AMARA RAJA
Gotta be a better way

Captivating Solar.
Rendering Power



DEEP CYCLE | MAINTENANCE-FREE | LOW SELF-DISCHARGE

AMARON solar
POWER.FOREVER

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Amara Raja Energy & Mobility Ltd., (ARE&M) is the flagship company of the Amara Raja Group and is a pioneer and largest manufacturer of Sealed Maintenance Free – Valve Regulated Lead Acid (SMF-VRLA) Batteries in the Indian Ocean Rim. Established 3 decades ago, Amara Raja proved itself as a technology leader and reigns as number 1 among the top ten stationary battery manufacturers in the world. Amara Raja enjoys a dominant status in the standby batteries across various sectors like UPS, Telecom, Automotive, Railways, Home, Solar.



- 800 acres of integrated battery manufacturing complex
- Largest manufacturing range : 7Ah to 6000Ah (scalable)
- Strong technology base with past collaboration with GNB USA and a 20 year vibrant JV with Johnson Controls Inc USA
- ARE&M powers more than 60% of Indian Telecom towers, and every 3rd Indian car is powered by Amaron
- World's Largest 38MWhr Lead Acid (AGMVRLA - ESS) installation powering the Universities in Nigeria
- Prestigious solar installations viz powering the Taj Mahal, a wonder of the world, providing solar power backup in many power-starved countries
- International Sales operations in Indonesia, Nigeria, UAE and partner network in over 35 countries



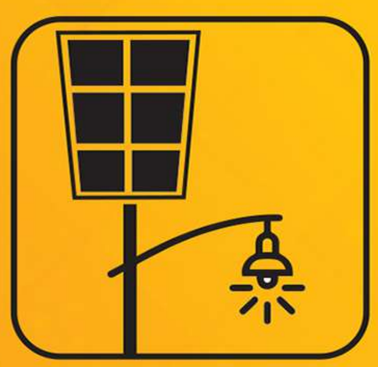
SMF Range:

12V-18Ah to 200Ah

MAJOR APPLICATION



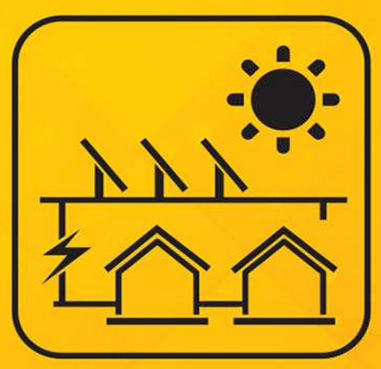
Solar
Home Lighting



Solar
Street Lighting



Rural
Electrification



Solar-Powered
Applications

Solar systems are the most demanding applications for battery and correct choice of battery is fundamental to the integrity of the entire system. Batteries are subjected to high & low temperatures, opportunity charging and daily cycling under PSOC (Partial State of Charge). The selection of right battery for the right application is of utmost importance in order to maximize the battery life. Sensing the need of this enduring and reliable source of power, Amara Raja not only offers the complete range of solar batteries but also provides expert advice on the choice of battery to suit your particular application.

Presenting Amaron Solar, the stationary standby SMF battery for Solar applications which is built to perform. In short, the lifeline to your Solar applications.

Amaron Solar is a product of reliability with fool-proof battery technology, produced and tested in our state-of-art manufacturing facility. Built to the highest technical competence in its class, the Amaron Solar is an example of Amara Raja's commitment in bringing the best of technology to your table.

