



# ALPHA HOUSE

intelligent power

## AH12-7 (12V-7Ah) VRLA AGM



### Applications

- > UPS / EPS
- > Power systems
- > Telecommunications system
- > Emergency lighting, Auto control system
- > Solar / Wind generating storage cyclic
- > Other general purpose

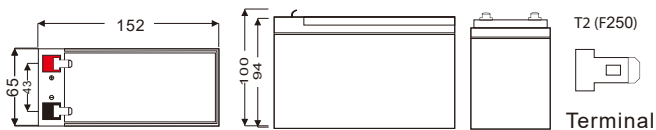
### General Features

- > High corrosion resistant performance: Pb-Ca multi-alloy grid
- > High energy density and power density
- > Optimized Capability of instant High-current Discharging
- > Excellent charge acceptance ability
- > Excellent deep cycle discharge capability
- > Strong high and low temperature performance
- > Precision sealing technology

### Manufacturer's Certificates



Dimensions: 152(L) × 65(W) × 94(H) × 100(TH) Unit: mm



### Specification

Nominal Voltage	12V
Nominal Capacity	7.0Ah
Design life	5 years
Terminal	T2 (F250)
Approx. Weight	2.02kg (4.45lbs)
Container Material	ABS
Rated Capacity	7.00Ah → 20Hour Rate (0.35A to 10.5V)
	5.43Ah → 3Hour Rate (1.81A to 10.5V)
	4.62Ah → 1Hour Rate (4.62A to 9.60V)
Internal Resistance	Full charged at 25°C: 30.0 mΩ
Max. Discharge Current	105A(5S)
Operating Temperature	Discharge: -20 ~50°C(-4~ 122°F)
	Charge: -20 ~50°C(-4~ 122°F)
	Storage: -20 ~50°C(-4~ 122°F)
Charge Current:	Max.1.75A ; Recom.0.70A
Float Charge Voltage(-3mV/°C) :	
Charge Method (25 °C)	13.5-13.8V, recom. 13.5V(Full floating system)
	13.5-13.8V, recom. 13.62V(Cycle use system)
	Equalize Charge: 13.8-14.1V, recom. 14.1V(-4mV/ °C)
Cycle Charge:	14.4-15.0V, recom. 14.4V(-5mV/ °C)
Self Discharge	3% of capacity declined per month at 25°C

### Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

FV/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	27.7	18.1	13.5	8.86	4.62	2.65	1.93	1.55	1.32	0.868	0.693	0.371
1.65V	27.5	17.4	12.4	8.41	4.34	2.54	1.88	1.50	1.29	0.854	0.686	0.364
1.70V	22.5	16.3	11.6	8.15	4.20	2.49	1.84	1.42	1.27	0.840	0.672	0.357
1.75V	20.9	15.5	10.8	7.96	4.05	2.43	1.81	1.40	1.22	0.819	0.658	0.350
1.80V	19.3	14.6	10.0	7.70	3.91	2.37	1.72	1.37	1.17	0.798	0.644	0.336

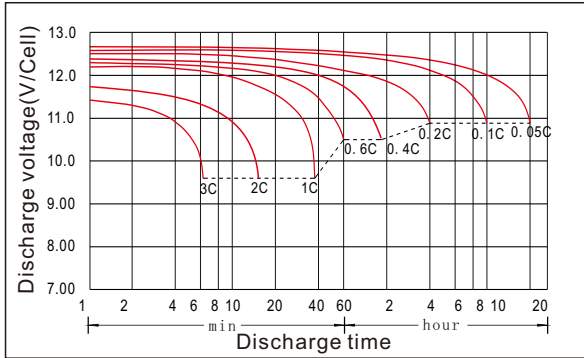
### Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

FV/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	52.0	32.7	24.7	15.0	8.47	4.96	3.65	2.93	2.49	1.64	1.34	0.735
1.65V	48.0	30.9	23.2	14.9	7.97	4.77	3.55	2.84	2.44	1.61	1.32	0.715
1.70V	43.9	30.0	22.2	14.8	7.72	4.68	3.49	2.70	2.37	1.60	1.31	0.709
1.75V	39.8	29.1	21.4	14.7	7.50	4.57	3.44	2.66	2.32	1.53	1.28	0.694
1.80V	35.7	28.1	20.4	14.5	7.40	4.54	3.35	2.64	2.26	1.48	1.25	0.690

