



An Expanded Line of Circuit Protection

Fuses and Circuit Breakers for Heavy Duty Trucking,
Construction, Agriculture, RVs, Industrial and Marine

- **Fuses:** Mini ATM, Maxi, ATC, Glass AGC
- **Circuit Breakers:** Types I, II and III, Plug-In Styles or with Studs/Blades
- **Accessories:** A selection of essential items such as Panels, Blocks and Fuse Holders

Fuses

Mini ATM 98107 Series



Fast-acting type
Available in : 5, 10, 15, 20, 25, 30A.
Order Nos. ATM98107-5 etc.
BPs available: 10, 15, 20, 30.
Order Nos. ATM98107-10BP etc.

Maxi MAX 98111 Series



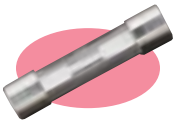
Available in : 20, 30, 40, 50A.
Order Nos. MAX98111-20 etc.
BPs available: 20, 30, 40A.
Order Nos. MAX98111-20BP etc.

ATC 98108 Series



Available in : 5, 10, 15, 20, 25, 30, 40A
Order Nos. ATC98108-5 etc.
BPs available: 10, 15, 20, 30A.
Order Nos. ATC98108-10BP etc.

Glass AGC 98113 Series



AGC98113-001	1/4A	AGC98113-001BP
AGC98113-002	1/2A	AGC98113-002BP
AGC98113-003	3/4A	AGC98113-003BP
AGC98113-01	1A	AGC98113-01BP
AGC98113-012	1 1/2A	
AGC98113-02	2A	
AGC98113-03	3A	AGC98113-03BP
AGC98113-04	4A	AGC98113-04BP
AGC98113-05	5A	AGC98113-05BP
AGC98113-06	6A	
AGC98113-07	7A	AGC98113-07BP
AGC98113-09	9A	
AGC98113-10	10A	AGC98113-10BP
AGC98113-15	15A	
AGC98113-20	20A	AGC98113-20BP
AGC98113-30	30A	
AGC98113-40	40A	

Fuses and Circuit Breakers are a cost-effective solution to protecting wiring, equipment, and subsystems. Essentially fuses are a one-time, disposable solution, and Circuit Breakers can be re-used after overload.



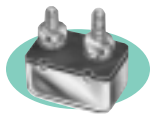
Items marked BP are available on bubble-card.

Circuit Breakers Stud/Blade Style

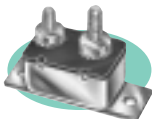
Consult price sheets for BPs.

SAE Type I, Cycling

24V with studs, steel case

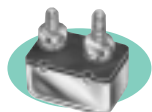


30171 Series
Available in : 10, 15, 20, 30A

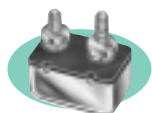


30172 Series, with bracket
Available in : 10, 15, 20, 30A

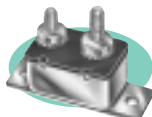
12V with studs, steel case



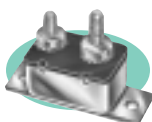
30056 Series
Available in : 6, 8, 10, 15, 20, 25, 30, 40, 50A



30137 Series, sealed stud insulator
Available in : 6, 8, 10, 15, 20, 25, 30, 40A



30055 Series, with bracket
Available in : 6, 8, 10, 15, 20, 25, 30, 40, 50A



30138 Series, sealed stud insulator, with bracket
Available in : 6, 8, 10, 15, 20, 25, 30, 40, 40A

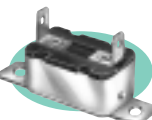


30128 Series, with cross-bracket
Available in : 6, 8, 10, 15, 20, 25, 30, 40A

12V with blades, steel case



30401 Series
Available in : 4, 6, 8, 10, 15, 20A



30402 Series, with bracket
Available in : 4, 6, 15, 20A

12V with studs, plastic case



30414 Series, with cross-bracket
Available in : 30, 40, 50A

12V steel case, weather-sealed

With plastic-sealed leads and body. 10" wire loop is readily cut to create two leads for splicing into the circuit. Wire gauge: 16AWG for 6-15A, 14AWG for 20, 25A, 12AWG for 30, 40A.



