

Molded Case Circuit Breakers

Reference Guide

Selection/Application

Thermal-Magnetic Trip Breakers

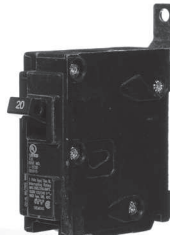
				Plug-In Breakers						Panelboard Breakers									
				QT	QP	QPH	HQP	HOPPH	QPJ	BL®	BLH	HBL	BQD, BQD6	NGB, NGB2	HGB2	LGB2			
Page				5-21	5-22, 5-24	5-22, 5-24	5-20, 5-24	5-20, 5-24	5-24	5-29	5-29	5-29	5-32	5-33	5-33	5-33			
Ratings	AC	Poles			1, 2	1, 2, 3	1, 2, 3	1, 2, 3 ^②	2	2, 3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3			
		Amperes			15-50	10-125 ^{③④}	10-125 ^{③④}	10-125 ^{③⑦}	100-225	150-200	10-125	15-125	15-100	15-100	15-125	15-125	15-125		
		Volts (50/60 Hz)	1 Pole	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	277	347	347	347	
			2 Pole	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	480/277	600/347	600/347	600/347	
			3 Pole	—	240	240	240	240	240	240	240	240	240	240	480/277	600/347	600/347	600/347	
		Interrupt Ratings	CSA/UL	120V	10,000	10,000	22,000	65,000	—	—	10000	22000	65000	65000	—	—	—	—	
				240V	10,000	10,000	22,000	65,000	100,000	10,000	10000	22000	65000	65000	100000	100000	100000	100000	
				277V	—	—	—	—	—	—	—	—	—	14000	—	—	—	—	
				347V	—	—	—	—	—	—	—	—	—	10000	—	—	—	—	
				480/277V	—	—	—	—	—	—	—	—	—	14000	25000	35000	65000		
				480V	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
				600/347V	—	—	—	—	—	—	—	—	—	10000	14000	22000	25000		
				600V	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
				IEC 947-2 50/60 Hz	220/240V	I _{CU}	—	—	—	—	—	—	—	—	—	—	—	—	—
						I _{CS}	—	—	—	—	—	—	—	—	—	—	—	—	—
		380/415V	I _{CU}		—	—	—	—	—	—	—	—	—	—	—	—	—		
			I _{CS}		—	—	—	—	—	—	—	—	—	—	—	—	—		
		500V	I _{CU}	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
				I _{CS}	—	—	—	—	—	—	—	—	—	—	—	—	—		
			DC	125/250 V DC Interrupting Rating	2-Pole	—	—	—	—	—	—	—	—	—	14000	14000	14000	14000	
3-Pole	—				—	—	—	—	—	—	—	—	—	—	—	—			
Dimensions in Inches	Height	10-50A	—	2.87	2.87	—	—	—	—	3.56	3.56	3.75	4.50	5.00	5.00	5.00			
		10-60A	3.12	—	—	—	—	—	—	—	—	—	—	—	—	—			
		55-125A	—	3.12	3.12	3.12	3.12	3 ^⑤	3.75	3.75	3.75	4.50	5.00	5.50	5.50				
	Width	1-Pole	1.00	1.00	1.00	1.00	—	—	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
		2-Pole	2.00 ^①	2.00	2.00	2.00	4.00	⑥	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00			
		3-Pole	2.00 ^①	3.00	3.00	3.00	3.00	—	3.00 ^⑤	3.00	3.00	3.00	3.00	3.00	3.00	3.00			
	Depth	2.06	2.37	2.37	2.37	2.37	2.34	2.37	2.37	2.37	2.69	2.71	2.71	2.71	2.71				
Overcurrent Devices	Thermal and Fixed magnetic Trip			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Thermal and Adjustable Magnetic trip			—	—	—	—	—	—	—	—	—	—	—	—	—			
	Adjustable Magnetic trip only			—	—	—	—	—	—	—	—	—	—	—	—	—			
	Motor Circuit Protector			—	—	—	—	—	—	—	—	—	—	—	—	—			
	Molded Case Switch			—	✓ ^④	—	—	—	—	—	—	—	—	—	—	—			
Accessories & Modifications	Undervoltage Trip			—	—	—	—	—	—	—	—	✓	—	✓	✓	✓			
	Shunt Trip			—	✓ ^④	✓ ^④	✓	✓ ^⑧	—	✓	✓	✓	✓	✓	✓	✓			
	Auxiliary Switch			—	—	—	—	✓ ^⑧	—	✓	✓	✓	✓	✓	✓	✓			
	Alarm Switch			—	—	—	—	—	—	—	—	✓	✓	✓	✓	✓			
	Mechanical Interlock			—	—	—	—	—	—	—	—	—	—	—	—	—			
	Fungus Proofing (ref. page 5-89)			—	—	—	—	—	—	✓	✓	✓	✓	✓	✓	✓			



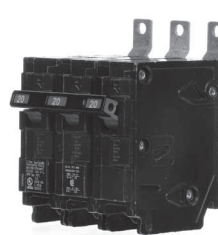
Q3100



B120



B220H



B320HH



NGB1B030B

For inches / millimeters conversion, see Technical section.

