

Manual Motor Controller/Supplementary Protector/Miniature Circuit Breaker

Product Overview



Bulletin 1492-CB — Manual Motor Controller/Supplementary Protector/Miniature Circuit Breaker

- Both a Manual Motor Controller and a Supplementary Protector in one Convenient Package (Series C Devices)
- Suitable for use as Motor Disconnect (0.5...30 A)
- AC and DC Voltage Ratings — in One Convenient Device
- Higher Voltage DC Rating in Similar Package (DF, DG, DH)
- Energy Limiting Design — Protects Downstream Components Better than Conventional Breakers During Short Circuits
- Field-Mountable Options for Selective Applications
- True IP2X Finger-Safe Design (Top and Sides)
- International Approvals — CE Marked, and Meets UL, CSA, and IEC (VDE) Standards for Worldwide Acceptance
- Ratings to 480Y/277V AC @ 125V AC — 10 000 A U2 Interrupting Capability
- A Positively Trip-Free Mechanism (Breaker Operation Cannot be Defeated by Holding the Handle in the ON Position)
- Three Trip Curves: F, G, and H

Standards Compliance

- UL 508, 1077
- CSA 22.2 No. 14, 235
- IEC/EN 60950, 60934
- VDE 0641, 0660

Bulletin 1492-CB Series C devices may be applied as manual motor controllers for direct control of motors connected across-the-line, meeting UL 508/CSA 22.2 No 14. Additionally, these devices are intended for use as a motor disconnect * and can be locked in the OFF position when used with the locking device kit. These devices are provided with an internal, nonreplaceable, fixed thermal (bimetal type) overload trip feature and instantaneous magnetic trip feature designed to trip open the controller main contacts upon overcurrent. They are suitable for providing motor overload protection.

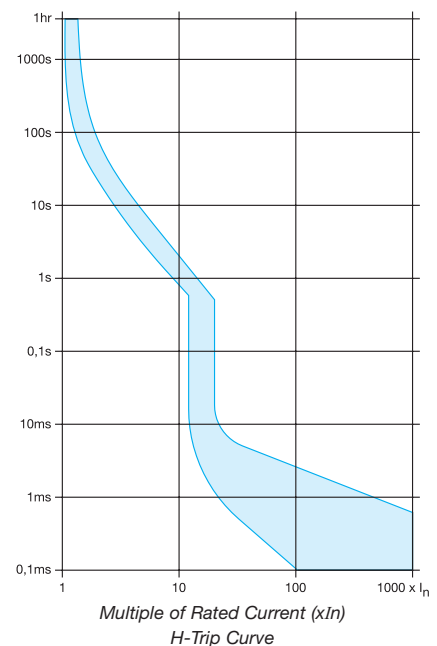
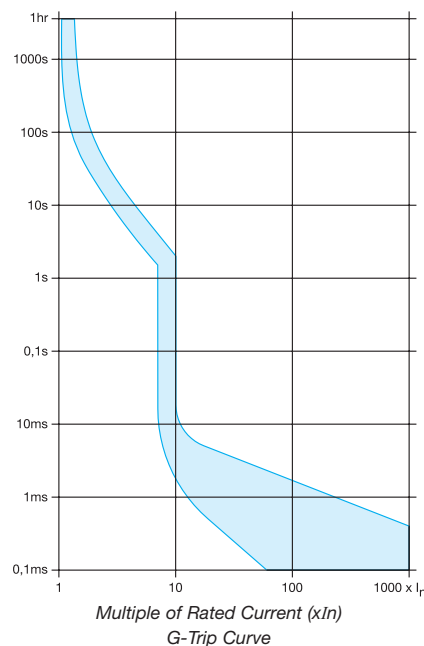
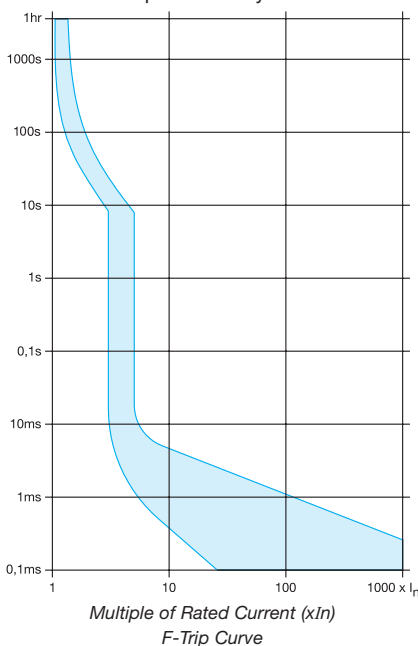
These devices may be applied in Group Motor applications. These devices are also rated as a controller and disconnect for AC general use loads and AC resistive (heating) loads.