FEATURES:

Radgrid™ Profile:

- Increases conductivity, offers lower internal resistance, supporting opportunity charging and better discharge performance

Hi Dense AGM Separator:

- Ensures superior compression characteristics which leads to prolonged life
- Design float life of 10+ years

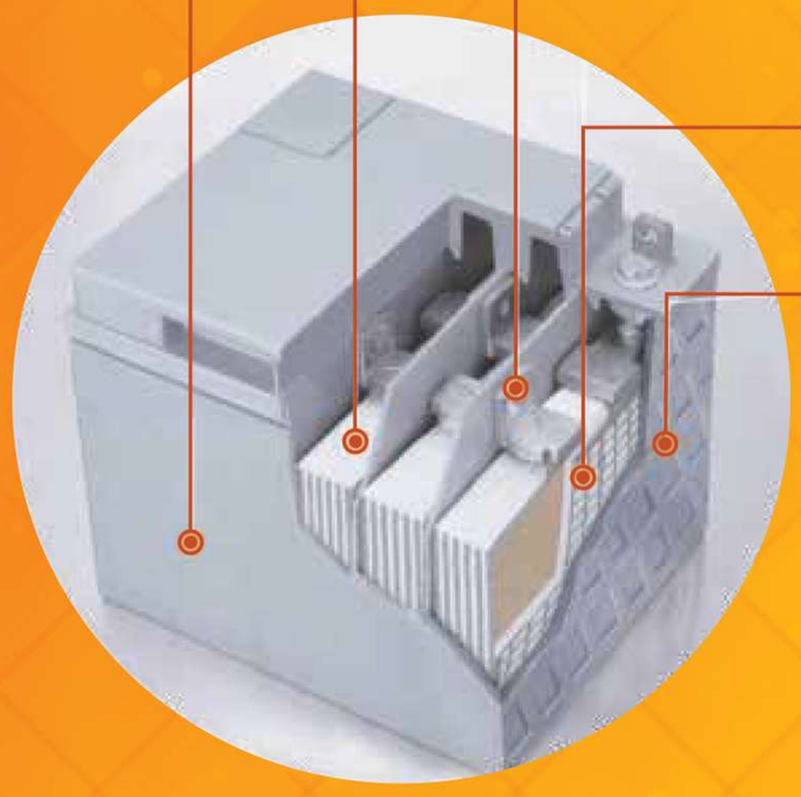
Instacharge™

- A patented paste recipe for excellent charge acceptance which helps in quicker recharge
- Unique pasting process ensures low corrosion making it suitable for PSOC operations
- Lower energy consumption (High charge acceptance) due to higher Ah and Wh efficiency

Corrosion resistant alloy:

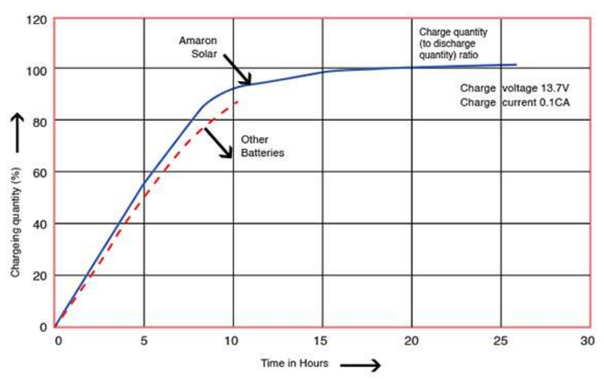
- Unique heavy-duty corrosion-resistant alloy ensures low corrosion which leads to increase in cyclic life

CUT SECTION OF SMF BATTERY:

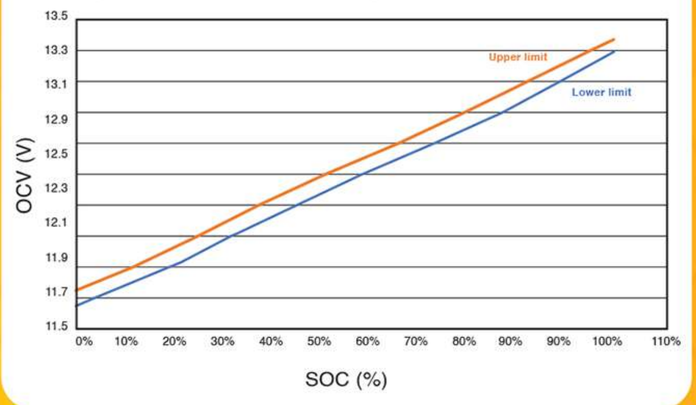


- PPCP containers with low permeability that ensures no loss of water
- Proven AGM technology that ensures maintenance-free characteristics
- Inter-cell weld between cells, provide a high reliable, low resistance current path
- Thicker grids and highest separator compression that prolong life expectancy
- Reinforced end walls improve impact resistance

