



**Battery Model:** 34/78  
**Part Number:** 8004-003  
**Nominal Voltage:** 12 volts  
**NSN:** 6140-01-457-4339  
**Description:** High power, sealed, lead acid, engine starting battery.

**Physical Characteristics:**

**Plate Design:** High purity lead-tin alloy. Wound cell configuration utilizing proprietary

*SPIRALCELL TECHNOLOGY.®*

**Electrolyte:** Sulfuric acid, H<sub>2</sub>SO<sub>4</sub>. Specific gravity: 1.286

**Case:** Polypropylene

**Color:** Case: Dark Gray  
Cover: "OPTIMA" Red

**Group Size:** BCI: 34/78

	Standard	Metric
<b>Length:</b>	10"	254 mm
<b>Width:</b>	6.8"	172.2 mm
<b>Height:</b>	7.8"	198.1 mm (height at the top of the terminals)
<b>Minimum Weight:</b>	38.8 lb.	17.6 kg

Terminal Configuration: SAE / BCI automotive and GM style side terminal (3/8 - 16 UNC - 2B, threaded nut).

**Performance Data:**

**Open Circuit Voltage (fully charged):** 12.8 volts  
**Internal Resistance (fully charged):** .0032 ohms  
**Capacity:** 55 Ah (C/20)  
**Reserve Capacity:** BCI: 104 minutes  
 (25 amp discharge, 80°F (26.7°C), to 10.5 volts cut-off)

**Power:**

**CCA (BCI 0°F):** 750 amps  
**MCA (BCI 32°F):** 980 amps

**Cycle Life:**

**Cycle Life - Deep Cycle (BCI):** ~ 50 cycles  
**J240 Life Cycle (BCI):** 10,000 - 12,000 cycles

## Recommended Charging:

The following charging methods are recommended to ensure a long battery life:  
(Always use a voltage regulated charger with voltage limits set as described below.)

### Model: 34/78

These batteries are designed for engine starting applications. They are not recommended or warranted for use in deep cycle applications.

## Recommended Charging Information:

<b>Alternator:</b>	13.8 to 15.0 volts; no amperage limit
<b>Battery Charger:</b>	13.8 to 15.0 volts; 10 amps maximum; 8 hours maximum
<b>Boost Recharge:</b>	Maximum voltage: 15.6 volts (regulated). Maximum current: 60 amps. Maximum recharge time: 2 hours.
	<b>All limits must be strictly adhered to</b>
<b>Float Charge:</b>	13.2 to 13.8 volts; 1 amp maximum current; time indefinite (at lower voltage levels).

Always wear safety glasses when working with batteries.

Always use a voltage regulated battery charger with limits set to the above ratings. Overcharging can cause the safety valves to open and battery gases to escape, causing premature failure. These gases are flammable! You cannot replace water in sealed batteries that have been overcharged. Any battery that becomes very hot while charging should be disconnected immediately.

Not fully charging a battery can result in poor performance and a reduction in capacity.

## Shipping and Transportation Information:

OPTIMA batteries can be shipped by AIR. The battery is nonspillable and is tested according to ICAO Technical Instructions DOC. 9284-AN/905 to meet the requirements of Packing Instructions No. 806 and is classified as non-regulated by IATA Special Provision A-48 and A-67 for UN2800. Terminals must be protected from short circuit.

## Manufacturing Location:

OPTIMA Batteries  
17500 East 22nd Avenue  
Aurora, CO 80011  
United States of America  
Phone: 303-340-7400  
Fax: 303-340-7474

BCI = Battery Council International  
EN = European Norm

OPTIMA Batteries  
Product Specifications: Model 34/78  
June 15, 2001