

# Circuit Breakers

## Arc-Fault and Ground-Fault Breakers

## Selection/Wiring Diagrams

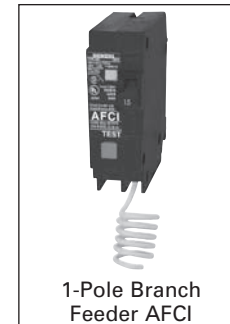
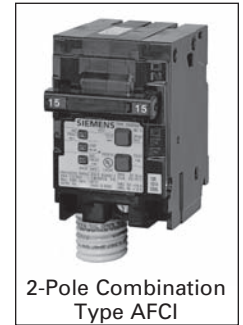
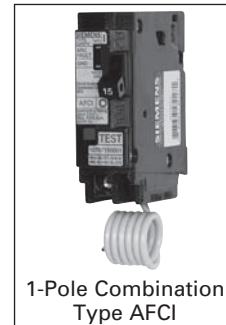
### Arc-Fault Circuit Interrupters (AFCI)

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	22,000 A IR
		Catalog Number	Catalog Number
<b>QAF/QAFH</b> 1-Pole 120V AC	15	Q115AFC <sup>Ⓞ</sup>	Q115AFCH <sup>■</sup> <sup>Ⓞ</sup>
	20	Q120AFC <sup>Ⓞ</sup>	Q120AFCH <sup>■</sup> <sup>Ⓞ</sup>
<b>QAF/QAFH</b> 2-Pole 120/240V AC	15	Q215AFC <sup>Ⓞ</sup>	Q215AFCH <sup>■</sup> <sup>Ⓞ</sup>
	20	Q220AFC <sup>Ⓞ</sup>	Q220AFCH <sup>■</sup> <sup>Ⓞ</sup>



### Branch-Feeder AFCI

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

<b>QAF/QAFH</b> 1-Pole 120V AC	15	Q115AF <sup>Ⓞ</sup>	Q115AFH <sup>■</sup> <sup>Ⓞ</sup>
	20	Q120AF <sup>Ⓞ</sup>	Q120AFH <sup>■</sup> <sup>Ⓞ</sup>

### 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.

<b>QPF/QPHF</b> 1-Pole 120V AC Plug-in	15	QF115 <sup>Ⓞ</sup>	QF115H <sup>Ⓞ</sup>
	20	QF120 <sup>Ⓞ</sup>	QF120H <sup>■</sup> <sup>Ⓞ</sup>
	25	QF125 <sup>■</sup>	—
	30	QF130	QF130H
<b>QPF/QPHF</b> 2-Pole 120/240V AC Plug-in	15	QF215	QF215H
	20	QF220	QF220H
	30	QF230	QF230H
	40	QF240	QF240H
	50	QF250	QF250H
	60	QF260	QF260H

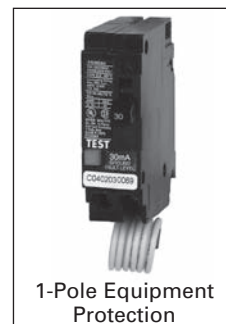


### Ground Fault Equipment Protection (30mA)

Provides protection of equipment from damaging line-to-ground faults currents.

De-energizes the circuit for all ungrounded conductors of the circuit.

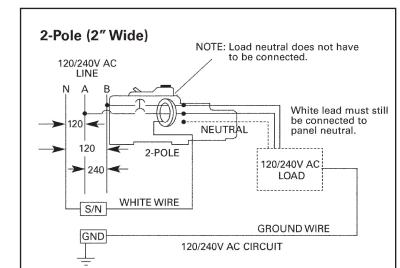
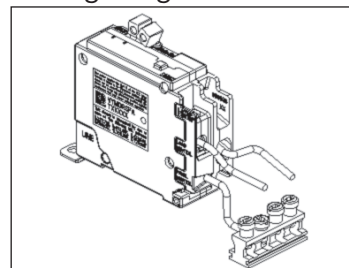
<b>QE/QEH</b> 1-Pole 120V AC Plug-in	15	QE115 <sup>Ⓞ</sup>	QE115H <sup>Ⓞ</sup>
	20	QE120 <sup>Ⓞ</sup>	QE120H <sup>Ⓞ</sup>
	30	QE130	QE130H
<b>QE/QEH</b> 2-Pole 120/240V AC Plug-in	15	QE215	QE215H
	20	QE220	QE220H
	30	QE230	QE230H
	40	QE240	QE240H
	50	QE250	QE250H
	60	QE260 <sup>■</sup>	QE260H <sup>■</sup>