The Bulletin 1492-CB supplementary protectors/miniature circuit breakers are available in one-, one-pole plus neutral, two-, three-, and three-pole plus neutral units. One- and two-pole AC units also have limited DC ratings. Two and three-pole units are connected at the handle for simultaneous operation. In addition, the product line includes devices that are specifically rated for DC with trip curves, DF, DG and DH. Screw termination is standard on all Bulletin 1492-CB units. Both line and load side terminals accept #16...4 AWG (1.5...2.5 mm²) copper wire.

Bulletin 1492-CB series B and series C are “energy limiting” thermal magnetic type overcurrent protectors meeting UL 1077/CSA 22.2 No. 235, IEC/EN 60934. These devices are designed for the protection of a wide variety of products including:

- Solenoids
- Test Equipment
- Controller I/O Points
- Relay and Contactor Coils
- Computers
- Transformers
- Automotive Systems
- Power Supplies
- Medical Equipment
- Control Instrumentation

Bulletin 1492-CB supplementary protectors/miniature circuit breakers are designed to comply with standards for world-wide customer acceptance. They meet the following standards:



Manual Motor Controller/Supplementary Protector/Miniature Circuit Breaker

Product Selection

Product Selection

Note: Bulletin 1492-CB Circuit Breakers are also available with neutral (1-pole and 3-pole). Devices with Neutral are rated as Supplementary Protectors only, with a Component Recognition. Add a suffix of -N to cat. no.

Tripping Characteristic			F Trip Resistive or Slightly Inductive	G Trip Inductive	H Trip Highly Inductive
			3...5 /In	6...10 /In	12...20 /In
Number of Poles	Continuous Current Rating (In) Ampere	Maximum Hp 1p @ 277V AC, 1-phase 2p @ 480V AC, 1-phase 3p @ 480V AC, 3-phase	Cat. No.	Cat. No.	Cat. No.
1-Pole 1 Piece per Carton	0.5	—	1492-CB1F005	1492-CB1G005	1492-CB1H005
	1	—	1492-CB1F010	1492-CB1G010	1492-CB1H010
	1.5	1/10	1492-CB1F015	1492-CB1G015	1492-CB1H015
	2	1/6	1492-CB1F020	1492-CB1G020	1492-CB1H020
	3	1/3	1492-CB1F030	1492-CB1G030	1492-CB1H030
	4	1/3	1492-CB1F040	1492-CB1G040	1492-CB1H040
	5	1/2	1492-CB1F050	1492-CB1G050	1492-CB1H050
	6	3/4	1492-CB1F060	1492-CB1G060	1492-CB1H060
	7	1	1492-CB1F070	1492-CB1G070	1492-CB1H070
	8	1	1492-CB1F080	1492-CB1G080	1492-CB1H080
	10	2	1492-CB1F100	1492-CB1G100	1492-CB1H100
	12	2	1492-CB1F120	1492-CB1G120	1492-CB1H120
	15	3	1492-CB1F150	1492-CB1G150	1492-CB1H150
	16	3	1492-CB1F160	1492-CB1G160	1492-CB1H160
	20	3	1492-CB1F200	1492-CB1G200	1492-CB1H200
	25	5	1492-CB1F250	1492-CB1G250	1492-CB1H250
	30	5	1492-CB1F300	1492-CB1G300	1492-CB1H300
	32	5	1492-CB1F320	1492-CB1G320	1492-CB1H320
	40	7.5	1492-CB1F400	1492-CB1G400	1492-CB1H400
	50	10	1492-CB1F500	1492-CB1G500	1492-CB1H500
52	10	1492-CB1F520	1492-CB1G520	1492-CB1H520	
2-Pole 1 Piece per Carton	0.5	—	1492-CB2F005	1492-CB2G005	1492-CB2H005
	1	—	1492-CB2F010	1492-CB2G010	1492-CB2H010
	1.5	—	1492-CB2F015	1492-CB2G015	1492-CB2H015
	2	—	1492-CB2F020	1492-CB2G020	1492-CB2H020
	3	1/2	1492-CB2F030	1492-CB2G030	1492-CB2H030
	4	1	1492-CB2F040	1492-CB2G040	1492-CB2H040
	5	1.5	1492-CB2F050	1492-CB2G050	1492-CB2H050
	6	2	1492-CB2F060	1492-CB2G060	1492-CB2H060
	7	2	1492-CB2F070	1492-CB2G070	1492-CB2H070
	8	2	1492-CB2F080	1492-CB2G080	1492-CB2H080
	10	3	1492-CB2F100	1492-CB2G100	1492-CB2H100
	12	3	1492-CB2F120	1492-CB2G120	1492-CB2H120
	15	5	1492-CB2F150	1492-CB2G150	1492-CB2H150
	16	5	1492-CB2F160	1492-CB2G160	1492-CB2H160
	20	5	1492-CB2F200	1492-CB2G200	1492-CB2H200
	25	7.5	1492-CB2F250	1492-CB2G250	1492-CB2H250
	30	10	1492-CB2F300	1492-CB2G300	1492-CB2H300
	32	10	1492-CB2F320	1492-CB2G320	1492-CB2H320
	40	15	1492-CB2F400	1492-CB2G400	1492-CB2H400
	50	20	1492-CB2F500	1492-CB2G500	1492-CB2H500
52	20	1492-CB2F520	1492-CB2G520	1492-CB2H520	



