

# CE4.5- 6 ▶ 6V 4.5AH

SMF VRLA RECHARGEABLE BATTERY



## APPLICATIONS

- ✓ UPS Systems
- ✓ Central Battery Systems
- ✓ Fire Alarm System
- ✓ Security Systems
- ✓ Elevators
- ✓ Hospital & Laboratories
- ✓ Banks, Finance & Data Centers

## COMPLIANCE

- ✓ IEC 60896 – 21
- ✓ IEC 60896 – 22
- ✓ IEC 61427 – 1:2013

## QUALITY STANDARDS

Manufactured in best-in-class facility certified to

- ✓ ISO 9001: 2015
- ✓ ISO 14001: 2015
- ✓ OHSAS 45001: 2018

## TECHNICAL FEATURES

- ✓ Non-Spillable Sealed Construction
- ✓ Sealed Lead Acid Battery
- ✓ AGM, ABS, Gas Recombination
- ✓ Venting System for low internal pressure
- ✓ Low Self-Discharge & High-Power Output
- ✓ Heavy-Duty, Highly Optimized Grids
- ✓ Maintenance-Free Operation

## CHARACTERISTICS

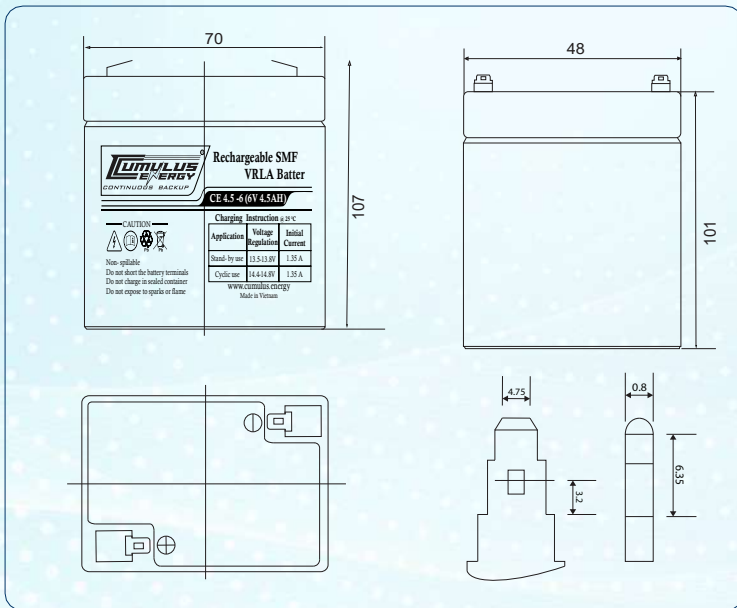
Nominal Voltage	12 V	
Capacity 25°C (77°F)	20 Hour rate	4.5Ah
	10 Hour rate	4.2Ah
	1 Hour rate	2.7Ah
Internal Resistance (25°C, 100%Charge)	Approx. 18m Ω	
Self-Discharge (25°C)	3 Months	Remaining Capacity 91%
	6 Months	Remaining Capacity 82%
Operating Temperature	Discharge	-15°C to 50°C
	Charge	-10°C to 50°C
	Storage	-20°C to 50°C
Nominal Operating Temperature	≤ 25°C (77°F)	
Maximum Discharge current	68A (5sec)	
Maximum Charging current	1.35A	
Charge Methods	6.75 to 6.90 V	
Constant Voltage Charge 77°F (25°C) - Standby Use	Temp. Compensation -9mV/°C	
Charge methods	7.25 to 7.50V	
Constant Voltage Charge 77°F (25°C) - Cycle use	Temp. Compensation -15mV/°C	
Design Life	5 Years	

## CONSTANT CURRENT DISCHARGE (Amperes) AT 25°C

End Cell Voltage (ECV)	DURATION								
	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60	17.3	10.90	8.52	4.79	2.96	1.13	0.79	0.44	0.24
1.65	16.8	10.60	8.30	4.72	2.90	1.12	0.79	0.43	0.23
1.70	16.0	10.12	7.99	4.56	2.84	1.10	0.78	0.42	0.23
1.75	15.2	9.69	7.73	4.45	2.78	1.09	0.77	0.41	0.23
1.80	14.3	9.16	7.32	4.29	2.69	1.06	0.75	0.40	0.22

