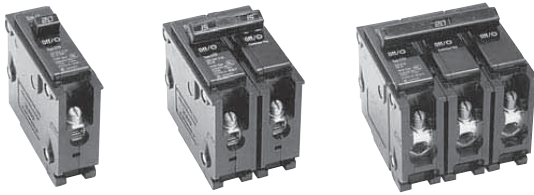


Type BR Circuit Breakers



Product Description

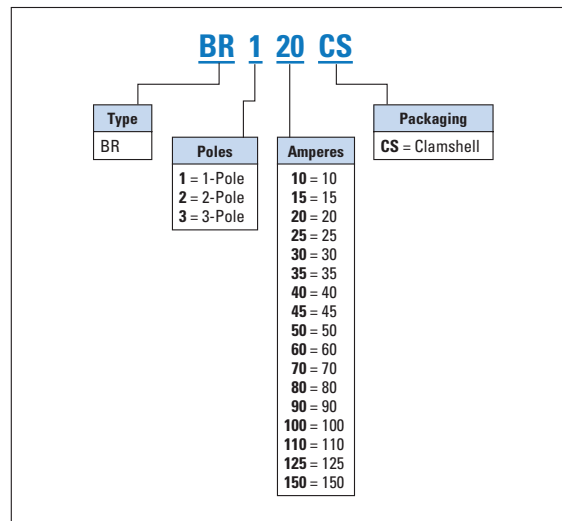
The primary function of a circuit breaker is to protect the wire from overheating (referred to as an overload) and fault currents (referred to as short circuits). Circuit breakers replaced fuses because they can be reset.

Features, Functions and Benefits

- ✓ Operated by toggle-type handle and multi-pole circuit breakers have an internal common trip mechanism.
- ✓ Handle position provides visual trip position.
- ✓ Type BR:
 - 10 to 150 amperes
 - 1-, 2- and 3-pole
 - 1- and 2-pole 120/240 V
 - 3-pole 240 V
 - 10, 22 and 42 kAIC (2 poles only)
- ✓ Type BR breakers carry listing for HCAR application.
- ✓ Meet UL 489, CSA, NEMA standards, Federal Spec Classification W-C 375 b/GEN.
- ✓ 1-inch (25.4 mm) wide (per pole).

Catalog Numbering System



TABLE 1-9. CATALOG NUMBERING SYSTEM



Note: For arc fault and ground fault breakers, please see applicable sections.

Data Tables



TABLE 1-10. TYPE BR BREAKERS, 1-INCH (25.4 MM) PER POLE 120/240, 10, 22 AND 42 kAIC

Amperage Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 120/240 Vac Requires One 1-Inch (25.4 mm) Space 				2-Pole 120/240 Vac Common Trip Requires Two 1-Inch (25.4 mm) Spaces 					
		10 per Shelf Carton				5 per Shelf Carton					
		10 kAIC		22 kAIC		10 kAIC		22 kAIC		42 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code
10	#14 - 4	BR110	786676362009	—	—	BR210	786676362757	—	—	—	—
15		BR115 ^{①②}	786676362054	BRH115	786676373050	BR215	786676362801	BRH215	786676373456	—	—
20		BR120 ^{①②}	786676362108	BRH120	786676373104	BR220	786676362856	BRH220	786676373500	—	—
25		BR125	786676362153	BRH125	786676373159	BR225	786676362900	BRH225	786676373555	—	—
30		BR130	786676362207	BRH130	786676373203	BR230	786676362955	BRH230	786676373609	—	—
35	#14 - 4	BR135	782114372081	BRH135	782114372128	BR235	786676374354	BRH235	782114372159	—	—
40		BR140	786676362252	BRH140	786676373258	BR240	786676363006	BRH240	786676373654	—	—
45		—	—	BRH145	782114372135	BR245	786676374453	BRH245	782114372166	—	—
50		BR150	786676362306	BRH150	786676373302	BR250	786676363051	BRH250	786676373708	—	—
55	#14 - 3	BR150	786676362306	BRH155	782114372142	BR255	782114372111	BRH255	782114372173	—	—
60	#4 - 1/0	BR160	786676362351	BRH160	786676373357	BR260	786676363105	BRH260	786676373753	BRHH260	786676382601
70		BR170	786676362405	BRH170	786676373401	BR270	786676363150	BRH270	786676373807	BRHH270	786676382700
80		—	—	—	—	BR280	786676363174	BRH280	782114372180	BRHH280	786676382809
90		—	—	—	—	BR290	786676363204	BRH290	786676373852	BRHH290	786676382908
100		—	—	—	—	BR2100	786676363259	BRH2100	786676373906	BRHH2100	786676376952
110		—	—	—	—	BR2110	786676384278	BRH2110	786676374248	BRHH2110	786676002950
125	#4 - 2/0	—	—	—	—	BR2125	786676367059	BRH2125	786676373951	BRHH2125	786676377003
150		—	—	—	—	BR2150 ^③	786676101950	—	—	—	—