30063 Series
Available in : 6, 10, 15, 20, 25, 30, 40A



30062 Series, with bracket
Available in : 10, 15, 20, 25, 30, 40A

12V, with 2 blades & 1 stud



30404 Series
Available in : 10, 15, 20, 30A

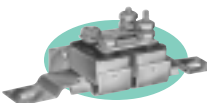
12V Double Breaker Assemblies



3088 Series
Available in : 50, 60, 80A



30507 Series, sealed stud
Available in : 50, 60, 80A



30510 Series, in snap-in bracket
Available in : 50, 60, 80A

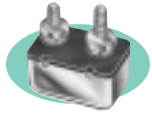
Stud/Blade Style Breakers
Plated steel or rugged plastic cases.
Breakers with studs have 2 #10 -32 studs, breakers with blades are 1.11" on center.
Metal breakers without an integral bracket snap securely into a steel bracket Series 30090 or attach with hex nut and lock washer into nylon bracket Series 87128 in this brochure.
Breakers with integral bracket mounting (steel or plastic case) have two 0.22" mounting holes, 1.56" on center.
Conform to SAE J553.

Circuit Breakers Stud/Fuse Clip Style

Consult price sheets for BPs.

SAE Type II, Non-Cycling

12V with studs, steel case



30144 Series
Available in : 8, 10, 15, 20, 25, 30, 40A



30145 Series, with bracket
Available in : 6, 8, 10, 15A

12V Fuse Clip Style



30410 Series
Replace 3AG (AGC) and SFE glass fuses. Snap into standard fuse clips such as 462 Series, M-41 and M-64 Series. Replace Ford numbers DOVB and DOHB-14526.
Available in: 10, 15, 20, 25, 30, 40A

Stud Style Circuit Breakers SAE Type III, Manual Reset

12V plastic



30406 Series
Available in : 15, 20, 25, 30, 40, 50A



30407 Series, with cross-bracket
Available in : 15, 20, 25, 30, 40, 50A

Society of Automotive Engineers Standard SAE J553

Standard J553 defines testing and performance requirements for circuit breakers up to 50A for 6V, 12V, and 24V operation. It defines the three types of reset: Type I, Type II and Type III.

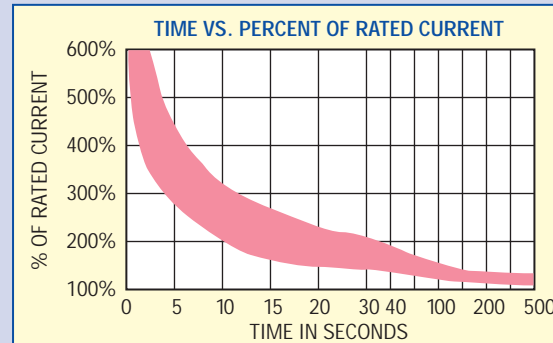
Conforming circuit breakers:

Must carry 100% of rated current continuously for a minimum of 1 hour

Must open at 135% of rated current within 1 hour

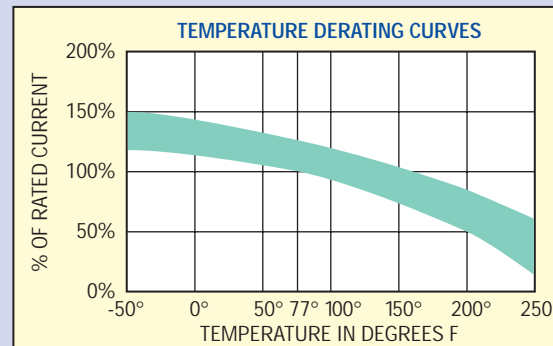
Must open at 200% of rated current within 1 minute

The specific current capacity of the circuit breaker is a function of the particular electrical system being utilized. It is recommended that the actual performance be verified through testing experimentally in the proposed application. Several factors should be considered:



Ambient temperature

Circuit breakers are thermal devices. Changes in the ambient temperature will have an effect on the current carrying capacity and on the effective limitation of current during overload cycling.



