

12AL042

12ALZ042

AMARON QUANTA™

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

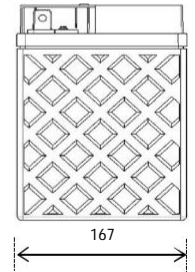
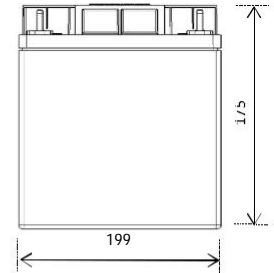
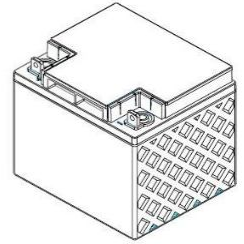
In short, the lifeline to your UPS applications

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™

Specification

Nominal Voltage	12V	
Rated Capacity	42 Ah / C ₂₀ / 1.75VPC / 27°C	
Dimensions (±2mm)	Length	199mm (7.83 in.)
	Width	167mm (6.57 in.)
	Total Height	175mm (6.89 in.)
Approx. Weight	14.0 Kg (30.86 lbs)	
Terminal	M6 x 20mm Bolted	
Capacity @ 27°C	39.1 Ah	(10hr, 3.91 A, 10.5 V/battery)
	36.0 Ah	(5hr, 7.20 A, 10.2 V/battery)
	27.2 Ah	(1hr, 27.2 A, 9.6 V/battery)
Capacity affected (Temperature at C ₂₀ 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 (As per IEC)	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 +50°C	
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	± 18mV/battery/°C
Self-Discharge	< 4% per month at 27°C	



Constant power discharge rating (watts per battery) @ 27°C *

ECV/ Time	10 min	15 min	20 min	30 min	60 min	2 hrs	3 hrs	5 hrs	8 hrs	10 hrs	20 hrs
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

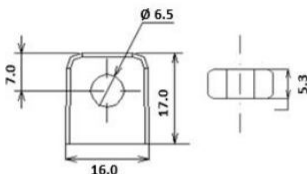
Constant current discharge rating (amperes) @ 27°C *

ECV/ Time	10 min	15 min	20 min	30 min	60 min	2 hr	3 hr	5 hr	8 hr	10 hr	20 hr
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.

TERMINAL LAYOUT



All dimensions are in mm



CAUTION

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



THE LONG LIFE UPS BATTERY

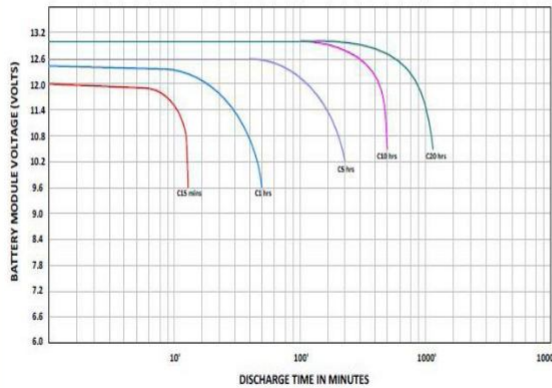


Performance

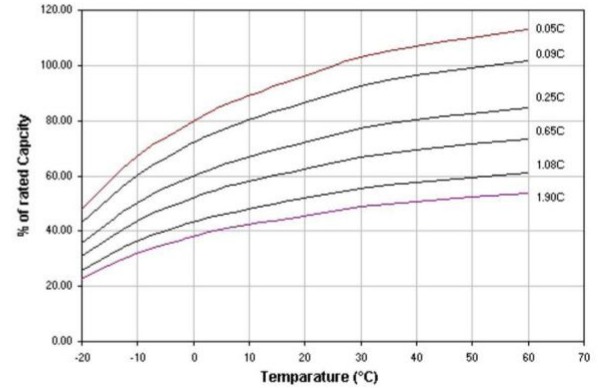
A clutch of design features ensures that AMARON QUANTA™ batteries perform predictably and reliably everytime

- ✓ Proven AGM technology that ensures maintenance free characteristics
- ✓ A unique heavy duty corrosion-resistant alloy for positive grids to increase cyclic life in tropical environments
- ✓ 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

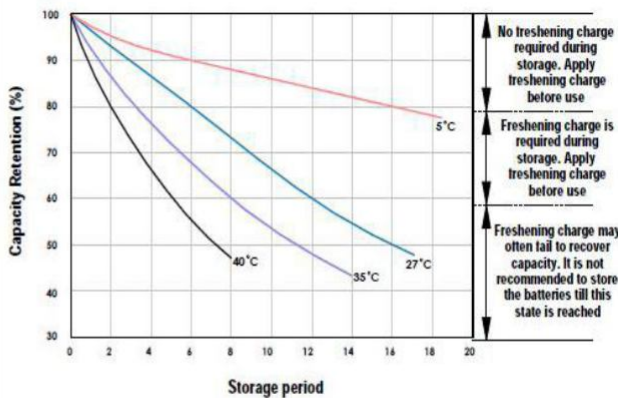
Discharge Characteristics



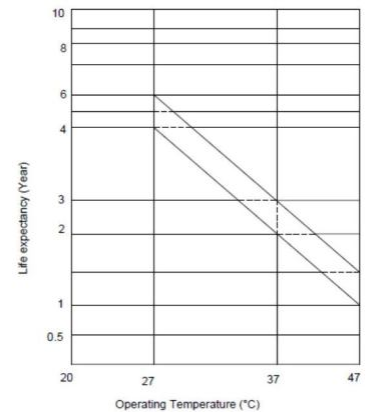
Temperature Effect on Capacity



Shelf Life Characteristics



Float Service Life vs. Temperature



AMARA RAJA BATTERIES LIMITED

- **CORPORATE OPERATIONS OFFICE:**
Terminal A, 1-18/1/AMR/NR, Nanakramguda, Gachibowli, Hyderabad-500032, INDIA, E-Mail: mktg@amararaja.com
www.amararajabatteries.com
- **REGISTERED OFFICE & WORKS:**
Karakambadi - 517520, Tirupati, Andhra Pradesh, INDIA, TEL: +91-877-2265000, FAX: +91-877-2285600