## CONSTANT POWER DISCHARGE (Watts) AT 25°C

End Cell Voltage (ECV)	DURATION								
	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60	16.0	10.2	8.1	4.6	2.85	1.11	0.78	0.43	0.23
1.65	15.5	9.9	7.9	4.5	2.80	1.10	0.78	0.43	0.23
1.70	14.9	9.5	7.6	4.4	2.73	1.09	0.77	0.42	0.23
1.75	14.2	9.1	7.3	4.3	2.68	1.08	0.77	0.42	0.23
1.80	13.4	8.6	7.0	4.1	2.60	1.05	0.74	0.41	0.22

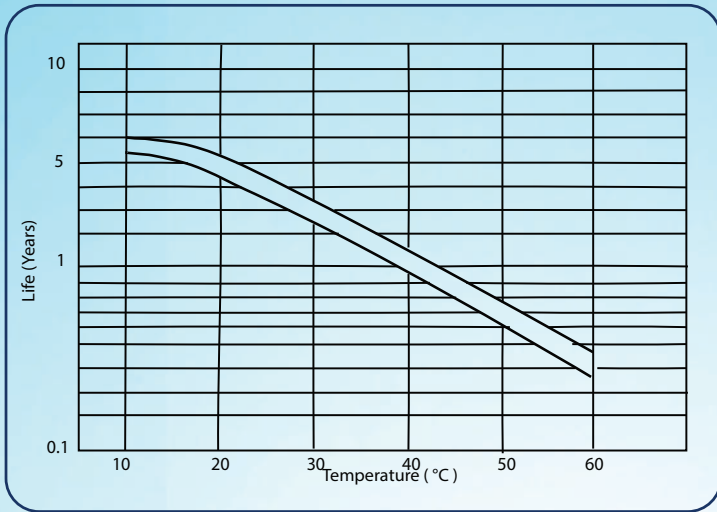


## DIMENSION

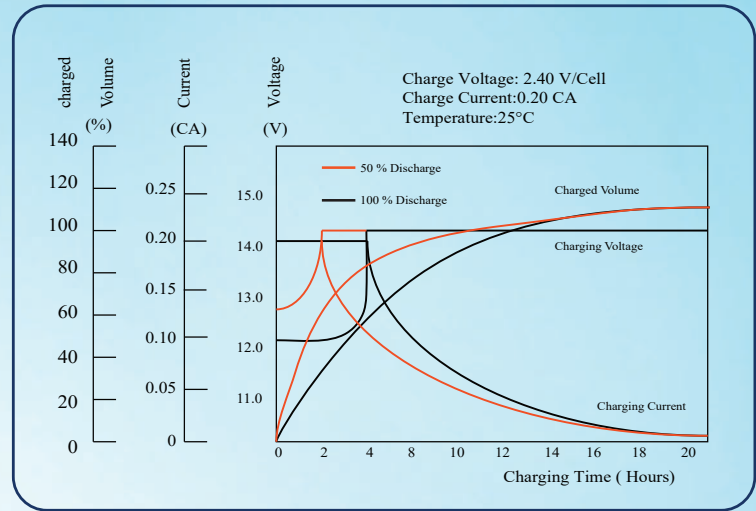
Length	Width	Height	Total Height	Weight (kg)
70 mm	48 mm	101 mm	107 mm	0.76 kg



