

All Cutler-Hammer moulded case circuit breakers are built to meet requirements of NEMA Standard AB-1-1993.

Ordering Information

AB De-ion® circuit breakers are to be ordered as follows:

Fixed Trip Breakers

Order complete breaker or complete breaker less terminals plus required terminals.

Interchangeable Trip Breakers

Order frame, trip unit and terminals.

When Ordering, Specify:

Catalogue Number or Style Number, Quantity

List Prices

To obtain list prices of breakers, modifications and Accessories, locate style or catalogue number from appropriate page of Selection Data and refer to Price List PL.29.01A.P.K./F

Where mounting hardware is desired, specify quantity and style number. No charge when ordered with complete breaker.

If breakers are to be modified, order "similar to" a standard catalogue number, and describe the special features desired.

Available accessories are listed beginning on page 39. In some cases, Accessories are listed for sale in quantity lots. In these instances, order item in quantity lots indicated.

Further Information:

AB De-ion® Circuit Breakers

Application Data 29-168

Time/Current Characteristic Curves

Dimension Sheet 29-171

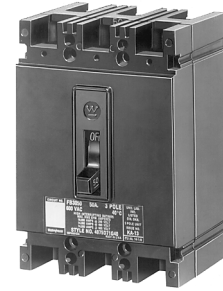
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Types, EB, EHB, FB, HFB

Type EB 1, 2, 3 Poles; 240 Volts AC Max.; Thermal Magnetic and Saf-T-Vue® Breakers
(Includes Load Terminals Only; see Terminals page 3) **Suitable for Reverse Feed Application**

Continuous Ampere Rating at 40°C	1-Pole, 120 Volts AC, 125 Volts DC ^①	2-Pole, 240 Volts AC, 125/250 Volts DC ^①	3-Pole, 240 Volts AC, 125/250 Volts DC ^①	
	Standard	Standard	Standard	Saf-T-Vue® ^②
	CATALOGUE NUMBERS			
15	EB1015 ^③	EB2015	EB3015	EB3015S
20	EB1020 ^③	EB2020	EB3020	EB3020S
25	EB1025	EB2025	EB3025	EB3025S
30	EB1030	EB2030	EB3030	EB3030S
35	EB1035	EB2035	EB3035	EB3035S
40	EB1040	EB2040	EB3040	EB3040S
45	EB1045	EB2045	EB3045	EB3045S
50	EB1050	EB2050	EB3050	EB3050S
60	EB1060	EB2060	EB3060	EB3060S
70	EB1070	EB2070	EB3070	EB3070S
80	EB1080	EB2080	EB3080	EB3080S
90	EB1090	EB2090	EB3090	EB3090S
100	EB1100	EB2100	EB3100	EB3100S
	Approx. Ship. Wt.: 2 lbs.	Approx. Ship. Wt.: 3 lbs.	Approx. Ship. Wt.: 4½ lbs.	

EB: 120, 240 Volts AC; 125/250 Volts DC
EHB: 277, 480 Volts AC; 250 Volts DC
FB, HFB: 600 Volts AC, 250 Volts DC



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

Type EHB 1, 2, 3 Poles; 480 Volts AC Max.; Thermal Magnetic and Saf-T-Vue® Breakers
(Includes Load Terminals Only; see Terminals page 3) **Suitable for Reverse Feed Application**

Continuous Ampere Rating at 40°C	1-Pole, 277 Volts AC, 125 Volts DC ^①	2-Pole, 480 Volts AC, 250 Volts DC ^①	3-Pole, 480 Volts AC	
	Standard	Standard	Standard	Saf-T-Vue® ^②
	CATALOGUE NUMBERS			
15	EHB1015 ^④	EHB2015	EHB3015	EHB3015S
20	EHB1020 ^④	EHB2020	EHB3020	EHB3020S
25	EHB1025	EHB2025	EHB3025	EHB3025S
30	EHB1030	EHB2030	EHB3030	EHB3030S
35	EHB1035	EHB2035	EHB3035	EHB3035S
40	EHB1040	EHB2040	EHB3040	EHB3040S
45	EHB1045	EHB2045	EHB3045	EHB3045S
50	EHB1050	EHB2050	EHB3050	EHB3050S
60	EHB1060	EHB2060	EHB3060	EHB3060S
70	EHB1070	EHB2070	EHB3070	EHB3070S
80	EHB1080	EHB2080	EHB3080	EHB3080S
90	EHB1090	EHB2090	EHB3090	EHB3090S
100	EHB1100	EHB2100	EHB3100	EHB3100S
	Approx. Ship. Wt.: 2 lbs.	Approx. Ship. Wt.: 3 lbs.	Approx. Ship. Wt.: 4½ lbs.	

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Max Volts	Amperes
EB Breakers	
120 and 240 AC 125/250 DC	10,000 Asym., Sym. 5,000 ^①
EHB, FB Breakers	
240 AC 277 AC (EHB) 480 AC 600 AC (FB) 250 DC	20,000 Asym., 18,000 Sym. 15,000 Asym., 14,000 Sym. 15,000 Asym., 14,000 Sym. 15,000 Asym., 14,000 Sym. 10,000 ^①
MARK 75® Type HFB	
240 AC 277 AC ^⑤ 480 AC 600 AC 250 DC (2 Pole)	75,000 Asym., 65,000 Sym. 75,000 Asym., 65,000 Sym. 30,000 Asym., 25,000 Sym. 20,000 Asym., 18,000 Sym. 20,000 ^{①⑦}

Type FB, HFB 1, 2, 3, 4 Poles; 600 Volts AC Max.; Thermal Magnetic MARK 75® Saf-T-Vue® Breakers
(Includes Load Terminals Only; see Terminals, page 3) **Suitable for Reverse Feed Application**

Continuous Ampere Rating at 40°C	1-Pole, 277 Volts AC, 125 Volts DC ^①	2-Pole, 600 Volts AC, 250 Volts DC ^①	3-Pole, 600 Volts AC			4-Pole ^② , 600 Volts AC	
	MARK 75® ^⑤	Standard	MARK 75® ^⑥	Standard	Saf-T-Vue® ^⑥	MARK 75®	Standard
	CATALOGUE NUMBERS						
15	HFB1015 ^④	FB2015	HFB2015	FB3015	FB3015S	HFB3015L	FB4015
20	HFB1020 ^④	FB2020	HFB2020	FB3020	FB3020S	HFB3020L	FB4020
25	HFB1025	FB2025	HFB2025	FB3025	FB3025S	HFB3025L	FB4025
30	HFB1030	FB2030	HFB2030	FB3030	FB3030S	HFB3030L	FB4030
35	HFB1035	FB2035	HFB2035	FB3035	FB3035S	HFB3035L	FB4035
40	HFB1040	FB2040	HFB2040	FB3040	FB3040S	HFB3040L	FB4040
45	HFB1045	FB2045	HFB2045	FB3045	FB3045S	HFB3045L	FB4045
50	HFB1050	FB2050	HFB2050	FB3050	FB3050S	HFB3050L	FB4050
60	HFB1060	FB2060	HFB2060	FB3060	FB3060S	HFB3060L	FB4060
70	HFB1070	FB2070	HFB2070	FB3070	FB3070S	HFB3070L	FB4070
80	HFB1080	FB2080	HFB2080	FB3080	FB3080S	HFB3080L	FB4080
90	HFB1090	FB2090	HFB2090	FB3090	FB3090S	HFB3090L	FB4090
100	HFB1100	FB2100	HFB2100	FB3100	FB3100S	HFB3100L	FB4100
110	.....	.....	.....	FB3110	FB3110S	HFB3110L	.....
125	.....	.....	.....	FB3125	FB3125S	HFB3125L	.....
150	.....	.....	.....	FB3150	FB3150S	HFB3150L	.....

List Prices: See PAD (Price and Availability Digest)

Accessories and Modifications
Description: Pages 39 - 49

Shaded gray areas denotes obsolete or discontinued products and services

- ① DC ratings apply to substantially non-inductive circuits.
- ② Not listed with CSA and Underwriters' Laboratories, Inc.
- ③ Switching duty rated for 120 volts AC fluorescent light applications only.
- ④ Switching duty rated for 277 volts AC fluorescent light applications only.
- ⑤ 15 thru 30 amp ratings only have 75,000 amp I.C. 40 thru 100 amp ratings have 30,000 amp Asym., 25,000 Sym. I.C.
- ⑥ Two pole breakers are supplied in 3-pole frames with current carrying parts omitted from center pole.
- ⑦ Ratings above 10,000 Amps not CSA and UL Listed.

Special Breakers^①

Type FB, Magnetic Only, Front Adjustable Breakers (Includes Line and Load Terminals)

Continuous Ampere Rating	Magnetic Trip Range Amperes	2-Pole ^② , 600 Volts AC		3-Pole, 600 Volts AC		
		Standard	MARK 75®	Standard	Saf-T-Vue®	MARK 75®
		CATALOGUE/STYLE NUMBERS				
3	7- 22	FB2022MRL	HFB2022ML	FB3022MRL	FB3022SMRL	HFB3022ML
5	15- 45	FB2045MRL	HFB2045ML	FB3045MRL	FB3045SMRL	HFB3045ML
10	35- 110	FB2110MRL	HFB2110ML	FB3110MRL	FB3110SMRL	HFB3110ML
25	32- 80	2610D53G12	4994D96G12	2610D53G30	4998D89G30	HFB3190ML
25	66- 190	FB2190MRL	HFB2190ML	FB3190MRL	FB3190SMRL	HFB3190ML
30	50- 150	1268C14G05	1268C14G05	1268C14G06	1268C14G06	HFB3270ML
30	90- 270	FB2270MRL	HFB2270ML	FB3270MRL	FB3270SMRL	HFB3270ML
50	66- 190	1268C14G01	1268C14G01	1268C14G02	1268C14G02	HFB3480ML
50	160- 480	FB2480MRL	HFB2480ML	FB3480MRL	FB3480SMRL	HFB3480ML
70	100- 270	2610D53G13	4994D96G13	2610D53G31	4998D89G31	HFB31550ML
100	150- 480	1268C14G03	1268C14G03	1268C14G04	1268C14G04	HFB31550ML
100	450-1550	FB21550MRL	HFB21550ML	FB31550MRL	FB31550SMRL	HFB31550ML
150	575-1800	FB21800MRL	HFB21800ML	FB31800MRL	FB31800SMRL	HFB31800ML

Special Calibrations^①

Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. Also price additions apply to specific calibrations for frequencies other than 0-60 Hertz AC circuits. See Application Data 29-160 for information regarding special conditions. Maximum calibration for 400 Hz. is 135 Amps.

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal Magnetic Frequency	Add 10% to List Price of Complete Breaker	None None None

Terminals

Breakers include load terminals only^{④⑤}. Terminals are CSA and Underwriters' Laboratories, Inc. listed as suitable for wire type and size as listed below. When used with aluminum conductors, use joint compound. When line terminals are required, order by style number.

Maximum Breaker Amps	Wire Type	Wire Range	PACKAGE of 3 Line Terminals ^⑥ Style Number
Standard Pressure Type Terminals			
20 (EB, EHB)	Al/Cu	#14-#10	624B100G14
100	Al/Cu	#14-1/0	624B100G02
150	Al/Cu	# 4-4/0	624B100G17
Optional Al/Cu Pressure Terminals			
50	Al/Cu	#14-#4	624B100G10
100	Al/Cu	# 4-4/0	624B100G17

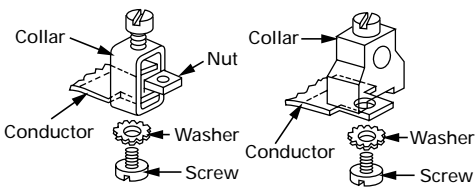
50°C Calibration^①

Add suffix "V" to catalogue number for complete breaker, listed above, when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Ambient Compensating Breakers^①

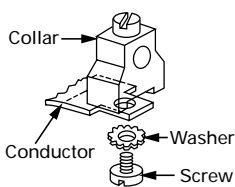
To order, add suffix letter "A" to standard thermal magnetic breaker catalogue number.

Available in all standard ratings of EB, EHB, FB and HFB breakers up to ratings of 100 Amps. Add 10% to price of standard breaker.



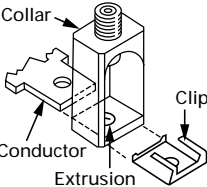
Style 624B100G02

Insert collar enclosing conductor as shown. Locate nut on top of conductor and tighten securely with screw and washer. **Caution:** Collar must surround conductor.



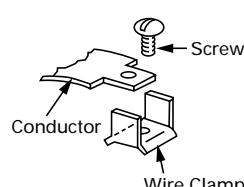
Style 624B100G10

Assemble collar on top of conductor as shown. Tighten securely with screw and washer.



Style 624B100G17

Insert collar enclosing conductor and center on extrusion on collar. Install clip with legs on top of conductor and snap end around bottom of collar.



Style 624B100G14

Assemble wire clamp to bottom of conductor as shown.

Further Information

List Prices: See PAD (Price and Availability Digest)
Application, Operating Characteristics: AD 29-160
Dimensions: DS 29-171

LFB Current Limiter Attachment^⑦

The LFB Current Limiter is an attachment that bolts to the load end of a standard FB thermal magnetic or magnetic only breaker, providing 200,000 Amps interrupting capacity at up to 600 volts AC (no DC rating). Limiters for thermal magnetic breakers are listed with CSA and Underwriters' Laboratories, Inc. for the above. Current limiters must be applied as indicated in the table.

Standard LFB terminals are suitable for Cu/Al cable. Ratings thru 70 Amps accept (1) #14-#2, and 100 and 150 amp accept (1) #1-4/0.^⑧

Breaker Rating, Amperes	Limiter Catalogue Number
For Thermal Magnetic Breakers^⑧	
15-70	LFB3070R
80-150	LFB3150R
For Magnetic Only Breakers^⑧	
3	LFB3003MR
5	LFB3005MR
10	LFB3010MR
25	LFB3025MR
30	LFB3030MR
50	LFB3050MR
70	LFB3070MR
100	LFB3100MR
150	LFB3150MR

Shaded gray areas denotes obsolete or discontinued products and services

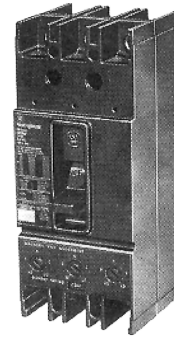
- ① Not listed with CSA and Underwriters' Laboratories, Inc.
- ② 2-Pole magnetic only breakers supplied in 3-Pole frame with current carrying parts omitted from center pole.
- ③ Magnetic only breakers for DC applications require special calibration. Order by description.
- ④ Magnetic-only breakers include both line and load terminals.
- ⑤ Suffix "L" on catalogue number indicates line and load terminals included. If factory installation is required, specify on order.
- ⑥ Style listed is for package of 3 terminals. Order quantity equal to 1/3 total terminals required.
- ⑦ Cannot be used with plug-in adapters.
- ⑧ Ratings through 70 Amps can be supplied with terminals for Cu cable only (#14-#2). Order by description.

Types JB, KB, MARK 75® Type HKB

Type JB Breakers

90-250 Amperes, 600 Volts AC, 250 Volts DC, 2 and 3 Poles, Fixed Trip Thermal Magnetic, and Saf-T-Vue® Breakers. **Suitable for reverse feed application.**

Continuous Ampere Rating at 40°C	Magnetic Trip Setting, Amperes (Set on High Side, Adjustable to Lower Limits)		Complete Breaker Includes Pressure Type Aluminum Terminals ^①		Breaker Without Terminals	
			Standard	Saf-T-Vue® ^②	Standard	Saf-T-Vue® ^②
	Low	High	CATALOGUE NUMBERS			
2 Poles, 600 Volts AC, 250 Volts DC^③						
90	450	900	JB2090	JB2090S	JB2090W	JB2090SW
100	500	1000	JB2100	JB2100S	JB2100W	JB2100SW
125	625	1250	JB2125	JB2125S	JB2125W	JB2125SW
150	750	1500	JB2150	JB2150S	JB2150W	JB2150SW
175	875	1750	JB2175	JB2175S	JB2175W	JB2175SW
200	1000	2000	JB2200	JB2200S	JB2200W	JB2200SW
225	1125	2250	JB2225	JB2225S	JB2225W	JB2225SW
250	1250	2500	JB2250	JB2250S	JB2250W	JB2250SW
				Approx. Ship. Wt. 12 Lbs.	Approx. Ship. Wt. 12 Lbs.	
3 Poles, 600 Volts AC Only						
90	450	900	JB3090	JB3090S	JB3090W	JB3090SW
100	500	1000	JB3100	JB3100S	JB3100W	JB3100SW
125	625	1250	JB3125	JB3125S	JB3125W	JB3125SW
150	750	1500	JB3150	JB3150S	JB3150W	JB3150SW
175	875	1750	JB3175	JB3175S	JB3175W	JB3175SW
200	1000	2000	JB3200	JB3200S	JB3200W	JB3200SW
225	1125	2250	JB3225	JB3225S	JB3225W	JB3225SW
250	1250	2500	JB3250	JB3250S	JB3250W	JB3250SW
				Approx. Ship. Wt. 14 Lbs.	Approx. Ship. Wt. 12 Lbs.	



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Max Volts	Amperes
240 AC	30,000 Asym., 25,000 Sym.
480 AC	25,000 Asym., 22,000 Sym.
600 AC	15,000 Asym., 14,000 Sym.
250 DC	10,000

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Magnetic Only Breakers, Front Adjustable^②

Continuous Ampere Rating at 40°C	Magnetic Trip Setting, Amperes (Set on High Side, Adjustable to Lower Limits)		Breaker Only, No Terminals ^④			
			2 Poles ^③		3 Poles	
	Low	High	Standard	Saf-T-Vue®	Standard	Saf-T-Vue®
CATALOGUE NUMBERS						
250	625	1250	JB21250MW	JB21250SMW	JB31250MW	JB31250SMW
250	750	1500	JB21500MW	JB21500SMW	JB31500MW	JB31500SMW
250	875	1750	JB21750MW	JB21750SMW	JB31750MW	JB31750SMW
250	1125	2250	JB22250MW	JB22250SMW	JB32250MW	JB32250SMW
250	1250	2500	JB22500MW	JB22500SMW	JB32500MW	JB32500SMW

Terminals^①

Two terminals are required per pole. Terminals are CSA and Underwriters' Laboratories, Inc. listed for wire type and range listed below. When used with aluminum conductors, use joint compound. To order optional copper only terminals, add suffix "C" to complete breaker catalogue number.

Maximum Breaker, Amps	Terminal Catalogue Number	Wire Range, Type No. of Cables
Standard Al/Cu Pressure Terminals		
	TA250KB	1 #4-350 MCM Al/Cu
250	T250KB	1 #4-350 MCM Cu

Special Calibrations^②

Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. For frequencies other than 0-60 Hertz AC, refer to Cutler-Hammer. Ambient compensating and 400 Hz breakers are not available.

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal Magnetic	Add 10% to List Price of Complete Breaker	None None None

50°C Calibration^②

Add suffix "V" to catalogue number for complete breaker when ordering listed ampere ratings to be used in 50°C ambients. Same price as standard 40°C breakers.

Magnetic Only Breakers

For description, refer to AD 29-160. To order these breakers, select catalogue number from table at left, plus terminals above.

List Prices: See PAD (Price and Availability Digest)

Accessories and Modifications
Description: Pages 39 - 49

Shaded gray areas denotes obsolete or discontinued products and services

① Terminals are shipped separately from breaker frame.
 ② Not listed with CSA and Underwriters' Laboratories, Inc.
 ③ 2-pole breakers are supplied in 3-pole frames with current carrying parts omitted from center pole.
 ④ Select desired terminal from table and order as separate item.

Type KB and MARK 75® Type HKB Breakers

90-250 Amperes, 600 Volts AC, 250 Volts DC, 2 and 3 Poles, Interchangeable Trip Thermal Magnetic, Saf-T-Vue® Breakers

Contin- uous Ampere Rating at 40°C	Magnetic Trip Setting Amperes ^①		Complete Breaker			Shipped as Frame, Trip Unit and Terminals ^②			
			Includes Pressure Type Aluminum Terminals ^②			Frame Only			Trip Unit Only
	Low	High	Standard	Saf-T-Vue® ③	MARK 75®	Standard	Saf-T-Vue® ③	MARK 75®	Standard Saf-T-Vue®, MARK 75®
CATALOGUE NUMBERS									
2 Poles, 600 Volts AC, 250 Volts DC^④									
90	450	900	KB2090	KB2090S	HKB2090	KB2250F	KB2250FS	HKB2250F	HKB2090T
100	500	1000	KB2100	KB2100S	HKB2100	KB2250F	KB2250FS	HKB2250F	HKB2100T
125	625	1250	KB2125	KB2125S	HKB2125	KB2250F	KB2250FS	HKB2250F	HKB2125T
150	750	1500	KB2150	KB2150S	HKB2150	KB2250F	KB2250FS	HKB2250F	HKB2150T
175	875	1750	KB2175	KB2175S	HKB2175	KB2250F	KB2250FS	HKB2250F	HKB2175T
200	1000	2000	KB2200	KB2200S	HKB2200	KB2250F	KB2250FS	HKB2250F	HKB2200T
225	1125	2250	KB2225	KB2225S	HKB2225	KB2250F	KB2250FS	HKB2250F	HKB2225T
250	1250	2500	KB2250	KB2250S	HKB2250	KB2250F	KB2250FS	HKB2250F	HKB2250T
			Approx. Ship. Wt. 12 Lbs.			Approx. Ship. Wt. 9 Lbs.			Approx. Ship. Wt. 2 Lbs.
3 Poles, 600 Volts AC Only									
90	450	900	KB3090	KB3090S	HKB3090	KB3250F	KB3250FS	HKB3250F	HKB3090T
100	500	1000	KB3100	KB3100S	HKB3100	KB3250F	KB3250FS	HKB3250F	HKB3100T
125	625	1250	KB3125	KB3125S	HKB3125	KB3250F	KB3250FS	HKB3250F	HKB3125T
150	750	1500	KB3150	KB3150S	HKB3150	KB3250F	KB3250FS	HKB3250F	HKB3150T
175	875	1750	KB3175	KB3175S	HKB3175	KB3250F	KB3250FS	HKB3250F	HKB3175T
200	1000	2000	KB3200	KB3200S	HKB3200	KB3250F	KB3250FS	HKB3250F	HKB3200T
225	1125	2250	KB3225	KB3225S	HKB3225	KB3250F	KB3250FS	HKB3250F	HKB3225T
250	1250	2500	KB3250	KB3250S	HKB3250	KB3250F	KB3250FS	HKB3250F	HKB3250T
			Approx. Ship. Wt. 14 Lbs.			Approx. Ship. Wt. 11 Lbs.			Approx. Ship. Wt. 2 Lbs.



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Max Volts	Amperes
Standard Breakers	
240 AC	30,000 Asym., 25,000 Sym.
480 AC	25,000 Asym., 22,000 Sym.
600 AC	15,000 Asym., 14,000 Sym.
250 DC	10,000
MARK 75® Breakers	
240 AC	75,000 Asym., 65,000 Sym.
480 AC	30,000 Asym., 25,000 Sym.
600 AC	20,000 Asym., 18,000 Sym.
250 DC	20,000 ^⑤

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Terminals^②
Two required per pole. Select from table on page 4.

Magnetic Only Breakers
For description, refer to AD 29-160. To order these breakers, select frame, trip unit and terminals.

List Prices: See PAD (Price and Availability Digest)

Accessories and Modifications
Description: Pages 39 - 49

Magnetic Only, Front Adjustable Breakers^③

Contin- uous Ampere Rating	Magnetic Trip Setting Amperes ^①		Trip Units Only	
			2 Poles ^④	3 Poles
	Low	High	CATALOGUE NUMBERS	
250	625	1250	HKB21250TM	HKB31250TM
250	750	1500	HKB21500TM	HKB31500TM
250	875	1750	HKB21750TM	HKB31750TM
250	1125	2250	HKB22250TM	HKB32250TM
250	1250	2500	HKB22500TM	HKB32500TM

Special Calibrations^③

Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. For frequencies other than 0-60 Hertz AC, refer to Cutler-Hammer. Ambient compensating and 400 Hz breakers not available.

Type Calibration	1-24 Identical Units	25 or More Identical Units
Thermal Magnetic	Add 30% to List Price of Trip Unit	None None None

50°C Calibration^③

Add suffix "V" to catalogue number for complete breaker, listed above, when ordering listed ampere ratings to be used in 50°C ambients. Same price as standard 40°C breakers.

Shaded gray areas denotes obsolete or discontinued products and services

- ① Set on high side, adjustable to lower limit.
- ② Terminals shipped separately from breaker frame.
- ③ Not listed with CSA and Underwriters' Laboratories, Inc.
- ④ 2-pole breakers are supplied in 3-pole frames with current carrying parts omitted from center pole.
- ⑤ Ratings above 10,000 Amps not CSA and UL listed.

Types JA, KA, MARK 75® Type HKA

Type JA Thermal Magnetic, Saf-T-Vue® Breakers

70-225 Amperes, 600 Volts AC, 250 Volts DC, 2 and 3 Poles, Fixed Trip. Suitable for reverse feed application.

Continuous Ampere Rating at 40°C	Magnetic Trip Setting, Amperes (Set on High Side, Adjustable to Lower Limits)		Complete Breaker Includes Pressure Type Aluminum Terminals ^①		Breaker Without Terminals	
	Low	High	Standard	Saf-T-Vue®	Standard	Saf-T-Vue®
			CATALOGUE NUMBERS			
2 Poles, 600 Volts AC, 250 Volts DC^②						
70	350	700	JA2070	JA2070S	JA2070W	JA2070SW
90	450	900	JA2090	JA2090S	JA2090W	JA2090SW
100	500	1000	JA2100	JA2100S	JA2100W	JA2100SW
125	625	1250	JA2125	JA2125S	JA2125W	JA2125SW
150	750	1500	JA2150	JA2150S	JA2150W	JA2150SW
175	875	1750	JA2175	JA2175S	JA2175W	JA2175SW
200	1000	2000	JA2200	JA2200S	JA2200W	JA2200SW
225	1125	2250	JA2225	JA2225S	JA2225W	JA2225SW
				Approx. Ship. Wt. 12 Lbs.	Approx. Ship. Wt. 12 Lbs.	
3 Poles, 600 Volts AC Only						
70	350	700	JA3070	JA3070S	JA3070W	JA3070SW
90	450	900	JA3090	JA3090S	JA3090W	JA3090SW
100	500	1000	JA3100	JA3100S	JA3100W	JA3100SW
125	625	1250	JA3125	JA3125S	JA3125W	JA3125SW
150	750	1500	JA3150	JA3150S	JA3150W	JA3150SW
175	875	1750	JA3175	JA3175S	JA3175W	JA3175SW
200	1000	2000	JA3200	JA3200S	JA3200W	JA3200SW
225	1125	2250	JA3225	JA3225S	JA3225W	JA3225SW
				Approx. Ship. Wt. 14 Lbs.	Approx. Ship. Wt. 12 Lbs.	

Special Breakers^③

Continuous Ampere Rating at 40°C	Magnetic Trip Setting, Amperes (Set on High Side, Adjustable to Lower Limits)		2 Poles ^②		3 Poles	
	Low	High	Standard	Saf-T-Vue®	Standard	Saf-T-Vue®
			CATALOGUE NUMBERS			
Magnetic Only Breakers, Front Adjustable – Without Terminals^④						
225	350	700	JA2700MW	JA2700SMW	JA3700MW	JA3700SMW
225	625	1250	JA21250MW	JA21250SMW	JA31250MW	JA31250SMW
225	750	1500	JA21500MW	JA21500SMW	JA31500MW	JA31500SMW
225	875	1750	JA21750MW	JA21750SMW	JA31750MW	JA31750SMW
225	1125	2250	JA22250MW	JA22250SMW	JA32250MW	JA32250SMW
Ambient Compensating Breakers						
70	350	700	JA2070A	.....	JA3070A	.....
100	500	1000	JA2100A	.....	JA3100A	.....
125	625	1250	JA2125A	.....	JA3125A	.....
150	750	1500	JA2150A	.....	JA3150A	.....
175	875	1750	JA2175A	.....	JA3175A	.....
200	1000	2000	JA2200A	.....	JA3200A	.....
225	1125	2250	JA2225A	.....	JA3225A	.....

Special Calibrations^⑤

Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. Also Price additions apply to specific calibrations for frequencies other than 0-60 Hertz AC circuits. See AD 29-160 for information regarding special conditions.

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal	Add 10% to List Price of Complete Breaker	None
Magnetic		None
Frequency	None	None

50°C Calibration^⑤

Add suffix "V" to catalogue number for complete breaker when ordering listed ampere ratings to be used in 50°C ambients. Same price as standard 40°C breakers.



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Max. Volts	Amperes
240 AC	30,000 Asym., 25,000 Sym.
480 AC	25,000 Asym., 22,000 Sym.
600 AC	25,000 Asym., 22,000 Sym.
250 DC	10,000

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Terminals^①

Two terminals are required per pole.

Terminals are CSA and Underwriters' Laboratories, Inc. listed for wire type and range listed below. When used with aluminum conductors, use joint compound. To order optional copper only terminals, add suffix "C" to complete breaker catalogue number.

Breaker Rating, Amps.	Catalogue Number	Wire Range, Type No. of Cables
Standard Al/Cu Pressure Terminals		
70-225	TA225LA1	1 #6-350 MCM Cu, or 1 #4-350 MCM Al
Optional Pressure Terminals (Copper Only)		
70-225	T225LA	1 #6-350 MCM
70-225 ^⑤	T225LBF	1 #6-250 MCM

Magnetic Only and Ambient Compensating Breakers

For description, refer to AD 29-160. To order, select catalogue number from table at left.

Accessories and Modifications

Description: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)

Shaded gray areas denotes obsolete or discontinued products and services

① Terminals are shipped separately from breaker frame.
 ② 2-pole breakers are supplied in 3-pole frames with current carrying parts omitted from center pole.
 ③ Not listed with CSA and Underwriters' Laboratories, Inc.
 ④ Select desired terminal from table and order as separate item.
 ⑤ Optional terminal.

