

12Volt

60ah @3hr  
75ah @20hr

VRLA AGM-GEL / Non Spilable / Maintenance Free

EVF series are designed to provide superior performance to power your low speed electric vehicle. AGM (absorbed glass mat) gel (fumed silica) technology combined with lasted innovative design, results in a battery that of offers increaed power, longer life and excellent reliability. Valve regulated sealed type provide a 100% maintenance free motive battery.

Confidence is knowing the battery, will outlast keep your forklift, golf cart, sweeper, wheelchair moving



## APPLICATION

A whole range of EV applications including but not limited to:



Golf Cart



Wheelchair



Electric Tricycle



E-Forklift



Scissor Lift



Sweeper



## FEATURE

- Anti-vibration effect: adopting enhanced vibration-resistance design, battery can be used in low speed electric vehicle without a shock proof system.
- Good recovery performance: adopting the unique formula of active materials, the battery is resistance to deep discharging and has good recovery performance
- Excellent big current discharge performance: adopting low resistance material, the inner resistance is smaller
- Low/High temperature resistance: suitable for indoor and outdoor use in varies environment.
- Patented nanometer level fumed silica gel electrolyte
- Strict quality control manufacturing processes, ISO9001 approve
- IEC, CE, RoHS, ISO9001,ISO14001



## SPECIFICATION

Nominal Voltage 12V (6 cells)

Nominal Capacity

20-HR	10-HR	5-HR	3-HR	1-HR
75Ah	69Ah	65Ah	60Ah	52Ah

Approximate Net Weight 20,0 kgr (44,09lbs)

Internal Resistance (approx.) <6.1milliohms

CHARGER VOLTAGE SETTINGS (@ 77°F/25°C)

System Voltage	12	24	36	48
Max.Charging Current (A)	0.2 x C20			
Equilize Charging Voltage	14.7	29.4	44.1	58.8
Standby Charging Voltage	13.8	27.6	41.4	55.2

Terminal M8-Φ16

Operating Temp. Range -25°C to 55°C (-13°F to 131°F)

Recom. Operating temp. 15°C to 25°C (59°F to 77°F)

Self Discharge

1 month	97%
3 months	91%
6 months	83%

AEG EVF series's self discharge is <3%/month at 20°C (68°F)

The Storage period may up to 6 months at 20°C (68°F) and then a freshening charge is required

Case and cover A.B.S.

UL94-VD (optional)



## DIMENSIONS (mm)



L: 260mm [10.23in]

W: 168mm [6.61in]

H: 170mm [6.69in]

TH: 170mm [6.69in]

