



# BH-3100 SERIES BATTERY HEATER

## FEATURES

Circulates warm coolant from the engine or auxiliary heater through the stainless steel tubes to keep batteries at optimal temperature. It can be fitted with a by-pass thermostat that measures the air temperature inside the battery box for year round operation.

## BENEFITS

- Increases available cold cranking amps
- Reduces required battery charge time
- Extends battery life
- Simple installation

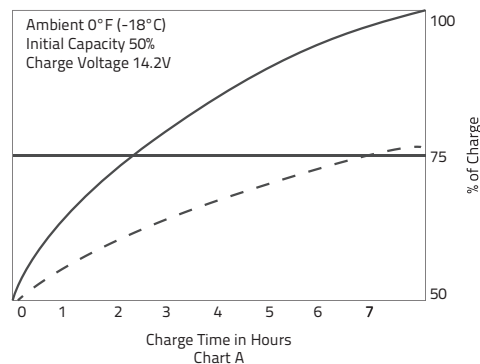
## WHERE TO USE

- Available for 4D, 8D and group 31 battery configurations. Custom sizes available upon request.



## HERE'S HOW IT WORKS

### TYPICAL CHARGEABILITY OF BATTERY



### TYPICAL CHARGE AMPERAGE VERSUS TEMPERATURE SCENARIO

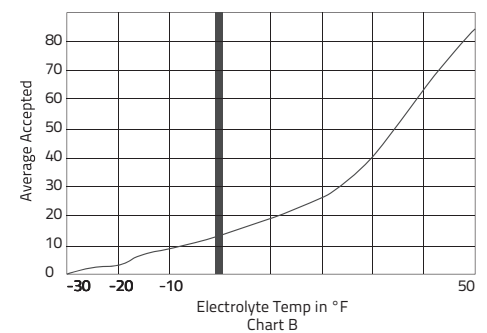


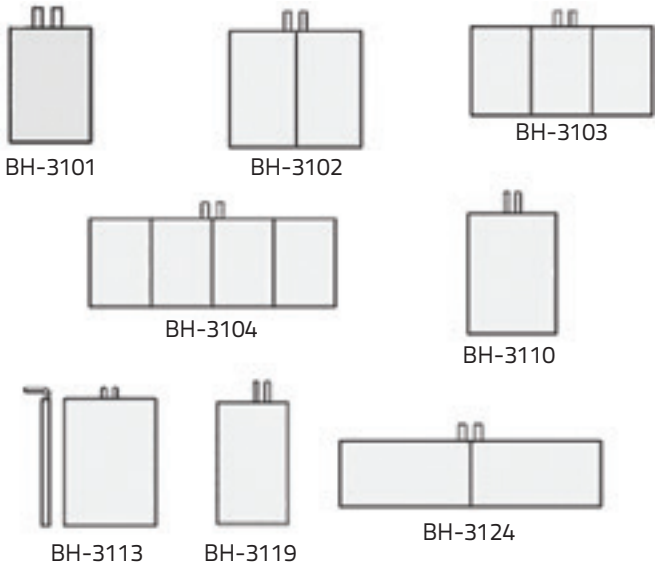
Chart A depicts a typical scenario at 0° F (-18°C) where 75% to 80% of full charge is accomplished in approximately 2-1/4 hours with a battery warmer. Without a battery warmer, it would require 8 hours to reach the same state of charge. As shown in chart B, batteries that accept 3 amps at -20°F (-29°C) can accept up to 40 amps when the electrolyte temperature is raised to 30°F (-1°C).

## SPECIFICATIONS:

- Durable stainless steel coolant tubes
- Light weight aluminum heating plate
- 1/2" NPT coolant connections
- Optional thermostat is available

# BH-3100 SERIES BATTERY HEATER MODELS

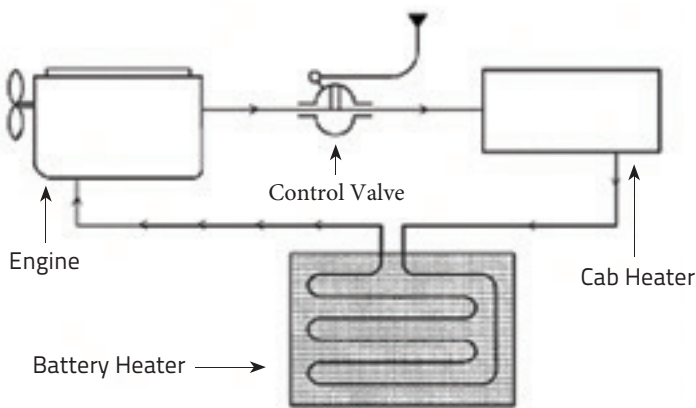
**NOTE:** All models require minimum 1" / 25.4mm clearance above the batteries.



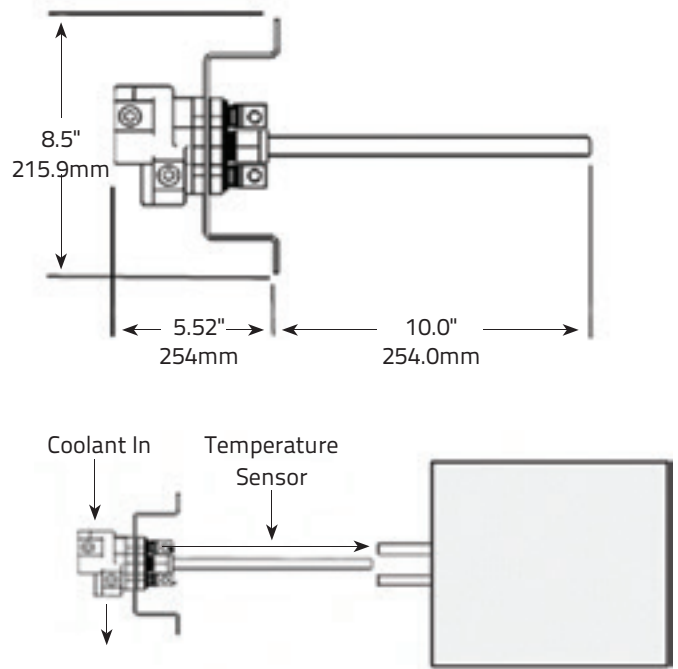
## DIMENSIONAL INFORMATION

Part Number	Length Inches/mm	Width Inches/mm
BH-3101	12-7/8 / 327	6-5/8 / 168
BH-3102	13 / 330	13 / 330
BH-3103	21 / 533	14 / 356
BH-3104	27 / 686	14 / 356
<b>NOTE:</b> BH-3102—Both batteries may be place parallel or perpendicular to the coolant ports.		
BH-3110	21-1/2 / 546	11 / 279
BH-3113	21-1/2 / 546	11 / 279
BH-3119	21 / 526	8-1/2 / 216
BH-3124	25-1/4 / 641	6-1/4 / 159

**NOTE:** Schematic below, battery warming is discontinued when cab heater temperature switch is off.



## BPT - 2800 BATTERY HEATER BY-PASS THERMOSTAT



Schematic for Battery Heater with Optional By-Pass Thermostat