

12AL084 12ALZ084

AMARON QUANTA™

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

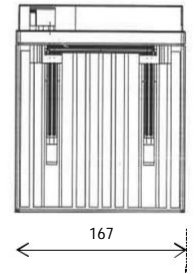
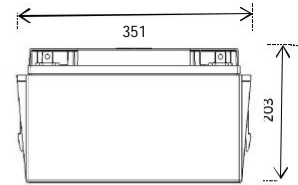
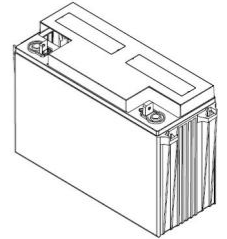
In short, the lifeline to your UPS applications

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

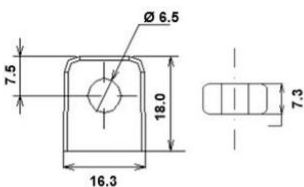
It features several firsts for the battery industry like the unique Radgrid™

Specification

| | |
|--|---|
| Nominal Voltage | 12V |
| Rated Capacity | 84 Ah / C ₂₀ / 1.75VPC / 27°C |
| Dimensions (±2mm) | Length 351mm (13.82 in.) Width 167mm (6.57 in.) Total Height 203mm (7.99 in.) |
| Approx. Weight | 27.0 Kg (59.52 lbs) |
| Terminal | M6 x 20mm Bolted |
| Capacity @ 27°C | 78.2 Ah (10hr, 7.82 A, 10.5 V/battery) 72.0 Ah (5hr, 14.41 A, 10.2 V/battery) 54.5 Ah (1hr, 54.55 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 (12AL084) FR Version UL 94-V0 (12ALZ084) |
| Internal Resistance (As per IEC) | Approx. 3.54 mΩ for a fully charged battery (27°C) |
| Short Circuit Current (As per IEC) | 2420 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 |



TERMINAL LAYOUT



All dimensions are in mm

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 | 2103 | 1761 | 1322 | 1032 | 590 | 381 | 297.0 | 193.0 | 126.0 | 105.0 | 52.0 |
| 1.65 | 2085 | 1721 | 1309 | 1000 | 580 | 376 | 285.0 | 190.0 | 124.0 | 104.5 | 51.5 |
| 1.70 | 2067 | 1681 | 1295 | 967 | 570 | 370 | 273.0 | 187.0 | 122.0 | 104.0 | 51.0 |
| 1.75 | 2032 | 1650 | 1271 | 951 | 558 | 363 | 271.5 | 184.0 | 120.5 | 103.0 | 50.5 |
| 1.80 | 1917 | 1619 | 1246 | 934 | 545 | 356 | 270.0 | 181.0 | 119.0 | 102.0 | 50.0 |

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 | 189.70 | 151.62 | 120.34 | 91.30 | 54.55 | 33.08 | 22.61 | 15.56 | 9.66 | 8.17 | 4.50 |
| 1.65 | 183.93 | 145.12 | 115.95 | 87.65 | 53.86 | 31.74 | 21.93 | 14.99 | 9.45 | 8.07 | 4.39 |
| 1.70 | 178.15 | 138.61 | 111.55 | 84.00 | 53.16 | 30.40 | 21.24 | 14.41 | 9.23 | 7.97 | 4.27 |
| 1.75 | 171.43 | 135.48 | 110.53 | 83.17 | 52.50 | 30.00 | 21.21 | 14.36 | 9.18 | 7.82 | 4.20 |
| 1.80 | 168.00 | 133.33 | 107.69 | 82.35 | 50.24 | 29.79 | 21.11 | 14.24 | 9.13 | 7.78 | 4.18 |

* 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.



CAUTION

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



THE LONG LIFE UPS BATTERY

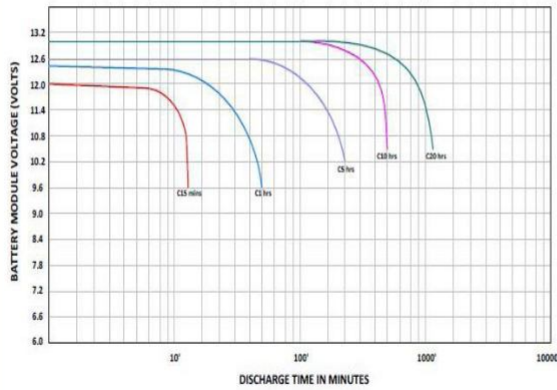


Performance

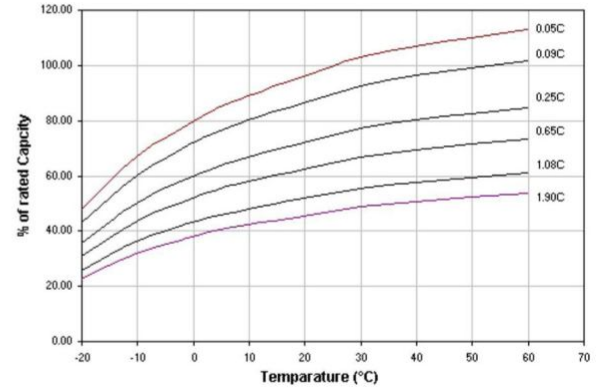
A clutch of design features ensures that AMARON QUANTA™ batteries perform predictably and reliably everytime

- ✓ 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

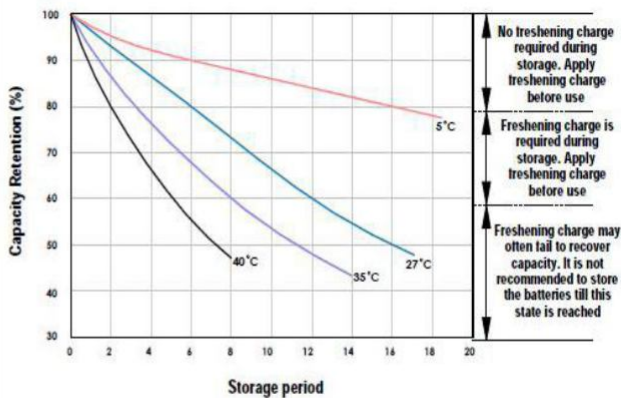
Discharge Characteristics



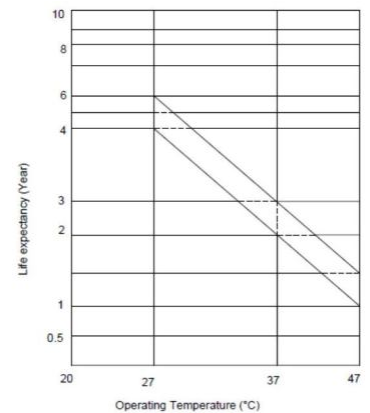
Temperature Effect on Capacity



Shelf Life Characteristics



Float Service Life vs. Temperature



AMARA RAJA BATTERIES LIMITED

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