

ROCKET

GEL Deep Cycle Battery

ESR150-12 [12V150Ah]



General Features

- Designed floating charging service life: 12 years (25°C)
- Safety valve installation for explosion proof ,Sealed and maintenance free operation
- By using strong grids, high purity lead and patented Gel electrolyte
- Extremely low self-discharge characteristic
- Wide operating temperature range from -20°C~55°C
- Lead Aluminum calcium Tin alloy high energy, prevent corrosion

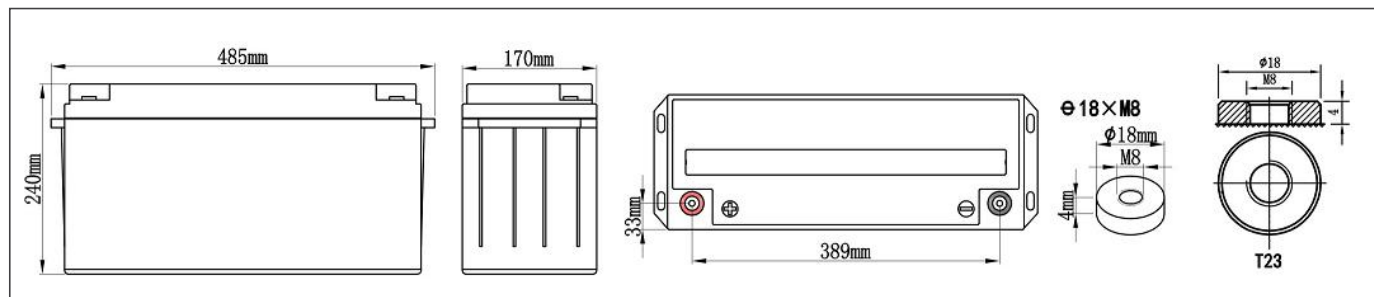
Application

- Pumps systems
- Telecom stations and power stations
- Solar lighting systems
- Solar/wind energy storage systems

Physical Specifications

Nominal Voltage	Nominal Capacity (10HR)	Dimension				Weight ±2%	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V	150AH	485±3mm	170±2mm	240±3mm	240±3mm	Approx 41.0kg (90.4lbs)	≈4.0m Ω	T23 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity		Cycle Application	
20 hour rate (7.5A)	158.0AH	1. Limit initial current less than 30.0A.	
10 hour rate (15.0A)	150.0AH	2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F).	
5 hour rate (25.5A)	128.5AH	3. Hold at 14.1V to 14.4V until current drop to under0.90A for at least 3 hours.	
3 hour rate (37.5A)	112.5AH	4. Temperature compensation coefficient of charging voltage is -30mV/°C.	
1 hour rate (90.0A)	94.0AH		
Capacity affected by Temperature		Standby Service	
40°C(104°F)	103%	1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit30.0A continuously .When held at this voltage , the battery will seek its own current level and maintain itself in a fully charge status.	
25°C(77°F)	100%	2. Temperature compensation coefficient of charging voltage is -18mV/°C.	
0°C(32°F)	86%		

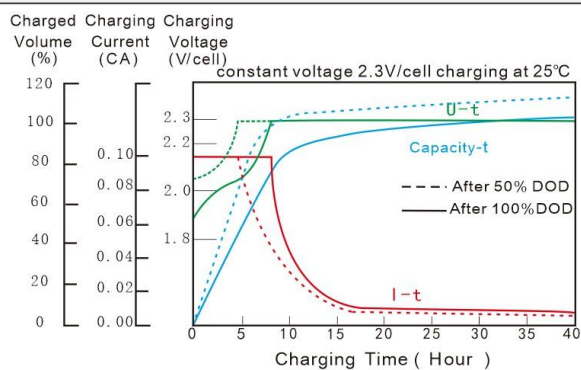
NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

