12HWS - 540W

High Wattage Series VRLA AGM Batteries

Introduction

Introducing Amaron QUANTA - HWS Batteries, based on a number of newer paradigms in technology and designed with the best grid pasting technology delivering upto 25% more power than AL –series Quanta battery.

Amaron QUANTA - HWS has been designed to exacting standard at our state of the art facility with an emphasis on reliability which is our hallmark. Uniquely built, Amaron QUANTA - HWS promises instant discharge negating the usual downtime in mission critical applications. Besides it also ensures fast charging with high efficiency on resumption of power & lower operating costs make Amaron QUANTA – HWS an ideal choice for a host of critical power applications especially in the IT & ITES segment (DATA center) and process industries.

Dimensions

Specification

Nominal Voltage	12V	
Power / Cell	540Watts @15mins to 1.67ECV at 27°C	
Dimensions	Length	453±2mm(17.83±0.08inches)
	Width	173±2mm (6.81±0.08inches)
	Total Height	251±2mm (9.88±0.08inches)
Specific Power (W/kg)	70.0	
Terminal Type	M8 x 25 mm Copper Terminal	
Internal resistance	4.0 mΩ (Fully charged battery 27°C/80.6°F)	
Short Circuit Current	3100A	
Power Vs. Temperature	40°C (104°F)	110%
	27°C (80.6°F)	100%
	0°C (32°F)	80%
	-15°C (5°F)	60%
Self discharge 27°C(80.6°F)	After 3 months storage	90%
	After 6 months storage	80%

Features & Benefits

- Delivers upto 25% more power as compared to regular SMF Battery
- Lower IR Values results in 10% quick recharge
- High Volumetric Energy Density in 10% minimal room space.
- 15% High specific power results in low floor loading than regular SMF battery.
- Batteries can be sized & discharged upto 1.67 ECV
- Design Float Life of 8 to 10 Years @ 27°C
- **Plus the time proven QUANTA features, advantages & Reliability**

Charging Instructions

Constant voltage charging at 27˚C

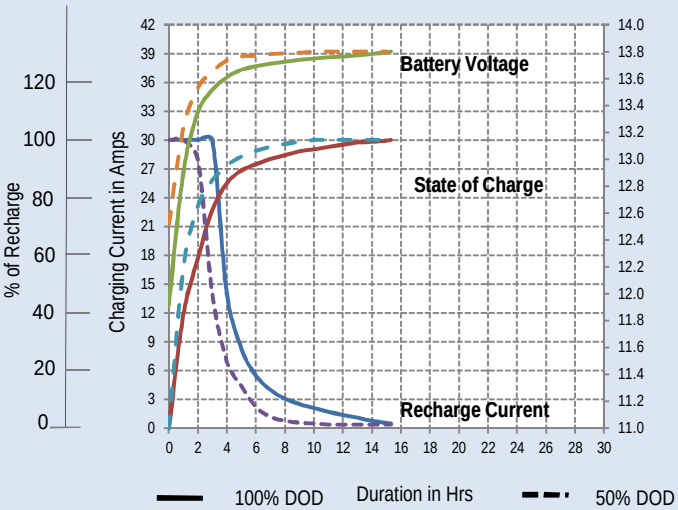
- Float Voltage : Charging voltage 13.5V/battery
- Boost voltage : Charging voltage 13.8V/Battery
- Recommended Charging current : Min.18 Amps to Max. 45 Amps
- Temperature compensation : 18 mV/battery/°C
- String Equalization charge in boost mode (13.8V/module) once in 3 months for 24Hrs