Product Selection

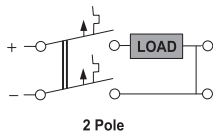
Tripping Characteristic			F Trip Resistive or Slightly Inductive	G Trip Inductive	H Trip Highly Inductive
			3...5 /n	6...10 /n	12...20 /n
Number of Poles	Continuous Current Rating (In) Ampere	Maximum Hp 1p @ 277V AC, 1-phase 2p @ 480V AC, 1-phase 3p @ 480V AC, 3-phase	Cat. No.	Cat. No.	Cat. No.
3-Pole 1 Piece per Carton	0.5	—	1492-CB3F005	1492-CB3G005	1492-CB3H005
	1	—	1492-CB3F010	1492-CB3G010	1492-CB3H010
	1.5	1/2	1492-CB3F015	1492-CB3G015	1492-CB3H015
	2	3	1492-CB3F020	1492-CB3G020	1492-CB3H020
	3	1.5	1492-CB3F030	1492-CB3G030	1492-CB3H030
	4	2	1492-CB3F040	1492-CB3G040	1492-CB3H040
	5	3	1492-CB3F050	1492-CB3G050	1492-CB3H050
	6	3	1492-CB3F060	1492-CB3G060	1492-CB3H060
	7	3	1492-CB3F070	1492-CB3G070	1492-CB3H070
	8	5	1492-CB3F080	1492-CB3G080	1492-CB3H080
	10	5	1492-CB3F100	1492-CB3G100	1492-CB3H100
	12	7.5	1492-CB3F120	1492-CB3G120	1492-CB3H120
	15	10	1492-CB3F150	1492-CB3G150	1492-CB3H150
	16	10	1492-CB3F160	1492-CB3G160	1492-CB3H160
	20	10	1492-CB3F200	1492-CB3G200	1492-CB3H200
	25	15	1492-CB3F250	1492-CB3G250	1492-CB3H250
	30	20	1492-CB3F300	1492-CB3G300	1492-CB3H300
	32	20	1492-CB3F320	1492-CB3G320	1492-CB3H320
40	30	1492-CB3F400	1492-CB3G400	1492-CB3H400	
50	30	1492-CB3F500	1492-CB3G500	1492-CB3H500	
52	40	1492-CB3F520	1492-CB3G520	1492-CB3H520	



Note: 1492-CB Circuit Breakers are also available with neutral (1-pole and 3-pole). Devices with neutral are rated as Supplementary Protectors only with a Component Recognition. Add a suffix of -N to catalog number.


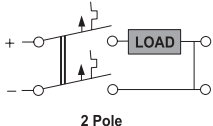
Note: Bulletin 1492-CB Circuit Breakers are also available with specific DC ratings (1- and 2-pole). DC specific rated devices are available as Supplementary Protectors only, with Component Recognition.

