

VRLA AGM Battery

12IP18VA[12V18Ah]



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

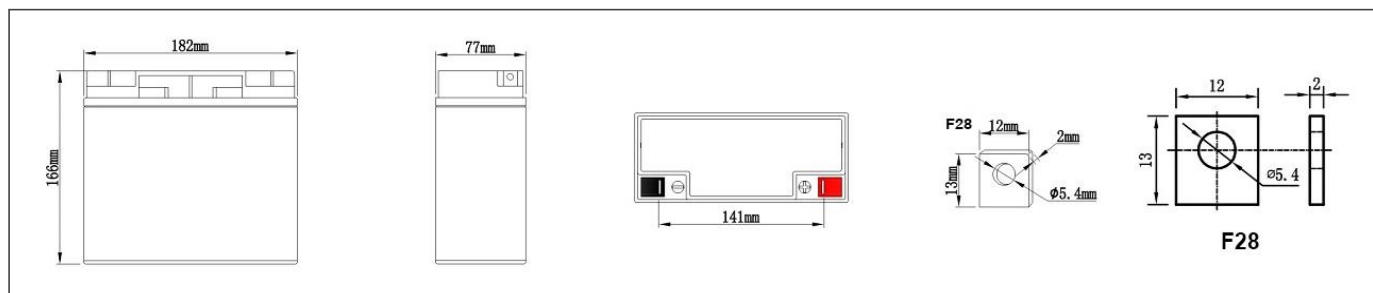
Application

- 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 $\pm 2\%$	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V	18AH	182 $\pm$ 2mm	77 $\pm$ 2mm	166 $\pm$ 2mm	166 $\pm$ 2mm	Approx 4.95kg (10.90lbs)	$\approx 19.1\text{m}\Omega$	F28 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity	
20 hour rate (0.95A)	19.26AH
10 hour rate (1.9A)	18.40AH
5 hour rate (3.23A)	15.95AH
27 minute rate (19A)	8.55AH
7 minute rate (57A)	6.65AH
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 5.4A.	
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 0.114A 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 13.6V to 13.8 volts with current limit 5.4A 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.	

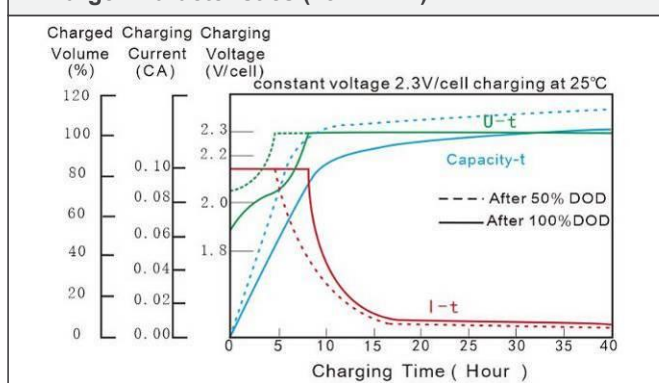
NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

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	44.8	35.2	18.0	13.1	11.1	8.80	6.77	5.10	3.42	2.27	1.92	0.994
9.9V	42.6	33.4	17.1	12.7	10.9	8.59	6.61	4.97	3.33	2.22	1.90	0.986
10.2V	40.6	31.9	16.4	12.4	10.5	8.38	6.46	4.86	3.25	2.17	1.89	0.975
10.5V	40.1	31.7	16.3	12.2	10.4	8.24	6.21	4.71	3.23	2.15	1.86	0.963
10.8V	39.9	31.2	15.9	12.0	10.3	8.10	5.95	4.54	3.20	2.13	1.84	0.950
Constant Power Discharge Data Sheet (@25°C) Unit: W												
9.6V	433	351	199	139	105	80	61	43.2	28.4	19.9	15.7	8.50
9.9V	412	334	188	135	102	79	60	42.5	27.8	19.5	15.6	8.36
10.2V	393	318	179	131	99	77	58	41.1	27.1	19.0	15.4	8.29
10.5V	379	309	176	129	98	76	57	40.4	26.7	18.8	15.1	8.16
10.8V	365	298	171	125	95	74	56	39.1	26.4	18.7	14.9	8.09

