

MODEL VB3: USED WITH THE SAME CONFIDENCE AS A FUSE.

YESTERDAYS TECHNOLOGY

FUSE: Locating a blown plastic incased fuse in the panel is difficult since visual detection can only be made by its removal. Replacement fuses are usually packaged in groups of various ratings which you do not need, or all of the same ratings in anticipation of the need for continuous replacement. The fuse is a very inconvenient, antiquated means of protection.

CIRCUIT BREAKERS: Little improvement has been made in this field in the last 30 to 40 years. In the cycling type the sensing elements lose contact pressure as the current increases, promotes arcing, tacking and may stick causing the breaker to fail. The non-cycling breakers with the same type sensor, use a heater wire to prevent the contacts from closing, generating excessive heat that can effect the calibration of other breakers, which contribute to the extensive use of the fuse.

DESIRED OBJECTIVES

PROVIDE:

- Calibrated snap acting sensor which opens with significant amplitude, due to maximum current and contact pressure being reached simultaneously.
- Convenient visible evidence of an over-load condition (VB3-M).
- Mechanical means of holding the open circuit condition (SAE Type II).
- Manual means of resetting.
- SAE Type I cycling unit with a well defined timed open/close cycle.
- A small cross-section area of the sensor for a fail-safe condition.
- A size and configuration for fuse replacement.

ELIMINATE:

- Sensors with decreasing contact pressure that tend to arc, tack and weld.
- Heater wires that generate significant heat to maintain an open circuit condition (SAE Type II).
- The large mass of the sensor that will not provide a fail-safe condition.



TO FUSE OR NOT TO RE-FUSE? NO LONGER THE QUESTION.

Locating the cause of overload can take many blown fuses. **ONE MODEL VB3 IS THE ANSWER.**



CAPABLE OF WITHSTANDING NUMEROUS HIGH OVERLOADS YET SENSITIVE ENOUGH TO ULTIMATELY FAIL SAFE.

Model VB3-M (left) & VB3-A (right), shown above with standard terminal configuration.

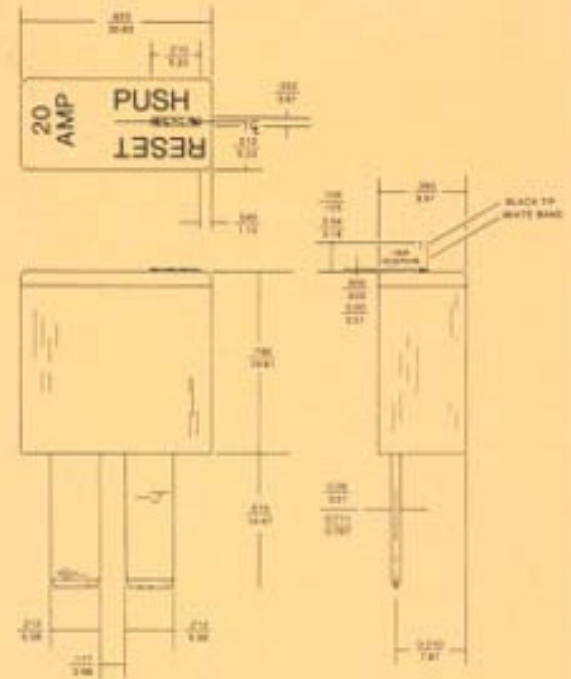
TOMORROWS STANDARD – AVAILABLE TODAY

QUALITY:

