

# Surface Mount Thermal Circuit Breakers (175/200/250 Amp)

**Sealed Against Dust & Water Intrusion** to ensure reliable circuit protection for the life of the electrical system installation

Up to 24 Volt Rated easily supports 12 Vdc (200 & 250 A) and 24 Vdc (200 A) applications.

**High Interrupt Current** safely protects circuits connected to large paralleled battery banks with significant available power

**Ignition Protected** safe for installation in closed compartments with potential explosive gases

**Harsh Environment** design with stainless steel hardware, serrated flange nuts, and silicone terminal covers



4709 Series Surface Mount Circuit Breakers







### 4709 Series 175 Amp Version





**Protects Electrical Circuits** from short circuit events and over-current loads, preventing wire insulation overheating and subsequent destruction.



Automatic Circuit Protection & Manual On/Off Switching combines dual functionality in one reliable and compact solution.



**Visual Indication of Circuit Opened** with bright yellow paddle, also used for re-setting to On.



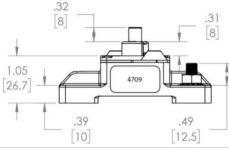
**Bullet-proof Construction:** Sealed device, high temp materials for engine compartment applications, and stainless self-locking hardware.



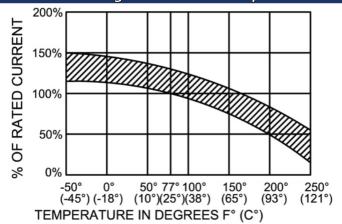
**4 Year Industry Leading Warranty** 

#### **Product Dimensions**

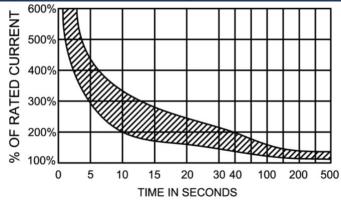
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### Current De-Rating vs Ambient Temperature



### Trip Current vs Time Delay



### **Electrical Specifications**

**Mechanical Vibration** 

**Mechanical Shock** 

| Max Operational Voltage (175A & 200 A)  | 30 Vdc                        |
|---|-------------------------------|
| Max Operational Voltage (250 A)         | 14 Vdc                        |
| Electrical Endurance @ <14 Vdc          | >200 cycles / 4x Rating       |
| Electrical Endurance @ <28 Vdc          | >100 cycles / 2x Rating       |
| Short Circuit Interrupt Rating (14 Vdc) | 2,500 Amps                    |
| Short Circuit Interrupt Rating (28 Vdc) | 1,500 Amps                    |
| Wire Size to Meet Rating                | 3/0 AWG (85 mm <sup>2</sup> ) |
|   |                               |

| Specifications                       |                              |  |
|--------------------------------------|------------------------------|--|
| Max Operating Temperature            | 82 C (180 F)                 |  |
| Min Operating Temperature            | -32 C (-25 F)                |  |
| Max Storage Temperature              | 149 C (300 F)                |  |
| Min Storage Temperature              | -34 C (-30 F)                |  |
| Hardware Material                    | 18-8 Stainless, Self-Locking |  |
| Terminal Stud Size                   | 3/8"-16                      |  |
| Max Terminal Stud Torque             | 100 in-lbs (11.3 N-m)        |  |
| <b>Cable Terminal Stud Hole Size</b> | 3/8" (M10)                   |  |
| Ignition Protection                  | ISO-8846 / UL 1500           |  |
| Flammability Rating                  | UL 94 V0                     |  |
| Operating Humidity                   | 0 to 90% RH                  |  |
| Ingress Protection                   | IP67 / IP6K9K                |  |

| Part Numbers                         | Resell Pack | Bulk Pack |
|--------------------------------------|-------------|-----------|
| Circuit Breaker, Surface Mount, 175A | 4709-175    | 4709-175B |
| Circuit Breaker, Surface Mount, 200A | 4709-200    | 4709-200B |
| Circuit Breaker, Surface Mount, 250A | 4709-250    | 4709-250B |

\* DISCONNECT BATTERY FROM POWER DISTRIBUTION SYSTEM BEFORE INSTALLING PRODUCT TO PREVENT ELECTRICAL SHOCK OR PRODUCT DAMAGE









12g

35g / 10 cycles