

Datasheet

Maintenance-free Gel Battery

General Purpose Gel

8838869 (12V60Ah)

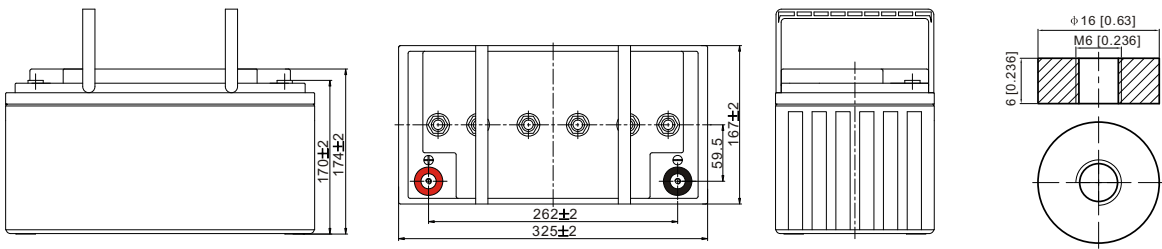
Cells Per Unit	6
Voltage Per Unit	12
Capacity	60.0Ah@20hr-rate to 1.80V per cell @25°C
Weight	Approx 21.5 kg
Max. Discharge Current	600A (5sec)
Internal Resistance	Approx 8.8mΩ
Operating Temp. Range	Discharge : -20~55°C (-4 ~131°F) Charge : 0~40°C (32~104°F) Storage : -20~50°C (-4 ~122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Float charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	12A
Equalization and Cycle Service	14.4 to 15.0 VDC/unit Average at 25°C
Self Discharge	The batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	T6
Container Material	A.B.S. (UL94-HB)

Applications

- ◆ Telecommunications
- ◆ Solar system
- ◆ Wind power system
- ◆ Engine starting
- ◆ Wheelchair
- ◆ Floor cleaning machines
- ◆ Golf trolley
- ◆ Boats

Dimensions

Unit: mm Dimension: 325(L) × 167(W) × 174(H) × 174(TH)



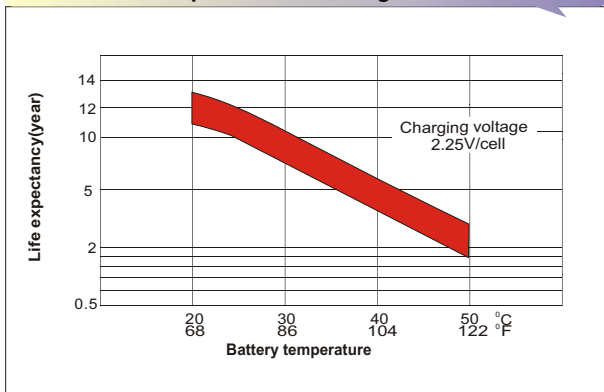
Constant Current Discharge Characteristics : A (25 °C) Amps

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	50.8	39.8	30.4	25.4	16.1	12.3	10.2	8.80	7.59	6.72	6.06	5.54	5.24	2.88
1.80V/cell	58.1	44.5	33.5	28.1	17.5	13.2	10.8	9.24	7.97	7.04	6.35	5.83	5.47	3.00
1.75V/cell	65.3	49.0	36.2	30.1	18.5	13.9	11.3	9.60	8.25	7.29	6.56	6.00	5.58	3.06
1.70V/cell	70.4	52.4	38.5	31.8	19.6	14.5	11.7	9.90	8.54	7.53	6.75	6.16	5.71	3.10
1.67V/cell	73.3	54.5	39.8	33.0	20.1	15.0	12.0	10.1	8.68	7.64	6.86	6.24	5.78	3.13
1.60V/cell	79.4	58.3	42.8	35.0	20.9	15.6	12.4	10.4	8.89	7.80	6.98	6.37	5.89	3.17

