

Thermal Type B, Class 20, Manual Reset

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Thermal Type B, Class 20, Manual Reset

Application Description

The Type B overload relay is designed to protect industrial motors against overload conditions. Using modern block type, bimetallic design, this relay will provide Class 20 operation in either single-phase or three-phase applications.

Operation

The Type B overload relay is a bimetallic actuated device. The bimetal elements are operated by precisely calibrated heaters. The heater elements are connected either directly in the circuit to be measured, or through current transformers on applications NEMA Size 5 and larger.

As the bimetals are heated by motor current flow, a deflection force is produced. Upon a sustained level of abnormal current flow, the deflection becomes great enough to open the snap-action output contact.

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Ambient Compensation

The Type B ambient compensated design is supplied as standard on all A200 starters. This design uses a second compensating bimetal responsive to ambient air temperature in the surrounding enclosure. This feature reduces nuisance tripping in applications using compact control panels and motor control centers where internal temperature rise is significant compared to motor ambient temperature. The compensating characteristic is maintained in ambient temperatures from 40° to 77°C.

Features

- Ambient compensation standard
- Alarm contact field mountable
- Class 20—600V design
- Inverse time delay trip
- Test trip device for weld check
- Hi-visibility up-front trip indication
- Trip-free reset mechanism

Product Selection

Heaters

Enter heaters as separate item by listing catalog number from tables, **Pages V5-T2-135** and **V5-T2-136**, as required per starter.

Relays

Type B Overload Relay Panel Mounting



Thermal Type B Overload Relay

Motor Full Load Amps	Panel Mounted		Starter Mounted Replacement for Type B Overload Relays		Replacement for Type A Overload Relays in Manual Reset Mode (Three-Pole Only) ①	
	Ambient Comp. Catalog Number	Non-Comp. Catalog Number	Ambient Comp. Catalog Number	Non-Comp. Catalog Number	Ambient Comp. Catalog Number	Non-Comp. Catalog Number
Single-Pole (One NC Contact)						
0.25–26.2	BA11JP	BN11JP	BA11A	BN11A	—	—
26.3–45	BA21JP	BN21JP	BA21A	BN21A	—	—
19–90	Use three-pole design, wire three poles in series	Use three-pole design, wire three poles in series	Use three-pole design, wire three poles in series	Use three-pole design, wire three poles in series	Use three-pole design, wire three poles in series	Use three-pole design, wire three poles in series
19–135	Use three-pole design, wire three poles in series	Use three-pole design, wire three poles in series	Use three-pole design, wire three poles in series	Use three-pole design, wire three poles in series	Use three-pole design, wire three poles in series	Use three-pole design, wire three poles in series
Three-Pole (One NC Contact)						
0.25–26.2	BA13JP	BN13JP	BA13A ②	BN13A ②	BA13J	BN13J
26.3–45	BA23JP	BN23JP	BA23A	BN23A	BA23J	BN23J
19–90	BA33P	BN33P	BA33A	BN33A	BA33A	BN33A
19–135	BA43P	BN43P	BA43A	BN43A	BA43A	BN43A

Accessories

Alarm Contact Kit Selection ①

Type B Overload Relay Size	Catalog Number
1, 2	B3N0-2
3, 4	B3N0-4

Notes

- ① Includes contactor mounting bracket, overload relay and connection straps to contactor.
 ② For replacement on B200 size 00, 0, 1 use BA23A instead of BA13A and use BN23A instead of BN13A.