

# ETK BAT 50-12 AGM AGM Battery for medical use

**GENERAL INFORMATION**

**High-discharge lead-acid battery**  
**12 Volts 50 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	<b>12V</b>
Nominal capacity	<b>50.0AH</b>
Rated capacity	<b>52.0AH / 2.60A</b> 20h · 1.80V / Cell · 25°C   77°F <b>50.0AH / 5.00A</b> 10h · 1.80V / Cell · 25°C   77°F <b>43.1AH / 8.62A</b> 5h · 1.75V / Cell · 25°C   77°F <b>39.0AH / 13.0A</b> 3h · 1.75V / Cell · 25°C   77°F <b>30.5AH / 30.5A</b> 1h · 1.60V / Cell · 25°C   77°F
Max. discharge	<b>600A (5s)</b>
Internal resistance	<b>Approx. 8mΩ</b>
Operating temperature range	DISCHARGE <b>-15 a 50°C   5 a 122°F</b> CHARGE <b>0 a 40°C   32 a 104°F</b> STORAGE <b>-15 a 40°C   5 a 104°F</b>
Nominal operating temperature	<b>25 ±3°C   77 ±5°F</b>

Cycle use	<b>The initial charging current is less than 15.0A</b> <b>Voltage 14.4V to 15.0V</b> a 25°C (77°F) <b>Coefficient -30mV / °C</b>
Stand-by use	<b>No limit on initial load current</b> <b>Voltage 13.5V to 13.8V</b> a 25°C (77°F) <b>Coefficient -20mV / °C</b>
Capacity affected by temperature	<b>103%</b> 40°C   104°F <b>100%</b> 25°C   77°F <b>86%</b> 0°C   32°F
Self-discharge	<b>Batteries can be stored for up to 6 months</b> 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
<b>1.85V /cell</b>	85.6	67.3	57.2	47.9	38.0	28.8	23.6	15.0	11.9	9.70	7.82	6.81	5.53	4.72	2.58
<b>1.80V /cell</b>	114.9	86.0	69.1	56.6	44.9	33.5	26.4	16.4	12.8	10.4	8.40	7.30	5.86	5.00	2.60
<b>1.75V /cell</b>	129.5	94.5	75.5	60.9	46.6	34.7	27.6	17.0	13.0	10.6	8.60	7.50	5.96	5.05	2.63
<b>1.70V /cell</b>	142.6	103.0	80.6	64.0	48.5	36.1	28.5	17.7	13.4	10.9	8.83	7.66	6.05	5.10	2.68
<b>1.65V /cell</b>	157.3	111.1	85.7	67.9	51.2	37.0	29.5	18.2	13.9	11.2	9.08	7.83	6.14	5.21	2.71
<b>1.60V /cell</b>	173.5	120.6	91.7	72.4	54.0	38.6	30.5	18.8	14.4	11.6	9.38	8.00	6.20	5.26	2.73

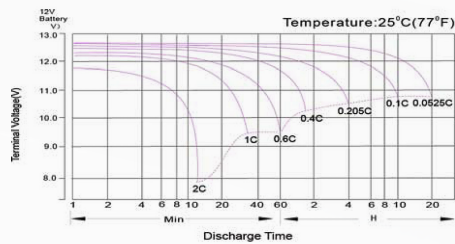
CONSTANT POWER DISCHARGE AT 25°C (77°F)  
(W)

FV /time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
<b>1.85V /cell</b>	156.5	124.3	106.8	90.2	72.5	55.3	45.5	29.2	23.1	19.0	15.3	13.4	10.9	9.34	5.10
<b>1.80V /cell</b>	207.8	156.9	127.3	105.1	84.2	63.9	50.7	31.6	24.8	20.1	16.4	14.3	11.5	9.88	5.14
<b>1.75V /cell</b>	229.3	169.7	137.3	111.9	86.7	65.6	52.8	32.7	25.1	20.5	16.7	14.6	11.7	9.97	5.19
<b>1.70V /cell</b>	245.5	180.7	144.5	116.8	89.8	68.0	54.2	33.9	25.8	21.0	17.1	14.9	11.9	10.1	5.28
<b>1.65V /cell</b>	266.9	193.3	152.5	123.1	93.9	69.1	55.7	34.6	26.7	21.7	17.6	15.2	12.0	10.2	5.34
<b>1.60V /cell</b>	287.5	205.0	160.4	129.7	98.5	71.6	57.3	35.6	27.4	22.3	18.1	15.5	12.1	10.3	5.37

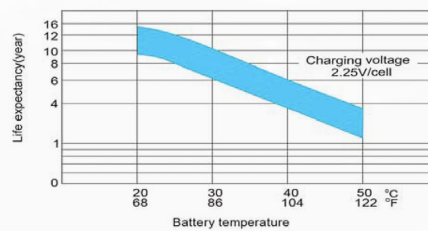
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### TECHNICAL DATA

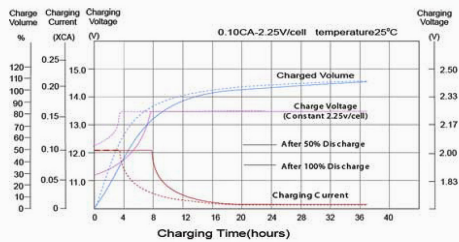
#### DISCHARGE CHARACTERISTICS



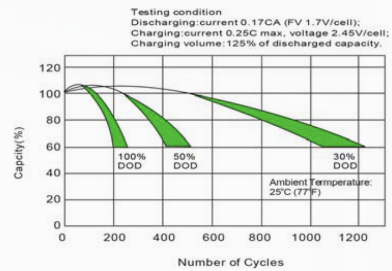
#### EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



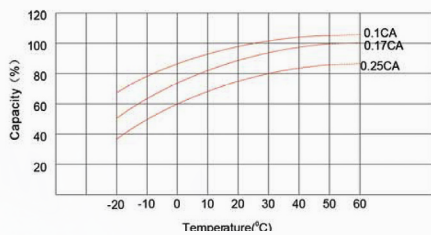
#### FLOAT CHARGING CHARACTERISTICS



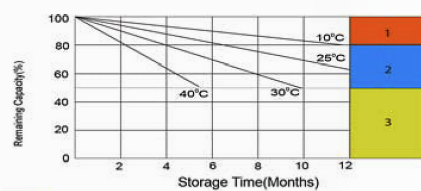
#### EFFECT OF TEMPERATURE IN RELATION TO BATTERY CAPACITY



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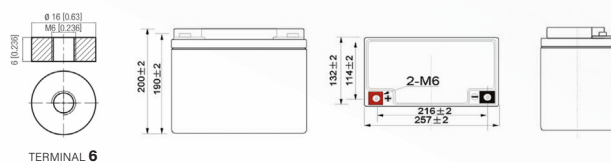


#### SELF DISCHARGE CHARACTERISTICS



### DIMENSIONS

Length	257 ±3mm
Width	132 ±2mm
Height	200 ±2mm
Total height with terminal	200 ±2mm
Weight	16.0 Kg



### REGULATIONS

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