Type KA Thermal Magnetic, Saf-T-Vue® and MARK 75® Type HKA Breakers
70-225 Amperes, 600 Volts AC, 250 Volts DC, 2 and 3 Poles, Interchangeable Trip

Contin- uous Ampere Rating at 40°C	Magnetic Trip Setting Amperes ^①		Complete Breaker			Shipped as Frame, Trip Unit and Terminals			
	Low	High	Includes Pressure Type Aluminum Terminals ^②			Frame Only			Trip Unit Only
			Standard	Saf-T-Vue®	MARK 75®	Standard	Saf-T-Vue®	MARK 75®	Standard MARK 75® or Saf-T-Vue®
CATALOGUE NUMBERS									
2 Poles, 600 Volts AC, 250 Volts DC^③									
70	350	700	KA2070	KA2070S	HKA2070	KA2225F	KA2225FS	HKA2225F	HKA2070T
90	450	900	KA2090	KA2090S	HKA2090	KA2225F	KA2225FS	HKA2225F	HKA2090T
100	500	1000	KA2100	KA2100S	HKA2100	KA2225F	KA2225FS	HKA2225F	HKA2100T
125	625	1250	KA2125	KA2125S	HKA2125	KA2225F	KA2225FS	HKA2225F	HKA2125T
150	750	1500	KA2150	KA2150S	HKA2150	KA2225F	KA2225FS	HKA2225F	HKA2150T
175	875	1750	KA2175	KA2175S	HKA2175	KA2225F	KA2225FS	HKA2225F	HKA2175T
200	1000	2000	KA2200	KA2200S	HKA2200	KA2225F	KA2225FS	HKA2225F	HKA2200T
225	1125	2250	KA2225	KA2225S	HKA2225	KA2225F	KA2225FS	HKA2225F	HKA2225T
Approx. Ship. Wt. 12 Lbs.					Approx. Ship. Wt. 9-½ Lbs.			Approx. Ship. Wt. 2 Lbs.	
3 Poles, 600 Volts AC Only									
70	350	700	KA3070	KA3070S	HKA3070	KA325F	KA3225FS	HKA3225F	HKA3070T
90	450	900	KA3090	KA3090S	HKA3090	KA325F	KA3225FS	HKA3225F	KA3090T
100	500	1000	KA3100	KA3100S	HKA3100	KA325F	KA3225FS	HKA3225F	HKA3100T
125	625	1250	KA3125	KA3125S	HKA3125	KA325F	KA3225FS	HKA3225F	HKA3125T
150	750	1500	KA3150	KA3150S	HKA3150	KA325F	KA3225FS	HKA3225F	HKA3150T
175	875	1750	KA3175	KA3175S	HKA3175	KA325F	KA3225FS	HKA3225F	HKA3175T
200	1000	2000	KA3200	KA3200S	HKA3200	KA325F	KA3225FS	HKA3225F	HKA3200T
225	1125	2250	KA3225	KA3225S	HKA3225	KA325F	KA3225FS	HKA3225F	HKA3225T
Approx. Ship. Wt. 14 Lbs.					Approx. Ship. Wt. 11 Lbs.			Approx. Ship. Wt. 2-½ Lbs.	



Max. Amps	CATALOGUE NUMBERS	Wire Range, Type No. of Cables
Standard Al/Cu Pressure Terminals		
225	TA225LA1	1 #6-350 MCM Cu, or 1 #4-350 MCM Al
Optional Copper Pressure Terminals		
225	T225LA	1 #6-350 MCM Cu
225 ^⑤	T225LBF	1 #6-250 MCM Cu

Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Max. Volts	Amperes
Standard Breakers	
240 AC	30,000 Asym., 25,000 Sym.
480 AC	25,000 Asym., 22,000 Sym.
600 AC	25,000 Asym., 22,000 Sym.
250 DC	10,000
MARK 75® Breakers	
240 AC	75,000 Asym., 65,000 Sym.
480 AC	40,000 Asym., 35,000 Sym.
600 AC	30,000 Asym., 25,000 Sym.
250 DC	20,000 ^⑥

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Magnetic Only Breakers

For description, refer to AD 29-160. To order these breakers, select frame, trip unit and terminals.

Accessories and Modifications
Description: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)

Trip Units Only For Magnetic Only and Ambient Compensating Breakers^④

Contin- uous Ampere Rating	Magnetic Trip Setting, Amperes ^①		2 Poles ^③	3 Poles
	Low	High	CATALOGUE NUMBERS	
Magnetic Only, Front Adjustable Breakers				
225	350	700	HKA2700TM	HKA3700TM
225	625	1250	HKA21250TM	HKA31250TM
225	750	1500	HKA21500TM	HKA31500TM
225	875	1750	HKA21750TM	HKA31750TM
225	1125	2250	HKA22250TM	HKA32250TM
Ambient Compensating Breakers				
70	350	700	HKA2070TA	HKA3070TA
100	500	1000	HKA2100TA	HKA3100TA
125	625	1250	HKA2125TA	HKA3125TA
150	750	1500	HKA2150TA	HKA3150TA
175	875	1750	HKA2175TA	HKA3175TA
200	1000	2000	HKA2200TA	HKA3200TA
225	1125	2250	HKA2225TA	HKA3225TA

Special Calibration^④

Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C, also price additions apply to specific calibrations for frequencies other than 0-60 Hertz AC circuits. See AD 29-160 for information regarding special conditions.

Type Calibration	1-24 Identical Units	25 or More Identical Units
Thermal Magnetic Frequency	Add 30% to List Price of Trip Unit	None None None

50°C Calibration^④

Add suffix "V" to catalogue number for complete breaker, listed above, when ordering listed ampere ratings to be used in 50°C ambients. Same price as standard 40°C breakers.

Terminals^②

Two terminals are required per pole. Terminals are CSA and Underwriters' Laboratories, Inc. listed for wire type and range listed below. When used with aluminum conductors, use joint compound. To order optional copper only terminals, add suffix "C" to complete breaker catalogue number.

Shaded gray areas denotes obsolete or discontinued products and services

- ① Set on high side, adjustable to lower limit.
- ② Terminals are shipped separately from breaker frame.
- ③ 2-pole breakers are supplied in 3-pole frames with current carrying parts omitted from center pole.
- ④ Not listed with UL/CSA
- ⑤ Optional terminal.
- ⑥ Ratings above 10,000 Amps not UL/CSA listed.

Types CA, CAH, HCA 225 Amperes

Type CA, CAH and HCA Circuit Breakers

2 and 3 Poles, 240 VAC; Non-Interchangeable Trip

Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Type CA: 100-225 Amperes, 10,000 AIC

Type CAH: 100-225 Amperes, 22,000 AIC

Type HCA: 100-225 Amperes, 42,000 AIC

Breaker Catalogue Numbers

Continuous Ampere Rating at 40°C	Catalogue Number			
	Breaker Shipped with:			
	Line and Load Terminal Installed	Load Terminals Only Installed	Line Terminals Only Installed	No Terminals Installed

**Type: CA 10,000 Ampere I.C. Thermal-Magnetic Breakers
2-Pole, 240 VAC**

Rating	Line and Load Terminal Installed	Load Terminals Only Installed	Line Terminals Only Installed	No Terminals Installed
100	CA2100	CA2100X	CA2100Y	CA2100W
125	CA2125	CA2125X	CA2125Y	CA2125W
150	CA2150	CA2150X	CA2150Y	CA2150W
175	CA2175	CA2175X	CA2175Y	CA2175W
200	CA2200	CA2200X	CA2200Y	CA2200W
225	CA2225	CA2225X	CA2225Y	CA2225W
225 MCS	-	-	-	CA2225WK

3-Pole, 240 VAC

Rating	Line and Load Terminal Installed	Load Terminals Only Installed	Line Terminals Only Installed	No Terminals Installed
100	CA3100	CA3100X	CA3100Y	CA3100W
125	CA3125	CA3125X	CA3125Y	CA3125W
150	CA3150	CA3150X	CA3150Y	CA3150W
175	CA3175	CA3175X	CA3175Y	CA3175W
200	CA3200	CA3200X	CA3200Y	CA3200W
225	CA3225	CA3225X	CA3225Y	CA3225W
225 MCS	-	-	-	CA3225WK

Type: CAH 22,000 Ampere I.C. Thermal-Magnetic Breakers**2-Pole, 240 VAC**

Rating	Line and Load Terminal Installed	Load Terminals Only Installed	Line Terminals Only Installed	No Terminals Installed
100	CAH2100	CAH2100X	CAH2100Y	CAH2100W
125	CAH2125	CAH2125X	CAH2125Y	CAH2125W
150	CAH2150	CAH2150X	CAH2150Y	CAH2150W
175	CAH2175	CAH2175X	CAH2175Y	CAH2175W
200	CAH2200	CAH2200X	CAH2200Y	CAH2200W
225	CAH2225	CAH2225X	CAH2225Y	CAH2225W

3-Pole, 240 VAC

Rating	Line and Load Terminal Installed	Load Terminals Only Installed	Line Terminals Only Installed	No Terminals Installed
100	CAH3100	CAH3100X	CAH3100Y	CAH3100W
125	CAH3125	CAH3125X	CAH3125Y	CAH3125W
150	CAH3150	CAH3150X	CAH3150Y	CAH3150W
175	CAH3175	CAH3175X	CAH3175Y	CAH3175W
200	CAH3200	CAH3200X	CAH3200Y	CAH3200W
225	CAH3225	CAH3225X	CAH3225Y	CAH3225W

Type: HCA 42,000 Ampere I.C. Thermal-Magnetic Breakers**2-Pole, 240 VAC**

Rating	Line and Load Terminal Installed	Load Terminals Only Installed	Line Terminals Only Installed	No Terminals Installed
100	HCA2100	HCA2100X	HCA2100Y	HCA2100W
125	HCA2125	HCA2125X	HCA2125Y	HCA2125W
150	HCA2150	HCA2150X	HCA2150Y	HCA2150W
175	HCA2175	HCA2175X	HCA2175Y	HCA2175W
200	HCA2200	HCA2200X	HCA2200Y	HCA2200W
225	HCA2225	HCA2225X	HCA2225Y	HCA2225W

3-Pole, 240 VAC

Rating	Line and Load Terminal Installed	Load Terminals Only Installed	Line Terminals Only Installed	No Terminals Installed
100	HCA3100	HCA3100X	HCA3100Y	HCA3100W
125	HCA3125	HCA3125X	HCA3125Y	HCA3125W
150	HCA3150	HCA3150X	HCA3150Y	HCA3150W
175	HCA3175	HCA3175X	HCA3175Y	HCA3175W
200	HCA3200	HCA3200X	HCA3200Y	HCA3200W
225	HCA3225	HCA3225X	HCA3225Y	HCA3225W



Type CA 3-Pole

Accessories

Description	Catalogue Number
Handle Locks: Non-padlockable	CA23NPL
Handle Locks: Padlockable	CA23PL CA23LOCK
Mounting Hardware: Base mounting hardware – 2-pole	CA2BHW
Base mounting hardware – 3-pole	CA3BHW
Mounting BrAcket – 2-pole	CA2MB
Mounting BrAcket – 3-pole	CA3MB
Terminals: #3 to 300MCM	TA225CA2

Modifications

Description	Catalogue Suffix
Shunt Trip	S1 to S16
Auxiliary Switch	A1 to S16
Special Calibration (50°C)	V
Freeze Testing	H
Moisture-Fungus Treatment	F

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Type LBB 400 Amperes

Type LBB Breakers

125-400 Amperes, 600 Volts AC, 250 Volts DC, 2, 3 Poles, Fixed Trip Thermal Magnetic, and Saf-T-Vue® Breakers. Suitable for reverse feed application.

Continu-ous Ampere Rating at 40°C	Magnetic Trip Setting, Amperes ^①		Complete Breaker Includes Pressure Type Aluminum Terminals ^②		Breaker Without Terminals	
	Low	High	Standard	Saf-T-Vue®	Standard	Saf-T-Vue®
			CATALOGUE NUMBERS			
2 Poles, 600 Volts AC, 250 Volts DC^③						
125	625	1250	LBB2125	LBB2125S	LBB2125W	LBB2125SW
150	750	1500	LBB2150	LBB2150S	LBB2150W	LBB2150SW
175	875	1750	LBB2175	LBB2175S	LBB2175W	LBB2175SW
200	1000	2000	LBB2200	LBB2200S	LBB2200W	LBB2200SW
225	1125	2250	LBB2225	LBB2225S	LBB2225W	LBB2225SW
250	1250	2500	LBB2250	LBB2250S	LBB2250W	LBB2250SW
300	1500	3000	LBB2300	LBB2300S	LBB2300W	LBB2300SW
350	1750	3500	LBB2350	LBB2350S	LBB2350W	LBB2350SW
400	2000	4000	LBB2400	LBB2400S	LBB2400W	LBB2400SW
			Approx. Ship Wt. 13 Lbs.		Approx. Ship Wt. 13 Lbs.	
3 Poles, 600 Volts AC Only						
125	625	1250	LBB3125	LBB3125S	LBB3125W	LBB3125SW
150	750	1500	LBB3150	LBB3150S	LBB3150W	LBB3150SW
175	875	1750	LBB3175	LBB3175S	LBB3175W	LBB3175SW
200	1000	2000	LBB3200	LBB3200S	LBB3200W	LBB3200SW
225	1125	2250	LBB3225	LBB3225S	LBB3225W	LBB3225SW
250	1250	2500	LBB3250	LBB3250S	LBB3250W	LBB3250SW
300	1500	3000	LBB3300	LBB3300S	LBB3300W	LBB3300SW
350	1750	3500	LBB3350	LBB3350S	LBB3350W	LBB3350SW
400	2000	4000	LBB3400	LBB3400S	LBB3400W	LBB3400SW
			Approx. Ship Wt. 15 Lbs.		Approx. Ship Wt. 15 Lbs.	



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Max. Volts	Amperes
240 AC	50,000 Asym., 42,000 Sym.
480 AC	35,000 Asym., 30,000 Sym.
600 AC	25,000 Asym., 22,000 Sym.
250 DC	20,000 ^⑥

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Magnetic Only, Ambient Compensating Breakers^④

Continu-ous Ampere Rating	Magnetic Trip Setting, Amperes ^①		2-Pole Breakers ^③		3-Pole Breakers	
	Low	High	Standard	Saf-T-Vue®	Standard	Saf-T-Vue®
			CATALOGUE NUMBERS			
Magnetic Only Breakers, Front Adjustable - Without Terminals^⑤						
400	350	700	LBB2700MW	LBB2700SMW	LBB3700MW	LBB3700SMW
400	625	1250	LBB21250MW	LBB21250SMW	LBB31250MW	LBB31250SMW
400	750	1500	LBB21500MW	LBB21500SMW	LBB31500MW	LBB31500SMW
400	875	1750	LBB21750MW	LBB21750SMW	LBB31750MW	LBB31750SMW
400	1125	2250	LBB22250MW	LBB22250SMW	LBB32250MW	LBB32250SMW
400	1500	3000	LBB23000MW	LBB23000SMW	LBB33000MW	LBB33000SMW
400	2000	4000	LBB24000MW	LBB24000SMW	LBB34000MW	LBB34000SMW
Ambient Compensating Breakers - Includes Terminals						
125	625	1250	LBB2125A	LBB2125SA	LBB3125A	LBB3125SA
150	750	1500	LBB2150A	LBB2150SA	LBB3150A	LBB3150SA
175	875	1750	LBB2175A	LBB2175SA	LBB3175A	LBB3175SA
200	1000	2000	LBB2200A	LBB2200SA	LBB3200A	LBB3200SA
225	1125	2250	LBB2225A	LBB2225SA	LBB3225A	LBB3225SA
250	1250	2500	LBB2250A	LBB2250SA	LBB3250A	LBB3250SA
300	1500	3000	LBB2300A	LBB2300SA	LBB3300A	LBB3300SA
350	1750	3500	LBB2350A	LBB2350SA	LBB3350A	LBB3350SA
400	2000	4000	LBB2400A	LBB2400SA	LBB3400A	LBB3400SA

Special Calibrations^④
Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. Also price additions apply to specific calibrations for frequencies other than 0-60 Hertz AC circuits. See AD 29-160 for information regarding special conditions. Maximum calibration for 400 Hz is 300 Amps.

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal Magnetic Frequency	Add 10% to List Price of Complete Breaker	None None None

50°C Calibration^④
Add suffix "V" to catalogue number for complete breaker when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Terminals^②

Two required per pole. Select from page 10.

Magnetic Only and Ambient Compensating Breakers

For description, refer to AD 29-160. To order select catalogue number from table above.

Accessories and Modifications

Description: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)

Shaded gray areas denotes obsolete or discontinued products and services

- ① Set on high side, adjustable to lower limits.
- ② Terminals are shipped separately from breaker.
- ③ 2-pole breakers or trips are supplied in 3-pole frames with current carrying parts omitted from center pole.
- ④ Not listed with CSA and Underwriters' Laboratories, Inc.
- ⑤ Select desired terminals from page 10, and order as separate item.
- ⑥ Ratings above 10,000 Amps not CSA and UL listed.

Type LB 400 Amperes, Mark 75® Type HLB400 Amperes

Type LB and MARK 75® Type HLB Breakers
 70-400 Amperes, 600 Volts AC, 250 Volts DC, 2, 3 Poles, Interchangeable Trip Thermal Magnetic, Saf-T-Vue® and MARK 75® Breakers

Continuous Ampere Rating at 40°C	Magnetic Trip Setting Amperes ^①		Complete Breaker Includes Pressure Type Aluminum Terminals ^②			Shipped as Frame, Trip Unit and Terminals ^② Frame Only			Trip Unit Only
	Low	High	Standard	Saf-T-Vue®	MARK 75®	Standard	Saf-T-Vue®	MARK 75®	Standard Saf-T-Vue®, MARK 75®
CATALOGUE NUMBERS									
2 Poles, 600 Volts AC, 250 Volts DC^③									
70	350	700	LB2070	LB2070S	HLB2070	LB2400F	LB2400FS	HLB2400F	HLB2070T
90	450	900	LB2090	LB2090S	HLB2090	LB2400F	LB2400FS	HLB2400F	HLB2090T
100	500	1000	LB2100	LB2100S	HLB2100	LB2400F	LB2400FS	HLB2400F	HLB2100T
125	625	1250	LB2125	LB2125S	HLB2125	LB2400F	LB2400FS	HLB2400F	HLB2125T
150	750	1500	LB2150	LB2150S	HLB2150	LB2400F	LB2400FS	HLB2400F	HLB2150T
175	875	1750	LB2175	LB2175S	HLB2175	LB2400F	LB2400FS	HLB2400F	HLB2175T
200	1000	2000	LB2200	LB2200S	HLB2200	LB2400F	LB2400FS	HLB2400F	HLB2200T
225	1125	2250	LB2225	LB2225S	HLB2225	LB2400F	LB2400FS	HLB2400F	HLB2225T
250	1250	2500	LB2250	LB2250S	HLB2250	LB2400F	LB2400FS	HLB2400F	HLB2250T
300	1500	3000	LB2300	LB2300S	HLB2300	LB2400F	LB2400FS	HLB2400F	HLB2300T
350	1750	3500	LB2350	LB2350S	HLB2350	LB2400F	LB2400FS	HLB2400F	HLB2350T
400	2000	4000	LB2400	LB2400S	HLB2400	LB2400F	LB2400FS	HLB2400F	HLB2400T
			Approx. Ship. Wt. 13 Lbs.			Approx. Ship. Wt. 10 Lbs.			Approx. Ship. Wt. 2 Lbs.
3 Poles, 600 Volts AC Only									
70	350	700	LB3070	LB3070S	HLB3070	LB3400F	LB3400FS	HLB3400F	HLB3070T
90	450	900	LB3090	LB3090S	HLB3090	LB3400F	LB3400FS	HLB3400F	HLB3090T
100	500	1000	LB3100	LB3100S	HLB3100	LB3400F	LB3400FS	HLB3400F	HLB3100T
125	625	1250	LB3125	LB3125S	HLB3125	LB3400F	LB3400FS	HLB3400F	HLB3125T
150	750	1500	LB3150	LB3150S	HLB3150	LB3400F	LB3400FS	HLB3400F	HLB3150T
175	875	1750	LB3175	LB3175S	HLB3175	LB3400F	LB3400FS	HLB3400F	HLB3175T
200	1000	2000	LB3200	LB3200S	HLB3200	LB3400F	LB3400FS	HLB3400F	HLB3200T
225	1125	2250	LB3225	LB3225S	HLB3225	LB3400F	LB3400FS	HLB3400F	HLB3225T
250	1250	2500	LB3250	LB3250S	HLB3250	LB3400F	LB3400FS	HLB3400F	HLB3250T
300	1500	3000	LB3300	LB3300S	HLB3300	LB3400F	LB3400FS	HLB3400F	HLB3300T
350	1750	3500	LB3350	LB3350S	HLB3350	LB3400F	LB3400FS	HLB3400F	HLB3350T
400	2000	4000	LB3400	LB3400S	HLB3400	LB3400F	LB3400FS	HLB3400F	HLB3400T
			Approx. Ship. Wt. 15 Lbs.			Approx. Ship. Wt. 12 Lbs.			Approx. Ship. Wt. 2-½ Lbs.



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Volt Max.	Amperes
Standard Breakers	
240 AC	50,000 Asym., 42,000 Sym.
480 AC	35,000 Asym., 30,000 Sym.
600 AC	25,000 Asym., 22,000 Sym.
250 DC	20,000 ^⑤
MARK 75® Breakers	
240 AC	75,000 Asym., 65,000 Sym.
480 AC	40,000 Asym., 35,000 Sym.
600 AC	30,000 Asym., 25,000 Sym.
250 DC	20,000 ^⑤

Terminals^②

Two terminals are required per pole.

Terminals are CSA and Underwriters' Laboratories, Inc. listed for wire type and range listed below. When used with aluminum cable, use joint compound. To order optional copper only terminals, add suffix "C" to complete breaker catalogue number.

Max. Amps.	Terminal Cat. No.	Wire Range, Type No. of Cables
Standard Pressure Terminals		
225	TA225LA1	1 #6-350 MCM Cu, or 1 #4-350 MCM Al
350	TA350DA	1 250-500 MCM Al/Cu
400	TA400CDA	2 3/0-250 MCM Al/Cu
400	T400DA2	2 3/0-250 MCM Cu only
Optional Copper Pressure Terminals		
225	T225LA	1 #6-350 MCM Cu
225 ^④	T225LBF	1 #6-250 MCM Cu
350	T350DA	1 250-500 MCM Cu

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

List Prices: See PAD (Price and Availability Digest)

Accessories and Modifications Description: Pages 39 - 49

Shaded gray areas denotes obsolete or discontinued products and services

- ① Set on high side, adjustable to lower limits.
- ② Terminals are shipped separately from breaker.
- ③ 2-pole breakers or trips are supplied in 3-pole frames with current carrying parts omitted from center pole.
- ④ Optional terminal.
- ⑤ Ratings above 10,000 Amps not CSA and UL listed.

Type LB and MARK 75® Type HLB Breakers, *Continued*
70-400 Amperes, 600 Volts AC, 250 Volts DC, 2, 3 Poles, Interchangeable Trip

Special Breakers① Trip Units Only

Continuous Ampere Rating	Magnetic Trip Setting, Amperes②		Trip Unit Only	
	Low	High	2 Poles③	3 Poles
			CATALOGUE NUMBERS	
Magnetic Only Breakers, Front Adjustable				
400	350	700	HLB2700TM	HLB3700TM
400	625	1250	HLB21250TM	HLB31250TM
400	750	1500	HLB21500TM	HLB31500TM
400	875	1750	HLB21750TM	HLB31750TM
400	1125	2250	HLB22250TM	HLB32250TM
400	1500	3000	HLB23000TM	HLB33000TM
400	2000	4000	HLB24000TM	HLB34000TM
Ambient Compensating Breakers				
70	350	700	HLB2070TA	HLB3070TA
90	450	900	HLB2090TA	HLB3090TA
100	500	1000	HLB2100TA	HLB3100TA
125	625	1250	HLB2125TA	HLB3125TA
150	750	1500	HLB2150TA	HLB3150TA
175	875	1750	HLB2175TA	HLB3175TA
200	1000	2000	HLB2200TA	HLB3200TA
225	1125	2250	HLB2225TA	HLB3225TA
250	1250	2500	HLB2250TA	HLB3250TA
300	1500	3000	HLB2300TA	HLB3300TA
350	1750	3500	HLB2350TA	HLB3350TA
400	2000	4000	HLB2400TA	HLB3400TA

Magnetic Only and Ambient Compensating Breakers①

For description, refer to AD 29-160. To order, select trip unit from table at left, frame and terminals from page 10.

Special Calibrations①

Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. Also price additions apply to specific calibrations for frequencies other than 0-60 Hertz AC circuits. See AD 29-160 for information regarding special conditions. Maximum calibration for 400 Hz is 300 Amps.

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal	Add 30% to List Price of Trip Units	None
Magnetic		None
Frequency		None

50°C Calibration①

Add suffix "V" to catalogue number for complete breaker or trip unit only, when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

List Prices: See PAD (Price and Availability Digest)

Shaded gray areas denotes obsolete or discontinued products and services

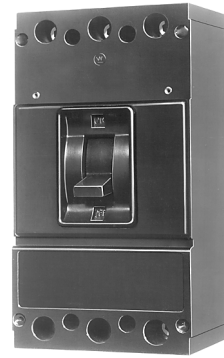
① Not listed with CSA and Underwriters' Laboratories, Inc.
 ② Set on high side, adjustable to lower limits.
 ③ 2-pole breakers or trips are supplied in 3-pole frames with current carrying parts omitted from center pole.

Type DA

Type DA Breakers

250-400 Amperes, 240 Volts AC, 250 Volts DC, 2 and 3 Poles, Fixed Trip Thermal Magnetic Breakers. **Suitable for reverse feed application.**

Continuous Ampere Rating at 40°C	Breakers With Line Terminals Only		Breakers With Line and Load Terminals	
	CATALOGUE NUMBERS		CATALOGUE NUMBERS	
	2-Pole ^①	3-Pole	2-Pole ^①	3-Pole
250	DA2250Y	DA3250Y	DA2250	DA3250
300	DA2300Y	DA3300Y	DA2300	DA3300
350	DA2350Y	DA3350Y	DA2350	DA3350
400	DA2400Y	DA3400Y	DA2400	DA3400
	Approx. Ship. Wt. 13 Lbs.	Approx. Ship. Wt. 15 Lbs.	Approx. Ship. Wt. 13 Lbs.	Approx. Ship. Wt. 15 Lbs.



Type DA 3 Pole

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Max. Volts	Amperes
240 AC	25,000 Asym., 22,000 Sym.
250 DC	10,000

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Terminals

Terminals are CSA and Underwriters' Laboratories, Inc. listed for the wire type and size listed below. When used with aluminum conductors, use joint compound.

Max. Amps.	CATALOGUE NUMBER	Wire Range, Type No. of Cables
Standard Pressure Terminals		
350	TA350DA	1 250-500 MCM Al/Cu
400	T400DA2	2 3/0-250 MCM Cu only
Optional Terminals (for Copper cable)		
350	T350DA	1 250-500 MCM Cu

Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

List Prices: See PAD (Price and Availability Digest)

Accessories and Modifications

Description: Pages 39 - 49

Special Calibrations^②

Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. Also price additions apply to specific calibrations for frequencies other than 0-60 Hertz AC circuits. See Application Data 29-160 for information regarding special conditions. Maximum 400 Hz calibrations: Type DA, 300 amps.

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal Magnetic Frequency	Add 10% of List Price of Complete Breaker	None None None

50°C Calibration^②

Add suffix "V" to catalogue number for complete breaker when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Shaded gray areas denotes obsolete or discontinued products and services

^① 2-pole breakers are supplied in 3-pole frames.

^② Not CSA and UL listed.

Type LAB 400 Amperes

Type LAB Thermal Magnetic, Saf-T-Vue® Breakers

125-400 Amperes, 600 Volts AC, 250 Volts DC, 2, 3 Poles, Fixed Trip. Suitable for reverse feed application.

Continuous Ampere Rating at 40°C	Magnetic Trip Setting, Amperes ^①		Complete Breaker Includes Pressure Type Aluminum Terminals ^②		Breaker Without Terminals	
			Standard	Saf-T-Vue®	Standard	Saf-T-Vue®
	Low	High	CATALOGUE NUMBERS			
2 Poles, 600 Volts AC, 250 Volts DC^③						
125	625	1250	LAB2125	LAB2125S	LAB2125W	LAB2125SW
150	750	1500	LAB2150	LAB2150S	LAB2150W	LAB2150SW
175	875	1750	LAB2175	LAB2175S	LAB2175W	LAB2175SW
200	1000	2000	LAB2200	LAB2200S	LAB2200W	LAB2200SW
225	1125	2250	LAB2225	LAB2225S	LAB2225W	LAB2225SW
250	1250	2500	LAB2250	LAB2250S	LAB2250W	LAB2250SW
300	1500	3000	LAB2300	LAB2300S	LAB2300W	LAB2300SW
350	1750	3500	LAB2350	LAB2350S	LAB2350W	LAB2350SW
400	2000	4000	LAB2400	LAB2400S	LAB2400W	LAB2400SW
			Approx. Ship. Wt. 22 Lbs.		Approx. Ship. Wt. 22 Lbs.	
3 Poles, 600 Volts AC Only						
125	625	1250	LAB3125	LAB3125S	LAB3125W	LAB3125SW
150	750	1500	LAB3150	LAB3150S	LAB3150W	LAB3150SW
175	875	1750	LAB3175	LAB3175S	LAB3175W	LAB3175SW
200	1000	2000	LAB3200	LAB3200S	LAB3200W	LAB3200SW
225	1125	2250	LAB3225	LAB3225S	LAB3225W	LAB3225SW
250	1250	2500	LAB3250	LAB3250S	LAB3250W	LAB3250SW
300	1500	3000	LAB3300	LAB3300S	LAB3300W	LAB3300SW
350	1750	3500	LAB3350	LAB3350S	LAB3350W	LAB3350SW
400	2000	4000	LAB3400	LAB3400S	LAB3400W	LAB3400SW
			Approx. Ship. Wt. 24-½ Lbs.		Approx. Ship. Wt. 24-½ Lbs.	



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings^⑥

Max. Volts	Amperes
240 AC	50,000 Asym., 42,000 Sym.
480 AC	35,000 Asym., 30,000 Sym.
600 AC	25,000 Asym., 22,000 Sym.
250 DC	20,000 ^⑦

Special Breakers^④

Continuous Ampere Rating	Magnetic Trip Setting, Amperes ^①		Breaker Catalogue Number			
			2 Poles ^③		3 Poles	
	Low	High	Standard	Saf-T-Vue®	Standard	Saf-T-Vue®
Magnetic Only Breakers, Front Adjustable - Without Terminals^⑤						
400	350	700	LAB2700MW	LAB2700SMW	LAB3700MW	LAB3700SMW
400	625	1250	LAB21250MW	LAB21250SMW	LAB31250MW	LAB31250SMW
400	750	1500	LAB21500MW	LAB21500SMW	LAB31500MW	LAB31500SMW
400	875	1750	LAB21750MW	LAB21750SMW	LAB31750MW	LAB31750SMW
400	1125	2250	LAB22250MW	LAB22250SMW	LAB32250MW	LAB32250SMW
400	1500	3000	LAB23000MW	LAB23000SMW	LAB33000MW	LAB33000SMW
400	2000	4000	LAB24000MW	LAB24000SMW	LAB34000MW	LAB34000SMW
Ambient Compensating Breakers - Includes Terminals						
125	625	1250	LAB2125A	.....	LAB3125A	.....
150	750	1500	LAB2150A	.....	LAB3150A	.....
175	875	1750	LAB2175A	.....	LAB3175A	.....
200	1000	2000	LAB2200A	.....	LAB3200A	.....
225	1125	2250	LAB2225A	.....	LAB3225A	.....
250	1250	2500	LAB2250A	.....	LAB3250A	.....
300	1500	3000	LAB2300A	.....	LAB3300A	.....
350	1750	3500	LAB2350A	.....	LAB3350A	.....
400	2000	4000	LAB2400A	.....	LAB3400A	.....

