ATB-AGM-DC12-85

Deep-cycle AGM.
Built for repeated cycling.

A 12 V 85 Ah deep-cycle AGM VRLA battery engineered for repeated discharge to 50% DoD or deeper. A rugged thick-plate grid design and high active-material density give high cycle life in motive power, solar and renewable-energy storage and marine use. Sealed, maintenance-free and non-spillable, with M8 bolt terminals.



12 V	85 Ah	850 A	25 kg
NOMINAL VOLTAGE	C20 CAPACITY @ 25°C	MAX DISCHARGE (5 S)	APPROX. WEIGHT

Sealed AGM VRLA
Valve-regulated oxygen-recombination design. Maintenance-free and non-spillable: no electrolyte topping and no acid handling.

M8 bolt terminals
Threaded M8 terminals for secure bolted cable connections in UPS, telecom and storage systems.

Deep-cycle design
Thick plates and high active-material density for repeated deep discharge.

Standard footprint
260 × 168 × 216 mm case.

SPECIFICATIONS

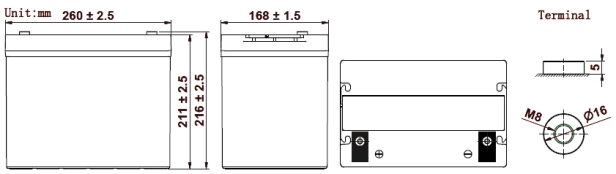
MECHANICAL

Length	**260 mm ±2.5**
Width	**168 mm ±1.5**
Container height	**211 mm ±2.5**
Overall height	**216 mm ±2.5**
Approx. weight	**25 kg ±3%**
Container material	**ABS, UL94-HB (UL94-V0 optional)**
Terminal type	**M8 bolt terminal**

ELECTRICAL

Nominal voltage	**12 V**
Chemistry	**AGM VRLA (sealed)**
Capacity, 20 hr (C20)	**85 Ah**
Capacity, 10 hr (C10)	**79.3 Ah**
Capacity, 5 hr (C5)	**72.5 Ah**
Rating basis	**to 1.75 V/cell @ 25°C**
Float voltage @ 25°C	**13.5 – 13.8 V**
Equalizing voltage @ 25°C	**14.4 – 15.0 V**
Max charge current	**25.5 A**
Max discharge current	**850 A (5 s)**
Internal resistance (charged)	**≈ 5.0 mΩ**
Operating temp. (dis / chg)	**−15°C~50°C / −15°C~40°C**
Storage temp.	**−15°C~40°C**

CONTAINER DRAWING — DIMENSIONS IN MM



ATB-AGM-DC12-85 — technical data

CONSTANT CURRENT DISCHARGE @ 25°C · UNIT: A

F.V (V/cell) / Time	30 min	45 min	1 h	3 h	5 h	8 h	10 h	20 h
1.60 V	83.4	62.1	51.9	22.3	15.1	10.1	8.20	4.38
1.67 V	81.0	60.5	50.6	22.0	14.8	9.91	8.08	4.32
1.70 V	79.8	59.7	50.2	21.7	14.7	9.82	8.01	4.30
1.75 V	78.1	58.7	49.3	21.5	14.5	9.71	7.93	4.25
1.80 V	76.3	57.4	48.5	21.1	14.3	9.59	7.82	4.21
1.85 V	74.3	56.3	47.5	20.9	14.1	9.47	7.74	4.17

CONSTANT POWER DISCHARGE @ 25°C · UNIT: W/CELL

F.V (V/cell) / Time	30 min	45 min	1 h	3 h	5 h	8 h	10 h	20 h
1.60 V	158	118	99.2	43.6	29.5	19.9	16.3	8.77
1.67 V	154	115	97.4	42.9	29.0	19.6	16.0	8.65
1.70 V	152	114	96.5	42.5	28.8	19.4	15.9	8.59
1.75 V	149	113	95.2	42.0	28.5	19.2	15.7	8.50
1.80 V	147	111	93.9	41.5	28.2	19.1	15.5	8.42
1.85 V	143	109	92.4	40.9	27.8	18.8	15.4	8.33

EFFECT OF TEMPERATURE ON CAPACITY (10 HR)

Temperature	Capacity (10 HR)
40 °C	102%
25 °C	100%
0 °C	85%
−15 °C	65%

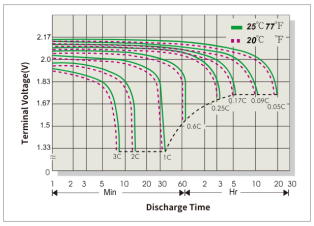
SELF-DISCHARGE CHARACTERISTICS

Storage time	Remaining capacity
3 months	91%
6 months	82%
12 months	64%

CHARACTERISTIC CURVES

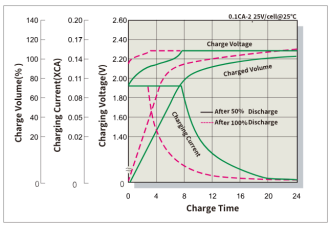
Discharge Characteristics

TERMINAL VOLTAGE (V/CELL) vs DISCHARGE TIME · 25°C / 20°C



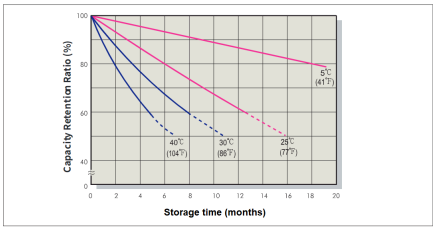
Charging Characteristics

0.1 CA · 2.25 V/CELL @ 25°C



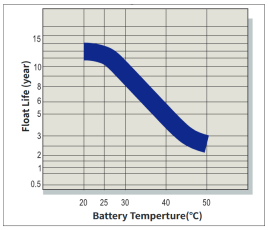
Capacity Retention (Self-Discharge)

CAPACITY RETENTION RATIO vs STORAGE TIME



Float Service Life

FLOAT LIFE vs BATTERY TEMPERATURE · 2.25 V/CELL



STANDARDS & QUALITY

AGM VRLA batteries produced by an ATB-approved manufacturing partner whose VRLA batteries are UL-recognized components under UL 1989, in facilities certified to ISO 9001, ISO 14001 and ISO 45001. Sealed, non-spillable VRLA construction.

Values are subject to variation of ±5% under normal manufacturing processes. Technical specifications are subject to change without prior notice. Curves represent typical performance for the AGM VRLA cell platform at the stated reference conditions. This product is engineered, specified and branded by ATB Power. E&OE. © ATB Power.