Molded Case Circuit Breakers

Panelboard Mounting with INSTA-WIRE

1-Pole Bolt-On (120V AC)⑤

Continuous Current Rating @ 40° C	Type BL① 10,000A IR Catalog Number	Type BLH① 22,000A IR Catalog Number	Type HBL 65,000A IR Catalog Number
10⑨	B110	—	—
15	B115④	B115H④	B115HH④
20	B120④	B120H④	B120HH④
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)⑥

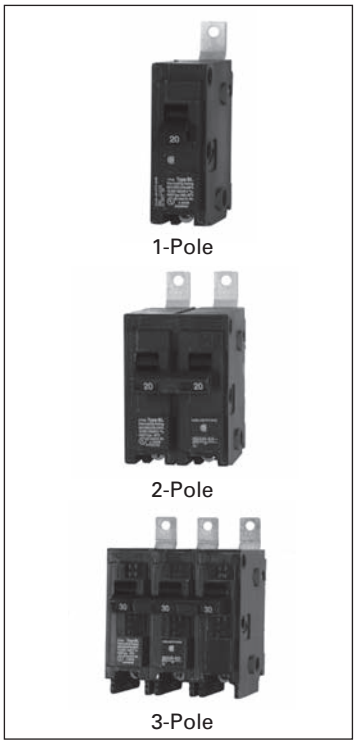
10	B210	—	—
15	B215	B215H	B215HH
20	B220	B220H	B220HH
25	B225	B225H■	B225HH■
30	B230	B230H	B230HH
35	B235	B235H■	B235HH■
40	B240	B240H	B240HH
45	B245	B245H■	B245HH■
50	B250	B250H	B250HH
60	B260	B260H	B260HH
70	B270	B270H■	B270HH■
80	B280	B280H■	B280HH■
90	B290	B290H■	B290HH■
100	B2100	B2100H	B2100HH
110	B2110■	B2110H■	B2110HH■
125	B2125	B2125H	B2125HH■

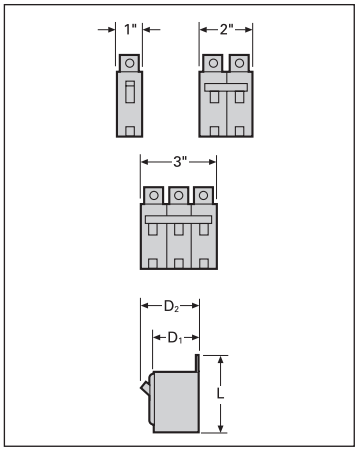
2-Pole Bolt-On (Common-Trip 240V AC)③⑥⑩

15	B215R	—	—
20	B220R	—	—
30	B230R	—	—
40	B240R■	—	—
50	B250R	—	—
60	B260R	—	—
70	B270R■	—	—
80	B280R■	—	—
90	B290R■	—	—
100	B2100R■	—	—

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





Breaker Type	Amperes	Dimensions L	D1	D2
BL, BLH	15–50	3 9/16	2 3/8	3
BL, BLH	55–125	3 3/4	2 3/8	3
HBL	15–125	3 3/4	2 3/8	3

BL/BLH/HBL Internal Accessories

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

Modifications

Description	Catalog Number
400Hz Calibration	add suffix...Y⑧
Marine 50˚C Ambient Calibration	add suffix...M
Fungus Proofing	add suffix...F

For external accessories, please refer to page 7-93

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

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

②1A and 1B contacts.
③UL Listed for use on 3-phase grounded "B" systems — 10,000 for this application.
④UL Listed for frequent switching applications (SWD).
⑤Shipped 12 per sleeve.

⑥Shipped 6 per sleeve.
⑦Shipped 4 per sleeve.
⑧UL Listed 5KA IR.
⑨10 Amp breaker does not have INSTA-WIRE.
⑩For 3 Phase Applications.

Molded Case Circuit Breakers

Panelboard Mounting Circuit Breakers

Arc-Fault Circuit Interrupters (AFCI)

AFCI's detect arcing faults (an unintentional arcing condition in a circuit) that standard circuit breakers are unable to detect. The device is intended to mitigate the effects of arcing faults by functioning to de-energize the circuit when an arc-fault is detected.

