# 12AL018



## **Specification**

| Nominal Voltage                |                                                            | 12V                                                                                              |  |  |
|--------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--|--|
| Rated Capacity                 |                                                            | 18 Ah / C <sub>20</sub> / 1.75VPC / 27°C                                                         |  |  |
| Dimensions (±2mm)              | Length<br>Width<br>Total Height                            | 181mm (7.12 in.)<br>77mm (3.03 in.)<br>167mm (6.57 in.)                                          |  |  |
| Weight (±5%)                   |                                                            | 5.73 Kg (12.63 lbs.)                                                                             |  |  |
| Terminal Type                  |                                                            | M5 Bolted                                                                                        |  |  |
| Capacity @ 27°C                | 16.8 Ah<br>15.45 Ah<br>11.69 Ah                            | (10hr, 1.68 A, 10.5 V/battery)<br>(5hr, 3.09 A, 10.2 V/battery)<br>(1hr, 11.69 A, 9.6 V/battery) |  |  |
| Case Material                  | Acrylonitrile Butadiene Styrene (ABS)                      |                                                                                                  |  |  |
| Internal Resistance (IR)       | Approx. 14.0 m $\Omega$ for a fully charged battery (27°C) |                                                                                                  |  |  |
| Max. discharge current (5 sec) |                                                            | 270 A                                                                                            |  |  |
| Operating Temp. range          |                                                            | -20°C to +50°C                                                                                   |  |  |
| Nominal Operating Temp. range  |                                                            | 27°C ± 3°C                                                                                       |  |  |
| Standby use (27°C)             | Charging Voltage<br>Charging Current<br>Temp. Compensation | 13.5 to 13.8V/battery<br>Max. 25% of rated capacity<br>± 18mV/battery/°C                         |  |  |
| Cyclic use (27°C)              | Charging Voltage<br>Charging Current<br>Temp. Compensation | 14.4 to 15.0V/battery<br>Max. 25% of rated capacity<br>± 30mV/battery/°C                         |  |  |
| Self-Discharge                 |                                                            | < 4% per month at 27°C                                                                           |  |  |

| Constant Current discharge rating (amperes) @ 27°C * |        |        |        |        |       |       |       |        |        |
|------------------------------------------------------|--------|--------|--------|--------|-------|-------|-------|--------|--------|
| ECV/<br>Time                                         | 10 min | 15 min | 30 min | 60 min | 2 hrs | 3 hrs | 5 hrs | 10 hrs | 20 hrs |
| 1.60                                                 | 40.65  | 32.49  | 19.57  | 11.69  | 7.09  | 4.85  | 3.34  | 1.75   | 0.96   |
| 1.70                                                 | 38.18  | 29.70  | 18.00  | 11.39  | 6.51  | 4.55  | 3.09  | 1.71   | 0.92   |
| 1.75                                                 | 36.73  | 29.03  | 17.82  | 11.25  | 6.43  | 4.55  | 3.08  | 1.68   | 0.90   |
| 1.80                                                 | 36.00  | 28.57  | 17.65  | 10.77  | 6.38  | 4.52  | 3.05  | 1.67   | 0.88   |

|              | Constant Power discharge rating ( watts) @ 27°C * |        |        |        |       |       |       |        |        |
|--------------|---------------------------------------------------|--------|--------|--------|-------|-------|-------|--------|--------|
| ECV/<br>Time | 10 min                                            | 15 min | 30 min | 60 min | 2 hrs | 3 hrs | 5 hrs | 10 hrs | 20 hrs |
| 1.60         | 498.8                                             | 392.1  | 231.8  | 145.1  | 89.2  | 58.6  | 40.1  | 22.5   | 11.7   |
| 1.70         | 489.5                                             | 365.6  | 221.5  | 139.8  | 81.7  | 55.4  | 37.9  | 22.0   | 11.4   |
| 1.75         | 464.2                                             | 352.3  | 216.9  | 137.2  | 78.2  | 54.2  | 36.7  | 21.6   | 11.2   |
| 1.80         | 439.0                                             | 339.1  | 212.3  | 134.6  | 74.8  | 53.0  | 35.5  | 21.1   | 10.9   |

<sup>\*</sup> Note: 1. The above data are average values per battery and can be obtained within five charge/discharge cycle

## 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 failsafe, 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



<sup>2.</sup> A tolerance of  $\pm 5\%$  is applicable for the above constant power discharge and constant current discharge values.

<sup>3.</sup> Recommended to follow IEEE -485 Standard for Battery sizing (In terms of Aging Margin, Design Margin) for Optimal Performance & Life.

<sup>4.</sup> Considerable Voltage drop across cables, if any shall be considering during battery sizing.

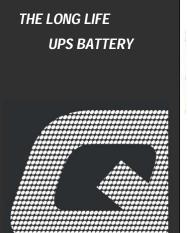


#### CAUTION

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







#### **Features**

- ✓ Proven AGM technology that ensures maintenance free characteristics
- ✓ Low self-discharge rates for extended storage periods
- ✓ Design float life of up to 8 to 10 years
- ✓ Clean and Sleek looks

## **Compliance**

- ✓ Complies to JIS C 8702
- ✓ Complies to IEC 61056
- ✓ Complies to IEC 60896

## **Applications**

- ✓ Data Centers
- ✓ Banks & Financial Markets
- ✓ Network Operations Centers
- ✓ Internet Housing Sites
- ✓ Semiconductor Manufacturing
- ✓ Hospital & Testing laboratories

## **Quality Standards**

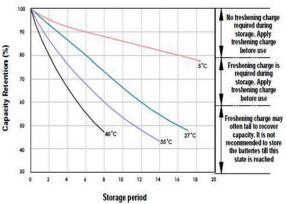
Manufactured in best-in-class facility certified to

✓ ISO 9001: 2015

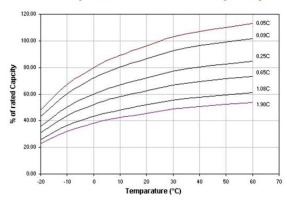
✓ ISO 14001: 2015

✓ OHSAS 18001: 2007

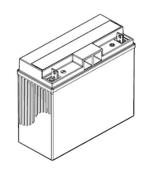
## **Shelf Life Characteristics**

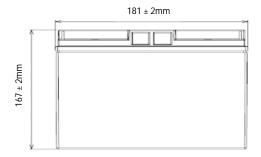


#### Temperature Effect on Capacity



## **Battery Layout**







#### **AMARA RAJA BATTERIES LIMITED**

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