

Molded Case Circuit Breakers Industrial Circuit Breakers

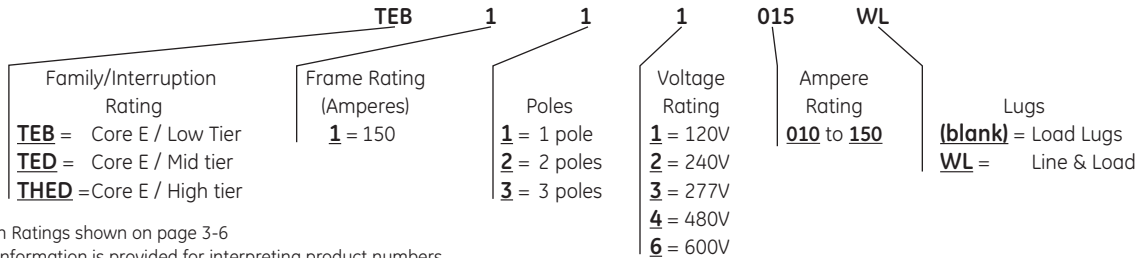
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Section 3

15-150A Circuit Breakers
Thermal-Magnetic Trip
E150 Line Circuit Breakers
Types TEB, TED, THED
Noninterchangeable Trip



Product Number Structure



Interruption Ratings shown on page 3-6
Note: This information is provided for interpreting product numbers (it should not be used to build product numbers).

Single Pole — Includes Cu/Al load lugs only. If line lugs are required, add suffix "WL" to Product Number.

Ampere Rating	Type TEB		Type TED			Type THED				
	120 Vac 125 Vdc		277 Vac 125 Vdc		347 Vac ¹		277 Vac		347 Vac ¹	
	Product Number	List Price GO-135B	Product Number	List Price GO-135B	Product Number	List Price GO-135B	Product Number	List Price GO-135B	Product Number	List Price GO-135B
10	TEB111010 ²	\$78.50	TED113010 ²	\$82.50			THED113015	\$229.00	THED114015 ³	\$416.00
15	TEB111015 ³	\$78.50	TED113015 ³	\$82.50	TED114015 ³	\$152.00	THED113020	\$229.00	THED114020 ³	\$416.00
20	TEB111020 ³	\$78.50	TED113020 ³	\$82.50	TED114020 ³	\$152.00	THED113025	\$229.00	THED114025	\$416.00
25	TEB111025	\$78.50	TED113025	\$82.50	TED114025	\$152.00	THED113030	\$229.00	THED114030	\$416.00
30	TEB111030	\$78.50	TED113030	\$82.50	TED114030	\$152.00				
35	TEB111035	\$78.50	TED113035	\$82.50						
40	TEB111040	\$78.50	TED113040	\$82.50						
45	TEB111045	\$78.50	TED113045	\$82.50						
50	TEB111050	\$78.50	TED113050	\$82.50						
60	TEB111060	\$78.50	TED113060	\$82.50						
70	TEB111070	\$134.00	TED113070	\$159.00						
80	TEB111080	\$134.00	TED113080	\$159.00						
90	TEB111090	\$134.00	TED113090	\$159.00						
100	TEB111100	\$134.00	TED113100	\$159.00						

Two Pole — Includes Cu/Al line and load lugs. For optional lugs, see page 3-105 and 3-106.

Ampere Rating	Type TEB		Type TED		Type THED, Hi-Break ⁴	
	240 Vac, 250 Vdc		480 Vac, 250 Vdc		480 Vac, 250 Vdc	
	Product Number	List Price GO-135B	Product Number	List Price GO-135B	Product Number	List Price GO-135B
10	TEB122010WL ²	\$159.00	TED124010WL ²	\$290.00		
15	TEB122015WL	\$159.00	TED124015WL	\$290.00	THED124015WL	\$560.00
20	TEB122020WL	\$159.00	TED124020WL	\$290.00	THED124020WL	\$560.00
25	TEB122025WL	\$159.00	TED124025WL	\$290.00	THED124025WL	\$560.00
30	TEB122030WL	\$159.00	TED124030WL	\$290.00	THED124030WL	\$560.00
35	TEB122035WL	\$159.00	TED124035WL	\$290.00	THED124035WL	\$560.00
40	TEB122040WL	\$159.00	TED124040WL	\$290.00	THED124040WL	\$560.00
45	TEB122045WL	\$159.00	TED124045WL	\$290.00	THED124045WL	\$560.00
50	TEB122050WL	\$159.00	TED124050WL	\$290.00	THED124050WL	\$560.00
60	TEB122060WL	\$159.00	TED124060WL	\$290.00	THED124060WL	\$560.00
70	TEB122070WL	\$261.00	TED124070WL	\$377.00	THED124070WL	\$653.00
80	TEB122080WL	\$261.00	TED124080WL	\$377.00	THED124080WL	\$653.00
90	TEB122090WL	\$261.00	TED124090WL	\$377.00	THED124090WL	\$653.00
100	TEB122100WL	\$261.00	TED124100WL	\$377.00	THED124100WL	\$653.00
110			TED124110WL	\$1000.00		
125			TED124125WL	\$1000.00		
150			TED124150WL	\$1000.00		

¹Suitable for 10 kAIC at 480 Vac, but not labeled or UL listed.