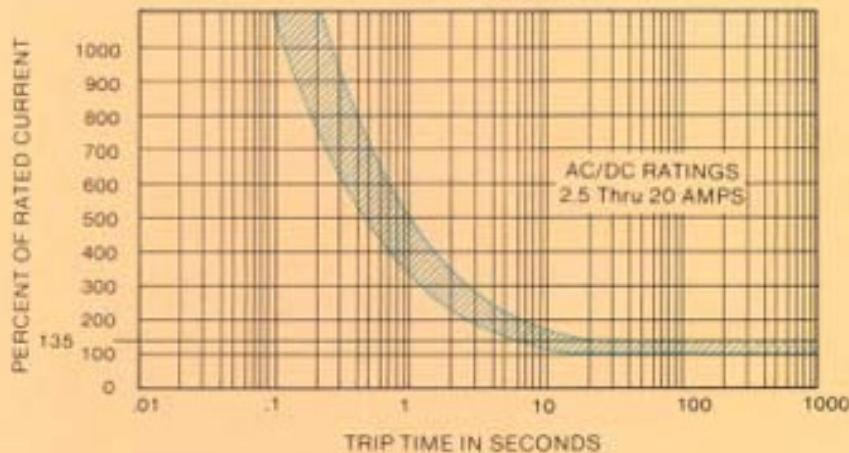
- Snap Action sensor provides increasing contact pressure to effect trip, and promotes wiping action of contacts.
- Trip time of 2.6 to 6.5 seconds with 200% overload for all ratings.
- Precise correlation of trip time to rating in any unit.
- Must hold 100% — must trip 135%
- Withstands normal start-up and short duration surges without nuisance tripping.
- Fast response time.
- Unusual tolerance to vibration and shock environment.
- 100% final inspection test before the name goes on.

FEATURES:

- Housed in engineering plastic (non-corrosive - U.L. rated 94VO).
- Visual trip indicator is push to rest (Model VB3-M).
- SAE Type (self-resetting) has well defined open/close cycle on over-load. (Model VB3-A)
- Cannot be held manually closed (trip free).
- Ambient compensated (to 40°C).
- Introduces new convenience and quality to circuit protection.



Time vs. Current



SPECIFICATIONS

MODELS: VB3-A Cycling (SAE Type I), VB3-M Manual, reset non-cycling new concept (SAE Type II)

VOLTAGE: Up to 50 V.D.C.

RATINGS: 3 thru 20 AMPS

TEMPERATURE COMPENSATION: To 40°C

CALIBRATION: Must carry rated current at 25°C & 40°C. Must trip 135% of rating within ten minutes.

RESET TIME: Less than 15 seconds.

25 & 30 AMPS. NOW AVAILABLE

ORDERING INFORMATION

EXAMPLE: VB3- M20 -F57

SERIES NUMBER: _____

TYPE RESET: A (automatic),
M (manual)

AMP RATING: 3 thru 20 _____

TERMINAL CONFIGURATION: F57 standard (flat .570x.110x.032). Consult factory for other terminal designs and modifications.

**AUTO – TRUCK – RV's
AVIATION – MARINE
GENERATORS – BATTERY CHARGES
AND MANY OTHER
AC OR DC APPLICATIONS**



MODEL VB3 REPLACES SENSORS WHICH LOSE CONTACT PRESSURE.

Terminal configuration can be provided to fit nearly any application.

SPECIFICATIONS

MODELS:

VB3-A CYCLING (SAE TYPE I)

VB3-M MANUAL RESET, NON-CYCLING (SAE TYPE III)

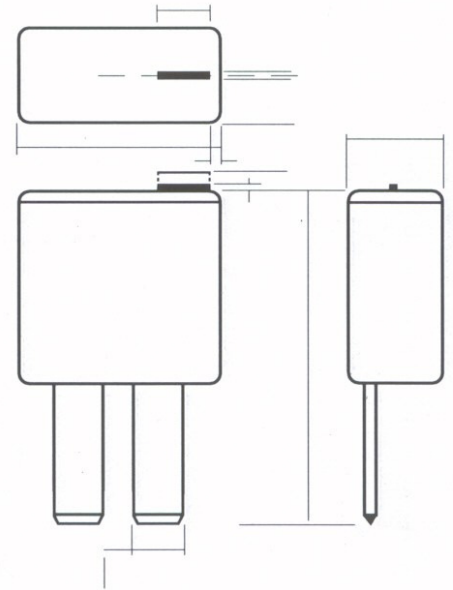
VOLTAGE: UP TO 50 V.D.C.

