Unlimited Power
ROCKET BATTERY
Since 1952

Global Battery Co. Ltd, South Korea
formerly known as Global & Yuasa Co. Ltd.

ES 7-12

12V - 7Ah

INTRODUCTION

The most advanced technology of ROCKET, Valve Regulated Lead Acid batteries make them highly useful in a broad range of applications. The use of high-purity calcium alloy maximizes the longevity of ROCKET batteries to ensure excellent performance in any circumstances.

ES Series are specially designed to provide better cyclic life and are ideally suited for areas prone to frequent power failures.

The unique construction coupled with the use of special sealing epoxies and long sealing paths of ROCKET series ensures that no electrolyte leakage can occur from terminals or cases of any ROCKET Baterries. This feature ensures safe & efficient operation of ROCKET batteries in any position.

SPECIFICATION

Nominal Voltage		12V
Capacity (20HR, 25°C)		7Ah
Dimension	Length	151mm (5.95inch)
	Width	64.5mm (2.54inch)
	Height	94.5mm (3.72inch)
	Total Height	100mm (3.94inch)
Approx Weight		2.18kg (4.81lbs)
Design Life		7 Years

CHARACTERISTICS

Capacity 25°C (77°F)	20 hour rate	7Ah
	10 hour rate	6.51Ah
	5 hour rate	5.95Ah
	1 hour rate	4.4Ah
Internal resistance (Fully charge, 25°C)		23mΩ
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)105A(5 Sec.)
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Cyclic Use		Cycle Use 14.4 to 15.0V
		Temp. compensation - 30mV/°C
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Standby Use		Standby Use 13.5-13.8V
		Temp. compensation - 20mV/°C

TECHNICAL FEATURES

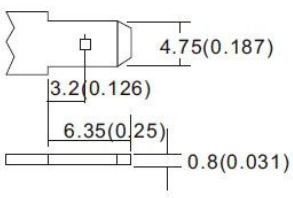
- Non-Spillable Sealed Construction
- Absorptive Glass Mat System (AGM System)
- ABS (Acrylonitrile Butadiene Styrene) container and cover
- Micro millimeter SiO_2 and H_2SO_4 gelled electrolyte technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Maintenance-Free Operation
- Low Pressure Venting System
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Low Self-Discharge - Long Shelf Life
- Wide Operating Temperature Range

COMPLAINTS STANDARD

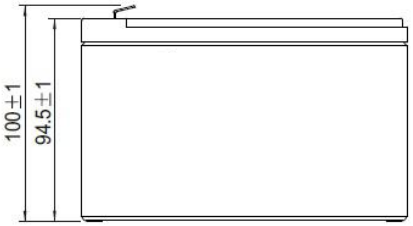
- JIS
- IEC 60896 PART 1 & 2
- BS6290-4,
- Eurobat Guide - HIGH Performance

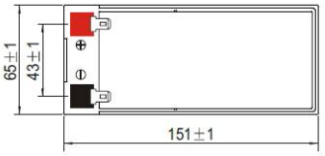
APPLICATIONS

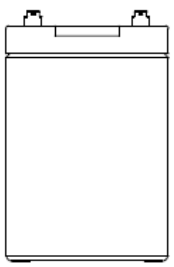
- UPS
- Telecom Communication Equipments
- Medical Instruments
- Computer Backup
- Solar Powered Systems.
- Motive power applications, such as golf trailer, scrubber, forklift, etc.



