

VRLA AGM Battery

ESC100-12 FR [12V100Ah]



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

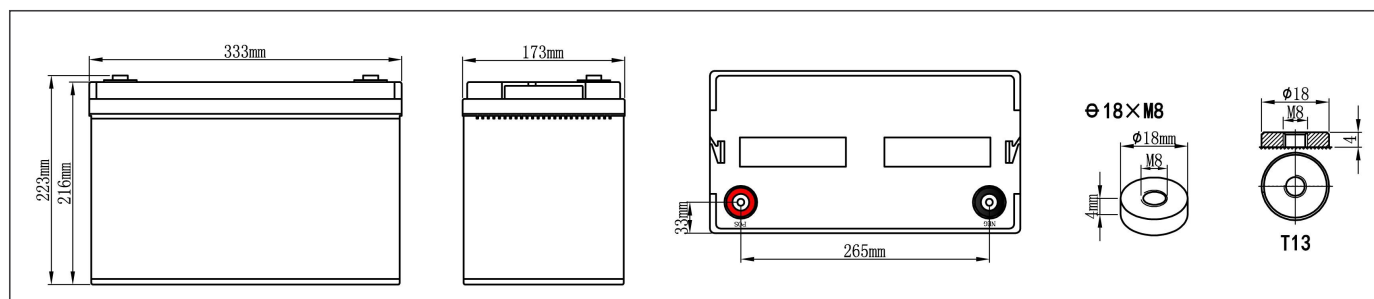
Application

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

Physical Specifications

Nominal Voltage	Nominal Capacity (10HR)	Dimension				Weight ±2%	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V	100AH	333±3mm	173±2mm	216±3mm	223±3mm	Approx 29.5kg (65.04lbs)	≈4.8 mΩ	T13 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity	
20 hour rate (5.0A)	105.0AH
10 hour rate (10.0A)	100.0AH
5 hour rate (17.0A)	86.0AH
3 hour rate (25.0A)	75.8AH
1 hour rate (60.0A)	64.0AH
Capacity affected by Temperature	
40°C(104°F)	103%
25°C(77°F)	100%
0°C(32°F)	86%

Cycle Application
1. Limit initial current less than 25.0A.
2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F).
3. Hold at 14.1V to 14.4V until current drop to under 0.60A for at least 3 hours.
4. Temperature compensation coefficient of charging voltage is -30mV/°C.
Standby Service
1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit 25.0A continuously .When held at this voltage , the battery will seek its own current level and maintain itself in a fully charge status.
2. Temperature compensation coefficient of charging voltage is -18mV/°C.

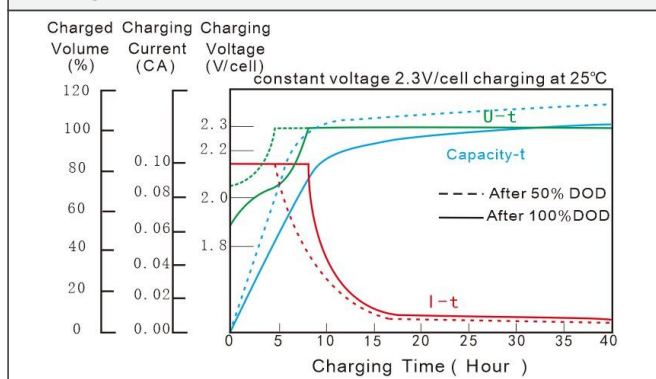
NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

