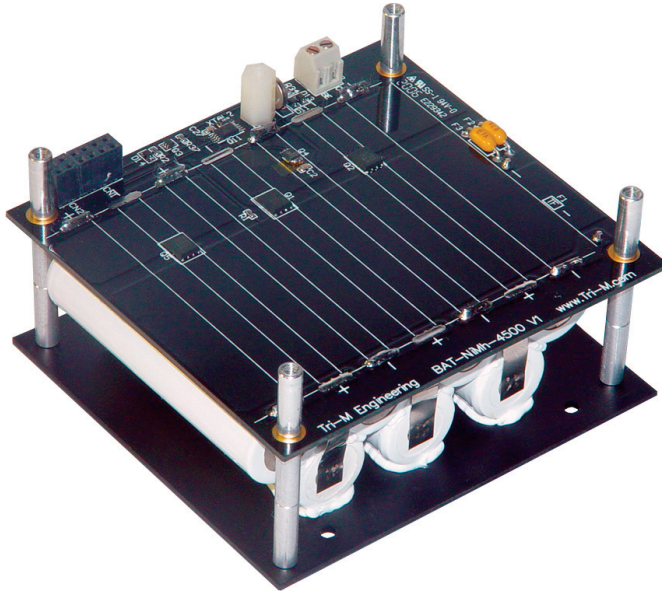


# ⚡ BAT-NiMh45

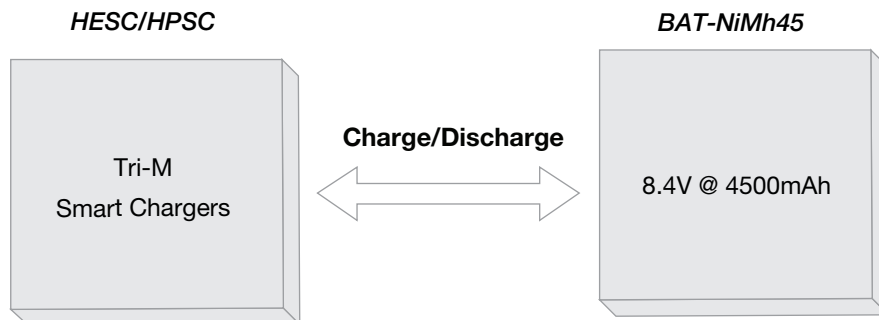
NiMh Battery Backup for HESC & HPSC

## PC/104 footprint Power Backup



The BAT-NiMh45 is an 8.4V nominal @ 4500mAh NiMh battery module that when combined with a Tri-M HESC or HPSC smart charging power solution creates a complete uninterruptable power system (UPS) in a PC/104 footprint. Designed as a rugged backup power source, the BAT-NiMh45 supplies backup power and includes current and thermal fuse protection and digital battery temperature sensor monitoring. A UPS system that includes the BAT-NiMh45 can be woken from the "hibernate mode" with a remote wake up signal or from the built-in real-time clock.

### Block Diagram



### Key Specifications

- **Complete UPS System**  
When combined with HESC or HPSC
- **Industrial NiMh Batteries**  
7x 4/3A 1.2V 4500mAh (nom.)
- **Digital Temperature Sensor**  
Reports battery temperature
- **Operating Temperature**  
Charge 0 to 40C  
Discharge -10 to 65C

### Advantages

- **Rugged Design**  
For harsh environments
- **Battery Mosfet Isolation**  
Eliminates power loss when system off
- **Installs on any HESC or HPSC power supply**  
No configuration required
- **High capacity long life batteries**
- **PC/104 footprint**

### Applications

- **Military & Civil Vehicles**
- **Aerospace & Defence**
- **Industrial Automation**
- **Telecommunications**
- **Undersea & Marine**

# Specifications

## Electrical

### Backup Power

7 NiMh 4/3A batteries  
8.4V @ 4.5Ah (nominal)  
136,000 joules

### Backup Time

Up to 60min for 45W load

### Protection Fuses

High temperature fuse activates at 84C  
High current fusing activates at 14A

## Mechanical

### Dimensions

90mm x 96mm  
(3.55" x 3.775")  
For height see Module Configuration & Integration

### Weight

220g (7.8oz)

## Environment

### Operating Temperature

Charge 0 to 40C (32 to 104F)  
Discharge -10 to 65C (14 to 149F)

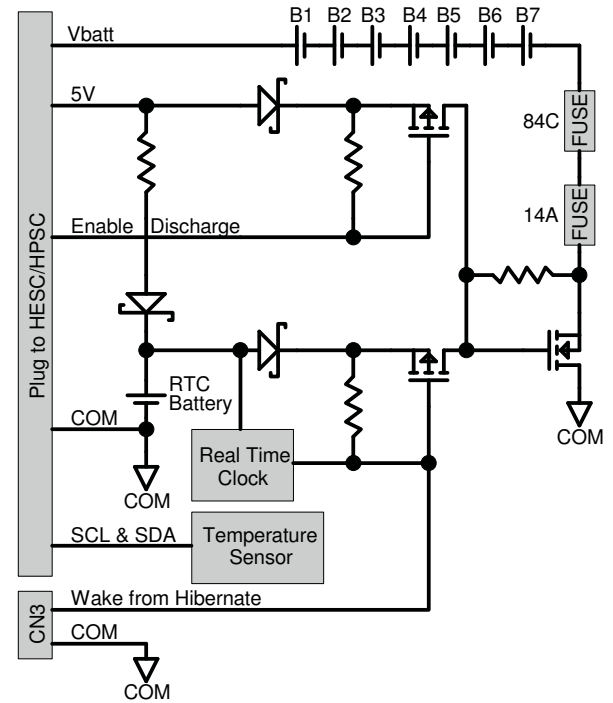
### MTBF

540,876 Hours (Calculated)

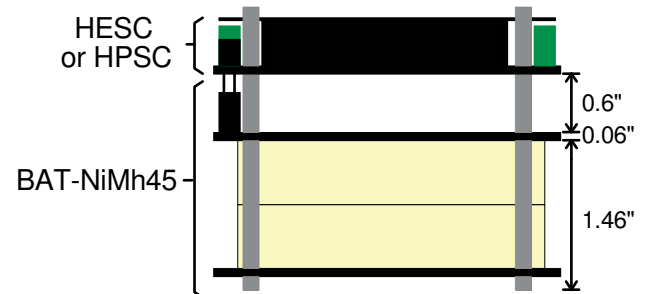
## Notes

*Schematic for Visual Reference only. Please see the User Guide for a detailed schematic.*

## Block Schematic



## Module Configuration & Integration



# Ordering Information

## Models

**BAT-NiMh45-PBF**, 8.4V @ 4.5Ahr, NiMh battery module with real-time clock

## Options

where [-Cy] is the optional conformal coating selection

“-CS” is silicon conformal coating

“-CU” is urethane conformal coating

“-CH” is HumiSeal conformal coating

ex: BAT-NiMh45-CU-PBF; 8.4V @ 4.5Ahr backup module with urethane coating.