For Plug-in Breakers, see Loadcentres section.

① BQD6 CSA certified 10,000A @ 600Y/347V 15-70A only.

② Single pole breakers available in ratings 10-70A only.

③ 125A, 2-pole 120/240V AC only.

④ Single pole circuit breakers available in ratings 15-70A only,

125A available as a 2-pole only.

⑤ 10A, 1-pole & 2-pole 120/240V AC only.

Molded Case Circuit Breakers

Panelboard Mounting with INSTA-WIRE

Selection

1-Pole Bolt-On (120V AC)^⑤

Continuous Current Rating @ 40° C	Type BL ^{①⑥}	Type BLH ^{①⑥}	Type HBL ^{①⑥}
	10,000A IR	22,000A IR	65,000A IR
	Catalogue Number	Catalogue Number	Catalogue Number
15	B115 ^②	B115H ^②	B115HH ^④
20	B12 ^②	B120H ^④	B120HH ^④
25	B125	B125H	B125HH■
30	B130	B130H	B130HH
35	B135	B135H■	B135HH■
40	B140	B140H	B140HH
45	B145■	B145H■	B145HH■
50	B150	B150H	B150HH■
60	B160	B160H■	B160HH■
70	B170	B170H■	B170HH■

2-Pole Bolt-On (Common-Trip 120/240V AC)^④

15	B215	B215H	B215HH
20	B220	B220H	B220HH
25	B225	B225H■	B225HH■
30	B230	B230H	B230HH
35	B235	B235H■	B235HH■
40	B240	B240H	B240HH
45	B245	B245H■	B245HH■
50	B250	B250H	B250HH
60	B260	B260H	B260HH
70	B270	B270H■	B270HH■
80	B280	B280H■	B280HH■
90	B290	B290H■	B290HH■
100	B2100	B2100H	B2100HH
110	B2110■	B2110H■	B2110HH■
125	B2125	B2125H	B2125HH■

2-Pole Bolt-On (Common-Trip 240V AC)^{③⑥⑦}

15	B215R	—	—
20	B220R	—	—
30	B230R	—	—
40	B240R■	—	—
50	B250R	—	—

3-Pole Bolt-On (Common-Trip 240V AC)^⑦

15	B315	B315H	B315HH
20	B320	B320H	B320HH
25	B325	B325H	B325HH■
30	B330	B330H	B330HH
35	B335	B335H■	B335HH■
40	B340	B340H	B340HH
45	B345	B345H■	B345HH■
50	B350	B350H	B350HH
60	B360	B360H	B360HH
70	B370	B370H	B370HH
80	B380	B380H■	B380HH
90	B390	B390H■	B390HH
100	B3100	B3100H	B3100HH

BL/BLH/HBL Internal Accessories

Description	Catalogue Number	Field/Factory Installed
120VAC Shunt Trip	add suffix...00S01■	Factory
24VAC Shunt Trip	add suffix...00S07■	Factory
120V Auxiliary Switch	add suffix...01■ ^②	Factory

■ Built to order. Allow 2-3 weeks for delivery

① UL Listed for use with 60/75° wire through 40 amps, CSA Certified / UL Listed for use with 75° wire only for 50 amps and above, HACR rated. 120V AC Fluorescent Lighting.

② 1A and 1B contacts.

③ UL Listed for use on 3-phase grounded "B" systems — 10,000 for this application.

④ UL Listed for frequent switching applications (SWD).

⑤ Shipped 12 per sleeve.

⑥ Shipped 6 per sleeve.

⑦ Shipped 4 per sleeve.

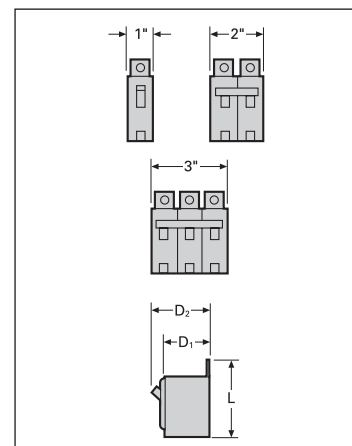
⑧ UL Listed 5KA IR.

⑨ 10 Amp breaker does not have INSTA-WIRE.

⑩ For 3 Phase Applications.

⑪ UL Listed for reverse feed."

⑫ CSA Certified for frequent switching applications (SWD)



Breaker Type	Amperes	Dimensions		
		L	D1	D2
BL, BLH	15-50	3 ³ / ₁₆	2 ³ / ₁₆	3
BL, BLH	55-125	3 ³ / ₁₆	2 ³ / ₁₆	3
HBL	15-125	3 ³ / ₁₆	2 ³ / ₁₆	3

For external accessories, please refer to page 5-83 - 5-89

Panelboards

Warehouse Stock/Unassembled – Type P1 Panelboards

Selection

Branch Breakers Selection for P1

Selection Guide

1. Select breaker type.
2. Select required amperage.
3. Select number of poles.
4. Select branch breaker catalog numbers.
5. Select ground bar and filler plates.
(See replacement parts & accessories on page 10-12.)

