

# ES 7-12

## 12V - 7Ah

### INTRODUCTION

The most advanced technology of ROCKET, Valve Regulated Lead Acid batteries make them highly useful in a broad range of applications. The use of high-purity calcium alloy maximizes the longevity of ROCKET batteries to ensure excellent performance in any circumstances.

ES Series are specially designed to provide better cyclic life and are ideally suited for areas prone to frequent power failures.

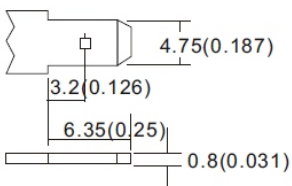
The unique construction coupled with the use of special sealing epoxies and long sealing paths of ROCKET series ensures that no electrolyte leakage can occur from terminals or cases of any ROCKET Batteries. This feature ensures safe & efficient operation of ROCKET batteries in any position.

### TECHNICAL FEATURES

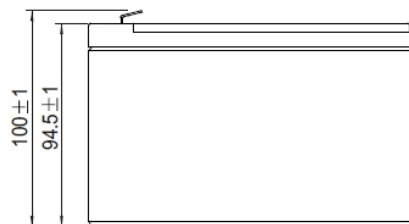
- Non-Spillable Sealed Construction
- Absorptive Glass Mat System (AGM System)
- ABS (Acrylonitrile Butadiene Styrene) container and cover
- Micro millimeter SiO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> gelled electrolyte technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Maintenance-Free Operation
- Low Pressure Venting System
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Low Self-Discharge - Long Shelf Life
- Wide Operating Temperature Range

### APPLICATIONS

- UPS
- Telecom Communication Equipments
- Medical Instruments
- Computer Backup
- Solar Powered Systems.
- Motive power applications, such as golf trailer, scrubber, forklift, etc.



We have option of terminals with 4.75mm / 6.3mm



### SPECIFICATION

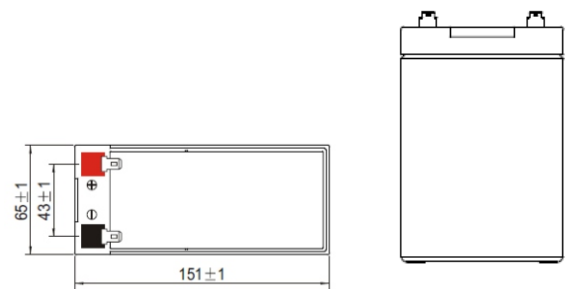
Nominal Voltage		12V
Capacity (20HR, 25°C)		7Ah
Dimension	Length	151mm (5.95inch)
	Width	64.5mm (2.54inch)
	Height	94.5mm (3.72inch)
	Total Height	100mm (3.94inch)
Approx Weight		2.18kg (4.81lbs)
Design Life		7 Years

### CHARACTERISTICS

Capacity 25°C (77°F)	20 hour rate	7Ah
	10 hour rate	6.51Ah
	5 hour rate	5.95Ah
	1 hour rate	4.4Ah
Internal resistance (Fully charge, 25°C)		23mΩ
Self-discharge (25°C)	1 month	Remaining Capacity:97%
Operating temperature range	Discharge	-20°C~60°C
	Charge	-10°C~60°C
	Storage	-20°C~60°C
Maximum discharge current		77°F(25°C)105A(5 Sec.)
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Cyclic Use		Cycle Use 14.4 to 15.0V
		Temp. compensation - 30mV/°C
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Standby Use		Standby Use 13.5-13.8V
		Temp. compensation - 20mV/°C

### COMPLAINTS STANDARD

- JIS
- IEC 60896 PART 1 & 2
- BS6290-4,
- Eurobat Guide - HIGH Performance



[www.rocketbatteries.net](http://www.rocketbatteries.net)

Above information is subject to change anytime . For more information contact enquiries@rocketbatteries.net

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

End Point Volts/Cell	5min	10min	15min	20min	30min	45min	60min
1.60V	27	18.4	13.6	11.1	8.05	5.6	4.4
1.65V	24.5	16.9	12.7	10.4	7.63	5.37	4.35
1.70V	22.2	15.7	11.9	9.8	7.23	5.24	4.26
1.75V	20.2	14.4	11.2	9.32	6.94	5.04	4.13
1.80V	17.9	13.1	10.2	8.67	6.69	4.86	3.94

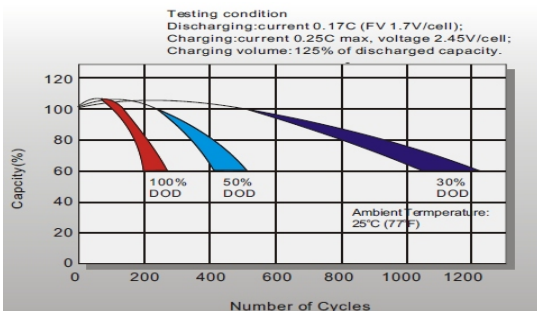
End Point Volts/Cell	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	2.56	1.97	1.58	1.3	1.1	0.848	0.704	0.367
1.65V	2.45	1.91	1.54	1.25	1.08	0.84	0.696	0.365
1.70V	2.42	1.83	1.48	1.22	1.05	0.827	0.682	0.36
1.75V	2.36	1.79	1.45	1.19	1.03	0.816	0.669	0.354
1.80V	2.27	1.75	1.41	1.16	1.01	0.802	0.651	0.35

## CONSTANT POWER DISCHARGE (Watts per cell) at 25°C

End Point Volts/Cell	5min	10min	15min	20min	30min	45min	60min
1.60V	44.8	31.2	23.8	19.9	14.7	10.4	8.26
1.65V	41.6	29.4	22.6	18.9	14	10	8.23
1.70V	38.2	27.5	21.4	17.9	13.4	9.86	8.1
1.75V	35.7	25.8	20.3	17.2	12.9	9.52	7.88
1.80V	32.4	23.9	18.9	16.1	12.6	9.26	7.57

End Point Volts/Cell	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	4.85	3.76	3.04	2.5	2.13	1.656	1.383	0.722
1.65V	4.67	3.67	2.96	2.43	2.09	1.644	1.37	0.719
1.70V	4.63	3.54	2.87	2.37	2.05	1.622	1.345	0.71
1.75V	4.53	3.45	2.8	2.31	2.02	1.602	1.319	0.698
1.80V	4.38	3.4	2.75	2.26	1.97	1.578	1.286	0.692

## ES-CYCLE LIFE EXPECTANCY



## Discharge Characteristics

