

BTB / BTBH Series Surface Mount Terminal Blocks

Surface mount terminal blocks with 2 to 30 poles.

Touch-down terminals reduce wiring time.

- Self-lifting (BTB series) and touch down terminal (BTBH) available.
- Flame-resistant plastic (UL94V-0).
- Terminal blocks can be easily combined and all poles can be secured with a pair of connecting rods and nuts.
- Complies with JIS C 2811.
- UL recognized and CSA certified.

Applicable Standards	Mark	Certification Organization/ File No.
UL1059		UL recognized File No. E78117
CSA 22.2 No. 158		CSA (File No. LR64803)
EN60947-1 EN60947-7-1		TÜV Rheinland License No. R9551515



General Specifications

Dielectric Strength	2500V AC, 1 minute
Insulation Resistance	100 MΩ minimum
Operating Temperature	-25 to +55°C (no freezing)
Storage Temperature	-25 to +70°C (no freezing)
Operating Humidity	45 to 85% RH (no condensation)

Material

Parts Name	Material
Housing	Modified PPE
Bus Bar	Brass (nickel-plated)
Terminal Screw	Steel (zinc chrome-plated)
Connecting Rod/Nut	Steel (zinc chrome-plated)
Dust Cover	Polycarbonate

Ratings and Terminal Screw Tightening Torque

Part		Part No.	UL/CSA		EN		JIS		Terminal Screw	Tightening Torque
			Voltage/Current	Wire Size (AWG)	Voltage/Current	Wire Size (AWG)	Voltage/Current	Wire Size (mm ²)		
BTB	Self-lifting	BTB15C□	300V/10A	22-14	500V/22A	2 (18-14)	600V/16A	1.25 (2) *	M3	0.6 to 1.0
		BTB15LC□	300V/15A	22-12	500V/22A	2 (18-14)	600V/21A	2	M3.5	1.0 to 1.3
		BTB30C□	300V/30A	18-10	500V/38A	5.5 (14-10)	600V/40A	5.5	M4	1.4 to 2.0
		BTB50C□	600V/50A	16-6	500V/67A	14 (10 -6)	600V/70A	14	M5	2.6 to 3.7
BTBH	Touch-down	BTBH15C□	300V/10A	22-14	500V/22A	2 (18-14)	600V/16A	1.25 (2) *	M3	0.6 to 1.0
		BTBH15LC□	300V/15A	22-14	500V/22A	2 (18-14)	600V/21A	2	M3.5	1.0 to 1.3
		BTBH30C□	300V/30A	18-10	500V/38A	5.5 (14-10)	600V/40A	5.5	M4	1.4 to 2.0
		BTBH50C□	600V/50A	16-6	500V/67A	14 (10-6)	600V/70A	14	M5	2.6 to 3.7

* The rated applicable wire size is 1.25 mm², but 2 mm² wire can also be used.

The wire size in () does not comply with JIS standards.

The rated current differs according to operating conditions. See "Selecting Terminal Blocks by Current According to JIS Standards" on page 1057.

Specify the number of poles in place of □.

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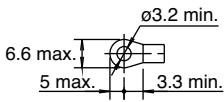
BTB15C/BTBH15C

Style	No. of Poles	Part No.	Package Quantity
BTB15C (Self-lifting terminal)	2	BTB15C2	1
	3	BTB15C3	1
	4	BTB15C4	1
	5	BTB15C5	1
	6	BTB15C6	1
	7	BTB15C7	1
	8	BTB15C8	1
	9	BTB15C9	1
	10	BTB15C10	1
	11	BTB15C11	1
	12	BTB15C12	1
	13	BTB15C13	1
	14	BTB15C14	1
	15	BTB15C15	1
	16	BTB15C16	1
	17	BTB15C17	1
	18	BTB15C18	1
	19	BTB15C19	1
	20	BTB15C20	1
	21	BTB15C21	1
	22	BTB15C22	1
	23	BTB15C23	1
	24	BTB15C24	1
	25	BTB15C25	1
	26	BTB15C26	1
	27	BTB15C27	1
	28	BTB15C28	1
	29	BTB15C29	1
	30	BTB15C30	1

