Molded Case Circuit Breakers Industrial Circuit Breakers

Section 6

How to Order

Q-Line

- -Thermal Magnetic Circuit Breakers
- -Molded-Case Switches

The product number as shown in the following pages includes the complete breaker or switch. TQD and TJD breakers are complete with Cu/Al line and load lugs.

E 150 Line

- -Thermal Magnetic Circuit Breakers
- -Magnetic Circuit Breakers
- -Molded Case Switches

The product numbers as shown in the following pages include the complete breaker or switch. All devices listed come with Cu/Al line and load lugs. If line lugs are not required on a breaker, eliminate "WL" from product number; for molded case switches see page 6-3. Unless otherwise noted, all circuit breakers are UL listed in File E–11592. Molded case switches are UL listed in File E–57546.

J 600 Line

- -Thermal Magnetic Circuit Breakers
- -Magnetic Circuit Breakers
- -Molded Case Switches

These breakers are available with either noninterchangeable trip (designated Type TJJ) or interchangeable trip (designated Type TJK and THJK). Type TJJ product numbers include frame, trip, Cu/Al line, and load lugs factory assembled. If line lugs are not required on the breaker, eliminate "WL" from product number, and subtract price of line lugs from price of complete breaker.

TJK breakers are available in two frames, 400 ampere frame (125 to 400 amperes) and 600 ampere frame (250 to 600 amperes). Trip units are not interchangeable between frames.

"Complete Circuit Breaker" price includes frame, trip unit, Cu/Al line, and load lugs. Unit will be shipped unassembled unless order specifies "must be factory assembled." If line lugs are not required, eliminate "WL" from product number and subtract price of line lugs from price of complete breaker.

To order the frame, trip, and lugs separately, select the required components from table. Magnetic breakers must be ordered as components. A complete breaker consists of frame, trip, and one line and one load lug per pole.

Price of ordering "Complete Circuit Breaker" vs. frame, trip, and line and load lugs separately is the same.

Molded case switches can also be ordered as complete units (designated Type TJK---Y) or as separate components. They are UL listed only as complete units. To indicate required lugs, see page 6-3.

Unless otherwise noted, all circuit breakers are UL listed in File E-11592. Molded case switches are UL listed in File E-57546.



Q-Line Thermal Magnetic Circuit Breakers and Molded-Case Switches

Tri-Break™ Line

- —Integrally Fused Thermal Magnetic Circuit Breakers
- —Integrally Fused Magnetic Circuit Breakers
- —Integrally Fused Molded Case Switches

These breakers are available in three types. Type TB1 (15-100 amperes) product numbers include frame, trip, line and load lugs, and current limiters all factory assembled. TB6 (300 to 600 amperes) and TB8 (600 to 800 amperes) include frame, trip and limiters, factory assembled, but do not include line or load lugs. If line and load lugs are required, order separately. Unless otherwise noted, TB1, TB6, and TB8 breaker components are UL listed in File E-42263. Fused molded case switches are UL listed in File E-57546.

Mag-Break Line

-Magnetic only circuit breakers (motor circuit protectors)

These breakers are available only with noninterchangeable adjustable magnetic trip, in frame Types E, F, J, K, and Tri-Break™. All breakers are shipped factory assembled, complete with Cu/Al line and load lugs.

All magnetic only circuit breakers and limiters are UL Component Recognized in Files E–11592 and E–66390, respectively, unless otherwise noted.



Molded Case Circuit Breakers Industrial Circuit Breakers

Spectra[™] RMS

-Circuit Breakers

Determine the required breaker frame, IC rating, and load requirements. Select frame, trip unit (rating plug), and lug, if required, product numbers from the tables on pages 6-45 to 6-53. For Spectra[™] breakers with *micro*EntelliGuard[™] Trip Units refer to pages 6-54 through 6-61. Select field-mounted internal accessory product numbers, if required, on pages 6-67 and 6-68. Select field-mounted external accessory product numbers, if required, on pages 6-95 through 6-106 and pages 6-62 to 6-66 for Spectra[™] breakers with *micro*EntelliGuard[™] Trip Units. Order as separate items.

