

# BH-3100 SERIES BATTERY HEATER



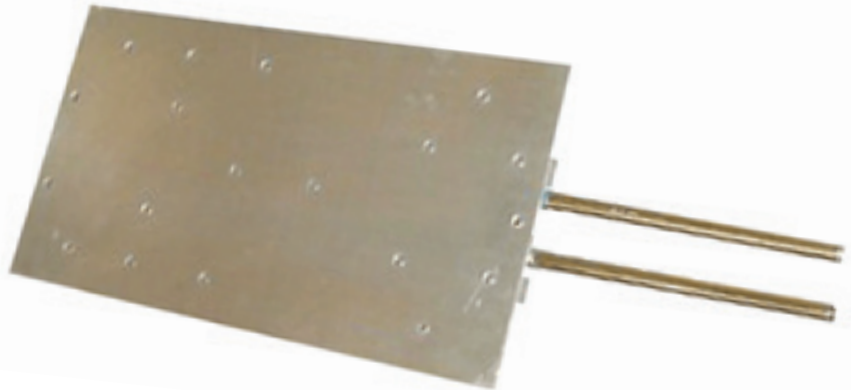
The BH-3100 Series Battery Heater utilizes heat energy from the engine cooling system or diesel fired coolant heater to warm the battery, allowing for improvement of battery state of charge.

## BENEFITS

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

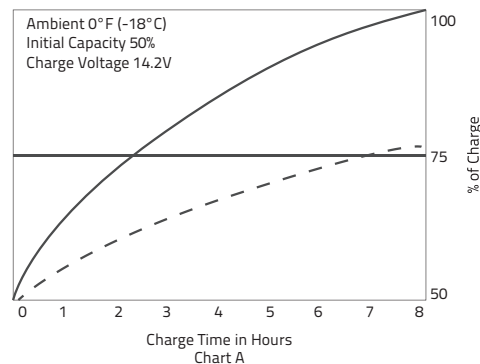
## WHERE TO USE

- 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

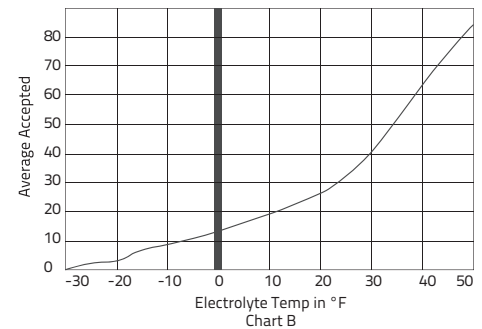


Chart A depicts a typical scenario at 0° F (-18°C) where 75% to 80% of full charge is accomplished in approximately 2-1/4 hours with a battery warmer. Without a battery warmer, it would require 8 hours to reach the same state of charge. As shown in chart B, batteries that accept 3 amps at -20° F (-29°C)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

Customer service: Toll Free: 800.328.6108

Email: [customerservice@phillipsandtemro.com](mailto:customerservice@phillipsandtemro.com)

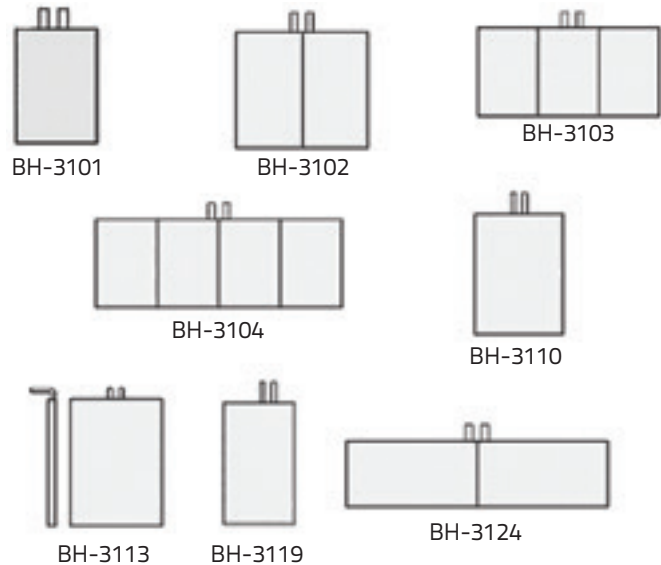
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## BH-3100 SERIES BATTERY HEATER MODELS

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



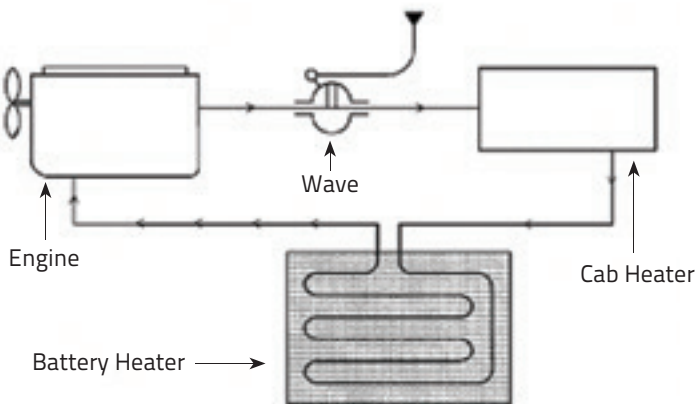
### DIMENSIONAL INFORMATION

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
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

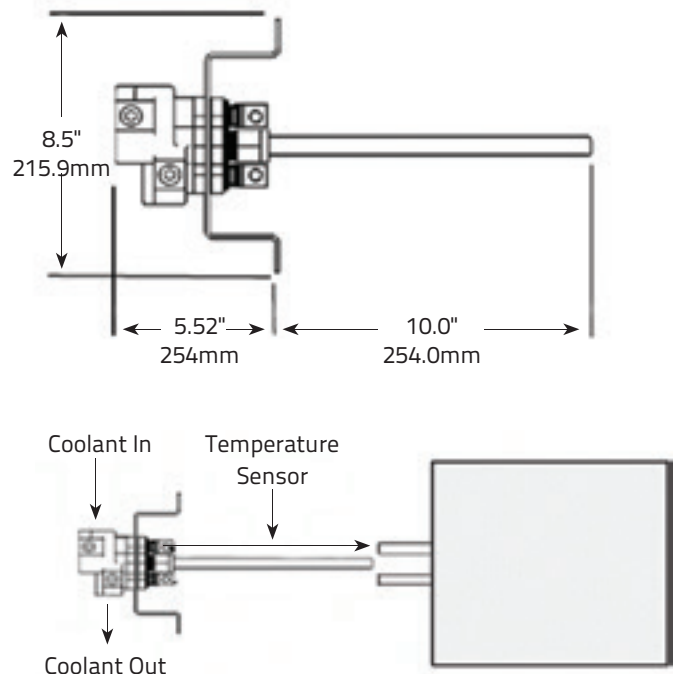
Note: BH-3102—Both batteries may be place parallel or perpendicular to the coolant ports.

**NOTE:** BH-3104—All 4 batteries may be place parallel or perpendicular to the coolant ports, or 2 either way.

**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

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