

ETK BAT 90-12 AGM AGM Battery for medical use

GENERAL INFORMATION

High-discharge lead-acid battery
12 Volts 90 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	90.0AH
Rated capacity	96.3AH / 4.815A 20h · 1,80V /Cell · 25°C 77°F
	90.0AH / 9.00A 10h · 1,80V /Cell · 25°C 77°F
	78.3AH / 15.66A 5h · 1,75V /Cell · 25°C 77°F
	70.2AH / 23.4A 3h · 1,75V /Cell · 25°C 77°F
	55.8AH / 55.8A 1h · 1,60V /Cell · 25°C 77°F
Max. discharge	1080A (5s)
Internal resistance	Approx. 5.0mΩ
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 27.0A Voltage 14.4V to 15.0V a 25°C (77°F) Coefficient -30mV /°C
Stand-by use	No limit on initial load current Voltage 14.4V to 13.8V a 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	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V /cell	105.3	88.6	78.6	65.2	50.3	43.0	27.9	20.9	17.2	14.4	12.6	10.1	8.72	4.65
1.80V /cell	120.5	99.4	86.9	70.8	54.2	45.4	29.9	22.5	18.2	15.3	13.4	10.7	9.00	4.82
1.75V /cell	136.8	112.1	96.0	76.9	59.2	49.5	31.1	23.4	18.9	15.7	13.8	11.0	9.24	4.94
1.70V /cell	154.6	124.4	106.0	84.0	63.7	52.4	32.8	24.6	19.7	16.6	14.5	11.5	9.60	5.06
1.65V /cell	166.0	133.1	112.7	88.6	67.4	54.2	34.0	25.6	20.5	17.1	15.0	11.9	9.87	5.22
1.60V /cell	182.6	145.8	122.5	94.5	70.1	55.8	34.9	26.3	20.9	17.5	15.3	12.1	10.1	5.30

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

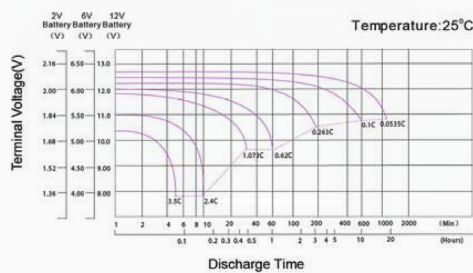
FV /time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V /cell	196.6	1670	149.7	125.5	97.7	83.8	54.7	41.2	33.9	28.6	25.1	20.2	17.4	9.31
1.80V /cell	222.4	185.1	163.1	134.2	104.5	88.0	58.4	44.1	35.8	30.2	26.5	21.2	18.0	9.62
1.75V /cell	248.5	206.0	178.5	144.7	112.9	95.5	60.5	45.6	36.9	30.8	27.2	21.9	18.4	9.85
1.70V /cell	274.4	225.4	195.6	157.1	121.2	100.8	63.6	48.0	38.5	32.5	28.5	22.8	19.1	10.1
1.65V /cell	292.0	239.5	206.5	164.4	127.1	103.5	65.5	49.7	39.9	33.4	29.4	23.5	19.6	10.4
1.60V /cell	314.0	258.1	221.9	174.3	131.4	106.0	66.9	50.7	40.7	34.1	29.9	23.9	20.0	10.6



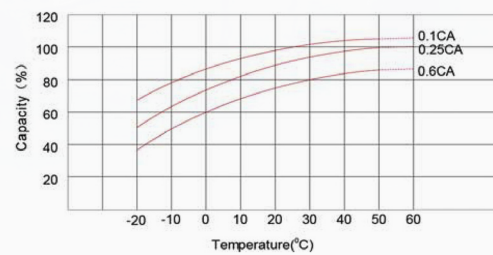
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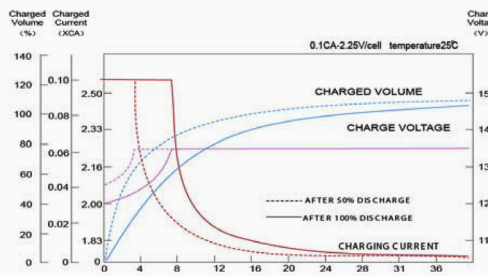
DISCHARGE CHARACTERISTICS



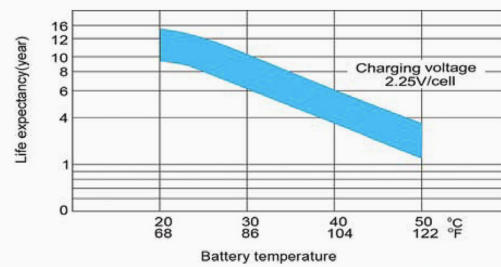
EFFECT OF TEMPERATURE IN RELATION TO BATTERY CAPACITY



FLOAT CHARGING CHARACTERISTICS

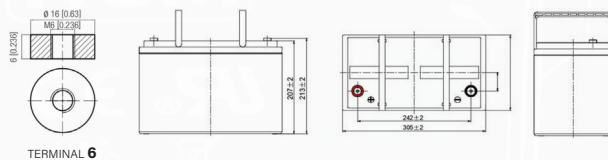


EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



DIMENSIONS

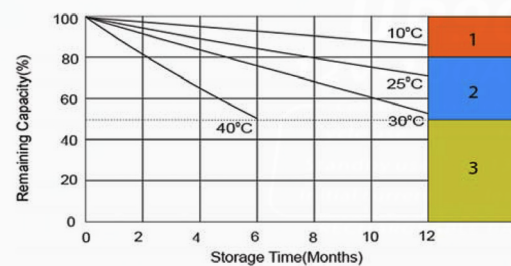
Length	305 ±3mm
Width	168 ±2mm
Height	207 ±3mm
Total height with terminal	213 ±3mm
Weight	27.5 Kg



REGULATIONS

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

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 20hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8-10hours 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.