Constant power discharge rating watts per module @ 27 °C*

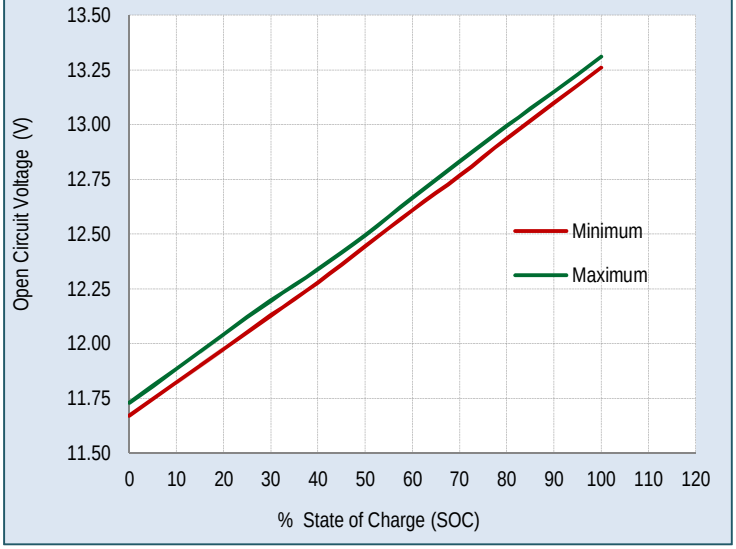
EMV	Duration						
	5 min	10 min	15 min	20 min	25 min	30 min	60 min
10.02	4660	3750	3240	2800	2300	1985	1160
10.20	4630	3720	3220	2600	2100	1955	1130
10.50	4570	3700	3130	2400	2000	1930	1100
10.80	4480	3540	2980	2200	1930	1900	1050

*Note: 1. The above data are average values per battery and can be obtained within five charge/discharge cycles.
2. A tolerance of ±5% is applicable for the above constant power discharge and constant current discharge values.
3. Recommended to follow IEEE - 485 Standard for Battery sizing (In terms of Aging Margin, Design Margin) for Optimal Performance & Life.
4. Considerable Voltage drop across cables, if any shall be considering during battery sizing.

Constant voltage charging characteristics at 27°C



State of Charge Vs OCV



Installation Considerations

- Terminal Tightness : 13N-m
- Cable Size consideration : Max.2Amps/sq.mm
- Recommended cable drop : <20mV/meter (or) less than 1V for 360V & above Systems

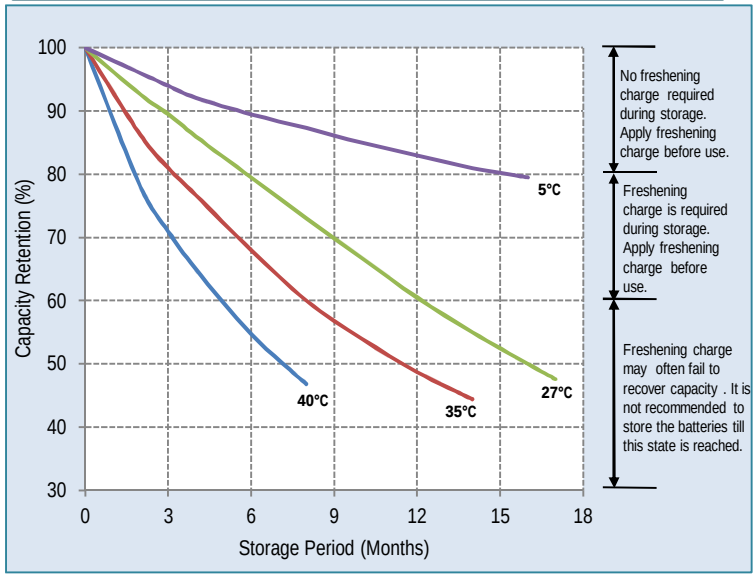
International Compliance

- Compliance to JISC8702 Standard
- Complies to UL
- Complies CE Marking*

Quality Edge

- ISO 9001: 2015
- ISO 14001: 2015
- ISO 45001 : 2018

Shelf Life Characteristics at Various Ambient Temperatures



*Note: CE Marking under progress

AMARA RAJA BATTERIES LIMITED

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