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Terminals^②

Two required per pole. Select from table on page 14.

Magnetic Only and Ambient Compensating Breakers

For description, refer to AD 29-160. To order, select catalogue number from table at left.

Accessories and Modifications

Description: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)

Special Calibrations^④

Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. Also price additions apply to specific calibrations for frequencies other than 0-60 Hertz AC circuits. See AD 29-160 for information regarding special conditions. Maximum calibration for 400 Hz is 300 Amps.

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal Magnetic Frequency	Add 10% to List Price of Complete Breaker	None None None

50°C Calibration^④

Add suffix "V" to catalogue number for complete breaker when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Shaded gray areas denotes obsolete or discontinued products and services

- ① Set on high side, adjustable to lower limits.
- ② Terminals shipped separately from breaker.
- ③ 2-pole breakers or trips are supplied in 3-pole frames with current carrying parts omitted from center pole.
- ④ Not listed with CSA and Underwriters' Laboratories, Inc.
- ⑤ Select desired terminals from page 14 and order as separate item.
- ⑥ Interrupting capacities shown do not apply to moulded case switches (MCS).
- ⑦ Ratings above 10,000 Amps not CSA and UL listed.

Type LA 400 Amperes, Mark 75® Type HLA 400 Amperes

Type LA and MARK 75® Type HLA Breakers
70-400 Amperes, 600 Volts AC, 250 Volts DC, 2, 3 Poles, Interchangeable Trip

Continuous Ampere Rating at 40°C	Magnetic Trip Setting Amperes ^①		Complete Breaker Includes Pressure Type Aluminum Terminals ^②			Shipped as Frame, Trip Unit and Terminals Frame Only			Trip Unit Only ^③
	Low	High	Standard	Saf-T-Vue® ^④	MARK 75®	Standard	Saf-T-Vue® ^④	MARK 75®	Standard, MARK 75® or Saf-T-Vue®
			CATALOGUE NUMBERS						
400 Ampere Frame Breakers 2 Poles, 600 Volts AC, 250 Volts DC ^⑤									
70®	350	700	LA2070	LA2070S	.....	LA2400F	LA2400FS	.....	HLA2070T
90®	450	900	LA2090	LA2090S	.....	LA2400F	LA2400FS	.....	HLA2090T
100®	500	1000	LA2100	LA2100S	.....	LA2400F	LA2400FS	.....	HLA2100T
125	625	1250	LA2125	LA2125S	HLA2125	LA2400F	LA2400FS	HLA2400F	HLA2125T
150	750	1500	LA2150	LA2150S	HLA2150	LA2400F	LA2400FS	HLA2400F	HLA2150T
175	875	1750	LA2175	LA2175S	HLA2175	LA2400F	LA2400FS	HLA2400F	HLA2175T
200	1000	2000	LA2200	LA2200S	HLA2200	LA2400F	LA2400FS	HLA2400F	HLA2200T
225	1125	2250	LA2225	LA2225S	HLA2225	LA2400F	LA2400FS	HLA2400F	HLA2225T
250	1250	2500	LA2250	LA2250S	HLA2250	LA2400F	LA2400FS	HLA2400F	HLA2250T
300	1500	3000	LA2300	LA2300S	HLA2300	LA2400F	LA2400FS	HLA2400F	HLA2300T
350	1750	3500	LA2350	LA2350S	HLA2350	LA2400F	LA2400FS	HLA2400F	HLA2350T
400	2000	4000	LA2400	LA2400S	HLA2400	LA2400F	LA2400FS	HLA2400F	HLA2400T
			Approx. Ship. Wt. 21-¾ Lbs.			Approx. Ship. Wt. 17-½ Lbs.			Approx. Ship. Wt. 2-¼ Lbs.
3 Poles, 600 Volts AC Only									
70®	350	700	LA3070	LA3070S	.....	LA3400F	LA3400FS	.....	HLA3070T
90®	450	900	LA3090	LA3090S	.....	LA3400F	LA3400FS	.....	HLA3090T
100®	500	1000	LA3100	LA3100S	.....	LA3400F	LA3400FS	.....	HLA3100T
125	625	1250	LA3125	LA3125S	HLA3125	LA3400F	LA3400FS	HLA3400F	HLA3125T
150	750	1500	LA3150	LA3150S	HLA3150	LA3400F	LA3400FS	HLA3400F	HLA3150T
175	875	1750	LA3175	LA3175S	HLA3175	LA3400F	LA3400FS	HLA3400F	HLA3175T
200	1000	2000	LA3200	LA3200S	HLA3200	LA3400F	LA3400FS	HLA3400F	HLA3200T
225	1125	2250	LA3225	LA3225S	HLA3225	LA3400F	LA3400FS	HLA3400F	HLA3225T
250	1250	2500	LA3250	LA3250S	HLA3250	LA3400F	LA3400FS	HLA3400F	HLA3250T
300	1500	3000	LA3300	LA3300S	HLA3300	LA3400F	LA3400FS	HLA3400F	HLA3300T
350	1750	3500	LA3350	LA3350S	HLA3350	LA3400F	LA3400FS	HLA3400F	HLA3350T
400	2000	4000	LA3400	LA3400S	HLA3400	LA3400F	LA3400FS	HLA3400F	HLA3400T
			Approx. Ship. Wt. 24-½ Lbs.			Approx. Ship. Wt. 19 Lbs.			Approx. Ship. Wt. 3 Lbs.



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings^⑥

Volts Max.	Amperes
Standard Breakers	
240 AC	50,000 Asym., 42,000 Sym.
480 AC	35,000 Asym., 30,000 Sym.
600 AC	25,000 Asym., 22,000 Sym.
250 DC	20,000 ^⑦
MARK 75® Breakers	
240 AC	75,000 Asym., 65,000 Sym.
480 AC	40,000 Asym., 35,000 Sym.
600 AC	30,000 Asym., 25,000 Sym.
250 DC	20,000 ^⑦

For panelboard and switchboard applications where only line side or load side terminals are required, add suffix "X" to complete breaker catalogue number.

Terminals^{②③}

Two terminals are required per pole. Terminals are CSA and Underwriters' Laboratories, Inc. listed for wire type and range listed below. When used with aluminum cable, use joint compound. To order optional copper only terminals, add suffix "C" to complete breaker catalogue number.

Max. Amps	Terminal Catalogue Number	Wire Range, Type, No. of Cables
Standard Al/Cu Pressure Terminals		
225 ^⑦	TA225LA1	1 #6-350 MCM Cu, or 1 #4-350 MCM Al
400 ^⑦	TA400LA1	1 #4-250 MCM Al/Cu, plus 1 3/0-600 MCM Al/Cu
Optional Copper Pressure Terminals		
225 ^⑦	T225LA	1 #6-350 MCM Cu
225 ^{⑦⑧}	T225LBF	1 #6-250 MCM Cu
400 ^⑦	T401LA	1 #4-250 MCM Cu, plus 1 3/0-600 MCM Cu

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Accessories and Modifications
Descriptions: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)

Shaded gray areas denotes obsolete or discontinued products and services

- ① Set on high side, adjustable to lower limits.
- ② Terminals shipped separately from breaker.
- ③ Terminals, trip units and Accessories are not interchangeable between 400 and 600 ampere frames.
- ④ Not listed with CSA and Underwriters' Laboratories, Inc.
- ⑤ 2-pole breakers or trips are supplied in 3-pole frames with current carrying parts omitted from center pole.
- ⑥ These ratings have interrupting capacities reduced to 25,000 Amps sym. at 240 volts, 20,000 Amps sym. at 480 volts, and 15,000 Amps sym. at 600 volts.
- ⑦ 400 amp frame only.
- ⑧ Optional terminal.
- ⑨ Interrupting capacities do not apply to moulded case switches (MCS).
- ⑩ Ratings above 10,000 Amps not CSA and UL listed.

Type LA Breakers

70-400 Amperes, 600 Volts AC, 250 Volts DC, 2, 3 Poles, Interchangeable Trip

Special Breakers^① Trip Units Only

Contin- uous Ampere Rating	Magnetic Trip Setting, Amperes ^②		2 Poles ^③	3 Poles
	Low	High	CATALOGUE NUMBERS	
Magnetic Only Breakers, Front Adjustable 400 Ampere Frame Breakers^④				
400	350	700	HLA2700TM	HLA3700TM
400	625	1250	HLA21250TM	HLA31250TM
400	750	1500	HLA21500TM	HLA31500TM
400	875	1750	HLA21750TM	HLA31750TM
400	1125	2250	HLA22250TM	HLA32250TM
400	1500	3000	HLA23000TM	HLA33000TM
400	2000	4000	HLA24000TM	HLA34000TM
Ambient Compensating Breakers 400 Ampere Frame Breakers Only^④				
70 ^⑤	350	700	HLA2070TA	HLA3070TA
90 ^⑤	450	900	HLA2090TA	HLA3090TA
100 ^⑤	500	1000	HLA2100TA	HLA3100TA
125	625	1250	HLA2125TA	HLA3125TA
150	750	1500	HLA2150TA	HLA3150TA
175	875	1750	HLA2175TA	HLA3175TA
200	1000	2000	HLA2200TA	HLA3200TA
225	1125	2250	HLA2225TA	HLA3225TA
250	1250	2500	HLA2250TA	HLA3250TA
300	1500	3000	HLA2300TA	HLA3300TA
350	1750	3500	HLA2350TA	HLA3350TA
400	2000	4000	HLA2400TA	HLA3400TA

Magnetic Only and Ambient Compensating Breakers^①

For description, refer to AD 29-160. To order, select trip unit from table at left, frame and terminals from page 14.

Special Calibrations^①

Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. Also Price additions apply to specific calibrations for frequencies other than 0-60 Hertz AC circuits. See AD 29-160 for information regarding special conditions. Maximum 400/415 Hz calibration: 400 amp frame, 300 Amps.

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal Ambient Frequency	Add 30% to List Price of Trip Unit	None None None

50°C Calibration^①

Add suffix "V" to catalogue number for complete breaker or trip unit only, when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

List Prices: See PAD (Price and Availability Digest)

Shaded gray areas denotes obsolete or discontinued products and services

① Not listed with CSA and Underwriters' Laboratories, Inc.
 ② Set on high side, adjustable to lower limits.
 ③ 2-pole breakers or trips are supplied in 3-pole frames with current carrying parts omitted from center pole.
 ④ Terminals, trip units and accessories are not interchangeable between 400 and 600 amp frames.
 ⑤ These ratings have lower interrupting capacities. See note 6, page 14.

Type LA 600 Amperes, MARK 75® Type HLA 600 Amperes

Type LA and MARK 75® Type HLA 600 Amp Breakers

250-600 Amperes, 600 Volts AC, 250 Volts DC, 2, 3 Poles, Interchangeable Trip Thermal Magnetic, Saf-T-Vue® and MARK 75® Breakers

Continuous Ampere Rating at 40°C	Magnetic Trip Setting Amperes ①		Complete Breaker			Shipped as Frame, Trip Unit and Terminals②			
			Includes Pressure Type Aluminum Terminals②			Frame Only	Trip Unit Only		
	Low	High	Standard	Saf-T-Vue®	MARK 75®	Standard	Saf-T-Vue®	MARK 75®	Standard, Saf-T-Vue®, MARK 75®
600 Ampere Frame Breakers③									
2 Poles, 600 Volts AC, 250 Volts DC④									
250	1250	2500	2603D50G01	2603D50G13	1256C10G02	LA2600F	LA2600FS	HLA2600F	2603D46G07
300	1500	3000	2603D50G02	2603D50G14	1256C10G03	LA2600F	LA2600FS	HLA2600F	2603D46G08
350	1750	3500	2603D50G03	2603D50G15	1256C10G04	LA2600F	LA2600FS	HLA2600F	2603D46G09
400	2000	4000	2603D50G04	2603D50G16	1256C10G05	LA2600F	LA2600FS	HLA2600F	2603D46G10
500	2500	5000	LA2500	LA2500S	HLA2500	LA2600F	LA2600FS	HLA2600F	HLA2500T
600	3000	6000	LA2600	LA2600S	HLA2600	LA2600F	LA2600FS	HLA2600F	HLA2600T
3 Poles, 600 Volts AC Only									
250	1250	2500	2603D50G07	2603D50G19	1256C10G12	LA3600F	LA3600FS	HLA3600F	2603D46G26
300	1500	3000	2603D50G08	2603D50G20	1256C10G13	LA3600F	LA3600FS	HLA3600F	2603D46G27
350	1750	3500	2603D50G09	2603D50G21	1256C10G14	LA3600F	LA3600FS	HLA3600F	2603D46G28
400	2000	4000	2603D50G10	2603D50G22	1256C10G15	LA3600F	LA3600FS	HLA3600F	2603D46G29
500	2500	5000	LA3500	LA3500S	HLA3500	LA3600F	LA3600FS	HLA3600F	HLA3500T
600	3000	6000	LA3600	LA3600S	HLA3600	LA3600F	LA3600FS	HLA3600F	HLA3600T



Listed with Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings⑥

Volts Max. Amperes	
Standard Breakers	
240 AC	50,000 Asym., 42,000 Sym.
480 AC	35,000 Asym., 30,000 Sym.
600 AC	25,000 Asym., 22,000 Sym.
250 DC	20,000⑦
MARK 75® Breakers	
240 AC	75,000 Asym., 65,000 Sym.
480 AC	40,000 Asym., 35,000 Sym.
600 AC	30,000 Asym., 25,000 Sym.
250 DC	20,000⑦

For Panelboard and Switchboards applications where only line side or load side terminals are required, add suffix "X" to complete breaker catalogue number.

Special Breakers⑤ Trip Units Only

Contin-uous Ampere Rating	Magnetic Trip Setting, Amperes①		CATALOGUE/STYLE NUMBER	
	Low	High	2-Poles④	3-Poles
600 Ampere Frame Breakers③				
Magnetic Only Breakers, Front Adjustable				
600	1125	2250	2603D47G07	2603D47G26
600	1500	3000	2603D47G08	2603D47G27
600	2000	4000	2603D47G10	2603D47G29
600	2500	5000	HLA25000TM	HLA35000TM
600	3000	6000	HLA26000TM	HLA36000TM
Ambient Compensating Breakers				
250	1250	2500	5683D88G07	5683D88G26
300	1500	3000	5683D88G08	5683D88G27
350	1750	3500	5683D88G09	5683D88G28
400	2000	4000	5683D88G10	5683D88G29
500	2500	5000	HLA2500TA	HLA3500TA
600	3000	6000	HLA2600TA	HLA3600TA

Special Calibrations⑤

Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. Also price additions apply to specific calibrations for frequencies other than 0-60 Hz AC circuits. See Application Data 29-160 for information regarding special conditions. Maximum 400 Hz calibration: 600 amp frame, 450 amps.

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal Ambient Frequency	Add 20% to List Price or Trip Unit	None None None

50°C Calibration⑤

Add suffix "V" to catalogue number for complete breaker or trip unit only, when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Terminals②③

Two terminals are required per pole. Terminals are CSA and UL listed for wire type and range listed below. When used with aluminum cable, use joint compound. To order optional copper only terminals, add suffix "C" to complete breaker catalogue number.

Max. Amps	TERMINAL CATALOGUE NUMBER	Wire Range, Type No. of Cables
Standard Al/Cu Pressure Terminals		
600⑧	TA600LA	2 250-500 MCM Al/Cu
Optional Copper Pressure Terminals		
600⑧	T600LA	2 250-500 MCM Cu

Magnetic Only and Ambient Compensating Breakers⑤

For description, refer to AD 29-160. To order, select frame, trip unit and terminals from tables this page.

Accessories and Modifications

Description: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)

Shaded gray areas denotes obsolete or discontinued products and services

- ① Set on high side, adjustable to lower limits.
- ② Terminals shipped separately from breakers.
- ③ Terminals, trip units and accessories are not interchangeable between 400 and 600 ampere frames.
- ④ Two-pole breakers or trips are supplied in 3-pole frames with current carrying parts omitted from center pole.
- ⑤ Not listed with CSA and Underwriters' Laboratories, Inc.
- ⑥ Interrupting capacities shown do not apply to moulded case switches.
- ⑦ Ratings above 10,000 amps not CSA and UL listed.
- ⑧ For 600 amp frame breakers only.

Type LAY, 240 Volt, 3-Pole 250-600 Ampere

Type LAY 600 Amp Frame Breakers

250-600 Amperes, 240 Volts AC, 3 Poles, Interchangeable Trip Thermal Magnetic

Continuous Ampere Rating at 40°C	Magnetic Trip Setting Amperes ^①		Complete Breaker	Shipped as Frame, Trip Unit and Terminals ^③		
	Low	High	Includes Pressure Type Aluminum Terminals ^②	Frame Only	Trip Unit Only	
600 Ampere Frame Breakers^④ 3 Poles, 240 Volts AC Only						
250	1250	2500	LAY3250	LAY3600F	2603D46G26	
300	1500	3000	LAY3300	LAY3600F	2603D46G27	
350	1750	3500	LAY3350	LAY3600F	2603D46G28	
400	2000	4000	LAY3400	LAY3600F	2603D46G29	
500	2500	5000	LAY3500	LAY3600F	HLA3500T	
600	3000	6000	LAY3600	LAY3600F	HLA3600T	



Special Calibrations^④

Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. Also price additions apply to specific calibrations for frequencies other than 0-60 Hz AC circuits. See application data 29-160 for information regarding special conditions. Maximum 400 Hz calibration: 600 Amp frame, 450 Amps.

Type of Calibration	1-24 identical Units	25 or More Identical Units
Thermal Ambient Frequency	Add 20% to List Price of Trip Unit	None None None

50°C Calibration^④

Add suffix "V" to catalogue number for complete breaker or trip unit only, when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

Type LAY breakers are not defined by Federal Specification W-C-375b.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Volts Max.	Amperes
240 AC	115,000 Asym., 100,000 Sym.

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Terminals^②

Two terminals are required per pole. Terminals are CSA and Underwriters' Laboratories, Inc. listed for wire type and range listed below. When used with aluminum cable, use joint compound.

Max. Amps	Terminal Cat. Number	Wire Range Type No. of Cables
Standard Al/Cu Pressure Terminals		
500 ^③	TA602LD ^⑤	(2) 250-350 MCM Al/Cu
600 ^③	TA603LA ^⑤	(2) 400-500 MCM Al/Cu
600 ^③	TA600LA ^⑤	(2) 250-500 MCM Al/Cu
Optional Copper Pressure Terminals		
600 ^④	T600LA	(2) 250-500 MCM Cu

Accessories and Modifications

Description: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)

Shaded gray areas denotes obsolete or discontinued products and services

① Set on high side, adjustable to lower limits.
 ② Terminals shipped separately from breakers.
 ③ For 600 Amp frame breakers only.
 ④ Not listed with CSA and Underwriters' Laboratories, Inc.
 ⑤ Type Al9Cu aluminum terminal.

Type MA 800 Amperes, Type MAY 240 Volt AC, 3-Pole MARK 75® Type HMA 800 Amperes

Type MA Breakers

125-800 Amperes, 600 Volts AC, 250 Volts DC^① 2, 3 Poles, Interchangeable Trip

Contin- uous Ampere Rating at 40°C	Magnetic Trip Setting Amperes ^②		Complete Breaker Includes Pressure Type Copper Terminals ^③			Shipped as Frame, Trip Unit and Terminals ^③ Frame Only			Trip Unit Only
	Low	High	Standard	Saf-T-Vue®	MARK 75®	Standard	Saf-T-Vue®	MARK 75®	Standard Saf-T-Vue®, MARK 75®
			CATALOGUE NUMBERS						
2 Poles, 600 Volts AC, 250 Volts DC^{①④}									
125	625	1250	MA2125	MA2125S	HMA2125	MA2800F	MA2800FS	HMA2800F	HMA2125T
150	750	1500	MA2150	MA2150S	HMA2150	MA2800F	MA2800FS	HMA2800F	HMA2150T
175	875	1750	MA2175	MA2175S	HMA2175	MA2800F	MA2800FS	HMA2800F	HMA2175T
200	1000	2000	MA2200	MA2200S	HMA2200	MA2800F	MA2800FS	HMA2800F	HMA2200T
225	1125	2250	MA2225	MA2225S	HMA2225	MA2800F	MA2800FS	HMA2800F	HMA2225T
250	1250	2500	MA2250	MA2250S	HMA2250	MA2800F	MA2800FS	HMA2800F	HMA2250T
300	1500	3000	MA2300	MA2300S	HMA2300	MA2800F	MA2800FS	HMA2800F	HMA2300T
350	1750	3500	MA2350	MA2350S	HMA2350	MA2800F	MA2800FS	HMA2800F	HMA2350T
400	2000	4000	MA2400	MA2400S	HMA2400	MA2800F	MA2800FS	HMA2800F	HMA2400T
500	2500	5000	MA2500	MA2500S	HMA2500	MA2800F	MA2800FS	HMA2800F	HMA2500T
600	3000	6000	MA2600	MA2600S	HMA2600	MA2800F	MA2800FS	HMA2800F	HMA2600T
700 ^⑤	3000	6000	MA2700	MA2700S	HMA2700	MA2800F	MA2800FS	HMA2800F	HMA2700T
800 ^⑤	3000	6000	MA2800	MA2800S	HMA2800	MA2800F	MA2800FS	HMA2800F	HMA2800T
			Approx. Ship. Wt. 37 Lbs.			Approx. Ship. Wt. 24 Lbs.			Approx. Ship. Wt. 3-½ Lbs.

3 Poles, 600 Volts AC Only									
125	625	1250	MA3125	MA3125S	HMA3125	MA3800F	MA3800FS	HMA3800F	HMA3125T
150	750	1500	MA3150	MA3150S	HMA3150	MA3800F	MA3800FS	HMA3800F	HMA3150T
175	875	1750	MA3175	MA3175S	HMA3175	MA3800F	MA3800FS	HMA3800F	HMA3175T
200	1000	2000	MA3200	MA3200S	HMA3200	MA3800F	MA3800FS	HMA3800F	HMA3200T
225	1125	2250	MA3225	MA3225S	HMA3225	MA3800F	MA3800FS	HMA3800F	HMA3225T
250	1250	2500	MA3250	MA3250S	HMA3250	MA3800F	MA3800FS	HMA3800F	HMA3250T
300	1500	3000	MA3300	MA3300S	HMA3300	MA3800F	MA3800FS	HMA3800F	HMA3300T
350	1750	3500	MA3350	MA3350S	HMA3350	MA3800F	MA3800FS	HMA3800F	HMA3350T
400	2000	4000	MA3400	MA3400S	HMA3400	MA3800F	MA3800FS	HMA3800F	HMA3400T
500	2500	5000	MA3500	MA3500S	HMA3500	MA3800F	MA3800FS	HMA3800F	HMA3500T
600	3000	6000	MA3600	MA3600S	HMA3600	MA3800F	MA3800FS	HMA3800F	HMA3600T
700 ^⑤	3000	6000	MA3700	MA3700S	HMA3700	MA3800F	MA3800FS	HMA3800F	HMA3700T
800 ^⑤	3000	6000	MA3800	MA3800S	HMA3800	MA3800F	MA3800FS	HMA3800F	HMA3800T
			Approx. Ship. Wt. 44 Lbs.			Approx. Ship. Wt. 28 Lbs.			Approx. Ship. Wt. 4 Lbs.



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Max. Volts	Amperes
Standard Breakers	
240 AC	50,000 Asym., 42,000 Sym.
480 AC	35,000 Asym., 30,000 Sym.
600 AC	25,000 Asym., 22,000 Sym.
250 DC ^⑦	20,000 ^⑦
MARK 75® Breakers	
240 AC	75,000 Asym., 65,000 Sym.
480 AC	40,000 Asym., 35,000 Sym.
600 AC	30,000 Asym., 25,000 Sym.
250 DC ^⑦	20,000 ^⑦

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Terminals^③

Two terminals are required per pole. Terminals are CSA and UL listed for wire type and range listed below. When used with aluminum conductors, use joint compound.

Max. Amps	Terminal Cat. No.	Wire Range, Type No. of Cables
Standard Al/Cu Pressure Terminals		
600	TA700MA1	2 #1-500 MCM Al/Cu
800	TA800MA2	3 3/0-400 MCM Al/Cu
800 ^⑦	TA801MA	2 500-750 MCM Al/Cu
Optional Copper Pressure Terminals		
350	T350MA	1 #1-600 MCM Cu
600	T600MA1	2 2/0-500 MCM Cu
800	T800MA1	3 3/0-300 MCM Cu

Special Calibrations^⑥

Special calibration price additions apply to ampere ratings not listed as standard, ambients other than 40°C or 50°C, or frequencies other than 60 Hertz AC (50 Hertz AC minimum – 60 Hertz AC maximum) See AD 29-160 for additional information regarding special conditions.

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal Ambient Frequency	Add 20% of Trip Unit List Price	None None None

50°C Calibration^⑥

Add suffix "V" to catalogue number for complete breaker or trip unit only, when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Magnetic Only Breakers, Front Adj.^⑥

Contin- uous Ampere Rating	Magnetic Trip Range ^②		Trip Unit Only	
	Low	High	2 Poles ^④	3 Poles
			CATALOGUE NUMBER	
800	625	1250	HMA21250TM	HMA31250TM
800	1000	2000	HMA22000TM	HMA32000TM
800	1500	3000	HMA23000TM	HMA33000TM
800	2000	4000	HMA24000TM	HMA34000TM
800	3000	6000	HMA26000TM	HMA36000TM
800	4000	8000	HMA28000TM	HMA38000TM

Magnetic Only and Ambient Compensating Breakers

For description, refer to AD 29-160. To order a complete breaker, select trip unit plus frame and terminals.

Ambient Compensating Breakers^⑥

Contin- uous Ampere Rating	Magnetic Trip Range ^②		Trip Unit Only	
	Low	High	2 Poles	3 Poles
			CATALOGUE NUMBER	
125	625	1250	HMA2125TA	HMA3125TA
150	750	1500	HMA2150TA	HMA3150TA
175	875	1750	HMA2175TA	HMA3175TA
200	1000	2000	HMA2200TA	HMA3200TA
225	1125	2250	HMA2225TA	HMA3225TA
250	1250	2500	HMA2250TA	HMA3250TA
300	1500	3000	HMA2300TA	HMA3300TA
350	1750	3500	HMA2350TA	HMA3350TA
400	2000	4000	HMA2400TA	HMA3400TA
500	2500	5000	HMA2500TA	HMA3500TA
600	3000	6000	HMA2600TA	HMA3600TA
700	3000	6000	HMA2700TA	HMA3700TA
800	3000	6000	HMA2800TA	HMA3800TA

Accessories and Modifications

Description: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)

Shaded gray areas denotes obsolete or discontinued products and services

- ① Above 600 Amps, DC rating applies to magnetic only breakers.
- ② Set on high side, adjustable to lower limits.
- ③ Terminals are shipped separately from breaker.
- ④ 2-pole breakers are supplied in 3-pole frames with current carrying parts omitted from center pole.
- ⑤ 60 Hertz AC only.
- ⑥ Not listed with CSA and Underwriters' Laboratories, Inc.
- ⑦ Ratings above 10,000 Amps not CSA and UL listed.

Type MAY Breakers

600-800 Amperes, 240 Volts AC. 3 Poles, Interchangeable Trip

Continuous Ampere Rating at 40°C	Magnetic Trip Setting, Amperes ^①		Complete Breaker	Shipped as Frame, Trip Unit and Terminals ^②	
	Low	High	Includes Pressure Type Aluminum Terminals ^②	Frame Only	Trip Unit Only
			CATALOGUE NUMBERS		
3 Poles, 240 Volts AC Only					
600	3000	6000	MAY3600	MAY3800F	HMA3600T
700 ^③	3000	6000	MAY3700	MAY3800F	HMA3700T
800 ^③	3000	6000	MAY3800	MAY3800F	HMA3800T

Terminals^②

Two terminals are required per pole. Terminals are CSA and Underwriters' Laboratories, Inc. listed for wire type and range listed below. When used with aluminum cable, use joint compound.

Max. Amps	Terminal Cat. No.	Wire Range, Type No. of Cables
Standard Al/Cu Pressure Terminals		
600	TA700MA1 ^④	2 #1-500 MCM Al/Cu
800	TA800MA2 ^④	3 3/0-400 MCM Al/Cu
800	TA801MA ^④	2 500-750 MCM Al/Cu
Optional Copper Pressure Terminals		
350	T350MA	1 #1-600 MCM Cu
600	T600MA1	2 2/0-500 MCM Cu
800	T800MA1	3 3/0-300 MCM Cu

Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

Type MAY breakers are not defined by Federal Specification W-C-375b.

CSA and Underwriters' Laboratories, Inc. listed Interrupting Ratings

Volts Max.	Amperes
240 AC	115,000 Asym., 100,000 Sym.

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Accessories and Modifications
Description: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)



Shaded gray areas denotes obsolete or discontinued products and services

① Set on high side, adjustable to lower limit.
 ② Terminals shipped separate from breaker.
 ③ 60 Hertz AC only.
 ④ Type Al9Cu aluminum terminal.

