

12AL042 12ALZ042

AMARON QUANTA™

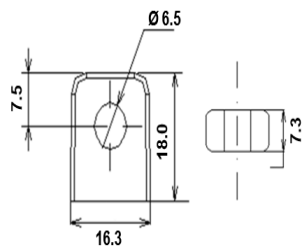
The industrial segment SMF-VRLA (Valve Regulated Lead Acid) battery for UPS applications is built to perform.

In short, the lifeline to your UPS applications

AMARON QUANTA™ is a product of fail- safe, fool-proof battery technology, produced and tested in our premier manufacturing facility. Built to the highest technical competence in its class, the QUANTA is an example of Amara Raja's commitment to bringing the best of technology to your table

It features several firsts for the battery industry like the unique Radgrid™

TERMINAL LAYOUT

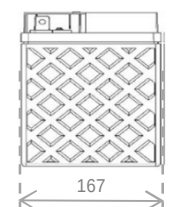
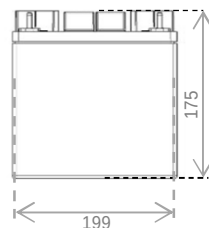
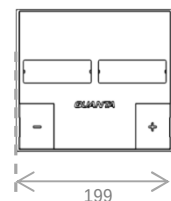
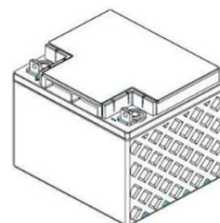


All dimensions are in mm

AMARON®
QUANTA
LIFE UNINTERRUPTED

Specification

Nominal Voltage	12V
Rated Capacity	42Ah / C ₂₀ Hr / 1.75VPC / 27°C
Dimensions (±2mm)	Length 199 mm (7.83 in.) Width 167 mm (6.57 in.) Total Height 175 mm (6.89 in.)
Weight (±5%)	13.30 Kg (29.32 lbs)
Terminal Type	M6 x 20 mm Bolted
Capacity @ 27°C	39.10 Ah (10hr, 3.91 A, 10.5 V/battery) 36.00 Ah (5hr, 7.20 A, 10.2 V/battery) 27.20 Ah (1hr, 27.2 A, 9.6V /battery)
Capacity affected (Temperature at C20 hr rate)	40°C (104°F) 110% 27°C (80.6°F) 100% 0°C (32°F) 80% -15°C (5°F) 60%
Case Material	Standard PPCP (12AL042) FR Version UL 94-V0 (12ALZ042)
Internal Resistance (IR)	Approx. 7.6 mΩ for a fully charged battery (27°C)
Short Circuit Current (As per IEC)	1645 A
Operating Temp. range	-20°C to +60°C (50 to 60°C for shorter duration)
Nominal Operating Temp. range	27°C ± 3°C
Standby use (27°C)	Charging Voltage 13.5 V/battery Charging Current Max. 25% of rated capacity Temp. Compensation ± 18mV/battery/°C
Cyclic use (27°C)	Charging Voltage 13.8 V/battery Charging Current Max. 25% of rated capacity Temp. Compensation ± 30mV/battery/°C
Self-Discharge	< 4% per month at 27°C



Constant Power Discharge Rating (Watts Per Battery) @ 27°C *

ECV/ Time	10min	15min	20min	30min	60min	2hrs	3hrs	5hrs	8hrs	10hrs	20hrs
1.60	1136	882	715	565	330	192	134.0	91.0	60.0	52.0	25.0
1.65	1114	862	704	543	325	189	133.0	90.5	59.5	51.5	24.5
1.70	1092	842	693	520	320	185	132.0	90.0	59.0	51.0	24.0
1.75	1051	821	683	513	313	183	131.0	89.5	58.5	50.5	23.5
1.80	1010	800	672	505	305	180	130.0	89.0	58.0	50.0	23.0

Constant Current Discharge Rating (Amperes) @ 27°C *

ECV/ Time	10min	15min	20 min	30min	60 min	2 hrs	3 hrs	5 hrs	8hrs	10 hrs	20 hrs
1.60	94.85	75.81	60.17	45.65	27.27	16.54	11.31	7.78	4.83	4.08	2.25
1.65	91.97	72.56	57.98	43.83	26.93	15.87	10.97	7.49	4.73	4.03	2.20
1.70	89.08	69.31	55.78	42.00	26.58	15.20	10.62	7.20	4.62	3.98	2.14
1.75	85.71	67.74	55.26	41.58	26.25	15.00	10.61	7.18	4.59	3.91	2.10
1.80	84.00	66.67	53.85	41.18	25.12	14.89	10.55	7.12	4.57	3.89	2.09

