# GRENERGY CAEC GROUP



LFPO Start-Stop Battery Green Run 2 Series

**SS1250** 

13.2V50Ah

**SS12100** 

13.2V100Ah

#### PRODUCT HIGHLIGHTS

- · Drop-in replacement for your VRLA battery
- No voltage sag with stable power output
- ≥3x the instantaneous discharge current of VRLAs
- Low self-discharge rates

- 2-3x the lifetime of VRLA batteries
- · No memory effect
- · Lightweight, low maintenance and green
- Full IP-protection

Low sell disoriarge rates		
SPECIFICATIONS	SS1250	SS12100
Nominal Voltage	13.2V	13.2V
Capacity	50 Ah @ 0.2C	100 Ah @ 0.2C
Impedance (ACIR)	<10 mΩ	<10 mΩ
Cell-Balancing Mechanism	Dynamic balance	Dynamic balance
Storage Temperature	-20-40°C	-20-40°C
Storage Humidity	R.H. 15~90%	R.H. 15~90%
CHARGING		
Maximum Charging Voltage	≤ 14.8V	≤ 14.8V
Max. Continuous Charging Current	50 A (1C)	100 A (1C)
Working Temperature (Charging)	0-45°C	0-45°C
DISCHARGING		
Working Temperature (Discharging)	-20-60°C	-20-60°C
Pulse Cranking Amps, PCA	1529A	1807A
Room Temp. Cranking Amps, RCA	1117A	1449A
Cranking Amps, CA	710A	1190A
Cold Cranking Amps, CCA	448A	655A
WEIGHT AND DIMENSIONS		
Weight	8.5 Kg	10.5Kg
Dimensions (mm)	W276 x D175 x H191	W276 x D175 x H191 W353 x D175 x H191

## A WORD ABOUT CCA

- -At first glance; lead acid batteries appear to handle the cold better, and at times show a higher CCA than batteries using LFPO cathode material. However, upon closer examination, the superiority of our unique LFPO chemistry becomes clearer.
- -It comes down to this, lead acid battery's amps decrease with each cold crank. On the other hand, our Green Run 2 series' amps increase with each cold crank.
- -CCA has been the battery quality determinant for decades. So, what now? For lithium batteries, a moreaccurate indicator of its performance is its PCA, or Pulse Cranking Amps.

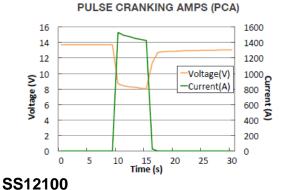
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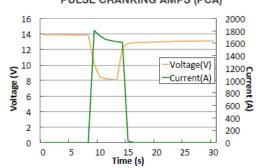


harmful

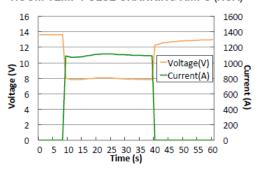
### SS1250



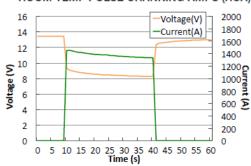
# PULSE CRANKING AMPS (PCA)



#### **ROOM TEMP PULSE CRANKING AMPS (RCA)**



#### **ROOM TEMP PULSE CRANKING AMPS (RCA)**



## **COMPARISONS: VRLA BATTERIES vs. LFPO BATTERIES**

item	VRLA BATTERIES	LFPO BATTERIES
100111	VILLY CONTROL	

# **CORPORATE SOCIAL RESPONSIBILITY**

Safety	Release corrosive hydrogen gases that are	No safety risks—non-explosive and no	
	health and explosions hazards, respectively.	or explosive gases	

Environment	Toxic heavy metals and acid are harmful. Must	Sustainable and environmentally friendly
	be disposed by professional recycling agents.	—Completely non-toxic and non-corrosive

## **PERFORMANCE**

Discharging	During high-rate discharge, voltage decreases	Display significantly higher effective capacity
	over time, reducing output stability; one must	than VRLAs. The power stability and efficiency
	increase capacity to overcome this issue.	are kept with no need to increase capacity.
<b>Energy Density</b>	Low power density: 40Wh/kg	2.5x higher energy density: 82-135 Wh/kg
<b>Power Output</b>	Instantaneous: 3C; Continuous: 1C	Instantaneous: ≥15C; Continuous: ≥5C

TOTAL COST OF	FOWNERSHIP	
Weight	12V80Ah: ~20kg; 12V105Ah: ~29kg	Half as heavy as VRLAs.
		12V50Ah: 8.5kg; 12V100Ah: 10.5 kg
Accessories	Lower performance of electronic accessories	Greater power to enable brighter displays with
	(e.g. AC/lights/sound systems/touch panels)	enhanced sound quality and comfort
Life Expectancy	Deep-discharge cycle life is 300 times	of ≥2-3x the lifetime of VRLA batteries. Deep-
	usebetween replacements	discharge cycle life of 1000 times without the
		need for constant replacements.
Temperature Tolerance	Poor performance with decreased effective	ve Optimally operational over a wide temperature
i Olei alice	capacity at high temperatures ( 20°C to 1/15°C	'\ rango for vahiala applications ( 20°C to 160°C)

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capacity at high temperatures (-20°C to +45°C) range for vehicle applications (-20°C to +60°C)