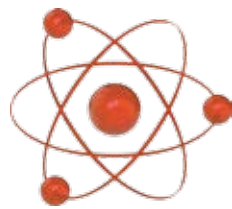


# FUSION AGM BATTERIES



CBS Series - Solar Power

## CBS2V690AH



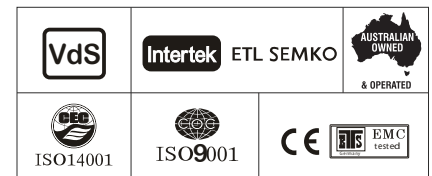
### Specifications

Nominal Voltage	2V	
Nominal Capacity (100HR)	690.0AH	
Dimensions	Length	300 +/-3mm (11.81 inches)
	Width	175 +/-2mm (6.89 inches)
	Container Height	330 +/-3mm (12.99 inches)
	Total Height (with Terminal)	350 +/-3mm (13.78 inches)
Approx Weight	Approx 36.3 kg (80.1 lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	690.0AH/6.90A	(100hr, 1.80V/cell, 25°C/77°F)
	642.0AH/321A	(20hr, 1.80V/cell, 25°C/77°F)
	600.0AH/60.0A	(10hr, 1.80V/cell, 25°C/77°F)
	527.0AH/105.4A	(5hr, 1.75V/cell, 25°C/77°F)
	352.8AH/352.8A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	4800A (5s)	
Internal Resistance	Approx 0.55mΩ	
Operating Temp. Range	Discharge	-15~50°C (5~122°F)
	Charge	0~40°C (32~104°F)
	Storage	-15~40°C (5~104°F)
Nominal Operating Temp. Range	25° +/-3°C (77° +/-5°F)	
Cycle Use	Initial Charging current less than 180.0A. Voltage 2.4V~2.5V at 25°C (77°F) Temp Coefficient -5mV/°C	
	No limit on Initial Charging Current. Voltage 2.25V~2.3V at 25°C (77°F) Temp. Coefficient -3mV/°C	
Standby Use	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Capacity Affected by Temperature	Fusion CBS Series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	
Self Discharge		

### Applications

- ◆ Solar Farm Applications
- ◆ Communication Systems
- ◆ Green Energy Systems

Fusion 2 Volt CBS Solar Series batteries are a genuine AGM VRLA (Valve Regulated Lead Acid) battery that is completely sealed, spill proof, leak proof and can be used upside down or on their side. The CBS Series is specifically designed for solar & green energy systems and can be used in confined or poorly ventilated spaces.



### Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	440.3	349.4	290.0	180.9	140.0	115.3	98.2	69.9	58.1	31.0	13.7	6.76
1.80V/cell	427.5	367.6	308.1	191.1	146.6	120.4	102.3	72.1	60.0	32.1	14.0	6.90
1.75V/cell	500.3	386.6	321.5	198.3	151.6	124.5	105.4	73.5	60.9	32.3	14.2	6.97
1.70V/cell	525.0	401.1	332.8	204.3	155.6	127.3	107.3	74.6	61.6	32.6	14.4	7.06
1.65V/cell	550.7	418.6	344.7	209.1	159.4	130.0	109.6	75.7	62.5	33.1	14.5	7.14
1.60V/cell	569.5	429.7	352.8	213.6	162.2	131.8	111.1	76.7	63.3	33.5	14.7	7.21

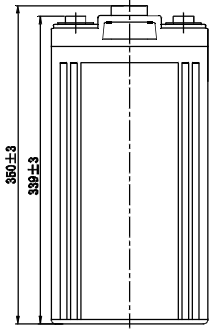
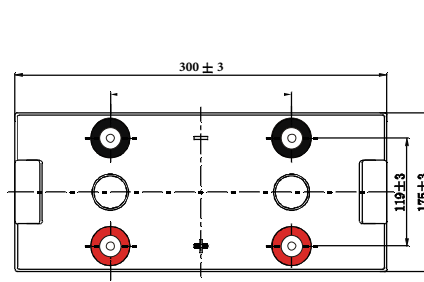
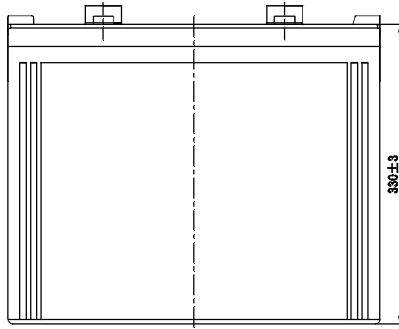
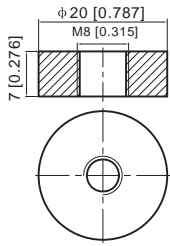
### Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	841.5	671.9	561.0	351.9	273.6	226.1	193.4	138.7	115.5	61.7	27.4	13.5
1.80V/cell	895.7	702.2	592.7	369.9	285.2	235.4	200.6	142.6	119.2	63.8	27.8	13.8
1.75V/cell	941.3	734.0	615.7	382.3	294.1	242.6	206.1	145.0	120.8	64.0	28.2	13.9
1.70V/cell	979.4	756.4	633.9	392.3	300.7	246.9	209.0	147.1	122.0	64.7	28.5	14.0
1.65V/cell	1019.7	784.9	652.9	399.8	306.7	251.3	212.8	148.8	123.6	65.6	28.8	14.2
1.60V/cell	1043.8	798.2	663.9	405.8	310.5	253.7	215.0	150.5	125.1	66.2	29.1	14.3

