

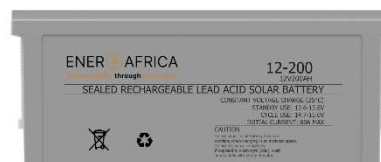


General

The Ener-G-Africa 12V, 200Ah Valve Regulated Lead Acid (VRLA) batteries are engineered using Absorbent Glass Mat (AGM) technology, in conjunction with high-performance plates and a specially formulated electrolyte. This design strategy enhances the power output capacity, making these batteries particularly suitable for a broad range of backup power system applications. They find extensive use in fields that require an Uninterruptible Power Supply (UPS) and Emergency Lighting Systems.

Applications

- Alarm Systems
- Backup Power Systems
- Communication Equipment
- Control Equipment
- Security Camera Systems
- Medical Equipment
- UPS
- Emergency Power Systems



General Features

1. **Sealed Construction:** The batteries are designed with a sealed construction for maintenance-free operation, eliminating the need for regular upkeep.
2. **Non-Spillable Design:** The design ensures that the batteries are non-spillable, enhancing safety and ease of use.
3. **ABS Container and Cover:** The batteries come standard with an ABS container and cover, providing robust and reliable casing.
4. **Safety Valve:** Each battery is equipped with a safety valve, installed to provide explosion-proof characteristics, further enhancing the safety profile of the battery.
5. **High Quality and Reliability:** The batteries are designed and manufactured to deliver high quality and reliability, ensuring consistent performance over their lifespan.
6. **Exceptional Deep Discharge Recovery:** The batteries exhibit exceptional deep discharge recovery performance, allowing them to recover from deep discharges and extend their operational life.
7. **Low Self-Discharge:** The batteries have low self-discharge characteristics, ensuring they retain their charge over extended periods of inactivity.
8. **Flexible Design:** The batteries are designed with flexibility in mind, allowing for ease of installation and use in a variety of applications.

