

# TC100 Series Battery Protectors

## FEATURES

- Isolated bi-metal construction
- Miniature size
- Electrically insulated housing
- Snap Action
- Normally closed, contacts open on temperature rise.
- Automatic reset
- Long cycle Life
- Current and temperature sensitivity for maximum design flexibility
- Available with Nickel Strip leads or wire leads to your specifications

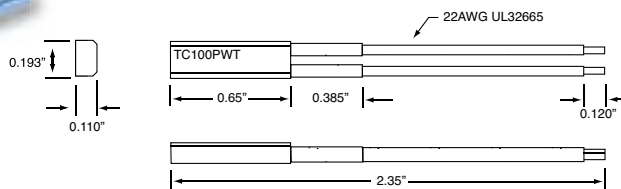
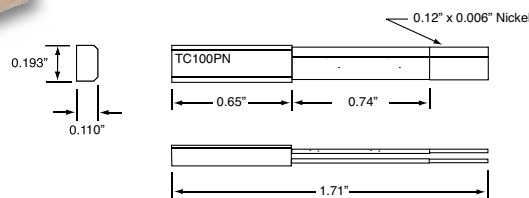
## APPLICATIONS

Battery pack overcharge and limited short circuit protection in:

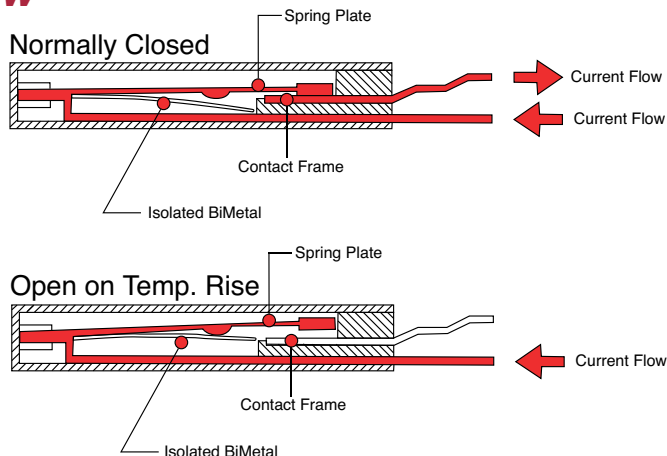
- Portable tools
- Notebook computers.
- Rechargeable battery packs

## TC100 Series

Thermtrol's TC100 Series is designed specifically for over temperature and short circuit protection in battery pack applications. The TC100 functions by detecting elevated heat and over-current in the battery pack and breaks the electrical circuit at the TC100's pre-selected temperature set point. With a variety of termination styles, internal resistivity values for varying the current sensitivity, and a large range of nominal temperature settings, the TC100 is the device for your battery pack protection requirements. In applications where a one-shot thermal cutoff fuse or multiple redundancies are required in addition to a bimetal limit protector, please ask Thermtrol about supplying your entire system protection needs.