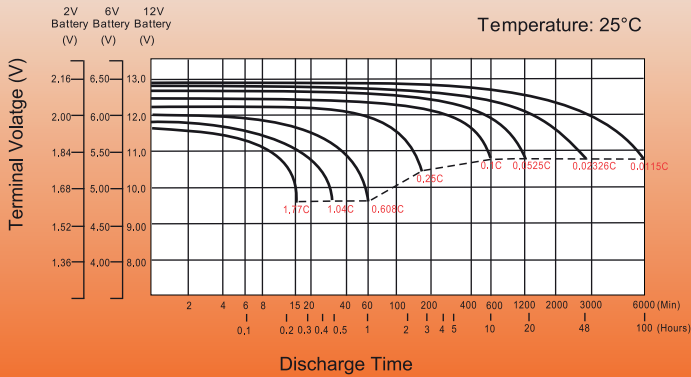
# Dimensions

## T11 Terminal

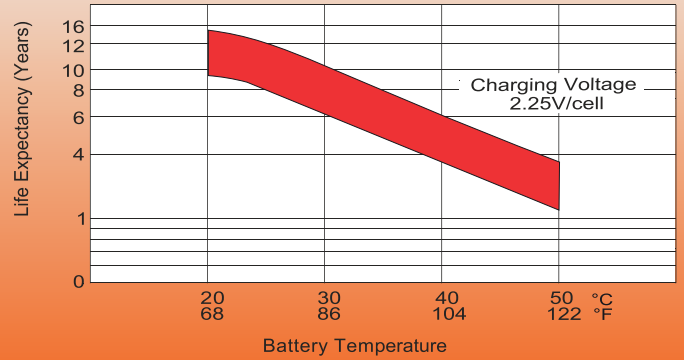
Unit: mm [inches]



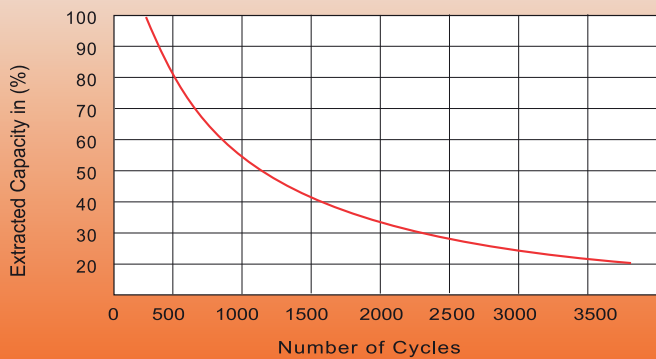
## Discharge Characteristics



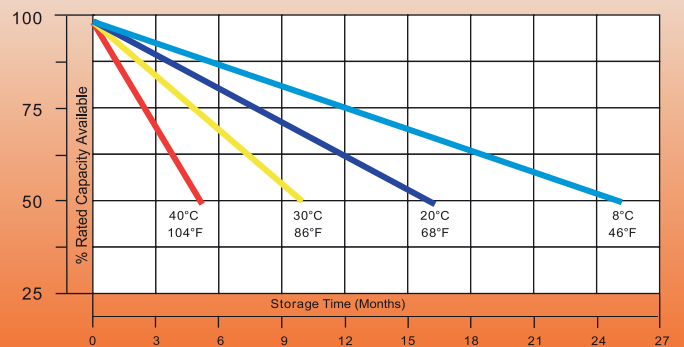
## Effect of Temperature on Long Term Float Life



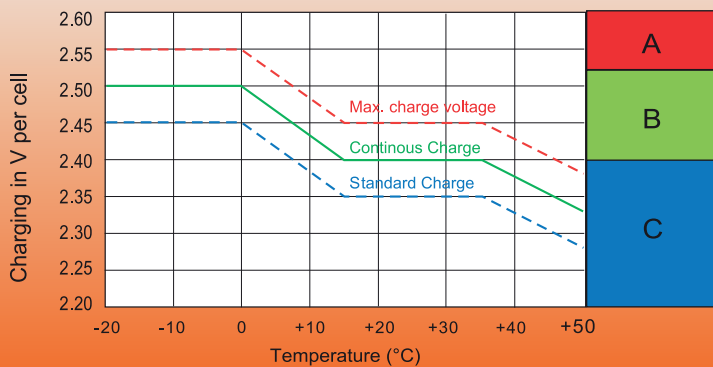
## Cycle Life in Relation to Depth of Discharge



## Self-Discharge at Different Temperatures



## Charge Mode



- A** With switch regulator (two-step controller) charge on curve max. charge voltage for max. 2 hrs/day then switch over to continuous charge.
- B** Standard charge without switching.
- C** Boost charge (Equalizing charge with external generator) charge on curve continuous charge for max. 5 hrs/month, then switch over to curve Standard charge.

## Australian East Coast Distributor

Solar Battery Warehouse  
 Sugar Rd  
 Maroochydore QLD 4558  
 Tel: 1300 883 847  
 www.solarbatterywarehouse.com.au