Type NB 1200 Amperes, Type NBY, 240 Volt 3-Pole, MARK 75, Type HNB 1200 Amperes

Type NB Breakers

700-1200 Amperes, 600 Volts, 60 Hertz AC^①, 250 Volts DC^②, 2, 3 Poles, Interchangeable Trip

Continuous Ampere Rating at 40°C	Magnetic Trip Setting, Amperes ^③		Complete Breaker			Shipped as Frame, Trip Unit and Terminals ^④			
	Low	High	Includes Pressure Type Copper Terminals ^④			Frame Only			Trip Unit Only
			Standard	Saf-T-Vue®	MARK 75®	Standard	Saf-T-Vue®	MARK 75®	Standard Saf-T-Vue®, MARK 75®
CATALOGUE NUMBERS									
2 Poles, 600 Volts AC, 250 Volts DC^{②⑤}									
700	3000	6000	NB2700	NB2700S	HNB2700	NB21200F	NB21200FS	HNB21200F	HNB2700T
800	3000	6000	NB2800	NB2800S	HNB2800	NB21200F	NB21200FS	HNB21200F	HNB2800T
900	4000	8000	NB2900	NB2900S	HNB2900	NB21200F	NB21200FS	HNB21200F	HNB2900T
1000	4000	8000	NB21000	NB21000S	HNB21000	NB21200F	NB21200FS	HNB21200F	HNB21000T
1200	4000	8000	NB21200	NB21200S	HNB21200	NB21200F	NB21200FS	HNB21200F	HNB21200T
			Approx. Ship. Wt. 43 Lbs.			Approx. Ship. Wt. 29 Lbs.			Approx. Ship. Wt. 3½ Lbs.
3 Poles, 600 Volts AC Only									
700	3000	6000	NB3700	NB3700S	HNB3700	NB31200F	NB31200FS	HNB31200F	HNB3700T
800	3000	6000	NB3800	NB3800S	HNB3800	NB31200F	NB31200FS	HNB31200F	HNB3800T
900	4000	8000	NB3900	NB3900S	HNB3900	NB31200F	NB31200FS	HNB31200F	HNB3900T
1000	4000	8000	NB31000	NB31000S	HNB31000	NB31200F	NB31200FS	HNB31200F	HNB31000T
1200	4000	8000	NB31200	NB31200S	HNB31200	NB31200F	NB31200FS	HNB31200F	HNB31200T
			Approx. Ship. Wt. 51 Lbs.			Approx. Ship. Wt. 32 Lbs.			Approx. Ship. Wt. 4 Lbs.



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. listed Interrupting Ratings:

Max. Volts	Amperes
Standard Breakers	
240 AC	50,000 Asym., 42,000 Sym.
480 AC	35,000 Asym., 30,000 Sym.
600 AC	25,000 Asym., 22,000 Sym.
250 DC ^②	20,000 ^③
MARK 75® Breakers	
240 AC	75,000 Asym., 65,000 Sym.
480 AC	40,000 Asym., 35,000 Sym.
600 AC	30,000 Asym., 25,000 Sym.
250 DC ^②	20,000 ^③

Magnetic Only Breakers, Front Adjustable^{⑥⑦}

Continuous Ampere Rating	Magnetic Trip Range ^③		Trip Unit Only	
	Low	High	2 Poles ^⑤	3 Poles
			CATALOGUE NUMBERS	
1200	3000	6000	HNB26000TM	HNB36000TM
1200	4000	8000	HNB28000TM	HNB38000TM
1200	5000	10000	HNB210000TM	HNB310000TM
1200	6000	12000	HNB212000TM	HNB312000TM

Special Calibrations^⑦

Special calibration price additions apply to ampere ratings not listed as standard, ambients other than 40°C or 50°C or frequencies other than 60 Hertz AC (50 Hertz AC minimum – 60 Hertz AC maximum for ratings of 700 Amps and above). See AD 29-160 for additional information regarding special conditions. Maximum 400 Hz calibration for type MA is 475 Amps

Magnetic Only Breakers^⑦

For description, refer to AD 29-160. To order a complete breaker, select trip unit, plus frame and terminals.

Type of Calibration	1-24 Identical Units		25 or More Ident. Units
	Type MA, HMA	Type NB, HNB	
Thermal Ambient Frequency	Add 20% of Trip Unit List Price	Add 15% of Trip Unit List Price	None None None

50°C Calibration^⑦

Add suffix "V" to catalogue number for complete breaker or trip unit only, when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Accessories and Modifications

Description: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Terminals^⑥

Two terminals are required per pole. Terminals are CSA and Underwriters' Laboratories, Inc. listed for wire type and range listed below. When used with aluminum conductors, use joint compound. To order optional copper terminals, add suffix "C" to complete breaker catalogue number.

Max. Ampere Ratings	Terminal Catalogue Number	Wire Range, Type, No. of Cables
Standard Al/Cu Pressure Terminals		
1000	TA1000NB1	3 3/0-400 MCM Al/Cu
1200	TA1200NB1	4 4/0-500 MCM Al/Cu
Optional Copper or Al/Cu Pressure Terminals		
1000	T1000NB1	3 3/0-500 MCM Cu
1200	T1200NB1	4 3/0-400 MCM Cu
1200	TA1201NB1	3 500-750 MCM Al/Cu

Shaded gray areas denotes obsolete or discontinued products and services

① Higher frequency calibration not available. Minimum of 50 cycle calibration available on special order.
 ② 250-volt DC rating applied only to magnetic only type breakers.
 ③ Set on high side, adjustable to lower limits.
 ④ Terminals shipped separately from breaker.
 ⑤ 2-pole breakers supplied in 3-pole frames with current carrying parts omitted from center pole.
 ⑥ Frames, terminals, studs, mounting hardware, dimensions and shipping weights are same as standard thermal magnetic breakers.
 ⑦ Not listed with CSA and Underwriters' Laboratories, Inc.
 ⑧ Ratings above 10,000 Amps not CSA and UL listed.

Type NBY Breakers

700-1200 Amperes, 240 Volts, 60 Hertz AC^①, 3 Poles, Interchangeable Trip

Continuous Ampere Rating at 40°C	Magnetic Trip Setting Amperes ^②		Complete Breaker	Shipped as Frame, Trip Unit and Terminals ^③	
	Low	High	Includes Pressure Type Aluminum Terminals ^③	Frame Only	Trip Unit Only
3 Poles, 600 Volts AC Only					
700	3000	6000	NBY3700	NBY31200F	HNB3700T
800	3000	6000	NBY3800	NBY31200F	HNB3800T
900	4000	8000	NBY3900	NBY31200F	HNB3900T
1000	4000	8000	NBY31000	NBY31200F	HNB31000T
1200	4000	8000	NBY31200	NBY31200F	HNB31200T



Special Calibrations^④

Special calibration price additions apply to ampere ratings not listed as standard, ambients other than 40°C or 50°C, or frequencies other than 60 Hertz AC (50 Hertz AC minimum – 60 Hertz AC maximum) See AD 29-160 for additional information regarding special conditions.

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal Ambient Frequency	Add 15% of Trip Unit List Price	None None None

50°C Calibration^④

Add suffix "V" to catalogue number for complete breaker or trip unit only, when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Accessories and Modifications

Description: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)

Listed with **CSA and Underwriters' Laboratories, Inc. except as noted.**

Type NBY breakers are not defined by Federal Specification W-C-375b.

CSA and Underwriters' Laboratories, Inc. listed Interrupting Ratings

Volts Max.	Amperes
240 AC	115,000 Asym., 100,000 Sym.

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Terminals^⑤

Two terminals are required per pole. Terminals are CSA and Underwriters' Laboratories, Inc. listed for wire type and range listed below. When used with aluminum conductors, use joint compound.

Max. Ampere Ratings	Terminal Catalogue Number	Wire Range, Type, No. of Cables
Standard Al/Cu Pressure Terminals		
1000	TA1000NB1 ^⑥	3 3/0-400 MCM Al/Cu
1200	TA1200NB1 ^⑥	4 4/0-500 MCM Al/Cu
1200	TA1201NB1 ^⑥	3 500-750 MCM Al/Cu
Alternate Copper Pressure Terminals		
1000	T1000NB1	3 3/0-500 MCM Cu
1200	T1200NB1	4 3/0-400 MCM Cu

Shaded gray areas denotes obsolete or discontinued products and services

① Higher frequency calibration not available. Minimum of 50 cycle calibration available on special order.
 ② Set on high side, adjustable to lower limits.
 ③ Terminals shipped separately from breaker.
 ④ Not listed with CSA and Underwriters' Laboratories, Inc.
 ⑤ Type Al9Cu aluminum terminal.
 ⑥ Type Al7Cu aluminum terminal.

Type PB 2500 Amperes

Type PB Breakers

600-2500 Amperes, 600 Volts, 60 Cycle AC^①, 250 Volts DC^②, 2, 3 Poles, Interchangeable Trip

Continuous Ampere Rating at 40°C	Magnetic Trip Setting, Amperes ^{③④}		Complete Breaker	Shipped as Frame, Trip Unit and Connectors	
	Low	High	Includes Bus Bar Connectors ^⑤	Frame Only	Trip Unit Only
CATALOGUE NUMBERS					
2 Poles, 600 Volts AC Only^⑥					
600	1500	5000	PB2600	PB22500F	PB2600T
700	1500	5000	PB2700	PB22500F	PB2700T
800	1500	5000	PB2800	PB22500F	PB2800T
900	1500	5000	PB2900	PB22500F	PB2900T
1000	1500	5000	PB21000	PB22500F	PB21000T
1200	2000	6000	PB21200	PB22500F	PB21200T
1400	2500	7000	PB21400	PB22500F	PB21400T
1600	3000	8000	PB21600	PB22500F	PB21600T
1800	3000	8000	PB21800	PB22500F	PB21800T
2000	3000	8000	PB22000	PB22500F	PB22000T
Approx. Ship. Wt.			132 Lbs.	78 Lbs.	18 Lbs.
2500	3000	8000	PB22500	PB22500F	PB22500T
Approx. Ship. Wt.			144 Lbs.	98 Lbs.	18 Lbs.
3 Poles, 600 Volts AC Only					
600	1500	5000	PB3600	PB32500F	PB3600T
700	1500	5000	PB3700	PB32500F	PB3700T
800	1500	5000	PB3800	PB32500F	PB3800T
900	1500	5000	PB3900	PB32500F	PB3900T
1000	1500	5000	PB31000	PB32500F	PB31000T
1200	2000	6000	PB31200	PB32500F	PB31200T
1400	2500	7000	PB31400	PB32500F	PB31400T
1600	3000	8000	PB31600	PB32500F	PB31600T
1800	3000	8000	PB31800	PB32500F	PB31800T
2000	3000	8000	PB32000	PB32500F	PB32000T
Approx. Ship. Wt.			155 Lbs.	108 Lbs.	23 Lbs.
2500	3000	8000	PB32500	PB32500F	PB32500T
Approx. Ship. Wt.			173 Lbs.	108 Lbs.	23 Lbs.



Rear Connected PB Breaker

Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Max. Volts	Amperes
240 AC	150,000 Asym., 125,000 Sym.
480 AC	115,000 Asym., 100,000 Sym.
600 AC	115,000 Asym., 100,000 Sym.
250 DC ^⑦	75,000 Amperes ^⑧

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Bus Bar Connections^⑤

"T" Connector

(For Cu/Al Bus)
Two required per pole. For rear bus connection of breakers thru 2000 Amps. accepts up to four bus bolts. May be rotated 90°.



Catalogue Number BA2000PB

"C" Connector

(For Cu/Al Bus)
Two required per pole. For rear bus connection of 2500 amp breakers.



Catalogue Number BA2500PB

Cable Connector

Fits "T" Connector and 2000 amp front connected breakers accepts four 250-600 MCM copper cables.



Style Number 505C706G04

Special Breakers^⑦ (See page 23 also)
Magnetic Only, Front Adjustable^⑧
Trip Unit Only

Continuous Ampere Rating	Magnetic Trip Range, Amperes ^④		2 Poles ^⑥	3 Poles
	Low	High	CATALOGUE NUMBER	
For Rear Connected Type PB Breakers				
2000	1500	5000	PB25000TM	PB35000TM
2000	2000	6000	PB26000TM	PB36000TM
2000	2500	7000	PB27000TM	PB37000TM
2000	3000	8000	PB28000TM	PB38000TM
2000	3500	10000	PB210000TM	PB310000TM
2000	4000	12000	PB212000TM	PB312000TM
2500	4000	12000	373D488G08	373D488G09
For Front Connected Type PBF Breakers				
2000	1500	5000	PBF25000TM	PBF35000TM
2000	2000	6000	PBF26000TM	PBF36000TM
2000	2500	7000	PBF27000TM	PBF37000TM
2000	3000	8000	PBF28000TM	PBF38000TM
2000	3500	10000	PBF210000TM	PBF310000TM
2000	4000	12000	PBF212000TM	PBF312000TM

Magnetic Only Breakers^⑦

For description, refer to AD 29-160. To order a complete breaker, select trip unit, plus frame and connectors.

Accessories and Modifications

Description: Pages 39 - 49

List Prices: See PAD (Price and Availability Digest)

Special Calibration^⑦

See Page 23.

Shaded gray areas denotes obsolete or discontinued products and services

- ① Higher frequency calibration not available. Minimum of 50 Hertz calibration available on special order.
- ② Available only on magnetic only breakers.
- ③ Higher magnetic trip settings are available as special calibration. Refer to magnetic only breakers for specific trip ranges.
- ④ Set on high side, adjustable to lower limits.
- ⑤ Shipped separately from breaker.
- ⑥ 2-pole breakers are supplied in 3-pole frames with current carrying parts omitted from center pole.
- ⑦ Not listed with CSA and Underwriters' Laboratories, Inc.
- ⑧ Frames, connectors, dimensions and shipping weights are same as thermal magnetic breakers.
- ⑨ Based on NEMA test procedure.

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Type PB 2500 Amperes (cont'd)

**Type PB Breakers, Continued
Type PBF Front Connected Breakers**

Continuous Ampere Rating at 40°C	Magnetic Trip Setting, Amperes (Set on High Side, Adjustable to Lower Limits)		Complete Breaker		Shipped As:	
			Includes Bus Bar Connectors ^①	Frame Only	Includes Bus Bar Connectors ^①	Trip Unit Only
	Low	High	CATALOGUE NUMBERS			
2-Pole, 600 Volts AC^②						
600	1500	5000	PBF2600	PBF2200F	PBF2600T	
700	1500	5000	PBF2700	PBF2200F	PBF2700T	
800	1500	5000	PBF2800	PBF2200F	PBF2800T	
900	1500	5000	PBF2900	PBF2200F	PBF2900T	
1000	1500	5000	PBF21000	PBF2200F	PBF21000T	
1200	2000	6000	PBF21200	PBF2200F	PBF21200T	
1400	2500	7000	PBF21400	PBF2200F	PBF21400T	
1600	3000	8000	PBF21600	PBF2200F	PBF21600T	
1800	3000	8000	PBF21800	PBF2200F	PBF21800T	
2000	3000	8000	PBF22000	PBF2200F	PBF22000T	
3-Pole, 600 Volts AC						
600	1500	5000	PBF3600	PBF3200F	PBF3600T	
700	1500	5000	PBF3700	PBF3200F	PBF3700T	
800	1500	5000	PBF3800	PBF3200F	PBF3800T	
900	1500	5000	PBF3900	PBF3200F	PBF3900T	
1000	1500	5000	PBF31000	PBF3200F	PBF31000T	
1200	2000	6000	PBF31200	PBF3200F	PBF31200T	
1400	2500	7000	PBF31400	PBF3200F	PBF31400T	
1600	3000	8000	PBF31600	PBF3200F	PBF31600T	
1800	3000	8000	PBF31800	PBF3200F	PBF31800T	
2000	3000	8000	PBF32000	PBF3200F	PBF32000T	



PBF Front Connected

Special Calibrations^③
Special calibration price additions apply to ampere ratings not listed as standard, or for ambients other than 40°C or 50°C. See AD 29-160 for information regarding special conditions.

List Prices: See PAD (Price and Availability Digest)

Type of Calibration	1-24 Identical Units	25 or More Identical Units
Thermal ^④	Add 15% to List Price of Trip Unit	None
Magnetic		None

50°C Calibration^{③④}
Add suffix "V" to catalogue number for complete breaker when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Shaded gray areas denotes obsolete or discontinued products and services

① Included with frame.
② 2-pole breakers supplied in 3-pole frames with current carrying parts omitted from center pole.
③ Not listed with CSA and Underwriters' Laboratories, Inc.
④ 50°C or higher calibration not available for 2500 ampere trip units.

Types LC, LCC, LCA, LCCA, MARK 75® Types HLC, HLCC, HLCA, HLCCA SELTRONIC™ Breakers
Types LCG, LCCG, LCGA, LCCGA, MARK 75® Types HLCG, HLCCG, HLCGA, HLCCGA SELTRONIC™ Breakers

Types LC, LCC, LCA, LCCA, MARK 75® Types HLC, HLCC, HLCA, HLCCA SELTRONIC™ Circuit Breakers With Solid State Trip Units

600 Volts AC, 50/60 Hz Complete Breaker Requires Frame, Rating Plug and Terminals. Suitable for reverse feed application.

Frame Only			
Poles ^①	Standard (Long Delay and Magnetic Trip)	Magnetic Only ^②	Long Delay, Magnetic Trip and Adjustable Short Delay Time
CATALOGUE NUMBERS			
Breakers for Standard Applications			
Types LC 150 and LCA 150 (75-150 Amps.)			
2	LC2150F	LC2150FM	LCA2150F
3	LC3150F	LC3150FM	LCA3150F
MARK 75® Types HLC 150 and HLCA 150 (75-150 Amps.)			
2	HLC2150F	HLC2150FM	HLCA2150F
3	HLC3150F	HLC3150FM	HLCA3150F
Types LC 300 and LCA 300 (150-300 Amps.)			
2	LC2300F	LC2300FM	LCA2300F
3	LC3300F	LC3300FM	LCA3300F
MARK 75® Types HLC 300 and HLCA 300 (150-300 Amps.)			
2	HLC2300F	HLC2300FM	HLCA2300F
3	HLC3300F	HLC3300FM	HLCA3300F
Types LC 400 and LCA 400 (200-400 Amps.)			
2	LC2400F	LC2400FM	LCA2400F
3	LC3400F	LC3400FM	LCA3400F
MARK 75® Types HLC 400 and HLCA 400 (200-400 Amps.)			
2	HLC2400F	HLC2400FM	HLCA2400F
3	HLC3400F	HLC3400FM	HLCA3400F
Types LC 600 and LCA 600 (300-600 Amps.)			
2	LC2600F	LC2600FM	LCA2600F
3	LC3600F	LC3600FM	LCA3600F
MARK 75® Types HLC 600 and HLCA 600 (300-600 Amps.)			
2	HLC2600F	HLC2600FM	HLCA2600F
3	HLC3600F	HLC3600FM	HLCA3600F
Type LC 600 Moulded Case Switch: Refer to Page 37			
Breakers for Applications at 100% Rating			
Types LCC 600 and LCCA 600 (300-600 Amps.)			
3	LCC3600F		LCCA3600F
MARK 75® Types HLCC 600 and HLCCA 600 (300-600 Amps.)			
3	HLCC3600F		HLCCA3600F

Field Mountable attachments^{③④⑤⑥}

Description	Style Number
Provision to trip flux transfer shunt trip from external source: 32 to 120 Volts (DC to 60 Hz) ^⑦	1371D11G22
240 to 600 Volts AC (50/60 Hz) ^⑧	1371D11G32
Provision to trip flux transfer shunt trip from external source, plus a 1A-1B auxiliary switch: 32 to 120 Volts (DC to 60 Hz) ^⑦	1371D11G15
240 to 600 Volts AC (50/60 Hz) ^⑧	1371D11G25
Provision to trip flux transfer shunt trip from 24 Volt DC source	1371D93G01
1A-1B Auxiliary Switch	1371D11G03



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings^⑨

Volts Max.	Amperes
Standard Breakers	
240 AC	50,000 Asym., 42,000 Sym.
480 AC	35,000 Asym., 30,000 Sym.
600 AC	25,000 Asym., 22,000 Sym.
MARK 75® Breakers	
240 AC	75,000 Asym., 65,000 Sym.
480 AC	40,000 Asym., 35,000 Sym.
600 AC	30,000 Asym., 25,000 Sym.

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Further Information

List Prices: See PAD (Price and Availability Digest)

Factory Mounted and Other Accessories and Modifications: Pages 39 - 49

Field Mountable attachments: This Page

Rating Plugs: Page 34

Portable Test Kit: Page 35

Terminals: Page 25

Shaded gray areas denotes obsolete or discontinued products and services

- ① 2-pole breakers are supplied in 3-pole frames with current carrying parts omitted from center pole.
- ② CSA and UL Inc. recognized component.
- ③ Only one attachment may be mounted per breaker.
- ④ For other possible combinations, refer to Cutler-Hammer.
- ⑤ Moulded case switches do not use standard SELTRONIC™ attachments, and should be ordered by description for factory mounting.
- ⑥ Does not void listing of CSA and UL listed breakers.
- ⑦ Rated 48 volts minimum for ground fault applications requiring tripping at 55% of voltage.
- ⑧ Not for use on ground fault applications.
- ⑨ Interrupting capacities shown do not apply to moulded case switches (MCS).

Types LC, LCC, LCA, LCCA, MARK 75® Types HLC, HLCC, HLCA, HLCCA SELTRONIC™ Breakers
Types LCG, LCCG, LCGA, LCCGA, MARK 75® HLCG, HLCCG, HLCGA, HLCCGA SELTRONIC™ Breakers

Types LCG, LCCG, LCGA, LCCGA, MARK 75® HLCG, HLCCG, HLCGA, HLCCGA SELTRONIC™ Breakers With Built-in Ground Fault Protection

Complete Breaker Requires Frame, Rating Plug, and Terminals, Extra Current Transformer Included for Neutral^{①②} See Accessories Page 35 for Indicator Kit. **Suitable for reverse feed application.**

Frame Only			Ground Fault Characteristics	
Poles ^③	Standard (Long Delay, Magnetic Trip) and Ground Fault Trip	Long Delay, Magnetic Trip, Adjustable Short Delay Time and Ground Fault Trip	Pick-up Setting Amps	Time Setting
CATALOGUE NUMBERS				
Breakers for Standard Application				
Types LCG 150 and LCGA 150 (75-150 Amps.)^④				
3	LCG3150F	LCGA3150F	50-150	3.5-30 Cy
MARK 75® Types HLCG 150 and HLCGA 150 (75-150 Amps.)^④				
3	HLCG3150F	HLCGA3150F	50-150	3.5-30 Cy
Types LCG 300 and LCGA 300 (150-300 Amps.)^④				
3	LCG3300F	LCGA3300F	60-300	3.5-30 Cy
MARK 75® Types HLCG 300 and HLCGA 300 (150-300 Amps.)^④				
3	HLCG3300F	HLCGA3300F	60-300	3.5-30 Cy
Types LCG 400 and LCGA 400 (200-400 Amps.)^④				
3	LCG3400F	LCGA3400F	80-400	3.5-30 Cy
MARK 75® Types HLCG 400 and HLCGA 400 (200-400 Amps.)^④				
3	HLCG3400F	HLCGA3400F	80-400	3.5-30 Cy
Types LCG 600 and LCGA 600 (300-600 Amps.)^④				
3	LCG3600F	LCGA3600F	120-600	3.5-30 Cy
MARK 75® Types HLCG 600 and HLCGA 600 (300-600 Amps.)^④				
3	HLCG3600F	HLCGA3600F	120-600	3.5-30 Cy
Breakers for Application at 100% Rating				
Types LCCG 600 and LCCGA 600 (300-600 Amps.)^④				
3	LCCG3600F	LCCGA3600F	120-600	3.5-30 Cy
MARK 75® Types HLCCG 600 and HLCCGA 600 (300-600 Amps.)^④				
3	HLCCG3600F	HLCCGA3600F	120-600	3.5-30 Cy

Terminals (Order Separately)
Two terminals are required per pole. Terminals are CSA and UL Inc. listed for wire type and range listed below. When used with aluminum cable, use joint compound.

Max. Amps.	Terminal Cat. No.	Wire Range, type No. of Cables
150, 300, and 400 Amp Frames Only		
Al/Cu Pressure Terminals		
225	TA225LA1	(1) #6-350 MCM Cu, or (1) #4-350 MCM Al
400	TA400LA1	(1) #4-250 MCM Al/Cu, plus (1) 3/0-600 MCM Al/Cu
Copper Pressure Terminals		
225	T225LA	(1) #6-350 MCM Cu
225	T225LBF	(1) #6-250 MCM Cu
400	T401LA	(1) #4-250 MCM Cu, plus (1) 3/0-600 MCM Cu
600 Amp Frame Only		
Al/Cu Pressure Terminals		
500	TA602LD ^⑤	(2) 250-350 MCM Al/Cu
600	TA603LA ^⑤	(2) 400-500 MCM Al/Cu
600	TA600LA ^⑤	(2) 250-500 MCM Al/Cu
Copper Pressure Terminals		
600	T600LA	(2) 250-500 MCM Cu

Further Information
List Prices: See PAD (Price and Availability Digest)

Factory Mounted and Other Accessories and Modifications: Pages 39 - 49

Field Mountable attachments: Page 24

Rating Plugs: Page 34

Portable Test Kit: Page 35

Remote Ground Fault Trip Indicator: Pg 35

Shaded gray areas denotes obsolete or discontinued products and services

^① Available without extra C.T. for neutral. Order by description as similar to above except without neutral C.T. or external C.T. terminal connections. (Same price). Note the standard ground fault unit above can also be used without the neutral C.T.

^② These breakers use LC terminals. The fourth C.T. uses MC breaker terminals, page 28.

^③ 2-pole breakers supplied in 3-pole frames with current carrying parts omitted from center pole.

^④ For applications other than standard residual scheme, see AD 29-160.

^⑤ Type Al9Cu aluminum terminal.

Types LCY, LCYA, LCYG and LCYGA, 240 Volts AC, 3-Pole 300-600 Amperes SELTRONIC™ Breakers

Types LCY and LCYA SELTRONIC™ Circuit Breakers with Solid State Trip Units.

240 Volts AC, 50/60 Hz Complete Breaker Requires Frame, Rating Plug and Terminals. Suitable for reverse feed application.

Frame Only		
Poles	Standard (Long Delay and Magnetic Trip)	Long Delay, Magnetic Trip and Adjustable Short Delay Time
CATALOGUE NUMBERS		
Types LCY and LCYA (300-600 Amperes)		
3	LCY3600F	LCYA3600F

Types LCYG and LCYGA SELTRONIC™ Breakers with Built-in Ground Fault Protection

Complete Breaker Requires Frame, Rating Plug, and Terminals, Extra Current Transformer Included for Neutral^{①②} See Accessories Page 35 for Indicator Kit. Suitable for reverse feed application.

Frame Only			Ground Fault Characteristics	
Poles	Standard (Long Delay, Magnetic Trip) and Ground Fault Trip	Long Delay, Magnetic Trip, Adjustable Short Delay Time and Ground Fault Trip	Pick-up Setting Amps	Time Setting
CATALOGUE NUMBERS				
Types LCYG, LCYGA (300-600 Amperes)				
3	LCYG3600F	LCYGA3600F	120-600	3.5-30 Cy

Terminals (Order Separately)

Two terminals are required per pole. Terminals are UL Inc. listed for wire type and range listed at right. When used with aluminum cable, use joint compound.

Max. Amps.	Terminal Cat. Number	Wire Range, Type No. of Cables
Standard Al/Cu Pressure Terminals		
500 ^③	TA602LD ^④	(2) 250-350 MCM Al/Cu
600 ^③	TA603LA ^④	(2) 400-500 MCM Al/Cu
600 ^③	TA600LA ^④	(2) 250-500 MCM Al/Cu
Optional Copper Pressure Terminals		
600 ^③	T600LA	(2) 250-500 MCM Cu



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

Type LCY breakers are not defined by Federal Specification W-C-375b.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Volts Max.	Amperes
240 AC	115,000 Asym., 100,000 Sym.

On all 3 phase Delta, Grounded B phase applications, refer to Cutler-Hammer.

Further Information

List Prices: See PAD (Price and Availability Digest)

Factory Mounted and Other Accessories and Modifications: Pages 39 - 49

Field Mountable Attachments: This Page

Rating Plugs: Page 34

Portable Test Kit: Page 35

Field Mountable attachments^{⑤⑥⑦}

Description	Style Number
Provision to trip flux transfer shunt trip from external source:	
32 to 120 Volts (DC to 60 Hz) ^⑧	1371D11G22
240 to 600 Volts AC (50/60 Hz) ^⑨	1371D11G32
Provision to trip flux transfer shunt trip from external source, plus a 1A-1B Auxiliary Switch:	
32 to 120 Volts (DC to 60 Hz) ^⑧	1371D11G15
240 to 600 Volts AC (50/60 Hz) ^⑨	1371D11G25
Provision to trip flux transfer shunt trip from 24-Volt DC source	1371D93G01
1A-1B Auxiliary Switch	1371D11G03

Shaded gray areas denotes obsolete or discontinued products and services

- ① Available without extra C.T. for neutral. Order by description as similar to above except without neutral C.T. or external C.T. terminal connections (Same Price). Note the standard ground fault unit above can also be used without the neutral C.T.
- ② These breakers use LC terminals. The fourth C.T. uses MC breaker terminals.
- ③ For 600 amp frame breakers only.
- ④ Type Al9Cu aluminum terminal.
- ⑤ Only one attachment may be mounted per breaker.
- ⑥ For other possible combinations, refer to Cutler-Hammer.
- ⑦ Does not void listing of UL listed breakers.
- ⑧ Rated 48 volts minimum for ground fault applications requiring tripping at 55% of voltage.
- ⑨ Not for use on ground fault applications.

Types MC, MCC, MCA, MCCA, MCG, MCGG, MCGA, MCCGA and MARK 75® Types HMC, HMCC, HMCCA, HMCA, HMCG, HMCCG, HMCGA, HMCCGA 800 Ampere SELTRONIC™ Breakers

Types MC, MCC, MCA, MCCA, MARK 75® Types HMC, HMCC, HMCA, HMCCA SELTRONIC™ Circuit Breakers with Solid State Trip Units

600 Volts AC, 50/60 Hz Complete Breaker Requires Frame, Rating Plug, and Terminals, Suitable for reverse feed application.

Frame Only			
Poles ^①	Standard (Long Delay and Magnetic Trip)	Magnetic Only ^②	Long Delay, Magnetic Trip and Adjustable Short Delay Time
CATALOGUE NUMBERS			
Breakers for Standard Application			
Types MC and MCA 400 to 800 Amps.			
2	MC2800F	MC2800FM	MCA2800F
3	MC3800F	MC3800FM	MCA3800F
MARK 75® Types HMC and HMCA 400 to 800 Amps.			
2	HMC2800F	HMC2800FM	HMCA2800F
3	HMC3800F	HMC3800FM	HMCA3800F
Type MC800 Moulded Case Switch: Refer to Page 37			
Breakers for Application at 100% Rating			
Types MCC and MCCA 400 to 800 Amps.			
3	MCC3800F		MCCA3800F
MARK 75® Types HMCC and HMCCA 400 to 800 Amps.			
3	HMCC3800F		HMCCA3800F

Types MCG, MCGG, MCGA, MCCGA and MARK 75® Types HMCG, HMCCG, HMCGA, HMCCGA SELTRONIC™ Circuit Breakers With Built-in Ground Fault Protection

Complete Breaker Requires Frame, Rating Plug and Terminals – Extra Current Transformer Included for Neutral^{③④} See Page 35 For Optional Indicator Kit

Frame Only			Ground Fault Characteristics	
Poles	Standard (Long Delay, Magnetic and Ground Fault Trip)	Long Delay, Magnetic Trip, Adjustable Short Delay Time and Ground Fault Trip	Pick-up Setting Amps	Time Setting
CATALOGUE NUMBERS				
Breakers for Standard Applications				
Types MCG and MCGA 400 to 800 Amps. ^⑤				
3	MCG3800F	MCGA3800F	80-800	3.5-30 Cy
MARK 75® Types HMCG and HMCGA 400 to 800 Amps. ^⑤				
3	HMCG3800F	HMCGA3800F	80-800	3.5-30 Cy
Breakers for Applications at 100% Rating				
Types MCCG and MCCGA 400 to 800 Amps. ^⑤				
3	MCCG3800F	MCCGA3800F	80-800	3.5-30 Cy
MARK 75® Types HMCCG and HMCCGA 400 to 800 Amps. ^⑤				
3	HMCCG3800F	HMCCGA3800F	80-800	3.5-30 Cy



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and UL Listed Interrupting Capacity, RMS Symmetrical Amperes^⑥

Breaker	AC Volts		
	240	480	600
MC, MCG	42000	30000	22000
HMC, HMCG	65000	50000	25000

Further Information

List Prices: See PAD (Price and Availability Digest)

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Field Mountable Attachments: Page 28

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Portable Test Kit: Page 35

Remote Ground Fault Trip Indicator: Pg 35

Shaded gray areas denotes obsolete or discontinued products and services

① Two pole breakers are supplied in 3-pole frames with current-carrying parts omitted from center pole.