## Current Flow

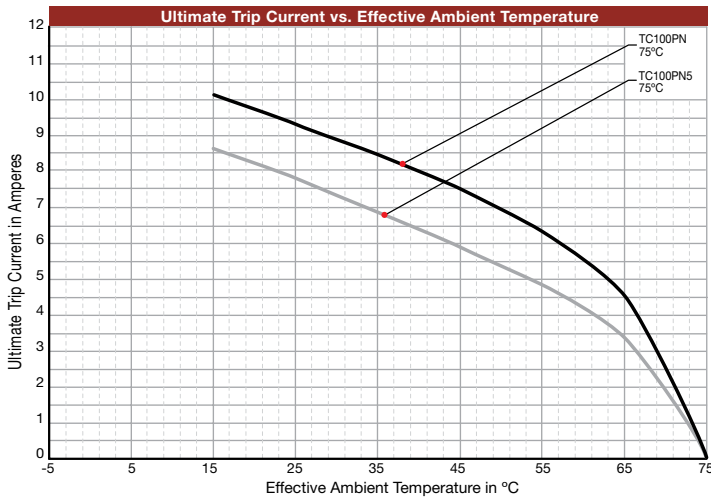


## Performance Curves

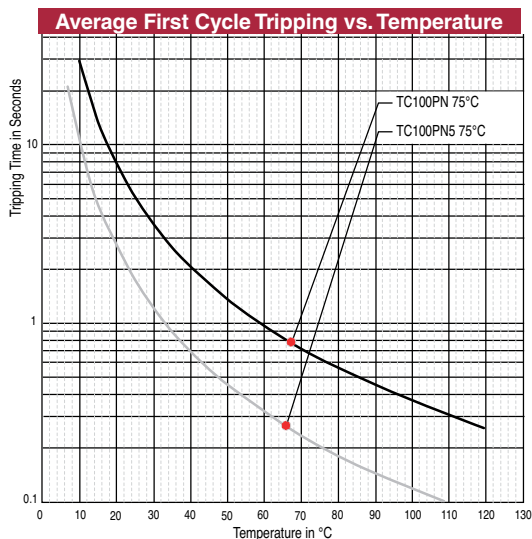
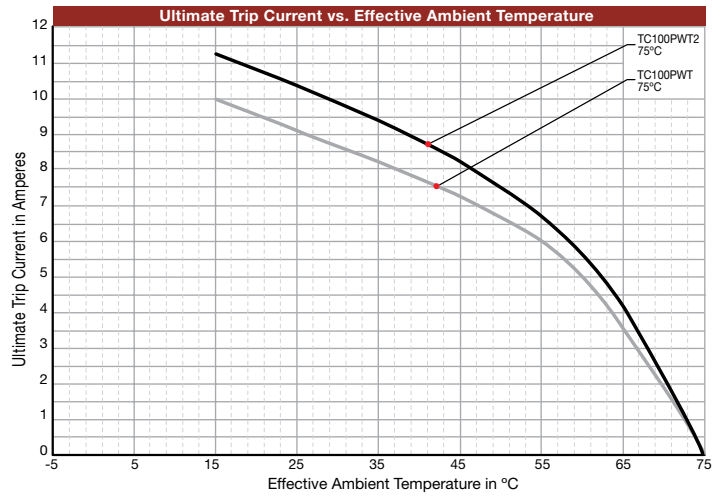
TC100 Performance is dependent upon the movable arm material, the temperature setting, and the lead material. The graphs below show representative devices and illustrate the relative characteristics of various configurations.

Model#	Contact Frame Material	Spring Plate Material	Termination	Overall Resistance
PN	Phosphorus Bronze	Beryllium Copper	Nickel Plate Lead	Low
PN5	Phosphorus Bronze	Titanium Copper	Nickel Plate lead	High
PWT	Phosphorus Bronze	Beryllium Copper	Lead Wire	Low
PWT2	Brass	Beryllium Copper	Lead Wire	High

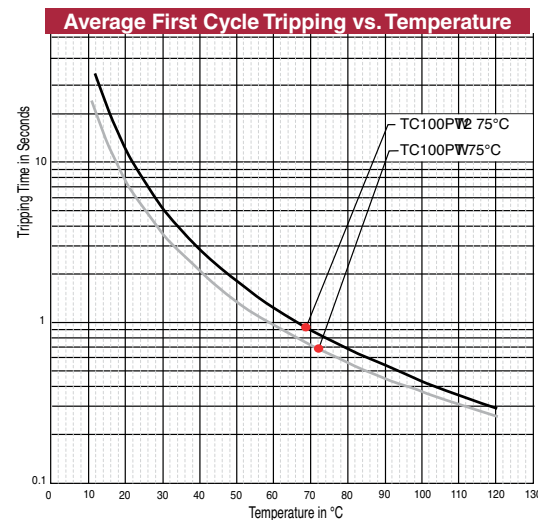
### TC100-PN Series



### TC100-PWT Series



*Approximate:  
to be used  
for selecting  
samples only*



#### Contact Ratings

8A@18Vdc, 3A@24vDC  
 Maximum Breaking Current: 100A 12Vdc  
 Minimum Electrical Current: 10mA 5Vdc

#### Specifications

Open Temperature: 45°C to 105°C ± 5°C  
 Differential: 6°C

#### UL Approvals

UL: E19340

#### Numbering System

TC100

PN

55

PN  
 PN5  
 PWT  
 PWT2

Set Temperature - select  
 in increments of 5°C from  
 45°C to 105°C.