- ① 1-pole, 1-inch (25.4 mm) per pole circuit breakers are available with high magnetic setting for switching large tungsten lamp loads. Add Suffix H to catalog number.
- ② Switching duty rated.
- ③ For use as a branch circuit breaker in 400 and 600 ampere panels only.

Note: All Type BR 1-, 2- and 3-pole circuit breakers carry listing for HACR application.

TABLE 1-11. TYPE BR BREAKERS, 1-INCH (25.4 MM) PER POLE 120/240, 10, 22 AND 42 kAIC — CLAMSHELLS

Amperage Rating	Wire Size Range Cu/Al 60°C or 75°C	1-Pole 120/240 Vac Requires One 1-Inch (25.4 mm) Space 				2-Pole 120/240 Vac Common Trip Requires Two 1-Inch (25.4 mm) Spaces 					
		6 per Shelf Carton				3 per Shelf Carton					
		10 kAIC		22 kAIC		10 kAIC		22 kAIC		42 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code	Catalog Number	UPC Code
15	#14 - 4	BR115CS ^{④⑤}	782114752708	—	—	BR215CS	782116630486	—	—	—	—
20		BR120CS ^{④⑤}	782114752715	—	—	BR220CS	782114752746	—	—	—	—
30		BR130CS	782114752722	—	—	BR230CS	782114752753	—	—	—	—
40		BR140CS	782116630370	—	—	BR240CS	782114752760	—	—	—	—
50	#4 - 1/0	BR150CS	782116630387	—	—	BR250CS	782114752777	—	—	—	—
60		BR160CS	782116630394	—	—	BR260CS	782114752784	—	—	—	—
70		BR170CS	782116630400	—	—	BR270CS	782116630493	—	—	—	—
80		—	—	—	—	BR280CS	782116630509	—	—	—	—
90	#4 - 1/0	—	—	—	—	BR290CS	782116630516	—	—	—	—
100		BR1100CS	782116630417	—	—	BR2100CS	782116630523	—	—	—	—
110		—	—	—	—	BR2110CS	782116630530	—	—	—	—
125		—	—	—	—	BR2125CS	782116630547	—	—	—	—
135	#4 - 1/0	—	—	—	—	BR2135CS	782116630554	—	—	—	—
150		—	—	—	—	BR2150CS	782116630561	—	—	—	—

- ④ 1-pole, 1-inch (25.4 mm) per pole circuit breakers are available with high magnetic setting for switching large tungsten lamp loads. Add Suffix H to catalog number.
- ⑤ Switching duty rated.

Note: All Type BR 1-, 2- and 3-pole circuit breakers carry listing for HACR application.