② CSA and UL Inc. recognized component.

③ Available without extra C.T. for neutral. Order by description as similar to above except without neutral C.T. or external C.T. Terminal connections. (Same Price) Note: the standard ground fault unit above can also be used without the neutral C.T.

④ Order two of the desired terminals for each pole of the breaker and two for the neutral C.T.

⑤ For applications other than standard residual scheme, see AD 29-160.

⑥ Interrupting capacities shown do not apply to moulded case switches (MCS).

Types MC, MCC, MCA, MCCA, MCG, MCCG, MCGA, MCCGA and MARK 75® Types HMC, HMCC, HMCA, HMCCA, HMCG, HMCCG, HMCGA, HMCCGA 800 Ampere SELTRONIC™ Breakers

Field Mountable Attachments^{①②③④}

Description	Style Number
Provision to trip flux transfer shunt trip from external source: 32 to 120 Volts (DC to 60 Hz) ^⑤	1371D72G22
240 to 600 Volts AC 50/60 Hz ^⑥	1371D72G32
Provision to trip flux transfer shunt trip from external source, plus 1A-1B Auxiliary Switch: 32 to 120 Volts (DC to 60 Hz) ^⑤	1371D72G15
240 to 600 Volts AC (50/60 Hz) ^⑥	1371D72G25
Provision to trip flux transfer shunt trip from external 24-Volt DC source	1370D85G01
1A-1B Auxiliary Switch	1371D72G03

Terminals (Two Required per Pole)^⑦

Max. Amps.	Terminal Cat. No.	No., Size of Cable
Al/Cu Pressure Terminals		
600	TA700MA1 ^⑧	(2) #1-500 MCM
800	TA800MA2 ^⑧	(3) 3/0-400 MCM
800	TA801MA ^⑧	(2) 500-750 MCM
Copper Only Pressure Terminals		
600	T600MA1	(2) 2/0-500 MCM
800	T800MA1	(3) 3/0-300 MCM

① Does not void listing of CSA and UL listed breakers.

② Only one of the attachments may be mounted per breaker.

③ For other possible combinations, refer to Cutler-Hammer.

④ Moulded case switches do not use standard SELTRONIC™ attachments and should be ordered by description.

⑤ Rated 48 volts minimum for ground fault applications requiring tripping at 55% of voltage.

⑥ Not for Ground Fault Applications.

⑦ Also used on breakers with ground fault and on separately mounted neutral current transformers.

⑧ Type Al9Cu aluminum terminal.

Types MCY and MCYA SELTRONIC™ Circuit Breakers with Solid State Trip Units

240 Volts AC, 50/60 Hz Complete Breaker Requires Frame, Rating Plug and Terminals. Suitable for reverse feed application.

Frame Only		
Poles	Standard (Long Delay and Magnetic Trip)	Long Delay, Magnetic Trip and Adjustable Short Delay Time
CATALOGUE NUMBERS		
Types MCY and MCYA (400-800 Amperes)		
3	MCY3800F	MCYA3800F

Types MCFG and MCGA SELTRONIC™ Circuit Breakers with Built-in Ground Fault Protection

Complete Breaker Requires Frame, Rating Plug, and Terminals – Extra Current Transformer Included for Neutral①② See Page 35 for Indicator Kit. Suitable for reverse feed application.

Frame Only			Ground Fault Characteristics	
Poles	Standard (Long Delay, Magnetic and Ground Fault Trip)	Long Delay, Magnetic Trip, Adjustable Short Delay Time and Ground Fault Trip	Pick-up Setting Amps	Time Setting
CATALOGUE NUMBERS				
Types MCFG and MCGA (400-800 Amperes)③				
3	MCFG3800F	MCGA3800F	80-800	3.5-30 Cy

Terminals (Two Required per Pole)④

Max. Amps.	Terminal Cat. No.	No., Size of Cable, Type
Al/Cu Pressure Terminals		
600	TA700MA1⑤	(2) #1-500 MCM Al/Cu
800	TA800MA2⑤	(3) 3/0-400 MCM Al/Cu
800	TA801MA⑤	(2) 500-750 MCM Al/Cu
Copper Only Pressure Terminals		
600	T600MA1	(2) 2/0-500 MCM Cu
800	T800MA1	(3) 3/0-300 MCM Cu

Field Mountable attachments⑥⑦⑧

Description	Style Number
Provision to trip flux transfer shunt trip from external source:	
32 to 120 Volts (DC to 60 Hz)⑨	1371D72G22
240 to 600 Volts AC (50/60 Hz)⑩	1371D72G32
Provision to trip flux transfer shunt trip from external source, plus 1A-1B Auxiliary Switch:	
32 to 120 Volts (DC to 60 Hz)⑨	1371D72G15
240 to 600 Volts AC (50/60 Hz)⑩	1371D72G25
Provision to trip flux transfer shunt trip from external 24-Volt DC source	1370D85G01
1A-1B Auxiliary Switch	1371D72G03



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

Type MCY breakers are not defined by Federal Specification W-C-375b.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Max. Volts	Amperes
240 AC	115,000 Asym., 100,000 Sym.

Further Information

List Prices: See PAD (Price and Availability Digest)

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Portable Test Kit: Page 35

Remote Ground Fault Trip Indicator: Pg 35

Shaded gray areas denotes obsolete or discontinued products and services

- ① Available without extra C.T. for neutral. Order by description as similar to above except without neutral C.T. or external C.T. Terminal connections. (Same Price) Note: the standard ground fault unit above can also be used without the neutral C.T.
- ② Order two of the desired terminals for each pole of the breaker and two for the neutral C.T.
- ③ For applications other than standard residual scheme, see AD 29-160.
- ④ Also used on breakers with ground fault and on separately mounted neutral current transformers.
- ⑤ Type Al9Cu aluminum terminal.
- ⑥ Does not void listing of CSA and UL listed breakers.
- ⑦ Only one of the attachments may be mounted per breaker.
- ⑧ For other possible combinations, refer to Cutler-Hammer.
- ⑨ Rated 48 volts minimum for ground fault applications requiring tripping at 55% of voltage.
- ⑩ Not for ground fault applications.

Type NC, NCA, NCG, NCGA and MARK 75® Type HNC, HNCA, HNCG, HNCGA 1200 Ampere SELTRONIC™ Breakers

Types NC, NCA, MARK 75® Type HNC, HNCA SELTRONIC™ Circuit Breakers with Solid State Trip Units

600 Volts AC, 50/60 Hz Complete Breaker Requires Frame, Rating Plug, and Terminals. Suitable for reverse feed application.

Frame Only			
Poles ①	Standard (Long Delay and Magnetic Trip)	Magnetic Only②	Long Delay, Magnetic Trip and Adjustable Short Delay Time
CATALOGUE NUMBERS			
Types NC and NCA 800 to 1200 Amps			
2	NC21200F	NC21200FM	NCA21200F
3	NC31200F	NC31200FM	NCA31200F
Mark 75 Types HNC and HNCA 800 to 1200 Amps			
2	HNC21200F	HNC21200FM	HNCA21200F
3	HNC31200F	HNC31200FM	HNCA31200F
Type NC 1200 Moulded Case Switch: Refer to Page 37			

Types NCG, NCGA, and MARK 75® Type HNCG, HNCGA SELTRONIC™ Circuit Breakers with Built-in Ground Fault Protection

Complete Breaker Requires Frame, Rating Plug and Terminals – Extra Current Transformer Included for Neutral③④ See Page 35 for Optional Indicator Kit. Suitable for reverse feed application.

Frame Only		Ground Fault Characteristics		
Poles	Standard (Long Delay, Magnetic and Ground Fault Trip)	Long Delay, Magnetic Trip, Adjustable Short Delay Time, and Ground Fault Trip	Pick-up Setting Amps	Time Setting
CATALOGUE NUMBERS				
Types NCG and NCGA 800 to 1200 Amperes⑤				
3	NCG31200F	NCGA31200F	120-1200	3.5-30 Cy
Mark 75 Types HNCG and HNCGA 800 to 1200 Amperes⑤				
3	HNCG31200F	HNCGA31200F	120-1200	3.5-30 Cy

Field Mountable attachments⑥⑦⑧⑨

Description	Style Number
Provision to trip flux transfer shunt trip from external source: 32 to 120 Volts (DC to 60 Hz)⑩	1372D39G13
240 to 600 Volts AC (50/60 Hz)⑪	1372D39G23
Provision to trip flux transfer shunt trip from external source, plus a 1A-1B auxiliary switch: 32 to 120 Volts (DC to 60 Hz)⑩	1372D39G16
240 to 600 Volts AC (50/60 Hz)⑪	1372D39G26
Provision to trip flux transfer shunt trip from external 24-volt DC source	1372D94G05
1A-1B Auxiliary Switch	1372D39G03



Listed with CSA and Underwriter's Laboratories, Inc. except as noted.

CSA and UL Listed Interrupting Capacity, RMS Symmetrical Amperes⑫

Breaker	AC Volts		
	240	480	500
NC, NCG	42000	30000	22000
HNC, HNCG	65000	50000	25000

Terminals (Two Required per Pole)⑬

Max. Amps	Terminal Cat. No.	No., Size of Cable
Al/Cu Pressure Terminals		
1000	TA1000NB1⑭	(3) 3/0-400MCM
1200	TA1200NB1⑭	(4) 4/0-500MCM
1200	TA1201NB1⑭	(3) 500-750MCM
Copper Only Pressure Terminals		
1000	T1000NB1	(3) 3/0-500MCM
1200	T1200NB1	(4) 3/0-400MCM

Further Information

List Prices: See PAD (Price and Availability Digest)

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Portable Test Kit: Page 35

Remote Ground Fault Trip Indicator: Pg. 35

Shaded gray areas denotes obsolete or discontinued products and services

- ① 2-pole breakers are supplied in 3-pole frames with current-carrying parts omitted from center pole.
- ② CSA and UL Inc. recognized component.
- ③ Available without extra C.T. for neutral. Order by description as similar to above except without neutral C.T. or external C.T. Terminal connections. (Same Price) Note: the standard ground fault unit above can also be used without the neutral C.T.
- ④ Order two of the desired terminals for each pole of the breaker and two for the neutral C.T.
- ⑤ For applications other than standard residual scheme, see AD 29-160.
- ⑥ For other possible combinations, refer to Cutler-Hammer.
- ⑦ Moulded case switches do not use standard SELTRONIC™ attachments and should be ordered by description.
- ⑧ Does not void listing of CSA and UL listed breakers.
- ⑨ Only one of the attachments may be mounted per breaker.
- ⑩ Rated 48 volts minimum for ground fault applications requiring tripping at 55% of voltage.
- ⑪ Not for ground fault applications.
- ⑫ Also used on breakers with ground fault and on separately mounted neutral current transformers.
- ⑬ Type Al9Cu aluminum terminal.
- ⑭ Type Al7Cu aluminum terminal.
- ⑮ Interrupting capacities shown do not apply to moulded case switches (MCS).

Types NCY and NCYA SELTRONIC™ Circuit Breakers with Solid State Trip Units Suitable for reverse feed application

Frame Only		
Poles	Standard (Long Delay and Magnetic Trip)	Long Delay, Magnetic Trip and Adjustable Short Delay Time
CATALOGUE NUMBERS		
Types NCY and NCYA 800 to 1200 Amperes		
3	NCY31200F	NCYA31200F

Type NCYG, NCYGA SELTRONIC™ Breakers with Built-in Ground Fault Protection
Complete Breaker Requires Frame, Rating Plug, and Terminals – Extra Current Transformer Included for Neutral ①② See Page 35 for Optional Indicator Kit

Frame Only			Ground Fault Characteristics	
Poles	Standard (Long Delay, Magnetic Trip) and Ground Fault Trip	Long Delay, Magnetic Trip, Adjustable Short Delay Time and Ground Fault Trip	Pick-up Setting (Amps)	Time Setting
CATALOGUE NUMBERS				
Types NCYG and NCYGA 800 to 1200 Amperes③				
3	NCYG31200F	NCYGA31200F	120-1200	3.5-30 Cy

Terminals (Two Required per Pole)④

Max. Amps	Terminal Cat. No.	No., Size of Cable, Type
Al/Cu Pressure Terminals		
1000	TA1000NB1⑤	(3) 3/0-400 MCM Al/Cu
1200	TA1200NB1⑤	(4) 4/0-500 MCM Al/Cu
1200	TA1201NB1⑥	(3) 500-750 MCM Al/Cu
Copper Only Pressure Terminals		
1000	T1000NB1	(3) 3/0-500 MCM Cu
1200	T1200NB1	(4) 3/0-400 MCM Cu

Field Mountable Attachments⑦⑧⑨

Description	Style Number
Provision to trip flux transfer shunt trip from external source: 32 to 120 Volts (DC to 60 Hz)⑩	1372D39G13
240 to 600 Volts AC (50/60 Hz)⑩	1372D39G23
Provision to trip flux transfer shunt trip from external source, plus a 1A-1B Auxiliary Switch: 32 to 120 Volts (DC to 60 Hz)⑩	1372D39G16
240 to 600 Volts AC (50/60 Hz)⑩	1372D39G26
Provision to trip flux transfer shunt trip from external 24-volt DC source 1A-1B Auxiliary Switch	1371D94G05 1372D39G03



Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

Type NCY breakers are not defined by Federal Specification W-C-375b.

CSA and Underwriters' Laboratories, Inc. Listed Interrupting Ratings

Volts Max.	Amperes
240 AC	115,000 Asym., 100,000 Sym.

Further Information
List Prices: See PAD (Price and Availability Digest)

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Remote Ground Fault Trip Indicator: Pg. 35

Shaded gray areas denotes obsolete or discontinued products and services

- ① Available without extra C.T. for neutral. Order by description as similar to above except without neutral C.T. or external C.T. Terminal connections. (Same Price)
Note: the standard ground fault unit above can also be used without the neutral C.T.
- ② Order two of the desired terminals for each pole of the breaker and two for the neutral C.T.
- ③ For applications other than standard residual scheme, see AD 29-160.
- ④ Also used on breakers with ground fault and on separately mounted neutral current transformers.
- ⑤ Type Al9Cu aluminum terminal.
- ⑥ Type Al7Cu aluminum terminal.
- ⑦ Does not void listing of CSA and UL listed breakers.
- ⑧ Only one of the attachments may be mounted per breaker.
- ⑨ For other possible combinations, refer to Cutler-Hammer.
- ⑩ Rated 48 volts minimum for ground fault applications requiring tripping at 55% of voltage.
- ⑪ Not for ground fault applications.

Types PC, PCA, PCC, PCCA 2000, 2500 and 3000 Amperes SELTRONIC™ Breakers

Types PC, PCA, PCC, PCCA 2000, 2500 and 3000 Ampere SELTRONIC™ Circuit Breakers With Solid State Trip Units, 600 Volts AC, 50/60 Hz Complete Breaker Requires Frame, Rating Plug and Rear Connectors (connectors are included in 3000 Amp and all front connected frames.) Suitable for reverse feed application.

Breakers for Standard Applications				Breakers for Standard Applications at 100% Rating			
Frame Only				Frame Only			
Poles ^①	Standard (Long Delay and Magnetic Trip)	Magnetic Only ^②	Long Delay, Magnetic Trip, and Adjustable Short Delay Time	Poles ^①	Standard (Long Delay and Magnetic Trip)	Magnetic Only ^②	Long Delay, Magnetic Trip, and Adjustable Short Delay Time
CATALOGUE NUMBERS				CATALOGUE NUMBERS			
Type PC 2000, 1000 to 2000 Amps^③		Type PCA 2000^③		Type PCC 2000, 1000 to 2000 Amps^④		Type PCCA 2000^④	
Rear Connected Breakers				Rear Connected Breakers			
2	PC22000F	PC22000FM	PCA22000F	2	PCC22000F	PCC22000FM	PCCA22000F
3	PC32000F	PC32000FM	PCA32000F	3	PCC32000F	PCC32000FM	PCCA32000F
Front Connected Breakers				Front Connected Breakers			
2	PCF22000F	PCF22000FM	PCFA22000F	2	PCCF22000F	PCCF22000FM	PCCFA22000F
3	PCF32000F	PCF32000FM	PCFA32000F	3	PCCF32000F	PCCF32000FM	PCCFA32000F
Type PC 2500, 1400 to 2500 Amps^③		Type PCA 2500^③		Type PCC 2500, 1400 to 2500 Amps^④		Type PCCA 2500^④	
Rear Connected Breakers				Rear Connected Breakers			
2	PC22500F	PC22500FM	PCA22500F	2	PCC22500F	PCC22500FM	PCCA22500F
3	PC32500F	PC32500FM	PCA32500F	3	PCC32500F	PCC32500FM	PCCA32500F
Front Connected Breakers				Front Connected Breakers			
2	PCF22500F	PCF22500FM	PCFA22500F	2	PCCF22500F	PCCF22500FM	PCCFA22500F
3	PCF32500F	PCF32500FM	PCFA32500F	3	PCCF32500F	PCCF32500FM	PCCFA32500F
Type PC 3000, 1600 to 3000 Amps^③		Type PCA 3000^③		Type PCC 3000, 1600 to 3000 Amps^④		Type PCCA 3000^④	
2	PC23000F	PC23000FM	PCA23000F	2	PCC23000F	PCC23000FM	PCCA23000F
3	PC33000F	PC33000FM	PCA33000F	3	PCC33000F	PCC33000FM	PCCA33000F

Types PC, PCC Moulded Case Switches: Refer to Page 37

Drawout Mounting Breakers, 3-Pole Only
Breaker frame and complete drawout frame with safety tripping interlock. Order by description. Secondary contacts supplied as required at no extra charge. Order required rating plug separately. Refer to page 49.

Stationary Portion of Drawout Frame Only for Future Breaker Installations, 3-Pole Only. Refer to page 49.

Special Type PCC Breakers for SCR Power Supplies

These drawout mounting breakers are designed with a 2 to 4 times magnetic trip adjustment and special time delay trip characteristics to provide maximum protection and coordination with SCR power supplies on offshore drilling rigs. Suitable for application at 100% of rating.

Order by description. Secondary contacts supplied as required. Order standard rating plugs separately.

Availability: PCC2000, PCC2500 Drawout-Mounting breakers. See page 49.

Listed with CSA and Underwriters' Laboratories, Inc. except as noted.

CSA and UL Listed Interrupting Capacity RMS Symmetrical Amperes (Std. and Grd. Flt. Breakers)^⑤

Breaker	AC Volts		
	240	480	600
PC, PCC	125,000	100,000	100,000



Further Information
List Prices: See PAD (Price and Availability Digest)

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Portable Test Kit: Page 35

Shaded gray areas denotes obsolete or discontinued products and services

① 2-pole breakers are supplied in 3-pole frames with current carrying parts omitted from center pole.
 ② CSA and UL Inc. recognized component.
 ③ CSA and UL listed for standard applications.
 ④ These breakers are CSA and UL Listed for application at 100% of rating per NEC exceptions when used in a properly ventilated and listed enclosure.
 ⑤ Interrupting capacities shown do not apply to moulded case switches (MCS).

Types PCG, PCGA, PCCG, PCCGA SELTRONIC™ Breakers With Built-in Ground Fault Protection Includes Extra Current Transformer for Neutral^① (Optional Indicator Kit Page 35)

Breakers for Standard Application

Complete Breaker Requires Frame, Rating Plug and Rear Connectors (except Front Connected Frames and 3000 Amp Frames Include Connectors)

Frames Only			Ground Fault Characteristics	
Poles	Standard (Long Delay, Magnetic and Ground Fault Trip)	Long Delay, Magnetic, Ground Fault Trip, and Adjustable Short Delay Time	Pick-up Setting	Time Setting
CATALOGUE NUMBERS				
Type PCG 2000^{②③}		Type PCGA 2000^{②③} 1000 to 2000 Amps^③		
Rear Connected Breakers				
3	PCG32000F	PCGA32000F	200-1200	3.5-30 Cy
Front Connected Breakers				
3	PCFG32000F	PCFGA32000F	200-1200	3.5-30 Cy
Type PCG 2500^{②③}		Type PCGA 2500^{②③} 1400 to 2500 Amps^③		
Rear Connected Breakers				
3	PCG32500F	PCGA32500F	240-1200	3.5-30 Cy
Front Connected Breakers				
3	PCFG32500F	PCFGA32500F	240-1200	3.5-30 Cy
Type PCG 3000^{②③}		Type PCGA 3000^{②③} 1600 to 3000 Amps^③		
3	PCG33000F	PCGA33000F	300-1200	3.5-30 Cy

Breakers for Application at 100% Rating

Frames Only			Ground Fault Characteristics	
Poles	Standard (Long Delay, Magnetic and Ground Fault Trip)	Long Delay, Magnetic, Ground Fault Trip, and Adjustable Short Delay Time	Pick-up Setting	Time Setting
CATALOGUE NUMBERS				
Type PCCG 2000^④		Type PCCGA 2000^④ 1000 to 2000 Amps^③		
Rear Connected Breakers				
3	PCCG32000F	PCCGA32000F	200-1200	3.5-30 Cy
Front Connected Breakers				
3	PCCFG32000F	PCCFGA32000F	200-1200	3.5-30 Cy
Type PCCG 2500^④		Type PCCGA 2500^④ 1400 to 2500 Amps^③		
Rear Connected Breakers				
3	PCCG32500F	PCCGA32500F	240-1200	3.5-30 Cy
Front Connected Breakers				
3	PCCFG32500F	PCCFGA32500F	240-1200	3.5-30 Cy
Type PCCG 3000^④		Type PCCGA 3000^④ 1600 to 3000 Amps^③		
3	PCCG33000F	PCCGA33000F	300-1200	3.5-30 Cy

Field Mountable Attachments^{⑤⑥⑦}

Description	Style Number
Provision to trip flux transfer shunt trip from external source: 32 to 120 Volts (DC to 60 Hz) ^⑧ 240 to 600 Volts AC (50/60 Hz) ^⑨	1372D35G22 1372D35G32
Provision to trip flux transfer shunt trip from external source plus 1A-1B Auxiliary Switch: 32 to 120 Volts (DC to 60 Hz) ^⑧ 240 to 600 Volts AC (50/60 Hz) ^⑨	1372D35G15 1372D35G25
Provision to trip flux transfer shunt trip from external 24-volt DC source 1A-1B Auxiliary Switch	1371D95G01 1372D35G03

Modifications and Accessories

**Bus Bar Connections^⑩
"T" Connector
(For Cu/Al Bus)**

Two required per pole. For rear bus connection of breakers through 2000 Amps. Accepts up to four bus bolts. May be rotated 90°.



Catalogue Number BA2000PB

**"C" Connector
(For Cu/Al Bus)**

Two required per pole. For rear bus connection of breakers through 2500 amps.



Catalogue Number BA2500PB

Cable Connector
Fits "T" Connector and 2000 amp front connected breakers. Accepts four 250-600 MCM copper cables.



Style Number 505C706G04

Racking Crank for Drawout Frames
To engage or withdraw the moving portion of the drawout. A standard 1/2 inch hex socket with extension can be used for this purpose.

Style No. 765A767G01.

Cell Switches Mounted on Drawout Frames, All Ratings
A maximum of four switches can be provided. Order by description. Each switch provides a NO and NC contact that transfers before reaching the test position when being withdrawn, and after the test position when being racked in.

Further Information
List Prices: See PAD (Price and Availability Digest)

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Portable Test Kit: Page 35

Remote Ground Fault Trip Indicator: Pg 35

Shaded gray areas denotes obsolete or discontinued products and services

^① Available without external C.T. for neutral. Order by description and specify similar to above except no neutral C.T. or terminal connections for neutral C.T. (Same Price) Note: the standard ground fault unit listed above can also be used without the neutral C.T.

^② CSA and UL listed for standard applications.

^③ For application other than standard residual schemes, refer to AD 29-160.

^④ These breakers are UL listed for application at 100% of rating per NEC exceptions when used in a properly ventilated and listed enclosure.

^⑤ For other possible combinations, refer to Cutler-Hammer.

^⑥ Does not void listing of CSA and UL Listed Breakers.

^⑦ Only one of these attachments may be mounted per breaker.

^⑧ Rated 48 volts minimum for Ground Fault applications.

^⑨ Not for ground fault applications.

^⑩ Shipped separately from breaker.

Rating Plugs for SELTRONIC™ Breakers

Rating Plug Selection Data

Rating Plugs Listed Below Are For Both Standard Breakers and Breakers with Built-in Ground Fault Protection

Rating Plugs Only (For 2 or 3-Pole Frames)				
Continuous Ampere Rating ^①	Magnetic Trip Setting, Amperes		Fixed Rating Plugs	Adjustable Rating Plugs ^{②③}
	Low	High			CATALOGUE NUMBER
For 150 Amp. Frames: LC, LCA, LCG, LCGA, HLC, HLCA, HLCG, HLCGA				
75	225	750	1LC75	.....
90	270	900	1LC90	.....
100	300	1000	1LC100	A1LC100 ^④
125	375	1250	1LC125	A1LC125
150	450	1500	1LC150	A1LC150 ^⑤
For 300 Amp. Frames: LC, LCA, LCG, LCGA, HLC, HLCA, HLCG, HLCGA				
150	450	1500	3LC150	.....
175	525	1750	3LC175	.....
200	600	2000	3LC200	.....
225	675	2250	3LC225	A3LC225
250	750	2500	3LC250	A3LC250
275	825	2750	3LC275	A3LC275
300	900	3000	3LC300	A3LC300 ^⑤
For 400 Amp. Frames: LC, LCA, LCG, LCGA, HLC, HLCA, HLCG, HLCGA				
200	600	2000	4LC200	.....
225	675	2250	4LC225	.....
250	750	2500	4LC250	.....
300	900	3000	4LC300	A4LC300
350	1050	3500	4LC350	A4LC350
400	1200	4000	4LC400	A4LC400 ^⑤
For 600 Amp. Frames: LC, LCA, LCG, LCGA, HLC, HLCA, HLCG, HLCGA, LCC, LCCA, HLCC, HLCCA, LCCG, LCCGA, HLCCG, HLCCGA				
300	900	3000	6LC300	.....
350	1050	3500	6LC350	.....
400	1200	4000	6LC400	A6LC400 ^④
450	1350	4500	6LC450	A6LC450
500	1500	5000	6LC500	A6LC500
600	1800	6000	6LC600	A6LC600 ^⑤
For 800 Amp. Frames: MC, MCA, MCG, MCGA, HMC, HMCA, HMCG, HMCGA, MCC, MCCA, HMCC, HMCCA, MCCG, MCCGA, HMCCG, HMCCGA				
400	1200	4000	8MC400	.....
500	1500	5000	8MC500	A8MC500 ^⑥
600	1800	6000	8MC600	A8MC600
700	2100	7000	8MC700	A8MC700
800	2400	8000	8MC800	A8MC800 ^⑤
For 1200 Amp. Frames: NC, NCA, NCG, NCGA, HNC, HNCA, HNCG, HNCGA				
800	1600	6400	12NC800	A12NC800 ^④
900	1800	7200	12NC900	A12NC900
1000	2000	8000	12NC1000	A12NC1000
1200	2400	9600	12NC1200	A12NC1200 ^⑤

Rating Plugs Only (For 2 or 3-Pole Frames)				
Continuous Ampere Rating ^①	Magnetic Trip Setting, Amperes		Fixed Rating Plugs	Adjustable Rating Plugs ^{②③}
	Low	High			CATALOGUE NUMBER
For 2000 Amp. Frames: PC, PCA, PCC, PCCA, PCG, PCGA, PCCG, PCCGA, PCF, PCCF				
1000	2000	8000	20PC1000	.....
1200	2400	9600	20PC1200	.....
1400	2800	11200	20PC1400	.....
1600	3200	12800	20PC1600	A20PC1600
1800	3600	14400	20PC1800	A20PC1800
2000	4000	16000	20PC2000	A20PC2000 ^⑤
For 2500 Amp. Frames: PC, PCA, PCC, PCCA, PCG, PCGA, PCCG, PCCGA				
1400	2800	11200	25PC1400	.....
1600	3200	12800	25PC1600	.....
1800	3600	14400	25PC1800	A25PC1800
2000	4000	16000	25PC2000	A25PC2000
2500	5000	20000	25PC2500	A25PC2500 ^⑤
For 3000 Amp. Frames: PC, PCA, PCC, PCCA, PCG, PCGA, PCCG, PCCGA				
1600	3200	12800	30PC1600	.....
1800	3600	14400	30PC1800	.....
2000	4000	16000	30PC2000	.....
2500	5000	20000	30PC2500	A30PC2500
3000	6000	24000	30PC3000	A30PC3000 ^⑤

Note: Refer to Cutler-Hammer for old style (three prong) ground fault rating plugs

Further Information

List Prices: See PAD (Price and Availability Digest)

- ① Ampere rating when used in magnetic only frames:
 LC-150: 150 Amps LC-600: 600 Amps PC-2000: 2000 Amps
 LC-300: 300 Amps MC-800: 800 Amps PC-2500: 2500 Amps
 LC-400: 400 Amps NC-1200: 1200 Amps PC-3000: 3000 Amps
- ② Magnetic Trip range of adjustable rating plugs:
 LC, HLC, MC, HMC: 3 to 10 times ampere setting
 NC, HNC, PC, PCC: 2 to 8 times ampere setting
- ③ Adjustable 70 to 100% except as noted.
- ④ Adjustable 75 to 100%
- ⑤ Adjustable 50 to 100%
- ⑥ Adjustable 80 to 100%

SELTRONIC™ External Accessories

Portable Test Kit

Provides verification of performance of all frame sizes of SELTRONIC™ breakers while devices are still in service under varying load and/or phase unbalance. The tester operates on 120-volt 50/60 Hz and includes complete instructions and test times for testing the long time, instantaneous operation and optional ground fault operation of the breaker.



