

VRLA AGM Battery

ESR65-12 [12V65Ah]



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

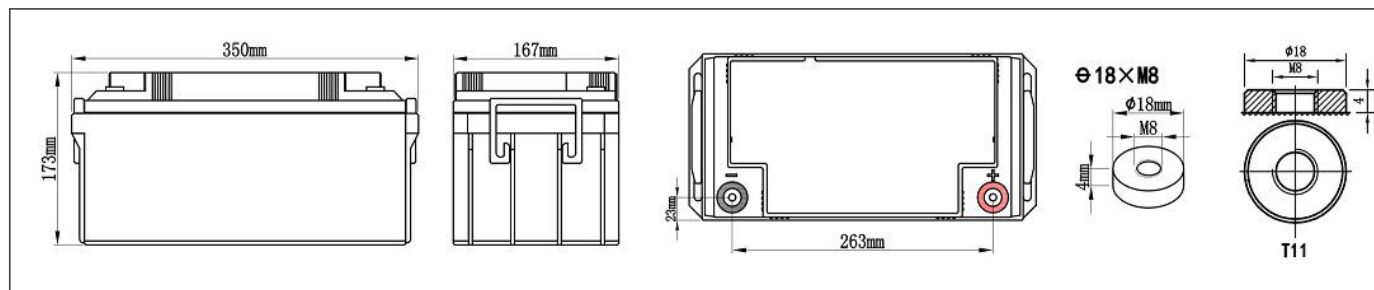
Application

- 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	65AH	350±3mm	167±2mm	173±2mm	173±2mm	Approx 19.5kg (42.99lbs)	≈8.0 mΩ	T11 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity		Cycle Application	
20 hour rate (3.25A)	68.0AH	1. Limit initial current less than 16.25A.	
10 hour rate (6.50A)	65.0AH	2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F).	
5 hour rate (11.05A)	56.0AH	3. Hold at 14.1V to 14.4V until current drop to under 0.42A for at least 3 hours.	
3 hour rate (16.25A)	49.1AH	4. Temperature compensation coefficient of charging voltage is -30mV/°C.	
1 hour rate (39.0A)	41.4AH		
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 16.25A 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%		
0°C(32°F)	86%	2. Temperature compensation coefficient of charging voltage is -18mV/°C.	

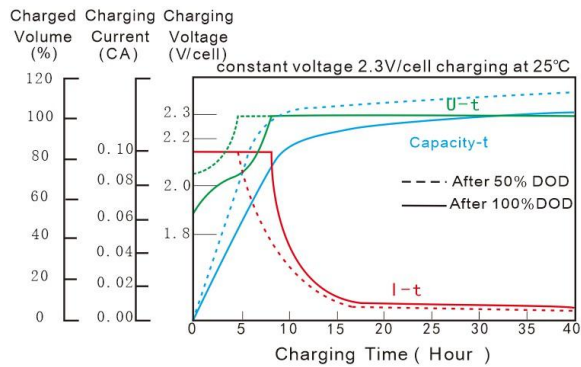
NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

Battery Discharge Table

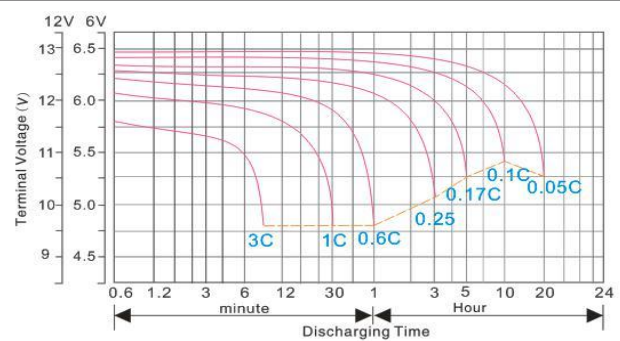
End Voltage (V)	Minute (M)				Hour (H)							
	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (@25°C) Unit: A												
9.6V	160	126	71	61	41.4	32.8	27.8	17.1	11.9	8.14	6.84	3.56
9.9V	153	120	68	60	40.7	32.2	27.1	16.8	11.6	8.01	6.77	3.51
10.2V	145	114	65	58	39.4	31.5	26.4	16.5	11.3	7.88	6.70	3.48
10.5V	138	109	61	56	38.8	30.9	25.8	16.2	11.2	7.69	6.64	3.44
10.8V	131	104	59	54	38.1	30.2	25.1	15.8	10.8	7.55	6.50	3.41
Constant Power Discharge Data Sheet (@25°C) Unit: W												
9.6V	1782	1477	914	640	532	389	291	217	139	106	82.0	44.0
9.9V	1697	1406	870	618	520	379	284	211	136	104	81.1	43.6
10.2V	1616	1339	828	598	507	370	277	206	133	102	80.4	43.2
10.5V	1539	1276	789	578	494	361	270	201	130	100	79.6	42.7
10.8V	1466	1215	751	559	483	351	264	196	126	98	78.8	42.3

Performance Characteristics

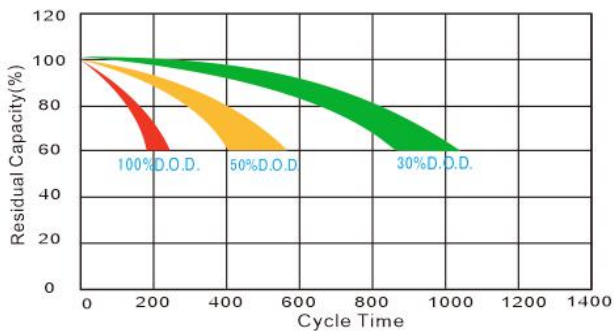
Charge Characteristics (25°C/77°F)



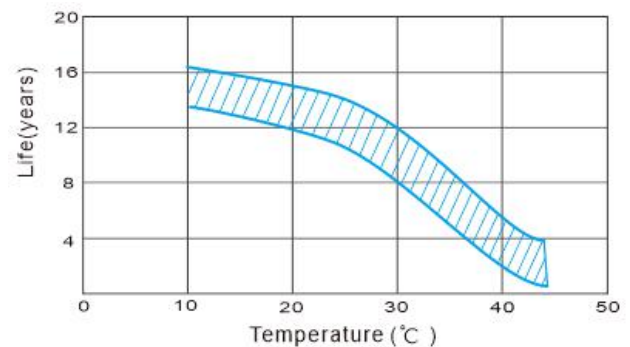
Discharge Characteristic (25°C/77°F)



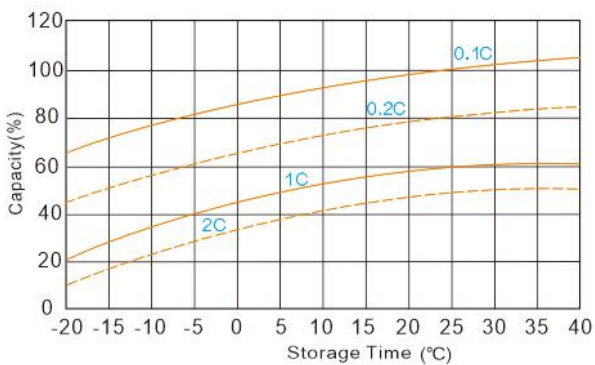
Cycle Life in Relation to Depth of Discharge



Temperature vs Float Life



Capacity Curve At Different Temperature



Self Discharge Characteristics