Style	No. of Poles	Part No.	Package Quantity
BTBH15C (Touch-down terminal)	2	BTBH15C2	1
	3	BTBH15C3	1
	4	BTBH15C4	1
	5	BTBH15C5	1
	6	BTBH15C6	1
	7	BTBH15C7	1
	8	BTBH15C8	1
	9	BTBH15C9	1
	10	BTBH15C10	1
	11	BTBH15C11	1
	12	BTBH15C12	1
	13	BTBH15C13	1
	14	BTBH15C14	1
	15	BTBH15C15	1
	16	BTBH15C16	1
	17	BTBH15C17	1
	18	BTBH15C18	1
	19	BTBH15C19	1
	20	BTBH15C20	1
	21	BTBH15C21	1
	22	BTBH15C22	1
	23	BTBH15C23	1
	24	BTBH15C24	1
	25	BTBH15C25	1
	26	BTBH15C26	1
	27	BTBH15C27	1
	28	BTBH15C28	1
	29	BTBH15C29	1
	30	BTBH15C30	1

Note: Dust covers and marking strips are supplied with the terminal block.

Specifications

	BTB15C/BTBH15C		
Standards	UL/CSA	EN	JIS
Insulation Voltage	300V	500V	600V
Wire Size	22-14 AWG	2 mm ² (18-14 AWG)	1.25 mm ² (2 mm ²) *
Rated Current	10A	22A	16A
Terminal screw	M3		
Crimping Terminal	1.25-3 (2-3)		
Max. No. of Crimping Terminals	2		
Tightening Torque	0.6 to 1.0 N·m		
Crimping Terminal Dimensions (mm)			
Accessory: Jumper	BNJ36, BNJ36B, BNJ36F, BNJ36FB (see page 1096)		

* The rated applicable wire size is 1.25 mm², but 2 mm² wires can also be connected.
The wire size in () does not comply with JIS standards.

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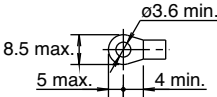
BTB15LC/BTBH15LC

Style	No. of Poles	Part No.	Package Quantity
BTB15LC (Self-lifting terminal)	2	BTB15LC2	1
	3	BTB15LC3	1
	4	BTB15LC4	1
	5	BTB15LC5	1
	6	BTB15LC6	1
	7	BTB15LC7	1
	8	BTB15LC8	1
	9	BTB15LC9	1
	10	BTB15LC10	1
	11	BTB15LC11	1
	12	BTB15LC12	1
	13	BTB15LC13	1
	14	BTB15LC14	1
	15	BTB15LC15	1
	16	BTB15LC16	1
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	21	BTB15LC21	1
	22	BTB15LC22	1
	23	BTB15LC23	1
	24	BTB15LC24	1
	25	BTB15LC25	1
	26	BTB15LC26	1
	27	BTB15LC27	1
	28	BTB15LC28	1
	29	BTB15LC29	1
	30	BTB15LC30	1

Style	No. of Poles	Part No.	Package Quantity
BTBH15LC (Touch-down terminal)	2	BTBH15LC2	1
	3	BTBH15LC3	1
	4	BTBH15LC4	1
	5	BTBH15LC5	1
	6	BTBH15LC6	1
	7	BTBH15LC7	1
	8	BTBH15LC8	1
	9	BTBH15LC9	1
	10	BTBH15LC10	1
	11	BTBH15LC11	1
	12	BTBH15LC12	1
	13	BTBH15LC13	1
	14	BTBH15LC14	1
	15	BTBH15LC15	1
	16	BTBH15LC16	1
	17	BTBH15LC17	1
	18	BTBH15LC18	1
	19	BTBH15LC19	1
	20	BTBH15LC20	1
	21	BTBH15LC21	1
	22	BTBH15LC22	1
	23	BTBH15LC23	1
	24	BTBH15LC24	1
	25	BTBH15LC25	1
	26	BTBH15LC26	1
	27	BTBH15LC27	1
	28	BTBH15LC28	1
	29	BTBH15LC29	1
	30	BTBH15LC30	1

Note: Dust covers and marking strips are supplied with the terminal block.