Tripping Characteristic		DF Trip Resistive or Slightly Inductive	DG Trip Inductive	DH Trip Highly Inductive
		4.5...8 /n	9...16 /n	18...32 /n
Number of Poles	Continuous Current Rating (In) Ampere	Cat. No.	Cat. No.	Cat. No.
2-Pole 1 Piece per Carton	0.5	1492-CB2DF005	1492-CB2DG005	—
	1	1492-CB2DF010	1492-CB2DG010	—
	2	1492-CB2DF020	1492-CB2DG020	—
	3	1492-CB2DF030	1492-CB2DG030	—
	4	1492-CB2DF040	1492-CB2DG040	—
	5	1492-CB2DF050	1492-CB2DG050	—
	6	1492-CB2DF060	1492-CB2DG060	1492-CB2DH060
	7	1492-CB2DF070	1492-CB2DG070	1492-CB2DH070
	8	1492-CB2DF080	1492-CB2DG080	1492-CB2DH080
	10	1492-CB2DF100	1492-CB2DG100	1492-CB2DH100
	12	1492-CB2DF120	1492-CB2DG120	1492-CB2DH120
	15	1492-CB2DF150	1492-CB2DG150	1492-CB2DH150
	16	1492-CB2DF160	1492-CB2DG160	1492-CB2DH160
	20	1492-CB2DF200	1492-CB2DG200	1492-CB2DH200
	25	1492-CB2DF250	1492-CB2DG250	1492-CB2DH250
	30	1492-CB2DF300	1492-CB2DG300	1492-CB2DH300
	32	1492-CB2DF320	1492-CB2DG320	1492-CB2DH320
	40	1492-CB2DF400	1492-CB2DG400	1492-CB2DH400



Manual Motor Controller/Supplementary Protector/Miniature Circuit Breaker

Product Selection, Continued

Tripping Characteristic		DF Trip Resistive or Slightly Inductive	DG Trip Inductive	DH Trip Highly Inductive
		4.5...8 I _n	9...16 I _n	18...32 I _n
Number of Poles	Continuous Current Rating (I _n) Amphere	Cat. No.	Cat. No.	Cat. No.
2-Pole 1 Piece per Carton   2 Pole	0.5	1492-CB2DF005	1492-CB2DG005	—
	1	1492-CB2DF010	1492-CB2DG010	—
	2	1492-CB2DF020	1492-CB2DG020	—
	3	1492-CB2DF030	1492-CB2DG030	—
	4	1492-CB2DF040	1492-CB2DG040	—
	5	1492-CB2DF050	1492-CB2DG050	—
	6	1492-CB2DF060	1492-CB2DG060	1492-CB2DH060
	7	1492-CB2DF070	1492-CB2DG070	1492-CB2DH070
	8	1492-CB2DF080	1492-CB2DG080	1492-CB2DH080
	10	1492-CB2DF100	1492-CB2DG100	1492-CB2DH100
	12	1492-CB2DF120	1492-CB2DG120	1492-CB2DH120
	15	1492-CB2DF150	1492-CB2DG150	1492-CB2DH150
	16	1492-CB2DF160	1492-CB2DG160	1492-CB2DH160
	20	1492-CB2DF200	1492-CB2DG200	1492-CB2DH200
	25	1492-CB2DF250	1492-CB2DG250	1492-CB2DH250
	30	1492-CB2DF300	1492-CB2DG300	1492-CB2DH300
	32	1492-CB2DF320	1492-CB2DG320	1492-CB2DH320
40	1492-CB2DF400	1492-CB2DG400	1492-CB2DH400	

Additional Devices

Description		Cat. No.
Auxiliary Contacts	Auxiliary Contact Module Switches when protective device is operated manually or tripped electrically 1 N.O. Contact	1492-ACBH1
	Auxiliary Contact Module Switches when protective device is operated manually or tripped electrically 1 N.C. Contact	1492-ACBH2
	Signal Alarm Contact Module Trip indicating contact switches only when the protective device is tripped electrically 1 N.O. Contact	1492-ACBS1
	Signal Alarm Contact Module Trip indicating contact switches only when the protective device is tripped electrically 1 N.C. Contact	1492-ACBS2
Shunt Trip Module	Shunt Trip Module Use the Shunt Trip Module to trip the adjacent breaker poles from a remote location. The module is actuated by applying a voltage (pick-up voltage) to the trip terminals.	
	• Shunt Trip Modules are often used in emergency shutdown circuits where multiple power circuits must be switched off from a single location.	
	5...12V AC/DC	1492-ACBA1
	10...24V AC/DC	1492-ACBA2
	20...48V AC/DC	1492-ACBA3
40...110V AC/DC	1492-ACBA4	
90...240V AC/DC	1492-ACBA5	
Pieces Per Package		Cat. No.
DIN (#3) Symmetrical Rail 35 mm x 7.5 mm x 1 m long Zinc-plated, yellow chromated EN 50022		5 199-DR1
End Anchor		10 1492-EAHJ35
Lockout Attachment		5 1492-ACBLOA

Manual Motor Controller/Supplementary Protector/Miniature Circuit Breaker Specifications/Approximate Dimensions