Performance Characteristics

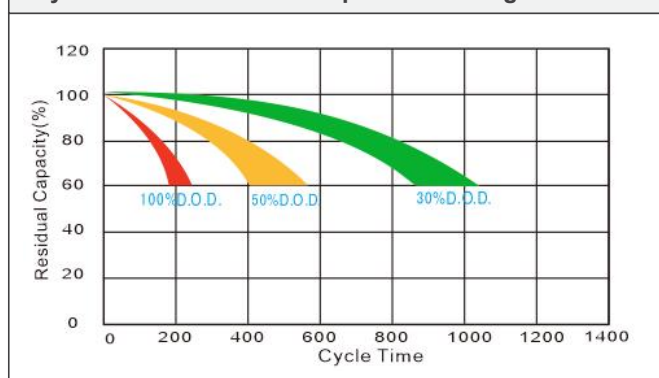
Charge Characteristics (25°C/77°F)



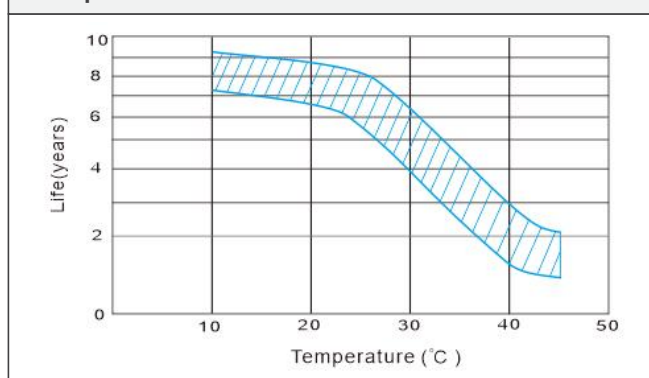
Discharge Characteristic (25°C/77°F)



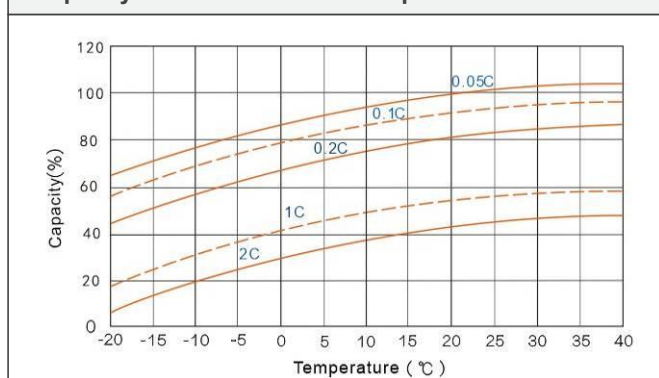
Cycle Life in Relation to Depth of Discharge



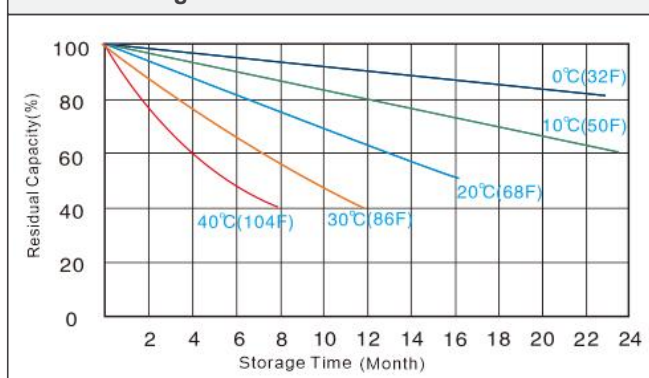
Temperature vs Float Life



Capacity Curve At Different Temperature



Self Discharge Characteristics



☆The datasheet subjects to change without prior notice, please contact with us if have any questions.