

ESH 120 -12AGM

12V - 120Ah

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)		120 Ah
Dimension	Length	410mm (16.1inch)
	Width	176mm (6.93inch)
	Height	227mm (8.94inch)
	Total Height	227mm (8.94inch)
Approx Weight		37.7kg (83.1lbs)
Design Life		10 Years

CHARACTERISTICS

Capacity 25°C (77°F)	20 hour rate	120 Ah
Capacity (W) 1.60V, 20°C	10 min	560
Internal resistance (Fully charge, 20°C)		3.3mOhms
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) 950A(5 Sec.)
Charge Methods (Constant Voltage Charge 68°F(20°C)) - Cyclic Use		Cycle Use 14.5 to 14.7V
		Max. charging Current 36A
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	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min
1.60V	314	260	212	184	165	144	129	117	107	98.4
1.65V	297	246	201	175	157	137	122	111	101	93.8
1.70V	280	233	190	165	148	130	116	105	96.3	89.2
1.75V	263	219	179	156	140	122	110	99.5	91.3	84.6
1.80V	253	211	174	151	136	119	107	97.1	89.1	82.6

End Point Volts/Cell	60min	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	91.6	65.4	52.2	44.3	39.1	30.1	24.8	21.1	18.4	16.4	14.9	13.6	11.8	6.19
1.65V	87.4	62.4	49.9	42.4	37.4	28.9	23.7	20.2	17.7	15.8	14.3	13.1	11.4	5.98
1.70V	83.2	59.5	47.6	40.5	35.8	27.6	22.7	19.4	17	15.1	13.7	12.6	11	5.77
1.75V	79	56.5	45.3	38.6	34.1	26.4	21.7	18.5	16.2	14.5	13.2	12.1	10.6	5.56
1.80V	77.2	55.3	44.4	37.8	33.4	25.9	21.3	18.2	15.9	14.3	13	11.9	10.4	5.49

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

End Point Volts/Cell	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min
1.60V	560	460	376	326	292	258	232	212	195	181
1.65V	539	444	363	315	283	250	225	206	189	176
1.70V	518	428	351	304	273	242	218	200	184	170
1.75V	497	412	338	293	264	233	211	193	178	165
1.80V	476	396	325	282	254	225	204	187	172	160

End Point Volts/Cell	60min	1.5h	2h	2.5h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	169	120	95.2	80.5	70.6	55.6	46.6	40.3	35.8	32.4	29.8	27.7	24	12.8
1.65V	164	117	92.7	78.4	68.9	54.3	45.5	39.4	35	31.7	29.2	27.1	23.6	12.6
1.70V	160	113	90.2	76.4	67.1	53	44.5	38.5	34.3	31.1	28.6	26.6	23.2	12.4
1.75V	155	110	87.7	74.3	65.4	51.7	43.4	37.6	33.5	30.4	28	26	22.7	12.2
1.80V	150	107	85.2	72.2	63.6	50.4	42.4	36.8	32.7	29.7	27.4	25.5	22.3	12

