



ALPHA HOUSE

intelligent power

AH12-28

(12V-28Ah)

VRLA AGM



Applications

- > Solar / Wind energy and other new energy storage
- > UPS / EPS
- > Power systems
- > Telecommunications system
- > Emergency lighting, Auto control system
- > Other general purpose

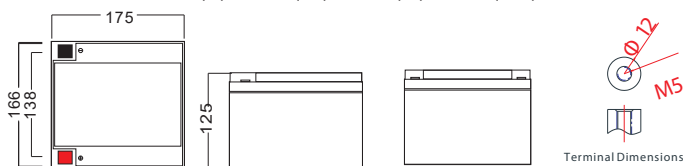
General Features

- > Nanosilica colloidal electrolyte and high tin positive plate alloy design to enhance battery performance
- > Relatively rich electrolyte, high temperature and low temperature performance is superior
- > Long cycle life, excellent deep cycle discharge ability
- > Excellent charge acceptance ability
- > Precision sealing technology
- > Long life

Manufacturer's Certificates



Dimensions: 166(L) × 175(W) × 125(H) × 125(TH) Unit: mm



Specification

Nominal Voltage	12V
Nominal Capacity	28Ah
Design life	10 years
Terminal	T13 (M5)
Terminal Torque	2~3 Nm
Approx. Weight	8.00kg (17.6lbs)
Container Material	ABS
Rated Capacity	28.0Ah 20Hour Rate (1.40A to 10.5V)
	21.3Ah 3Hour Rate (7.11A to 10.5V)
	18.1Ah 1Hour Rate (18.1A to 9.60V)
Internal resistance	Full charged at 25°C: 15.0 mΩ
Max. Discharge Current	420A(5S)
Operating Temperature	Discharge: -40 ~60°C(-40~ 140°F)
	Charge: -20 ~50°C(-4~ 122°F)
	Storage: -20 ~50°C(-4~ 122°F)

Charge current: Max. 7.0A ; Recom.2.8A

Charge Method (25 °C)

Float Charge: 13.5-13.8V, recom. 13.5V(-18mV/ °C)

Equalize Charge: 13.8-14.1V, recom. 14.1V(-24mV/ °C)

Cycle Charge: 14.4-15.0V, recom. 14.4V(-30mV/ °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	108	70.3	52.4	34.4	18.1	10.4	7.57	6.06	5.16	3.40	2.76	1.48
1.65V	107	67.4	48.1	32.6	17.0	9.96	7.35	5.87	5.05	3.35	2.73	1.45
1.70V	87.5	63.3	44.8	31.6	16.5	9.77	7.22	5.57	4.99	3.29	2.67	1.43
1.75V	81.2	60.3	41.8	30.9	15.9	9.52	7.11	5.49	4.77	3.21	2.62	1.40
1.80V	74.7	56.8	38.8	29.9	15.3	9.27	6.72	5.38	4.58	3.13	2.56	1.34

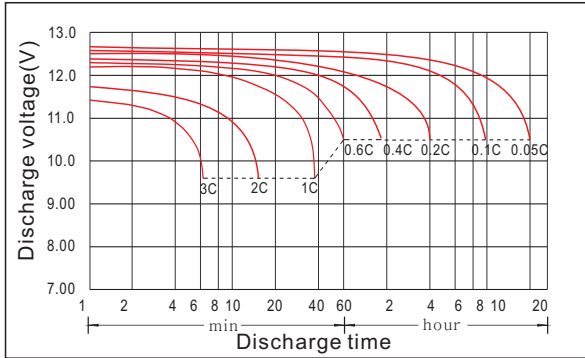
Constant Power Discharge Characteristics Unit: W/cell(25°C, 77°F)

FV/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	202	127	96.0	58.0	33.2	19.4	14.3	11.5	9.74	6.42	5.34	2.93
1.65V	186	120	90.1	57.6	31.2	18.7	13.9	11.1	9.56	6.32	5.24	2.85
1.70V	170	116	86.0	57.4	30.3	18.3	13.7	10.6	9.28	6.26	5.20	2.83
1.75V	154	113	82.8	56.9	29.4	17.9	13.5	10.4	9.10	6.00	5.08	2.77
1.80V	139	109	79.2	56.4	29.0	17.8	13.1	10.3	8.87	5.80	4.98	2.75