-Mag-Break Motor Circuit Protectors

Determine the required frame and ampere requirements. Select frame, trip unit (rating plug), and lug, if required, product numbers from the table on pages 6-91 through 6-92. Select accessories as noted above for circuit breakers. The same accessories are used with both circuit breakers and motor circuit protectors. Order as separate items.

—Molded Case Switches

Determine the required frame and ampere requirements. Select frame and lug, if required, product numbers from the table on page 6-90. Rating plugs are not used. Select accessories as noted above for circuit breakers. Internal accessories do not require dummy trips. The same accessories are used with both circuit breakers and molded case switches. Order as separate items.

Unless otherwise noted, all circuit breakers are UL listed in File E-11592. Molded case switches are UL listed in File E-57546. Field-Installable Internal Accessories are UL listed in File E-57253. Distribution Cable Accessories for *micro*EntelliGuard[™] Trip Units are UL listed in File E-57253.

Accessories

Order accessories from the appropriate table:

- Thermal Magnetic Circuit Breakers, Magnetic Circuit Breakers, and Molded Case Switches¹—pages 6-39 to 6-44 and 6-94 to 6-106.
- —Spectra™ RMS Breakers—pages 6-66 to 6-67 and 6-94 to 6-106.
- —Spectra™ RMS Breakers with *micro*EntelliGuard™ Trip Units pages 6-62 to 6-68, and 6-94 to 6-106.
- ¹Installation of accessories in molded case switches requires dummy trip; see page 6-44 for information. Dummy trip not required for Tri-Break™ or Q-Line molded case switches.



Spectra Circuit Breakers and Molded Case Switches

Molded Case Circuit Breaker and Switch Terminal Configuration Code

Order standard Cu/Al lugs by using suffix codes presented. Order lugs separately if special lugs are required. For optional lugs, see pages 6-103 and 6-104.

Breaker/Switch			Suffix		
Туре	Blank	WL	XL	X2	LL
DLT/DQT	Load Lugs Only	Line and Load Lugs	_	Line Lugs Only	No Lugs
Molded Case Breakers, Thermal Magnetic	Load Lugs Only	Line and Load Lugs	_	Load Lugs Only	No Lugs
Molded Case Switch	Line and Load Lugs	_	No Lugs	Line Lugs Only	Load Lugs Only
Spectra RMS™ Breakers	No Lugs			Order Lugs	Separately
Mine Duty™ Breakers	No Lugs			Order Lugs	Separately
Mag-Break™ Breakers	Line and Load Lugs	_	_	_	_



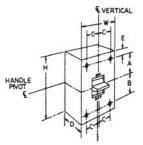
Molded Case Circuit Breakers

Section 6

Quick Reference Guide

Ratings do not apply to molded case switches.

The interruption ratings and voltages shown in the table are maximum ratings. A circuit breaker of the type given in the lefthand column may be applied at the given circuit voltage in any electrical distribution system where the available fault current at the load terminals of the breaker does not exceed the value in the table. That circuit breaker type may also be applied at intermediate values of circuit voltage provided the available fault current at the load terminals of the breaker does not exceed the value in the table for the higher value of voltage.





