

# TECHNICAL DATA SHEET

## S4-HD



### Applications



**CYCLIC**



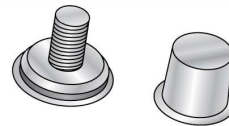
**SOLAR**



**MARINE**

### AVAILABLE TERMINAL STYLES:

Standard



### VENT CAP OPTIONS:

White - Standard



Spin Vent



SPW Manifold Vent



### PHYSICAL SPECIFICATIONS

BCI Group Size	Model Description	Nominal Voltage	Length		Width		Container Height		Terminal Height		Weight		Cover & Container Material	Case to Cover Seal Method
			in	mm	in	mm	in	mm	in	mm	lbs	kgs		
902	S4-HD	6	12.19	310	7.19	183	13.27	337	14.13	359	90	40.8	Polypropylene Plastic	Heat Seal

### ELECTRICAL SPECIFICATIONS

Ampere Hour Capacity (Ah)							Discharge Capacity Minutes					KWH (kWh)	Internal Resistance
100 Hr	72 Hr	48 Hr	20 Hr	10 Hr	5 Hr	2 Hr	100A	75A	50A	25A	10A	100 Hr	80°F / 27°C
349	328	317	305	259	255	199	123	175	278	620	1785	2.094	7.9mΩ

### CHARGING INSTRUCTIONS

We specify the following standard battery charge profile for the S4-HD deep cycle battery when used in an electric vehicle service:

**Phase 1: Constant Current (I1)** I1 = highest amperage available < 75 amps

**Phase 1: Constant Current (I1)** I1 = minimum amperage available > 35 amps

Normal transition to Phase 2 at 2.37 Volts Per Cell.

Safety transition to END OF CHARGE of  $dV/dt < 0V/1\text{ hr}$ ,  $dt = 1\text{ hr}$ . (NEGATIVE SLOPE).

Timeout for Phase 1 = 10 hours.

**Phase 2: Constant Voltage (U2)** U2 = 2.37 VPC

Normal Transition to Phase 3 at I2 = 10.0 amps or approximate. Safety transition to END OF CHARGE of  $|dI/dt| < 0.4\text{ amp} / 1\text{ hr}$ ,  $dt = 1\text{ hr}$ .

**Phase 3: Constant Current (I3)** I3 = 10.0 amps or approximate. Normal transition to END OF CHARGE at 115 - 118% of AH returned.

Timeout for charging phases 1 - 3 at 16 hours.

Temperature compensation coefficient =  $\pm 3\text{ mV} / ^\circ\text{C}$ .

Recommended Equalization Charge: Every seven (7) days. 4 additional hours at normal finish rate of 10.0 amps for 4 hours.

Safety transition to END OF CHARGE at maximum voltage of 2.7 VPC.