AMP RATINGS: 3 THROUGH 30 AMPS.

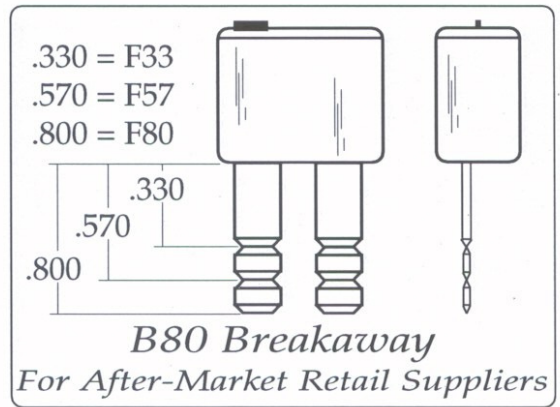
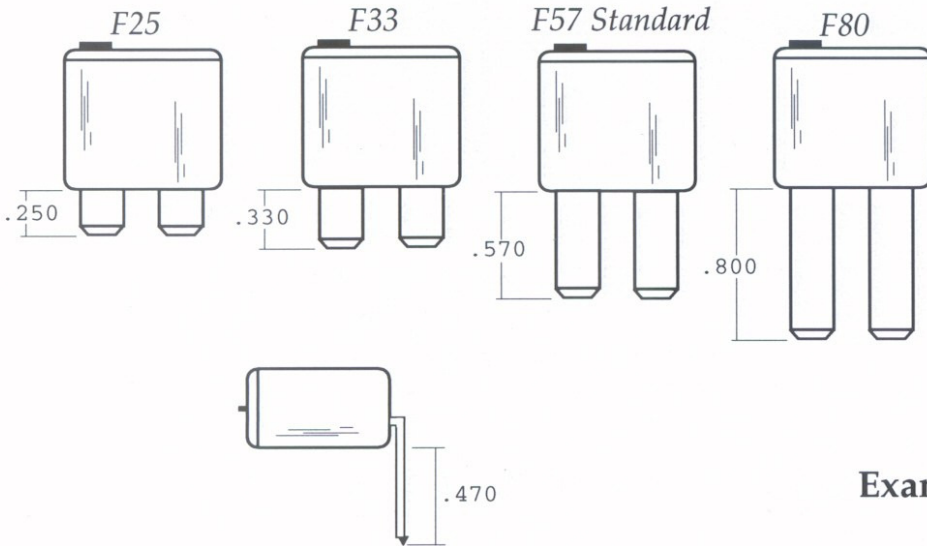
TEMPERATURES COMPENSATION: -40°C TO - 80°C

CALIBRATION: MUST CARRY RATED CURRENT AT 25°C
& 40°C. MUST TRIP 135% OF RATING WITHIN 10 MIN.

RESET TIME: LESS THAN 5 SECONDS AT 25°C



Terminal Configurations



For very low-profile applications.
The "L" series terminals are available on special order

Quality

- Calibrated snap acting sensor which opens with significant amplitude, due to maximum current and contact pressure being reached simultaneously.
- Uniquely designed Snap Action sensors provide increase contact pressure, while promoting wiping action of contacts.
- SAE Type I (VB3-A) cycling unit with a well defined timed open/closed cycle.
- Ambient compensated to assure proper operation over wide range of temperatures.
- Unusual tolerance to vibration and shock environment
- Precise correlation of trip time to current in similar ratings.
- Fast response to overload nearly identical to that of the ATO/ATC fuse at 200%.

Example: VB3 - A 15 - F57

SERIES: VB3	Terminal Length:
TYPE: Automatic A	F25 = .250
Recycle Type I	F33 = .330
Manual M	F57 = .570
Push-Reset Type II	F80 = .800
AMP Rating:	B80 = BREAKAWAY
3, 4, 5, 6, 7.5, 10, 12.5, 15, 20, 25, 30	