Specifications

	BTB15LC/BTBH15LC		
Standards	UL/CSA	EN	JIS
Insulation Voltage	300V	500V	600V
Wire Size	22-14 AWG	2 mm ² (18-14 AWG)	2 mm ²
Rated Current	15A	22A	21A
Terminal screw	M3.5		
Crimping Terminal	2-3.5		
Max. No. of Crimping Terminals	2		
Tightening Torque	1.0 to 1.3 N·m		
Crimping Terminal Dimensions (mm)			
Accessory: Jumper	BNJ46, BNJ46B, BNJ46F, BNJ46FB (see page 1096)		

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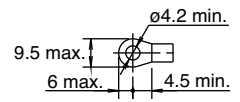
BTB30C/BTBH30C

Style	No. of Poles	Part No.	Package Quantity
BTB30C (Self-lifting terminal)	2	BTB30C2	1
	3	BTB30C3	1
	4	BTB30C4	1
	5	BTB30C5	1
	6	BTB30C6	1
	7	BTB30C7	1
	8	BTB30C8	1
	9	BTB30C9	1
	10	BTB30C10	1
	11	BTB30C11	1
	12	BTB30C12	1
	13	BTB30C13	1
	14	BTB30C14	1
	15	BTB30C15	1
	16	BTB30C16	1
	17	BTB30C17	1
	18	BTB30C18	1
	19	BTB30C19	1
	20	BTB30C20	1
	21	BTB30C21	1
	22	BTB30C22	1
	23	BTB30C23	1
	24	BTB30C24	1
	25	BTB30C25	1
	26	BTB30C26	1
	27	BTB30C27	1
	28	BTB30C28	1
	29	BTB30C29	1
	30	BTB30C30	1

Style	No. of Poles	Part No.	Package Quantity
BTBH15C (Touch-down terminal)	2	BTBH30C2	1
	3	BTBH30C3	1
	4	BTBH30C4	1
	5	BTBH30C5	1
	6	BTBH30C6	1
	7	BTBH30C7	1
	8	BTBH30C8	1
	9	BTBH30C9	1
	10	BTBH30C10	1
	11	BTBH30C11	1
	12	BTBH30C12	1
	13	BTBH30C13	1
	14	BTBH30C14	1
	15	BTBH30C15	1
	16	BTBH30C16	1
	17	BTBH30C17	1
	18	BTBH30C18	1
	19	BTBH30C19	1
	20	BTBH30C20	1
	21	BTBH30C21	1
	22	BTBH30C22	1
	23	BTBH30C23	1
	24	BTBH30C24	1
	25	BTBH30C25	1
	26	BTBH30C26	1
	27	BTBH30C27	1
	28	BTBH30C28	1
	29	BTBH30C29	1
	30	BTBH30C30	1

Note: Dust covers and marking strips are supplied with the terminal block.

