

T&B Distribution Equipment

Circuit Breakers – Product Installation Information



A-115



A-230



TB-115



Cutaway View

Product Description

Thomas & Betts circuit breakers are molded of a durable thermoset plastic which is not subject to dielectric breakdown after arcing. Operating handles are non-breakable plastic. Cases are color coded to indicate the interrupting capacity of the breaker.

Both Type A, 1/2" per pole, and Type TB, 1" per pole, modules contain thermal-magnetic trip units which provide fast magnetic-trip protection against short circuits and time-delay-trip protection against overloads. The unique side-clip design of Type A 2-pole breakers allows a true common-trip 120/240 volt device that can be installed in a 1" mounting space. Factory calibration after assembly assures consistent performance when installed.

Operating Mechanisms

Breakers are supplied with quick-make, quick-break trip-free mechanisms, which make it impossible to hold the breaker in the "On" position against a fault or overload. When the handle is in the "Tripped" position, midway between "On" and "Off", it identifies a tripped condition. Reset the breaker simply by moving the handle to the "Off" position, then "On". Factory-assembled two-pole breakers are common trip—one fault trips all. Movable contact wiping action helps keep contact surfaces clean when the breaker is operated mechanically. Arc chutes extinguish arcs on short-circuit interruption and minimize ionized gases, while exhaust vents guide gases harmlessly into the wiring gutter. Each pole is individually tested, calibrated and sealed to retain its setting.

Ratings

One and two poles, 120, 120/240 and 240 volts AC, 15-60 amperes for branch breakers, 70-225 amperes for mains. Breakers rated 10,000 AIC.

UL and Federal Specifications

Breakers are listed by Underwriters Laboratories Inc. under UL File #E162469. They meet or exceed the applicable Classes of Federal Specification W-C-375B/Gen, Type I. They are certified by Canadian Standards Association under CSA Standard 22.2 No. 5-1963 for Service Entrance and Branch Circuit Breakers.

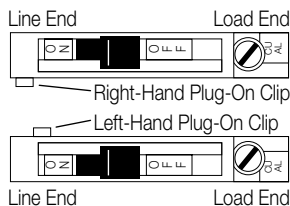
Features

- All trip units are quick-make, quick-break thermal magnetic.
- Silver-tungsten contacts with wiping action that helps keep contacts clean.
- Unique side-clip design of Type A two-pole breakers gives true common trip in 1" space.
- Self-positioning line-contact clip assures positive alignment of breaker to bus stab.
- Complete family of branch breakers allows even distribution of the load on A-phase and B-phase bus stabs. Box lugs are rated for Copper/Aluminum terminal screws. Allows for fast and easy straight-in wiring.
- Ampere ratings appear on every breaker handle for positive identification.
- Factory-assembled two-pole circuit breakers contain common trip mechanisms. A fault in one pole trips both poles independently of the operating handle.

Plug-On Circuit Breakers Installation Instructions – Type A Breakers

1. Single Pole Breakers Supplied.

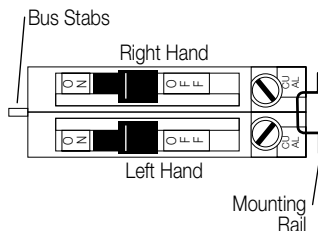
Two single-pole breakers are packed in pairs for convenience. These breakers are alike except for the position of the plug-on clip which connects the breaker to the bus stab in the panel.



Left-Hand and Right-Hand Plug-On Clips

2. To Install:

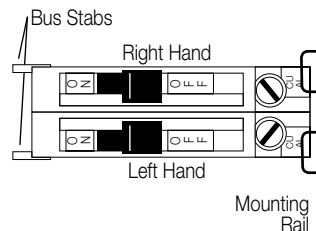
Hook load end of the breaker under the hold-down tab in the panel. Press line end of breaker down so that the plug-in clip slips over the bus stab. Insert breakers by pairs for easier installation.



Bus Stabs and Hold-Down Tabs

3. Between Bus Stabs:

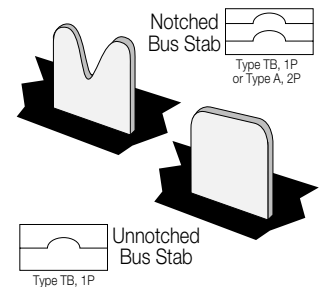
When required, breakers may be installed between bus stabs as shown in the drawing below.



Installation Between Bus Stabs

Important Note:

These circuit breakers conform to Section 384-15 of the latest National Electrical Code. Install only in panel positions having notched bus stabs.