Battery Discharge Table

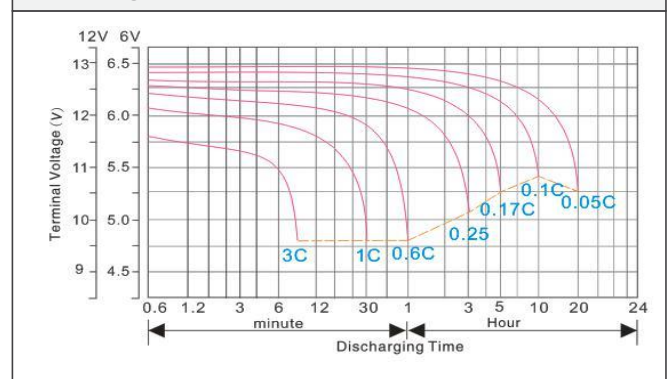
End Voltage (V)	Minute (M)				Hour (H)							
	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (@25°C) Unit: A												
9.6V	245	194	109	94	64	51	42.7	26.3	18.3	12.5	10.51	5.46
9.9V	234	185	104	91	63	49	41.6	25.9	17.9	12.3	10.40	5.41
10.2V	223	176	99	88	61	48	40.6	25.3	17.5	12.1	10.30	5.35
10.5V	212	168	94	85	60	47	39.7	24.8	17.2	11.8	10.20	5.25
10.8V	202	160	90	82	59	46	38.7	24.2	16.7	11.6	10.00	5.20
Constant Power Discharge Data Sheet (@25°C) Unit: W												
9.6V	2741	2271	1406	985	819	598	447	333	215	163	126	67.8
9.9V	2611	2163	1338	951	800	583	436	325	210	160	125	67.2
10.2V	2487	2060	1275	920	780	569	425	317	205	157	124	66.5
10.5V	2368	1962	1214	889	761	554	415	309	200	154	122	65.8
10.8V	2255	1869	1156	859	742	541	405	302	195	150	121	65.1

Performance Characteristics

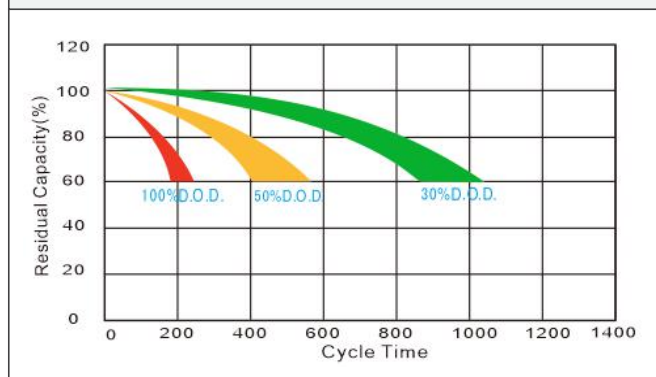
Charge Characteristics (25°C/77°F)



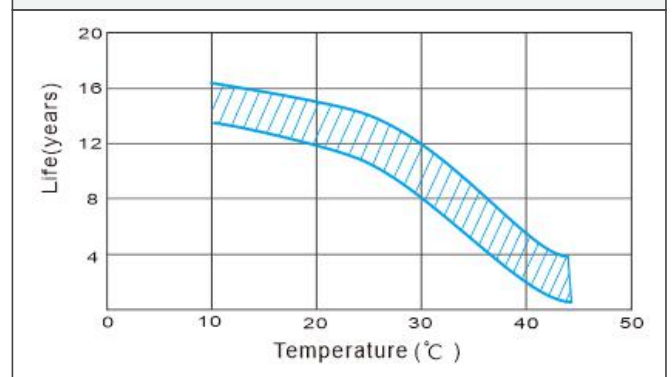
Discharge Characteristic (25°C/77°F)



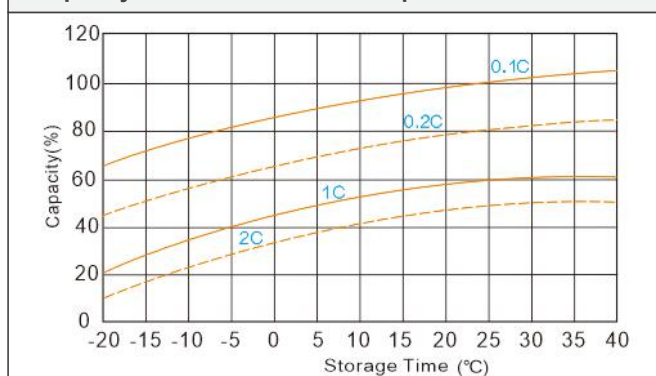
Cycle Life in Relation to Depth of Discharge



Temperature vs Float Life



Capacity Curve At Different Temperature



Self Discharge Characteristics