Specifications

	BTB30C/BTBH30C		
Standards	UL/CSA	EN	JIS
Insulation Voltage	300V	500V	600V
Wire Size	18-10 AWG	5.5 mm ² (14-10 AWG)	5.5 mm ²
Rated Current	30A	38A	40A
Terminal screw	M4		
Crimping Terminal	1.25-4 to 5.5-4		
Max. No. of Crimping Terminals	2		
Tightening Torque	1.4 to 2.0 N·m		
Crimping Terminal Dimensions (mm)			
Accessory: Jumper	BNJ56, BNJ56B, BNJ56F, BNJ56FB (see page 1096)		

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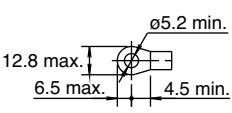
BTB50C/BTBH50C

Style	No. of Poles	Part No.	Package Quantity
BTB50C (Self-lifting terminal)	2	BTB50C2	1
	3	BTB50C3	1
	4	BTB50C4	1
	5	BTB50C5	1
	6	BTB50C6	1
	7	BTB50C7	1
	8	BTB50C8	1
	9	BTB50C9	1
	10	BTB50C10	1
	11	BTB50C11	1
	12	BTB50C12	1
	13	BTB50C13	1
	14	BTB50C14	1
	15	BTB50C15	1
	16	BTB50C16	1
	17	BTB50C17	1
	18	BTB50C18	1
	19	BTB50C19	1
	20	BTB50C20	1

Style	No. of Poles	Part No.	Package Quantity
BTBH50C (Touch-down terminal)	2	BTBH50C2	1
	3	BTBH50C3	1
	4	BTBH50C4	1
	5	BTBH50C5	1
	6	BTBH50C6	1
	7	BTBH50C7	1
	8	BTBH50C8	1
	9	BTBH50C9	1
	10	BTBH50C10	1
	11	BTBH50C11	1
	12	BTBH50C12	1
	13	BTBH50C13	1
	14	BTBH50C14	1
	15	BTBH50C15	1
	16	BTBH50C16	1
	17	BTBH50C17	1
	18	BTBH50C18	1
	19	BTBH50C19	1
	20	BTBH50C20	1

Note: Dust cover and marking strips are supplied with the terminal block.

Specifications

	BTB50C/BTBH50C		
Standards	UL/CSA	EN	JIS
Insulation Voltage	600V	500V	600V
Wire Size	16-6 AWG	14 mm ² (10-6 AWG)	14 mm ²
Rated Current	50A	67A	70A
Terminal screw	M5		
Crimping Terminal	1.25-5 to 14-5		
Max. No. of Crimping Terminals	2		
Tightening Torque	2.6 to 3.7 N·m		
Crimping Terminal Dimensions (mm)			
Accessory: Jumper	BNJ62, BNJ62B (page 1096)		

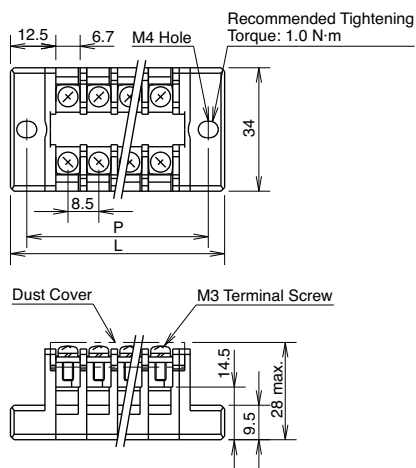
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Dimensions

- L (Length of the terminal block) and P (mounting hole centers) are nominal dimensions for each terminal block. Because the terminal blocks are combined together with bolts, there may be differences in the dimensions depending on the number of poles combined.

BTB15C□/BTBH15C□ (8.5-mm Terminal Centers)

16A



Dimensions L and P (mm)

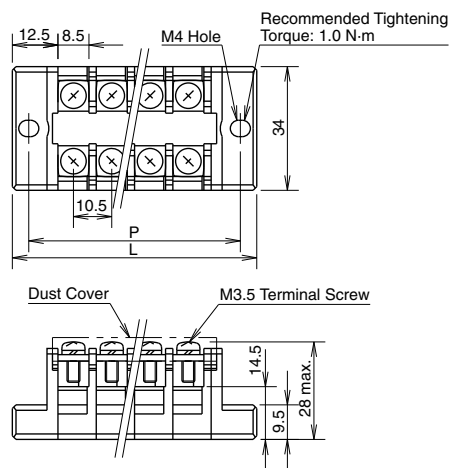
No. of Poles	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	42	50.5	59	67.5	76	84.5	93	101.5	110	118.5	127	135.5	144	152.5	161
P	33	41.5	50	58.5	67	75.5	84	92.5	101	109.5	118	126.5	135	143.5	152