Bus Stabs

T&B Distribution Equipment

Circuit Breakers – Type A, TBBD and TBBQ



A-115



TBBD2020



TBBQ2302115



TBBQ230230

Type A Breakers¹ 120/240 Volts AC, 10,000 AIC – Replacement Type

Type TBBR Non-CTL AIC, No Rejection Feature 120/240 Volts AC Duplex, 10,000 AIC – Replacement Type

Ampere Rating	Load Terminal Wire Range	1-Pole Breakers 1/2" Per Breaker Side Clip			2-Pole Breakers Common Trip 1" Per Breaker Side Clip			Amps	Cat. No.	Std. Ctn.
		Cat. No. ²	Std. Ctn.	Cat. No. ²	Std. Ctn.	Std. Pkg.				
15	#14-#4	A115-CH	60	A215	10	30	15/15	TBBR1515	48	
20	#14-#4	A120	60	A220	10	30	15/20	TBBR1520	48	
20/20	#14-#4	–	–	–	–	–	20/15	TBBR2015	48	
30	#14-#4	A130	60	A230	10	30	20/20	TBBR2020	48	
40	#14-#4	–	–	A240	10	30	30/30	TBBR3030	48	
50	#14-#4	–	–	A250-CH	10	30	–	–	–	
Ctn. Qty./Sleeve		60/20		30/15		Ctn. Qty./Sleeve		48/12		
Ctn. Wt.		10		10		Ctn. Wt.		17		

Type TBBD^{3,4}

Plug-on Circuit Breakers – Type CTL Thermal Magnetic 40°C Type TBBQ⁴ 120/240 Volts AC Duplex, with Rejection Feature 120/240 Volts AC Quadplex, Independent Trip 10,000 AIC (1/2" Per Pole) 10,000 AIC (1/2" Per Pole) with Rejection Feature

Amps	Cat. No.	Std. Ctn.	Amps	Cat. No.	Std. Ctn.
15-15	TBBD1515	–	2p15-2p15	TBBQ215215	24
15-20	TBBD1520	48	2p20-2p20	TBBQ220220	24
15-30	TBBD1530	48	2p20-2p30	TBBQ220230	24
20-15	TBBD2015	48	2p20-2p40	TBBQ220240	24
20-20	TBBD2020	48	2p20-2p50	TBBQ220250	24
20-30	TBBD2030	48	2p20-2 of 1p20	TBBQ2202120	24
30-15	TBBD3015	48	2p25-2p25	TBBQ225225	24
30-20	TBBD3020	48	2p30-2 of 1p15	TBBQ2302115	24
30-30	TBBD3030	48	2p30-2 of 1p20	TBBQ2302120	24
30-40	TBBD3040	48	2p30-2p30	TBBQ230230	24
30-50	TBBD3050	48	2p30-2p40	TBBQ230240	24
50-30	TBBD5030	–	2p30-2p50	TBBQ230250	24
			2p40-2 of 1p15	TBBQ2402115	24
			2p40-2 of 1p20	TBBQ2402120	24
			2p40-2p40	TBBQ240240	24
			2p40-2p50	TBBQ240250	24
			2p50-2 of 1p15	TBBQ2502115	24
			2p50-2 of 1p20	TBBQ2502120	24
			2p50-2p50	TBBQ250250	24
Ctn. Qty./Sleeve		48/12		Ctn. Qty	
Ctn. Wt.		17		24/6	
				18	

¹ Type A breakers are rated for use with 60°C or 75°C wire.

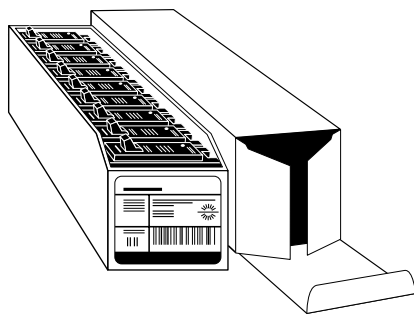
² HACR Rated.

³ Two of 1-pole takes 1 space.

⁴ All TBBD and TBBQ Breakers carry listing for HACR applications.

T&B Distribution Equipment

UL Classified Breakers



Bulk Pack White Sleeve Boxes

Bulk-Pack White Sleeve Boxes

Item #	Description	UPC Code 7 86210	Std. Ctn.
TB115C	1 Pole 15 amp	20079-8	48
TB120C	1 Pole 20 amp	20082-8	48
TB125C	1 Pole 25 amp	20085	48
TB130C	1 Pole 30 amp	20084-2	48
TB135C	1 Pole 35 amp	57141	48
TB140C	1 Pole 40 amp	20087-3	48
TB145C	1 Pole 45 amp	57143	48
TB150C	1 Pole 50 amp	20088-0	48
TB215C	2 Pole 15 amp	20089-7	24
TB220C	2 Pole 20 amp	20090-3	24
TB225C	2 Pole 25 amp	20083	24
TB230C	2 Pole 30 amp	20091-0	24
TB235C	2 Pole 35 amp	57142	24
TB240C	2 Pole 40 amp	20092-7	24
TB245C	2 Pole 45 amp	57146	24
TB250C	2 Pole 50 amp	20093-4	24