We have option of terminals with 4.75mm / 6.3mm







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ES 7-12

12V - 7Ah

CONSTANT CURRENT DISCHARGE (Amperes) at 25°C

End Point Volts/Cell	5min	10min	15min	20min	30min	45min	60min
1.60V	27	18. 4	13. 6	11. 1	8. 05	5. 6	4. 4
1.65V	24. 5	16. 9	12. 7	10. 4	7. 63	5. 37	4. 35
1.70V	22. 2	15. 7	11. 9	9. 8	7. 23	5. 24	4. 26
1.75V	20. 2	14. 4	11. 2	9. 32	6. 94	5. 04	4. 13
1.80V	17. 9	13. 1	10. 2	8. 67	6. 69	4. 86	3. 94

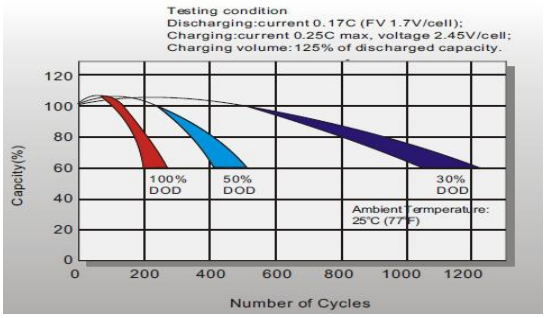
End Point Volts/Cell	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	2.56	1.97	1.58	1.3	1.1	0.848	0.704	0.367
1.65V	2.45	1.91	1.54	1.25	1.08	0.84	0.696	0.365
1.70V	2.42	1.83	1.48	1.22	1.05	0.827	0.682	0.36
1.75V	2.36	1.79	1.45	1.19	1.03	0.816	0.669	0.354
1.80V	2.27	1.75	1.41	1.16	1.01	0.802	0.651	0.35

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

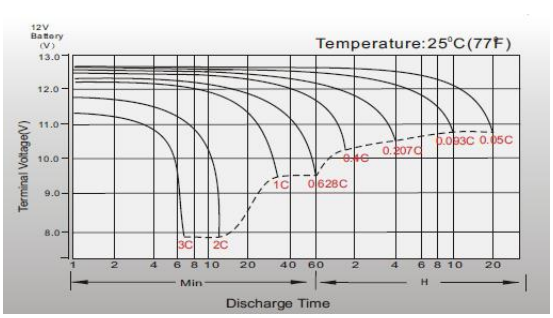
End Point Volts/Cell	5min	10min	15min	20min	30min	45min	60min
1.60V	44.8	31.2	23.8	19.9	14.7	10.4	8.26
1.65V	41.6	29.4	22.6	18.9	14	10	8.23
1.70V	38.2	27.5	21.4	17.9	13.4	9.86	8.1
1.75V	35.7	25.8	20.3	17.2	12.9	9.52	7.88
1.80V	32.4	23.9	18.9	16.1	12.6	9.26	7.57

End Point Volts/Cell	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	4.85	3.76	3.04	2.5	2.13	1.656	1.383	0.722
1.65V	4.67	3.67	2.96	2.43	2.09	1.644	1.37	0.719
1.70V	4.63	3.54	2.87	2.37	2.05	1.622	1.345	0.71
1.75V	4.53	3.45	2.8	2.31	2.02	1.602	1.319	0.698
1.80V	4.38	3.4	2.75	2.26	1.97	1.578	1.286	0.692

ES-CYCLE LIFE EXPECTANCY



Discharge Characteristics



Version : IN01ES26

Unlimited Power
ROCKET
Since 1952
BATTERY

Global Battery Co. Ltd, South Korea
formerly known as Global & Yuasa Co. Ltd.

ES 9-12

12V - 9Ah

INTRODUCTION

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SPECIFICATION

Nominal Voltage		12V
Capacity (20HR, 25°C)		9Ah
Dimension	Length	151mm (5.95inch)
	Width	65mm (2.56inch)
	Height	94.5mm (3.72inch)
	Total Height	100mm (3.94inch)
Approx Weight		2.75kg (6.06lbs)
Design Life		7 Years

CHARACTERISTICS

Capacity 25°C (77°F)	20hR(0.45A,10.5V)	9Ah
	10hR(0.86A,10.5V)	8.6Ah
	5hR(1.57A,10.5V)	7.85Ah
	1hR(6.66A,9.60V)	6.66Ah
Internal resistance (Fully charge, 25°C)		11mΩ
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)135A(5 Sec.)
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Cyclic Use		Cycle Use 14.4 to 15.0V
		Temp. compensation - 30mV/°C
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Standby Use		Standby Use 13.5-13.8V
		Temp. compensation - 20mV/°C

