, OL1, C1	---			
Dual Coil	80	DC	---	0.02 - 50	---	---	7,500	TC1, 2, OL1, U1	TC1, 2, OL1, U1	---		
	125	50 / 60	1	0.02 - 50	---	---	3,000	TC1, OL1, U2	TC1, OL1, U2	Per pole rating		
											3,000	TC1, OL1, U2
	250	50 / 60	1	0.02 - 50	---	---	---	3,000	TC1, OL1, U1	TC1, OL1, U1	2 or 3 poles breaking single phase	
												3,000
	277	50 / 60	1	0.02 - 50	---	---	---	5,000	TC1, 2, OL1, C1	TC1, 2, OL1, C1	3 poles breaking 3 phase	
5,000												---
Shunt	80	DC	---	0.02 - 50	---	---	7,500	TC1, 2, OL1, U1	TC1, 2, OL1, U1	---		
	277	50 / 60	1	0.02 - 50	---	---	5,000	TC1, 2, OL1, C1	TC1, 2, OL1, C1	---		
											5,000	---
	480/277	50 / 60	3	0.02 - 50	---	---	5,000	---	---	---	3 poles breaking 3 phase	
---				0.02 - 30	---	5,000	---	---	---	---	3 poles breaking 3 phase	
480	50 / 60	1	0.02 - 30	---	---	5,000	---	---	---	2 poles breaking 1 phase		
			---	---	31 - 50	5,000	---	---	---	---	---	
Relay	80	DC	---	0.02 - 50	---	---	7,500	TC1, 2, OL1, U1	TC1, 2, OL1, U1	---		
	277	50 / 60	1	0.02 - 50	---	---	5,000	---	---	---		
	250	50 / 60	3	0.02 - 50	---	---	5,000	TC1, 2, OL1, C1	TC1, 2, OL1, C1	3 poles breaking 3 phase		
Switch Only	65	DC	---	71 - 100	---	---	---	---	---	---		
				---	---	---	---	---	---	---		
	80	DC	---	71 - 100	---	---	---	---	---	---		
				---	---	---	---	---	---	---		
	125	50 / 60	1	0.02 - 100	---	---	---	---	---	---		
	125/250	50 / 60	1	0.02 - 100	---	---	---	---	---	---	2 or 3 poles breaking single phase	
250				50 / 60	1	0.02 - 100	---	---	---	---	---	
277	50 / 60	1	0.02 - 70	---	---	---	---	---	---	---		
			3	0.02 - 70	---	---	---	---	---	---	---	
480/277	50 / 60	3	0.02 - 30	---	---	---	---	---	---	3 poles breaking 3 phase		
			---	---	31 - 50	---	---	---	---	---		

Notes:

- 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 Tables

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 & Relay Switch Only	120 <sup>1</sup>	50 / 60	1	0.02 - 50	7 ½
	250 <sup>1</sup>	50 / 60	1	0.02 - 20	3
			3	0.02 - 20	5
	277 <sup>1</sup>	50 / 60	1	0.02 - 20	3
480 <sup>2</sup>	50 / 60	3	0.02 - 20	5	

Notes:

- 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 175A for 51 through 100A rating.
  - UL Recognized and CSA Certified at 480V refers to 3 and 4 pole versions used in a 3Ø, WYE connected circuit or a 2 pole version with 2 poles breaking 1Ø and backed up with a series fusing as stated in note 1.
- \* Shunt and Relay Trip - Voltage Coil Construction not current coils

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 UL / CSA	Construction Notes	
	Max. Rating	Frequency	Phase	Full Load Amps	General Purpose Amps <sup>1</sup>	UL / CSA		VDE		TUV				
						With Backup Fuse	Without Backup Fuse	(Inc) With Backup Fuse	(Inc) Without Backup Fuse	(Inc) With Backup Fuse	(Inc) Without Backup Fuse			
Series	80	DC	---	0.10 - 70	---	---	7,500	---	5,000	5,000	1,500	TC1,2,OL1,U1	---	
			---	71 - 100	71 - 100	---	10,000	---	5,000	---	5,000	5,000	TC1,2,OL0,U1	Agency F, H, J or R
	250	50 / 60	1	---	0.10 - 50	---	---	---	---	---	---	5,000	TC1,2,OL1,U1	Agency J or R
				---	0.10 - 70	---	---	3,000	1,500	3,000	1,500	---		2P, Agency J or R
				---	0.10 - 100	---	---	---	---	---	---	---		---
				3	0.10 - 90	---	---	---	---	5,000	5,000	---		Agency J or R
	415	50 / 60	3	0.10 - 30	---	5,000 <sup>2</sup>	---	3,000	1,500	3,000	1,500	TC1,2,OL1,C1	Rocker	
								5,000	2,500				Handle, Agency F, H, J or R	
Dual Coil	80	DC	---	0.10 - 30	---	---	7,500	---	1,500	5,000	1,500	TC1,2,OL1,U1	---	
	250	50 / 60	1 & 3				5,000	3,000		3,000				
Shunt	80	DC	---	0.10 - 70	---	---	7,500	---	5,000	5,000	1,500	TC1,2,OL1,U1	---	
	250	50 / 60	1 & 3	0.10 - 70	---	---	5,000	3,000	1,500	3,000	1,500	TC1,2,OL1,U1	---	
	415	50 / 60	3	0.10 - 30	---	5,000 <sup>2</sup>	---	3,000	1,500	3,000	1,500	TC1,2,OL1,C1	Rocker Handle, Agency F, H, J or R	

Notes:

- 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.