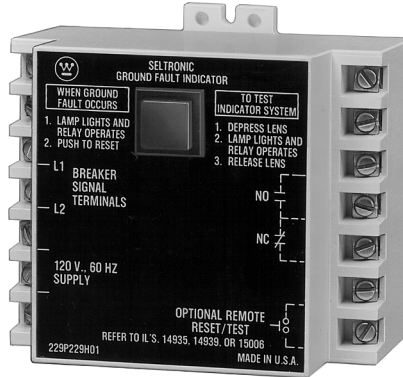
Style Number: STK2

Further Information

List Prices: See PAD (Price and Availability Digest)

Remote Ground Fault Trip Indicator①

For use only with SELTRONIC™ Circuit Breakers (LCG, HLCG, MCG, HMCG, NCG, HNCG, PCG and PCCG) with built-in ground fault protection.

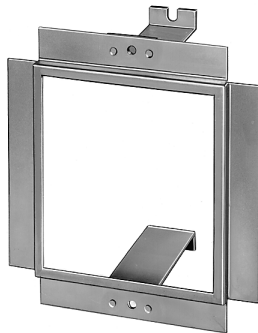


The SELTRONIC™ Ground Fault indicator is a remotely mounted device with a combination indicating light/reset/test button that will light when the breaker trips on a Ground Fault. Tripping from overloads or short circuits will not activate the device. A separate 120-50/60 power source is required to power the light and internal relay which has 1 N.O. and 1 N.C. contacts for customer connected alarm etc. Designed for panel mounting, it can be face-mounted by ordering the optional mounting bracket below.

Indicator Catalogue Number: GFAU

Face Mounting Bracket for Ground Fault Indicator

Bracket Style Number: 1264C67G01



① CSA and UL listed as a recognized component.

Moulded Case Switches High Magnetic Trip Type (Fixed Trip Setting)

Moulded Case Switches

Moulded Case Switches are CSA and Underwriters' Laboratories, Inc. listed devices and are available only as high magnetic trip type with fixed trip setting.

For application information and CSA and UL listed withstand ratings, refer to Application Data 29-160, pages 75, 76.

Further Information

List Prices: See PAD (Price and Availability Digest)

Moulded Case Switches With High Magnetic Trip (Fixed Trip Setting)

Switch Catalogue Number ^{①②}	No. of Poles	Max. Volts	Max. Amps.
DA2400WK	2	240	400
DA3400WK	3	240	400
EB1100LK	1	120	100
EB2100LK	2	240	100
EB3100LK	3	240	100
EB3100SLK	3	240	100
EHB1100LK	1	277	100
EHB2100LK	2	480	100
EHB3100LK	3	480	100
EHB3100SLK	3	480	100
FB2100LK	2	600	100
FB2150LK	2	600	150
FB3100LK	3	600	100
FB3150LK	3	600	150
FB3150SLK	3	600	150
FB4100LK	4	277/480	100
FB4150LK	4	277/480	150
JA2225WK	2	600	225
JA2225WSK	2	600	225
JA3225WK	3	600	225
JA3225WSK	3	600	225

Switch Catalogue Number ^{①②}	No. of Poles	Max. Volts	Max. Amps.
JB2250WK	2	600	250
JB2250WSK	2	600	250
JB3250WK	3	600	250
JB3250WSK	3	600	250
KA2225WK	2	600	225
KA2225WSK	2	600	225
KA3225WK	3	600	225
KA3225WSK	3	600	225
KB2250WK	2	600	250
KB2250WSK	2	600	250
KB3250WK	3	600	250
KB3250WSK	3	600	250
LB2400WK	2	600	400
LB2400WSK	2	600	400
LB3400WK	3	600	400
LB3400WSK	3	600	400
LBB2400WK	2	600	400
LBB2400WSK	2	600	400
LBB3400WK	3	600	400
LBB3400WSK	3	600	400
CA2225KW	2	240	225
CA3225KW	3	240	225

Moulded Case Switch Terminal Data

MCS Type	Max. Switch Amps.	Standard Terminals				Optional Terminals			
		Terminal Type or Cat. No.	Wire Type	No. of Wires	Wire Range	Terminal Type or Cat. No.	Wire Type	No. of Wires	Wire Range
DA, LB, LBB	400	T400DA2	Cu only	2	3/0-250 MCM	.....	.....	..	.....
EB, EHB, FB	100 150	Pressure Pressure	Cu Cu/Al	1 1	#14-1/0 #4-4/0	Pressure	Cu/Al	1 ..	#4-4/0
JA, KA	225 250	TA225LA1 TA250KB	Cu/Al Cu/Al	1 1	#4-350 MCM #4-350 MCM	T225LA T250KB	Cu Cu	1 1	#6-350 MCM #4-350 MCM
CA	225	TA225CA2	Cu/Al	1	#1-300 MCM	.....	....	..	.....

Moulded Case Switches With High Magnetic Trip – Trip Setting and Tolerance

Frame	Rating	Trip Setting (Amp.)	Tolerance (%)
EB	100	1000	±20
EHB/FB	100	1200	±20
FB	150	1500	±20
DA/LB/LBB	400	4000	+10 -0
JA/KA	225	2250	+10 -0
JB/KB	250	2500	+10 -0
CA	225	2250	+20 -10

Shaded gray areas denotes obsolete or discontinued products and services

① Catalogue number suffix identification:

- K = Moulded Case Switch with High Magnetic Trip (Fixed Trip Setting)
- S = Saf-T-Vue® cover
- L = With Line and Load Terminals
- W = No terminals

② Moulded case switch dimensions are the same as the equivalent thermal magnetic breaker. Refer to Dimension Sheet 29-171.

March 2003

Moulded Case Switches High Magnetic Trip Type (Fixed Trip Setting) cont'd

Moulded Case Switches With High Magnetic Trip (Fixed Trip Setting)

Switch Catalogue Number ^{①②}	No. of Poles	Max. Volts	Max. Amps.	Switch Catalogue Number ^{①②}	No. of Poles	Max. Volts	Max. Amps.	Switch Catalogue Number ^{①②}	No. of Poles	Max. Volts	Max. Amps.
LA2400WK	2	600	400	MA2800WK	2	600	800	PBF22000WK ^⑤	2	600	2000
LA2400WSK	2	600	400	MA2800WSK	2	600	800	PBF32000WK ^⑤	3	600	2000
LA2600WK	2	600	600	MA3800WK	3	600	800	PC22000WK ^④	2	600	2000
LA2600WSK	2	600	600	MA3800WSK	3	600	800	PC22500WK ^④	2	600	2500
LA3400WK	3	600	400	MC2800WK ^③	2	600	800	PC23000K ^④	2	600	3000
LA3400WSK	3	600	400	MC3800WK ^③	3	600	800	PC32000WK ^④	3	600	2000
LA3600WK	3	600	600	MCC2800WK ^③	2	600	800	PC32500WK ^④	3	600	2500
LA3600WSK	3	600	600	MCC3800WK ^③	3	600	800	PC33000K ^④	3	600	3000
LAB2400WK	2	600	400	NB21200WK	2	600	1200	PCC22000WK ^④	2	600	2000
LAB2400WSK	2	600	400	NB21200WSK	2	600	1200	PCC22500WK ^④	2	600	2500
LAB3400WK	3	600	400	NB31200WK	3	600	1200	PCC23000K ^④	2	600	3000
LAB3400WSK	3	600	400	NB31200WSK	3	600	1200	PCC32000WK ^④	3	600	2000
LC2600WK ^③	2	600	600	NC21200WK ^③	2	600	1200	PCC32500WK ^④	3	600	2500
LC3600WK ^③	3	600	600	NC31200WK ^③	3	600	1200	PCC33000K ^④	3	600	3000
LCC2600WK ^③	2	600	600	PB22000WK	2	600	2000	PCF22000K ^{④⑤}	2	600	2000
LCC3600WK ^③	3	600	600	PB22500WK	2	600	2500	PCF32000K ^{④⑤}	3	600	2000
				PB32000WK	3	600	2000				
				PB32500WK	3	600	2500				

Moulded Case Switch Terminal Data

MCS Type	Max. Switch Amps.	Standard Terminals (Aluminum Body)				Optional Terminals			
		Terminal Type or Cat. No.	Wire Type	No. of Wires	Wire Range	Terminal Type or Cat. No.	Wire Type	No. of Wires	Wire Range
LA400, LAB	400	TA400LA1	Cu/Al	1	#4-250 MCM, plus 3/0-600 MCM	T401LA	Cu	1	#4-250 MCM, plus 3/0-600 MCM
LA600, LC600	600	TA600LA	Cu/Al	2	250/500 MCM	T600LA	Cu	2	250/500 MCM
MC, MA	800	TA800MA2	Cu/Al	3	3/0-400 MCM	T800MA1	Cu	3	3/0-300 MCM
NC, NB	1200	TA1200NB1	Cu/Al	4	4/0-500 MCM	T1200NB1	Cu	4	3/0-400 MCM
NC, NB	1200	.....	.....	..	.....	TA1201NB1	Cu/Al	3	500-750 MCM
PC2000, PCC2000	2000	BA2000PB Rear Bus Connector							
PC2500, PCC2500	2500	BA2500PB Rear Bus Connector							
PC3000, PCC3000	3000	Rear Bus Connector Included in Frame							

Moulded Case Switches With High Magnetic Trip – Trip Setting and Tolerance

Frame	Rating	Trip Setting (Amp.)	Tolerance (%)
LA (400)	400	4000	+10 - 0
LA/LC	600	6000	+10 - 0
MA/MC	800	8000	+10 - 0
NB/NC	1200	12000	+10 - 0
PB/PC	2000-3000	12000	+10 - 0

Moulded Case Switches

Moulded Case Switches are CSA and Underwriters' Laboratories, Inc. listed devices and are available only as high magnetic trip type with fixed trip setting.

For application information and CSA and UL listed withstand ratings, refer to Application Data 29-160, pages 75,76.

Further Information

List Prices: See PAD (Price and Availability Digest)

Shaded gray areas denotes obsolete or discontinued products and services

① Catalogue number suffix identification:

K = Moulded Case Switch with High Magnetic Trip (Fixed Trip Setting)

S = Saf-T-Vue® cover

W = No terminals

② Moulded case switch dimensions are the same as the equivalent thermal magnetic breaker. Refer to Dimension Sheet 29-171.

③ For moulded case switch types LC, LCC --- use LA attachments; MC and MCC --- use MA attachments; NC --- use NB attachments.

④ For moulded case switch types PC, PCC and PCF, rating plug is included and use SELTRONIC™ PC attachments.

⑤ Front connected only.

Motor Circuit Protectors

Motor Circuit Protector

The MCP is designed specifically for the protection of motor circuits. It operates on the magnetic principle with a current sensing coil in each of the 3 poles, with the trip-point adjustable from the front. MCPs are the fastest devices available for clearing low level faults and offer circuit breaker features and convenience, resettable, quick make-quick break, dead front, and protection against single phasing.

MCPs are rated to correspond to NEMA starter sizes.

Current Limiter Attach. (Size 0-4 Only)

The EL current limiter is an attachment that bolts to the load end of the MCP to provide increased interrupting capacity. The combination is CSA and UL Listed as a recognized component for application at up to 200,000 Amps symmetrical at 600 volts AC. It is coordinated with the MCP so that normal short circuits will be cleared automatically by the MCP, opening all 3 poles, and only the rare high fault will cause the limiter to function. Current limiters must be applied as shown in the table below.

Terminals

Terminals are included with both the MCP and Current Limiter. Standard terminals are aluminum alloy, with non-aluminum terminals optional for use with only the MCP. Both standard and optional terminals will accommodate aluminum or copper conductors.① When using aluminum conductors, use of joint compound is recommended. Wire ranges are listed below.

MCP or Limiter	Terminals	
	Standard Alum.	Optional Non-Alum.
Size 0, 1, 2	#14-#4	#14-1/0
Size 3	#6-3/0	#14-1/0
Size 4	#4-4/0	#4-4/0
Size 5 (250 Amp.)	#4-350MCM	#4-350MCM
Size 5 (400 Amp.)	.....	(2)-3/0-250MCM
Limiters to 50 Amps.	#14-#2	.....
Limiters to 100 Amps.	#1-4/0	.....
Limiters to 150 Amps.	#1-4/0	.....

CSA and UL Listed

The MCP is listed with CSA and Underwriters' Laboratories as a recognized component and requires additional listing by the control manufacturer in combination with a contactor and overload relay.

Interrupting Ratings

Maximum application current shall be determined by testing the MCP in combination with a contactor and overload relay. Additional capacity can be obtained by using the current limiter attachment.

Base Mounting Hardware

Order separately when required.
 Size 0-4, Style No. 21C6782G18
 Size 5 (250 Amp.), Style No. 673B125G12
 Size 5 (400 Amp.), Style No. 21C6782G22

Further Information

List Prices: Price List 25-000
 Application: Application Data 29-160
 Characteristic Curves: Application Data 29-360-A
 Dimensions: Dimension Sheet 29-171



Size 0-4 MCP With Current Limiter



Size 5 MCP 532500

Motor Circuit Protectors – For Prices, see Price List PL.29.01A.P.K./F

Starter Size	Trip Range, Amps.	Continuous Amp. Rating	With Standard Aluminum Alloy Terminals	With Optional Non-Aluminum Terminals②
			CATALOGUE NUMBERS	
0	7-22	3	MCP0322R	MCP0322CR
0	18-58	7	MCP0358R	MCP0358CR
0	50-150	15	MCP03150R	MCP03150CR
1	100-300	30	MCP13300R	MCP13300CR
2	160-480	50	MCP23480R	MCP23480CR
3	275-1000	100	MCP331000R	MCP331000CR
4	450-1550	150	MCP431550R	MCP431550CR
4	575-1800	150	MCP431800R	MCP431800CR
5	1250-2500	250	MCP532500	MCP532500C
5	2000-4000	400	.....	MCP534000C

Current Limiters

Limiter Cat. No.	For MCP Cat. No.③
EL3003R	MCP0322R
EL3007R	MCP0358R
EL3015R	MCP03150R
EL3030R	MCP13300R
EL3050R	MCP23480R
EL3100R	MCP331000R
EL3150R	MCP431550R
EL3150R	MCP431800R

Modifications for MCP④

These modifications must be factory installed.

Description
Auxiliary Switches⑤
1A and 1B, 2As and 2Bs
Shunt Trip⑤
Undervoltage Release⑤⑥⑦
Moisture-Fungus Treatment

Accessories for MCP④

For accessories such as motor operators, terminal shields, handle locks, handle mechanisms and rear studs, refer to pages 39 - 49 and Technical Data 29-520 and select as follows:

For MCP Size	Use Access. For
0-4	FB
5 (250 Amp.)	KB
5 (400 Amp.)	LB

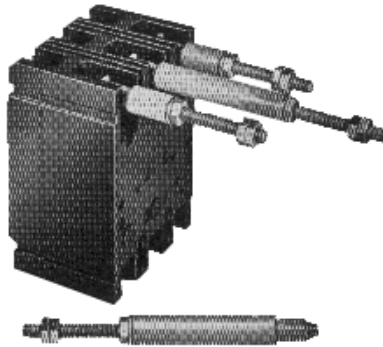
Shaded gray areas denotes obsolete or discontinued products and services

① Except 400 Amp size 5. Non-aluminum terminal suitable for copper only.
 ② Catalogue numbers ending in CR were previously listed ending in RC. This is a catalogue number change only, not a material change.
 ③ Also applicable to MCPs with optional terminals.
 ④ Not CSA and UL listed.
 ⑤ Mounts only in right pole; only one Modification marked⑤ can be used in MCP. (Size 0-4)
 ⑥ On 400 Amp size 5, an external resistor is supplied for voltages above 240 volts AC and 24 volts DC.
 ⑦ On size 0-4 and 250 Amp size 5, an external resistor is supplied for customer mounting, except for 120 volts AC, 12, 24, 125 volts DC.

Accessories

REAR CONNECTED STUDS①

For complete stud assembly, order a stud and appropriate tube based on thickness of customer's mounting panel. A short stud must be assembled adjacent to a long stud to maintain clearances required by CSA and UL②. Two studs are required per pole. Refer to DS 29-170 for stud sizes and extensions behind breaker.



For DA, EB, EHB, FB, JA, KA, JB, KB, LB, LBB, HFB, HKA, HKB, HLB Breakers
For insulated panels only; 2 required per pole.

Mounting Panel Thickness, Inches	Stud		Tube	
	Length	STYLE NUMBER	Length	STYLE NUMBER
DA, LB, LBB, HLB Breakers				
3/4 - 1	Short	656D565G03	27/32	313C909H17
	Long	656D565G04	325/32	313C909H20
1/2 - 3/4	Short	656D565G03	13/32	313C909H18
	Long	656D565G04	41/32	313C909H21
1/4 - 1/2	Short	656D565G03	111/32	313C909H19
	Long	656D565G04	47/32	313C909H22
EB, EHB, FB, HFB (100 Amp Max.)				
1	Short	451D874G01	11/16	32B9446H20
	Long	451D874G02	37/16	32B9446H24
11/16 - 15/16	Short	451D874G01	13/8	32B9446H21
	Long	451D874G02	33/4	32B9446H25
3/8 - 5/8	Short	451D874G01	111/16	32B9446H22
	Long	451D874G02	41/16	32B9446H26
1/4 - 5/16	Short	451D874G01	2	32B9446H23
	Long	451D874G02	43/8	32B9446H27
FB, HFB 150 Amp Breakers				
1	Short	374D883G01	11/16	374D883H06
	Long	374D883G02	45/16	374D883H10
11/16 - 15/16	Short	374D883G01	13/8	374D883H07
	Long	374D883G02	43/8	374D883H11
3/8 - 5/8	Short	374D883G01	111/16	374D883H08
	Long	374D883G02	415/16	374D883H12
1/4 - 5/16	Short	374D883G01	2	374D883H09
	Long	374D883G02	51/4	374D883H13
JA, KA, HKA Breakers				
3/4 - 1	Short	656D565G01	27/32	456D983H05
	Long	656D565G02	325/32	456D983H08
1/2 - 3/4	Short	656D565G01	13/32	456D983H06
	Long	656D565G02	41/32	456D983H09
1/4 - 1/2	Short	656D565G01	111/32	456D983H07
	Long	656D565G02	47/32	456D983H10
JB, KB, HKB Breakers				
3/4 - 1	Short	5010D23G01	27/32	456D983H05
	Long	5010D23G02	37/8	5010D23H05
1/2 - 3/4	Short	5010D23G01	13/32	456D983H06
	Long	5010D23G02	41/8	5010D23H06
1/4 - 1/2	Short	5010D23G01	111/32	456D983H07
	Long	5010D23G02	43/8	5010D23H07

For LAB, LA, MA, HLA, HMA, and HNB Breakers
For insulated panels only; 2 required per pole.

Stud Ampere Rating	Diameter, Inches and Thread	Extension Back of Breaker, Inches	STUD STYLE NUMBER
LAB, LA, HLA, LC, HLC Breakers			
225③	1/2-13	37/32	1241 345
225③	1/2-13	67/32	1241 346
225③④	1/2-13	431/32	1241 392
400③	3/4-16	515/32	5B7383G15
400③	3/4-16	731/32	5B7383G16
400③	3/4-16	1015/32	5B7383G17
600⑤	1 -12	529/32	314C960G07
600⑤	1 -12	813/32	314C960G08
600⑤	1 -12	1029/32	314C960G09
MA, HMA, MC, HMC Breakers			
225	1/2-13	321/32	314C960G01
400	3/4-16	529/32	314C960G04
400	3/4-16	813/32	314C960G05
400	3/4-16	1029/32	314C960G06
600	1 -12	529/32	314C960G07
600	1 -12	813/32	314C960G08
600	1 -12	1029/32	314C960G09
800	11/8-12	529/32	314C960G10
800	11/8-12	813/32	314C960G11
800	11/8-12	1029/32	314C960G12
NB, HNB, NC, HNC Breakers			
800	11/8-12	51/2	623B222G01
800	11/8-12	8	623B222G02
800	11/8-12	101/2	623B222G03
1200	11/4-12	51/2	373B375G04
1200	11/4-12	101/2	373B375G03

① Not CSA and UL listed.
 ② 400 ampere LA studs of the same length have sufficient clearance; however, customer connections may make it necessary to use a short stud adjacent to a long stud.
 ③ 150, 250, 300 and 400 amp frames only.
 ④ This is a special stud which includes six contact nuts for use where bus contact nuts must be used.
 ⑤ 600 ampere frames only.

Accessories

PANELBOARD CONNECTING STRAPS^①

For connecting line end of breakers to panel-board bus.



For DA, EB, EHB, FB, JA, KA, JB, KB, LB, LBB, HFB, HKB, and HLB Breakers

Ampere Rating	Connector Type	STYLE NUMBER
EB, EHB, FB, HFB Breakers Narrow Distribution Panelboards Bus Spacing 2¾ in. in Box 5¾ in. Deep (600 Volts Max.)		
50	Center	673B142G02
50	Outside	673B142G09
100	Center	673B142G02
100	Outside	673B142G10
150	Center	673B142G04
150	Outside	673B142G03
Power Panelboards (Convertible) Bus Spacing 3½ in.		
50	Center	1253C72G01
50	Outside	1253C72G03
100	Center	1253C73G03
100	Outside	1253C73G06
150	Center	1253C73G01
150	Outside	1253C73G05
3-Pole Mounting Bracket		624B600H01
2-Pole Mounting Bracket		624B600H02
DA, LB, LBB, HLB Breakers Bus Spacing 3½ in.		
400	Center	314C940G04
400	Outside	505C680G01
Mtg. Bracket (1 Required)		208B264H01
JA, KA, HKA Breakers Bus Spacing 3½ in.		
225	Center	314C940G03
225	Outside	180C074G01
Mtg. Bracket (1 Required)		208B264H01
JB, KB, HKB Breakers Bus Spacing 3½ in.		
250	Center	2600D26G01
250	Outside	2600D26G02
Mtg. Bracket (1 Required)		1576707

For LAB, LA, MA, HLA, HMA, and HNB Breakers

Ampere Rating	Connector Type	STYLE NUMBER
CA Breaker Power Panelboards (Convertible) Bus Spacing 3½ in.		
225	Center	1253C74G01
225	Outside	1253C74G02
3-Pole Mounting Bracket		624B624H01
2-Pole Mounting Bracket		624B624H02
LAB, LA, HLA, LC, HLC 150, 300, 400 Amp Frames Bus Spacing 3½ in.		
400	Center	32B4570G02
400	Outside	314C541G01
Mtg. Bracket (2 Required)		208B297H01
LA, HLA, LC, HLC 600 Amp Frames Bus Spacing 3½ in.		
600	Center	624B609G01
600	Outside	506C052G01
Mtg. Bracket (2 Required)		208B297H01
MA, HMA, MC, HMC Breakers Bus Spacing 3½ in.		
800	Short	314C996G01
800	Medium	314C996G02
800	Long	314C996G03
Mtg. Bracket (4 Required)		315C270H01
NB, HNB, NC, HNC Breakers Bus Spacing 3½ in.		
1200	Short	505C606G04
1200	Medium	505C606G05
1200	Long	505C606G06
Mtg. Bracket (4 Required)		315C270H01

^① Not CSA and UL listed.

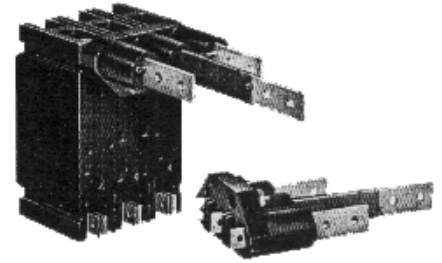
Accessories

PLUG-IN ADAPTER KITS

For rear connected applications such as switchboards. Facilitates ease of installation and front removal of breaker. Includes conductor for mounting on breaker, plug-in mounting blocks with matching conductor, rear studs and mounting hardware. Order 2 mounting blocks style number when line and load are required; order 1 mounting block style number when either line or load is required.



Threaded Studs Type



Flat Bus Type

Description	STYLE NUMBER
LAB, LA, HLA, LC, HLC (150, 250, 300 and 400 Amp Frame)① (Threaded Studs)	
2 Mounting Blocks, Line and Load	
2-Pole	313C644G25
3-Pole	313C644G26
1 Mounting Block, Line or Load	
2-Pole	450D010G15
3-Pole	450D010G16
LA, HLA, LC, HLC (600 Ampere Frames)① (Threaded Studs)	
2 Mounting Blocks, Line and Load	
2-Pole	313C644G50
3-Pole	313C644G51
1 Mounting Block, Line or Load	
2-Pole	506C059G01
3-Pole	506C059G02
1 Mounting Block, Line or Load Flat Bus Type	
2-Pole	1288C19G01
3-Pole	1288C19G01

Mounting Plates	
Pre-drilled Panels for:	
EB, EHB, FB, HFB	507C047H01
JB, KB	179C207H01
JA, KA	504C823H01
DA, LB, LBB, ALB	178C781H01
LA, LAB, HLA, LC, HLC	504C824H01
MA, HMA, MC, MMC, NB, HNB, NC, HNC	1290C73H01

Description	STYLE NUMBER
MA, HMA, MC, HMC Breakers② Flat Bus Type	
2 Mounting Blocks, Line and Load	
2-Pole, 125-600 Ampere	313C644G27
2-Pole, 700-800 Ampere	176C544G01②
3-Pole, 125-600 Ampere	313C644G28
3-Pole, 700-800 Ampere	176C544G02②
1 Mounting Block, Line or Load	
2-Pole, 125-600 Ampere	313C370G03
2-Pole, 700-800 Ampere	507C049G01②
3-Pole, 125-600 Ampere	313C370G04
3-Pole, 700-800 Ampere	507C049G02②
MA, HMA, MC, HMC, NB, HNB, NC, HNC, NB TRI-PAC Breakers③ (Threaded Studs)	
1 Mounting Block, Line or Load	
MA, HMA, MC, HMC 2-Poles	2614D53G05
MA, HMA, MC, HMC 3-Poles	2614D53G06
NB, HNB, NC, HNC, NB TRI-PAC, 2-Poles	2614D53G03
NB, HNB, NC, HNC, NB TRI-PAC, 3-Poles	2614D53G04

NB, HNB, NC, HNC Breakers Flat Bus Type	
1 Mounting Block, Line or Load	
2-Pole	4990D16G02
3-Pole	4990D16G01

Description	STYLE NUMBER
DA, LB, LBB, HLB Breakers① Flat Bus Type	
2 Mounting Blocks, Line and Load	
2-Pole	313C644G45
3-Pole	313C644G46
1 Mounting Block, Line or Load	
2-Pole	314C932G03
3-Pole	314C932G04
EB, EHB, FB Thermal Magnetic Breakers① Flat Bus Type	
1 Mounting Block, Line or Load	
2-Pole, 100 Ampere	1480D13G05
2-Pole, 150 Ampere	1480D13G05
3-Pole, 100 Ampere	1480D13G06
3-Pole, 150 Ampere	1480D13G06
FB and HFB Magnetic Only, HFB Thermal Magnetic① Flat Bus Type	
1 Mounting Block, Line or Load	
2-Pole, 100 Ampere	1480D13G05
2-Pole, 150 Ampere	1480D13G05
3-Pole, 100 Ampere	1480D13G06
3-Pole, 150 Ampere	1480D13G06
JA, KA, HKA Breakers③ (Threaded Studs)	
2 Mounting Blocks, Line and Load	
2-Pole	313C644G29
3-Pole	313C644G30
1 Mounting Block, Line or Load	
2-Pole	314C932G01
3-Pole	314C932G02
JB, KB, HKB Breakers① Flat Bus Type	
2 Mounting Blocks, Line and Load	
2-Pole	506C144G17
3-Pole	506C144G18
1 Mounting Block, Line Only	
2-Pole	1260C86G01
3-Pole	1260C86G02
1 Mounting Block, Line Only	
2-Pole	1260C86G03
3-Pole	1260C86G04

① These plug-in adapter kits are CSA and UL listed as recognized components.
 ② 700-1200 amp adapter kit is front removable, bolt-on design — not plug-in type.
 ③ Not CSA and UL listed.

Accessories

EXTENDED LINE TERMINAL SHIELDS^①

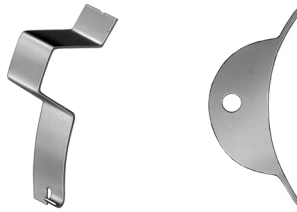
For shielding line side terminal connections. One shield required per breaker. Order separately when needed. Sold in lots of 10 (except as noted), including hardware.

Breaker Frame	STYLE NUMBER
JB, KB, HKB	1266C07G01
DA	314C420G06
JA, KA, LB, LBB (Saf-T-Vue®)	314C420G04 ^②
JA, KA, HKA, LB, LBB, HLB (Standard Breaker)	314C420G06
LAB, LA, HLA, LC, HLC	314C420G05 ^②
LAB, LA, (Saf-T-Vue®)	314C420G02 ^②
MA, HMA, MC, HMC	208B966G01 ^②
NB, HNB, NC, HNC	208B966G02
EB, EHB, FB, HFB	625B229G08

Base Mounting Hardware

Order separately when needed.

Description	STYLE NUMBER
1-Pole Breakers	
EB, EHB, HFB ^③	624B375G01
EB, EHB, HFB ^④	624B375G02
2- and 3-Pole Breakers	
LAB, LA, HLA, LC, HLC	21C6782G05
MA, NB, HMA, HNB, MC, HMC, NC, HNC	1091 716
PB, PC, PCC	624B375G22
DA, JA, KA, HKA, LB, LBB, HLB	21C6782G22
EB, EHB, FB, HFB, MCP	21C6782G18
JB, KB, HKB	673B125G12
CA 2-Pole	21C6782G28
CA 3-Pole	21C6782G29

HANDLE LOCKS^①

Non-Padlockable

For prevention of unintentional operation of breaker. Fits over breaker handle and may be removed.

Padlockable

For prevention of unauthorized operation of breaker. Is non-removable once installed on breaker. Meets CSA and Underwriters' Laboratories, Inc. and California Code requirements.

Note: All breakers are trip free and will trip with handle locks attached. Cannot be used when handle extension is used.