### QAF/QPF/QE Accessories

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

### Wiring Diagrams



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

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

7 MOLDED CASE CIRCUIT BREAKERS

# Circuit Breakers

## Type QP with INSTA-WIRE

*Selection*

Continuous Current Rating @ 40° C	Type QP <sup>①</sup>	Type QPH	Type HQP
	10,000A IR	22,000A IR	65,000A IR
	Catalog Number	Catalog Number	Catalog Number

### 1-Pole Plug-In (120V AC)<sup>⑤</sup>

Rating	Type QP	Type QPH	Type HQP
10	Q110 <sup>⑥</sup>	—	—
15	Q115 <sup>⑥</sup>	Q115H <sup>⑥</sup>	Q115HH <sup>⑥</sup>
20	Q120 <sup>⑥</sup>	Q120H <sup>⑥</sup>	Q120HH <sup>⑥</sup>
25	Q125	Q125H	Q125HH
30	Q130	Q130H	Q130HH
35	Q135	Q135H	Q135HH
40	Q140	Q140H	Q140HH
45	Q145	Q145H	Q145HH
50	Q150	Q150H	Q150HH
60	Q160	Q160H	Q160HH
70	Q170	Q170H	Q170HH



### 2-Pole Plug-In (Common-Trip 120/240V AC)<sup>⑥</sup>

Rating	Type QP	Type QPH	Type HQP
10	Q210 <sup>⑥</sup>	—	—
15	Q215	Q215H	Q215HH
20	Q220	Q220H	Q220HH
25	Q225	Q225H	Q225HH
30	Q230	Q230H	Q230HH
35	Q235	Q235H	Q235HH
40	Q240	Q240H	Q240HH
45	Q245	Q245H	Q245HH
50	Q250	Q250H	Q250HH
60	Q260	Q260H	Q260HH
70	Q270	Q270H	Q270HH
80	Q280	Q280H	Q280HH
90	Q290	Q290H	Q290HH
100	Q2100	Q2100H	Q2100HH
110	Q2110	Q2110H	Q2110HH
125	Q2125	Q2125H	Q2125HH



### 2-Pole Plug-In (Common-Trip 240V AC)<sup>④⑥</sup>

Rating	Type QP	Type QPH	Type HQP
15	Q215R	—	—
20	Q220R	—	—
30	Q230R	—	—
40	Q240R	—	—
50	Q250R	—	—
60	Q260R	—	—
70	Q270R	—	—
100	Q2100R	—	—



### 3-Pole Plug-In (Common-Trip 240V AC)<sup>⑦</sup>

Rating	Type QP	Type QPH	Type HQP
15	Q315	Q315H	Q315HH
20	Q320	Q320H	Q320HH
25	Q325	Q325H	Q325HH
30	Q330	Q330H	Q330HH
35	Q335	Q335H	Q335HH
40	Q340	Q340H	Q340HH
45	Q345	Q345H	Q345HH
50	Q350	Q350H	Q350HH
60	Q360	Q360H	Q360HH
70	Q370	Q370H	Q370HH
80	Q380	Q380H	Q380HH
90	Q390	Q390H	Q390HH
100	Q3100	Q3100H	Q3100HH

### QP / QPH / HQP Internal Accessories

Control Voltage AC	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	Factory

### Modifications

Description	Catalog Number
400 Hz Calibration	add suffix ...Y
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.  
② 1A and 1B contacts.

③ UL Listed for frequent switching applications (SWD). 120V AC Fluorescent Lighting.

④ UL Listed for use on 3-phase grounded "B" systems — 10,000 for this application.  
⑤ Shipped 12 per sleeve.

⑥ Shipped 6 per sleeve.

⑦ Shipped 4 per sleeve.

⑧ UL Listed 5 KA IR.

⑨ Type QP1, UL listed for 16 AWG conductors and multiple wires.

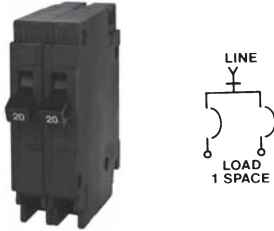
# Circuit Breakers

## Duplex, Triplex and Quadplex Plug-In Breakers

*Selection*

### Duplex Circuit Breakers

Breaker Type	Ampere Rating	Catalog Number	Catalog Number
<b>QT</b> 1-Pole 10K AIC 120V AC	15-15	<b>Q1515</b>	<b>Q1515NC</b> <sup>①</sup>
	15-20	<b>Q1520</b>	<b>Q1520NC</b> <sup>①</sup>
	20-20	<b>Q2020</b>	<b>Q2020NC</b> <sup>①</sup>
	20-30	<b>Q2030</b>	—
	30-15■	<b>Q3015</b>	—
	30-20	<b>Q3020</b>	—
	30-30	<b>Q3030</b>	<b>Q3030NC</b> <sup>①</sup>
SHIPPING: 12 per carton, (Wt. 4.8 lbs.)			