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	Interrupting Capacity (Amps)	Construction Notes	
	Max. Rating	Frequency	Phase	Full Load Amps	Without Backup Fuse		
Series	80	DC	---	0.10 - 100	50,000 <sup>1</sup>	Limited to 2 Poles Max from 71 - 100 Amps	
					10,000		
				101 - 150	10,000		2 Poles - Parallel Poles
					151 - 250		10,000
	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
	120 / 240	50 / 60	1	0.10 - 50	5,000	2 or 3 Poles (1 pole of a 3 pole unit is neutral)	
					10,000 <sup>1</sup>		
240	50 / 60	1	0.10 - 30	5,000	1 Pole		
				10,000	2 Poles		
277	50 / 60	1	0.10 - 20	10,000	1-2 Poles		
				10,000	---		
Dual Coil	120	50 / 60	1	0.10 - 30	10,000	---	

Notes:

- Special catalog number required. Consult factory.

**Electrical Tables**

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.

<b>C-SERIES TABLE E: UL1500 (Marine Ignition Protection)</b>								
Circuit Configuration	Voltage			Current Rating	Interrupting Capacity (Amps)	Application Codes		Construction Notes
	Max. Rating	Frequency	Phase	Full Load Amps	Without Backup Fuse	UL	CSA	
Series	48	DC	---	0.02 - 100	5,000	TC1, 2, OL1, U1	TC1, 2, OL1, U1	---
				101 - 150				
	65	DC	---	0.02 - 100	1,500	TC1, 2, OL0, U1	TC1, 2, OL0, U1	---
				80	DC	---	0.02 - 70	1,500
	125	50 / 60	1	0.02 - 70	5,000	TC1, 2, OL1, U1	TC1, 2, OL1, U1	---
				71 - 100	1,500			
	250	50 / 60	1	0.02 - 70	1,500	TC1, 2, OL1, U1	TC1, 2, OL1, U1	---
				71 - 100				

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

<b>C-SERIES TABLE F: PARALLEL POLE CONSTRUCTION</b>				
<i>UL489A Listed for Communications Equipment</i>				
Circuit Configuration	Voltage		Current Rating	Interrupting Capacity (Amps)
	Max. Rating	Frequency	General Purpose Amps	Without Backup Fuse
Series	80	DC	100 - 250	10,000

**Agency Certifications**

UL Recognized  
UL Standard 1077  


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

CSA Accepted  



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

UL Standard 508  


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

CSA Certified  



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

UL Standard 1500  


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

TUV Certified  



EN60934, under License No. R72040875

UL Listed  
UL Standard 489  


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

VDE Certified  


EN60934, VDE 0642 under File No. 10537

UL Standard 489A  


Communications Equipment (Guide CCN/DITT, File E189195)

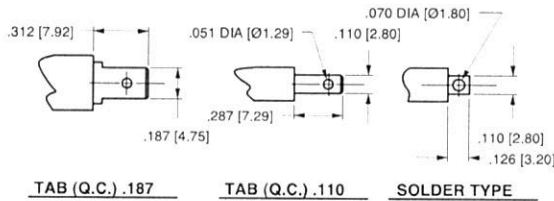
Circuit & Terminal Diagrams: in. [mm]

DESCRIPTION	CODE	TERMINAL DIMENSIONAL DETAIL	RATING (AMPS)		
			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				

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

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

AUXILIARY / ALARM SWITCH TERMINAL DETAIL<sup>3</sup>



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 ±.020 [.51] unless otherwise specified.
- Available on Series Trip and Switch Only Circuits when called for on multi-pole units. Only one auxiliary switch is normally supplied, as viewed in multi-pole identification scheme.



Circuit & Terminal Diagrams: in. [mm]

	CIRCUIT SCHEMATIC		CIRCUIT CODE	AUX SWITCH CODE	CIRCUIT SCHEMATIC		CIRCUIT CODE	AUX SWITCH CODE
	ANSI	IEC			ANSI	IEC		
	SWITCH ONLY (NO COIL)							
			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	O	DUAL COIL; SERIES TRIP CURRENT COIL, SHUNT TRIP VOLTAGE COIL		H	O
	RELAY TRIP		F G	O	DUAL COIL; SERIES TRIP CURRENT COIL, RELAY TRIP VOLTAGE COIL		K	O

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 <sup>4</sup>
OFF					
ON					
ELECTRICAL TRIP					

- Notes:
- All dimensions are in inches [millimeters].
  - Tolerance  $\pm 0.020$  [.51] unless otherwise specified.
  - Schematic shown represents current trip circuits.
  - Available only as special catalog number.