TECHNICAL FEATURES

- Non-Spillable Sealed Construction
- Absorptive Glass Mat System (AGM System)
- ABS (Acrylonitrile Butadiene Styrene) container and cover
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- Maintenance-Free Operation
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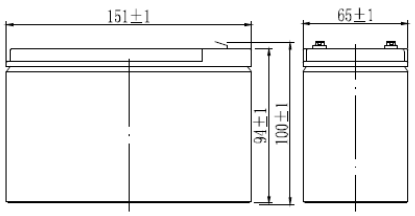
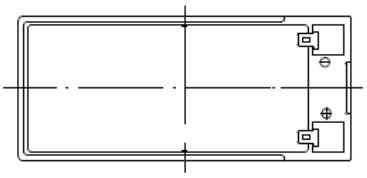
COMPLAINTS STANDARD

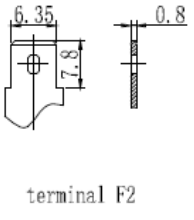
- JIS
- IEC 60896 PART 1 & 2
- BS6290-4,
- Eurobat Guide - HIGH Performance

APPLICATIONS

- UPS
- Telecom Communication Equipments
- Medical Instruments
- Computer Backup
- Solar Powered Systems.
- Motive power applications, such as golf trailer, scrubber, forklift, etc.







We have option of terminals with 4.75mm / 6.3mm

Version : IN01ES26

ES 9-12

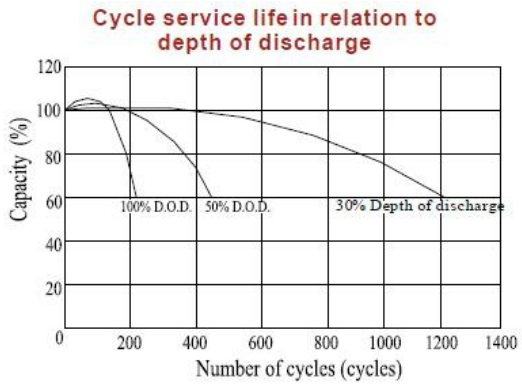
12V - 9Ah

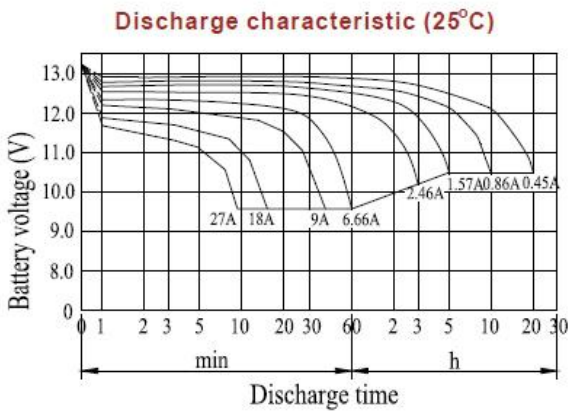
CONSTANT CURRENT DISCHARGE (Amperes) at 25°C

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	36.1	25.2	19.3	11.6	6.66	2.59	1.62	0.88	0.47
1.65V	34.6	24.3	18.5	11.1	6.42	2.53	1.61	0.87	0.47
1.70V	33.1	23.3	17.7	10.5	6.18	2.46	1.59	0.87	0.46
1.75V	31.6	22.2	16.9	9.86	5.94	2.39	1.57	0.86	0.45
1.80V	30	21.2	16.1	9.21	5.68	2.32	1.55	0.85	0.44

