



Sensata Technologies

F SERIES

FDLA, FDLM, FDLS, FDLT



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| F SERIES (FDLA, FDLM, FDLs, FDLT)

35 TO 150 AMP SURFACE MOUNT THERMAL CIRCUIT BREAKER

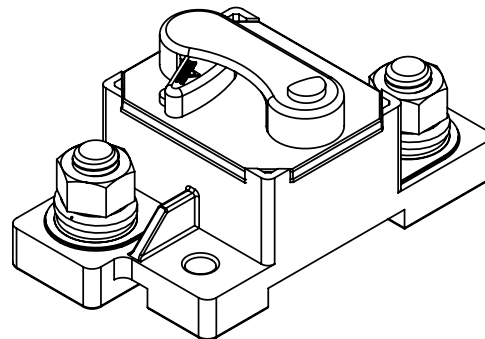
Introduction

The F series thermal breaker series are designed for surface mount applications and are available with automatic trip, manual reset, trip indication, and a switchable option in a single device. The internal components are enclosed in a vibration resistant, weatherproof, robust casing to provide protection in the harshest environments found in heavy truck, off-road, marine and construction applications. The F series thermal breakers are designed to combine trip-free protection with fast response time. Terminal studs are available in 1/4" or a larger 3/8" option to allow higher torque connections and provide wider spacing for heavy gauge wire lugs.



Features

- 30VDC, 35 to 150 Amps
- Weatherproof, ignition protected, trip-free design
- Stronger housing material for increased robustness
- Ability to accommodate heavy gauge wire lugs across terminal studs
- SAE J1625 surface vehicles circuit breaker standards
- SAE J1171 marine circuit breaker standards
- Meets 5000 amps @ 12VDC for interrupt capacity per ABYC E-11,
- DC electrical systems of boats



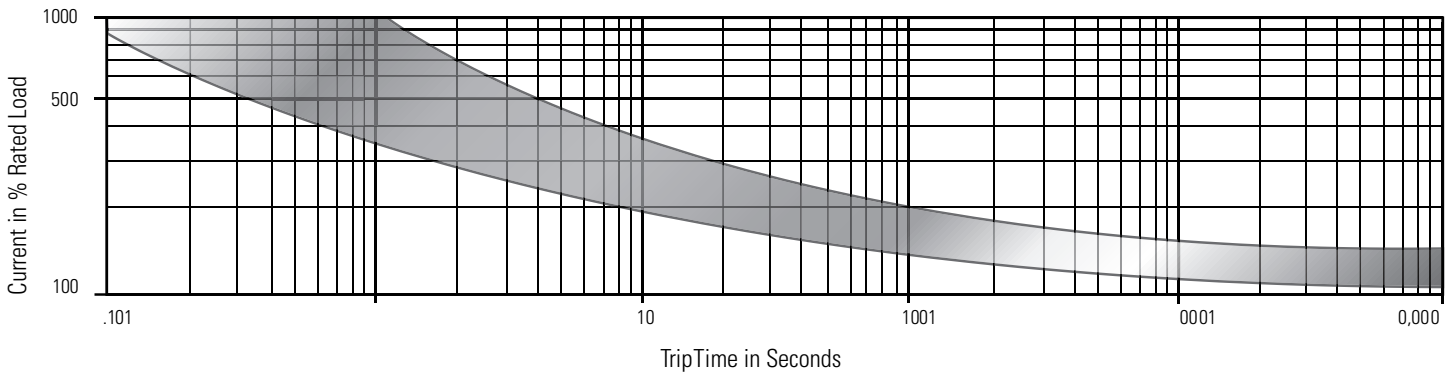
SPECIFICATIONS

Calibration : 200% rated current, 77°F (25°C)	35 to 150 Amps : 8 to 100 seconds
Ultimate Trip At 77°F (25°C)	Must hold 100%, Must trip 135%
Endurance	Per SAE J1625
Interrupt Current Capacity	Per SAE J1625 and ABYC E-11
Mechanical Vibration	Per SAE J1455, 4G's 10-2K Hz
Voltage Breakdown	Per SAE J1625 500VAC
Salt Spray	Per SAE J1455, 96 hours
Weight (with 3/8" terminal studs)	153 grams max



