

ROCKET VRLA AGM Battery

ESR55-12[12V55Ah]



General Features

- Designed floating charging service life: 12 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

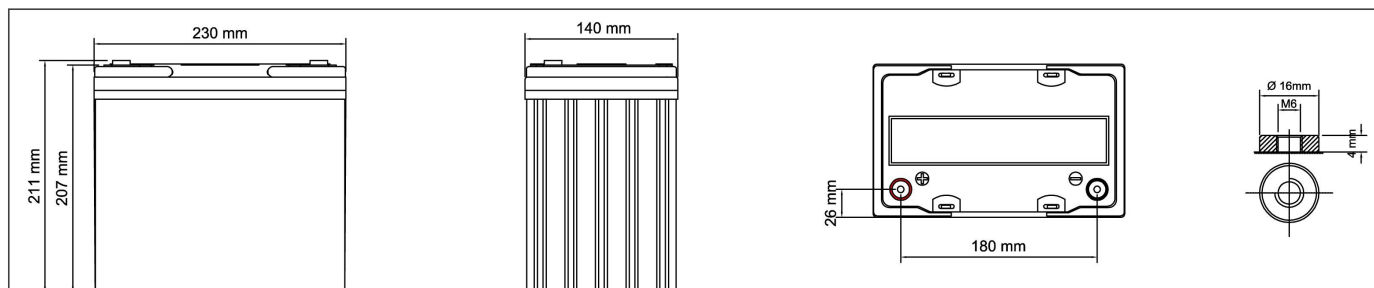
Application

- DC power supply
- Medical equipments
- UPS/EPS power supply
- Telecom stations and power stations

Physical Specifications

Nominal Voltage	Nominal Capacity (10HR)	Dimension				Weight ±2%	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V	55AH	230±3mm	140±2mm	207±3mm	211±3mm	Approx 16kg (35.27lbs)	≈6.9mΩ	T25 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity		Cycle Application	
20 hour rate (2.75A)	58.4AH	1. Limit initial current less than 13.75A.	
10 hour rate (5.5A)	55.6AH	2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F).	
5 hour rate (9.35A)	47.2AH	3. Hold at 14.1V to 14.4V until current drop to under 0.33A for at least 3 hours.	
3 hour rate (13.75A)	41.7AH	4. Temperature compensation coefficient of charging voltage is -30mV/°C.	
1 hour rate (33.0A)	35.0AH		
Capacity affected by Temperature		Standby Service	
40°C(104°F)	103%	1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit 13.75A 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%		

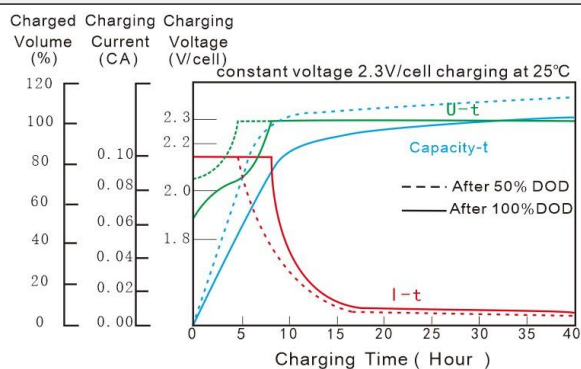
NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

Battery Discharge Table

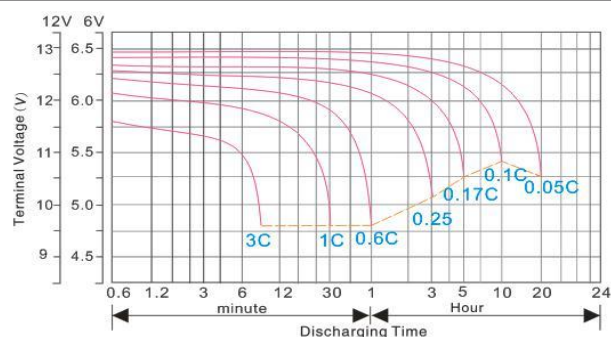
End Voltage (V)	Minute (M)				Hour (H)							
	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (@25°C) Unit: A												
9.6V	135	107	60	51.5	35.0	27.8	23.5	14.4	10.06	6.89	5.79	3.01
9.9V	129	102	58	50.5	34.4	27.3	22.9	14.2	9.84	6.78	5.73	2.98
10.2V	123	97	55	48.5	33.3	26.7	22.3	13.9	9.62	6.67	5.67	2.95
10.5V	117	92	52	46.5	32.8	26.2	21.8	13.6	9.44	6.50	5.62	2.92
10.8V	111	88	49	45.5	32.2	25.6	21.3	13.3	9.17	6.39	5.56	2.89
Constant Power Discharge Data Sheet (@25°C) Unit: W												
9.6V	1508	1249	774	541	450	329	246	184	118	90	69.4	37.3
9.9V	1436	1190	736	523	440	320	240	179	115	88	68.7	37.0
10.2V	1368	1133	701	506	429	313	234	175	113	86	68.0	36.6
10.5V	1303	1080	668	489	418	305	228	170	110	85	67.4	36.2
10.8V	1240	1028	636	473	408	298	223	166	107	83	66.7	35.9

Performance Characteristics

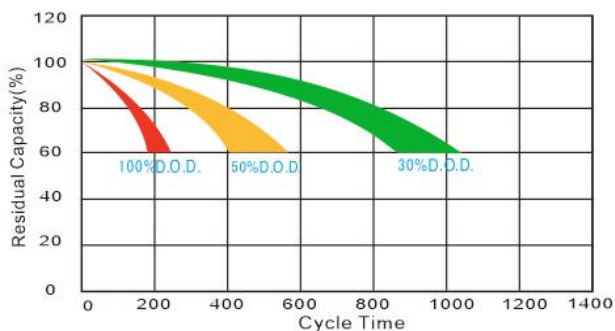
Charge Characteristics (25°C/77°F)



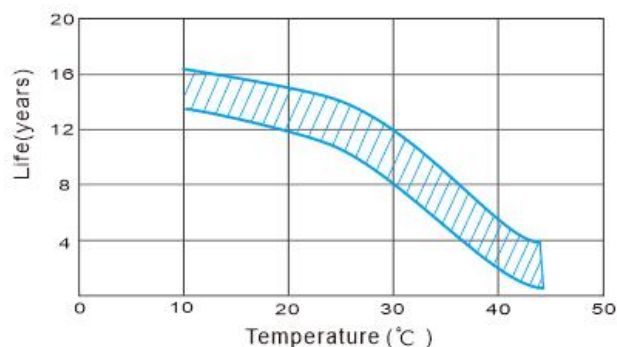
Discharge Characteristic (25°C/77°F)



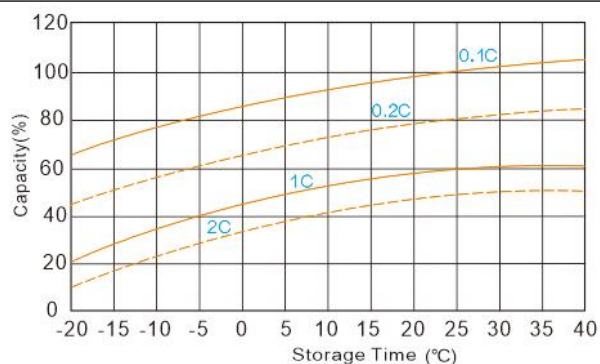
Cycle Life in Relation to Depth of Discharge



Temperature vs Float Life



Capacity Curve At Different Temperature



Self Discharge Characteristics