Recharge Characteristic Curve:



Open Circuit Voltage vs % of SOC:



SOLAR SMF VRLA BATTERIES TECHNICAL SPECIFICATIONS:

Model	Nominal Voltage (V)	Rated capacity @ C20 at 27°C to 1.75ECV (AH)	Length ± 2 mm	Width ± 2 mm	Total Height ± 2 mm	Weight in Kgs (±5%)
12ASMF026	12V	26Ah	167	126	175	8.4
12ASMF042	12V	42Ah	199	167	175	13.4
12ASMF065	12V	65Ah	351	167	175	19.2
12ASMF075	12V	75Ah	351	167	175	23.0
12ASMF100	12V	100Ah	393	173	221	31.5
12ASMF120	12V	120Ah	393	173	240	36.6
12ASMF130	12V	130Ah	445	168	247	42.0
12ASMF150	12V	150Ah	453	173	251	45.0
12ASMF160	12V	160Ah	445	168	283	52.0
12ASMF200	12V	200Ah	556	186	263	61.0

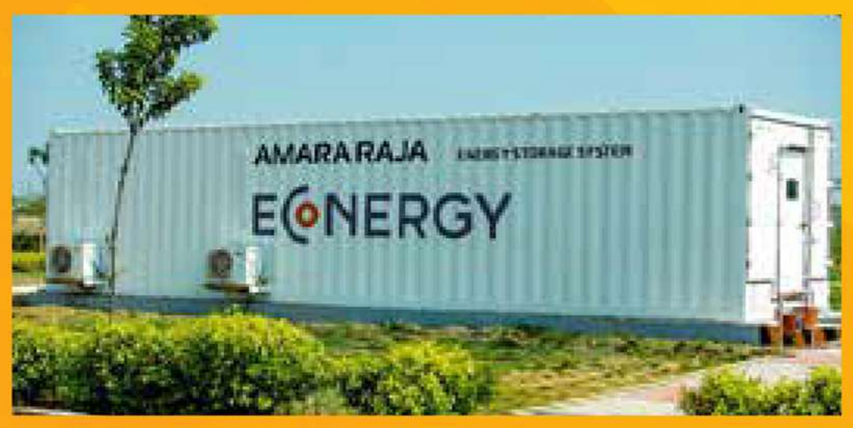
>> Also available in 18Ah, 84Ah

To enhance the life of battery the design parameters of Panel and operating environments should meet the Charge Balance at more than or equal to 125% (i.e., ratio of Kwh in and Kwh out)

CHARGING CHARACTERISTICS:

Charge provision	Charging voltage at 27°C	Minimum charging current (Amps)
Float Charge	13.5 ± 0.1V	0.1C
Boost Charge	13.9 ± 0.1V	0.1C
Over Cut-off Voltage	14.2V	---
Under Cut-off Voltage	10.8V	---

*Product is specifically designed for solar application













QUALITY EDGE

ISO 9001 : 2015
ISO 14001 : 2015
ISO 45001 : 2018
Continuous improvement through
Six Sigma, 5S, TQM

PRODUCT COMPLIANCE:

Batteries generally conform to:
IS 15549 : 2005
IS 16270 : 2014
IEC 61427-1-2013
IEC 60896-21&22: 2004

AMARA RAJA
Gotta be a better way

Amara Raja Energy & Mobility Limited
(Formerly known as Amara Raja Batteries Limited)

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Andhra Pradesh, INDIA

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ARE&M/IBD/AS/1123
Design improvement is a continuous process of Amara Raja. As a result, specifications are subject to modification without prior notice
The given battery picture is indicative purpose only, actual may varies.