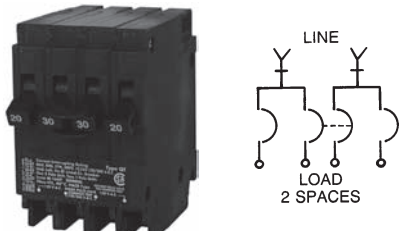


**QT Duplex**

These space saver duplex breakers combine two independent 1/2" breaker poles in a common unit. This unit plugs into one load center stab and requires one panel space. HACR rated.

### Triplex Circuit Breakers

Breaker Type	Ampere Rating		Catalog Number
	Single Pole	Common-Trip 2-Pole	
<b>QT</b> 2-Pole 10K AIC 120/240V AC Inner Poles Common Trip	15	15	<b>Q21515CT</b>
	15	20	<b>Q21520CT</b>
	15	25	<b>Q21525CT</b> ■
	15	30	<b>Q21530CT</b>
	15	35	<b>Q21535CT</b> ■
	15	40	<b>Q21540CT</b>
	15	45	<b>Q21545CT</b> ■
	15	50	<b>Q21550CT</b>
	20	20	<b>Q22020CT</b>
	20	25	<b>Q22025CT</b> ■
	20	30	<b>Q22030CT</b>
	20	35	<b>Q22035CT</b> ■
	20	40	<b>Q22040CT</b>
	20	45	<b>Q22045CT</b> ■
	20	50	<b>Q22050CT</b>
	30	30	<b>Q23030CT</b>
	SHIPPING: 6 per carton, (Wt. 4.9 lbs.)		

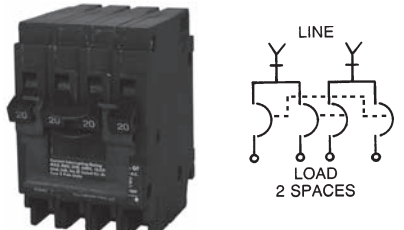


**QT Triplex**

These space saver triplex breakers provide a 2-pole common trip breaker for 120/240V AC circuits and two single poles for 120V AC circuits. Triplex require two panel spaces. HACR rated.

### Quadplex Circuit Breakers

Breaker Type	Ampere Rating		Catalog Number
	Common-Trip 2-Pole Inside	Common-Trip 2-Pole Outside	
<b>QT</b> 2-Pole 10K AIC 120/240V AC Inner and Outer 2 Poles Common Trip	15	15	<b>Q21515CT2</b>
	20	20	<b>Q22020CT2</b>
	20	30	<b>Q23020CT2</b>
	20	40	<b>Q24020CT2</b>
	30	30	<b>Q23030CT2</b>
	30	40	<b>Q24030CT2</b>
	40	40	<b>Q24040CT2</b>
50	30	<b>Q23050CT2</b>	
SHIPPING: 6 per carton, (Wt. 4.8 lbs.)			



**QT Quadplex**

These space saver quadplex breakers provide two sets of common trip, two-pole breakers for 120/240V AC circuits, and require two panel spaces. HACR rated.

For external accessories,  
please refer to page 7-93

For inches / millimeters conversion, see Application Data section.

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

① Non-CTL. For replacement use only in panels manufactured before 1968

# Circuit Breakers

## Special Application Breakers

Selection

### HID Lighting

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

Breaker Type	Wiring Diagram	Complete Breaker UL Unenclosed	
		Ampere Rating	Catalog Number
QP 1-Pole 120V AC	Figure 1	15	Q115HID <sup>Ⓞ</sup> ■
		20	Q120HID <sup>Ⓞ</sup>
		30	Q130HID
QP 2-Pole 120/240V AC	Figure 2	15	Q215HID
		20	Q220HID■
		30	Q230HID■

### Molded Case Switch

For applications that do not require overcurrent protection.

QP 1-Pole 120V AC	Figure 1	100	Q1100S
QP 2-Pole 120/240V AC	Figure 2	30	Q230S
		60	Q260S
		125	Q2125S

### No-Noise

For applications that require a reduction in the 60-cycle hum of a standard breaker.

QP 2-Pole 120/240V AC	Figure 2	50	Q250NN■
		60	Q260NN
		70	Q270NN
		90	Q290NN■

### Switching Neutrals

Used where all conductors are required to be disconnected. Neutral pole of the circuit breaker does not connect to load center bus. One side is wired to neutral and the other side to the device.