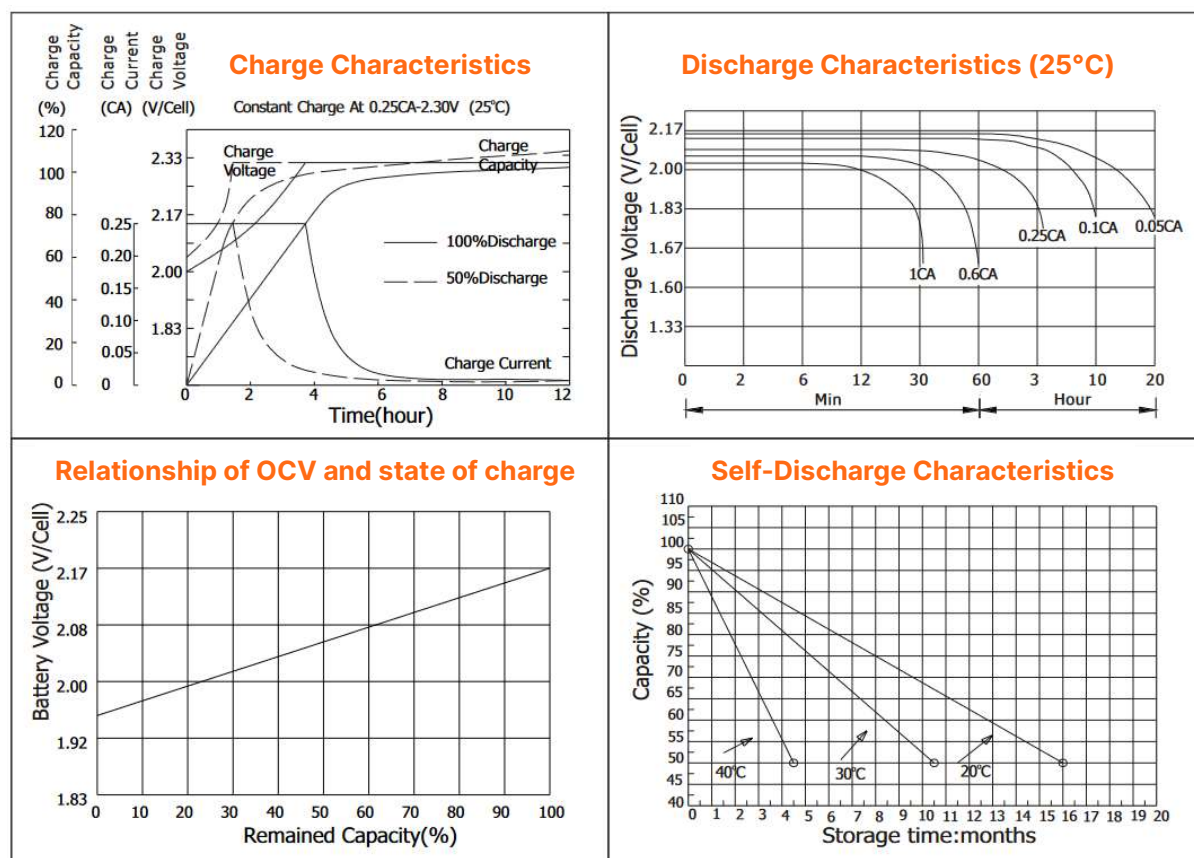
Construction

1. **Positive Plate:** The positive plate of the battery is made from Lead Dioxide, which plays a crucial role in the electrochemical reaction that generates electricity.
2. **Negative Plate:** The negative plate is composed of Lead, which also participates in the electrochemical reaction.
3. **Container:** The container, which houses the internal components of the battery, is made from Acrylonitrile Butadiene Styrene (ABS), a robust and durable plastic.
4. **Cover:** The cover, which seals the battery, is also made from ABS, providing a consistent and secure enclosure.
5. **Sealant:** Epoxy Resin is used as a sealant, ensuring a tight and leak-proof seal.
6. **Safety Valve:** The safety valve, crucial for maintaining safe internal pressure, is made from EPDR (Ethylene Propylene Diene Monomer Rubber), a material known for its excellent heat, oxidation, and weather resistance.
7. **Terminal:** The terminal, which provides the electrical connection point, is made from copper, chosen for its excellent electrical conductivity.
8. **Separator:** The separator, which prevents the positive and negative plates from coming into contact, is made from Fiberglass, providing excellent ionic conductivity while maintaining electrical insulation.
9. **Electrolyte:** The electrolyte, which facilitates the movement of ions between the positive and negative plates is primarily a formulation of distilled water and Sulfuric Acid.



Battery Model	EGA Lead Acid 12-200			
Designed Floating Life	8 years			
Capacity (25°C)	20HR (10.1A, 1.75V)	10HR (20A, 1.75V)	5HR (34A, 1.75V)	1HR (126A, 1.75V)
	202Ah	200Ah	170Ah	126Ah
Dimensions	Length	Width	Height	Total Height
	525mm	243mm	220mm	245mm
Approx. Weight	57.5Kg			
Internal Resistance	Full Charged @ 25°C: 0.004 Ohm			
Self-Discharge	3% Capacity Decline per Month @ 25°C			
Capacity Affected by Temp. (20HR)	40°C	25°C	0°	-15°C
	102%	100%	85%	65%
Charge Voltage (25°C)	Cycle use		Float use	
	14.4-15V (-30mV/°C) Max. Current: 50A		13.6-13.8V (-20mV/°C)	

Characteristics



Constant Current Discharge Ratings - Amperes at 25°C

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	700	480	350	210	132	54.6	38.2	21.2	10.5
1.67V	630	438	340	204	132	54.4	37.8	20.9	10.5
1.70V	598	422	328	200	131	54.4	37.8	20.7	10.5
1.75V	532	390	310	196	130	54.0	37.5	20.4	10.5
1.80V	480	362	296	190	128	53.8	37.2	20.0	10.1
1.85V	364	298	256	175	127	53.6	36.9	19.7	9.88

