

TB Series Terminal Blocks, Modular



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TB Series Terminal Blocks, Modular

Product Description

TBA and TBD modular terminal blocks are designed to conserve space, while allowing maximum flexibility and ease of installation. Available as one-, two- and three-pole circuits, simple and uniform installation is possible because their design is based on 5/8 in (15.9 mm) modules. Standard blocks are white nylon.

**Breathing Action
Clamping Collar**

The unique design of the clamping collar permits the collar to breathe as the wire expands and contracts, maintaining a constant and permanent clamping pressure. This eliminates loose connections resulting from the gradual flattening of conductors and joint deterioration caused by heating and cooling cycles.

Features

Blocks—Design Features

- Compact design permits mounting 48–600V or 90–300V terminals per foot
- Fully shielded construction, 600V spacings
- Nylon construction provides anti-tracking and impact resistance
- TBA types are available in rail mounted, base mounted and power distribution types
- Terminal blocks easily snap on or off mounting rails; not necessary to disturb adjacent units
- No end pieces or backing plates are needed when rail mounting
- A 12 circuit subminiature blocks, rated 20A at 300V, is available for “high density” applications
- Popular blocks are also available in dual mount for use with standard TBA or 35 mm DIN rails

Terminals—Design Features

- Insulated walls of lug guide wire into lug
- Blocks are shipped with clamping screw backed out
- Constant locking torque keeps terminal screws in position
- Terminal screws are captive; cannot be lost in shipment or handling
- Hardened stainless steel clamping collar eliminates stripped threads
- Large opening in clamping collar accommodates oversized conductors; smallest collar will accept three 14 AWG stranded conductors

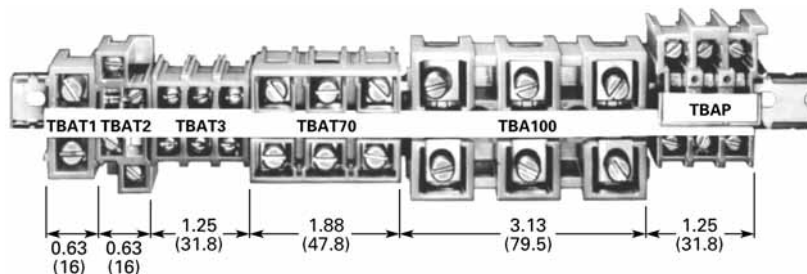
Standards and Certifications

- UL recognized: File No. E56797
- CE approved



Product Selection

TBA Modular Terminal Blocks



Rail and Base Mounted Terminal Blocks

Description	AWG Wire Size	Number of Poles	Ampacity (per Circuit) ^①	Carton Quantity ^②	TBA Rail Catalog Number	DIN Rail ^③ Catalog Number
Rail Mounted—600V						
Subminiature blocks	(2) 14–12	12	5A	100	TBDSM12 ^④	TBDSM12 ^④
Miniature blocks	22–10	4	30A	100	TBDV4	TBDV4
Standard blocks—screw terminals with tang clamping collars	18–2	1	90A	100	—	TBDT1
	22–8	2	40A	100	TBAT2	—
	22–8	3	40A	20	TBAT3-20	TBDT3-20
	18–4	3	90A	100	TBDT70	TBDT70
High current blocks	14–2/0	3	175A	12	TBA100 ^⑤	—
Standard blocks—plug-in terminals	22–8	3	40A	20	TBAP	—
	18–4	3	70A	20	TBAP70	—
	14–8	3	40A	20	TBAPL70	—
Panel mount blocks	22–10	3	30A	100	TBAL30	—
	8–4	3	115A	12	TBAL90	—
Disconnect blocks—for 1/4 in (6.4 mm) dia. by 1–1/7/16 in (25.4–36.5 mm) fuse	22–8	1	30A	50	TBAD	—
Fuse blocks—for 13/32 in (10.3 mm) dia. by 1–1/2 in (38.1 mm) fuse	22–8	1	30A	50	TBDTF	TBDTF
Base Mounted—600V						
Miniature blocks—screw terminals with tang clamping collars	22–10	4	30A (600V)	90	TBBT4	—
Standard blocks—standard screw terminals	22–8	3	40A	80	TBAPT3	—
Universal mounting blocks	8 maximum	4	50A ^⑥	25	TBU4	—
	8 maximum	6	50A ^⑥	60	TBU6	—
	8 maximum	8	50A ^⑥	45	TBU8	—
	8 maximum	12	50A ^⑥	35	TBU12	—

Notes

- ^① Based on 50°C rise, test at 25°C ambient while using maximum wire size.
^② Must be ordered in standard package quantity or in multiples of these quantities.
^③ Dual mounting blocks—mount on either TMR/TBA rail or 35 mm DIN rail.
^④ May also be mounted on mini-DIN rail (15 mm). Catalog Number C383TS15.
^⑤ May also be base mounted.
^⑥ TBU Series = 60A with crimped wire.

Technical Data and Specifications

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Description	Specification
Continuous temperature	212°F (100°C)
Tensile strength	10,000–12,000 psi
Impact resistance	2.0 ft-lb/in (arc)
Arc resistance	140 seconds

• Chemical resistance to:

- Acetone
- Ammonia gas
- Benzene
- Gasoline
- Mineral oil
- Sodium bisulfate
- Sodium chloride
- Sodium nitrate
- Water up to 50°C

Flashover Voltages

Catalog Number	Vac rms, 60 Hz	
	Opposite Polarity	To Ground
TBAT1	9100	6600
TBAT2	9600	7300
TBAT3	8600	7300

Recommended Terminal Tightening Torque

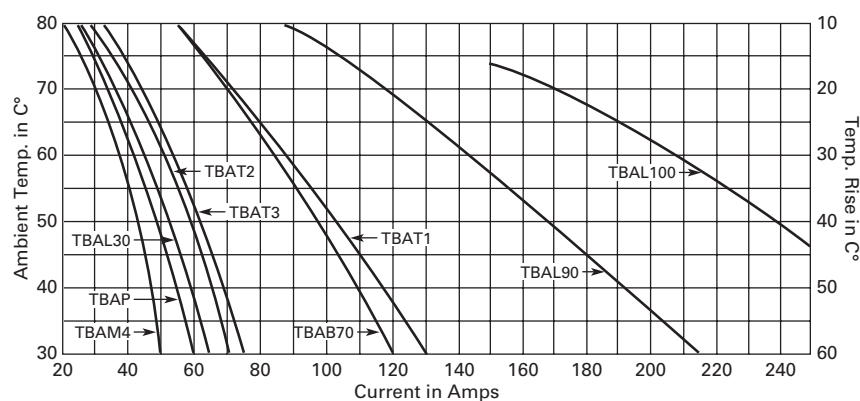
Wire Size	Torque
Up to 8 AWG	20 lb-in
Up to 4 AWG	35 lb-in
Up to 2/0 AWG	50 lb-in

To find a current rating, place a straight edge horizontally at the value of anticipated maximum internal panel ambient (scale on the left), and read the current rating for the device on the bottom scale. *Example:* at 60°C, TBAT3 is rated 54 amperes.

Ampere rating is based on maximum allowable temperature—ambient temperature plus temperature rise due to current.

Ratings based on 90°C total temperature of a three-pole block with each pole carrying current and wired with largest size conductors.

Temperature Rating



Dimensions

Approximate Dimensions in Inches (mm)

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