Battery Discharge Table

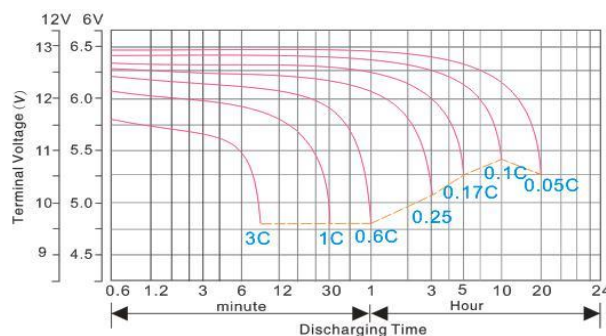
End Voltage	Minute (M)				Hour (H)							
	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (@25°C) Unit: A												
9.6V	361	285	160	138	94	74	63	39.6	27.3	18.5	15.6	8.06
9.9V	344	271	152	133	92	72	61	38.6	26.7	18.1	15.4	8.01
10.2V	328	258	146	129	90	71	60	37.5	26.1	17.7	15.3	7.95
10.5V	312	247	139	124	87	69	58	36.7	25.5	17.4	15.1	7.90
10.8V	297	235	132	120	85	67	57	35.8	24.9	17.0	15.0	7.85
Constant Power Discharge Data Sheet (@25°C) Unit: W												
9.6V	3863	3382	2067	1448	1206	878	657	491	316	240	185	100
9.9V	3679	3220	1969	1400	1176	857	642	479	308	235	184	99
10.2V	3504	3067	1875	1352	1147	837	626	467	301	231	182	98
10.5V	3337	2921	1786	1307	1120	816	611	455	293	226	180	97
10.8V	3178	2782	1701	1262	1092	796	596	445	286	222	178	96

Performance Characteristics

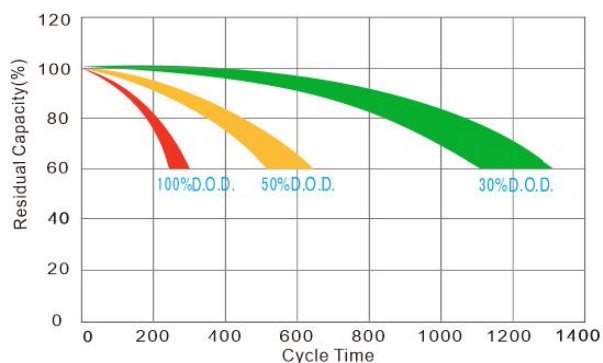
Charge Characteristics (25°C/77°F)



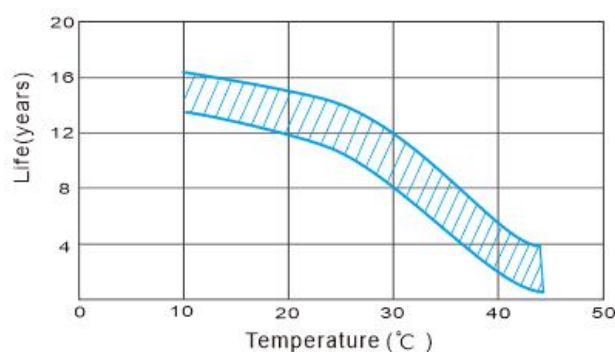
Discharge Characteristic (25°C/77°F)



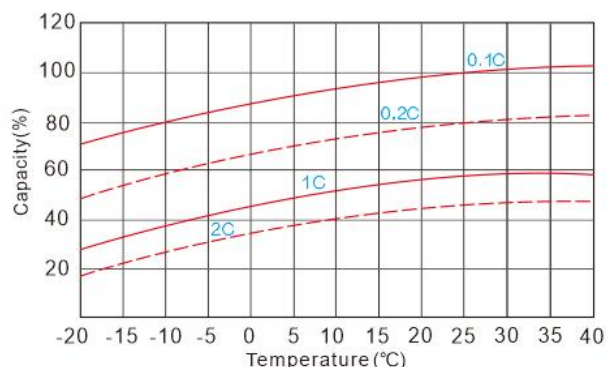
Cycle Life in Relation to Depth of Discharge



Temperature vs Float Life



Capacity Curve At Different Temperature



Self Discharge Characteristics