Combination Type AFCI

Detects all three possible types of arc fault: line-to-ground, line-to-neutral, and series.

Breaker Type	Ampere Rating	10,000 A IR Catalog Number	22,000 A IR Catalog Number
BAF/BAFH 1-Pole 120V AC	15	B115AFC①	B115AFCH■
	20	B120AFC①	B120AFCH■
BAF/BAFH 2-Pole 120/240V AC	15	B215AFC①	B215AFCH■
	20	B220AFC①	B220AFCH■



1-Pole Combination Type AFCI



2-Pole Combination Type AFCI

Branch-Feeder AFCI

Detects line-to-ground and line-to neutral arcs.

BAF/BAFH **1-Pole 120V AC**	15	B115AF①	B115AFH■①
	20	B120AF①	B120AFH■①



1-Pole Branch Feeder AFCI

Ground-Fault Circuit Interrupters (GFCI)

Provides Class A (5mA) ground fault protection.
Intended for personnel protection.
De-energizes the circuit for all ungrounded conductors of the circuit.

BLF/BLHF 1-Pole 120V AC Bolt-On	15	BF115①	BF115H①
	20	BF120①	BF120H①■
	25	BF125■	BF125H■
	30	BF130	BF130H
BLF/BLHF 2-Pole 120/240V AC Bolt-On	15	BF215	BF215H
	20	BF220	BF220H
	30	BF230	BF230H
	40	BF240	BF240H
	50	BF250	BF250H
	60	BF260	BF260H



1-Pole Equipment Protection



2-Pole Equipment Protection

Ground Fault Equipment Protection (30mA)

Provides protection of equipment from damaging line-to-ground faults currents.
De-energizes the circuit for all ungrounded conductors of the circuit.

BLE/BLEH **1-Pole, 120V AC** **Bolt-On**	15	BE115①	BE115H①
	20	BE120①	BE120H①
	30	BE130	BE130H
BLE/BLEH **2-Pole** **120/240V AC** **Bolt-On**	15	BE215	BE215H
	20	BE220	BE220H
	30	BE230	BE230H
	40	BE240	BE240H
	50	BE250	BE250H
	60	BE260■	BE260H■

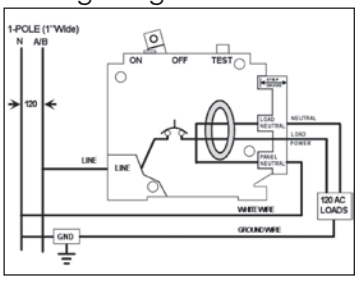
QAF/QPF/QE Accessories

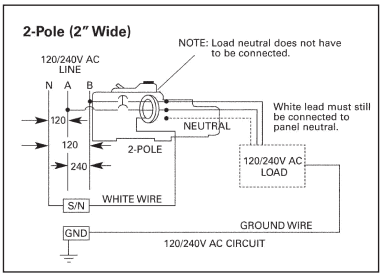
Description	Catalog Number
Padlocking Device 1-Pole	ECPLD1
Padlocking Device 2-Pole	ECPLD2
Handle Block	ECBX231M

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

①UL Listed as SWD (Switching Duty) Rated, suitable for 120V AC Fluorescent Lighting.

Wiring Diagrams

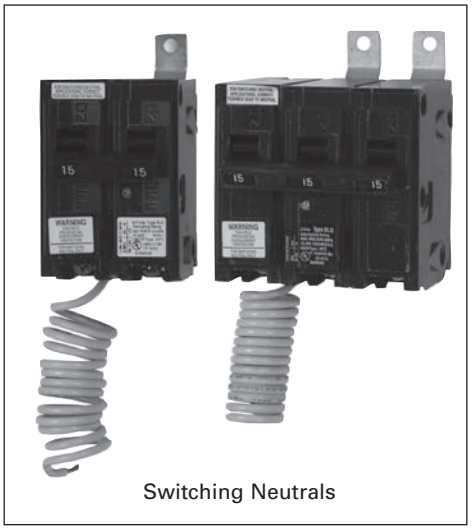




Special Application Breakers

Switching Neutrals①

Breaker Type	Ampere Rating	Catalog Number
BG 2-Wire Common Trip	15	**BG215■**
	20	**BG220■**
	30	**BG230■**
BG 3-Wire Common Trip	15	**BG315■**
	20	**BG320■**
	30	**BG330■**



Switching Neutrals

HID Lighting①

For high-intensity discharge lamp loads having in-rush currents above the instantaneous trip setting of a standard breaker.