Data Tables

TABLE 1-12. TYPE BR BREAKERS, 1-INCH (25.4 MM) PER POLE 240 VAC, 10,000 AND 22,000 kAIC

Ampere Rating	Wire Size Range Cu/Al 60°C or 75°C	3-Pole 240 Vac Common Trip Requires Three 1-Inch (25.4 mm) Spaces			
		5 per Shelf Carton			
		10 kAIC		22 kAIC	
		Catalog Number	UPC Code	Catalog Number	UPC Code
10	#14 – 4	BR310	786676092050	—	—
15		BR315 ^①	786676367707	BRH315	786676372503
20		BR320 ^①	786676367752	BRH320	786676372558
25		BR325	786676000093	BRH325	786676002707
30		BR330	786676367806	BRH330	786676372602
35	#14 – 4	BR335	786676000109	BRH335	786676002714
40		BR340	786676367851	BRH340	786676372657
45		BR345	786676000116	BRH345	786676002721
50		BR350	786676367905	BRH350	786676372701
55	#14 – 3	BR355	782114375167	BRH355	786676002738
60	#4 – 1/0	BR360	786676367950	BRH360	786676372756
70		BR370	786676368001	BRH370	786676372800
80		BR380	782114103098	BRH380	786676002745
90		BR390	786676368056	BRH390	786676372855
100		BR3100	786676368094	BRH3100	786676372909

^① One pole, 1-inch (25.4 mm) per pole circuit breakers are available with high magnetic setting for switching large tungsten lamp loads. Add suffix H to catalog number.

Note: All Type BR 1-, 2- and 3-pole circuit breakers carry listing for HACR application.



Accessories

TABLE 1-13. FIELD INSTALLATION KITS AND PARTS

Description	Catalog Number	UPC Code	Minimum Order Quantity
Handle Ties ①			
Handle tie bar for physically joining the handles of two adjacent 1-pole Type BR Circuit Breakers. (Metal Cylinder Pin Type)	BHT	786676375207	10
Handle tie bar for physically joining the handles of two adjacent 1-pole Type BR Circuit Breakers. (Metal Cylinder Pin Type w/ Clamshell)	BHTCS	782114793107	1
Handle tie bar for joining two independent outside poles of Types BQ and BQC Quadplex and outside poles of two Type BD Duplex Circuit Breakers.	THOW	786676092036	10
Handle tie bar for joining two independent outside poles of Types BQ and BQC Quadplex and outside poles of two Type BD Duplex Circuit Breakers (w/ Clamshell).	THOWCS	782114793435	1
Handle tie bar for joining two adjacent outside poles of Types BQ and BQC Quadplex and outside poles of two Type BD Duplex Circuit Breakers.	THS1	786676092043	10
Handle tie bar for joining two adjacent outside poles of Types BQ and BQC Quadplex and outside poles of two Type BD Duplex Circuit Breakers (w/ Clamshell).	THS1CS	782114793442	1
Handle Lockoffs ②			
Padlockable device for locking the handle of 1-, 2- or 3-pole Type BR Circuit Breakers and 1-pole of a Type BD Duplex or one independent outside pole of a Type BQ or BQC Quadplex Circuit Breakers. (Escutcheon Mounted) ③ or one independent outside pole of a Type BQ or BQC Quadplex Circuit Breakers. (Escutcheon Mounted w/ Clamshell) ③	BRLW	786676000499	10
	BRLWCS	782114793138	1
Padlockable device for locking the handle of a 1-pole Type BR Circuit Breaker. (Handle Mounted) ④	BRLW1	786676376228	10
Padlockable device for locking the handle of a 1-pole Type BR Circuit Breaker. (Handle Mounted w/ Clamshell) ④	BRLW1CS	782114793145	1
Padlockable device for locking the handle of a 2- and 3-pole Type BR Circuit Breaker. (Handle Mounted) ④	BRLW2	786676376259	10
Padlockable device for locking the handle of a 2- and 3-pole Type BR Circuit Breaker. (Handle Mounted w/ Clamshell) ④	BRLW2CS	782114793152	1
Padlockable device for locking the handle of a 1-pole Type BD Duplex, BQ or BQC Quadplex Breaker. (Handle Mounted) ④	BRDL1	786676376129	10
Padlockable device for locking the handle of the two center poles and the two outer poles of a 2-pole Types BQ and BQC Quadplex Circuit Breakers. (Escutcheon Mounted) ③	BRQLW	786676376303	10
Padlockable device for locking the handle of main circuit breaker Types CC and CHH into the ON or OFF position. (Screw Mounted) ⑤	CCPL	782113099415	1
Padlockable device for locking the handle of main breaker Types BW and BWH into the ON or OFF position. (Escutcheon Mounted) ③	MCBPL	782113099309	1

① Handle Ties: Typically used to join two similar independent single-pole breakers to form a 2-pole noncommon trip breaker.