	F Curve Resistive or Slightly Inductive Loads	G Curve Slightly Inductive Loads	D Curve Highly Inductive Loads
Tripping Characteristic	3...5 I _n	6...10 I _n	12...20 I _n
Dielectric Strength	1960V AC		
Shock	25 G Half Sine Wave for 11 ms (3 Axis)		
Vibration	Frequency Range: 10...500 Hz Max. Amplitude (p - p) = 0.030in Max. Acceleration = 5 G 1 hour each of 3 axis		
Operating Temperature Range	-40...+140 °F (-20...+60 °C) non-condensing		
Shipment and Short Term Temperature Limits	-40...+185 °F (-20...+85 °C)		
Housing Material	Melamine-Phenolic		
Wire Size	#16...4 AWG (1.0...25 mm ²)		
Recommended Wire Strip Length	0.51 in (13 mm)		
Electromechanical Life at 240V AC	Up to 6 A, 50 000 cycles 7...16 A, 30 000 cycles 20...32 A, 20 000 cycles 40...50 A, 12 000 cycles		
Switched Neutral Rating	277V AC, 65 A		
Auxiliary Contact Rating	277V AC, 6A		
Signal Contact Rating	125V AC, 1A 50V DC, 6A		

Manual Motor Controller (Series C Devices) (Hp rated, Overload Protection, Instantaneous Trip Provided) Suitable as Motor Disconnect*

Suitable for Single Motor and Group Motor Applications

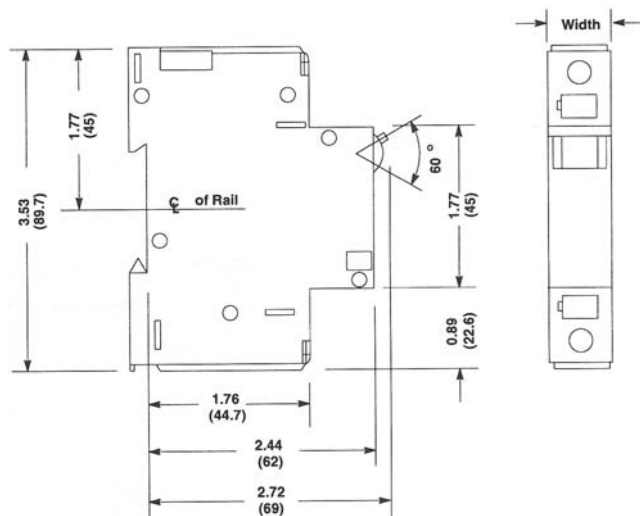
Current Range	1...52 A	0.5...52 A	0.5...52 A
Short Circuit Rating/Interrupting Capability without Series Fuse†			
One-Pole	5 kA @ 277V AC		
Multi-Pole	5 kA @ 480YV AC		
Supplementary Protector — General Industrial Type 25 °C Ambient			
Current Range	1...52A	0.5...52A	0.5...52A
Overload Rating (OL), Tested at 1.5 Times Current Rating for General Use			
One-Pole	OL: 0 @ 277V AC		
Multi-Pole	OL: 0 @ 480Y/277V AC		

* (0.5...30 A)

† Suitable for use after clearing fault.

Approximate Dimensions

Dimensions are shown in inches (millimeters). Dimensions are not intended for manufacturing purposes.



	F Curve Resistive or Slightly Inductive Loads	G Curve Slightly Inductive Loads	D Curve Highly Inductive Loads
Tripping Current (TC)*			
TC: 1	Tripping Current is in the range of 125...135% of amp range		
Short Circuit/Interrupting Capability Rating without Series Fuse			
One-Pole	5 kA @ 277V AC U1 3 kA @ 277V AC U2 and U3 10 kA @ 125V AC U2 and U3		
Multi-Pole	5 kA @ 480Y/277V AC U1 3 kA @ 480Y/277V AC U2 and U3 10 kA @ 240V AC U2 5 kA @ 240V AC U3		
One-Pole, Two-Pole	2 kA @ 65V DC U1		
DC Rated Devices	DF Curve 4.5...8 I _n	DG Curve 9...16 I _n	DH Curve 18...32 I _n
One-Pole	10 kA @ 120V DC U1	10 kA @ 120V DC U1	5kA @ 120V DC U1
Two-Pole in Series	10 kA @ 240V DC U1	10 kA @ 240V DC U1	5kA @ 240V DC U1
Miniature Circuit Breaker (IEC) Interrupt Rating			
Current Range	1...50 A	0.5...50 A	0.5...50 A
One-Pole	10 kA @ 240V AC		
Multi-Pole	10 kA @ 420V AC		

* (0.5...30 A)

Number of Poles and Accessories	1	2	3	4	5
Width (inches)	0.7	1.4	2.1	2.8	3.5
Width (millimeters)	17.8	35.6	53.3	71.1	88.9

Note: Accessories and one pole width are identical.