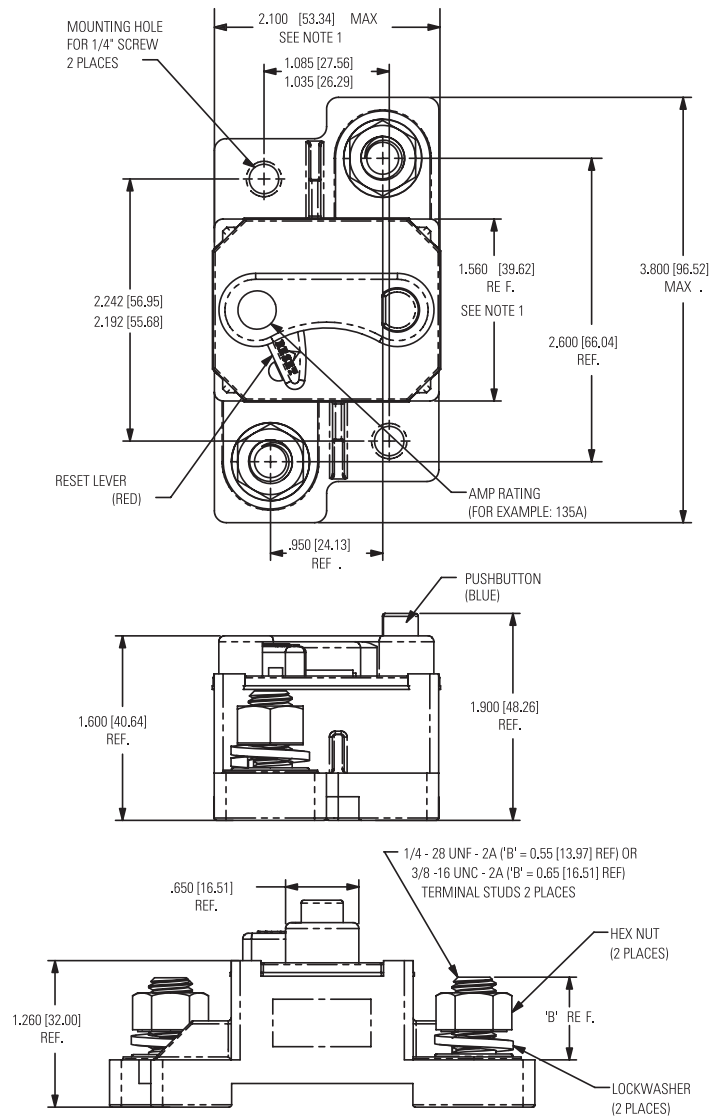
TRIP CURVE

Approximate Time, Current Characteristics At 77°F (25°C)



DIMENSIONS

All dimensions are in inches: [mm]

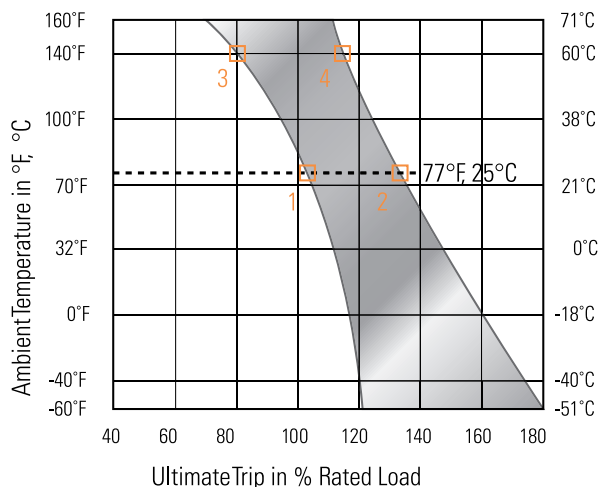




SECTION TITLE

Performance characteristics are based on room temperature (77°F, 25°C). Consult Derating curve for ambient temperatures significantly higher or lower than standard room temperature.

Example: At 77°F (25°C) the device is calibrated to hold at 100% of rated current (1) and trip at 135% of rated current (2). At 140°F (60°C), the same device will hold at approximately 78% of rated current (3), and trip at approximately 115% of rated current (4).



ORDERING OPTIONS

Example : FDL-A-35-1

Family

FDL

Configuration

- A:** Auto
- M:** Manual
- S:** Manual Reset / Switch
- T:** Trip Lever

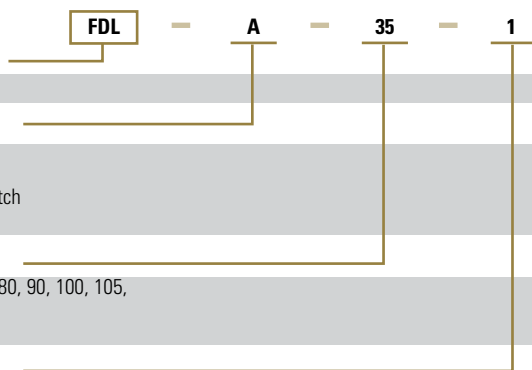
Amp Rating

(35, 40, 45, 50, 60, 70, 80, 90, 100, 105, 120, 135, 150)

Terminals*

- 1:** 1/4-28 UNF-2A
- 2:** 3/8-16 UNC-2A

* Other non-standard option available, consult factory





WARNINGS



RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

Failure to follow these instructions can result in serious injury, or equipment damage.



HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

Failure to follow these instructions will result in death or serious injury.

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