② Handle Lockoffs: Devices that use a padlock to lock the circuit breaker's handle in the ON or OFF position.

③ Escutcheon Mounted: Device mounted semipermanently to the face of the circuit breaker and secured by the loadcenter deadfront.

④ Handle Mounted: Device mounted directly to the handle by the use of a set screw.

⑤ Screw Mounted: Device permanently mounted to the face of the circuit breaker by the use of a non-removable screw.

Accessories

TABLE 1-13. FIELD INSTALLATION KITS AND PARTS (CONTINUED)

Description	Catalog Number	UPC Code	Minimum Order Quantity
Handle Lockdogs ①			
Device used to secure handle in ON or OFF position for 1-, 2-, or 3-pole Type BR Circuit Breakers and 1-pole of Type BD Duplex and one independent outside pole of Type BQ or BQC Quadplex Circuit Breakers. (Escutcheon Mounted) ②	BHLW	786676000482	10
Device used to secure handle in ON or OFF position for 1-pole Type BR Circuit Breakers. (Handle Mounted) ③	BHLW1	786676375658	10
Device used to secure handle in ON or OFF position for 2- and 3-pole Type BR Circuit Breakers. (Handle Mounted) ③	BHLW2	786676375689	10
Device used to secure handle in ON or OFF position for 1-pole Type GFCB Ground Fault Circuit Breakers. (Handle Mounted) ③	BHGW	782114797358	10
Device used to secure handle in ON or OFF position for one independent outside pole of Types BQ and BQC Quadplex or 1-pole Type BD Duplex Circuit Breakers. (Handle Mounted) ③	HLW1	786676375450	10
Hold-Down Kits ④			
Hold-down retainer kit for 3-pole Type BR Circuit Breakers in S3100 and 3100R Loadcenters only.	BRHDB	786676376402	1
Hold-down screw kit for 2-pole Type BR Circuit Breakers in single-phase MLO Loadcenters through 125 amperes.	BREQS125	786676449557	1
Hold-down screw kit for 2-pole Type BR Circuit Breakers in MLO Loadcenters 150 through 225 amperes (single-phase only).	BRHDK125	786676449502	1
Hold-down screw kit for 2-pole Types BJ and BJH Circuit Breakers in MLO Loadcenters 125 through 225 amperes.	BJHDS	786676376709	1
Hold-down screw kit for 3-pole Types BJ and BJH Circuit Breakers in MLO Loadcenters 125 through 225 amperes.	BJHDS3P	786676376754	1
Mechanical Interlocks			
Types BR for 2-, 3- and 4-pole breakers	BRML	782114383926	10
Types BR for 2-, 3- and 4-pole breakers (w/ Clamshell)	BRMLCS	782114793169	1
Sub-Feed Blocks			
125 A 2-pole sub-feed block #6 – 2/0 wire size	BRSF125	786676001762	1
125 A 2-pole sub-feed block #6 – 2/0 wire size (w/ clamshell)	BRSF125CS	782114793176	1
Surge Breaker			
Plug-on surge protector	BR SURGE	786676449403	1
Plug-on surge protector (w/ clamshell)	BR SURGECS	782114753415	1

- ① Handle Lockdogs: Devices that are used to secure a circuit breaker's handle in the ON or OFF position. Handle Lockdogs are not padlockable devices.
 ② Escutcheon Mounted: Device mounted semipermanently to the face of the circuit breaker and secured by the loadcenter deadfront.
 ③ Handle Mounted: Device mounted directly to the handle by the use of a set screw.
 ④ Hold-Down Kits: Devices used to secure the circuit breaker to the loadcenter for back-feed main application. See NEC Article 384-16(g).