No. of Poles	17	18	19	20	21	22	23	24	25	26	27	28	29	30	—
L	169.5	178	186.5	195	203.5	212	220.5	229	237.5	246	254.5	263	271.5	280	—
P	160.5	169	177.5	186	194.5	203	211.5	220	228.5	237	245.5	254	262.5	271	—

Weight (per pole) BTB15: Approx. 9g
BTBH15: Approx. 10g

BTB15LC□/BTBH15LC□ (10.5-mm Terminal Centers)

21A



Dimensions L and P (mm)

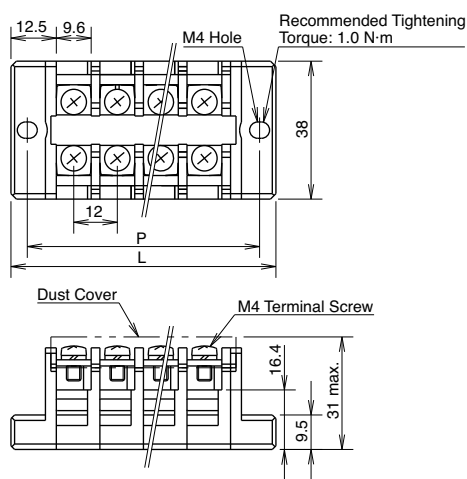
No. of Poles	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	46	56.5	67	77.5	88	98.5	109	119.5	130	140.5	151	161.5	172	182.5	193
P	37	47.5	58	68.5	79	89.5	100	110.5	121	131.5	142	152.5	163	173.5	184

No. of Poles	17	18	19	20	21	22	23	24	25	26	27	28	29	30	—
L	203.5	214	224.5	235	245.5	256	266.5	277	287.5	298	308.5	319	329.5	340	—
P	194.5	205	215.5	226	236.5	247	257.5	268	278.5	289	299.5	310	320.5	331	—

Weight (per pole) BTB15L: Approx. 12g
BTBH15L: Approx. 13g

BTB30C□/BTBH30C□ (12-mm Terminal Centers)

40A



Dimensions L and P (mm)

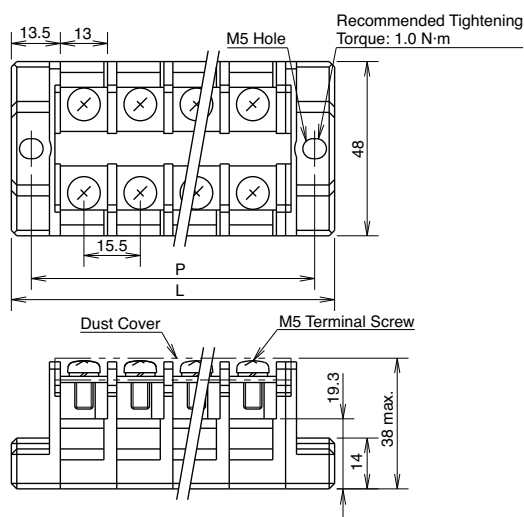
No. of Poles	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	49	61	73	85	97	109	121	133	145	157	169	181	193	205	217
P	40	52	64	76	88	100	112	124	136	148	160	172	184	196	208

No. of Poles	17	18	19	20	21	22	23	24	25	26	27	28	29	30	—
L	229	241	253	265	277	289	301	313	325	337	349	361	373	385	—
P	220	232	244	256	268	280	292	304	316	328	340	352	364	376	—