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

End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	74.1	47.2	35.1	21.5	15.9	12.4	6.85	4.84	3.27
1.65V	70.5	45.6	34	20.8	15.3	12	6.72	4.79	3.24
1.70V	66.9	43.9	32.9	20	14.7	11.5	6.59	4.74	3.21
1.75V	63.3	42.2	31.8	19.2	14.1	11	6.46	4.69	3.18
1.80V	59.7	40.5	30.7	18.4	13.5	10.5	6.32	4.64	3.15





Version : IN01ES26

Unlimited Power
ROCKET BATTERY
Since 1952

Global Battery Co. Ltd, South Korea
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ES 12-12

12V - 12Ah

INTRODUCTION

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ES Series are specially designed to provide better cyclic life and are ideally suited for areas prone to frequent power failures.

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SPECIFICATION

Nominal Voltage		12V
Capacity (20HR, 25°C)		12Ah
Dimension	Length	151mm (5.95inch)
	Width	98mm (3.86inch)
	Height	95mm (3.74inch)
	Total Height	101mm (3.98inch)
Approx Weight		3.60kg (7.94lbs)
Design Life		7 Years

CHARACTERISTICS

Capacity 25°C (77°F)	20 hour rate	12Ah
	10 hour rate	11.2Ah
	5 hour rate	10.2Ah
	1 hour rate	7.54Ah
Internal resistance (Fully charge, 25°C)		14mΩ
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)180A(5 Sec.)
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Cyclic Use		Cycle Use 14.4 to 15.0V
		Temp. compensation - 30mV/°C
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Standby Use		Standby Use 13.5-13.8V
		Temp. compensation - 20mV/°C

TECHNICAL FEATURES

- Non-Spillable Sealed Construction
- Absorptive Glass Mat System (AGM System)
- ABS (Acrylonitrile Butadiene Styrene) container and cover
- Micro millimeter SiO_2 and H_2SO_4 gelled electrolyte technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Maintenance-Free Operation
- Low Pressure Venting System
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
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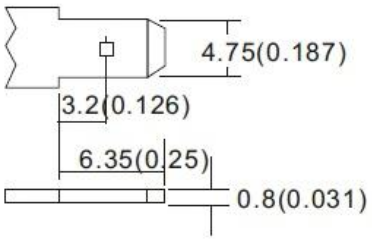
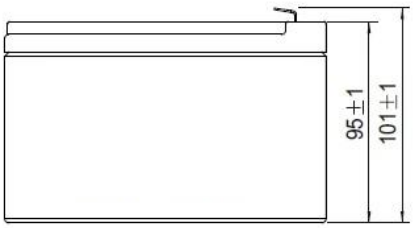
COMPLAINTS STANDARD

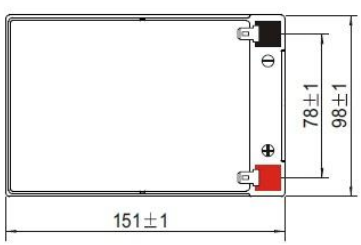
- JIS
- IEC 60896 PART 1 & 2
- BS6290-4,
- Eurobat Guide - HIGH Performance

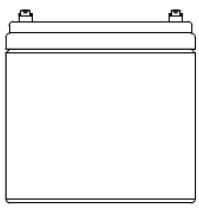
APPLICATIONS

- UPS
- Telecom Communication Equipments
- Medical Instruments
- Computer Backup
- Solar Powered Systems.
- Motive power applications, such as golf trailer, scrubber, forklift, etc.









