



ES 42-12 AGM-VRLA

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

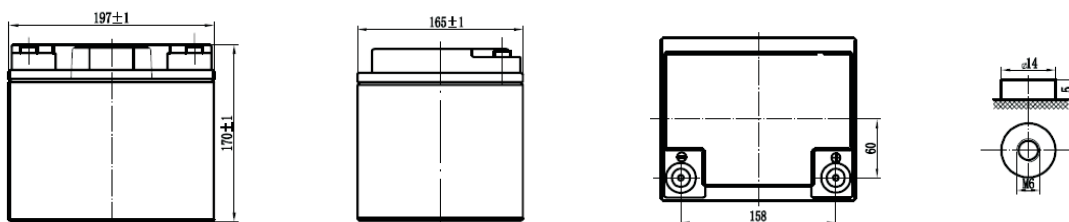
SPECIFICATION

Nominal Voltage		12V
Capacity (20HR, 25°C)		42Ah
Dimension	Length	197mm (7.76inch)
	Width	165mm (6.50inch)
	Height	170mm (6.69inch)
	Total Height	170mm (6.69inch)
Approx Weight		12.9kg (28.4lbs)
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 (20°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	
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Standby Use	Temp. compensation - 30mV/°C	
	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

End Point Volts/Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min
1.60V	127	86.5	70.7	55.6	46.8	39.9	36.4	32.8	31.3	28.4	26.6
1.65V	119	82.2	67.1	53.7	44.3	38.7	35.4	32.1	30.6	27.9	26.2
1.70V	109	77.8	64.5	51.8	42.5	37.3	34.3	31.6	29.8	27.4	25.8
1.75V	101	73.6	61.0	49.9	41.3	36.1	33.3	30.5	29.0	26.8	25.4
1.80V	92.9	69.9	55.2	48.0	38.9	35.8	32.1	29.8	28.2	26.3	25.0

End Point Volts/Cell	1h	1.25h	1.5h	1.75h	2h	2.25h	2.5h	2.75h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	24.9	20.8	18.0	15.6	14.2	13.2	12.2	11.5	10.3	8.46	7.22	6.35	5.65	5.08	4.62	4.20	3.61	1.87
1.65V	24.6	20.5	17.7	15.4	13.8	13.0	12.0	11.3	10.1	8.31	7.10	6.24	5.55	4.98	4.56	4.15	3.57	1.85
1.70V	24.2	20.2	17.4	15.2	13.6	12.8	11.8	11.0	9.89	8.16	6.97	6.12	5.45	4.89	4.53	4.10	3.53	1.83
1.75V	23.9	19.8	17.1	15.0	13.4	12.6	11.6	10.8	9.65	8.01	6.83	6.00	5.34	4.80	4.45	4.05	3.49	1.81
1.80V	23.5	19.4	16.8	14.8	13.2	12.4	11.4	10.6	9.43	7.85	6.66	5.87	5.24	4.71	4.37	4.00	3.45	1.79

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

End Point Volts/Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min
1.60V	230	158	124	113	98	81.2	79.2	73.5	60.2	56.8	53.9
1.65V	214	152	120	110	95.4	78.8	76.7	70.6	59.0	55.6	52.6
1.70V	198	144	117	107	92.8	76.3	73.8	67.5	57.8	54.4	51.1
1.75V	182	138	113	104	90.1	73.8	71.6	65.9	56.6	53.2	50.2
1.80V	171	130	109	101	87.2	71.3	69.7	63.3	55.4	52.0	49.2

End Point Volts/Cell	1h	1.25h	1.5h	1.75h	2h	2.25h	2.5h	2.75h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	49.9	45.5	36.9	34	27.5	26.4	24.3	22.8	21.0	17.2	14.0	12.7	11.2	10.02	9.21	8.76	7.40	4.00
1.65V	49.2	44.1	36.3	33.2	27.1	25.6	23.7	22.3	20.7	16.9	13.8	12.5	11.0	9.88	9.12	8.59	7.25	3.92
1.70V	48.3	42.6	35.7	32.4	26.6	24.7	22.8	21.8	20.3	16.6	13.6	12.3	10.8	9.73	9.03	8.42	7.16	3.85
1.75V	47.5	41.0	35.1	31.5	26.2	23.9	22.5	21.3	20.0	16.3	13.4	12.1	10.6	9.58	8.93	8.21	6.98	3.76
1.80V	46.7	39.3	34.4	30.7	25.8	23.1	22.1	20.8	19.6	16.0	13.3	11.9	10.4	9.43	8.82	8.04	6.84	3.68

ES-CYCLE LIFE EXPECTANCY