THQL 32015

Q-Line (UL file E-11592; Fixed Thermal Magnetic Trip Unit)

			Maxim	um		UL Li	isted Int rms Sy	errupti mmetri	ng Ratir cal kA	ngs—												
Circuit Breaker	Ampere	No.	Voltage R				Vac				Vo	lc			Dim	ensions (i	n.)			Std.		
Туре	Rating	Poles	ac	dc	120	120/240	240	277	480	600	125	250	н	W	D	Α	В	С	E	Pack		
	15-50	1	120/240		_	10	-	_	_	_	_	_	3	3/4	2 3/8	_			_	10		
TQ	15-60	2	120/240] _	-	10	-] -	_	_	_	-	5	1 1/2	2 3/8	_	_			5		
TU001	15-50	1	120/240	_	_	10	_	_	_	_	_	_	3 9/32	1/2	2 3/8	_	_	_	_	100		
THQP ¹	15-50	2	120/240	_	_	10	_	_	-	_	-	_	3 9/32	1	2 3/8	_	_	_	_	50		
TO: /TOD /		1	120/240			5 ²	-							1						50		
TQL/TQB/ TQC	10	2	120/240		-	5	5 ²	-	-	-	-	-	3 9/32	2	2 3/8	-	-	-	-	25		
		3	240			-	5							3						15		
THOL1	15-70	1	120/240			10	-							1						50		
THQB ¹ THQC ¹	15-125	2		-	-		10		-	-	-	-	3 9/32	2	2 3/8	-	-	-	-	25		
THŲC-	15-100	3	240			-								3						15		
THHOB ¹	15-70	1	120/240			22	_							1	-					50		
THHQE ¹	15-100	2		-	-		22	-	-	-	-	-	3 9/32	2	2 3/8	-	-	-	-	25		
		3	240			_								3						15		
	15-70	1	120/240			22	_	-				39		1	2 3/8 -				-	50		
THHQL ¹	15-125	2			-	_	22	-		-	-		3 9/32	2		-		-		25		
	15-100	3	240			_	_							3						15		
TXQL ¹	15 70	1	120/240	/240 _		65							3 9/32	1	0.7/0	_	-	-	-	50		
TXQB ¹ TXQC ¹	15-30	2	240	-	-		65 –	_	_					2	2 3/8	_				25		
	100-225	2				240	10		10							2 3/4				_		15 1
TQD ¹	100-225	3	240	-	-	- 10	10		-	-	-	-	6 9/16	4 1/8	2 5/8	2 7/16	2 7/16	11/16	27/32	1		
	100-225	2	240			22	22	-						2 3/4				-		1		
THQD ¹	100-225	3	240	-	-		22		-	-	-	-	6 9/16	4 1/8	2 5/8	2 7/16	2 7/16	11/16	27/32	1		
	100 220	2	240			22	22					10		1 1/0				11/10		1		
TJD	250-400		240	-	-	-	22	- 1	-	-	-		10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	1		
CB3 Ground	Fault, Equip	ment Grou	Ind Fault an	d Arc Fo	ult (UL F	ile E-51075;		 hermal	Magnet	tic Trip L	Jnit)											
THQL		1	120		10	_								1						10		
THÒB THỌC	15-30			-			-	-	-	-	-	-	3 9/32		2 3/8	-	-	-	-			
GF, GFEP		2	120/240		-	10				2					10							
THHQL THHQB GF	15-30	1	120	_	22	_	_	-	-	-	_	-	3 9/32	1	2 3/8	_	_	_	_	10		
THQL THQB THQC AF	15-20	1	120/240	_	_	10	_	_	-	_	_	_	3 9/32	1	2 3/8	_	_	_	_	10		
THHQL THHQB AF	15-20	1	120/240	_	_	22	_	_	-	_	-	_	3 9/32	1	2 3/8	-	_	_	_	10		

¹UL listed as HACR (heating, air conditioning and refrigeration).

²Not UL listed.