Wire and Terminations

The connecting wires and their terminations will affect the heat dissipation characteristic of the breakers. Deviations from the breaker application specifications may affect the current carrying capacity or the effective limitation of current during overload cycling.

Voltage Rating

The rating marked on breakers is the maximum value recommended. Use at higher voltages may significantly shorten the ultimate life under overload conditions, and possibly cause damage to your equipment.

Circuit Protection components are thermal devices that create an open circuit under overcurrent conditions. They are deliberately designed as the sacrificial weakest link in a system, protecting components from costly damage.

It is important to select a fuse or circuit breaker with a current rating equal to or lower than the lowest current rating of any part of the circuit.

Circuit Breakers Plug-In Style

Type I, Type II, Type III

Type I ATC/ATO 30409 Series, 12V



Available in : 10, 15, 20, 25, 30A
BPs available in : 10, 15, 20, 25, 30A

Type II ATC/ATO 30411 Series, 12V



Available in : 10, 15, 20, 25, 30A
BPs available in : 10, 15, 20, 25, 30A

Type III ATC/ATO 30413 Series, 12V



Available in : 10, 15, 20, 25, 30A
BPs available in : 10, 15, 20, 25, 30A

Type I Mini 30418 Series, 12V



Gray plastic housing with gold cover.
Available in : 10, 15, 20, 25A
BPs available in: 10, 15, 20, 25A

Type II Mini 30419 Series, 12V



Gray plastic housing with silver cover
Available in : 10, 15, 20, 25A
BPs available in: 10, 15, 20, 25A

Type II 30403 Series, 12V, special application



For Mack Truck breaker blocks.
Available in : 15, 20, 25, 30A
BP available in: 25A

Type II 30408 Series, 12V, special application



For Navistar breaker blocks.
Available in : 10, 15, 20, 25, 30, 35A
BPs available in: 20, 30A

CIRCUIT BREAKER CLASSIFICATION

SAE Type I: Automatic: Continuously resets until the overload is corrected. Mini and ATC types have standard gold cover.

SAE Type II: Remains open as long as the overload exists. Resets after the power is turned off and the overload is corrected. Mini and ATC types have standard silver cover.

SAE Type III: Manual: Remains open until manually reset using the button.

Plug-In Style Breakers (Mini and ATC)
Type I and Type II breakers conform to SAE J553.

Type I ATC/ATO 30409 Series
Silver housing has rating marked on the top. Use with long blades for Kenworth Trucks. Use pliers to snap off one section of the blades for Navistar, Ford Heavy trucks, Dodge trucks. Snap off two sections for Ford pickup trucks.

Type II and Type III ATC
These types have color-coded housings. The Type III is differentiated by the small reset switch on the top.

Accessories

Consult price sheets for BPs.

Breaker and Fuse Blocks



46377 Series Block for ATC or ATO Fuses and Breakers

Black thermoplastic block does not need a cover because the contacts are recessed. At 12V DC: 25A maximum per circuit; 150A total for the block. For 24V DC applications, use only ATC or ATO fuses.

To accept 6, 8, 10, 12, 14 or 18 fuses or breakers (order suffixes -6, -8 etc.). BP's available in 6 & 10-gang.



46379 Series Block for ATC or ATO Fuses and Breakers, with ground terminal

Black thermoplastic block does not need a cover because the contacts are recessed. 30A maximum per circuit; 150A total for the block.

To accept 6, 8, or 10 fuses or breakers (order suffixes -6, -8, -10). BP's available in 6 & 10-gang.



Fuse Block, independent hot feed

For SFE 20A or 3AG (AGC) fuses. Phosphor-bronze fuse clips, hard fiber insulator base.