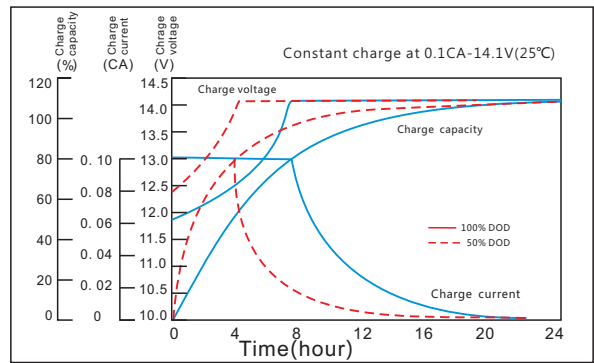


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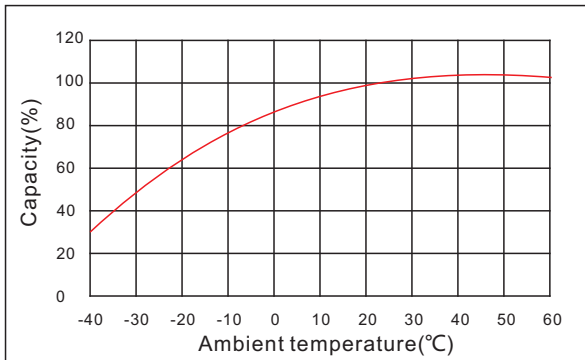
Discharge characteristic



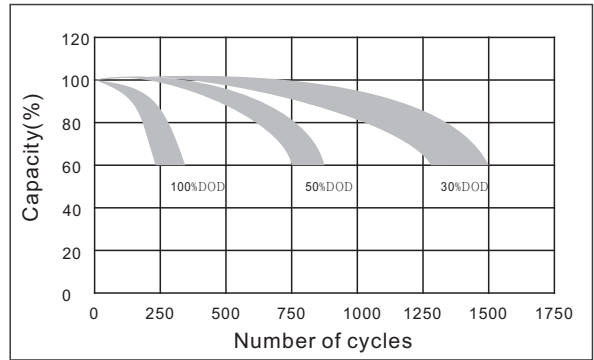
Charging characteristic



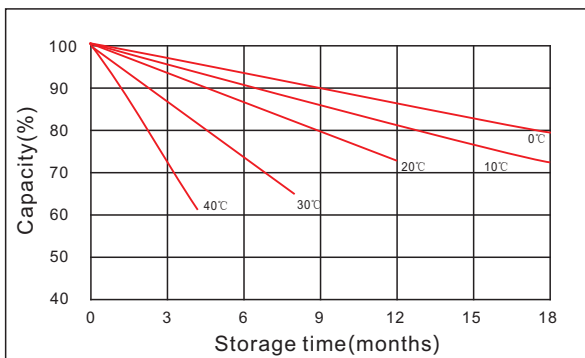
The effect of temperature on capacity



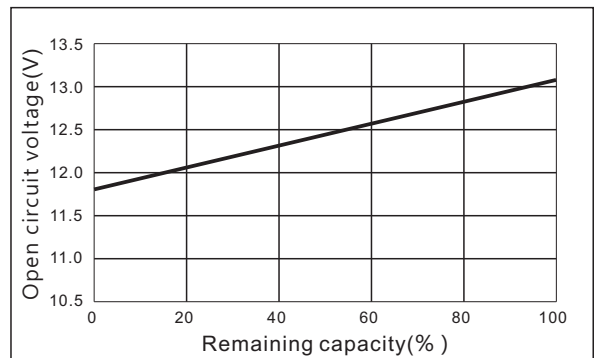
The effect of discharge depth on cycle life



Curves of self-discharge



Curves of open circuit voltage vs. capacity



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)

