

ROCKET VRLA AGM Battery

ESR12-7[12V7.0Ah]



General Features

- Designed floating charging service life: 8 years (25°C)
- Sealed and maintenance free operation
- Safety valve installation for explosion proof
- Low self-discharge characteristic
- Wide operating temperature range from 0°C~40°C
- Lead Aluminum calcium Tin alloy high energy, prevent corrosion

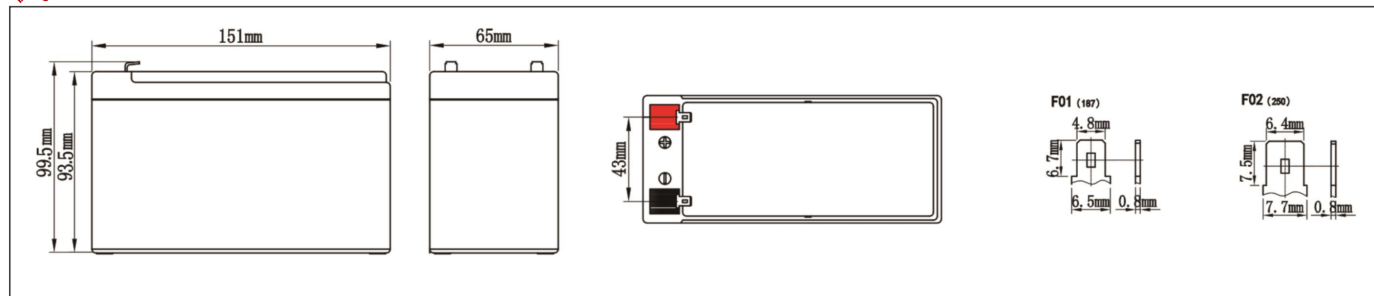
Application

- DC power supply
- Medical equipments
- UPS/EPS power supply
- Emergency lighting systems
- Alarm and security systems

Physical Specifications

Nominal Voltage	Nominal Capacity (20HR)	Dimension				Weight ±2%	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V	7.0AH	151±2mm	65±2mm	93.5±2mm	99.5±2mm	Approx2.00kg (4.41lbs)	≈27 mΩ	F01/F02 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity		Cycle Application	
20 hour rate (0.35A)	7.12AH	1. Limit initial current less than1.75A.	
10 hour rate (0.70A)	6.59AH	2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F).	
5 hour rate (1.19A)	5.80AH	3. Hold at 14.1V to 14.4V until current drop to under 0.042A for at least 3 hours.	
27 minute rate(7.0A)	3.50AH	4. Temperature compensation coefficient of charging voltage is -30mV/°C.	
7 minute rate (21.0A)	2.45AH		
Capacity affected by Temperature		Standby Service	
40°C(104°F)	103%	1. Hold battery across constant voltage source of 13.6to 13.8 volts with current limit1.75A continuously .When held at this voltage , the battery will seek its own current level and maintain itself in a fully charge status.	
25°C(77°F)	100%	2. Temperature compensation coefficient of charging voltage is -18mV/°C.	
0°C(32°F)	86%		

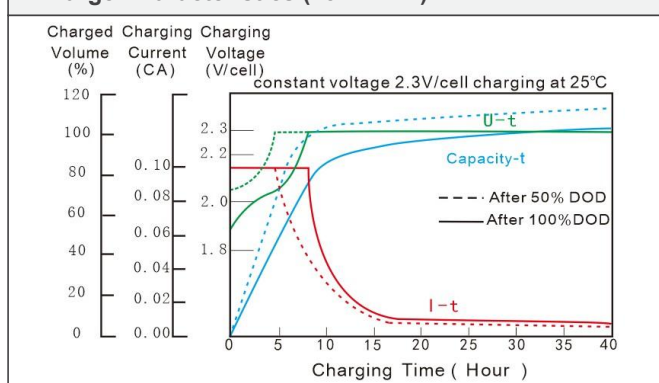
NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

