

ETK BAT 40-12 AGM AGM Battery for medical use

GENERAL INFORMATION

High-discharge lead-acid battery
12 Volts 40 Amps, high performance, manufactured with AGM technology.

The AGM battery design keeps the electrolyte immobilized while in constant contact with the active lead material on the plates.

Gas regulation valves, designed for better recombination of gases with the minimum loss of hydrogen, help with internal pressure regulation, increasing performance and safety.



TECHNICAL DATA

Nominal voltage	12V
Nominal capacity	40.0AH
Rated capacity	41.6AH / 4.08A 20h · 1,80V / Cell · 25°C 77°F
	40.0AH / 4.00A 10h · 1,80V / Cell · 25°C 77°F
	31.5AH / 6.89A 5h · 1,75V / Cell · 25°C 77°F
	31.2AH / 10.4A 3h · 1,75V / Cell · 25°C 77°F
	24.4AH / 24.4A 1h · 1,60V / Cell · 25°C 77°F
Max. discharge	480A (5s)
Internal resistance	Approx. 9mΩ
Operating temperature range	DISCHARGE -15 a 50°C 5 a 122°F
	CHARGE 0 a 40°C 32 a 104°F
	STORAGE -15 a 40°C 5 a 104°F
Nominal operating temperature	25 ±3°C 77 ±5°F

Cycle use	The initial charging current is less than 12.0A Voltage 14.4V to 15.0V at 25°C (77°F) Coefficient -30mV /°C
Stand-by use	No limit on initial load current Voltage 13.5V to 13.8V at 25°C (77°F) Coefficient -20mV /°C
Capacity affected by temperature	103% 40°C 104°F 100% 25°C 77°F 86% 0°C 32°F
Self-discharge	Batteries can be stored for up to 6 months at 25°C (77°F) after which an additional charge is required

CONSTANT CURRENT DISCHARGE AT 25°C (77°F)
(A)

FV /time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V /cell	68.5	53.8	45.8	38.3	30.4	23.0	18.9	12.0	9.50	7.76	6.25	5.44	4.42	3.78	2.06
1.80V /cell	91.9	68.8	55.3	45.3	35.9	26.8	21.1	13.1	10.2	8.28	6.72	5.84	4.69	4.00	2.08
1.75V /cell	103.6	75.6	60.4	48.7	37.3	27.8	22.1	13.6	10.4	8.47	6.88	6.00	4.77	4.04	2.10
1.70V /cell	114.1	82.4	64.5	51.2	38.8	28.9	22.8	14.1	10.7	8.69	7.06	6.12	4.84	4.08	2.14
1.65V /cell	125.8	88.9	68.6	54.4	40.9	29.6	23.6	14.5	11.2	8.99	7.26	6.26	4.91	4.16	2.17
1.60V /cell	138.8	96.5	73.3	57.9	43.2	30.9	24.4	15.0	11.5	9.27	7.50	6.40	4.96	4.21	2.18

CONSTANT POWER DISCHARGE AT 25°C (77°F)
(W)

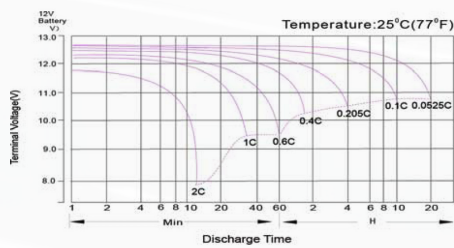
FV /time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V /cell	125.2	99.4	85.4	72.2	58.0	44.3	36.4	23.3	18.5	15.2	12.3	10.7	8.73	7.47	4.08
1.80V /cell	166.2	125.5	101.8	84.1	67.4	51.1	40.5	25.3	19.8	16.1	13.1	11.4	9.23	7.90	4.11
1.75V /cell	183.4	135.7	109.8	89.6	69.4	52.5	42.2	26.1	20.1	16.4	13.4	11.7	9.36	7.97	4.15
1.70V /cell	196.4	144.6	115.6	93.4	71.8	54.4	43.4	27.1	20.6	16.8	13.7	11.9	9.49	8.05	4.23
1.65V /cell	213.5	154.6	122.0	98.5	75.1	55.3	44.5	27.7	21.4	17.3	14.0	12.2	9.61	8.20	4.28
1.60V /cell	230.0	164.0	128.3	103.8	78.8	57.3	45.9	28.5	22.0	17.8	14.5	12.4	9.69	8.27	4.29



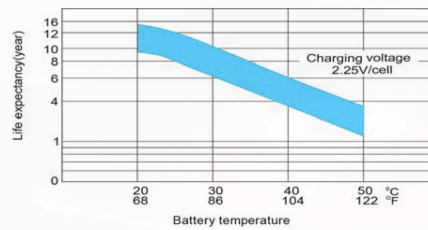
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TECHNICAL DATA

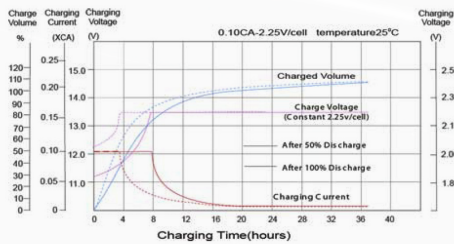
DISCHARGE CHARACTERISTICS



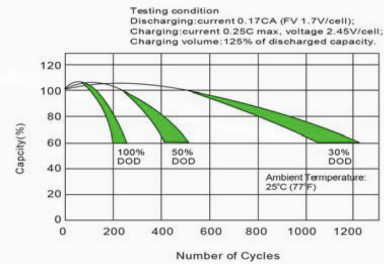
EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



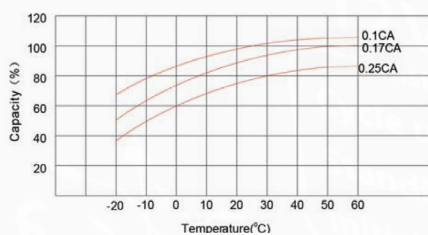
FLOAT CHARGING CHARACTERISTICS



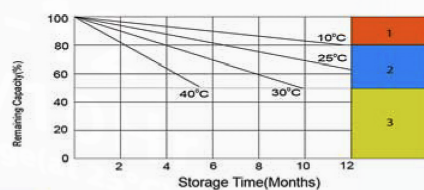
CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE



EFFECT OF TEMPERATURE IN RELATION TO BATTERY CAPACITY



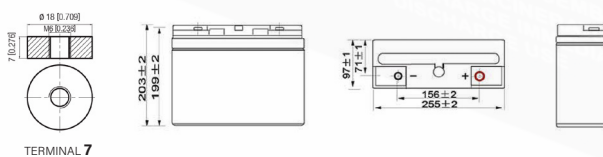
SELF DISCHARGE CHARACTERISTICS



- 1** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- 2** Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8-10 hours at limited current 0.05CA.
- 3** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

DIMENSIONS

Length	255 ±2mm
Width	97 ±1mm
Height	203 ±2mm
Total height with terminal	200 ±2mm
Weight	13.0 Kg



REGULATIONS

ISO/TS 16949:2009
EN IEC 61000-6-1: 2019
EN IEC 61000-6-3: 2013
EMC Directive 2004/108/EEC

