



## VRLA 12V105AH

## SA12V105C

### Specifications

Nominal Voltage	12 V	
Nominal Capacity 20HR	105AH	
Dimensions	Length	306±1mm (12.05 inches)
	Width	169±1mm (6.65 inches)
	Container Height	210±1mm (8.27 inches)
	Total Height (with terminal)	215±1mm (8.46 inches)
Approx Weight	Approx 26.5 kg (58.4 lbs)	
Terminal	M6	
Container Material	ABS Plastic	
Lead Material	Purity Lead 99.995%	
Sulfuric Acid	Distilled Sulfuric Acid (Zero metal content)	
Separator	AGM	
Rated Capacity	5.25A/105AH	(20hr, 1.80V/cell, 25°C/77°F)
	9.8A/98AH	(10hr, 1.80V/cell, 25°C/77°F)
	16.1A/80.5AH	(5hr, 1.75V/cell, 25°C/77°F)
	24.0A/72AH	(3hr, 1.75V/cell, 25°C/77°F)
	61.1A/61AH	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	900A (5s)	
Internal Resistance	Approx 57mΩ	
Operating Temp.Range	Discharge	: -15 - 60°C (5 - 122°F)
	Charge	: 0 - 60°C (32 - 104°F)
	Storage	: -15 - 60°C (5 - 104°F)
Nominal Operating Temp.Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 31.5A. Voltage 14.5V - 14.9V at 25°C (77°F) Temp.Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage 13.5V - 13.8V at 25°C (77°F) Temp.Coefficient -20 mV/°C	
Capacity affected by Temperature	40°C (104°F) 103% 25°C (77°F) 100% 0°C (32°F) 86%	
Self Discharge	Zeal AGM 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.	

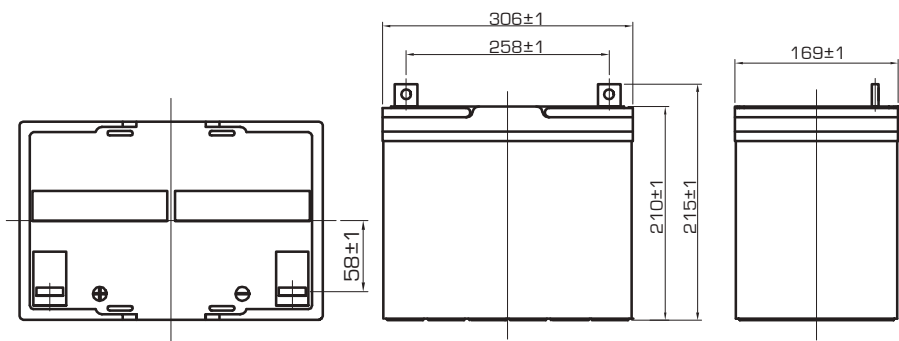
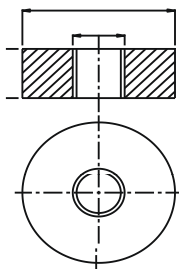


### Applications

- All purpose
- Standby Applications
- Recreation Vehicles
- Uninterruptible Power Supply (UPS)
- Electric Power System (EPS)
- Fire & Security
- Generators
- Medical Equipment

### Dimensions

#### ▲ M6 Terminal Unit: mm (inches)



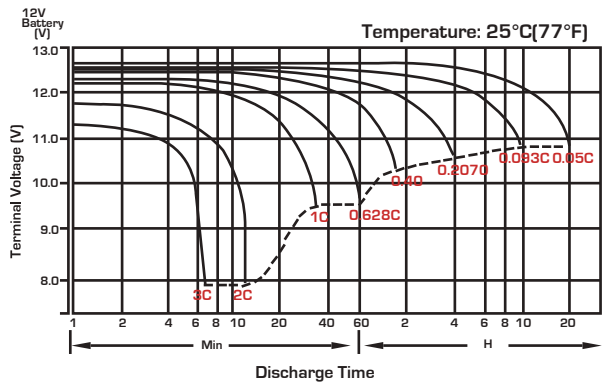
### Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/ Time	10min	15min	30min	45min	1h	3h	5h
1.80V/cell	157	128	82.1	61.8	51.6	22.9	15.6
1.75V/cell	168	138	85.2	64.2	53.8	24.0	16.1
1.70V/cell	179	149	97.8	66.6	55.2	24.8	16.6
1.65V/cell	200	157	92.7	70.1	55.8	25.7	16.9
1.60V/cell	210	168	97.6	73.2	61.1	26.7	17.1