Battery Discharge Table

End Voltage (V)	Minute (M)				Hour (H)							
	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (@25°C) Unit: A												
9.6V	18.9	14.8	7.54	5.31	4.45	3.55	2.65	2.00	1.28	0.853	0.686	0.367
9.9V	18.0	14.1	7.18	5.13	4.35	3.46	2.58	1.95	1.25	0.836	0.679	0.364
10.2V	17.1	13.4	6.84	4.96	4.24	3.38	2.52	1.90	1.22	0.820	0.672	0.360
10.5V	16.9	13.3	6.78	4.91	4.21	3.32	2.43	1.84	1.19	0.810	0.666	0.356
10.8V	16.7	13.1	6.71	4.86	4.18	3.26	2.33	1.78	1.17	0.800	0.659	0.351
Constant Power Discharge Data Sheet (@25°C) Unit: W												
9.6V	224	182	103	72.6	54.2	41.6	31.3	22.3	14.7	10.3	8.14	4.39
9.9V	214	173	97.7	70.2	52.9	40.5	30.5	21.8	14.4	10.1	8.06	4.34
10.2V	203	165	93.0	67.8	51.6	39.6	29.8	21.2	14.0	9.86	7.98	4.30
10.5V	197	160	91.1	66.2	50.8	39.0	29.3	20.8	13.8	9.78	7.86	4.24
10.8V	189	155	88.4	64.6	49.9	38.4	28.9	20.4	13.7	9.68	7.73	4.18

Performance Characteristics

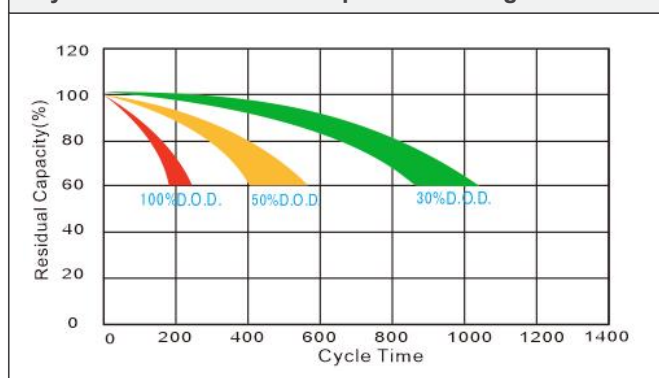
Charge Characteristics (25°C/77°F)



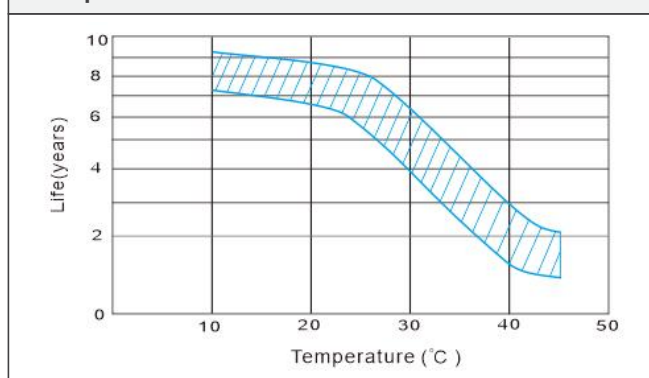
Discharge Characteristic (25°C/77°F)



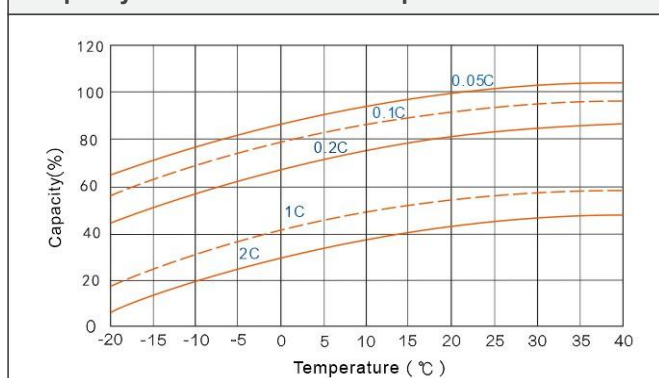
Cycle Life in Relation to Depth of Discharge



Temperature vs Float Life



Capacity Curve At Different Temperature



Self Discharge Characteristics