T&B Classified Breakers

- Meet rigorous UL test requirements (UL File E-162469).
- Meet electrical inspectors' requirements for being a compatible replacement for those specific breakers previously referred to as "interchangeable."
- Are mechanically interchangeable with those specific breakers sold in the U.S. today.
- Are suitable for use in most Westinghouse, Bryant, Challenger, Sylvania, GE, Murray, Siemens, and T&B panelboards and are Classified to replace many of these as illustrated in the following chart.

This circuit breaker is listed for use in circuit breaker enclosures and panelboards intended and marked for its use. This circuit breaker is Classified for use, where the available short circuit current is 10kA, 120/240 V ac or less, in the compatible panelboards shown in Publication No. T5651863 provided with this circuit breaker. When used as a Classified circuit breaker, do not use in equipment connected to circuits having an available system short-circuit current in excess of 10 kA, 120/240 V ac. If additional information is necessary, contact Thomas & Betts Corporation, Memphis TN.

Compatibility List for the Classified Applications
Thomas & Betts Corporation

Listed Breaker TB115C - TB250C
15-50 A 120/240V
SYSTEM SUPPLY
1 Phase 3 Wire 120/240V
Max. Short Circuit Current 10kA

MURRAY

Listed Breaker MP115-MP250
Listed Panelboards

LC112DF/DS	LC236PC
LC116DF/DS	LC240PC
LC120DF/DS	JA112CW
LC220EC/PC	JA112CY
LC224EC/PC	JA224CY
LC230EC/PC	JA222CW

WESTINGHOUSE

Listed Breaker BR115-BR250
Listed Panelboards
S (6-12) C/CG/CD/CDG/R
S (8-16) C/CG/CD/CDG/R
B/N/L12 (12-24) CT/CGT
L/B10 (20-20) CT/R/C
L/B15 (30-30) CT/R/C
L/N/B20 (20-40) CT/R/C
L/N/B20 (30-40) CT/R/C
L/N/B20 (40-40) CT/R/C
WMB 10 (12-24) FN /SN/SB
WMB 20 (20-40) FN/SN/SB

GENERAL ELECTRIC

Listed Breaker THQL1115-THQL2150
Listed Panelboards
TM2010C/R
TM1212C/CT
TM1210C/R
TM2020C/CT/R
TLM612F/S/R
TLM810F/S/R
TLM812F/S/R
TM3020C/R

SIEMENS

Listed Breaker Q115-Q250
Listed Panelboards
G2020MB1100
G2040MB1200
G2440MB1200
G3040MB1200
G3030MB1200
E0612ML1125CU
W0612ML1125CU
E0812ML1225CU
W0812ML1125CU
E0816ML1125CU
W0816ML1125CU

CHALLENGER

Listed Breaker C115-C250
Listed Panelboards
SL12 (6-12) CN/CDN/CDGN/RN
SL12 (8-16) CN/CGN/RN
SLB/SL12 (12-24) CCT/CCGT
SL/SB10 (20-20) CT/R/C
SL/SB15 (30-30) CT/R/C
SL/SLB/SB20 (20-40) CT/R/C
SL/SLB/SB20 (30-40) CT/R/C
SL/SLB/SB20 (40-40) CT/R/C
SMB 10 (12-24) FN/SN/SB
SMB 20 (20-40) FN/SN/SB

