

ESC 100-12

12V - 100Ah

INTRODUCTION

The most popular series of ROCKET Batteries; The ESC series has been performing with a proven track record of years. It has successfully exemplified its quality and reliability in some of the most demanding power conditions by providing un-relentless 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 recognized as a Highly reliable Battery System in the industry.

TECHNICAL FEATURES

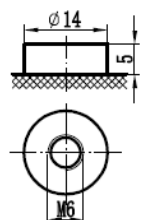
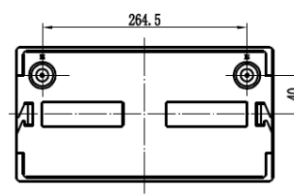
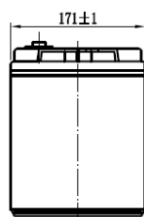
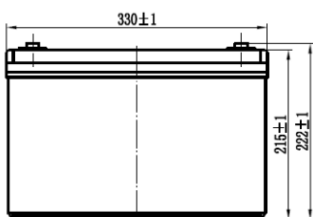
- Non-Spillable Sealed Construction
- Absorbent Glass Mat System (AGM System)
- ABS (Acrylonitrile Butadiene Styrene) container and cover
- Gas Recombination
- Maintenance-Free Operation
- Low Pressure Venting System
- Heavy - Duty Grids
- Low Self-Discharge - Long Shelf Life
- Wide Operating Temperature 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		28.5kg
Design Life		10 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 (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) 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		
	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

End Point Volts/Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	1h
1.60V	307	210	173	135	113	98.9	90.3	85	75.5	72.8	69.1	61
1.65V	281	197	164	129	109	95	88.2	78.8	74.7	72.1	66.9	60.6
1.70V	257	182	156	123	105	92.2	86.1	76.7	73.9	71.4	64.6	59.7
1.75V	230	170	145	117	101	89.3	84	75.3	73	70.7	63.4	58.9
1.80V	203	156	136	111	97	87.4	81.8	73.9	72	69.9	60.8	57.1

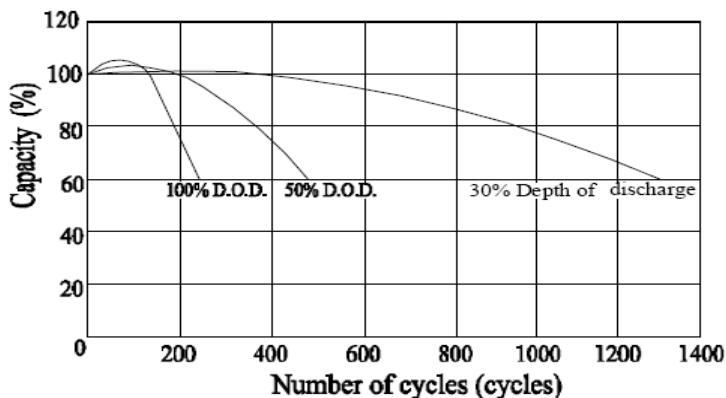
End Point Volts/Cell	1.25h	1.5h	1.75h	2h	2.25h	2.5h	2.75h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	54.5	47.1	41.5	37.5	33.8	31.8	29.5	25.1	20.4	17.6	16.3	14.3	12.9	11.7	10.8	9.06	4.7
1.65V	52.7	45.1	40.3	36.4	33.0	31.2	28.9	24.6	19.8	17.3	15.7	13.9	12.5	11.5	10.6	9.01	4.68
1.70V	51.0	44.4	39.2	35.8	32.1	30.6	28.3	24.1	19.5	17	15.5	13.7	12.4	11.3	10.4	8.93	4.59
1.75V	49.2	43.7	38.0	35.3	31.3	30.2	27.6	23.5	19	16.6	15.1	13.4	12.1	11.1	10.2	8.76	4.5
1.80V	47.4	41.4	36.8	33.3	30.4	28.5	27.0	22.8	18.2	16.3	14.8	13.1	11.8	10.8	10	8.5	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	528	372	304	250	213	186	178	162	138	130	125	119
1.65V	491	353	299	242	203	180	170	156	134	127	122	117
1.70V	454	335	290	231	196	176	163	149	132	124	119	116
1.75V	419	317	279	226	190	170	159	145	129	121	116	112
1.80V	381	296	270	215	183	164	154	141	126	118	112	109

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	103	88.4	78	68.2	63.7	60	55.8	48.4	42.2	33.8	30.6	26.9	24.2	22	20.3	17.4	9.25
1.65V	99.1	84.5	75.8	67	62.2	57.8	54.8	47.8	41.3	33.6	30.3	26.7	23.9	21.8	20.1	17.1	9.2
1.70V	95.3	82.6	73.5	65.8	60.6	57.3	53.7	47.3	41	33.3	30	26.4	23.8	21.7	20	17	9.13
1.75V	91.4	80.0	71.3	64.6	59.1	55.3	52.7	46.7	39.9	33.2	29.4	25.9	23.3	21.2	19.6	16.7	8.98
1.80V	87.5	76.5	69	63.9	57.5	54.1	51.6	45.9	39.4	32.9	29	25.5	22.8	20.8	19.1	16.2	8.74

Cycle service life in relation to depth of discharge



Discharge characteristic (25°C)