²Not UL listed

³Single-pole, 15- and 20-ampere breakers are also UL listed as switching duty breakers, suitable for switching 120 Vac (TEB), 277, 347 Vac (TED, THED) fluorescent lighting loads.

⁴Two-pole breaker is furnished in three-pole case.

Notes: All TEB, TED, THED breakers UL listed as HACR type except 10 ampere.

All TEB, TED, THED breakers suitable for reverse feed.

60/75°C rating through 100 amperes, 75°C rating above 100 amperes.



Publications and Reference: See Section 22 for a complete list of additional product-related publications

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.

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 3-46 to 3-54. For Spectra® breakers with MicroVersaTrip® Plus or MicroVersaTrip® PM Trip Units refer to pages 3-57 through 3-65. Select field-mounted internal accessory product numbers, if required, on pages 3-70 and 3-71. Select field-mounted external accessory product numbers, if required, on pages 3-97 through 3-107 and pages 3-66 to 3-69 for Spectra® breakers with MicroVersaTrip® Plus or MicroVersaTrip® PM 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 3-73 through 3-75. 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 3-72. 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 MicroVersaTrip® Plus Trip Units and MicroVersaTrip® PM 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 3-39 to 3-45 and 3-97 to 3-107.
- Spectra® RMS Breakers—pages 3-70 to 3-71 and 3-97 to 3-107.
- Spectra® RMS Breakers with MicroVersaTrip® Plus Trip Units or MicroVersaTrip® PM Trip Units—pages 3-66 to 3-71, and 3-96 to 3-107.

¹Installation of accessories in molded case switches requires dummy trip; see page 3-45 for information. Dummy trip not required for Tri-Break® or Q-Line 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 3-101 and 3-102.

Breaker/Switch Type	Suffix				
	Blank	WL	XL	X2	LL
TQD/TJD	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

Industrial Circuit Breakers

Section 3

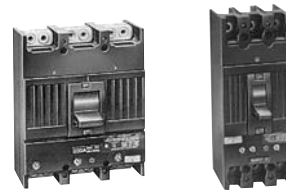
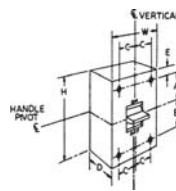
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Quick Reference Guide

10-1200A Circuit Breakers

Thermal Magnetic Trip

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 left-hand 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.



TJJ, TJK, THJK TFJ, TFK, THFK

TEY and TEYF (UL File E-11592; Fixed Thermal Magnetic Trip Unit; CSA LR 57114)

Circuit Breaker Type	Ampere Rating	No. Poles	Maximum Voltage Rating		UL Listed Interrupting Ratings— kA												Dimensions (In.)					Approx. Ship Wt./Std. Pack		
					Vac						Vdc						H	W	D	A	B		C	E
					ac	dc	120	120/240	240	277	480	600	125	250	500 ¹									
TEY ²	15-100	1	277	125	65	—	14	14	—	—	10	—	—	5 1/4	1	3 1/16	—	—	—	—	—	—	—	
		2	480/277	250	—	—	—	—	—	—	—	—	—		2									
		3	—	—	—	—	—	—	—	—	—	—	—		3									
TEYF ²	15-100	1	277	125	65	—	14	14	—	—	10	—	—	5 1/4	1	3 1/16	—	—	—	—	—	—	—	
		2	480/277	250	—	—	—	—	—	—	—	—	—		2									
		3	—	—	—	—	—	—	—	—	—	—	—		3									

E150 (UL File E-11592; Fixed Thermal Magnetic Trip Unit; CSA LR 57114)