QG 2-Wire Common Trip 120V AC	Figure 3	15	QG215
		20	QG220
		30	QG230■
QG 3-Wire Common Trip 120/240V AC	Figure 4	15	QG315■
		20	QG320
		30	QG330■

### Tungsten Lighting

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

QP 1-Pole 120V AC	Figure 1	15	Q115T <sup>Ⓞ</sup> ■
		20	Q120T <sup>Ⓞ</sup>

### Water Heater

When installed in a loadcenter, the water heater circuit breaker does not make electrical connection with the loadcenter bus-sing. Separate metered circuit is connected to line terminals of the breaker. Used in special rate water heating areas.

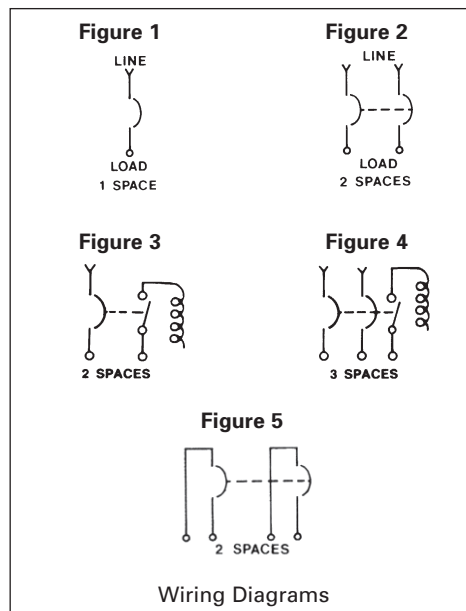
QW 2-Pole 120/40V AC Plug-In	Figure 5	15	QW215
		20	QW220
		30	QW230



Switching Neutral



Water Heater



Wiring Diagrams

■ Built to order. Allow 2-3 weeks for delivery.  
Note: All circuit breakers on this page are 10K AIC

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

# Circuit Breakers

## 3/4 Inch Plug-In Breakers

*Selection*

### Features

- 3/4" format
- HACR Rated
- UL Classified for use in certain Square D load centers

### Type QD Circuit Breakers

The Type QD circuit breaker line is available in 1-pole and 2-pole common trip versions listed on this page.

The circuit breakers are UL Classified and UL Listed.

All QD breakers are supplied with load side connectors suitable for 60/75°C wire and are calibrated for 40°C maximum ambient applications.

### UL Classified

Siemens Type QD circuit breakers are UL Classified for use in specific Square D load centers in place of Square D Type QO® circuit breakers. A Panelboard Compatibility List packaged with each QD breaker shows which type QD circuit breakers are acceptable for use in Square D load centers.

The interrupting rating on these circuit breakers is 10,000A IR maximum and they are **not** series rated with Square D circuit breakers or equipment. This UL Classification allows a Siemens Type QD circuit breaker to be used in place of a Square D Type QO circuit breaker in those load centers that are specifically shown on the Panelboard Compatibility list. For additional information, contact your local Siemens sales engineer.



Continuous Current Rating @ 40°C	1-Pole	2-Pole
	120V	120/240V Common Trip
	Catalog Number	Catalog Number
15	D115 <sup>①</sup>	D215
20	D120 <sup>①</sup>	D220
30	D130	D230
40	D140	D240
50	D150	D250
60	D160	D260

### Shipping Weights

Number of Poles	Number Per Carton	Shipping Weight (lbs.)
1	16	3.8
2	8	4.2

### Panelboard Compatibility List

#### Listed Panelboards—Square D—Catalog Numbers

QO2L30F/S	QO12M100/RB	QO120-30M150/RB	QO130-40M200
QO2-4L70F/S	QO16-20M100/RB	QO124L150G	QO130200/RB
QO2-4L70TS	QO16M100/RB	QO124M150	QO130-40L200G/RB
QO2-4L70RB	QO20M100/RB	QO130L150G/RB	QO140M200/RB
QO6-12L100F/S	QO112L125G/RB	QO130M150/RB	QO16L200/RB
QO6-12L100DF/S	QO112-24L125/RB	QO16L150/RB	QO16M200/RB
QO6-12L100TF/S	QO112-24L125GWGC	QO16M150/RB	QO18-16M200FTRB
QO6-12L100DTF/S	QO116L125G	QO16-30L150/RB	QO20-40L200/RB
QO6-12L100RB	QO116-24L125G/RB	QO18-16M150FTRB	QO20-40M200TF/S
QO8-16L100F/S	QO12-24L125/RB	QO20-30M150/RB	QO20-40M200/RB
QO8-16L100DF/S	QO120-24L125G	QO20-30M150TF/S	QO24L200/RB
QO8-16L100TF/S	QO120-24L125GWGC	QO20-30L150	QO24M200/RB
QO-16L100DTF/S	QO120L125G	QO24L150/RB	QO30L200/RB
QO8-16L100RB	QO124L125G/RB	QO24M150/RB	QO30M200/RB
QO112M100/RB	QO124M125/RB	QO30L150/RB	QO30-40L200/RB
QO116M100/RB	QO16L125/RB	QO30M150/RB	QO30-40M200/RB
QO120M100/RB	QO16-12M125FTRB	QO8-16M200FT/RB	QO40M200/RB
QO124M100	QO16-24L125/RB	QO112L200G/RB	QO140M225
QO12L100DF/S	QO20L125/RB	QO120-40M200/RB	QO142L225G/RB
QO12L100RB	QO20-24L125/RB	QO120-40M200TC	
QO12-20M100/RB	QO24L125/RB	QO124M200	
QO12-20M100TF/S	QO120-30L150G	QO130L200G/RB	