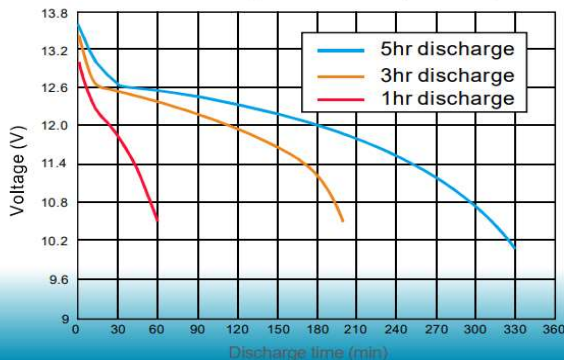
Terminal type

M8-16

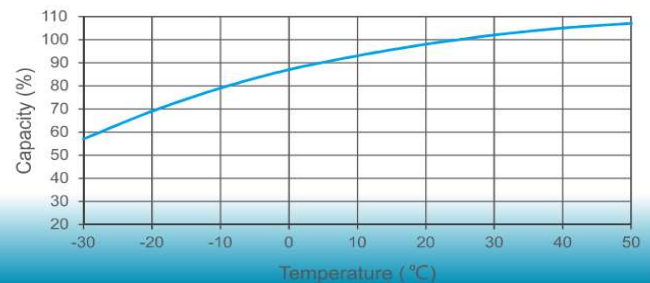


Torque Values (Nm)  
Bolt: 15-17

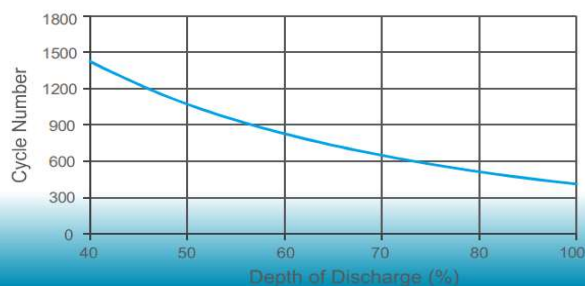
**Discharge Curve (25 °C)**



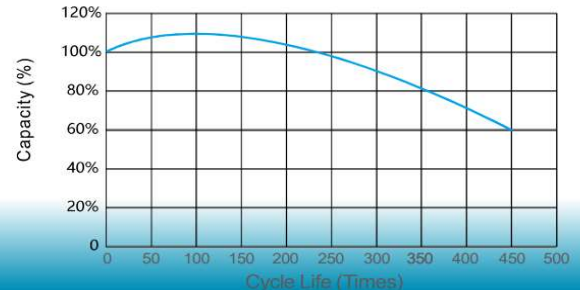
**Temperature Vs Battery Capacity**



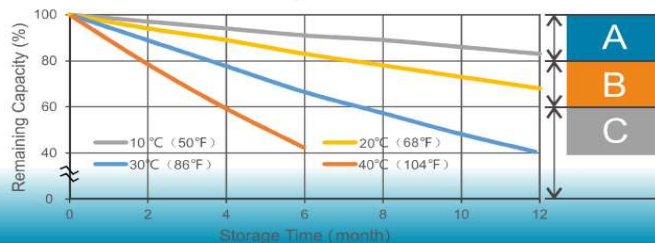
**Cycle Life Vs Depth of Discharge**



**Cycle Life Vs Remaining Capacity**

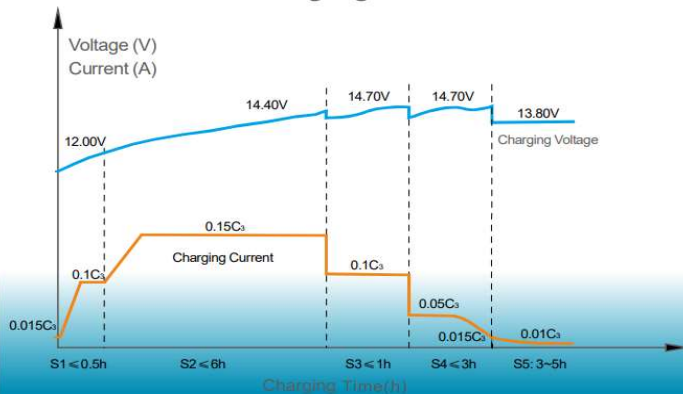


**Self Discharge Characteristics**



- A** Charging is not necessary unless 100% of capacity is required.
- B** Charging before use is necessary to help recover full capacity.
- C** Charging may fail to restore full capacity. Do not let batteries reach this state.

**Charging Curve**



**Description of charging process and related parameters**

- (1) The first stage: pre-charging, Charging with constant current 0.1C<sub>3</sub> to 12V or last 0.5h, it will automatically jump to the second stage. This stage is mainly to prevent that the battery voltage is too low because of useless for a long time. This stage can be omitted if the battery are fresh
- (2) The second stage: Charging with constant current 0.15C<sub>3</sub> to 14.4V or last 6h, it will automatically jump to the third stage
- (3) The third stage: Charging with constant voltage 14.7V limited current 0.1C<sub>3</sub> for 1h, automatically jump to the fourth stage
- (4) The forth stage: Constant voltage 14.7V limited current 0.05C<sub>3</sub> charging, when the current gradually drops to 0.015C<sub>3</sub> or last 3h, automatically jump to the fifth stage
- (5) Fifth stage: Float charging, voltage 13.8V, limited current 0.01C<sub>3</sub> for 3-5h (if the current at this stage keep the value no change at 0.01C<sub>3</sub> for more than 1h, the charger should alarm)

Temperature Compensation: -3 mV/cell/°C.