

ESH 45 -12 AGM

12V - 45Ah

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)		46.6 Ah
Dimension	Length	197mm (7.76inch)
	Width	165mm (6.50inch)
	Height	170mm (6.69inch)
	Total Height	170mm (6.69inch)
Approx Weight		14.7kg (32.4lbs)
Design Life		10 Years

CHARACTERISTICS

Capacity 25°C (77°F)	20 hour rate	46.6 Ah
Capacity (W) 1.60V, 20°C	10 min	211
Internal resistance (Fully charge, 20°C)		6.1mOhms
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) 450A(5 Sec.)
Charge Methods (Constant Voltage Charge 68°F(20°C)) - Cyclic Use	Cycle Use 14.5 to 14.7V	
	Max. charging Current 13.5A Temp. compensation - 30mV/°C	
Charge Methods (Constant Voltage Charge 68°F(20°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
1.60V	176	121	94.4	75.5	64.1	56.5	50.2	45.5	41.9	38.2	35.2
1.65V	165	114	89.5	71.5	60.8	53.6	47.7	43.3	39.8	36.4	33.5
1.70V	155	107	84.6	67.6	57.4	50.7	45.1	41	37.8	34.5	31.9
1.75V	144	101	79.7	63.7	54.1	47.8	42.6	38.8	35.8	32.7	30.2
1.80V	138	97.1	76.9	61.7	52.6	46.5	41.5	37.8	34.9	31.9	29.5

End Point Volts/Cell	60min	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	32.6	23.1	18.3	15.4	13.5	10.6	8.82	7.56	6.66	5.99	5.46	5.04	4.27	2.18
1.65V	31.1	22.1	17.5	14.8	13	10.1	8.46	7.26	6.4	5.76	5.25	4.85	4.12	2.1
1.70V	29.6	21.0	16.7	14.1	12.4	9.7	8.1	6.96	6.14	5.52	5.04	4.66	3.97	2.03
1.75V	28.1	20.0	15.9	13.4	11.8	9.26	7.74	6.65	5.87	5.29	4.84	4.47	3.81	1.96
1.80V	27.5	19.5	15.6	13.2	11.6	9.09	7.6	6.54	5.77	5.2	4.76	4.4	3.76	1.93

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	312	211	168	134	113	99.3	87.7	78.9	72.1	66.5	61.9
1.65V	299	203	163	129	109	96.1	84.9	76.5	70	64.5	60.1
1.70V	286	195	157	125	106	92.9	82.1	74.1	67.8	62.6	58.4
1.75V	272	187	151	120	102	89.6	79.4	71.7	65.7	60.7	56.6
1.80V	259	179	145	116	98.1	86.4	76.6	69.2	63.5	58.7	54.9

End Point Volts/Cell	60min	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	58	41.5	33.3	28.4	25.1	20	17	14.6	12.8	11.5	10.4	9.62	8.3	4.48
1.65V	56.4	40.4	32.4	27.7	24.5	19.6	16.6	14.2	12.5	11.2	10.2	9.43	8.15	4.41
1.70V	54.8	39.3	31.6	26.9	23.8	19.1	16.3	13.9	12.2	11	10	9.23	8.01	4.34
1.75V	53.2	38.2	30.7	26.2	23.2	18.6	15.9	13.6	12	10.8	9.8	9.04	7.87	4.26
1.80V	51.6	37.1	29.9	25.5	22.6	18.2	15.5	13.3	11.7	10.5	9.59	8.85	7.72	4.19