For inches / millimeters conversion, see Application Data section.

<sup>①</sup> UL Listed for frequent switching applications (SWD). 120V AC Fluorescent Lighting. One or two load conductors.

# Circuit Breakers

## Main and Branch Circuit Breakers<sup>①</sup>

*Selection*

Breaker Type	Ampere Rating	Catalog Number	Catalog Number	UL Interrupting Ratings (kA)
<b>QN</b> 2-Pole 120/240V AC	150	QN2150	QN2150R <sup>②</sup>	10
	175	QN2175■	QN2175R <sup>②</sup> ■	10
	200	QN2200	QN2200R <sup>②</sup>	10
<b>QNH</b> 2-Pole 120/240V AC	150	QN2150H	QN2150RH <sup>②</sup>	22
	175	QN2175H■	QN2175RH <sup>②</sup> ■	22
	200	QN2200H	QN2200RH <sup>②</sup>	22
<b>HQN</b> 2-Pole 120/240V AC	150	HQN2150	HQN2150R <sup>②</sup>	65
	175	HQN2175■	—	65
	200	HQN2200	HQN2200R <sup>②</sup>	65

Requires 4 panel spaces, 2 adjacent and 2 opposite. **SHIPPING:** 1 per carton (Wt. 3 lbs.)

### Main Breaker Kits

For use in Ultimate Load Centers <sup>③</sup>			For use in EQIII Load Centers			
UL Type	Ampere Rating	Catalog Number	UL Type	Ampere Rating	Catalog Number	UL Interrupting Ratings (kA)
EQ8681	100	MBK100A	EQ9675	100	MBK100	22
EQ8682	125	MBK125A	EQ9677	125	MBK125	22
EQ8693	150	MBK150A	EQ9683	150	MBK150	22
—	—	—	EQ9684	175	MBK175■	22
EQ8695	200	MBK200A	EQ9685	200	MBK200	22
EQ8696	225	MBK225A	EQ9686	225	MBK225	22

Breaker Type	Ampere Rating	Catalog Number	UL Interrupting Ratings (kA)
<b>QPJ</b> <sup>④</sup> 3-Pole 240V AC	125	QPJ3125	10
	150	QPJ3150	10
	200	QPJ3200	10

Requires 6 spaces due to cross over design. Fits only EQIII 125-400A 3-phase load centers

**SHIPPING:** 5 per carton (Wt. 17 lbs.)

Breaker Type	Ampere Rating	Catalog Number	UL Interrupting Breaker Ratings (kA) Volts AC 120/240
<b>QPP</b> 2-Pole 120/240V AC	125	Q2125B	10
	150	Q2150B	10
	175	Q2175B■	10
	200	Q2200B	10
	225	Q2225B	10
<b>QPPH</b> 2-Pole 120/240V AC	125	Q2125BH	22
	150	Q2150BH	22
	175	Q2175BH■	22
	200	Q2200BH	22
	225	Q2225BH■	22
<b>HQPP</b> 2-Pole 120/240V AC	125	Q2125BHH■	65
	150	Q2150BHH	65
	175	Q2175BHH■	65
	200	Q2200BHH	65
	225	Q2225BHH■	65
<b>HQPPH</b> 2-Pole 120/240V AC	100	HQ2100BH■	100
	125	HQ2125BH■	100
	150	HQ2150BH■	100
	175	HQ2175BH■	100
	200	HQ2200BH■	100
225	HQ2225BH■	100	

For inches / millimeters conversion, see Application Data section.