TEB ²	10-100 ³	1	120	125	10	—	—	—	—	—	5	—	—	6 5/16	1 3/8	3 3/8	2 41/64	2 15/64	—	23/32	26 lb/24			
		2	240	250	—	—	—	—	—	—	—	—	—		2 3/4				24 lb/12					
		3	—	—	—	—	10	—	—	—	—	—	—		4 1/8				28 lb/8					
TED ²	10-100 ³	1	277,347 ⁴	125	—	—	14	10	—	—	10	—	—	6 5/16	1 3/8	3 3/8	2 41/64	2 15/64	—	23/32	26 lb/24			
		2	480	250	—	—	—	—	—	—	—	—	—		2 3/4				24 lb/12					
		3	480,600	500	—	—	18	—	18	—	—	—	—		4 1/8				28 lb/8					
THED ²	15-30	1	277,347 ⁴	125	—	—	—	65	—	—	20 ⁶	—	—	6 5/16	1 3/8	3 3/8	2 41/64	2 15/64	—	23/32	26 lb/24			
		2	480	250	—	—	65	—	25	—	—	—	—		20 ⁶				4 1/8		24 lb/12			
	15-100	2	—	—	—	—	—	—	—	—	—	—	—		—				—		—	11/16	23/32	28 lb/8
		3	600	500	—	—	42	—	—	—	—	—	—		—				—		—	—	—	28 lb/8

F225 (UL File E-11592; TFJ, Fixed Thermal Magnetic Trip Unit; TFK, THFK: Interchangeable Thermal Mag. Trip Unit; CSA LR 40350)

TFJ ²	70-225	2	480	250	—	—	25	—	22	—	10	—	10 1/8	4 1/8	3 13/16	3 7/8	3 7/8	11/16	1 3/16	10 lb/1
	70-250	3	600	500	—	—	—	—	—	—	—	—		10						12 lb/1
TFK ²	70-225	2	480	250	—	—	25	—	22	—	10	—	10 1/8	4 1/8	3 13/16	3 7/8	3 7/8	11/16	1 3/16	10 lb/1
		3	600	500	—	—	—	—	—	—	—	—		—						10
THFK ²	70-225	2	480	250	—	—	65	—	25	—	10	—	10 1/8	4 1/8	3 13/16	3 7/8	3 7/8	11/16	1 3/16	10 lb/1
		3	600	500	—	—	—	—	—	—	—	—		—						10
TFL ⁷	70-225	3	600	—	—	100	100	—	65	25	—	—	10 1/8	4 1/8	3 13/16	3 7/8	3 7/8	11/16	1 3/16	—

J600 (UL File E-11592; TJJ, Fixed Thermal Magnetic Trip Unit; TJK, THJK: Interchangeable Thermal Mag. Trip Unit; CSA LR 40350)

TJJ, TJK4	125-400	2	600	250	—	—	42	—	30	22	—	10	—	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	16 lb/1
		3		500	—	—	—	—	—	—	—	—	—								—
TJK6	250-600	2	600	250	—	—	42	—	30	22	—	10	—	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	18 lb/1
		3		500	—	—	—	—	—	—	—	—	—								—
THJK4	125-400	2	600	250	—	—	65	—	35	25	—	40	—	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	16 lb/1
		3		—	—	—	—	—	—	—	—	—	—								—
THJK6	250-600	2	600	250	—	—	65	—	35	25	—	40	—	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	18 lb/1
		3		—	—	—	—	—	—	—	—	—	—								—

K1200 (UL File E-11592; Interchangeable Thermal Magnetic Trip Unit; CSA LR 40350)

TKM8	300-800	2	600	250	—	—	42	—	30	22	—	10	—	15 1/2	8 1/4	5 1/2	8 9/16	5 11/16	1 3/8	5/8	33 lb/1
		3		500	—	—	—	—	—	—	—	—	—								—
TKM12	600-1200	2	600	—	—	—	42	—	30	22	—	—	—	15 1/2	8 1/4	5 1/2	8 9/16	5 11/16	1 3/8	5/8	38 lb/1
		3		—	—	—	—	—	—	—	—	—	—								—
THKM8	300-800	2	600	250	—	—	65	—	35	25	—	40	—	15 1/2	8 1/4	5 1/2	8 9/16	5 11/16	1 3/8	5/8	33 lb/1
		3		—	—	—	—	—	—	—	—	—	—								—
THKM12	600-1200	2	600	—	—	—	65	—	35	25	—	—	—	15 1/2	8 1/4	5 1/2	8 9/16	5 11/16	1 3/8	5/8	38 lb/1
		3		—	—	—	—	—	—	—	—	—	—								—

¹UL listed with poles in series for 500 Vdc ungrounded battery applications.

²UL listed as HACR (heating, air conditioning, and refrigeration).

³10 amp not UL listed.

⁴UL listed/CSA Certified for 10kA @ 347 Vac (TED) and 18kA @ 347V (THED). Also rated 10kA @ 480V but not UL listed.

⁵480Y/277 Vac.

⁶UL listed at 10,000 amps

⁷No longer available

