

# ES 42-12

## 12V - 42Ah

### 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
- Absorbent Glass Mat System (AGM System)
- ABS (Acrylonitrile Butadiene Styrene) container and cover
- Gas Recombination
- Maintenance-Free Operation
- Low Pressure Venting System
- Heavy - Duty Grids
- Low Self-Discharge - Long Shelf Life
- Wide Operating Temperature Range

### APPLICATIONS

- UPS
- Telecom Communication Equipments
- Fire Alarm & Security Systems
- Medical Instruments
- Emergency Lighting
- Computer Backup

### COMPLAINTS STANDARD

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

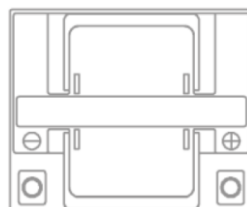
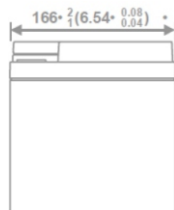
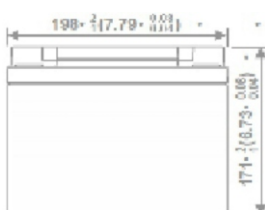
### SPECIFICATION

Nominal Voltage		12V
Capacity (20HR, 25°C)		42Ah
Dimension	Length	198mm (7.79inch)
	Width	166mm (6.54inch)
	Height	171mm (6.73inch)
	Total Height	171mm (6.73inch)
Approx Weight		13.1kg (28.82lbs)
Design Life		10 Years

### CHARACTERISTICS

Capacity 25°C (77°F)	20 hour rate	42Ah	
	10 hour rate	40Ah	
	5 hour rate	34.85Ah	
	1 hour rate	25Ah	
Internal resistance (Fully charge, 25°C)		9.5mΩ	
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) 400A(5 Sec.)	
Short circuit current		900A	
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Cyclic Use	Cycle Use 14.4 to 14.7V		
	Max. charging Current 12A		
	Temp. compensation - 30mV/°C		
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Standby Use	Standby Use 13.6-13.8V		
	Temp. compensation - 20mV/°C		

**THE BATTERY CONTAINER AND COVER ARE AVAILABLE BOTH IN ABS plastic and Flame Retardant (FR).**



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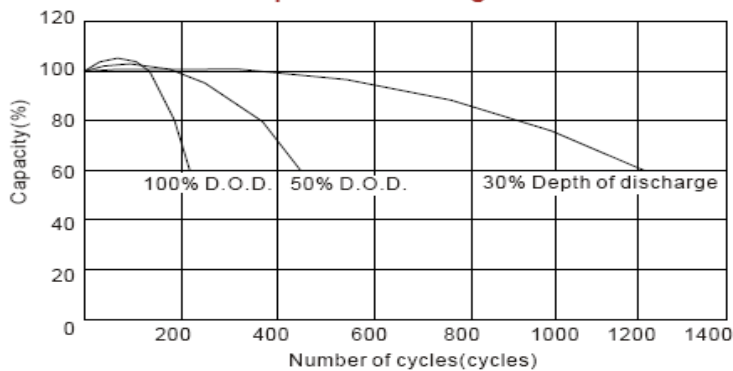
## CONSTANT CURRENT DISCHARGE (Amperes) at 25°C

F.V/TIME.	5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	10hr	20hr
1.60V	178	111.0	81.4	42.9	24.9	14.3	10.40	8.21	7.13	4.12	2.14
1.65V	174	109.0	80.2	42.2	24.6	14.1	10.20	8.13	7.06	4.07	2.12
1.67V	171	107.0	79.1	40.9	24.4	13.9	10.10	8.09	7.02	4.02	2.09
1.70V	168	105.0	77.8	40	24.2	13.8	10.00	8.06	6.98	3.98	2.07
1.75V	157	102.0	73.3	38.7	23.8	13.5	9.84	7.88	6.84	3.87	2.03
1.80V	140	99.2	66.4	34.9	23.4	13.1	9.62	7.63	6.68	3.70	1.95
1.85V	116	89.0	56.5	30.7	22.7	12.6	9.27	7.34	6.43	3.52	1.87

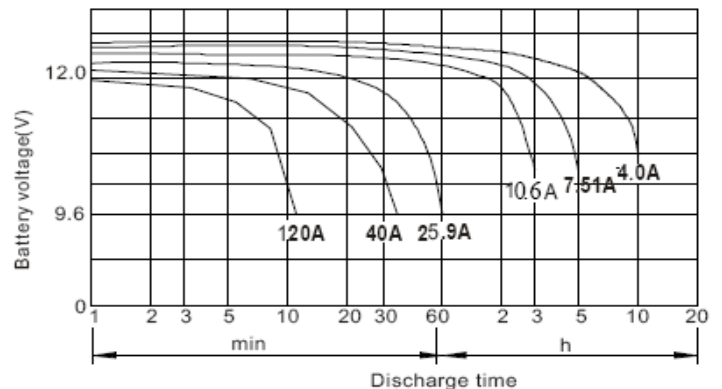
## CONSTANT POWER DISCHARGE (Watts per cell) at 25°C

F.V/TIME.	5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	10hr	20hr
1.60V	321	197.2	153.0	85.0	48.5	28.7	21.00	16.20	14.78	7.87	4.35
1.65V	316	193.3	149.3	83.7	48.0	28.3	20.67	16.02	14.63	7.73	4.23
1.67V	310	189.3	146.8	82.3	47.7	28.0	20.50	15.92	14.53	7.63	4.15
1.70V	304	186.2	144.5	81.2	47.3	27.8	20.33	15.83	14.43	7.55	4.08
1.75V	284	173.0	135.8	76.5	46.5	27.3	20.00	15.57	14.20	7.35	3.93
1.80V	252	152.3	122.3	69.3	45.3	26.8	19.50	15.27	13.93	7.15	3.75
1.85V	207	123.5	102.8	59.0	43.8	25.8	18.83	14.85	13.57	6.93	3.55

Cycle service life in relation to depth of discharge



Discharge characteristic (25°C)



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Above information is subject to change anytime without time. For more information contact enquiries@rocketbatteries.net