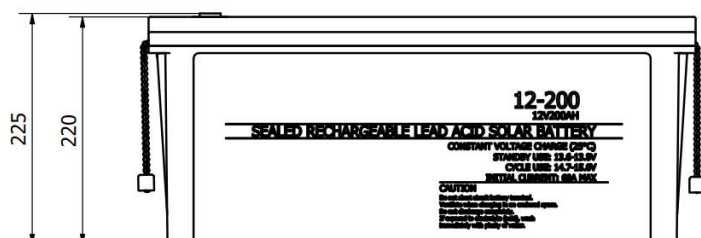


Constant Power Discharge Ratings – Watts at 25°C

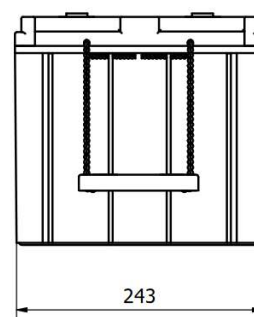
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	1154	796	620	396	260	105	73.0	42.4	21.1
1.67V	1094	786	614	388	251	105	73.0	41.8	21.0
1.70V	1022	766	604	378	245	105	73.0	41.5	21.0
1.75V	952	716	568	368	243	103	72.2	40.7	20.9
1.80V	854	666	534	358	238	102	71.0	40.0	20.2
1.85V	684	552	466	328	236	101	70.0	39.3	19.8

Mechanical Characteristics

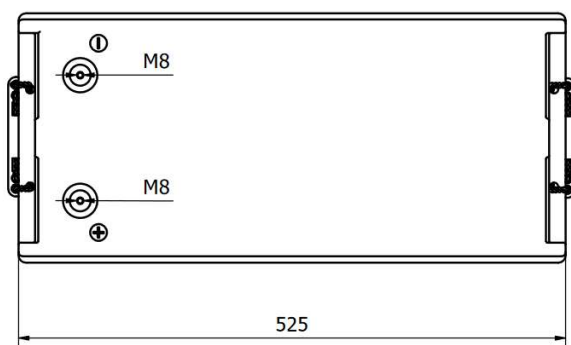
Front View



Left View



Top View



Perspective View





General Features

1. **Protection:** Overload, short circuit, and polarity reverse protection
2. **Display:** LCD display for comprehensive information
3. **Mounting:** Desktop and wall-mounting for flexible display
4. **Charging:** 10A or 20A standard AC charging current
5. **Voltage Range:** Wide input voltage range
6. **Output:** Simulated sine wave inverter



INVERTER SPECIFICATIONS	
Model	EGA 1200VA
Capacity	1200VA/720W
INPUT	
Voltage	230VAC
Input Voltage Range	90 - 280 VAC
Frequency	60Hz or 50Hz (auto sensing)
OUTPUT	
Output Voltage Regulation (Batt. Mode)	230VAC $\pm 10\%$
Frequency Range (Batt. Mode)	60 Hz or 50Hz ± 1 Hz
Transfer Time	20ms (Typical)
Waveform (Batt. Mode)	Simulated Sine Wave
SOLAR CHARGER	
Charge Current	50A
Operating Voltage Range	15-18VDC
Maximum Solar Input Current	50A
Maximum Solar Charge Current	50A
Maximum PV Input Power	600W
Maximum PV Array Open Circuit Voltage	40VDC
AC CHARGER	
Constant Current Charge Voltage	14.3Vdc $\pm 2\%$
Floating Charge Voltage	13.7Vdc $\pm 2\%$
Maximum Charge Current	10A or 20A



PROTECTION	
Full Protection	Overload, short circuit, and polarity reverse protection
PHYSICAL	
Dimension, D X W X H (mm)	300 x 252 x 114
Net Weight (kg)	4.2
OPERATING ENVIRONMENT	
Humidity	0-90% Relative Humidity (Non-condensing)
Operating Temperature	0°C to 40 °C
Noise Level	-15 °C to 50 °C