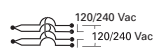
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Circuit Breakers

Related Products

DUPLIX AND INDEPENDENT TRIP QUADPLEX BREAKERS

TABLE 1-14. CLASS CTL, 1-INCH (25.4 MM) PER POLE 10 kAIC — ALL CIRCUIT BREAKERS HAVE REJECTION TAB FEATURE

Type BD Duplex (UL Type BRD)			Type BQ Quadplex Independent Trip (UL Type BRD)			Type BQ Quadplex Independent Trip (UL Type BRD)						
 1-Pole ②			 2-Pole ① and 1-Pole ②			 2-Pole						
Requires One 1-Inch (25.4 mm) Space			Requires Two 1-Inch (25.4 mm) Spaces			Requires Two 1-Inch (25.4 mm) Spaces						
10 per Shelf Carton			5 per Shelf Carton			5 per Shelf Carton						
10 kAIC			10 kAIC			10 kAIC						
120 Vac			120 120/240 120 Vac Vac Vac			120/240 Vac						
Ampere Rating			Ampere Rating			Ampere Rating						
Ampere Rating	Catalog Number	UPC Code	Wire Size Range Cu/Al 65°C or 75°C	Outer Left 1-Pole	Center 2-Poles Independent Trip	Outer Right 1-Pole	Catalog Number	UPC Code	Outer 2-Poles Independent Trip	Center 2-Poles Independent Trip	Catalog Number	UPC Code
				10-10	BD1010	786676009010			#14-4	15		
15-15	BD1515	786676369053		20	20	20	BQ2202120	786676371308	15	20	BQ215220	786676004381
15-15	BD1515CS	782116630462		15	30	15	BQ2302115	786676371506	15	30	BQ215230	786676004404
15-20	BD1520	786676369107		20	30	20	BQ2302120	786676371551	15	40	BQ215240	786676004411
15-30	BD1530	786676369152		15	40	15	BQ2402115	786676371605	15	50	BQ215250	786676004435
20-15	BD2015	786676369206		20	40	20	BQ2402120	786676371650	20	20	BQ220220	786676370752
20-20	BD2020	786676369251		15	50	15	BQ2502115	786676371704	20	30	BQ220230	786676370806
20-20	BD2020CS	782116630479		20	50	20	BQ2502120	786676371759	20	40	BQ220240	786676370851
20-30	BD2030	786676369305		—	—	—	—	—	20	50	BQ220250	786676370905
25-25	BD2525	786676369350		—	—	—	—	—	25	25	BQ225225	786676370950
30-15	BD3015	786676369404		—	—	—	—	—	30	30	BQ230230	786676371001
30-20	BD3020	786676369459		—	—	—	—	—	30	40	BQ230240	786676371056
30-30	BD3030	786676369503		—	—	—	—	—	30	50	BQ230250	786676371100
30-40	BD3040	786676369534		—	—	—	—	—	40	40	BQ240240	786676371155
30-50	BD3050	786676369558		—	—	—	—	—	40	50	BQ240250	786676371209
50-30	BD5030	786676369602		—	—	—	—	—	50	50	BQ250250	786676371254
50-50	BD5050	786676004282		—	—	—	—	—	—	—	—	—

① All Type BD Duplex and BQ Quadplex circuit breakers carry listing for HACR applications.

② All 15 and 20 ampere single poles are switch-duty rated.

Note: Type BD Duplex, BQ and BQC Quadplex (CTL) circuit breakers conform to Section 384-15 of the latest National Electrical Code. Install breaker only in panel positions that have notched bus stabs.

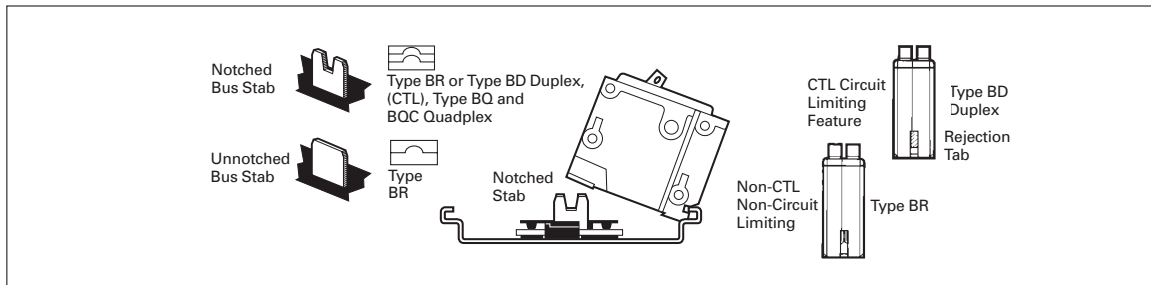
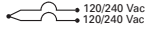
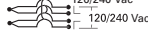
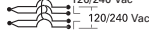