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

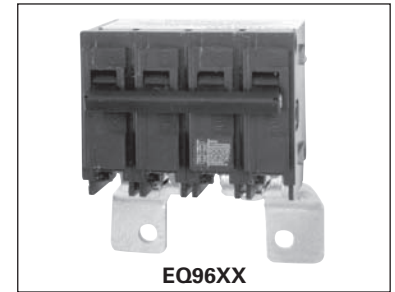
- ① All circuit breakers on this page are common trip.
- ② Reverse handle.
- ③ CSA Listed.
- ④ MBK100A for use in 100 and 125A load centers.  
MBK125A for use in 125A load centers.  
MBK150A for use in 150, 200 and 225A load centers.  
MBK200A for use in 200 and 225A load centers.  
MBK225A for use in 225A load centers.  
MBK175A for use in 200 and 225A load centers.

- ⑤ QNR required for horizontal applications or vertical applications where the lugs are facing up. The QN breaker is required for vertical applications where the lugs are facing down as shown.



QNR<sup>⑤</sup>

QN<sup>⑤</sup>

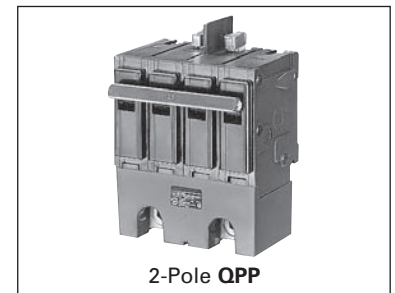


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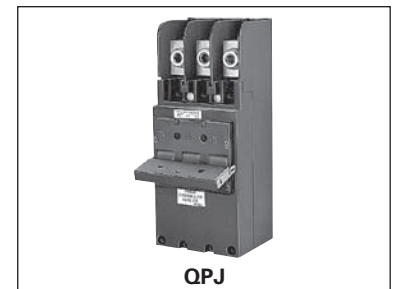


