

# OPR240-12

## Data Sheet

# 12V **OPR** Deep Cycle Rechargeable AGM / GEL Hybrid VRLA **Solar Battery**

### General Features

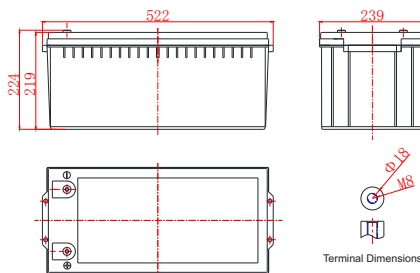
- High Corrosion Resistant Performance: Pb-Ca multi-alloy grid
- Patented Silicate Compound Electrolyte
- Superior Charge Acceptance
- Outstanding High and Low Temperature Performance
- Optimised Capability of instant High-current Discharging
- Excellent Deep Discharge Cycle Life
- Design Life is 12 Years

### 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        |

### Dimensions and Weight

Length	522mm±1.5mm
Width	239mm±1.5mm
Height	219mm±1.5mm
Total Height	224mm±1.5mm
Weight	62.5kg



### Product Specification

Nominal Voltage	12V
Rated Capacity:	
10 Hour Rate (5.50A to 10.8V)	200Ah
3 Hour Rate (14.3A to 10.8V)	156Ah
1 Hour Rate (34.0A to 10.5V)	120Ah
Internal Resistance	About 2.5mΩ
Self-discharge Rate:	3%/month (25°C)
Operating Temperature Range:	
Discharge	-40°C~60°C
Charge	-40°C~60°C
Storage	-40°C~50°C
Charging Methods	
Floating Use	13.5V~13.8V (25°C)
Cycling Use	14.4V~15.0V (25°C)
Max Charge Current	50A

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

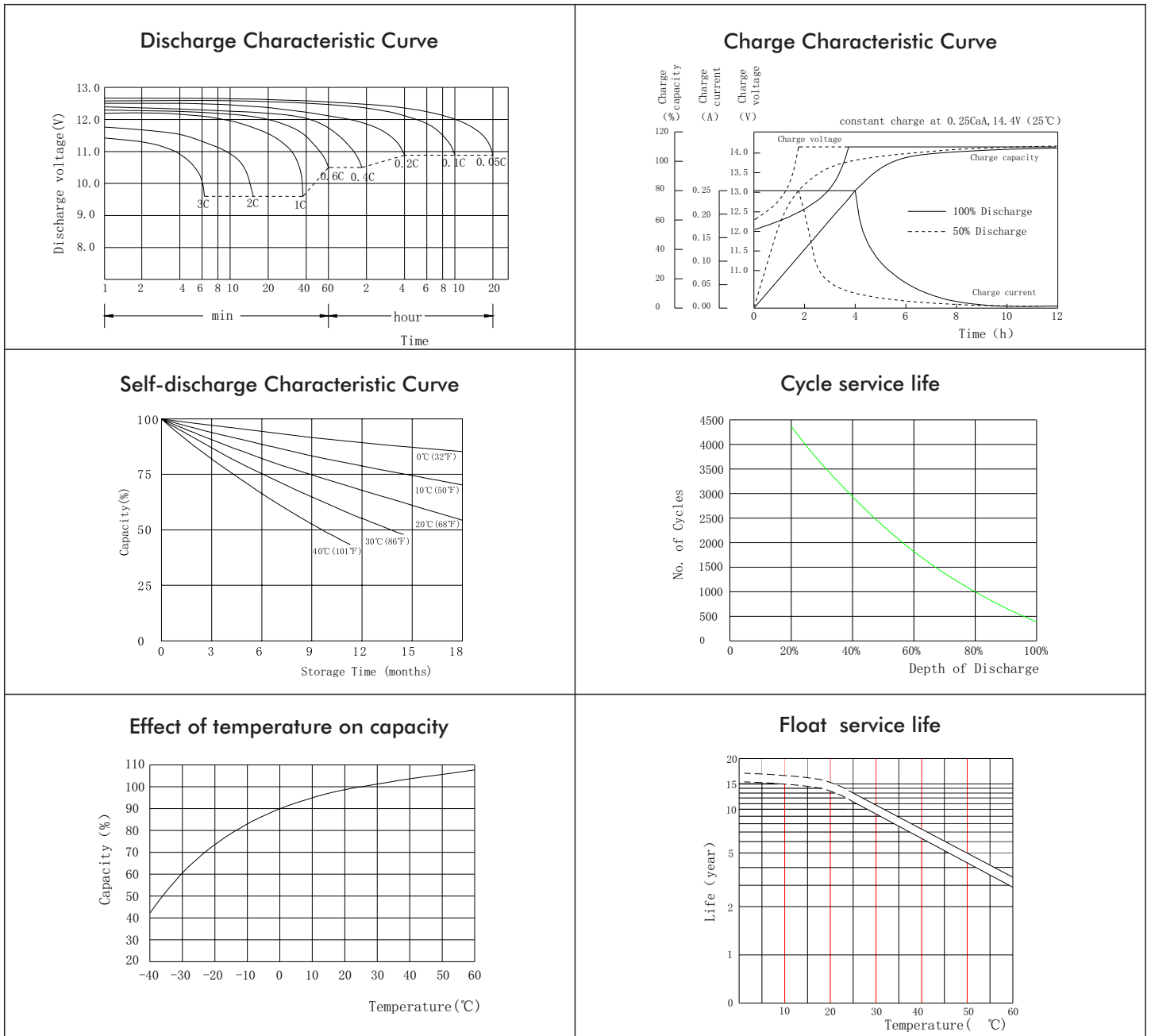
FV/Time	5M	15M	30M	1h	2h	3h	5h	8h	10h	20h
1.60V	705	379	230	135	77.2	56.1	37.6	24.7	20.8	10.9
1.65V	683	367	226	134	76.8	55.5	37.2	24.5	20.6	10.9
1.70V	656	359	222	133	76.2	54.7	36.8	24.3	20.4	10.8
1.75V	603	348	221	131	75.1	54.1	36.5	24.1	20.2	10.8
1.80V	541	324	211	128	73.7	53.7	35.5	23.9	20.0	10.7
1.85V	482	289	192	118	70.0	50.6	33.7	22.9	19.4	10.5

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

FV/Time	5M	15M	30M	1h	2h	3h	5h	8h	10h	20h
1.60V	1181	667	417	255	146	107	71.3	48.0	40.0	21.6
1.65V	1136	655	413	253	146	105	71.0	47.6	39.6	21.5
1.70V	1131	647	413	251	145	105	70.4	47.4	39.2	21.4
1.75V	1054	643	411	249	144	104	70.0	47.0	38.8	21.3
1.80V	968	608	401	247	144	104	69.2	46.6	38.4	21.2
1.85V	865	544	368	229	137	98.6	66.1	45.1	37.8	21.0

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### Charging Procedures

Application Type	Charge Voltage			Max charge current (A)
	Temp (°C)	Set point	Temperature compensation	
Cycle Use	25	14.4	-5mV/°C/cell	0,25C
Float Use	25	13.65	-3mV/°C/cell	

### Relationship between discharge current & discharge voltage

Discharge rate	1hr	3hr	8hr	10hr
End voltage (V)	10.5	10.8	10.8	10.8
Discharge current (A)	0.55C	0.25C	0.12C	0.1C