



# ALPHA HOUSE

intelligent power

## AG12-50 (12V-50Ah) AGM+GEL



### Applications

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

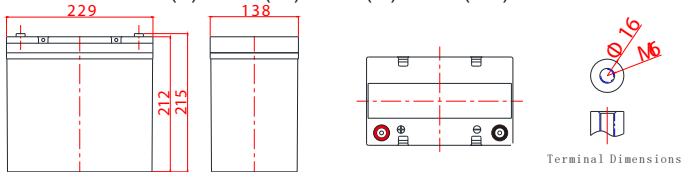
### General Features

- > 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
- > Long life

#### Manufacturer's Certificates



Dimension: 229(L) × 138(W) × 212(H) × 215(TH) Unit: mm



### Specification

Nominal Voltage	12V
Nominal Capacity	50Ah
Design Life	10 years
Terminal	T16 (M6)
Terminal Torque	3.9~5.4 Nm
Approx. Weight	15.5kg (34.2lbs)
Container Material	ABS
Rated Capacity	50.0Ah → 10Hour Rate (5.00A to 10.8V)
	40.2Ah → 3Hour Rate (13.4A to 10.8V)
	32.7Ah → 1Hour Rate (32.7A to 10.5V)
Internal Resistance	Full charged at 25°C: 10.0 mΩ
Max. Discharge Current	600A(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. 12.5A ; Recom.5.0A
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	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	176	94.7	57.6	33.7	19.3	14.0	9.41	6.18	5.20	2.73
1.65V	171	91.8	56.6	33.5	19.2	13.9	9.31	6.13	5.15	2.72
1.70V	164	89.8	55.6	33.2	19.1	13.7	9.21	6.08	5.10	2.70
1.75V	151	86.9	55.1	32.7	18.8	13.5	9.11	6.03	5.05	2.69
1.80V	135	81.0	52.7	31.9	18.4	13.4	8.87	5.98	5.00	2.68
1.85V	121	72.2	48.1	29.5	17.5	12.6	8.43	5.73	4.85	2.63

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

FV/Time	5min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	295	167	104	63.7	36.5	26.7	17.8	12.0	10.0	5.40
1.65V	284	164	103	63.2	36.4	26.3	17.7	11.9	9.90	5.38
1.70V	283	162	103	62.7	36.3	26.2	17.6	11.9	9.80	5.35
1.75V	264	161	103	62.2	36.1	26.0	17.5	11.8	9.70	5.33
1.80V	242	152	100	61.7	36.0	25.9	17.3	11.7	9.60	5.30
1.85V	216	136	91.9	57.3	34.3	24.6	16.5	11.3	9.45	5.25



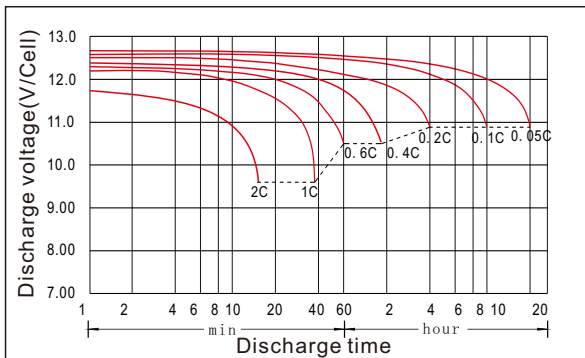
# AG12-50

(12V-50Ah)  
AGM+GEL

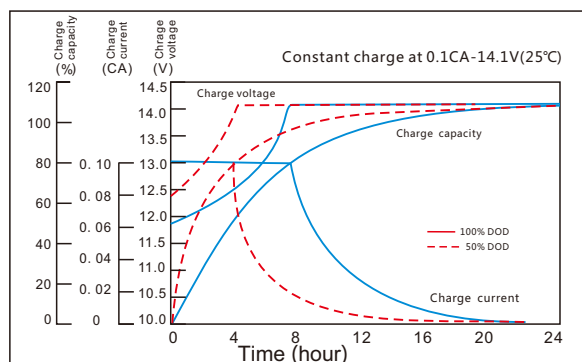
# ALPHA HOUSE

intelligent power

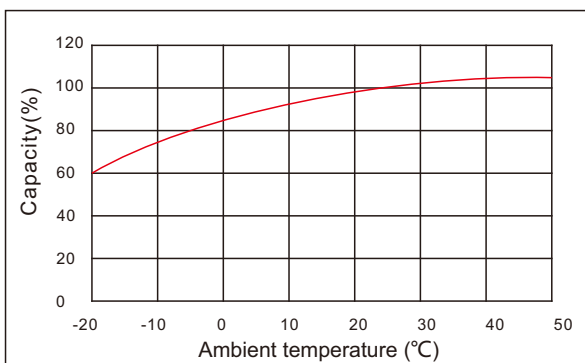
### Discharge characteristic



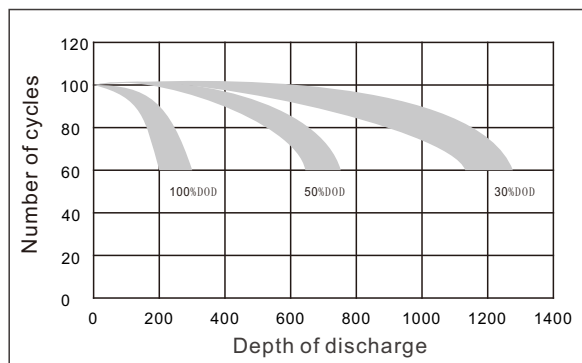
### Charging characteristic



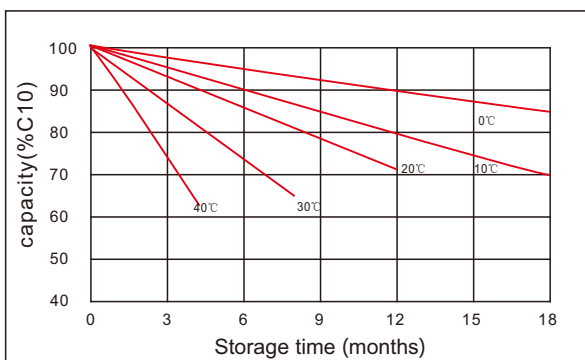
### The effect of temperature on capacity



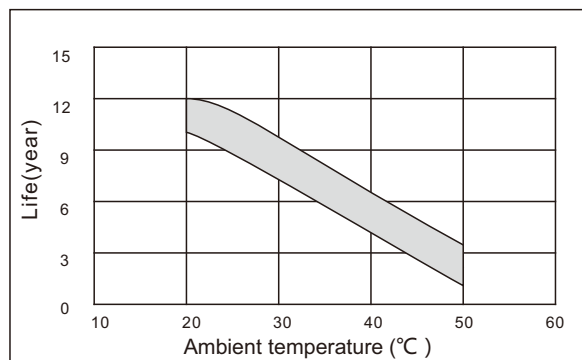
### The impact of discharge depth on capacity



### 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)