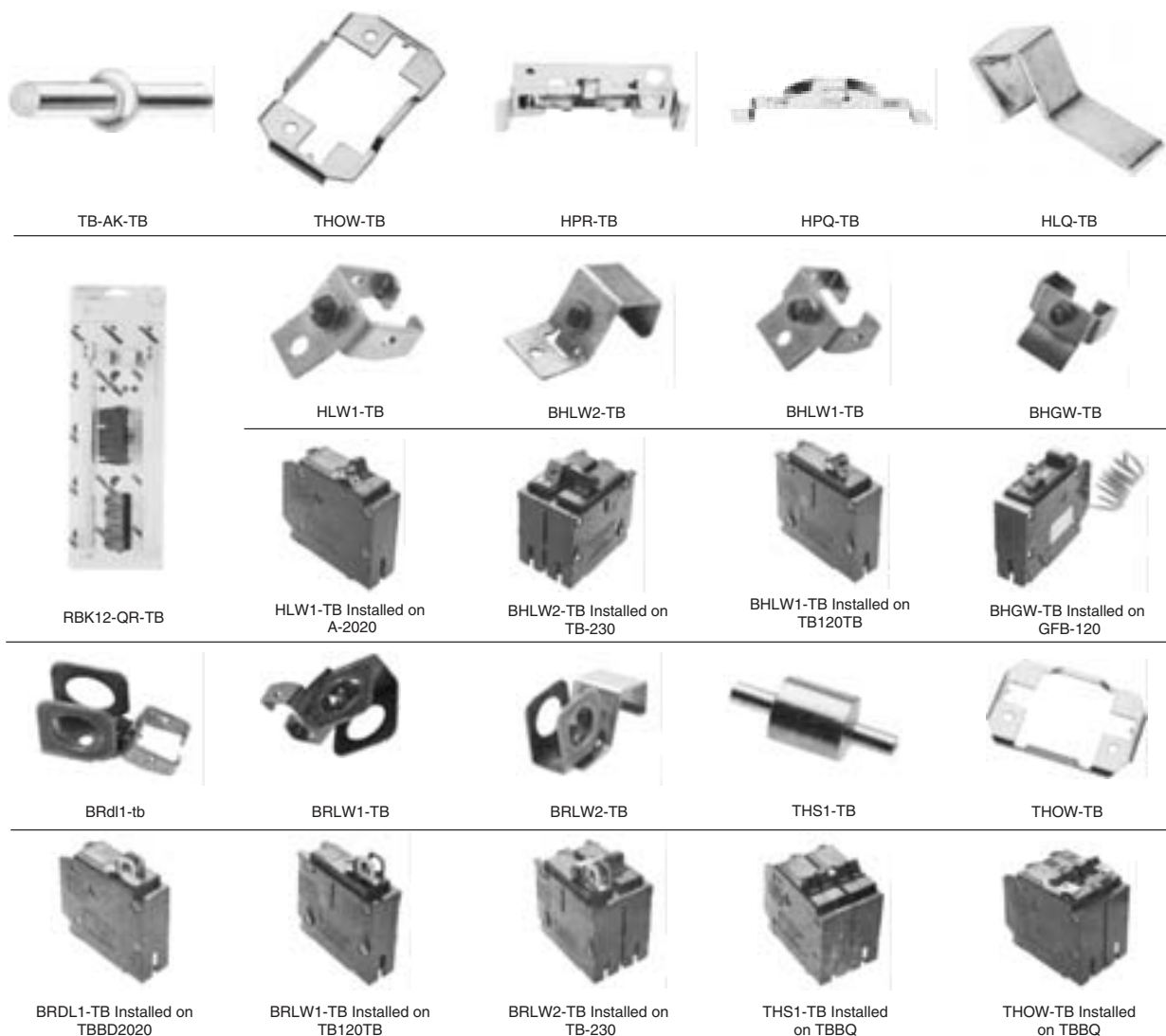
SUITABLE FOR USE IN ALL Thomas & Betts
LABELED PANELS
Publication No. T5651863
DO NOT USE IN SERIES RATED SYSTEMS



Thomas & Betts

T&B Distribution Equipment

Circuit Breaker Accessories



Circuit Breaker Accessories – For Types A, TB

Description	Type	Cat. No.	Std. Ctn.
Handle Tie Bars	Type A	TB-AK-TB	10
	For 2 Type TB 1-Pole Breakers	BHT-TB	50
	For Adjacent Poles of 2 Twin Breakers	THS1-TB	1
	For Outside Poles of 2 Twin Breakers	THOW-TB	1
Handle Lock-Offs	Type TB, 1 Pole	BHLW1-TB	100
	Type TB, 2 & 3 Pole	BHLW2-TB	50
	For Type GFB, 1 Pole	BHGW-TB	60
	For Twins, Multibreakers, Water Heater and Switching Neutral Breakers	HLW1-TB	10
Padlock Devices	Type TB, 1 Pole	BRLW1-TB	50
	For Type TB, 2 & 3 Pole	BRLW2-TB	50
	For Twin Breakers, Switching Neutral Breakers	BRDL1-TB	5
Filler Plate	For 3 Type A Breaker Spaces	FP-3Q-TB	-

Circuit Breaker Accessories – For Types Q and R Replacement Breakers

Handle Tie Bars	Type Q	TBQ-TB	500
	Type R38	TBR-TB	500
Handle Lock-Offs	Type Q & QC	HLQ-TB	50
	Types R38 & RC38	HLR-TB	500
Padlock Devices	Type Q & QC	HPQ-TB	125
	Types R38 & RC38	HPR-TB	125
Bus Replacement Kit	For Q & R Loadcenters, 125A (12-24 Circuits) MLO	RBK12-QR-TB	10

Thomas & Betts