FIGURE 1-1. CTL AND NON-CTL BREAKERS

Data Tables

TABLE 1-15. CLASS NON-CTL, 1-INCH (25.4 MM) PER POLE 10 KAIC — BREAKERS DO NOT HAVE REJECTION TAB FEATURE

Type BR Duplex			Type Brand BRD Quadplex Independent Trip				Type BRD Quadplex Common Trip center and Outer Poles				
1-Pole ^① 			2-Pole 				2-Pole 				
Requires One 1-Inch (25.4 mm) Space			Requires Two 1-Inch (25.4 mm) Spaces				Requires Two 1-Inch (25.4 mm) Spaces				
10 per Shelf Carton			3 per Shelf Carton				3 per Shelf Carton				
10 kAIC			10 kAIC				10 kAIC				
120 Vac			120/240 Vac		120/240 Vac		120/240 Vac		120/240 Vac		
			Ampere Rating		Ampere Rating		Ampere Rating		Ampere Rating		
Ampere Rating	Catalog Number	UPC Code	Wire Size Range Cu/Al 65°C or 75°C	Outer 2-Poles Independent Trip	Center 2-Poles Independent Trip	Catalog Number	UPC Code	Outer 2-Poles Common Trip	Center 2-Poles Common Trip	Catalog Number	UPC Code
15 – 15	BR1515	786676370059	#14 – 4	15	15	BR415	786676372107	15	15	BRDC215215	786676372312
15 – 15	BR1515CS ^②	782114752791		15	15	BR420	786676372152	30	30	BRDC230230	786676372329
15 – 20	BR1520	786676370103		20	20	BR430	786676372206	30	40	BRDC230240	786676372336
20 – 15	BR2015	786676370202		30	30	BRD220230	786676372213	30	50	BRDC230250	786676372343
20 – 20	BR2020	786676370257		20	30	BRD230240	786676372251	—	—	—	—
20 – 20	BR2020CS ^②	782114752807		20	30	BRD230250	786676372305	—	—	—	—
30 – 30	BR3030	786676370301		30	40	—	—	—	—	—	—

^① Non-CTL 10 kAIC for replacement purposes only. For replacement in enclosures manufactured prior to 1968 with unnotched stabs. Circuit breakers do not have rejection tab.

^② Clamshell.

Cross-Reference

TABLE 1-16. CIRCUIT BREAKERS

1-Inch Breakers (25.4 mm)

Cutler-Hammer® BR Breakers	Siemens®	GE®	Square D — HOMELINE®
BR115	Q115	THQL1115	HOM115
BR120	Q120	THQL1120	HOM120
BR130	Q130	THQL1130	—
—	—	—	—
BR2100	Q2100	THQL21110	HOM2100
BR2125	Q2125	THQL21125	HOM2125
BR215	Q215	THQL2115	HOM215
BR220	Q220	THQL2120	HOM220
BR225	Q225	THQL2125	HOM225
BR230	Q230	THQL2130	HOM230
BR240	Q240	THQL2140	HOM240
BR250	Q250	THQL2150	HOM250
BR260	Q260	THQL2160	HOM260
BR270	Q270	THQL2170	HOM270
BR280	Q280	THQL2180	—
BR3100	Q3100	THQL32100	—
BR320	Q320	THQL32020	—
BR330	Q330	THQL32030	—
BR340	Q340	THQL32040	—
BR350	Q350	THQL32050	—
BR360	Q360	THQL32060	—
BR1515	—	—	—
BR2020	—	—	—
BD1515	Q1515	—	HOMT1515
BD1520	Q1520	—	HOMT1520
BD2020	Q2020	—	HOMT2020
—	Q120	TQ1120	—
—	Q230	TQ2130	—
BQ230240	—	—	—
BQ220230	Q23020	—	—
BD3020	Q2030	—	—

Note: These products are by no means equivalent but functionally similar. This is a cross-reference tool not an interchangeability chart.