We have option of terminals with 4.75mm / 6.3mm

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ES 12-12

12V - 12Ah

CONSTANT CURRENT DISCHARGE (Amperes) at 25°C

End Point Volts/Cell	5min	10min	15min	20min	30min	45min	60min
1.60V	46.3	31.5	23.3	19	13.8	9.6	7.54
1.65V	42	29	21.8	17.8	13.1	9.21	7.46
1.70V	38.1	26.9	20.5	16.8	12.4	8.99	7.29
1.75V	34.6	24.6	19.2	16	11.9	8.64	7.07
1.80V	30.7	22.4	17.6	14.9	11.5	8.33	6.76

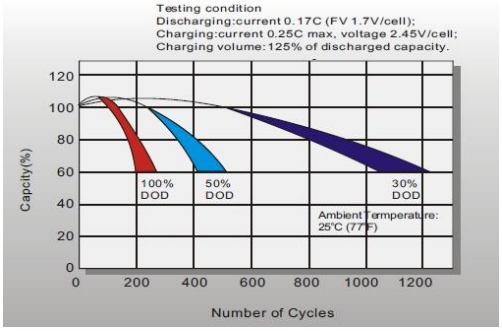
End Point Volts/Cell	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	4.38	3.38	2.71	2.22	1.89	1.45	1.21	0.629
1.65V	4.2	3.28	2.63	2.15	1.85	1.44	1.19	0.625
1.70V	4.14	3.15	2.54	2.09	1.81	1.42	1.17	0.617
1.75V	4.04	3.06	2.48	2.04	1.77	1.4	1.15	0.606
1.80V	3.9	3	2.42	1.99	1.72	1.37	1.12	0.6

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

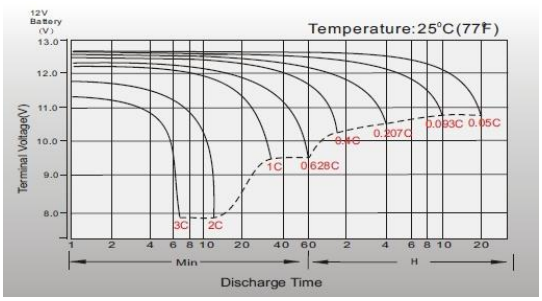
End Point Volts/Cell	5min	10min	15min	20min	30min	45min	60min
1.60V	76.8	53.5	40.8	34.1	25.2	17.8	14.2
1.65V	71.3	50.4	38.7	32.3	24	17.2	14.1
1.70V	65.6	47.1	36.7	30.7	22.9	16.9	13.9
1.75V	61.2	44.3	34.9	29.4	22.2	16.3	13.5
1.80V	55.5	40.9	32.3	27.6	21.5	15.9	13

End Point Volts/Cell	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	8.31	6.45	5.21	4.28	3.65	2.84	2.37	1.24
1.65V	8.01	6.29	5.07	4.16	3.59	2.82	2.35	1.23
1.70V	7.94	6.06	4.92	4.06	3.52	2.78	2.31	1.22
1.75V	7.76	5.91	4.8	3.97	3.46	2.75	2.26	1.2
1.80V	7.51	5.82	4.71	3.88	3.37	2.71	2.21	1.19

ES-CYCLE LIFE EXPECTANCY



Discharge Characteristics



Version : IN01ES26

Unlimited Power
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Since 1952

Global Battery Co. Ltd, South Korea
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ES 18-12

12V - 18Ah

INTRODUCTION

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TECHNICAL FEATURES

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- Maintenance-Free Operation
- Low Pressure Venting System
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Low Self-Discharge - Long Shelf Life
- Wide Operating Temperature Range

APPLICATIONS

- UPS
- Telecom Communication Equipments
- Medical Instruments
- Computer Backup
- Solar Powered Systems.