BL 1-Pole	15	**B115HID②■**
	20	**B120HID②**
	30	**B130HID■**
BL 2-Pole	15	**B215HID②■**
	20	**B220HID②**
	30	**B230HID■**

Tungsten Lighting

For high wattage, tungsten-lamp loads in-rush currents above the instantaneous trip setting of a standard breaker.

BL 1-Pole	15	**B115T②**
	20	**B120T②**

Molded Case Switch

For applications that do not require overcurrent protection.

BL 2-Pole	30	**B230S**
	60	**B260S**

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

① HACR rated.
② UL Listed for frequent switching applications (SWD). 120V AC fluorescent lighting.

BQD④

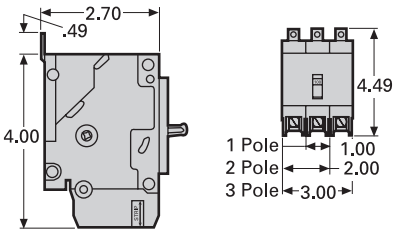
Continuous Current Rating @ 40°C	1-Pole 277V AC–125V DC Catalog Number	2-Pole③ 480Y/277V AC–125/250V DC Catalog Number	3-Pole③ 480Y/277V AC Catalog Number
15	BQD115①②	BQD215⑤	BQD315⑤
20	BQD120①②	BQD220⑤	BQD320⑤
25	BQD125②	BQD225⑤	BQD325⑤
30	BQD130②	BQD230⑤	BQD330⑤
35	BQD135②	BQD235⑤	BQD335⑤
40	BQD140②	BQD240⑤	BQD340⑤
45	BQD145②■	BQD245⑤	BQD345⑤
50	BQD150②	BQD250⑤	BQD350⑤
60	BQD160	BQD260	BQD360
70	BQD170■	BQD270	BQD370
80	BQD180■	BQD280	BQD380
90	BQD190■	BQD290	BQD390
100	BQD1100■	BQD2100	BQD3100

BQD6 CSA Certified

Continuous Current Rating @ 40°C	1-Pole 347V AC Catalog Number	2-Pole③ 600/347V AC Catalog Number	3-Pole③ 600/347V AC Catalog Number
15	BQD6115①	BQD6215	BQD6315
20	BQD6120①	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



BQD, BQD6



BQD, BQD6

Shipping Weights

Number of Poles	Number per Carton	Shipping Weight (lbs.) (ea.)
1	1/12/48	.6
2	1/6/24	1.2
3	1/4/16	2.0

Lugs For 60/75°C Wire

BQD – Load End Only	
15–40	#14–#6 AWG Cu #12–#6 AWG Al
45–100	#8–#1 AWG Cu #6–#1/0 AWG Al

Interrupting Ratings

Breaker Type	Number of Poles	RMS Symmetrical Amperes (KA)							
		Volts AC						Volts DC	
		120	240	277	480/277	347	600/347	125	125/250
BQD (UL)	1	65	—	14	—	—	—	14	—
	2	—	65	—	14	—	—	—	14
	3	—	65	—	14	—	—	—	—
BQD6 (CSA)	1	65	—	—	—	10	—	14	—
	2	—	65	—	—	—	10	—	14
	3	—	65	—	—	—	10	—	—

For inches / millimeters conversion, see Application Data section.

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

①SWD rated for switching fluorescent lighting.
②HID rated at 277V AC.
③Not suitable for 3-phase delta 480V applications.
④HACR rated.
⑤HID rated at 480Y/277V AC.