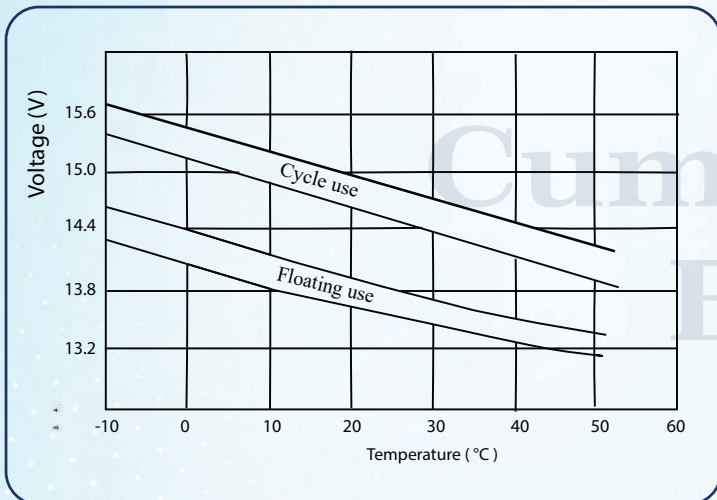
Float life vs Temperature



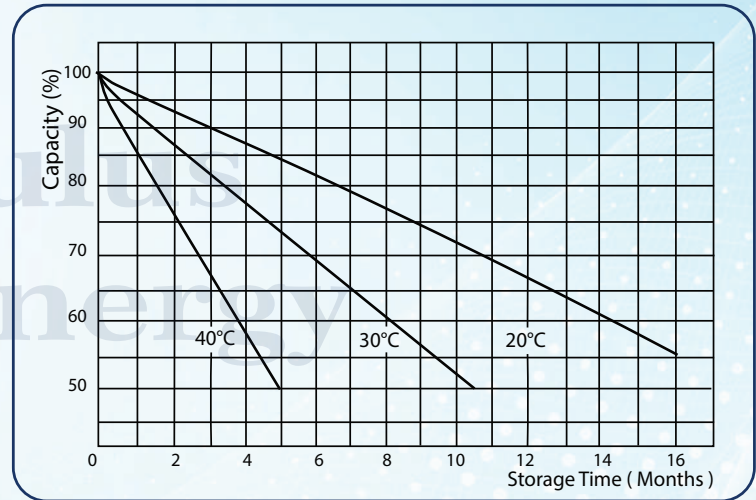
Charging Characteristics (25°C)



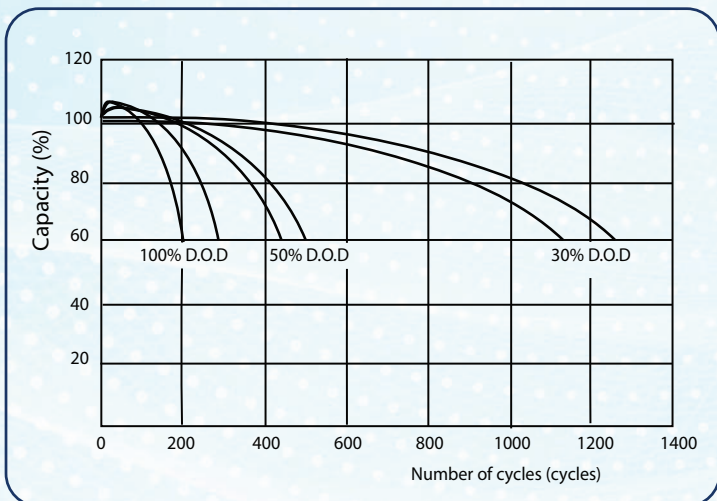
Recommended charging voltage vs temperature



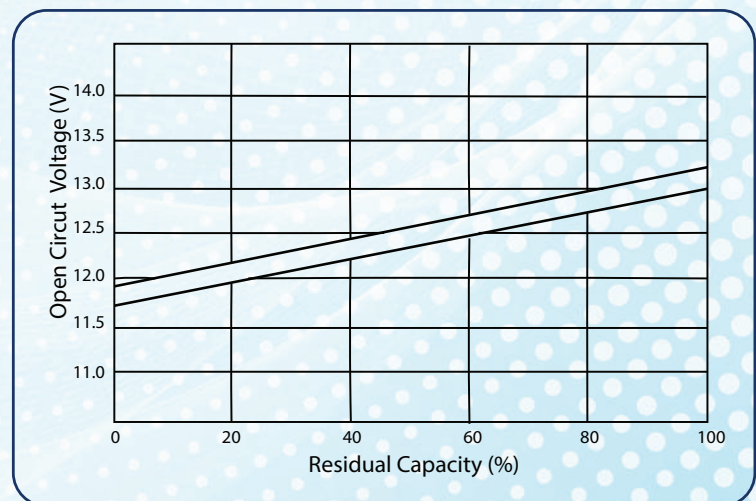
Self-discharge Characteristics



Cycle life vs D.O.D (25°C)



Open Circuit Voltage (V) vs Capacity (25°C)



\*\*Standards, Specifications and design are subject to change without notice.