

# ESH 55 -12 AGM

12V - 55Ah

## High Rate Discharge Series

### INTRODUCTION

Rocket ESH Series is designed for the application which requires high power output. ESH series can deliver 50% more power than ESC Series of Rocket Batteries. This is achieved by optimizing the grid plate design and by using advanced plate paste formula.

Through its constant research and development, Global has continued to lead its nation's storage battery industry. From the beginning, Global's motto has been to provide its customers with "more powerful and durable batteries". Therefore, Global has been in the pursuit of quality advanced technology in the battery manufacturing business.

In order to stay in competition with the international battery market, Global has established capital and technical ties with the world's most renowned battery manufacturers, such as Yuasa Corporation of Japan, Hagen Batteries AG. of Germany, and SAFT of France.

### 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 C8702, BS 6290/4 and IEC 896/2
- Eurobat Guide/HF
- ISO9001/ISO14000

### SPECIFICATION

Nominal Voltage		12V
Capacity (20HR, 25°C)		55 Ah
Dimension	Length	229mm (9.02inch)
	Width	138mm (5.43inch)
	Height	208mm (8.19inch)
	Total Height	213mm (8.39inch)
Approx Weight		17.2kg (37.9lbs)
Design Life		10 Years

### CHARACTERISTICS

Capacity 25°C (77°F)	20 hour rate	55 Ah
Capacity (W) 1.60V, 20°C	10 min	260
Internal resistance (Fully charge, 20°C)		5.8mOhms
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		68°F(20°C) 550A(5 Sec.)
Charge Methods (Constant Voltage Charge 68°F(20°C)) - Cyclic Use	Cycle Use 14.5 to 14.7V	
	Max. charging Current 16.5A	
Charge Methods (Constant Voltage Charge 68°F(20°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	189	144	113	93.4	81.3	73.1	64.9	58.7	54.0	49.8	46.4
1.65V	178	136	107	88.6	76.9	69.3	61.7	55.9	51.4	47.5	44.2
1.70V	167	128	102	83.7	72.8	65.6	58.3	53.0	48.8	45.0	42.0
1.75V	155	120	96	78.7	68.6	61.8	55.1	50.1	46.2	42.7	39.8
1.80V	149	115	93	76.2	66.6	60.2	53.7	48.8	45.0	41.7	38.9

End Point Volts/Cell	60min	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	43.5	30.6	24.1	20.2	17.6	13.8	11.5	9.91	8.78	7.96	7.31	6.79	5.85	2.97
1.65V	41.5	29.2	23.0	19.3	16.9	13.2	11.0	9.51	8.45	7.65	7.03	6.54	5.65	2.88
1.70V	39.5	27.8	21.9	18.4	16.1	12.6	10.6	9.10	8.13	7.35	6.75	6.28	5.44	2.78
1.75V	37.5	26.4	20.9	17.6	15.4	12.0	10.1	8.69	7.76	7.04	6.48	6.02	5.22	2.67
1.80V	36.6	25.8	20.5	17.2	15.0	11.9	9.91	8.53	7.62	6.91	6.37	5.93	5.15	2.64

### 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	352	260	202	163	140	124	111	101.6	94.3	86.9	81.3
1.65V	337	250	194	158	135	120	108	98.3	91.0	84.5	79.0
1.70V	322	241	187	152	131	116	104	95.1	88.6	82.1	76.7
1.75V	307	231	180	146	126	112	101	92.6	85.3	79.5	74.4
1.80V	292	221	173	141	121	108	98	89.4	82.9	76.9	72.2

End Point Volts/Cell	60min	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	76.5	55.0	44.3	37.8	33.5	26.8	22.8	19.7	17.6	15.9	14.7	13.7	11.8	6.3
1.65V	74.4	53.5	43.1	36.8	32.7	26.2	22.3	19.3	17.2	15.6	14.4	13.3	11.5	6.2
1.70V	72.3	52.1	41.9	35.8	31.9	25.6	21.9	18.9	16.8	15.3	14.1	13.1	11.3	6.1
1.75V	70.2	50.6	40.8	34.9	31.0	24.9	21.3	18.4	16.4	15.0	13.7	12.8	11.1	6.0
1.80V	68.1	49.2	39.7	34.0	30.1	24.3	20.8	18.0	16.1	14.6	13.4	12.5	10.9	5.9