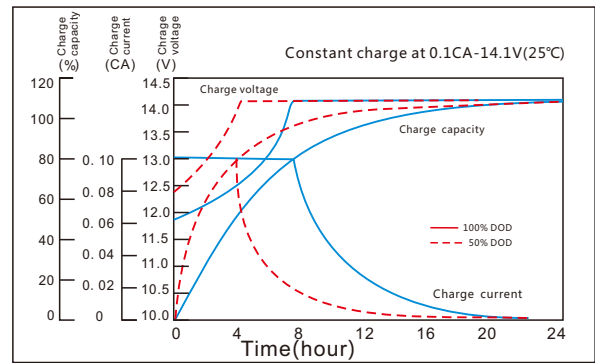


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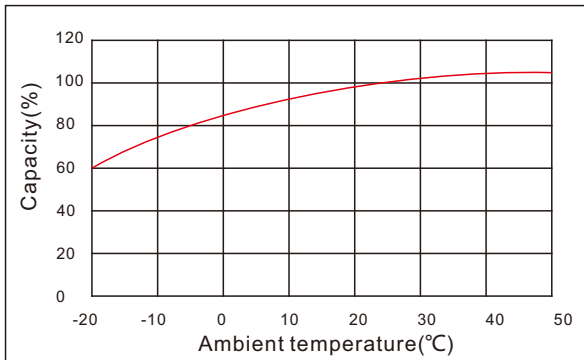
### Discharge characteristic



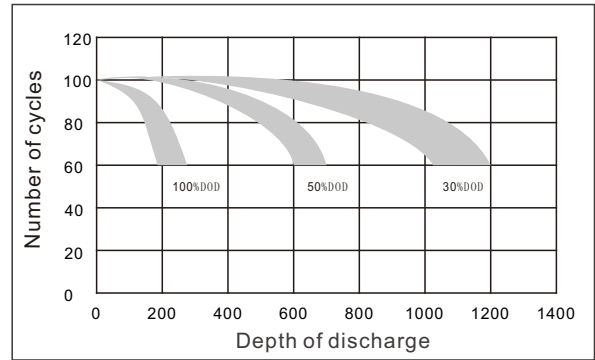
### Charging characteristic



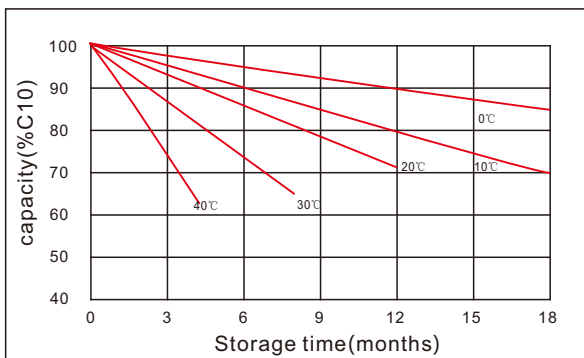
### The effect of temperature on capacity



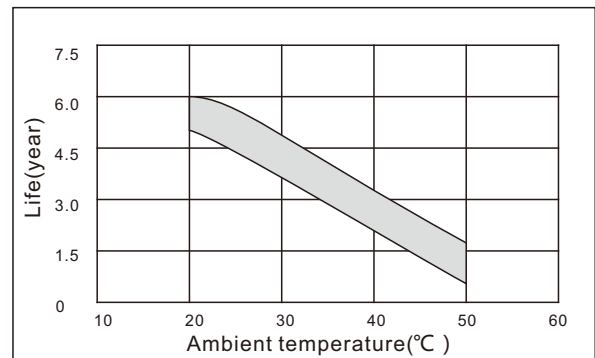
### The impact of discharge depth on capacity



### Curves of self-discharge



### The effect of temperature on float life



Disclaimer: The manufacturer reserves the right to amend and/or vary the specifications and parameters of the product and apply updates accordingly at any time. It is the sole responsibility of the buyer and user of the product to ensure all applicable product specifications referred to are valid and up to date. All product specifications are available upon request. Batteries must be installed in accordance with standard BS EN IEC 62485-2:2018, and in accordance with manufacturer's guidelines. (available upon request)

