

VRLA AGM Battery

ESC75-12 [12V75Ah]



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

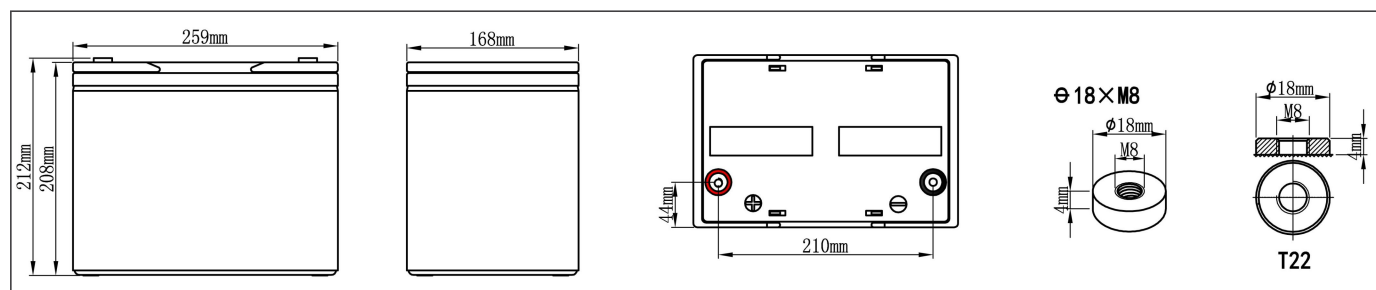
Application

- 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	75AH	259±3mm	168±2mm	208±3mm	212±3mm	Approx 22.0kg (48.5lbs)	≈7.5m Ω	T22 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity	
20 hour rate (3.75A)	79.8AH
10 hour rate (7.5A)	75.0AH
5 hour rate (12.75A)	64.5AH
3 hour rate (18.75A)	57.0AH
1 hour rate (45.0A)	47.7AH
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 18.75A.
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 0.45A 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 18.75A 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.

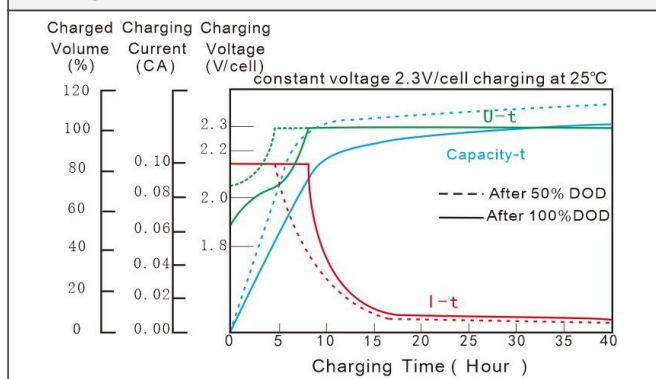
NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

Battery Discharge Table

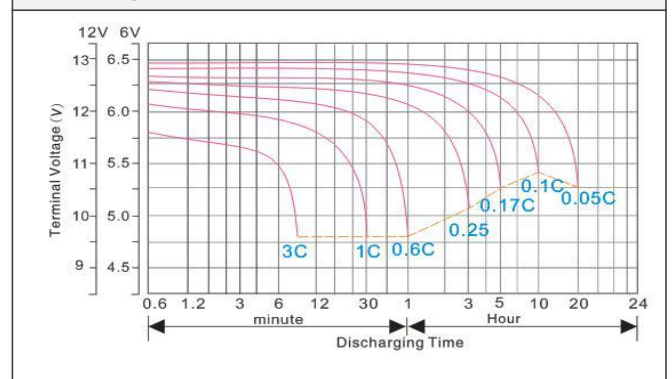
End Voltage (V)	Minute (M)				Hour (H)							
	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (@25°C) Unit: A												
9.6V	184	145	83	71	47.7	37.9	32.0	19.7	13.7	9.40	7.89	4.10
9.9V	176	138	78	69	46.9	37.1	31.2	19.4	13.4	9.25	7.80	4.06
10.2V	168	132	75	66	45.4	36.3	30.4	19.0	13.1	9.09	7.73	4.02
10.5V	159	125	71	64	44.7	35.6	29.8	18.6	12.9	8.86	7.65	3.99
10.8V	151	120	68	62	43.9	34.8	29.0	18.2	12.5	8.71	7.50	3.94
Constant Power Discharge Data Sheet (@25°C) Unit: W												
9.6V	2056	1704	1054	739	615	448	335	250	161	122	94.6	50.9
9.9V	1959	1622	1004	714	600	437	327	243	158	120	93.6	50.5
10.2V	1864	1545	956	690	584	426	319	238	153	118	92.8	49.9
10.5V	1776	1472	910	666	570	416	312	231	150	115	91.7	49.4
10.8V	1692	1401	868	644	557	406	304	226	146	113	90.9	49.0

Performance Characteristics

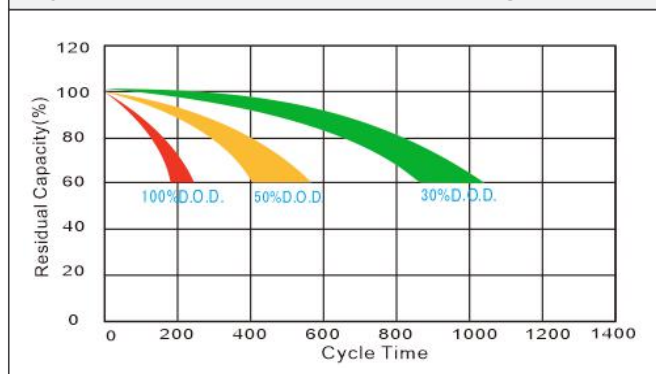
Charge Characteristics (25°C/77°F)



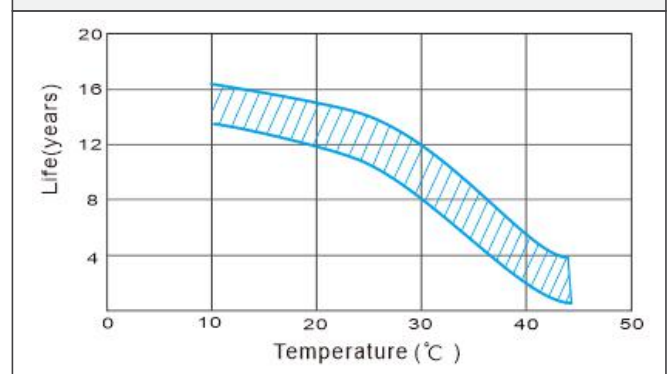
Discharge Characteristic (25°C/77°F)



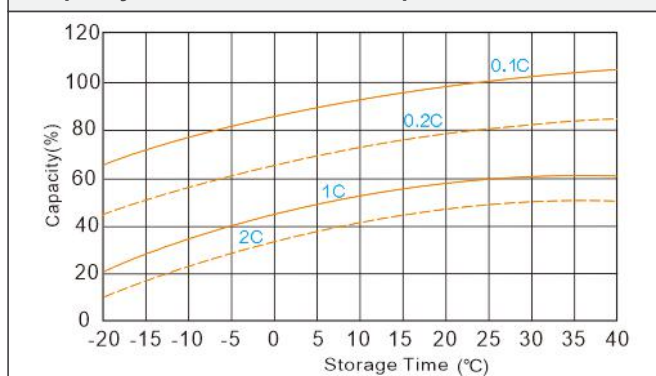
Cycle Life in Relation to Depth of Discharge



Temperature vs Float Life



Capacity Curve At Different Temperature



Self Discharge Characteristics