6-6

Molded Case Circuit Breakers Q-Line Circuit Breakers

Plug-in Circuit Breakers 240V Class

THQL and THHQL 120 Vac, Ground Fault Circuit Interrupters

# of	Ampere	120 Vac						
Poles Rating		Wire Range ¹	Interrupting Rating	Product Number				
1	15	14-8 Cu/12-8 Al	10kA	THQL1115GF				
1	20	14-8 Cu/12-8 Al	10kA	THQL1120GF				
1	30	14-8 Cu/12-8 Al	10kA	THQL1130GF				
1	15	14-8 Cu/12-8 Al	22kA	THHQL1115GF				
1	20	14-8 Cu/12-8 Al	22kA	THHQL1120GF				
1	30	14-8 Cu/12-8 Al	22kA	THHQL1130GF				

THQL and THHQL 120/240 Vac or 208Y/120 Vac,

Ground Fault Circuit Interrupters Internal Common Trip

# of	Ampere	120/240 Vac					
Poles	Rating	Wire Range ¹	Interrupting Rating	Product Number			
2	15	14-8 Cu/12-8 Al	10kA	THQL2115GF1			
2	20	14-8 Cu/12-8 Al	10kA	THQL2120GF1			
2	30	14-8 Cu/12-8 Al	10kA	THQL2130GF1			
2	40	8-3 Cu/8-3 Al	10kA	THQL2140GF1			
2	50	8-3 Cu/8-3 Al	10kA	THQL2150GF1			

THQL and THHQL 120 Vac, Equipment Protection Ground Fault Circuit Breakers Internal Common Trip

# of	Ampere	120 Vac					
Poles	Rating	Wire Range ¹	Interrupting Rating	Product Number			
1	15	14-8 Cu/12-8 Al	10kA	THQL1115GFEP			
1	20	14-8 Cu/12-8 Al	10kA	THQL1120GFEP			
1	30	14-8 Cu/12-8 Al	10kA	THQL1130GFEP			

THQL and THHQL 120/240 Vac or 208Y/120 Vac, Equipment Protection Ground Fault Circuit Breakers

# of	Ampere	120/240 Vac or 208Y/120					
Poles	Rating	Wire Range ¹	Interrupting Rating	Product Number			
2	15	14-8 Cu/12-8 Al	10kA	THQL2115GFEP			
2	20	14-8 Cu/12-8 Al	10kA	THQL2120GFEP			
2	30	14-8 Cu/12-8 Al	10kA	THQL2130GFEP			

THQL and THHQL 120/240 Vac, High Intensity Discharge Lighting Loads

# of	Ampere	120/240 Vac					
Poles	Rating	Wire Range ¹	Interrupting Rating	Product Number			
1	15	14-8 Cu/12-8 Al	10kA	THQL1115HID ²			
1	20	14-8 Cu/12-8 Al	10kA	THQL1120HID ²			
1	25	14-8 Cu/12-8 Al	10kA	THQL1125HID			
1	30	14-8 Cu/12-8 Al	10kA	THQL1130HID			
1	15	14-8 Cu/12-8 Al	22kA	THHQL1115HID ²			
1	20	14-8 Cu/12-8 Al	22kA	THHQL1120HID ²			
1	25	14-8 Cu/12-8 Al	22kA	THHQL1125HID			
1	30	14-8 Cu/12-8 Al	22kA	THHQL1130HID			

UL listed as HID.

THQL and THHQL 120/240 Vac, Internal Common Trip For High Intensity Discharae Liahtina Loads

# of	Ampere			
Poles	Rating	Wire Range ¹	Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	10kA	THQL2115HID
2	20	14-8 Cu/12-8 Al	10kA	THQL2120HID
2	25	14-8 Cu/12-8 Al	10kA	THQL2125HID
2	30	14-8 Cu/12-8 Al	10kA	THQL2130HID
2	15	14-8 Cu/12-8 Al	22kA	THHQL2115HID
2	20	14-8 Cu/12-8 Al	22kA	THHQL2120HID
2	25	14-8 Cu/12-8 Al	22kA	THHQL2125HID
2	30	14-8 Cu/12-8 Al	22kA	THHQL2130HID

UL listed as HID.

¹Solid or stranded for 14-10 AWG.

²UL listed as SWD (switching duty). Suitable for 120 Vac fluorescent lighting loads.





THQL1120GF



THQL2120HID