

# 12AL100N 12ALZ100N



## AMARON QUANTA™

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

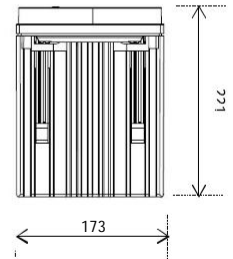
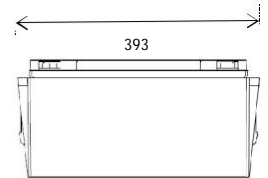
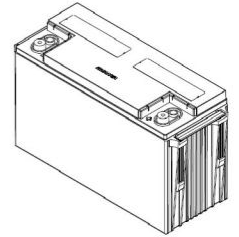
In short, the lifeline to your UPS applications

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

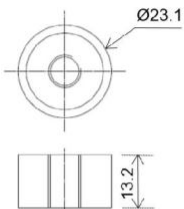
It features several firsts for the battery industry like the unique Radgrid™

## Specification

Nominal Voltage	12V
Rated Capacity	100 Ah / C <sub>20</sub> / 1.75VPC / 27°C
Dimensions (±2mm)	Length 393mm (15.47 in.) Width 173mm (6.81 in.) 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) 85.7 Ah (5hr, 17.15 A, 10.2 V/module) 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% 27°C (80.6°F) 100% 0°C (32°F) 80% -15°C (5°F) 60%
Case Material	Standard PPCP (12AL100N) FR Version UL 94-V0 (12ALZ100N)
Internal Resistance (As per IEC)	Approx. 5.60 mΩ for a fully charged battery (27°C)
Short Circuit Current (As per IEC)	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 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	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:

1. The above data are average values per battery and can be obtained within five charge/discharge cycle
2. A tolerance of ±5% is applicable for the above constant power discharge and constant current discharge values.
3. Recommended to follow IEEE -485 Standard for Battery sizing (In terms of Aging Margin, Design Margin) for Optimal Performance & Life.
4. 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**

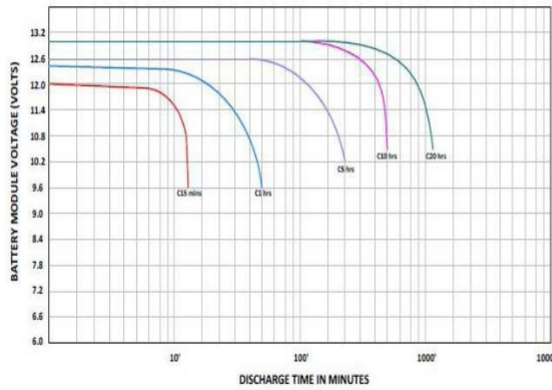


**Performance**

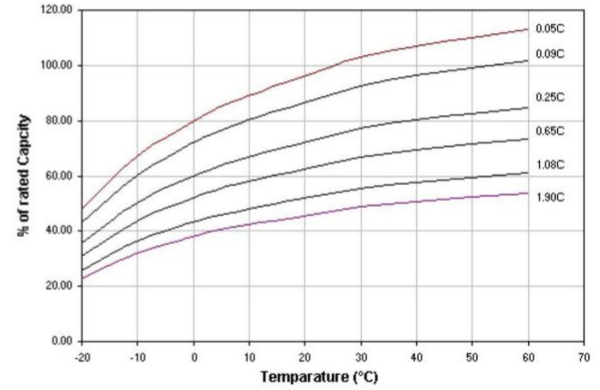
A clutch of design features ensures that AMARON QUANTA™ batteries perform predictably and reliably everytime

- ✓ 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

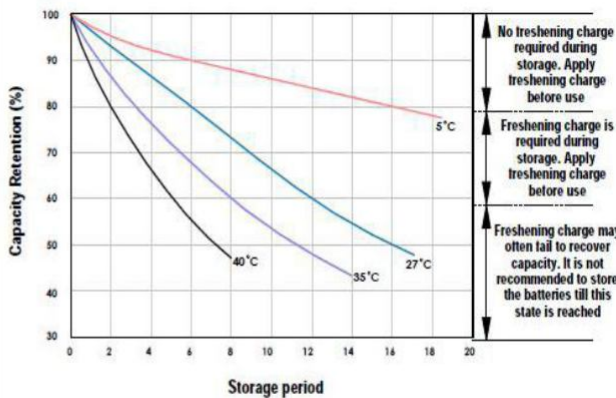
**Discharge Characteristics**



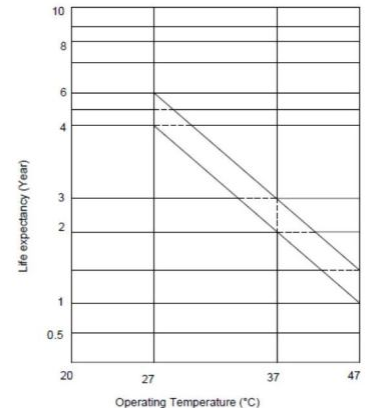
**Temperature Effect on Capacity**



**Shelf Life Characteristics**



**Float Service Life vs. Temperature**



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