

12V OPR120-12 Deep Cycle Rechargeable AGM / GEL Hybrid VRLA Solar Battery



Applications

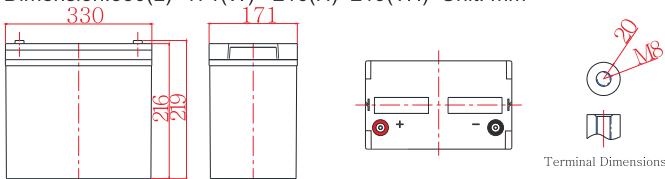
Telecommunications	Emergency Lighting
Process Control	Streetlights
Power Stations	Fire & Security Systems
Solar & Wind	Cell Towers
UPS	Hospitals
Railway Systems	Banks
Backup Power Systems	Computer Centres

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



Dimension: 330(L)×171(W)×216(H)×219(TH) Unit: mm



Specification

Nominal Voltage	12V
Nominal Capacity	100Ah
Terminal	M8
Approx. Weight	Approx 29.5kg (65.0lbs)
Container Material	ABS
Rated Capacity	100Ah → 10Hour Rate (10.0A to 10.8V)
	78.9Ah → 3Hour Rate (26.3A to 10.8V)
	64.2Ah → 1Hour Rate (64.2A to 10.5V)
Internal resistance	Full charged at 25°C: 5.2 mΩ
Max. Discharge Current	1200A(5S)
Operating Temperature	Discharge: -40 ~60%(-40~ 140°F)
	Charge : -20 ~50%(-4~ 122°F)
	Storage: -20 ~50%(-4~ 122°F)
Charge Method (25 °C)	Charge current: Max. 25.0A ; Recom.10.0A
	Float Charge:13.5-13.8V,recom.13.8V(-18mV/ °C)
	Equalize charge:13.8-14.1V,recom.14.1V(-24mV/ °C)
	Cycle charge:14.4-15.0V,recom.14.7V(-30mV/ °C)
Self discharge	3% of capacity declined per month at 25°C

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

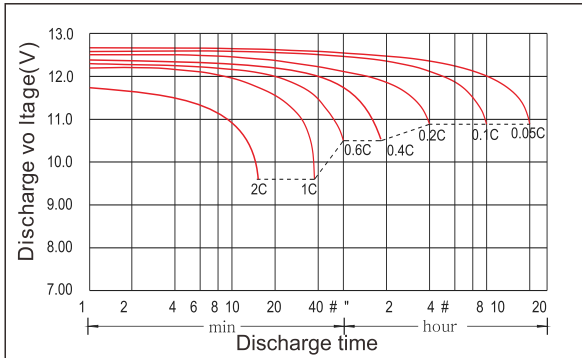
FV/Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	184	112	66.0	37.8	27.5	18.4	12.1	10.3	5.43
1.65V	178	110	65.6	37.6	27.2	18.2	12.0	10.2	5.40
1.70V	174	108	65.1	37.4	26.8	18.1	11.9	10.1	5.37
1.75V	169	107	64.2	36.8	26.5	17.9	11.8	10.0	5.35
1.80V	157	102	62.5	36.1	26.3	17.4	11.7	10.0	5.32
1.85V	140	93.3	57.9	34.3	24.8	16.5	11.2	9.65	5.23

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

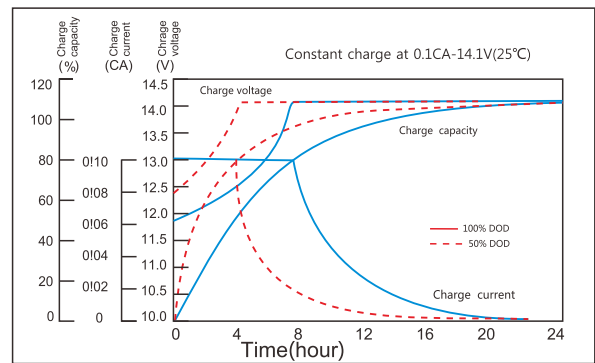
FV/Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	323	202	125	71.5	52.2	35.0	23.5	19.9	10.7
1.65V	318	200	124	71.4	51.6	34.8	23.3	19.7	10.7
1.70V	314	200	123	71.1	51.3	34.5	23.2	19.5	10.6
1.75V	312	199	122	70.7	51.0	34.3	23.0	19.3	10.6
1.80V	295	194	121	70.5	50.8	33.9	22.9	19.1	10.5
1.85V	264	178	112	67.3	48.3	32.4	22.1	18.8	10.4

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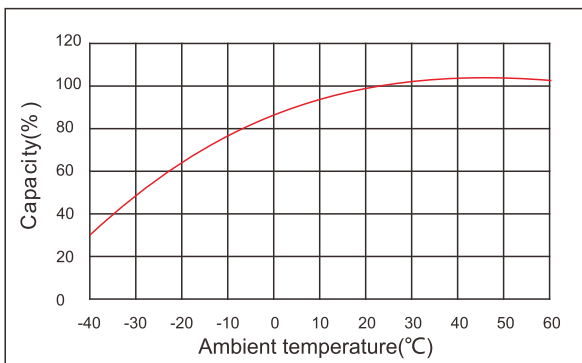
Discharge characteristic



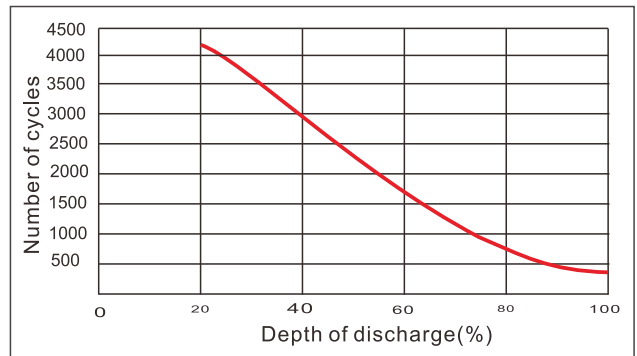
Charging characteristic



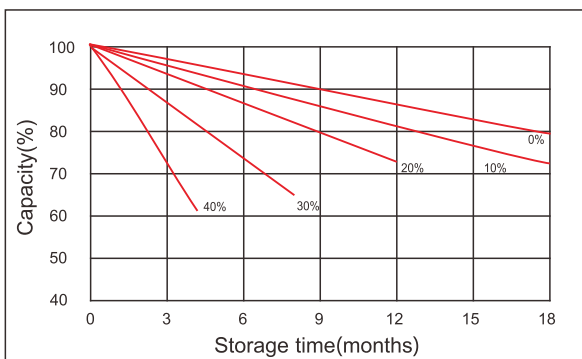
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



Curves of open circuit voltage vs. capacity