For external accessories, please refer to pages 7-95 to 7-100
For internal accessories, please refer to page 7-34

Molded Case Circuit Breakers

GB Frame

Selection

Type NGB Frame (Panelboard Mount)

Continuous Current Rating @ 40°C	1-Pole	2-Pole	3-Pole
	Catalog Number	Catalog Number	Catalog Number
15	NGB1B015B①②	NGB2B015B②	NGB3B015B②
20	NGB1B020B①②	NGB2B020B②	NGB3B020B②
25	NGB1B025B②	NGB2B025B②	NGB3B025B②
30	NGB1B030B②	NGB2B030B②	NGB3B030B②
35	NGB1B035B②	NGB2B035B②	NGB3B035B②
40	NGB1B040B②	NGB2B040B②	NGB3B040B②
45	NGB1B045B②	NGB2B045B②	NGB3B045B②
50	NGB1B050B②	NGB2B050B②	NGB3B050B②
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

Load lugs are included as standard. HACR rated.



GB

Type HGB (Panelboard Mount)

Continuous Current Rating @ 40°C	1-Pole	2-Pole	3-Pole
	Catalog Number	Catalog Number	Catalog Number
15	HGB1B015B①②	HGB2B015B②	HGB3B015B②
20	HGB1B020B①②	HGB2B020B②	HGB3B020B②
25	HGB1B025B②	HGB2B025B②	HGB3B025B②
30	HGB1B030B②	HGB2B030B②	HGB3B030B②
35	HGB1B035B②	HGB2B035B②	HGB3B035B②
40	HGB1B040B②	HGB2B040B②	HGB3B040B②
45	HGB1B045B②	HGB2B045B②	HGB3B045B②
50	HGB1B050B②	HGB2B050B②	HGB3B050B②
60	HGB1B060B	HGB2B060B	HGB3B060B
70	HGB1B070B	HGB2B070B	HGB3B070B
80	HGB1B080B	HGB2B080B	HGB3B080B
90	HGB1B090B	HGB2B090B	HGB3B090B
100	HGB1B100B	HGB2B100B	HGB3B100B
110	HGB1B110B	HGB2B110B	HGB3B110B
125	HGB1B125B	HGB2B125B	HGB3B125B

Type LGB (Panelboard Mount)

Continuous Current Rating @ 40°C	1-Pole	2-Pole	3-Pole
	Catalog Number	Catalog Number	Catalog Number
15	LGB1B015B①②	LGB2B015B②	LGB3B015B②
20	LGB1B020B①②	LGB2B020B②	LGB3B020B②
25	LGB1B025B②	LGB2B025B②	LGB3B025B②
30	LGB1B030B②	LGB2B030B②	LGB3B030B②
35	LGB1B035B②	LGB2B035B②	LGB3B035B②
40	LGB1B040B②	LGB2B040B②	LGB3B040B②
45	LGB1B045B②	LGB2B045B②	LGB3B045B②
50	LGB1B050B②	LGB2B050B②	LGB3B050B②
60	LGB1B060B	LGB2B060B	LGB3B060B
70	LGB1B070B	LGB2B070B	LGB3B070B
80	LGB1B080B	LGB2B080B	LGB3B080B
90	LGB1B090B	LGB2B090B	LGB3B090B
100	LGB1B100B	LGB2B100B	LGB3B100B
110	LGB1B110B	LGB2B110B	LGB3B110B
125	LGB1B125B	LGB2B125B	LGB3B125B

Shipping Weights

Number of Poles	Number per Carton	Shipping Weight lbs. (kg)
1	1	0.9 (0.4)
2	1	1.9 (0.9)
3	1	2.9 (1.2)

Lugs For 60/75°C Wire

NGB		
Ampere Rating	Wire Size	Catalog Number
15–30A	#14–#6 AWG Cu #12–#6 AWG Al	Integral with breaker
35–125A	#8-1/0 AWG Cu #8-2/0 AWG Al	Integral with breaker

Interrupting Ratings (max. RMS symmetrical amperes kA)