Note:

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

**Design improvement is a continuous process of Amara Raja. As a result, specifications are subject to change without prior notice



AMARA RAJA
Gotta be a better way



CAUTION

- Avoid short circuit
- Don't charge in a sealed container



THE LONG LIFE UPS BATTERY

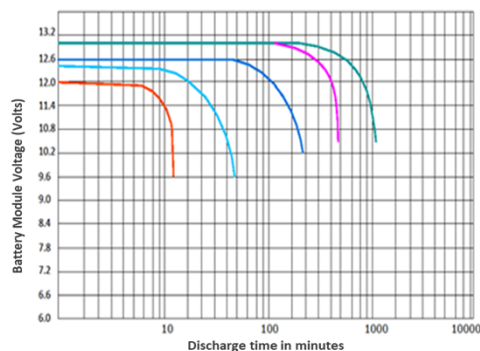


Performance

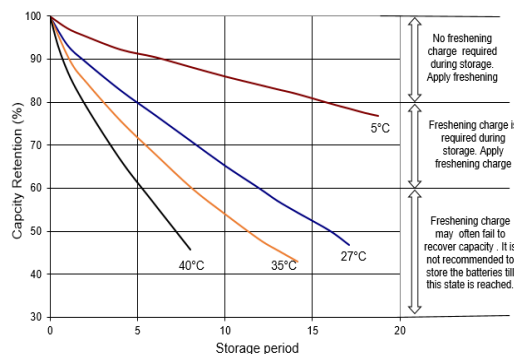
A clutch of design features ensures that AMARON QUANTA™ batteries perform predictably and reliably every time

- ✓ Proven AGM technology that ensures maintenance free characteristics
- ✓ A unique heavy duty corrosion-resistant alloy for positive grids to increase cyclic life in tropical
- ✓ Radgrid™ profile provides lower internal resistance and superior high-discharge performance
- ✓ Instacharge™ a patented paste recipe for excellent charge acceptance
- ✓ Low self-discharge rates for extended storage periods
- ✓ Design Float life of upto 10 years
- ✓ Clean and Sleek looks

Discharge Characteristics



Shelf Life Characteristics



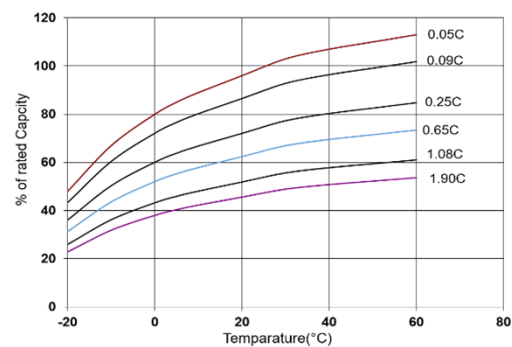
Compliance

- ✓ JIS C 8702 Certified
- ✓ UL (UL-1989) & CE Certified
- ✓ Complies to IEC61056 & EUROBAT
- ✓ Complies to IS 16220
- ✓ Manufactured in ISO 9001, ISO 14001, ISO45001:2018 certified facilities

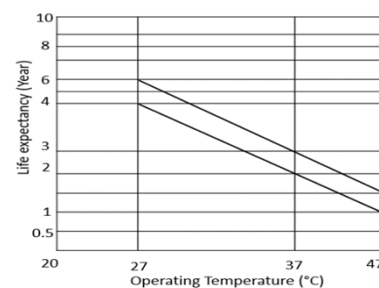
Applications

- ✓ Data Centers
- ✓ Banks & Financial Markets
- ✓ Network Operations Centers
- ✓ Industrial Process Control Facilities
- ✓ Safety, Surveillance & Security Systems
- ✓ Semiconductor Manufacturing
- ✓ Power Generation Plants
- ✓ Hospital & Testing laboratories

Temperature Effect on Capacity



Float Service Life vs. Temperature



AMARA RAJA ENERGY & MOBILITY LIMITED

(Formerly Known as Amara Raja Batteries Limited)

- **Corporate Operations Office:**
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www.amararajaeandm.com
- **Registered Office & Manufacturing Facility-1:**
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- **Manufacturing Facility-2**
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ARE&M/IAE/AQ/42Ah; Oct'2023, Rev-01

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