Brass terminals and screws: M-412, M-413, M-414, M-415, M-641 & M-643 are 2-, 3-, 4-, 5-, 6-, and 8-gang.

Plated steel terminals and screws: 4622, 4623, 4624, 4625, 4626 are 2- through 6-gang.

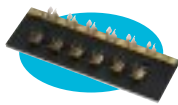


Fuse Block, common hot feed

For SFE 20A or 3AG (AGC) fuses. Phosphor-bronze fuse clips, hard fiber insulator base, brass busbar.

Brass terminals and screws: M-414-01, M-415-01, M-641-01, M-643-01, M645-01, M-647-01, are 4-, 5-, 6-, 8-, 10-, and 12-gang.

Plated steel terminals and screws: 4625-01, 4626-01 are 5- and 6-gang.



4766 Fuse Block, with blade terminals, common hot feed

For SFE 20A or 3AG (AGC) fuses. 6-gang. Nickel-plated phosphor-bronze fuse clips, hard fiber insulator base, brass busbar. Brass terminals and screws.



M-674 Fuse Block and Terminal Block

For SFE 20A or 3AG (AGC) fuses. 4-gang. Common hot feed to four independently-fused circuits. Nickel-plated phosphor-bronze fuse clips, hard fiber insulator base, brass busbar. Brass terminals and screws.



4652 Extra-Heavy Duty Fuse Block

Molded plastic insulator base, screw terminals, phosphor-bronze fuse clips. For SAG (AGU) fuses rated up to 60A.

Fuse/Circuit Breaker Pullers



For use with Glass Fuses, ATC & ATM Fuses and Circuit Breakers

30185 for Fuses and Circuit Breakers.
30184 for Fuses only. (Available in BP).

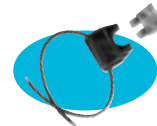


In-line Connectors/holders



3031 Series for SFE & AGC Fuses

Positive twist lock secures the fuse, and will not open accidentally. Large brass contacts maintain tight contact with fuse. Accepts SFE fuses through 20A, and 3AG (AGC) through 30A. 14 AWG wire, 8" long. Available in : 4, 9, 14, 20, 30A and without fuse (3031-0)



30147 for ATC/ATO Fuses/Breakers

Easy to install, easy to change. Accepts ATC and ATO fuses and circuit breakers from 3 through 20A. 16 AWG wire leads, 4" long. (Available in BP).



30183 Mini Fuse Holder

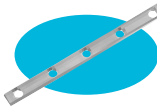
Accepts Mini fuses or breakers 2-30A. Body material stands up to high temperatures. 32V at 30A. (Available in BP).



30186 Maxi Fuse Holder

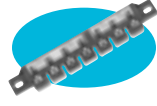
Accepts Maxi fuses or breakers 20-60A. 32V at 60A.

Busbars



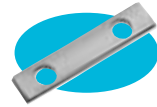
Brass 86099 Series

Available in: 2, 3, 4, 5-gang (order suffixes -2, -3, -4, -5)



Copper 86126 Series

Available in : 2 through 12-gang (order suffixes -2, through -12)



Plated steel 86046 2-gang

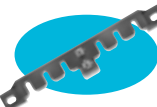
Mounting Brackets



Steel 30090 Series

Breakers snap in and hold securely. Heavy gauge steel. For steel case breakers without brackets, with a case dimension of 1.25 x 0.78": series 30056, 30137, 30171, 30401, 30144, 30404

To accept 2, 3, 4, 6, 7 or 8 fuses or breakers (order suffixes -2, -3 etc.)



Nylon 87128 Series

Accept 30056 and 30137 Series breakers, which mount securely by means of hex nuts and lock washers.

Fuseholders



4650 Glass Fuse Block

4, 8, 12-gang with blade terminals. 4650-04, -08, -12. 4650-04BP. Other styles available.



4651 Glass Fuse Holder

4, 8, 12-gang with screw terminals. 4651-04, -08, -12. 4651-04BP. Other styles available.