Breaker Frame	STYLE NUMBER
Non-Padlockable	
CA, EB, EHB, FB, HFB	29B2721H01
LAB, LA, LC, HLC, MA, NB, HLA, HMA, HNB, MC, HMC, NC, HNC	28B4596G01
GB, GC, GHB, GHC	1294C01H01
DA, JA, KA, HKA, LB, LBB, HLB	4212B80G01
Padlockable	
CA	506C438G01
EB, EHB, FB, HFB	765A754G01
DA, JA, KA, LB, LBB, HKA, HLB	673B796G02
JB, KB, HKB	673B796G01
LAB, LA, HLA, LC, HLC	373B591G02
MA, HMA, MC, HMC	6591C30G02 – OFF
MA, HMA, MC, HMC	6591C30G05 – ON/OFF
NB, HNB, NC, HNC	6591C30G01 – OFF
NB, HNB, NC, HNC	6591C30G04 – ON/OFF
PB, PC	6591C30G03 – OFF

MOULDED TYPE HANDLE EXTENSION^①

For LAB, LA, HLA Breakers
Style Number 372B399G01.

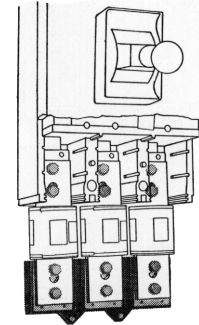
For MA, HMA, MC, HMC Breakers
Style Number 1251C65G01.

For NB, HNB, NC, and HNC Breakers
Style Number 1251C65G01.⑥

For PB, PC, and PCC Breakers
Style Number HEX6.⑥

FUSE MOUNTING BASE FOR PB BREAKERS^{①⑥}

For 2000 amp non-automatic breakers only.



Catalogue Number: FMB2000PB

For use with non-automatic, 3-pole circuit breaker. Includes fuse mounting base and hardware to mount standard class L current limiting fuses, 801 to 2000 amps (fuses not included).⑥

For complete installation, order:

1. Front connected, non-automatic PB breaker. (Order similar to standard front connected, except omit load conductor extensions)
2. Fuse mounting base.
3. Fuses (from distributor).

Cable Connectors

The fuse mounting base will accept the following terminals for front cable connection (omit "T" connectors from rear connected breakers).

STYLE NUMBER	Wire Range, Type No. of Cables
672B655G01	3 3/0-400 MCM Cu
180C046G03	4 400-500 MCM Cu

① Not CSA and Underwriters' Laboratories, Inc. listed.

② Sold in quantities of 1.

③ Individually mounted.

④ Group mounted.

⑤ Included with frame at no charge.

⑥ Interrupters used with fuse mounting base will accept all standard PB accessories. See DS 29-171 for mounting details.

MODIFICATIONS

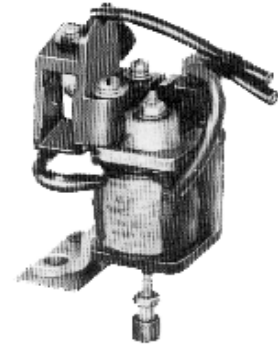
Only two internally mounted modifications — shunt trip, undervoltage release, auxiliary switch, alarm switch — may be mounted in EB through PB. Only one of these modifications may be mounted in FB, HFB magnetic only, 2 pole EB, EHB, FB and SELTRONIC™ breakers. None are available in 1-pole breakers except alarm switch in EB, EHB and HFB. Refer to Cutler-Hammer for possible special combinations of the following modifications not in tabulations.

SHUNT TRIP

For tripping breaker from a remote point. A solenoid device mounts within breaker case. Breaker trips when coil is energized.

Shunt trips should not be used as circuit interlocks using maintained contact pilot devices.

A cut-off switch breaks the circuit to the momentary rated coil when breaker opens. Available for control voltages up to 250 volts DC or 600 volts AC. Voltage and frequency must be specified. Standard leads extend 18 inches outside the breaker. Longer leads may be specified.



Shunt Trip for Field Mounting^{①②③}

Voltage/ Hertz	Breaker Type						
	EB, EHB, FB, HFB ^④ (Thermal Magnetic only)	JB, KB, HKB	JA, KA, HKA, DA, LB, LBB, HLB	LA, LAB, HLA	MA, HMA	NB, HNB	PB
Right Hand Mounting							
600/50-60 Hz	2609D39G15	2609D42G15	2605D15G15	2606D56G15	2606D57G15	2606D58G15	2606D59G15
480/50-60 Hz	2609D39G16	2609D42G16	2605D15G16	2606D56G16	2606D57G16	2606D58G16	2606D59G16
240/50-60 Hz	2609D39G17	2609D42G17	2605D15G17	2606D56G17	2606D57G17	2606D58G17	2606D59G17
208/50-60 Hz	2609D39G18	2609D42G18	2605D15G18	2606D56G18	2606D57G18	2606D58G18	2606D59G18
120/50-60 Hz	2609D39G19	2609D42G19	2605D15G19	2606D56G19	2606D57G19	2606D58G19	2606D59G19
60/50-60 Hz	2609D39G20	2609D42G20	2605D15G20	2606D56G20	2606D57G20	2606D58G20	2606D59G20
48/50-60 Hz	2609D39G21	2609D42G21	2605D15G21	2606D56G21	2606D57G21	2606D58G21	2606D59G21
24/50-60 Hz	2609D39G22	2609D42G22	2605D15G22	2606D56G22	2606D57G22	2606D58G22	2606D59G22
250 DC	2609D39G23	2609D42G23	2605D15G23	2606D56G23	2606D57G23	2606D58G23	2606D59G23
125 DC	2609D39G24	2609D42G24	2605D15G24	2606D56G24	2606D57G24	2606D58G24	2606D59G24
60 DC	2609D39G25	2609D42G25	2605D15G25	2606D56G25	2606D57G25	2606D58G25	2606D59G25
48 DC	2609D39G26	2609D42G26	2605D15G26	2606D56G26	2606D57G26	2606D58G26	2606D59G26
24 DC	2609D39G27	2609D42G27	2605D15G27	2606D56G27	2606D57G27	2606D58G27	2606D59G27
12 DC	2609D39G28	2609D42G28	2605D15G28	2606D56G28	2606D57G28	2606D58G28	2606D59G28
Left Hand Mounting							
600/50-60 Hz	2609D39G01	2609D42G01	2605D15G01	2606D56G01	2606D57G01	2606D58G01	2606D59G01
480/50-60 Hz	2609D39G02	2609D42G02	2605D15G02	2606D56G02	2606D57G02	2606D58G02	2606D59G02
240/50-60 Hz	2609D39G03	2609D42G03	2605D15G03	2606D56G03	2606D57G03	2606D58G03	2606D59G03
208/50-60 Hz	2609D39G04	2609D42G04	2605D15G04	2606D56G04	2606D57G04	2606D58G04	2606D59G04
120/50-60 Hz	2609D39G05	2609D42G05	2605D15G05	2606D56G05	2606D57G05	2606D58G05	2606D59G05
60/50-60 Hz	2609D39G06	2609D42G06	2605D15G06	2606D56G06	2606D57G06	2606D58G06	2606D59G06
48/50-60 Hz	2609D39G07	2609D42G07	2605D15G07	2606D56G07	2606D57G07	2606D58G07	2606D59G07
24/50-60 Hz	2609D39G08	2609D42G08	2605D15G08	2606D56G08	2606D57G08	2606D58G08	2606D59G08
250 DC	2609D39G09	2609D42G09	2605D15G09	2606D56G09	2606D57G09	2606D58G09	2606D59G09
125 DC	2609D39G10	2609D42G10	2605D15G10	2606D56G10	2606D57G10	2606D58G10	2606D59G10
60 DC	2609D39G11	2609D42G11	2605D15G11	2606D56G11	2606D57G11	2606D58G11	2606D59G11
48 DC	2609D39G12	2609D42G12	2605D15G12	2606D56G12	2606D57G12	2606D58G12	2606D59G12
24 DC	2609D39G13	2609D42G13	2605D15G13	2606D56G13	2606D57G13	2606D58G13	2606D59G13
12 DC	2609D39G14	2609D42G14	2605D15G14	2606D56G14	2606D57G14	2606D58G14	2606D59G14

Factory Mounted Shunt Trips^{①⑤}

All of the above shunt trips can be specified for factory mounting at the same price as listed for the kit. These shunt trips have the leads out the side and are CSA and UL listed when factory mounted, unless other non-CSA and UL listed modifications are used.

Factory mounted shunt trips only can be supplied for the following breakers:

FB magnetic only^{⑥⑧}, HFB magnetic only^{⑥⑦} and non-automatic breakers (moulded case switches)^②.

① 120 volt AC ratings suitable for 55% pickup for ground fault applications.
 ② Not field mountable on non-automatic breakers (moulded case switches).
 ③ Field mounting voids breakers' CSA and UL listing except on LA, HLA, MA, HMA, NB, HNB, KB, HKB, KA, HKA, LB, HLB and SELTRONIC™ breakers.
 ④ Available similar to this except "Leads out the load end - (not CSA and UL listed)". Order by description.
 ⑤ Right hand mounting considered standard unless specified otherwise.
 ⑥ Not CSA and UL listed.
 ⑦ Right hand mounting only.

Accessories

LEFT HAND MOUNTING KITS FOR SELTRONIC™ BREAKERS

Provision to trip flux transfer shunt trip from external
32 to 120 volt (DC to 60 Hz) source.①②

MC, HMC	Style 1371D72G22
NC, HNC	Style 1372D39G13
PC, PCC	Style 1372D35G22
LC, HLC	Style 1371D11G22

Provision to trip flux transfer shunt trip from external
240 to 600 volt AC, 50/60 Hz source.②③

MC, HMC	Style 1371D72G32
NC, HNC	Style 1372D39G23
PC, PCC	Style 1372D35G32
LC, HLC	Style 1371D11G32

Shunt Trip Coil Data

Shunt Trip Voltage Rating	For All Breakers Listed Above and on Previous Page Except CA and SELTRONIC™		SELTRONIC™	
	Coil Inrush		Coil Inrush	
	Amperes	Volt-Amperes	Amperes	Volt-Amperes
600 AC	0.105	63.0	—	—
480 AC	0.085	40.8	—	—
240 AC	1.7	408.0	—	—
208 AC	1.4	291.2	—	—
120 AC	0.88	105.6	.15	18
60 AC	9.10	546.0	—	—
48 AC	7.50	360.0	—	—
24 AC	3.95	94.8	—	—
250 DC	2.5	625.0	—	—
125 DC	0.975	121.9	—	—
60 DC	0.525	31.5	—	—
48 DC	1.3	62.4	—	—
24 DC (FCL)	6.0	144.0	—	—
24 DC (others)	8.	192.	—	—
12 DC	6.	72.	—	—

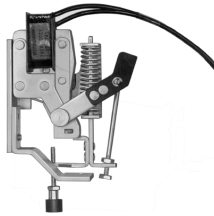
① Rated 48 volts minimum for ground fault applications.

② Also available factory mounted for 24 volts DC. Order by description.

③ Not for ground fault.

Accessories

STANDARD UNDERVOLTAGE RELEASE



For undervoltage protection. A solenoid device mounts within breaker case. Coil must be energized before closing breaker. Trips breaker when voltage drops below 35 to 70% of coil rating. Picks up and seals in at 85% of coil rating. For line voltages up to 250 volts DC or 600 volts AC. Externally mounted resistors are supplied for certain ratings. Standard leads extend 18 inches outside of breaker. Longer leads may be specified. **Note:** U.V.R. attachments are not designed for, and should not be used as, circuit interlocks. For further information, refer to Cutler-Hammer.

Factory Mounted Undervoltage Releases^①

All of the above undervoltage releases can be specified for factory mounting at the same price as listed for the kit. These attachments have the leads out the side and are CSA and UL listed when factory mounted unless other non-CSA and UL listed modifications are used.

Factory mounted undervoltage releases only can be supplied for the following breakers:

SELTRONIC™ Breakers (120V AC 60 Hz only standard), MC, HMC^②, NC, HNC^②, PC, PCC, LC, HLC

SELTRONIC™ Breakers with Remote Trip Provisions, MC, HMC^{②③}, NC, HNC^{②③}, PC, PCC^③, LC, HLC^③.

EB^④, EHB^④, FB^④, HFB^④, FB^{⑤⑥} and HFB magnetic only^{⑤⑥}, JB, KB, HKB

Undervoltage Release Attachment Kits for Field Mounting^{⑦⑧}

Attachment Voltage, Hertz	Breaker Type				
	JA, KA, DA, HKA, LB, LBB, HLB	LA, LAB, HLA	MA, HMA	NB, HNB	PB
For Right Hand Mounting					
24 60	—	60A9355G17	—	—	—
48 60	—	60A9355G08	—	—	5674D29G16
120 60	—	60A9355G01	457D727G01	373D632G01	5674D29G09
208 60	—	60A9355G02	457D727G19	373D632G19	5674D29G10
240 60	—	60A9355G03	457D727G02	373D632G02	5674D29G11
480 60	—	60A9355G05	457D727G03	373D632G03	5674D29G13
600 60	—	60A9355G06	457D727G04	373D632G04	5674D29G14
12 DC	—	458D020G01	457D727G09	372D032G01	4976D85G01
24 DC	—	458D020G02	457D727G10	372D032G02	4976D85G02
48 DC	—	458D020G03	457D727G11	372D032G03	4976D85G03
60 DC	—	458D020G04	457D727G21	—	4976D85G04
125 DC	—	458D020G07	457D727G12	372D032G04	4976D85G07
250 DC	—	458D020G08	457D727G13	372D032G05	4976D85G08
For Left Hand Mounting					
48 60	—	60A9355G16	—	—	5674D29G08
120 60	458D070G01	60A9355G09	457D727G05	373D632G05	5674D29G01
208 60	458D070G05	60A9355G10	457D727G20	373D632G20	5674D29G02
240 60	458D070G02	60A9355G11	457D727G06	373D632G06	5674D29G03
480 60	458D070G03	60A9355G13	457D727G07	373D632G07	5674D29G05
600 60	458D070G04	60A9355G14	457D727G08	373D632G08	5674D29G06
12 DC	458D070G09	458D020G11	457D727G14	372D032G06	4976D85G11
24 DC	458D070G10	458D020G12	457D727G15	372D032G07	4976D85G12
48 DC	458D070G11	458D020G13	457D727G16	372D032G08	4976D85G13
60 DC	—	458D020G14	457D727G22	—	4976D85G14
125 DC	458D070G12	458D020G17	457D727G17	372D032G09	4976D85G17
250 DC	458D070G13	458D020G18	457D727G18	372D032G10	4976D85G18

Undervoltage Release Coil Data

Voltage Rating Hertz	Breaker Type								
	EB, EHB, FB, HFB, JB, KB and HKB			JA, KA, HKA, DA, LB, LBB, HLB			LA, LAB, HLA, PB		
	Coil Amperes	External Series Resistance (Ohms)	Total VA	Coil Amperes	External Series Resistance (Ohms)	Total VA	Coil Amperes	External Series Resistance (Ohms)	Total VA
600 AC	0.020	25,000	12.0	0.012	50,000	7.2	0.029	20,000	17.4
480 AC	0.016	20,000	7.7	0.013	30,000	6.3	0.014	—	6.8
240 AC	0.021	6,000	5.1	0.013	—	3.2	0.036	—	8.7
208 AC	0.019	6,000	4.0	0.018	—	3.8	0.036	—	7.5
120 AC	0.023	—	2.8	0.023	—	2.8	0.073	—	8.8
60 AC	0.203	250	12.2	—	—	—	—	—	—
48 AC	0.245	150	11.8	—	—	—	0.152	—	7.3
24 AC	0.250	50	6.0	—	—	—	—	—	—
250 DC	0.026	5,000	6.5	0.013	16,500	3.3	0.035	5,000	8.8
125 DC	0.026	—	3.3	0.013	6,500	1.7	0.039	1,500	4.9
60 DC	0.248	200	14.9	0.013	1,500	0.8	0.034	—	2.1
48 DC	0.260	150	12.5	0.012	600	0.6	0.040	—	2.0
24 DC	0.141	—	3.4	0.023	—	0.6	0.069	—	1.7
12 DC	0.286	—	3.5	0.048	—	0.6	0.136	—	1.7
Breaker Type									
MA and HMA			NB and HNB			MC, HMC, NC, HNC, PC, PCC, LC, HLC			
600 AC	0.012	50,000	7.2	0.016	35,000	9.6	—	—	—
480 AC	0.013	30,000	6.3	0.013	30,000	6.3	—	—	—
240 AC	0.013	—	3.2	0.013	—	3.2	—	—	—
208 AC	0.018	—	3.8	0.018	—	3.8	—	—	—
120 AC	0.023	—	2.8	0.023	—	2.8	0.5	—	6
60 AC	—	—	—	—	—	—	—	—	—
48 AC	—	—	—	—	—	—	—	—	—
24 AC	—	—	—	—	—	—	—	—	—
250 DC	0.013	16,500	3.3	0.013	16,500	3.3	—	—	—
125 DC	0.013	6,500	1.7	0.013	6,500	1.7	—	—	—
60 DC	0.013	1,500	0.8	—	—	—	—	—	—
48 DC	0.012	600	0.6	0.012	600	0.6	—	—	—
24 DC	0.023	—	0.6	0.023	—	0.6	—	—	—
12 DC	0.048	—	0.6	0.048	—	0.6	—	—	—

① Right hand mounting considered standard unless specified otherwise except JA, KA, DA, HKA, LB, LBB, HLB and SELTRONIC™ available for left-hand only, and JB, KB, HKB left hand is standard.
 ② Cannot be used with other attachments except a small 1A-1B auxiliary switch rated 250 volts can be supplied in right hand pole.
 ③ Provided with two leads (total of 4) for use with a remote normally open contact (pushbutton etc.) to trip the breaker. No external power required.
 ④ Not available on ambient compensating breakers.
 ⑤ Not CSA and UL listed.
 ⑥ Right hand mounting only.
 ⑦ Not field mountable on non automatic breakers. (Moulded case switches)
 ⑧ Field mounting voids CSA and UL listing of breaker except on LA, HLA, MA, HMA, NB, HNB, PB, KA, HKA, LB, HLB.

Accessories

ALARM SWITCH

Availability: EB through PC. For light or alarm indication when breaker trips. Does not function with manual operation. Automatically resets when breaker is related. Standard leads extend 18 inches outside of breaker. Longer leads may be specified. Not field mountable.

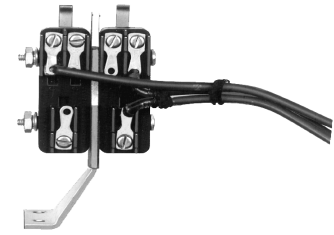
Breaker Frame	Normal Pole Mtg.	Contact Operation (Specify Type Desired)
DA	Left	Make or Break
EB, EHB, FB, HFB ^{①②}	Mechanism	Make or Break
JA, KA, LB	Left	Make or Break
LBB, HKA, HLB	Left	Make or Break
JB, KB, HKB	Left	Make or Break
LAB, LA, MA, NB, HLA, HMA, HNB, PB	Left	Make or Break
MC, HMC, NC, HNC	Left only ^③	Make or Break
PC, PCC	Left only ^③	Make or Break
LC, HLC	Left ^③	Make or Break

Alarm Switch Contact Rating (Non Inductive)

MC, HMC, LA, LAB, HLA, LC, HLC:
 10 amps, 120 volt AC; 5A, 240 volt AC.
 EB, EHB, FB, HFB:
 5 amp, 120 volt AC.
 All other breakers:
 10 amps, 120-240 volt AC.

AUXILIARY SWITCH^⑤

For auxiliary control circuits. Miniature switches mount within breaker. Commonly used for remote indication of open or closed breaker and electrically interlocking component control circuits. "A" contacts are closed when breaker is closed. "B" contacts are open when breaker is closed. Standard leads extend 18 inches outside of breaker. Longer leads may be specified.



Auxiliary Switch Attachment Kits for Field Mounting^{⑥⑦⑧}

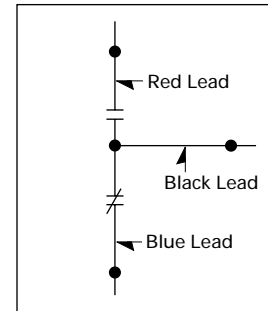
Breaker Type	For Left Hand Mounting		For Right Hand Mounting		Max AC Voltage Rating ^⑨	Max Non-inductive Amps
	1A-1B	2A-2B	1A-1B	2A-2B		
EB, EHB, FB, HFB ^⑩	4979D06G03	4979D06G09	4979D06G03	4979D06G08	240	5
JA, KA, DA, HKA, LB, LBB, HLB	458D067G03	—	458D067G08	—	480	10
JB, KB, HKB	—	656D527G01 ^⑩	—	656D527G09 ^⑩	240	5
JB, KB, HKB	2600D97G03	—	2600D97G08	—	480	10
JB, KB, HKB	—	2609D45G03 ^⑩	—	2609D45G08 ^⑩	240	5
LA, LAB, HLA	655D555G12	655D555G13	655D555G05	655D555G06	480	10
MA, HMA	458D013G12	458D013G13	458D013G05	458D013G06	480	10
NB, HNB, PB	4980D16G12	4980D16G13	4980D16G05	4980D16G06	480	10
MC, HMC, MCG, HMC	2602D32G11	2602D32G12	2602D32G14	2602D32G15	480	10
MC, HMC, MCG, HMC	1371D72G03	1371D72G06	—	—	480	6 (10 @ 240)
NC, HNC, NCG, HNC	1372D39G03	1372D39G06	—	—	480	6 (10 @ 240)
PC, PCC, PCG, PCCG	1372D35G03	1372D35G06	—	—	480	6 (10 @ 240)
LC, HLC, LCG, HLC	1371D11G03	1371D11G06	—	—	480	6 (10 @ 240)

Factory Mounted Auxiliary Switches^⑤

All of the above auxiliary switches can be specified for factory mounting at the same price as listed for the kit. These attachments have the leads out the side of the breaker and are CSA and UL listed when factory mounted unless other non CSA and UL listed modifications are used (except as noted).

Factory mounted switches only can be supplied for the following breaker:

JB, LBB, LAB, JA, DA, FB magnetic only^{①⑩} and HFB magnetic only^{①⑩}.



① Not CSA and UL listed.
 ② Not available for magnetic only, ambient compensating, or breakers with undervoltage release.
 ③ When alarm switch is used in conjunction with auxiliary switch, the auxiliary switch is rated 250 volts max, 5 amps max.
 ④ Except when other attachments are used, must be mounted in right pole.
 ⑤ Right hand mounting standard for EB, EHB, FB, HFB, JB, KB, HKB. All others are lefthand mounting as standard unless otherwise specified.
 ⑥ Not for use on moulded case switches.
 ⑦ All switches are multiples of 1A-1B with a common electrical connection (see diagram below).
 ⑧ Field mounting voids CSA and UL listing of breaker except on LA, HLA, MA, HMA, NB, HNB, KB, HKB, KA, HKA, LB, HLB and SELTRONIC™ breakers.
 ⑨ For DC applications, refer to Cutler-Hammer.
 ⑩ Thermal magnetic only.
 ⑪ Right hand mounting only.

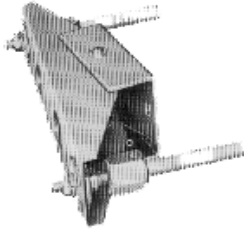
MOISTURE-FUNGUS-CORROSION TREATMENT^①

Availability: EB through PC Treatment can be provided to meet customer's specific atmospheric conditions. Moisture-fungus treating material used meets JAN-T-152; treatment meets MIL-V-173a. Requests and orders should specify government specifications or conditions to be met.

MECHANICAL INTERLOCKS^①

For mechanically interlocking a pair of breakers so that only one may be closed at one time, but both may be open simultaneously.

WALKING BEAM TYPE^{①②③}



Availability: EB through PC

Mounts on panel (not included) at rear of breaker. Standard breaker spacing: center to center; LAB, LA, LC, HLC, MA, MC, NB, NC, HLA, HMA, HMC, HNB, HNC 8-1/2 inch center to center; DA, JA, KA, HKA, LB, LBB, HLB 5-3/4 inch center to center; EB, EHB, FB, JB, KB, HFB, HKB 4-3/8 inch center to center. Order as a set of two special factory drilled breakers and 1 walking beam interlock. Specify breaker type, panel thickness and center to center dimension of breakers.

SLIDING BAR TYPE (FIELD MOUNTABLE)^{①④}



Availability: EB through PC

Mounts on panel (not included) fitting over front of breakers. Standard breaker spacing: LAB, LA, LC, HLC, MA, MC, NB, NC, HLA, HMA, HMC, HNB, HNC 8-1/2 inch center to center; DA, JA, KA, HKA, LB, LBB, HLB 5-3/4 inch center to center; EB, EHB, FB, HFB 4-3/16 inch center to center; JB, KB, HKB 4-3/8 inch center to center.

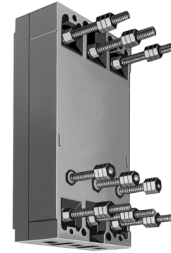
KIRK KEY INTERLOCK^④



Availability: EB through PC

Permits interlocking of two breakers or one breaker with other devices. Before breaker can be closed, key must be inserted and turned in breaker interlock. Breaker must be opened before key can be removed. It can then be inserted in interlock or other devices to permit their closure. Requests and orders should completely outline interlocking scheme, ultimate user and his address.

CENTER STUDS^①



Availability: 600 Amp Frames (LA) through 1200 Amp Frames except SELTRONIC and current limiting breakers.

Provides connections for dual voltage generators, so that same trip unit can be used for protection at both voltages. At higher voltage, the trip unit carries full load current. At lower voltage, half the current by-passes the trip unit through the center studs. Trip rating cannot exceed 50% of frame rating.

Field Discharge Switch Availability: 400 Amp Frame (LA).

Breaker is used exclusively to discharge the field of a DC motor or generator, usually through a resistor. When the two outer poles open, the center pole closes.

Shaded gray areas denotes obsolete or discontinued products and services

① Not CSA and UL listed.
 ② 2000 amp maximum for PB breaker.
 ③ Not available on draw-out breakers.
 ④ Not available on motor operated breakers.

Accessories

MOTOR OPERATORS^①

Motor operators provide complete remote control by means of a pushbutton or similar pilot device^②. Positive switching action is accomplished by use of an operating arm engaging the breaker handle. The unit is energized momentarily to actuate the lever arm moving it to either the "ON" or "OFF" position. The control is broken by an internal cutoff switch. Means for emergency manual operations is provided.

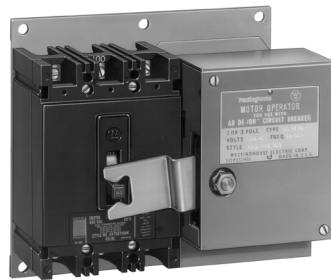
Motor operators are available with motors rated 120 volts AC, 208 volts AC, and 240 volts AC.^③

The 480 volt operators utilize a 120 volt AC motor in conjunction with a 480/240 to 120 volt dual voltage transformer. (On LA and larger operators, the transformer is supplied for separate mounting by the customer.)

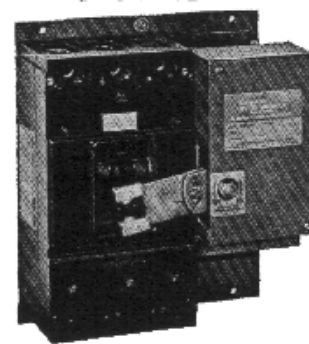
Note: The motor operator is intended only for infrequent operation in line with CSA and Underwriters' Laboratories' Laboratories, Inc. endurance standards for AB moulded case breakers. Minimum 1 kVA transformer is required for use with all motor operations.

Back Mounting Plates

Type Breaker	120, 208, 240, 480 Volts AC
	Style Number
EB, EHB, FB, HFB	503C707G01
DA, JA, KA, LB	503C981G01
JB, KB, HKB	1250C26G01



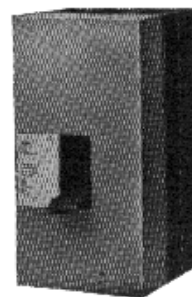
For EB, EHB, FB and HFB



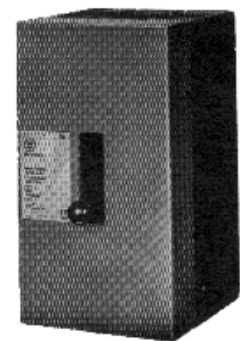
For DA, JA, KA, JB, LB, LBB, HKA, HKB and HLB Breakers



For LAB, LA, HLA Breakers



For MA, HMA, NB, HNB Breakers



For PB Breakers

Motor Operator Selection

Type Breaker	AC Voltage				DC Voltage	
	120	208	240	480	125	24
	Style Number	Style Number	Style Number	Style Number	Style Number	Style Number
EB, EHB, FB, HFB	656D148G11	656D148G04	656D148G02	656D148G13	—	—
DA, JA, KA, HKA	657D819G23	657D819G10	657D819G08	657D819G24	—	—
LB, LBB, HLB	657D819G25	657D819G16	657D819G14	657D819G26	—	—
JB, KB, HKB	2600D28G07	2600D28G04	2600D28G02	2600D28G08	—	—
LAB, LA, HLA, LC, HLC	2607D97G37	2607D97G40	2607D97G38	2607D97G39	2607D97G51	2607D97G42
MA, HMA, MC, HMC	5664D54G75	5664D54G78	5664D54G76	5664D54G77	5664D54G96	5664D54G81
NB, HNB, NC, HNC	1494D60G31	1494D60G32	1494D60G33	1494D60G34	1494D60G35	1494D60G36
PB, PC, PCC	5661D52G01	5661D52G04	5661D52G02	5661D52G03	5661D52G17	—

Motor Data

Type Breaker	Motor		Inrush Current, Ampere (Peak)			Continuous Current (RMS)			Operating Time, Open or Close
	Type	Hp.	120	208	240	120	208	240	
			Volts	Volts	Volts	Volts	Volts	Volts	
EB, EHB, FB, HFB	Split Phase	1/75	10	4	5	2.3	1.17	1.65	1.5 Seconds
DA, JA, KA, JB, KB, LB, LBB, HKB, HLB			14	6	7	3.5	1.6	1.75	
LAB, LA, HLA	Reversing	—	8	5	4	—	—	—	12 Cycles
MA, HMA, NB, HNB	Reversing	—	11	7	6	—	—	—	12 Cycles
PB	Reversing	—	20	12	11	—	—	—	10 Cycles

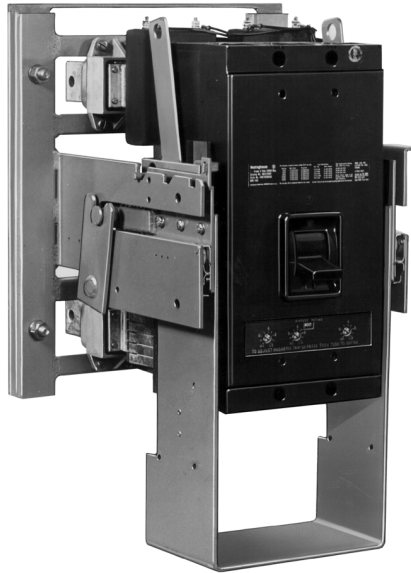
Dimensions: DS 29-170

① AC voltage rated operators are CSA and UL listed as recognized components.