MBK  
(100,125)A

MBK  
(150,200,225)A



2-Pole QPP



QPJ

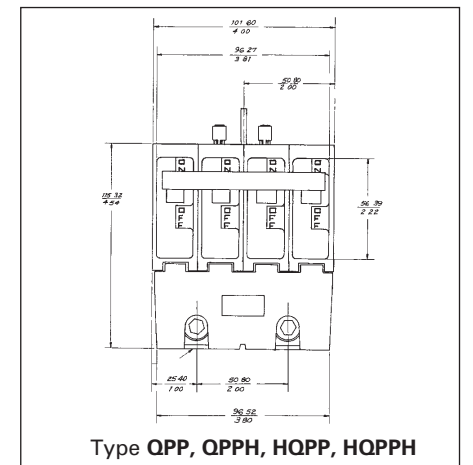
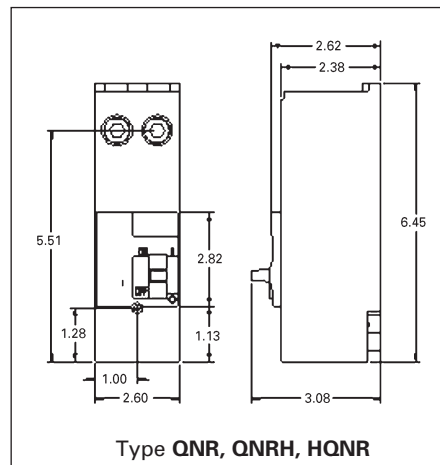
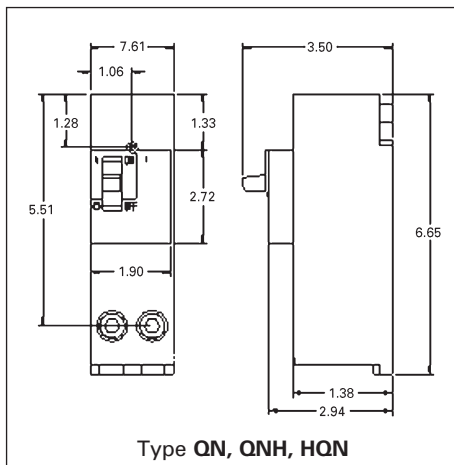
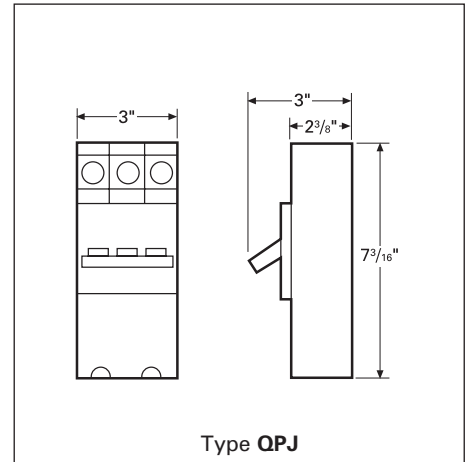
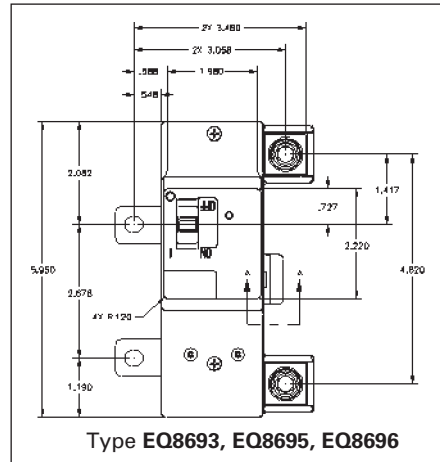
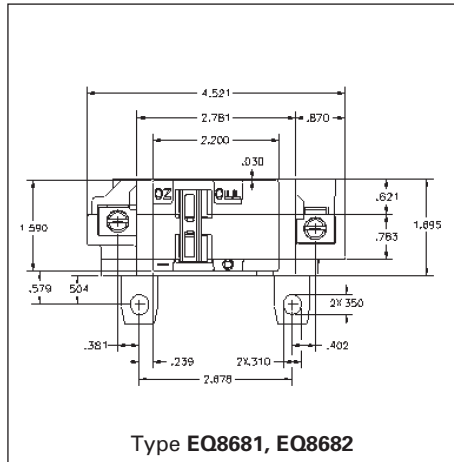
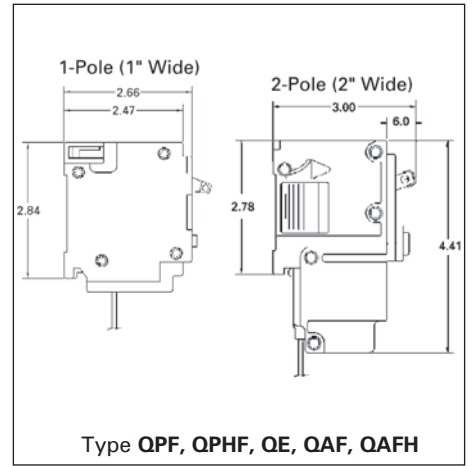
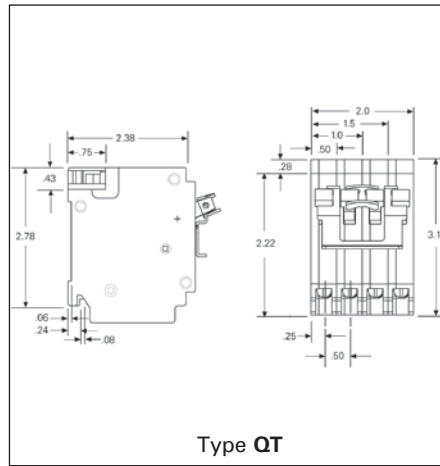
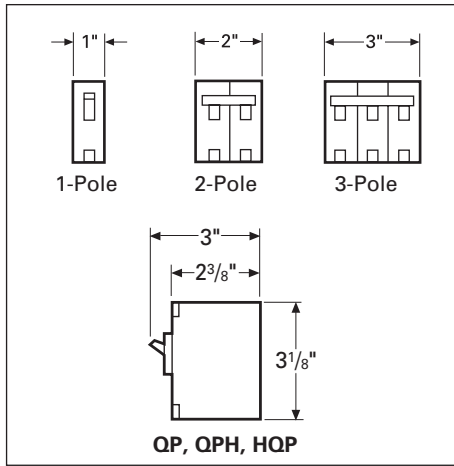




# Circuit Breakers

## Line Diagrams

## Dimension Drawings



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MOLDED CASE  
CIRCUIT BREAKERS

Ⓞ All standard circuit breakers are calibrated to 40°C maximum ambient application.



