

# CIRCUIT BREAKERS





**Single-Pole High Performance**

**Qualified**

Designed to MS22074 for MIL-C-5809.

**Fast Trip**

Operates on a hot-wire principle, much faster than bimetal breakers.

**Fail-Safe Operation**

Fault cannot cause breaker to fuse closed.

**Ambient-Compensated**

No appreciable change in trip time from -40°C to +71°C.

**Low Resistance**

Silver alloy contacts maintain low resistance for life of circuit breaker.

**Load Protection**

The fast tripping circuit breaker is ideal for protecting sensitive loads such as avionics and fuel pumps where rapid detection and fault clearing are desired.

**Performance Rated Circuit Breaker**

It is the only thermal hot wire type available in ratings from one-half ampere.

The 1500 is a circuit breaker that features fast trip for quick response. Designed for the protection of both wiring and equipment, the unit provides trip indication, trip-free protection, and the convenience of manual on-off operation. Excellent temperature stability is assured by the hot-wire design. The breaker has a high resistance to shock and vibration. Its "Fail Safe" design eliminates the danger of the breaker fusing closed on overload.

**ICU Application**

This circuit breaker meets the requirements of MIL-C-83383 for use as a RCCB ICU (Indicator Control Unit). Its I2t function is per specification.

**PERFORMANCE DATA**

|                              |  |
|------------------------------|--|
| <b>Interrupting Capacity</b> | 1/2 to 1A: 600A at 120V AC, 400 Hz.; 6,000A at 30V DC<br>1 1/2 to 4A: 1,000A at 120V AC 400 Hz.; 6,000A at 30V DC<br>5 to 10A: 600A at 120V AC 400 Hz.; 6,000A at 30V DC |
| <b>Endurance</b>             | At 120VAC, 400 Hz., or at 30V DC; inductive load — 2,500 cycles; resistive load — 5,000 cycles; mechanical cycling, no load — 5,000 cycles                               |
| <b>Overload Cycling</b>      | 100 operations at 200% rated current and rated voltage   |
| <b>Dielectric Strength</b>   | 1,500V, minimum  |
| <b>Insulation Resistance</b> | Not less than 100 megohms at 500V, DC  |
| <b>Voltage Drop</b>          | Varies with rating (see "Ordering Information")  |
| <b>Vibration</b>             | Exceeds MIL-STD-202, Method 204, Condition A   |
| <b>Shock</b>                 | Exceeds 30G's, 11 Millisec (half-sine pulse) MIL-STD-202, Method 213 Test J  |
| <b>Acceleration</b>          | Exceeds 10G's  |
| <b>Weight</b>                | 45 grams (.099 lbs.)   |

**OVERLOAD CALIBRATION DATA**

| Specification Table | @ 25°C   |     |           |      | @ +71°C |     | @ -40°C |     | Test Time Parameters |
|---------------------|----------|-----|-----------|------|---------|-----|---------|-----|----------------------|
|                     | 0.5 – 3A |     | 4.5 – 10A |      | MIN     | MAX | MIN     | MAX |                      |
|                     | MIN      | MAX | MIN       | MAX  |         |     |         |     |                      |
| Must Hold           | 115      | —   | 115       | —    | 115     | —   | 115     | —   | % For 1 Hour         |
| Must Trip           | —        | 138 | —         | 138  | —       | 138 | —       | 138 | % Within 1 Hour      |
| 200% Overload       | .400     | 3.0 | .800      | 3.60 | —       | —   | —       | —   | Seconds              |
| 400% Overload       | .090     | 0.6 | .140      | 0.75 | —       | —   | —       | —   | Seconds              |
| 600% Overload       | .042     | 0.3 | .055      | 0.35 | —       | —   | —       | —   | Seconds              |

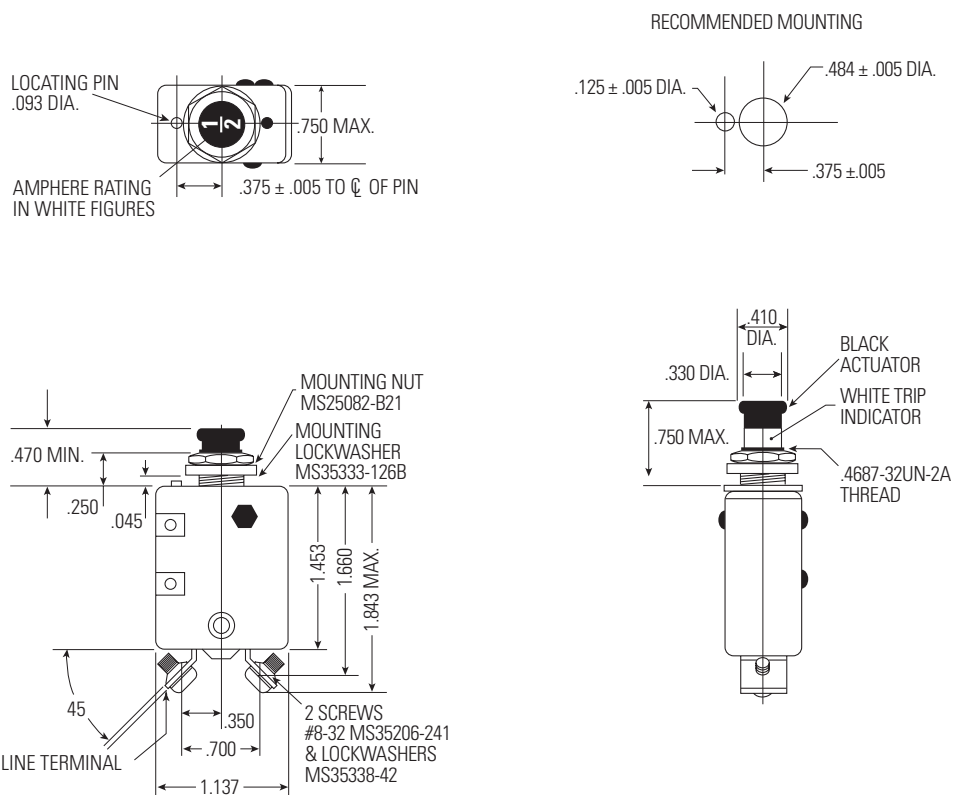
Trip curve available

**ORDERING INFORMATION**

| Ampere Rating | Voltage Drop Max.* | Part Number  |
|---------------|--------------------|--------------|
| 1/2           | 1.21               | 1500-052-05  |
| 3/4           | 1.21               | 1500-052-075 |
| 1             | 1.20               | 1500-052-1   |
| 1 1/2         | 1.10               | 1500-052-105 |
| 2             | 0.95               | 1500-052-2   |
| 2 1/2         | 0.85               | 1500-052-205 |
| 3             | 0.81               | 1500-052-3   |
| 4             | 0.72               | 1500-052-4   |
| 5             | 0.65               | 1500-052-5   |
| 10            | 0.55               | 1500-052-10  |

\* At rated nominal current. For other amperage ratings and configurations, consult the Business Unit.

DIMENSIONS



TRIP CURVE

