CROWN®
THE POWER OF 1
VRLA AGM | Non-Spillable | Maintenance-Free

Power. Sheet.

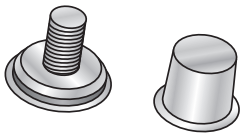
12CRV135
AGM Deep Cycle

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
+1.419.334.7181 / Fax +1.419.334.7124
commercial@crownbattery.com

TERMINAL STYLE

Standard



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		
920	12CRV135	12	13.39	340	6.81	173	11.14	283	12.17	309	95	43.3	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
800	1000	166	135	116	85	283	377	532	1091	1.93	3.6	1350

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	12.84	12.54	12.24	11.94	11.64

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. **Application Note:** Maintain a state of charge greater than 60% when operating batteries at temperatures below 32°F (0°C).	Approximately 3% per month at 80°F (27°C). Rate of self discharge will vary depending on storage temperature. Freshening charge recommended for inventory at 75% SOC voltage.	SAE / Automotive Terminal: 50 to 70 in-lbs / 6 to 8 Nm Stainless Threaded Terminal: 100 to 120 in-lbs / 11 to 14 Nm Fastener Type: M8 – 1.25 S/S Serrated-Face Hex Flange Nut Battery terminal connections should be secured and tight at all times. Replace torn or damaged cabling or connectors.	**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. 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.

12CRV135 AGM Deep Cycle Battery

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

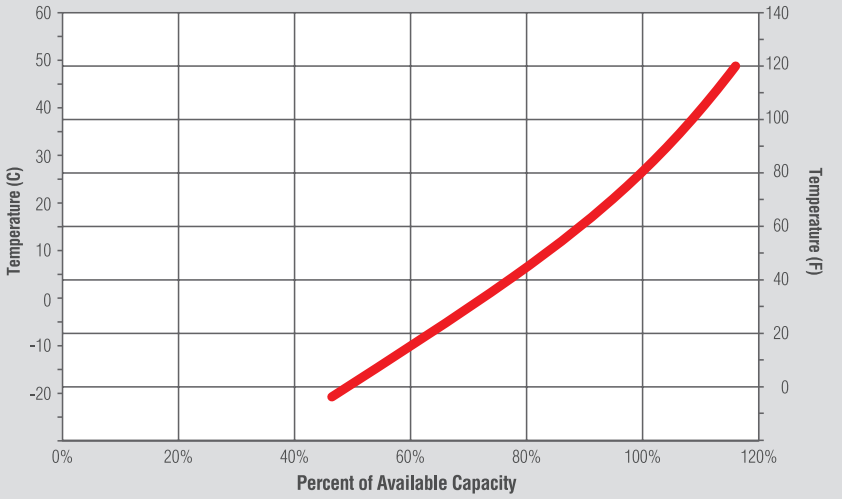
Cyclic applications exceeding 50% depth-of-discharge may require different charger voltage set points. Contact Crown Battery to discuss your application requirements.

DEPTH OF DISCHARGE EFFECT ON CYCLE LIFE

75% DOD Cycles	End-Cycle Voltage	50% DOD Cycles	End-Cycle Voltage	25% DOD Cycles	End-Cycle Voltage
525	5.97	900	6.12	2300	6.27

The battery life references presented above are estimations based upon life cycle testing conducted at Crown Battery Manufacturing's 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.

AVAILABLE CAPACITY AT APPLICATION OPERATING TEMPERATURE



RENEWABLE POWER CHARGING

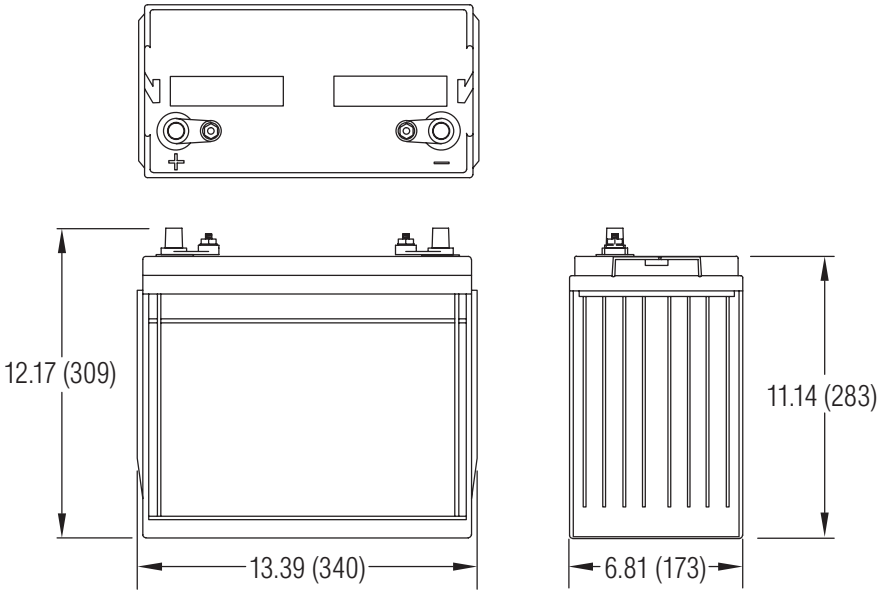
Proper charging of renewable power batteries is essential to optimize the performance and life of the batteries. To ensure dependability and life batteries should be charged after each discharge period. Regular monitoring of battery voltage condition is recommended to verify system recharging performance.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

Voltage Setting	VPC	System Voltage		
		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

CROWN® BATTERY SINCE 1926

1445 Majestic Drive | P.O. Box 990
Fremont, OH 43420-0990 USA
+1.419.334.7181 | Fax +1.419.334.7124
www.crownbattery.com
commercial@crownbattery.com

The data shown are nominal and should not be construed as maximum or minimum values for specification or final design. Data for this product type may vary from that shown herein.

Visit our website at www.crownbattery.com