

VRLA AGM | Non-Spillable | Maintenance-Free

Power. Sheet. 6CRV390 AGM Deep Cycle



Crown Battery Manufacturing's team of product and application experts welcome the opportunity to discuss your technical requirements during the design and specification stage. To access this support, please contact:

Crown Battery Manufacturing's Product Support Department

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TERMINAL STYLE



PHYSICAL SPECIFICATIONS

BCI Group Size	Model Description	Nominal Voltage	Length		Width Container Height		ainer ght	Terminal Height		Weight		Cover & Container	Case to Cover	
			in	mm	in	mm	in	mm	in	mm	lbs	kgs	Material	Sear Method
903	6CRV390	6	11.62	295	7.01	178	15.91	404	16.75	430	127	57.5	ABS	Heat Seal

ELECTRICAL SPECIFICATIONS

Ampere Hour Capacity (Ah)				Discharge Capacity Minutes					KWH (kWh)	Int Res.	Short Circuit Current	
CCA	CA	100 Hr	20 Hr	5 Hr	75A	25A	20A	15A	5A	100 Hr	80°F / 27°C	Amperes
1550	1935	430	390	315	255	900	1125	1500	3000	2.50	1.6	3900

AGM BATTERY STATE OF CHARGE MEASUREMENT

State of Charge Percentage	100%	75%	50%	25%	0%
Open Circuit Voltage - Cell	2.14	2.09	2.04	1.99	1.94
Open Circuit Voltage - Battery	6.42	6.27	6.12	5.97	5.82

APPLICATION NOTES

Operating Temperature Range	Self Discharge	Terminal & Torque Specifications	Best Practices
Maximum Limit -4°F to 120°F (-20°C to 49°C) with proper temperature compensation controls. Lead acid batteries are temperature sensitive: refer to the temperature / capacity projection chart to identify available capacity at the application operating temperature.	Approximately 3% per month at 80°F (27°C). Rate of self discharge will vary depending on storage temperature.	SAE / Automotive Terminal: 50 to 70 in-Ibs / 6 to 8 Nm Stainless Threaded Terminal: 100 to 120 in-Ibs / 11 to 14 Nm Fastener Type: M8 – 1.25 S/S Serrated-Face Hey Flanne Nut	Safety is Your Responsibility! Keep sparks, flames and cigarettes away from batteries at all times. Maintain good ventilation when working on or charging batteries. Keep batteries and terminal connections clean, dry and free of dirt and corrosion. Do not tamper with vent structures. Optimize the life of your batteries by limiting duty cycle depth of discharge to 75% or less.
Application Note: Maintain a state of charge greater than 60% when operating batteries at temperatures below 32°F (0°C).	Freshening charge recommended for inventory at 75% SOC voltage.	Battery terminal connections should be secured and tight at all times. Replace torn or damaged cabling or connectors.	Charging service must be performed with equipment configured to support the charging recommendations herein. Opportunity charging service can be performed when batteries are no more than 50% discharged. Batteries must be fully recharged after the termination of duty cycle usage. Chronic under-charge or over-charge will shorten battery life.

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CYCLIC CHARGING

Constant Voltage Charging									
CYCLE CHARGE:	7.20 - 7.41 V	Temperature Correction:	+/- 3 mV / °C						
FLOAT CHARGE:	6.60 V	Recommended Charge Current:	40 Amperes						
		Maximum Charge Current:	80 Amperes						

Cyclic applications exceeding 50% depth-of-discharge may require different charger voltage set points. Contact Crown Battery to discuss your application requirements.

DEPTH OF DISCHARGE EFFECT ON CYCLE LIFE

75% DOD	End-Cycle	50% DOD	End-Cycle	25% DOD	End-Cycle
Cycles	Voltage	Cycles	Voltage	Cycles	Voltage
550	5.97	1000	6.12	2400	6.27

The battery life references presented above are estimations based upon life cycle testing con ducted at Crown Battery Manufacturings Test Center in Fremont, Ohio USA. The data references are nominal and should not be construed as maximum or minimum values for specifications or final design. Data for this product type may vary from that shown herein, and Crown Battery makes no warranties based upon the data shown above.



RENEWABLE POWER CHARGING

Proper charging of renewable power batteries is essential to optimize the performance and life of the batteries. To ensure dependability and life batteries should be charged after each discharge period. Regular monitoring of battery voltage condition is recommended to verify system recharging performance. Refer to the following table for additional charge control setting information.

Voltage	VDO	System Voltage						
Setting	VPC	12 Volts	24 Volts	48 Volts				
Bulk	2.40-2.45	14.40-14.70	28.80 - 29.40	57.60 - 58.80				
Absorption	2.47	14.82	29.64	59.28				
Float	2.20	13.20	26.40	52.80				

Effect of Ambient Temperature on Battery Life

Typical battery life is based upon a baseline operating temperature of 80°F / 27°C. Temperature increases of 15°F / 10°C over the baseline will cause the battery's rate of internal chemical reactions to double – something that will reduce battery life due to the accelerated deterioration of internal components.

Please contact Crown Battery to discuss any minimal requirements for battery life when operating batteries in temperatures greater than 80°F / 27°C.

The Power Behind Performance



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