

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

## 35 TO 150 AMP SURFACE MOUNT THERMAL CIRCUIT BREAKER

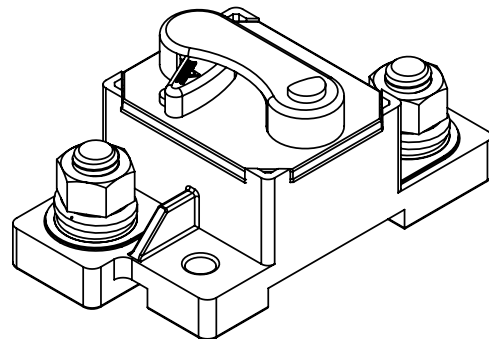
### Introduction

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



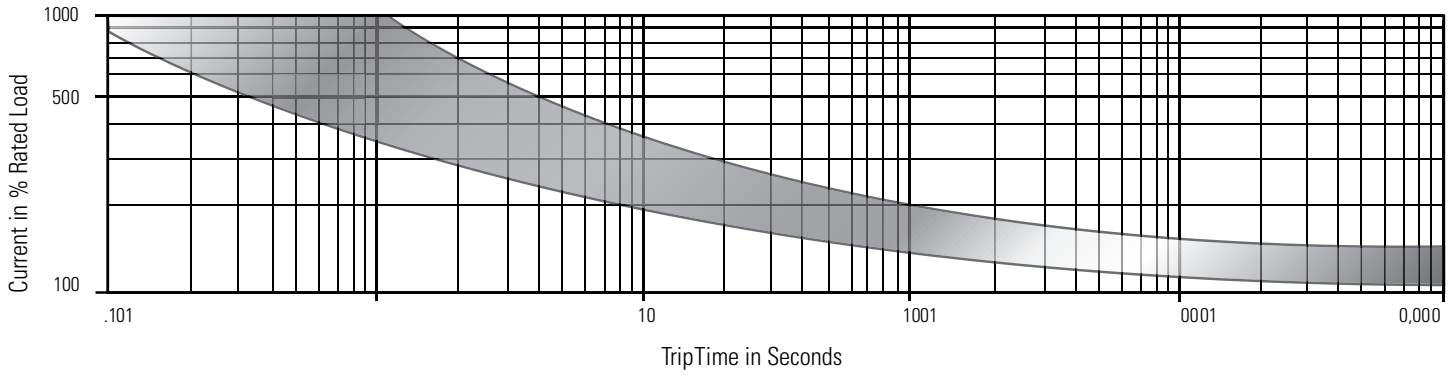
### SPECIFICATIONS

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



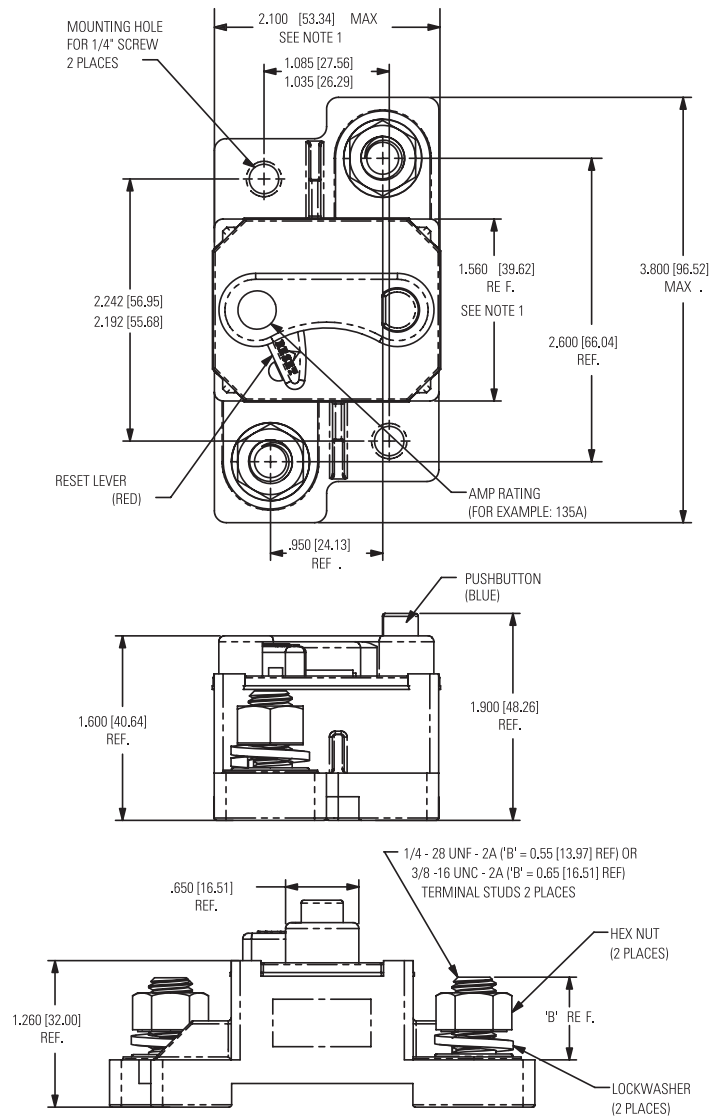
## TRIP CURVE

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



## DIMENSIONS

All dimensions are in inches: [mm]

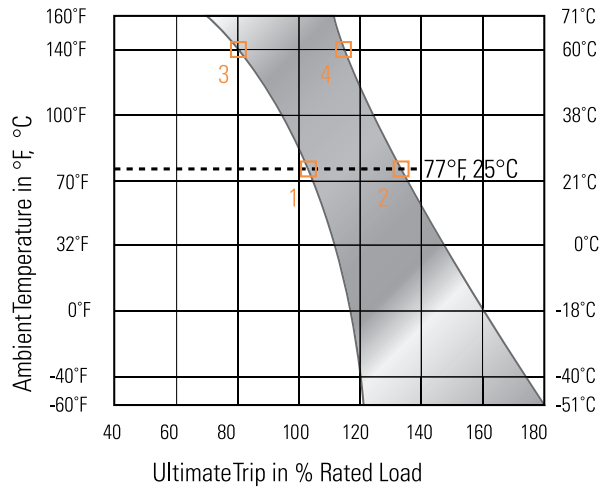




## SECTION TITLE

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

<b>Family</b>	FDL	A	35	1
<b>FDL</b>				
Configuration				
<b>A:</b> Auto				
<b>M:</b> Manual				
<b>S:</b> Manual Reset / Switch				
<b>T:</b> Trip Lever				
<b>Amp Rating</b>				
(35, 40, 45, 50, 60, 70, 80, 90, 100, 105, 120, 135, 150)				
<b>Terminals*</b>				
<b>1:</b> 1/4-28 UNF-2A				
<b>2:</b> 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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