# Circuit Breakers

## Lug Data

*Reference*

Circuit Breaker Type	Circuit Breaker Ampere Rating	Cables Per Connector	Connector Wire Range
	LOAD SIDE		
QP, QPH, HQP, Plug-in	10	2	#14-#16 AWG Cu
	15-35	1	#14-#6 AWG Cu
		1	#14-#6 AWG Al
	40-50	1	#8-#6 AWG Cu
1		#8-#4 AWG Al	
55-125	1	#8-#2/0 AWG Cu	
	1	#8-#2/0 AWG Al	
QT	15-35	1	#14-#6 AWG Cu
		1	#14-#6 AWG Al
	40	1	#8 AWG CU-AL
40-50	1	#8-#6 AWG Cu	
	1	#8-#4 AWG Al	
QPF, QPHF	15-30	1	#14-#10 AWG Cu
		1	#12-#8 AWG Al
40-60	1	#8-#6 AWG Cu	
	1	#8-#4 AWG Al	
QAF, QAFH	15-20	1	#14-#12 AWG Cu
		1	#12-#10 AWG Al
QD	15-20	2	#14-#8 AWG Cu Only
	15-20	1	#14-#12 AWG Cu
		1	#12-#10 AWG Al
	25-35	1	#10-#8 AWG Cu
1		#10-#6 AWG Al	
40-60	1	#8-#6 AWG Cu	
	1	#8-#4 AWG Al	
QN, QNH, HQN	150-200	1	#1-300kcmil Cu-Al
QS, QSH, QSHH, HQS, HQSH	100-225	1	#3-300kcmil Cu-Al
EQ8681-Ultimate	100	1	#4-3/0 AWG Cu-Al
EQ8682-Ultimate	125	1	#4-3/0 AWG Cu-Al
EQ8693-Ultimate	150	1	#1-300kcmil Cu-Al
EQ8695-Ultimate	200	1	#1-300kcmil Cu-Al
EQ8696-Ultimate	225	1	#1-300kcmil Cu-Al
QPP, QPPH, HQPP, HQPPH	125	1	#1 AWG Cu
		1	#2/0 AWG Al
	150	1	#1/0 AWG Cu
		1	#3/0 AWG Al
	175	1	#2/0 AWG Cu
1		#4/0 AWG Al	
200	1	#3/0 AWG Cu	
	1	250kcmil AWG Al	
225	1	#4/0 AWG Cu	
	1	300kcmil AWG Al	
EQ9675-EQIII	100	1	#8-#2/0 AWG Cu
EQ9677-EQIII	125	1	#8-#2/0 AWG Cu
		1	#8-#2/0 AWG Al
EQ9683-EQIII	150	1	#1/0 AWG Cu
		1	#3/0 AWG Al
EQ9684	175	1	#3/0 AWG Cu
		1	250kcmil AWG AL
EQ9685-EQIII	200	1	#3/0 AWG Cu
		1	250kcmil AWG Al
EQ9686-EQIII	225	1	#4/0 AWG Cu
		1	300kcmil AWG Al
QPJ	125-200	1	#2-300kcmil Cu-Al

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CIRCUIT BREAKERS

# Surge Protection

## Circuit Breaker and Surge Protective Device (SPD)

### Features

- 2 inch wide plug-on design
  - Includes (2) 1 Pole circuits breakers
  - No loss of load center spaces
- Easy to install and perfect for retrofit
- LEDs provide protection status

### Benefits

By installing a Siemens Circuit Breaker and Surge Protective Device (SPD) in the load center of the residence, surge protection is provided for all branch circuits<sup>①</sup>.

Two green LED indicator lights are provided to show that surge protection is provided for all circuits connected to the load center. These breakers should be used for circuit protection of frequently used household or facility circuits because the lights and devices connected to these circuits provide an effective indication that surge protection is being provided.

The circuit breaker and SPD utilize Siemens-built 150V AC, 40mm, metal oxide varistors (MOVs). The maximum impulse rating for the SPD module is 40kA. The standard interrupting rating for the circuit breakers is 10k AIC. All Type QP circuit breakers and SPD are plug-on style, with load terminals provided. The devices are rated for 120/240V AC and are calibrated for 40 degrees C maximum ambient applications.



Breaker Type	Ampere Rating	Catalog Number	Surge Type
QP 1- Pole 120/240V AC 10K AIC	(2) 15	QSA1515SPD	SPD
	(2) 20	QSA2020SPD	SPD

Catalog Number	QSA1515SPD QSA2020SPD
Amperage	15 or 20 Amp
Number of Poles	(2) 1-Pole Circuit Breakers
Initial Clamping Level	240 Volts
Transient Energy Rating	360 Joules line-to-neutral 720 Joules line-to-line
Transient Suppression	500 volts peak, line-to-neutral
Voltage Rating	1000 volts peak, line-to-line
Peak Current Rating (impulse)	40,000 amperes
Discharge Voltage Characteristic	@ 1,500A, 600 volts @ 5,000A, 800 volts (both line-to-neutral)
Discharge Current Withstand Rating	10,000 amperes line-to-neutral
Circuit Breaker Interrupting Rating	10,000A, 120/240V AC
Listings/Certifications	UL, CSA Meets UL 1449 3rd Edition

<sup>①</sup> For warranty information please refer to the surge website [www.usa.siemens.com/surge](http://www.usa.siemens.com/surge)