ATB-AGM-GP12-40

Sealed AGM power.
Built for standby duty.

A 12 V 42 Ah general-purpose AGM VRLA battery for UPS, telecom, security and emergency lighting systems and energy storage. Valve-regulated oxygen-recombination construction with corrosion-resistant alloy grids, a high-strength AGM separator and high-purity active materials gives low self-discharge and long service life, in a sealed, maintenance-free, non-spillable package with M6 bolt terminals.



12 V	42 Ah	400 A	12.5 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.

M6 bolt terminals

Threaded M6 terminals for secure bolted cable connections in UPS and standby systems.

Long service life

Corrosion-resistant alloy grids and a high-strength AGM separator with high-purity active materials give low self-discharge and long float life.

Standard footprint

197 × 166 × 170 mm case for battery cabinets, racks and UPS enclosures.

SPECIFICATIONS

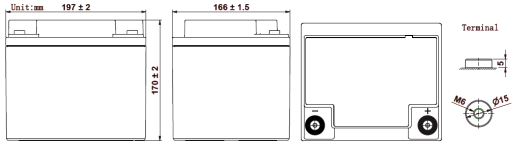
MECHANICAL

Length	**197 mm ±2.0**
Width	**166 mm ±1.5**
Container height	**170 mm ±2.0**
Overall height	**170 mm ±2.0**
Approx. weight	**12.5 kg ±3%**
Container material	**ABS, UL94-HB (UL94-V0 optional)**
Terminal type	**M6 bolt terminal**

ELECTRICAL

Nominal voltage	**12 V**
Chemistry	**AGM VRLA (sealed)**
Capacity, 20 hr (C20)	**42 Ah**
Capacity, 10 hr (C10)	**40 Ah**
Capacity, 5 hr (C5)	**35.8 Ah**
Rating basis	**to 1.80 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	**12 A**
Max discharge current	**400 A (5 s)**
Internal resistance (charged)	**≈ 9.0 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-GP12-40 — technical data

CONSTANT CURRENT DISCHARGE @ 25°C · UNIT: A

F.V (V/cell) / Time	10 min	15 min	30 min	1 h	3 h	5 h	10 h	20 h
1.60 V	81.2	70.9	42.1	25.5	11.5	7.64	4.18	2.20
1.67 V	78.5	68.8	41.5	25.2	11.3	7.56	4.13	2.17
1.70 V	76.1	66.8	40.9	24.8	11.3	7.42	4.08	2.15
1.75 V	71.4	62.9	40.1	24.3	11.1	7.27	4.04	2.12
1.80 V	65.8	58.1	39.3	23.1	10.8	7.15	4.00	2.10
1.85 V	58.0	51.3	36.1	22.3	10.0	6.80	3.82	2.03

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

F.V (V/cell) / Time	10 min	15 min	30 min	1 h	3 h	5 h	10 h	20 h
1.60 V	137	126	77.2	48.0	22.0	14.8	8.29	4.34
1.67 V	135	124	76.8	47.6	21.9	14.7	8.15	4.30
1.70 V	133	122	76.3	47.2	21.7	14.4	8.07	4.25
1.75 V	126	116	75.4	46.5	21.5	14.3	8.00	4.21
1.80 V	118	109	74.5	44.5	21.1	14.0	7.93	4.17
1.85 V	106	97.2	68.9	43.2	19.5	13.4	7.56	4.04

EFFECT OF TEMPERATURE ON CAPACITY (10 HR)

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

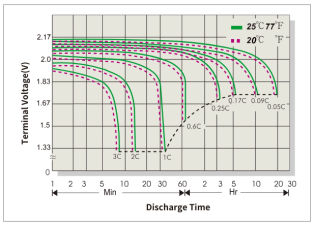
SELF-DISCHARGE CHARACTERISTICS

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

CHARACTERISTIC CURVES

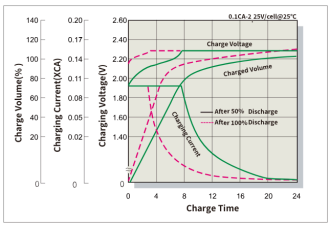
Discharge Characteristics

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



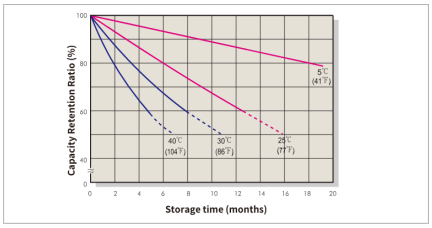
Charging Characteristics

0.1 CA · 2.25 V/CELL @ 25°C



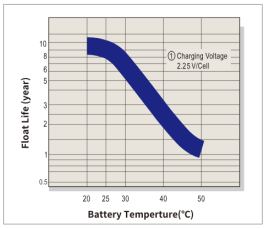
Capacity Retention (Self-Discharge)

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.