

# 12AL100N 12V-100Ah

## AMARON QUANTA™

The industrail segment SMF 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™

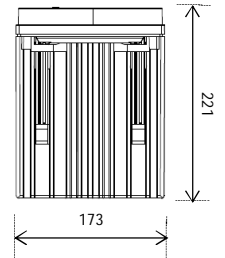
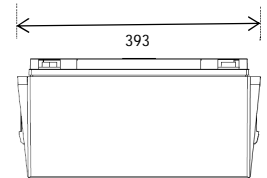
AMARON®

QUANTA

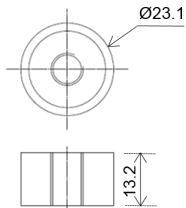
UNINTERRUPTED LIFE

## Specification

|  |  |
|--|--|
| Nominal Voltage  | 12V  |
| Rated Capacity   | 100 Ah / C <sub>20</sub> / 1.75VPC / 27°C  |
| Dimensions (±2mm)  | Length 393mm (15.47 in.)<br>Width 173mm (6.81 in.)<br>Total Height 221mm (8.70 in.)                                    |
| Approx. Weight   | 32.5 Kg (71.65 lbs)  |
| Terminal   | M8 x 25mm Copper terminal  |
| Capacity @ 27°C  | 93.1 Ah (10hr, 9.31 A, 10.5 V/module)<br>85.7 Ah (5hr, 17.15 A, 10.2 V/module)<br>63.7 Ah (1hr, 63.70 A, 9.6 V/module) |
| Capacity affected (Temperature at C <sub>20</sub> hr rate) | 40°C (104°F) 110%<br>27°C (80.6°F) 100%<br>0°C (32°F) 80%<br>-15°C (5°F) 60%   |
| Container Material   | PPCP (UL 94V-0 optional)   |
| Internal Resistance  | Approx. 5.60 mΩ for a fully charged battery (27°C)   |
| Short Circuit Current                                      | 2220 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<br>Charging Current Max. 25% of rated capacity<br>Temp. Compensation ± 18mV/battery/°C |
| Cyclic use (27°C)  | Charging Voltage 13.8 V/battery<br>Charging Current Max. 25% of rated capacity<br>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      | 2416   | 2010   | 1500   | 1209   | 750    | 453   | 331.0 | 222.0 | 151.0 | 122.0  | 62.0   |
| 1.65      | 2362   | 1947   | 1438   | 1183   | 734    | 447   | 322.0 | 217.0 | 148.0 | 121.0  | 61.5   |
| 1.70      | 2308   | 1883   | 1376   | 1157   | 717    | 440   | 313.0 | 212.0 | 145.0 | 120.0  | 61.0   |
| 1.75      | 2254   | 1820   | 1364   | 1131   | 700    | 433   | 304.0 | 207.0 | 142.0 | 119.0  | 60.5   |
| 1.80      | 2200   | 1756   | 1352   | 1105   | 683    | 426   | 295.0 | 202.0 | 139.0 | 118.0  | 60.0   |

## 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      | 217.39 | 172.41 | 140.80 | 102.04 | 63.69  | 39.39 | 26.92 | 18.53 | 11.49 | 9.72  | 5.36  |
| 1.65      | 210.74 | 166.85 | 136.10 | 100.52 | 63.09  | 37.79 | 26.10 | 17.84 | 11.24 | 9.60  | 5.22  |
| 1.70      | 204.10 | 161.30 | 131.50 | 99.00  | 62.50  | 36.19 | 25.29 | 17.15 | 10.99 | 9.49  | 5.09  |
| 1.75      | 200.00 | 158.70 | 129.80 | 98.00  | 61.00  | 35.71 | 25.25 | 17.09 | 10.93 | 9.31  | 5.00  |
| 1.80      | 196.10 | 153.80 | 126.50 | 96.20  | 59.50  | 35.46 | 25.13 | 16.95 | 10.87 | 9.26  | 4.97  |

\* Note: The above data are average values and can be obtained within few charge/discharge cycles  
A tolerance of ±5% is applicable and the values declared may be subject to change w.r.t ongoing improvements without any notice



### CAUTION

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



**THE LONG LIFE  
UPS BATTERY**

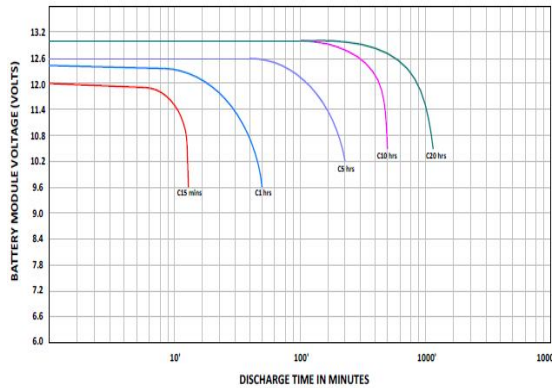


## Performance

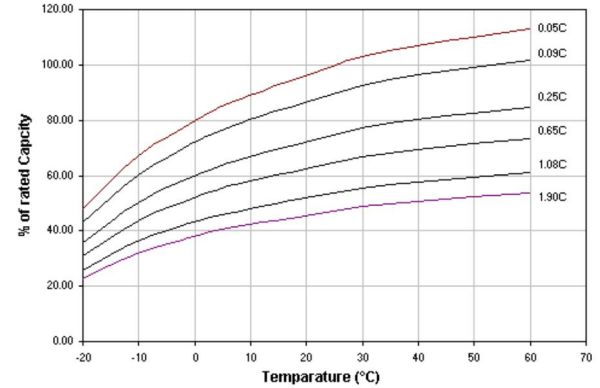
A clutch of design features ensures that AMARON QUANTA™ batteries perform predictably and reliably every time

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

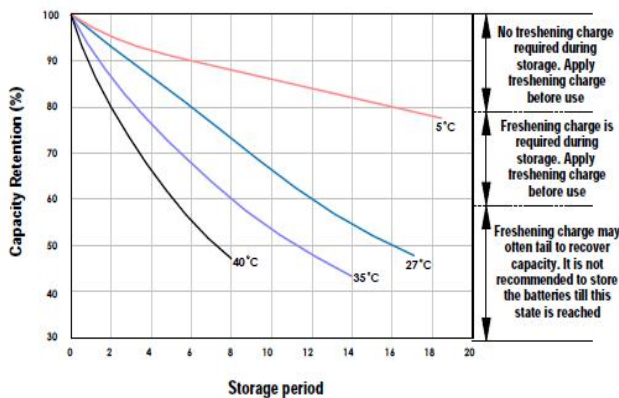
## Discharge Characteristics



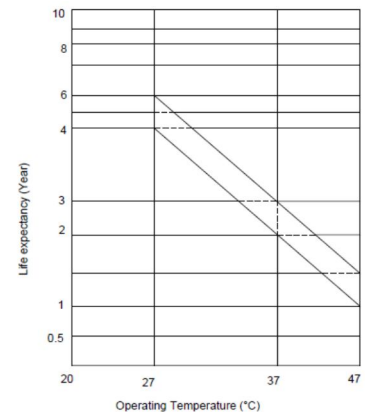
## Temperature Effect on Capacity



## Shelf Life Characteristics



## Float Service Life vs. Temperature



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