		UL489							
		Volts AC						Volts DC	
	Poles	120	240	277	347	480Y/347	600Y/347	125	125/250
NGB	1	100	—	25	14	—	—	14	—
	2,3	—	100	—	—	25	14	—	14④
HGB	1	100	—	35	14	—	—	14	—
	2,3	—	100	—	—	35	14	—	14④
LGB	1	100	—	65	14	—	—	14	—
	2,3	—	100	—	—	65	14	—	14④

①SWD rated.
②HID rated.
③2-pole only.
④2-pole only or two outer poles of 3-pole breaker

For external accessories, please refer to pages 7-95 to 7-100
For internal accessories, please refer to page 7-34

Shunt Trip

Control Voltage		BQD, BQD6, CQD, CQD6, NGG, HGG, LGG, NGB, HGB and LGB
V AC	V DC	Catalog Number
120	—	**CQDST120**
240	—	**CQDST240▲**
277	—	**CQDST277▲**
480	—	**CQDST480▲**
600	—	**CQDST600**
—	12	**CQDST12**
—	24	**CQDST24**
—	48	**CQDST48**
—	125	**CQDST125**

Auxiliary Switch

Maximum Voltage		Number of Contacts	BQD, BQD6, CQD, CQD6, NGG, HGG, LGG, NGB, HGB and LGB
AC	DC		Catalog Number
240	125	1A–1B	**CQDA1**
240	125	2A–2B	**CQDA2**

Alarm Switch

Maximum Voltage		BQD, BQD6, CQD, CQD6, NGG, HGG, LGG, NGB, HGB and LGB
AC	DC	Catalog Number
240	125	**CQDBA**

Shunt Trip and Auxiliary Switch Combinations

Shunt Trip Voltage		BQD, BQD6, CQD, CQD6, NGG, HGG, LGG, NGB, HGB and LGB
AC	DC	Catalog Number
24	—	**CQDST24AAS▲**
120	—	**CQDST120AAS▲**
240	—	**CQDST240AAS▲**
277	—	**CQDST277AAS▲**
480	—	**CQDST480AAS▲**
600	—	**CQDST600AAS▲**
—	12	**CQDST12DAS▲**
—	24	**CQDST24DAS▲**
—	48	**CQDST48DAS▲**
—	125	**CQDST125DAS▲**

Alarm and Auxiliary Switch Combinations

For Breaker	Catalog Number
BQD, BQD6, CQD, CQD6, NGG, HGG, LGG, NGB, HGB and LGB	**CQDA1BA▲**



CQD with Accessory Installed

▲ Built to order. Allow 6–8 weeks for delivery.

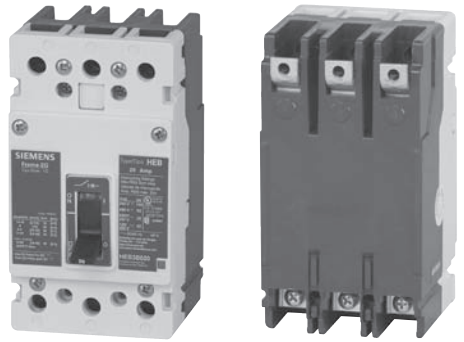
①Adds 1-pole space for accessory.

Molded Case Circuit Breakers

NEB & HEB Frame

Type NEB (Panelboard Mount)

Continuous Current Rating @ 40°C	1-Pole	2-Pole	3-Pole
	Catalog Number	Catalog Number	Catalog Number
15	NEB1B015B①②	NEB2B015B②	NEB3B015B
20	NEB1B020B①②	NEB2B020B②	NEB3B020B
25	NEB1B025B②	NEB2B025B②	NEB3B025B
30	NEB1B030B②	NEB2B030B②	NEB3B030B
35	NEB1B035B②	NEB2B035B②	NEB3B035B
40	NEB1B040B②	NEB2B040B②	NEB3B040B
45	NEB1B045B②	NEB2B045B②	NEB3B045B
50	NEB1B050B②	NEB2B050B②	NEB3B050B
60	NEB1B060B	NEB2B060B	NEB3B060B
70	NEB1B070B	NEB2B070B	NEB3B070B
80	NEB1B080B	NEB2B080B	NEB3B080B
90	NEB1B090B	NEB2B090B	NEB3B090B
100	NEB1B100B	NEB2B100B	NEB3B100B
110	NEB1B110B	NEB2B110B	NEB3B110B
125	NEB1B125B	NEB2B125B	NEB3B125B