② The pilot device must be maintained contact type for EB, EHB, FB, HFB, DA, JA, KA, JB, KB, HKB and LB mechanisms, momentary contact type for all others.

③ LA and larger available for 125 volts DC.

DRAWOUT FRAME^①



These drawout frames are for use with standard 3-pole Cutler-Hammer moulded case circuit breakers. They consist of two separate parts: stationary mounting frame and movable carrier frame. Slide rails are drawer-type, and a screw mechanism is used to engage or withdraw the movable carrier frame.

The drawout frames have three positions: connected, test and disconnected. The frames do not include a safety tripping interlock, or secondary contacts. These are optional items and may be ordered at additional cost.

Breakers mounted in the drawout frames can be equipped with standard breaker accessories including shunt trip, undervoltage release, auxiliary switch, alarm switch and motor operator.

Optional Features

Safety Interlock^②
This feature trips the breaker as the movable carrier frame is withdrawn, and must be factory installed. Order as follows.

For LA, MA and NB breakers^②
Order standard stationary mounting frame. Order breaker and movable carrier frame assembled with safety interlock.

Secondary Contacts
These are used to disconnect auxiliary circuits when attachments such as shunt trip or motor operator are used. Available in multiples of four contacts with a maximum of 24 contacts for the LA 600 or 32 contacts for the MA and NB. They must be factory mounted. Order by description as similar to stationary or moving frame and specify number of contacts required.

Selection Data^{②③}

Breaker Type	Stationary Mounting Frame Style Number ^②	Movable Carrier Frame Style Number ^②
LA600, HLA600, LC600, HLC600	2603D84G01	2608D35G06
MA, HMA, MC, HMC	2603D85G01	2608D35G10
NB, HNB, NC, HNC	2603D85G01	2608D34G08
PB, PC, PCC 2000A	2601D18G04	Order by description ^④
PB 2500A, PC, PCC 2500A and 3000A	2601D18G05	Order by description ^④

Ordering Information^③

Standard Installation

Order one stationary mounting frame and one movable carrier frame.

Order breakers without terminals or rear connectors.

Order any attachments desired (shunt trip, undervoltage release, etc.)

- Order secondary contacts as required:
- a shunt trip, undervoltage release or alarm switch requires two contacts;
 - a 1A-1B auxiliary switch requires three contacts;
 - a motor operator requires a maximum of four contacts;
 - others as required.

With Safety Interlock

Order stationary mounting frame and movable carrier frame as directed under Optional Features.

Racking Crank

A special crank to engage or withdraw the moving portion of the drawout. A standard 1/2 inch hex socket with extension can be used for this purpose.

Style Number: 765A767G01

Cell Switches Mounted on Draw-out Frames, All Ratings

Up to four switches can be provided. Order by description.

Each switch provides NO and NC contact that transfers before reaching the test position when being withdrawn, and after the test position when being racked in.

Shaded gray areas denotes obsolete or discontinued products and services

^① These units are CSA and UL listed.

^② Safety interlock not available on MC, NC, HMC, HNC, LC, HLC

^③ SELTRONIC circuit breakers with built-in ground fault require a special breaker frame with leads out the side in place of standard terminal block. Order by description the breaker frame and carrier as one assembly.

^④ Factory installed only.

Panelboard Replacement Breakers UL Listed 100 and 150 Ampere Frames

OUT-OF-PRODUCTION CIRCUIT BREAKERS

Several models of Westinghouse moulded case circuit breakers are no longer manufactured. These circuit breakers are considered by Cutler-Hammer to be out of production.

However, some firms have been offering Westinghouse out-of-production circuit breakers in a reconditioned state. These circuit breakers are not new units and may have been in service for extended periods of service time.

Moulded case circuit breakers are not designed to be repaired or calibrated in the field. When these circuit breakers are reconditioned by firms other than Cutler-Hammer, it is extremely difficult to maintain the original factory specifications of the circuit breakers.

REPLACEMENT OF OUT-OF-PRODUCTION CIRCUIT BREAKERS

When out-of-production circuit breakers must be replaced, Cutler-Hammer recommends one of these solutions:

- Upgrade or retrofit the equipment to use the most current moulded case circuit breaker technology. This includes the Series C® family of moulded case circuit breakers that have higher interrupting capacities in each frame size while being smaller and lighter.
- Use currently manufactured Cutler-Hammer replacement industrial circuit breakers. They are available from stock and can be used to replace many out-of-production circuit breakers.
- Use Cutler-Hammer Panelboard Replacement Circuit Breakers in panelboards and small switchboards with group mounted circuit breaker distribution sections. These UL listed replacement circuit breakers are newly manufactured and are physically interchangeable with the circuit breakers they are designed to replace. (These circuit breakers may be suitable for other replacement applications as well.)
- Cutler-Hammer strongly recommends that out-of-production circuit breakers be replaced with one of the newly manufactured circuit breakers described in the preceding paragraphs.

As a last resort, another alternative is to utilize out-of-production circuit breakers that have been reconditioned by Cutler-Hammer at the original factory. Factory reconditioned breakers are available for all styles of out-of-production breakers (E, F, G, J, K, L, . . .). These breakers are not UL listed, but have been reconditioned and tested at the factory according to the manufacturing and engineering standards to which the original breakers were built.

Cutler-Hammer Panelboard Replacement Circuit Breakers are newly manufactured and tested to the latest applicable standards at the Cutler-Hammer moulded case circuit breaker plant in Beaver, Pennsylvania. This plant has a long and well-recognized tradition of product safety, integrity and quality.

The panelboard replacement circuit breaker solution eliminates the need to consider alternative approaches. Cutler-Hammer customers are assured that the high standards of product quality and reliability do not have to be sacrificed when replacing Westinghouse out-of-production circuit breakers.

All Panelboard Replacement Circuit Breakers are easily identified by the prefix "R" added to the out-of-production type circuit breaker catalogue number they replace.

Here is an example of the new panelboard replacement circuit breaker catalogue numbering system.

1. An RF3100 is a newly manufactured, three-pole, 100 ampere trip panelboard replacement circuit breaker. It replaces an out-of-production F circuit breaker.

R F 3 100

R Designates New Panelboard Replacement Circuit Breaker

F Identifies the Out-of-Production Circuit Breaker Frame

3 Number of Poles

100 Trip Unit Ampere Rating

Replacement Chart

Current Panelboard Circuit Breaker Type	Out-of-Production Circuit Breaker Type ^①	Volts AC (50/60 Hz)		
		240	480	600
REA	EA	●		
RE	E	●		
REH	EH		●	
RFA	FA			●
RHFA	HFA			●
RF	F			●
RHF	HF			●

Panelboard replacement circuit breakers have non interchangeable trip units and the same interrupting capacity as the out-of-production circuit breakers they replace.

PANELBOARD REPLACEMENT BREAKER UL LISTED INTERRUPTING AMP RATINGS

Breaker Type	Amps	@ 120 Volts AC	@ 240 Volts AC	@ 277 Volts AC	@ 480 Volts AC	@ 600 Volts AC	@ 125 Volts DC	@ 125/250 Volts DC	@ 250 Volts DC
		(1-Pole)	(1-Pole)	(1-Pole)	(1-Pole)	(1-Pole)	(1-Pole)	(1-Pole)	(1-Pole)
RE	15-100	7500	7500 (2, 3P)	10000 (15, 20A)			5000	5000 (2, 3P)	
REA	15-100	7500	7500 (2, 3P)	10000 (15, 20A)			5000	5000 (2P)	
REH	15-100		14000 (2, 3P)	10000	10000 (2, 3P)		5000	5000 (2, 3P)	
RF (2, 3, 4P)	15-100		18000		14000	14000		5000 (70-100A)	10000
RFA (2, 3, 4P)	15-150		18000		14000	14000			10000
RHF (2, 3P)	15-100		65000		25000	18000			10000
RHFA (2, 3P)	15-150		65000		25000	18000			10000

Shaded gray areas denotes obsolete or discontinued products and services

① Last manufacture date – 1974.

Panelboard Replacement Breakers UL Listed

Panelboard replacement breakers can be installed in the following styles of old Westinghouse panelboards:

Installed		Replacement Circuit Breakers
Panelboard Type	Branch Circuit Breakers	
ABH	E⓪	RE
A2B	E⓪	RE
CDP	E⓪	RE
	EA	REA
	EH	REH
	FA	RFA
	F	RF
NAB	E⓪	RE
NAIB	E⓪, EA	RE, REA
NAIB-LX	E⓪	RE
NDP	E⓪, EA, EAH	RE, REA, REH
NEB	EA	REA
NHDP	EH	REH
NHEB	EH/FA	REH, RFA
NHIB	E-277⓪	RE
NLAB-AB	E⓪	RE
NLAB-ABH	E⓪	RE

Note: This information covers most panelboards built by Westinghouse since 1937.

Notes

1. The RE breaker has off-center terminals just like the E breaker it is replacing.
2. For out-of-production breakers, the "B" suffix denoted a long handle, however, the "B" suffix denotes 277 voltage rating for the Panelboard Replacement Breakers.
3. Some Panelboard Replacement Breakers do not have the same physical dimensions or mounting holes as the breakers they replace. For example, the types REH, RFA and RHFA are 6 inches in length and the breakers they replace, EH, FA and HFA are 6-1/2 inches in length. Mounting hardware is provided with each breaker to resolve these differences, and must be installed to ensure a proper fit.

ADDITIONAL INFORMATION

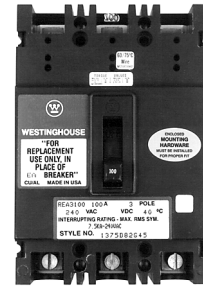
See instruction leaflets for detailed mounting information:

RE, REA	I.L. 15558
RF, RHF	I.L. 15559
REH, RFA, RHFA	I.L. 15562
RJ	I.L. 15563
RK, RHK	I.L. 15564
RKL, RHKL	I.L. 15565
RLM, RMLM	I.L. 15566

Panelboard Replacement Breakers UL Listed

TYPE REA 1-, 2-, 3-POLES; 240-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER		
	1-Pole 120V	2-Pole 240V	3-Pole 240V
10	REA1010	—	—
15	REA1015	REA2015	REA3015
20	REA1020	REA2020	REA3020
25	REA1025	REA2025	REA3025
30	REA1030	REA2030	REA3030
40	REA1040	REA2040	REA3040
50	REA1050	REA2050	REA3050
60	REA1060	REA2060	REA3060
70	REA1070	REA2070	REA3070
80	REA1080	REA2080	REA3080
90	REA1090	REA2090	REA3090
100	REA1100	REA2100	REA3100



TYPE REH 1-, 2-, 3-POLES; 240-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER		
	1-Pole 277V	2-Pole 480V	3-Pole 480V
10	REH1010	—	—
15	REH1015	REH2015	REH3015
20	REH1020	REH2020	REH3020
25	REH1025	REH2025	REH3025
30	REH1030	REH2030	REH3030
40	REH1040	REH2040	REH3040
50	REH1050	REH2050	REH3050
60	REH1060	REH2060	REH3060
70	REH1070	REH2070	REH3070
80	REH1080	REH2080	REH3080
90	REH1090	REH2090	REH3090
100	REH1100	REH2100	REH3100



TYPE RE 1-, 2-, 3-POLES; 240-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER		
	1-Pole 120V	2-Pole 240V	3-Pole 240V
10	RE1010	.....	.....
15	RE1015	RE2015	RE3015
20	RE1020	RE2020	RE3020
25	RE1025	RE2025	RE3025
30	RE1030	RE2030	RE3030
40	RE1040	RE2040	RE3040
50	RE1050	RE2050	RE3050
60	RE1060	RE2060	RE3060
70	RE1070	RE2070	RE3070
80	RE1080	RE2080	RE3080
90	RE1090	RE2090	RE3090
100	RE1100	RE2100	RE3100



ACCESSORIES AND MODIFICATIONS

All accessories and modifications available for Replacement Breakers Types EB, EHB and FB are also available for Panelboard Replacement Breakers Types RE, REH, RFA, RF, RHF, REA and RHFA.

For accessories and modifications not listed on these pages, refer to SD 29-121 and SD 29-120 where applicable.

Terminals

Breakers include load terminals only. Panelboard replacement breaker terminals listed below are the same as the terminals used on replacement breakers Type EB, EHB, and FB.

Maximum Breaker Amps	Wire Type	Wire Range	Terminals
			Style Number ^①
Standard Pressure Type Terminals			
20 (EB, EHB)	Al/Cu	#14-#10	624B100G14
100	Al/Cu	#14-1/0	624B100G02
150	Al/Cu	# 4-4/0	624B100G17
Optional Al/Cu Pressure Terminals			
50	Al/Cu	#14-#4	624B100G10
100	Al/Cu	# 4-4/0	624B100G17

50°C Calibration^②

Add suffix "V" to catalogue number for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Factory reconditioned F and FA Tri-Pac styles are available.^②

Shaded gray areas denotes obsolete or discontinued products and services

① Package of 3.

② Not listed with Underwriters' Laboratories, Inc.

TYPE RFA 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER	
	2-Pole 600V	3-Pole 600V
15	RFA2015	RFA3015
20	RFA2020	RFA3020
25	RFA2025	RFA3025
30	RFA2030	RFA3030
35	RFA2035	RFA3035
40	RFA2040	RFA3040
50	RFA2050	RFA3050
60	RFA2060	RFA3060
70	RFA2070	RFA3070
80	RFA2080	RFA3080
90	RFA2090	RFA3090
100	RFA2100	RFA3100
125	RFA2125	RFA3125
150	RFA2150	RFA3150



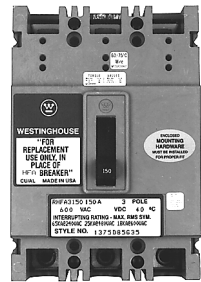
TYPE RF 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER	
	2-Pole 600V	3-Pole 600V
15	RF2015	RF3015
20	RF2020	RF3020
25	RF2025	RF3025
30	RF2030	RF3030
35	RF2035	RF3035
40	RF2040	RF3040
50	RF2050	RF3050
60	RF2060	RF3060
70	RF2070	RF3070
80	RF2080	RF3080
90	RF2090	RF3090
100	RF2100	RF3100



TYPE RHFA 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER	
	2-Pole 600V	3-Pole 600V
15	RHFA2015	RHFA3015
20	RHFA2020	RHFA3020
25	RHFA2025	RHFA3025
30	RHFA2030	RHFA3030
35	RHFA2035	RHFA3035
40	RHFA2040	RHFA3040
50	RHFA2050	RHFA3050
60	RHFA2060	RHFA3060
70	RHFA2070	RHFA3070
80	RHFA2080	RHFA3080
90	RHFA2090	RHFA3090
100	RHFA2100	RHFA3100
125	RHFA2125	RHFA3125
150	RHFA2150	RHFA3150



TYPE RHF 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER	
	2-Pole 600V	3-Pole 600V
15	RHF2015	RHF3015
20	RHF2020	RHF3020
25	RHF2025	RHF3025
30	RHF2030	RHF3030
40	RHF2040	RHF3040
50	RHF2050	RHF3050
60	RHF2060	RHF3060
70	RHF2070	RHF3070
80	RHF2080	RHF3080
90	RHF2090	RHF3090
100	RHF2100	RHF3100



Shaded gray areas denotes obsolete or discontinued products and services

Panelboard Replacement Breakers UL Listed

TYPE RJ 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER	
	2-Pole 600V	3-Pole 600V
70	RJ2070	RJ3070
90	RJ2090	RJ3090
100	RJ2100	RJ3100
125	RJ2125	RJ3125
150	RJ2150	RJ3150
175	RJ2175	RJ3175
200	RJ2000	RJ3200
225	RJ2225	RJ3225
225 MCS	RJ2225K	RJ3225K



TYPE RK 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER	
	2-Pole 600V	3-Pole 600V
70	RK2070	RK3070
90	RK2090	RK3090
100	RK2100	RK3100
125	RK2125	RK3125
150	RK2150	RK3150
175	RK2175	RK3175
200	RK2200	RK3200
225	RK2225	RK3225
225 MCS	RK2225K	RK3225K



TYPE RKL 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER	
	2-Pole 600V	3-Pole 600V
125	RKL2125	RKL3125
150	RKL2150	RKL3150
175	RKL2175	RKL3175
200	RKL2200	RKL3200
225	RKL2225	RKL3225
250	RKL2250	RKL3250
300	RKL2300	RKL3300
350	RKL2350	RKL3350
400	RKL2400	RKL3400
400 MCS	RKL2400K	RKL3400K



TYPE RLM 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER	
	2-Pole 600V	3-Pole 600V
125	RLM2125	RLM3125
150	RLM2150	RLM3150
175	RLM2175	RLM3175
200	RLM2200	RLM3200
225	RLM2225	RLM3225
250	RLM2250	RLM3250
275	RLM2275	RLM3275
300	RLM2300	RLM3300
350	RLM2350	RLM3350
400	RLM2400	RLM3400
500	RLM2500	RLM3500
600	RLM2600	RLM3600
600 MCS	RLM2600K	RLM3600K
700	RLM2700	RLM3700
800	RLM2800	RLM3800



Shaded gray areas denotes obsolete or discontinued products and services

TYPE RHK 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER	
	2-Pole 600V	3-Pole 600V
70	RHK2070	RHK3070
90	RHK2090	RHK3090
100	RHK2100	RHK3100
125	RHK2125	RHK3125
150	RHK2150	RHK3150
175	RHK2175	RHK3175
200	RHK2200	RHK3200
225	RHK2225	RHK3225
225 MCS	RHK2225K	RHK3225K



TYPE RHKL 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER	
	2-Pole 600V	3-Pole 600V
125	RHKL2125	RHKL3125
150	RHKL2150	RHKL3150
175	RHKL2175	RHKL3175
200	RHKL2200	RHKL3200
225	RHKL2225	RHKL3225
250	RHKL2250	RHKL3250
300	RHKL2300	RHKL3300
350	RHKL2350	RHKL3350
400	RHKL2400	RHKL3400
400 MCS	RHKL2400K	RHKL3400K



TYPE RHLM 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER	
	2-Pole 600V	3-Pole 600V
125	RHLM2125	RHLM3125
150	RHLM2150	RHLM3150
175	RHLM2175	RHLM3175
200	RHLM2200	RHLM3200
225	RHLM2225	RHLM3225
250	RHLM2250	RHLM3250
275	RHLM2275	RHLM3275
300	RHLM2300	RHLM3300
325	RHLM2325	RHLM3325
350	RHLM2350	RHLM3350
400	RHLM2400	RHLM3400
450	RHLM2450	RHLM3450
500	RHLM2500	RHLM3500
550	RHLM2550	RHLM3550
600	RHLM2600	RHLM3600
600 MCS	RHLM2600K	RHLM3600K
700	RHLM2700	RHLM3700
800	RHLM2800	RHLM3800



ACCESSORIES AND MODIFICATIONS

All accessories and modifications available for Replacement Breakers Types KA, LA and MA are also available for Panelboard Replacement Breakers Types RJ, RK, RKL, RLM, RHK, RHKL, and RHLM.

For accessories and modifications not listed on these pages, refer to SD 29-121 and SD 29-120 where applicable.

Terminals

Panelboard Circuit Breakers	Terminals ^①
RJ	TA225LA1
RK	TA225LA1
RHK	TA225LA1
RKL	TA400LA1
RHKL	TA400LA1
RLM	{ TA700MA1 (for <600A) TA800MA1 (for 700-800A)
RHLM	

50°C Calibration^②

Add suffix "V" to catalogue number for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Special Breakers^②

Magnetic Only (includes Load Terminals). Available for all ampere ratings for 2- and 3-pole RJ, RK, RKL, RLM, RHK, RHKL, and RHLM.

High magnetic Moulded Case Switches (K suffix) are available to replace out-of-production non-automatic breakers (N suffix).

Factory reconditioned K, KL and L Tri-Pac styles also available.^②

Shaded gray areas denotes obsolete or discontinued products and services

^① Packaged individually.

^② Not listed with Underwriters' Laboratories, Inc.

Panelboard Replacement Breakers UL Listed 225 to 800 Ampere Frames

PANELBOARD REPLACEMENT BREAKER INTERRUPTING AMP RATINGS

Breaker Type	Amps	@ 240 VAC Sym	@ 240 VAC Asym	@ 480 VAC Sym	@ 480 VAC Asym	@ 600 VAC Sym	@ 600 VAC Asym	@ 250 VDC
RJ	70-225	22000	25000	18000	20000	14000	15000	10000
RJK	70-225	25000	30000	22000	25000	22000	25000	10000
RJKL	125-400	42000	50000	30000	35000	22000	25000	20000
RK	70-225	25000	30000	22000	25000	22000	25000	10000
RKL	125-400	42000	50000	30000	35000	22000	25000	20000
RLM	125-800	40000	50000	30000	35000	22000	25000	20000
RHK	70-225	65000	75000	35000	40000	25000	30000	20000
RHKL	125-400	65000	75000	35000	40000	25000	30000	20000
RHLM	125-800	65000	75000	35000	40000	25000	30000	20000

Replacement Chart

Current Panelboard Circuit Breaker Type	Out-of-Production Circuit Breaker Type ^①	Volts AC (50/60 Hz)
		600
RJ	J	●
RK	K	●
RHK	HK	●
RKL	KL	●
RHKL	HKL	●
RLM	LM and L	●
RHLM	HLM	●
HLA	JK	●
HLA	JKL	●

Panelboard replacement breakers can be installed in the following styles of old Westinghouse lighting panelboards:

ABH	NEB
A2B	NHDP
NAB	NHEB
NA1B	NH1B
NA1B-LX	NLAB-AB
NDP	NLAB-ABH

These breakers can be installed as vertical main breakers or as vertically mounted sub-feed breakers.

Panelboard replacement circuit breakers have non interchangeable trip units and the same interrupting capacity of the out-of-production circuit breakers they replace.

Notes

Some panelboard replacement breakers do not have the same physical dimensions or mounting holes as the breakers they replace. Mounting hardware is provided with each breaker to resolve these differences, and must be installed to ensure a proper fit.

Shaded gray areas denotes obsolete or discontinued products and services

^① Last manufacture date – 1967

OUT-OF-PRODUCTION CIRCUIT BREAKERS

Several models of Westinghouse moulded case circuit breakers are no longer manufactured. These circuit breakers are considered by Cutler-Hammer to be out of production.

However, some firms have been offering Westinghouse out-of-production circuit breakers in a reconditioned state. These circuit breakers are not new units and may have been in service for extended periods of service time.

Westinghouse moulded case circuit breakers are not designed to be repaired or calibrated in the field. When these circuit breakers are reconditioned by firms other than Cutler-Hammer, it is extremely difficult to maintain the original factory specifications of the circuit breakers.

REPLACEMENT OF OUT-OF-PRODUCTION CIRCUIT BREAKERS

When out-of-production circuit breakers must be replaced, Cutler-Hammer recommends one of these solutions:

- Upgrade or retrofit the equipment to use the most current moulded case circuit breaker technology. This includes the Series C® family of moulded case circuit breakers that have higher interrupting capacities in each frame size while being smaller and lighter.
- Use currently manufactured Cutler-Hammer replacement industrial circuit breakers. They are available from stock and can be used to replace many out-of-production circuit breakers.
- Use Cutler-Hammer Motor Control Replacement Circuit Breakers in motor control centers. These UL listed replacement circuit breakers are newly manufactured and are physically interchangeable with the circuit breakers they are designed to replace. (These circuit breakers may be suitable for other replacement applications as well.)
- Cutler-Hammer strongly recommends that out-of-production circuit breakers be replaced with one of the newly manufactured circuit breakers described in the preceding paragraphs.

Cutler-Hammer Motor Control Center Replacement Circuit Breakers are newly manufactured and tested to the latest applicable standards at the Cutler-Hammer moulded case circuit breaker plant in Beaver, Pennsylvania. This plant has a long and well-recognized tradition of product safety, integrity and quality.

The Motor Control Center Replacement Circuit Breaker solution eliminates the need to consider alternative approaches. Cutler-Hammer customers are assured that the high standards of product quality and reliability do not have to be sacrificed when replacing Westinghouse out-of-production circuit breakers.

All Motor Control Center Replacement Circuit Breakers are easily identified by the prefix "RMC" added to the out-of-production type circuit breaker catalogue number they replace.

As a last resort, another alternative is to utilize out-of-production circuit breakers that have been reconditioned by Westinghouse at the original factory. Factory reconditioned breakers are available for all styles of out-of-production breakers (E, F, G, J, K, L, . . .). These breakers are not UL listed, but have been reconditioned and tested at the factory according to the manufacturing and engineering standards to which the original breakers were built.

Here is an example of the new Motor Control Center Replacement Circuit Breaker catalogue numbering system.

1. An RMCF3100 is a newly manufactured, three-pole, 100 ampere trip panelboard replacement circuit breaker. It replaces an out-of-production F circuit breaker.

RMC F 3 100

RMC Designates new Motor Control Center Replacement Circuit Breaker

F Identifies the Out-of-Production Circuit Breaker Frame

3 Number of Poles

100 Trip Unit Ampere Rating

Replacement chart

Current MCC Circuit Breaker Type	Out-of-Production Circuit Breaker Type ^①	Volts AC (50/60 Hz)
		600
RMCF	F	●
RMCF	HF	●
RMCF	F	●
RMCF	HF	●

Motor Control Center Replacement Circuit Breakers have non interchangeable trip units and the same interrupting capacity as the out-of-production circuit breakers they replace.

MOTOR CONTROL CENTER REPLACEMENT BREAKER INTERRUPTING AMP RATINGS

Breaker Type	Amps	@ 240 Volts AC	@ 480 Volts AC	@ 600 Volts AC	@ 250 Volts DC
RMCF	15-100	18000	14000	14000	10000
RMCF	15-150	18000	14000	14000	10000
RMCF	15-100	65000	25000	18000	20000
RMCF	15-150	65000	25000	18000	20000

Shaded gray areas denotes obsolete or discontinued products and services

^① Last manufacture date – 1974.

Motor Control Center Replacement Breakers UL Listed

Notes

Motor Control Center Replacement Breakers do not have the same physical dimensions or mounting holes as the breakers they replace. Types RMCFA and RMCHFA are 6 inches in length and the breakers they replace, FA and HFA, are 6½ inches in length. Types RMCF and RMCHF are 6 inches in length and the breakers they replace, F and HF, are 9⅜ inches in length. A mounting plate is provided with each breaker to resolve these differences, and must be installed to ensure a proper fit.

RMCF and RMCHF 2 pole breakers are supplied in a 3 pole frame with current carrying parts omitted from the center pole.

ADDITIONAL INFORMATION

See instruction leaflets for detailed mounting information:

RMCF, RMCHF	I.L. 15582
RMCFA, RMCHFA	I.L. 15583

TYPE RMCFA 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER		
	1-Pole	2-Pole	3-Pole
15	—	RMCF2015	RMCF3015
20	—	RMCF2020	RMCF3020
25	—	RMCF2025	RMCF3025
30	—	RMCF2030	RMCF3030
35	—	RMCF2035	RMCF3035
40	—	RMCF2040	RMCF3040
50	—	RMCF2050	RMCF3050
60	—	RMCF2060	RMCF3060
70	—	RMCF2070	RMCF3070
80	—	RMCF2080	RMCF3080
90	—	RMCF2090	RMCF3090
100	—	RMCF2100	RMCF3100
125	—	RMCF2125	RMCF3125
150	—	RMCF2150	RMCF3150

TYPE RMCFA 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER		
	1-Pole	2-Pole	3-Pole
15	—	RMCF2015	RMCF3015
20	—	RMCF2020	RMCF3020
25	—	RMCF2025	RMCF3025
30	—	RMCF2030	RMCF3030
35	—	RMCF2035	RMCF3035
40	—	RMCF2040	RMCF3040
50	—	RMCF2050	RMCF3050
60	—	RMCF2060	RMCF3060
70	—	RMCF2070	RMCF3070
80	—	RMCF2080	RMCF3080
90	—	RMCF2090	RMCF3090
100	—	RMCF2100	RMCF3100

TYPE RMCFA 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER		
	1-Pole	2-Pole	3-Pole
15	—	RMCHFA2015	RMCHFA3015
20	—	RMCHFA2020	RMCHFA3020
25	—	RMCHFA2025	RMCHFA3025
30	—	RMCHFA2030	RMCHFA3030
35	—	RMCHFA2035	RMCHFA3035
40	—	RMCHFA2040	RMCHFA3040
50	—	RMCHFA2050	RMCHFA3050
60	—	RMCHFA2060	RMCHFA3060
70	—	RMCHFA2070	RMCHFA3070
80	—	RMCHFA2080	RMCHFA3080
90	—	RMCHFA2090	RMCHFA3090
100	—	RMCHFA2100	RMCHFA3100
125	—	RMCHFA2125	RMCHFA3125
150	—	RMCHFA2150	RMCHFA3150

■ Shaded gray areas denotes obsolete or discontinued products and services

Motor Control Center Replacement Breakers UL Listed

TYPE RMCHF 2-, 3-POLES; 600-VOLTS AC MAXIMUM; THERMAL MAGNETIC

Continuous Ampere Rating at 40°C	CATALOGUE NUMBER		
	1-Pole	2-Pole	3-Pole
15	—	RMCHF2015	RMCHF3015
20	—	RMCHF2020	RMCHF3020
25	—	RMCHF2025	RMCHF3025
30	—	RMCHF2030	RMCHF3030
35	—	RMCHF2035	RMCHF3035
40	—	RMCHF2040	RMCHF3040
50	—	RMCHF2050	RMCHF3050
60	—	RMCHF2060	RMCHF3060
70	—	RMCHF2070	RMCHF3070
80	—	RMCHF2080	RMCHF3080
90	—	RMCHF2090	RMCHF3090
100	—	RMCHF2100	RMCHF3100



ACCESSORIES AND MODIFICATIONS

Description: Pages 39 - 49

All accessories and modifications available for Replacement Breakers Type FB and HFB are also available for Motor Control Centers Replacement Breakers Types RMCF, RMCHFA, RMCF, and RMCHF.

Terminals

Breakers include both line and load terminals. See Terminal data for Replacement Breaker Type FB.

50°C Calibration

Add suffix "V" to catalogue number for complete breaker, listed above, when ordering listed ampere ratings for breakers to be used in 50°C ambients. Same price as standard 40°C breakers.

Special Breakers^①

Magnetic Only, Front Adjustable (includes Line and Load Terminals). Available for 15-150 ampere ratings for 2- and 3-pole RMCF, RMCHF, RMCF, and RMCHFA.

Factory reconditioned F and FA Tri-Pac styles also available.^①

Shaded gray areas denotes obsolete or discontinued products and services

^① Not listed with CSA and Underwriters' Laboratories, Inc.