Weight (per pole) BTB30: Approx. 20g
BTBH30: Approx. 22g

BTB50C□/BTBH50C□ (15.5-mm Terminal Centers)

70A



Dimensions L and P (mm)

No. of Poles	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	58	73.5	89	104.5	120	135.5	151	166.5	182	197.5	213	228.5	244	259.5	275
P	47	62.5	78	93.5	109	124.5	140	155.5	171	186.5	202	217.5	233	248.5	264

No. of Poles	17	18	19	20
L	290.5	306	321.5	337
P	279.5	295	310.5	326

Weight (per pole) BTB50: Approx. 35g
BTBH50: Approx. 40g

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Accessories

The dust cover and marking strip (fiber) are supplied with the product.

Jumpers for 6 Poles (Material: Brass, Plating: Nickel, Insulation: PVC)

Terminal Center	Shape	Insulation	Part No.	Ordering No.	Dimensions (mm)	Rated Current	Package Quantity	Applicable Terminal Block
8.5 mm	Ring	Without	BNJ36	BNJ36PN10		20A	10	BTB15 BTBH15
		With	BNJ36B	BNJ36BPN10				
	Fork	Without	BNJ36F	BNJ36FPN10				
		With	BNJ36FB	BNJ36FBPN10				
10.5 mm	Ring	Without	BNJ46	BNJ46PN10		20A	10	BTB15L BTBH15L
		With	BNJ46B	BNJ46BPN10				
	Fork	Without	BNJ46F	BNJ46FPN10				
		With	BNJ46FB	BNJ46FBPN10				
12 mm	Ring	Without	BNJ56	BNJ56PN10		30A	10	BTB30 BTBH30
		With	BNJ56B	BNJ56BPN10				
	Fork	Without	BNJ56F	BNJ56FPN10				
		With	BNJ56FB	BNJ56FBPN10				

Notes: Jumpers for more than 6 poles are not available.

Jumper for 2 poles

Part No.	Ordering No.	Terminal Centers	Insulation	Dimensions	Current (Note 1, 2)	Applicable Terminal Block	Package Quantity
BNJ62	BNJ62PN10	14.5 mm	Without		80A	BTB50 BTBH50	10
BNJ62B	BNJ62BPN10		With				

- Material: nickel-coated brass
- Sheath: PVC

Note 1: Ensure that the total current to the jumper does not exceed the maximum current.

Note 2: Ensure that the current does not exceed the rated current of the terminal block to be used.

Marking Strip (Supplied with the terminal block. Order as spare parts when necessary)

Applicable Terminal Block	Part No.	Ordering No.	Material	Size	Package Quantity
BTB/BTBH (all models)	BNM9	BNM9PN10	Fiber strip (matte surface)	1000 mm × 9.5 mm × 0.5 mm	10

Dust Cover (Supplied with the terminal block. Order as spare parts when necessary)

Applicable Terminal Block	Ordering No.	Material	Length	Package Quantity
BTB15C/BTBH15C BTB15LC/BTBH15LC	BTB-CV15L1	Polycarbonate	500 mm	1
BTB30C/BTBH30C	BTB-CV30L1	Polycarbonate	500 mm	1
BTB50C/BTBH50C	BTB-CV50L1	Polycarbonate	500 mm	1

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Safety Precautions

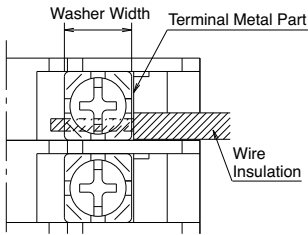
Notes on Wiring

Crimping Terminals

- When using crimping terminals, be sure to use insulated terminals to prevent electric shocks.

Without Crimping Terminals

- Insert the wire until the insulation comes into contact with the terminal metal part.
- Strip the insulation so that the wire is longer than the width of the wire clamp.
- When connecting two wires, use wires of the same length.
- To prevent damage, ensure to use plain washers when installing.



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