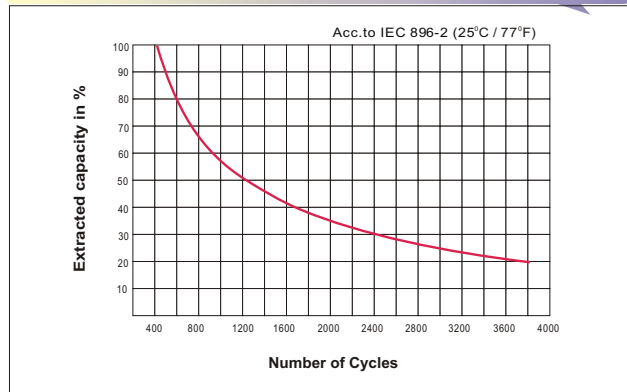
Constant Power Discharge Characteristics : W (25 °C) Watts

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	97.2	76.8	58.9	49.5	31.5	24.1	20.0	17.4	15.0	13.3	12.1	11.0	10.4	5.75
1.80V/cell	109.8	85.0	64.5	54.4	34.0	25.7	21.2	18.2	15.7	13.9	12.6	11.6	10.9	5.98
1.75V/cell	122.1	92.6	69.3	57.9	35.9	27.1	22.1	18.8	16.2	14.4	13.0	11.9	11.1	6.09
1.70V/cell	130.1	98.3	73.0	60.9	37.9	28.2	22.8	19.4	16.8	14.8	13.3	12.2	11.3	6.16
1.67V/cell	133.8	101.1	75.1	62.9	38.6	28.9	23.2	19.7	17.0	15.0	13.5	12.3	11.5	6.22
1.60V/cell	143.4	107.2	80.0	66.4	40.0	30.0	24.0	20.3	17.4	15.3	13.7	12.6	11.7	6.30

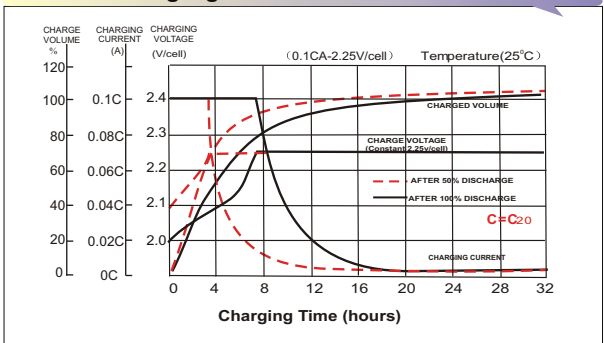
Effect of Temperature on Long Term Float Life



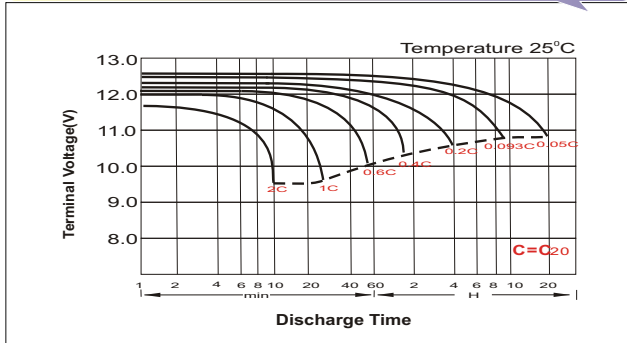
Cycle Life in Relation to Depth of Discharge



Float Charging Characteristics



Discharge Characteristics



Available Capacity Subject to Temperature

Battery Type	-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
AGM Battery 6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method

Constant Voltage	-0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.3CA
Constant Current	0.1C until the voltage reaching 14.4V, then 0.1Cx4h

Maintenance & Cautions

Cyclic Service:
◆Temperature compensation for varying temperatures: -Charge voltage -3mV/Cell/degC from 25degC norm.
◆The service life of your battery will be affected by: -The number of discharge cycles, depth of discharge, ambient temperature and charging voltage.



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