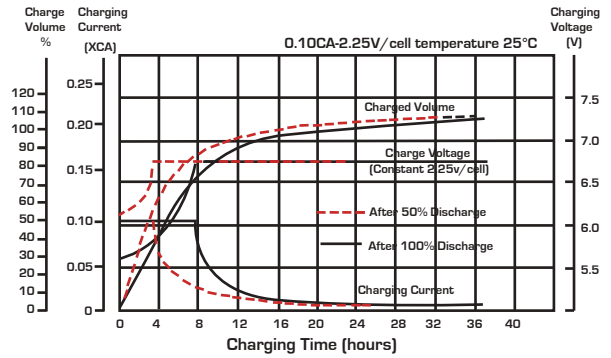
### Constant Power Discharge (Watts/Cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	30min	45min	1h	3h	5h
1.80V/cell	372	302	128	159	123	99.5	44.8	30.1
1.75V/cell	405	330	138	163	125	101	45.0	30.5
1.70V/cell	430	332	276	167	126	105	46.3	31.3
1.65V/cell	479	350	294	176	136	110	47.7	31.7
1.60V/cell	491	359	299	184	142	115	47.8	32.1

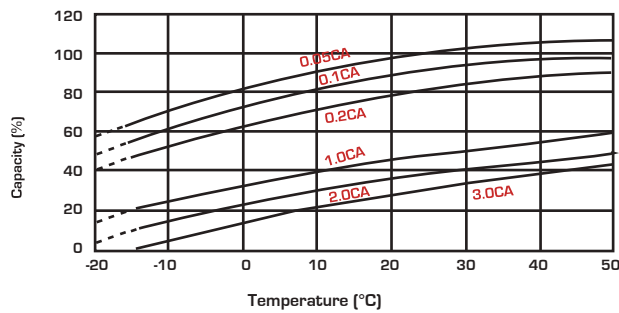
## Discharge Characteristics



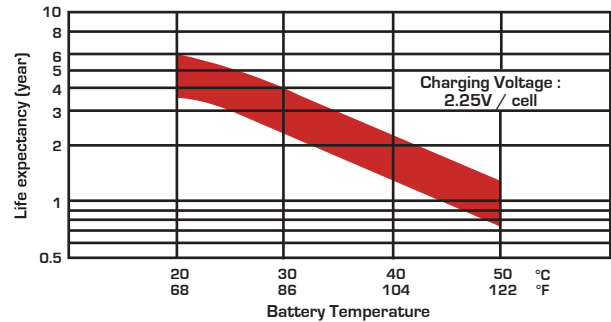
## Float Charging Characteristics



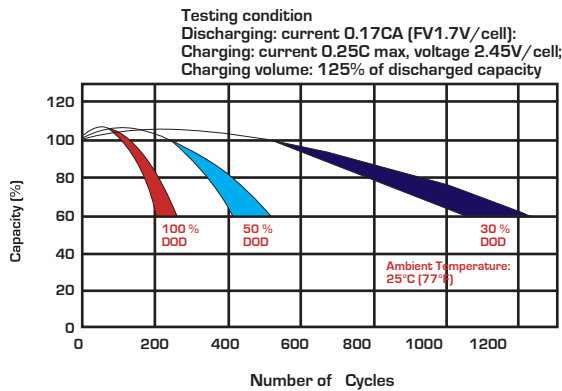
## Temperature Effects in Relation to Battery Capacity



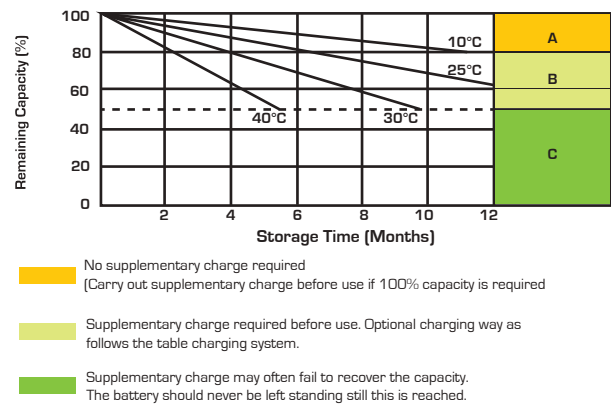
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## Self Discharge Characteristics



## Charging System

DOD	Current Limit (A)	Constant Voltage (V)	Fully Charged Time (h)
20	0.15C <sub>10</sub>	13.5-13.8 vpc (12V)	10
	0.20C <sub>10</sub>	6.75-6.9 vpc (6V)	8
50	0.15C <sub>10</sub>	13.5-13.8 vpc (12V)	15
	0.20C <sub>10</sub>	6.75-6.9 vpc (6V)	12
80	0.15C <sub>10</sub>	13.5-13.8 vpc (12V)	16
	0.20C <sub>10</sub>	6.75-6.9 vpc (6V)	14
100	0.15C <sub>10</sub>	13.5-13.8 vpc (12V)	20
	0.20C <sub>10</sub>	6.75-6.9 vpc (6V)	18

## State of Charge (SOC)

Open Circuit Voltage (V/cell)	Open Circuit Voltage (12V/cell)	Open Circuit Voltage (6V/cell)	State of Charge (% of full charge capacity)
2.14-2.15	12.84-12.90	6.42-6.46	100
2.12-2.13	12.72-12.78	6.36-6.39	90
2.11	12.66	6.33	80
2.09	12.54	6.27	70
2.07	12.42	6.21	60
2.05	12.30	6.15	50



Sealed Performance Batteries

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