



# ESC 100-12 AGM - VRLA

## 12V - 100Ah

### INTRODUCTION

The most popular series of ROCKET Batteries; The ESC series has been performing with a proven track record for more than 52 years. It has successfully exemplified its quality and reliability in some of the most demanding power conditions by providing unrelentless backup power supply.

With the same characteristics as that of the ES series, the ESC series provides power reliability to applications which require longer backup time.

This series is widely used in UPS as well as Telecommunication Applications in many parts of the world. The ESC series is world renowned and recognised as a Highly reliable Battery System in the industry.

### TECHNICAL FEATURES

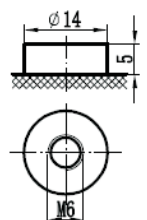
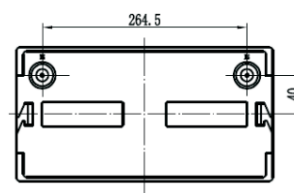
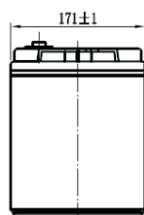
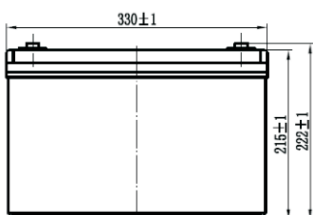
- Non-Spillable Sealed Construction
- Absorbent Glass Mat System (AGM System)
- ABS (Acrylonitrile Butadiene Styrene) container and cover
- Gas Recombination
- Maintenance-Free Operation
- Low Pressure Venting System
- Heavy - Duty Grids
- Low Self-Discharge - Long Shelf Life
- Wide Operating Temperature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

### APPLICATIONS

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

### COMPLAINTS STANDARD

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



### SPECIFICATION

Nominal Voltage		12V
Capacity (20HR, 25°C)		100Ah
Dimension	Length	330mm (12.99inch)
	Width	171mm (6.73inch)
	Height	214mm (8.43inch)
	Total Height	220mm (8.66inch)
Approx Weight		30kg (66.2lbs)
Design Life		12 Years

### CHARACTERISTICS

Capacity 25°C (77°F)	20 hour rate	100Ah	
	10 hour rate	96Ah	
	5 hour rate	90.5Ah	
	1 hour rate	69Ah	
Internal resistance (Fully charge, 25°C)		4.2mΩ	
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) 900A(5 Sec.)	
Short circuit current		2100A	
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Cyclic Use	Cycle Use 14.4 to 14.7V		
	Max. charging Current 30A		
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).**



# ESC 100-12 AGM - VRLA

## 12V - 100Ah

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

End Point Volts/Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	1h
1.60V	289	211	170	142	120	99.4	89.8	81.3	76.5	72.8	69.1	60.9
1.65V	272	203	164	136	115	95.7	87.3	79.4	74.7	71.3	66.9	57.5
1.70V	248	184	151	130	110	88.3	84.8	77.4	72.9	69.8	64.6	56.6
1.75V	223	172	141	124	105	85.6	82.3	75.3	71.1	68.3	63.4	55.7
1.80V	203	161	132	118	100	83.7	79.8	73.3	69.3	66.8	60.8	52.8

End Point Volts/Cell	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	54.5	48.2	41.7	37.6	33.8	30.8	28.5	26.5	22.6	18.1	16.1	14.3	12.8	11.7	10.6	9.21	4.76
1.65V	52.7	46.8	40.4	36.4	32.7	29.8	27.8	26.3	21.7	17.4	15.7	13.9	12.5	11.5	10.5	9.06	4.68
1.70V	51.0	45.4	39.1	35.2	31.6	28.8	27.1	25.8	20.8	17.1	15.3	13.5	12.2	11.3	10.4	8.91	4.59
1.75V	49.2	44.0	37.8	34.0	30.5	27.8	26.4	25.6	19.9	16.6	14.9	13.1	11.9	11.1	10.2	8.76	4.50
1.80V	47.4	42.6	36.5	32.8	29.4	26.8	25.7	24.0	18.9	16.3	14.5	12.7	11.6	10.8	10.0	8.50	4.42

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

End Point Volts/Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	1h
1.60V	503	361	295	256	218	183	167	152	138	131	124	114
1.65V	476	349	290	248	211	173	161	147	135	128	121	109
1.70V	440	331	280	239	204	168	155	142	132	125	118	105
1.75V	406	325	270	231	197	163	149	137	129	122	115	102
1.80V	382	303	257	223	190	157	143	132	126	119	112	95.7

End Point Volts/Cell	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	99.1	87.4	78.4	67.1	62.8	57.8	54.8	50.2	41.8	34.0	30.8	27.4	24.6	22.5	20.4	17.4	9.32
1.65V	96.3	85.2	76.4	64.4	61.3	56.7	54.0	48.6	41.3	33.6	30.4	27.1	24.3	22.2	20.2	17.2	9.17
1.70V	93.5	83.0	74.3	63.5	59.8	55.6	53.2	48.4	40.8	33.3	30.0	26.8	24.0	21.9	20.0	17.0	9.02
1.75V	90.7	80.8	72.2	61.3	58.3	54.5	52.4	46.6	40.3	32.7	29.6	26.5	23.7	21.6	19.8	16.8	8.87
1.80V	87.9	78.6	70.1	59.4	56.8	53.4	51.6	46.1	39.8	32.3	29.2	26.2	23.4	21.3	19.5	16.6	8.72

### ESC-CYCLE LIFE EXPECTANCY