Front view Back view

HEB

Type HEB (Panelboard Mount)

Continuous Current Rating @ 40°C	1-Pole	2-Pole	3-Pole
	Catalog Number	Catalog Number	Catalog Number
15	HEB1B015B①②	HEB2B015B②	HEB3B015B
20	HEB1B020B①②	HEB2B020B②	HEB3B020B
25	HEB1B025B②	HEB2B025B②	HEB3B025B
30	HEB1B030B②	HEB2B030B②	HEB3B030B
35	HEB1B035B②	HEB2B035B②	HEB3B035B
40	HEB1B040B②	HEB2B040B②	HEB3B040B
45	HEB1B045B②	HEB2B045B②	HEB3B045B
50	HEB1B050B②	HEB2B050B②	HEB3B050B
60	HEB1B060B	HEB2B060B	HEB3B060B
70	HEB1B070B	HEB2B070B	HEB3B070B
80	HEB1B080B	HEB2B080B	HEB3B080B
90	HEB1B090B	HEB2B090B	HEB3B090B
100	HEB1B100B	HEB2B100B	HEB3B100B
110	HEB1B110B	HEB2B110B	HEB3B110B
125	HEB1B125B	HEB2B125B	HEB3B125B

Load lugs are included as standard.
HACR rated.

Shipping Weights

Number of Poles	Number per Carton	Shipping Weight lbs. (kg)
1	1	1.4 (0.5)
2	1	2.4 (0.9)
3	1	3.7 (1.4)

Lugs For 60/75°C Wire

NEB/HEB		
Ampere Rating	Wire Size	Catalog Number
15–100A	#14–1/0	**3TA1EG10** (kit of 3)
110–125A	#6–3/0	**3TA1EG30** (kit of 3)

Interrupting Ratings (max. RMS symmetrical amperes kA)

Breaker Type	Number of Poles	UL489/CSA						IEC 60947-2 (Ics = 50% Icu)			
		Volts AC					Volts DC	Volts AC		Volts DC	
		240	277	347	480	600Y/347	125/250	240	415	125	125/250
NEB	1	85	35	22	—	—	35	85	—	35	—
	2, 3	85	—	—	35	22	35	85	40	—	35
HEB	1	100	65	25	—	—	42	100	—	42	—
	2, 3	100	—	—	65	25	42	100	70	—	42

40°C, 50/60Hz.

① SWD Rated
② HID Rated

For external accessories, please refer to pages 7-95 to 7-100
For internal accessories, please refer to page 7-36

Molded Case Circuit Breakers

Internal Accessories for NEG & HEG 125A Frame, NEB & HEB 125A Frame

Shunt Trip

Control Voltage		NEG, HEG, NEB, HEB Catalog Number
V AC	V DC	
110-240	—	**STRER240A**
—	125	**STRED125D**
380-600	—	**STREV600**
24-60	24-60	**STREM60D**

Auxiliary Switch

Maximum Voltage		Number of Contacts	NEG, HEG, NEB, HEB Catalog Number
AC	DC		
240	125	1A–1B	**ASKE2**
240	125	2A–2B	**ASKE3**

Alarm Switch

Maximum Voltage		Number of Contacts	NEG, HEG, NEB, HEB Catalog Number
AC	DC		
240	125	1A–1B	**ASKE1**
240	125	2A–2B	**ASKE5**

Undervoltage Trip

Control Voltage		NEG, HEG, NEB, HEB Catalog Number
AC	DC	
24		**UVREB24A**
60		**UVREM60▲**
120		**UVREN120**
240		**UVRER240**
480		**UVREU480▲**
600		**UVREV600▲**
	24	**UVREB24D**
	48	**UVREC48D▲**
	125	**UVRED125D▲**
	250	**UVREE250D▲**

Alarm and Auxiliary Switch Combinations

For Breaker	Catalog Number
NEG, HEG	**ASKE6**

▲ Built to order. Allow 6–8 weeks for delivery.