BL Branch Breakers – 10,000A IR^①

Amp Rating	1-Pole 120/240V	2-Pole 120/240V	2-Pole 240V	3-Pole 240V
15	B115	B215	B215R	B315
20	B120	B220	B220R	B320
25	B125	B225	B225R	B325
30	B130	B230	B230R	B330
35	B135	B235	B235R	B335
40	B140	B240	B240R	B340
45	B145	B245	B245R	B345
50	B150	B250	B250R	B350
55	B155	—	—	—
60	B160	B260	—	B360
70	B170	B270	—	B370
80	—	B280	—	B380
90	—	B290	—	B390
100	—	B2100	—	B3100

BLH Branch Breakers – 22,000A IR^①

Amp Rating	1-Pole 120/240V	2-Pole 120/240V	3-Pole 240V
15	B115H	B215H	B315H
20	B120H	B220H	B320H
25	B125H	B225H	B325H
30	B130H	B230H	B330H
35	B135H	B235H	B335H
40	B140H	B240H	B340H
45	B145H	B245H	B345H
50	B150H	B250H	B350H
55	B155H	—	—
60	B160H	B260H	B360H
70	B170H	B270H	B370H
80	—	B280H	B380H
90	—	B290H	B390H
100	—	B2100H	B3100H

HBL Branch Breakers – 65,000A IR^①

Amp Rating	1-Pole 120/240V	2-Pole 120/240V	3-Pole 240V
15	B115HH	B215HH	B315HH
20	B120HH	B220HH	B320HH
30	B130HH	B230HH	B330HH
40	B140HH	B240HH	B340HH
50	B150HH	B250HH	B350HH
60	—	B260HH	B360HH
70	—	B270HH	B370HH
80	—	B280HH	B380HH
90	—	B290HH	B390HH
100	—	B2100HH	B3100HH

BQD Branch Breakers – 14,000A IR Max. @ 480/277 Vac / 65,000A IR max. @ 240 Vac^②

Amp Rating	1-Pole 277V	2-Pole 480Y/277V	3-Pole 480Y/277V
15	BQD115	BQD215	BQD315
20	BQD120	BQD220	BQD320
25	BQD125	BQD225	BQD325
30	BQD130	BQD230	BQD330
35	BQD135	BQD235	BQD335
40	BQD140	BQD240	BQD340
45	BQD145	BQD245	BQD345
50	BQD150	BQD250	BQD350
55	BQD155	BQD255	BQD355
60	BQD160	BQD260	BQD360
70	BQD170	BQD270	BQD370
80	BQD180	BQD280	BQD380
90	BQD190	BQD290	BQD390
100	BQD1100	BQD2100	BQD3100

BQD6 Branch Breakers – 10,000A IR max. @ 600/347 Vac

Ampere Rating	Catalogue Number		
	1-Pole 347V	2-Pole 600Y/347V	3-Pole 600Y/347V
15	BQD6115	BQD6215	BQD6315
20	BQD6120	BQD6220	BQD6320
25	BQD6125	BQD6225	BQD6325
30	BQD6130	BQD6230	BQD6330
35	BQD6135	BQD6235	BQD6335
40	BQD6140	BQD6240	BQD6340
45	BQD6145	BQD6245	BQD6345
50	BQD6150	BQD6250	BQD6350
60	BQD6160	BQD6260	BQD6360
70	BQD6170	BQD6270	BQD6370

NGB Family Branch Breakers

NGB – 14,000A IR Max. @ 600Y/347V AC / 100,000A IR @ 240V AC

Amp Rating	1-pole 347V	2-pole 600Y/347V	3-pole 600Y/347V
15	NGB1B015B	NGB2B015B	NGB3B015B
20	NGB1B020B	NGB2B020B	NGB3B020B
25	NGB1B025B	NGB2B025B	NGB3B025B
30	NGB1B030B	NGB2B030B	NGB3B030B
35	NGB1B035B	NGB2B035B	NGB3B035B
40	NGB1B040B	NGB2B040B	NGB3B040B
45	NGB1B045B	NGB2B045B	NGB3B045B
50	NGB1B050B	NGB2B050B	NGB3B050B
60	NGB1B060B	NGB2B060B	NGB3B060B
70	NGB1B070B	NGB2B070B	NGB3B070B
80	NGB1B080B	NGB2B080B	NGB3B080B
90	NGB1B090B	NGB2B090B	NGB3B090B
100	NGB1B100B	NGB2B100B	NGB3B100B
110	NGB1B110B	NGB2B110B	NGB3B110B
125	NGB1B125B	NGB2B125B	NGB3B125B

■ Built to order. Allow 8-10 weeks for delivery. ① To add shunt trip to BL breakers, see Breaker Accessories.
② To add shunt trip to BQD breakers, see Breaker Accessories.