SPECIFICATION

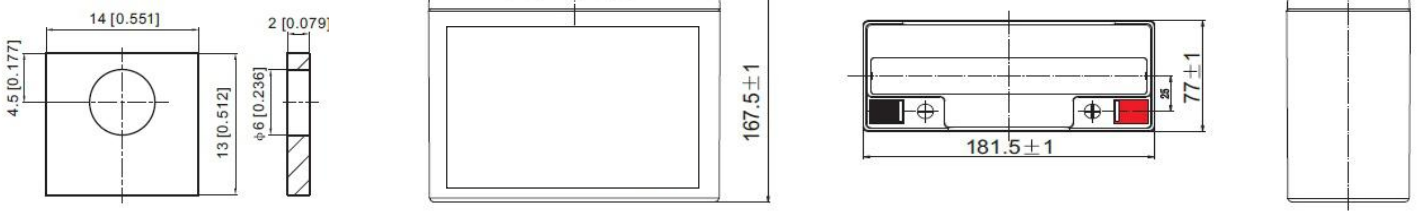
Nominal Voltage		12V
Capacity (20HR, 25°C)		18Ah
Dimension	Length	181.5mm (7.14inch)
	Width	77mm (3.03inch)
	Height	167.5mm (6.59inch)
	Total Height	167.5mm (6.59inch)
Approx Weight		5.6kg (12.35lbs)
Design Life		7 Years

CHARACTERISTICS

Capacity 25°C (77°F)	20 hour rate	18Ah
	10 hour rate	16.7Ah
	5 hour rate	15.3Ah
	1 hour rate	11.3Ah
Internal resistance (Fully charge, 25°C)		16mΩ
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)270A(5 Sec.)
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Cyclic Use		Cycle Use 14.4 to 15.0V
		Temp.compensation-30mV/°C
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Standby Use		Standby Use 13.5-13.8V
		Temp. compensation-20mV/°C

COMPLAINTS STANDARD

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



www.rocketbatteries.net

ES 18-12

12V - 18Ah

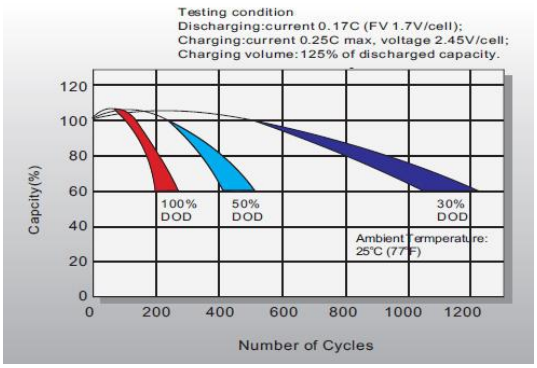
CONSTANT CURRENT DISCHARGE (Amperes) at 25°C

End Point Volts/Cell	5min	10min	15min	30min	1h	2h	3h	4h	5h	10h	20h
1.60V	83.40	56.64	41.88	24.84	13.56	7.88	6.08	4.88	4.00	2.17	1.14
1.65V	75.60	52.20	39.24	23.52	13.44	7.56	5.90	4.74	3.86	2.15	1.13
1.70V	68.52	48.36	36.84	22.32	13.08	7.45	5.66	4.58	3.77	2.10	1.12
1.75V	62.28	44.40	34.56	21.48	12.72	7.27	5.51	4.46	3.67	2.06	1.09
1.80V	55.20	40.32	31.56	20.64	12.12	7.01	5.41	4.37	3.58	2.00	1.08

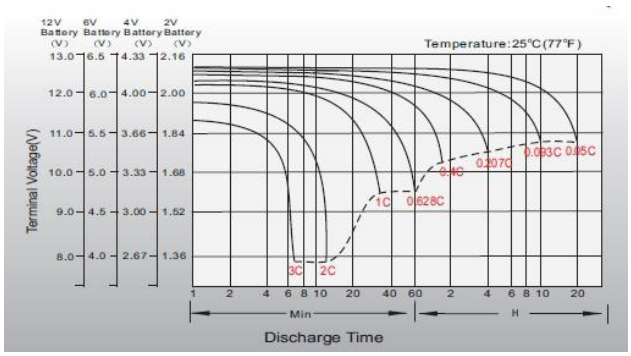
CONSTANT POWER DISCHARGE (Watts per cell) at 25°C

End Point Volts/Cell	5min	10min	15min	30min	1h	2h	3h	4h	5h	10h	20h
1.60V	138.24	96.24	73.32	45.24	25.56	15.00	11.62	9.38	7.70	4.27	2.23
1.65V	128.28	90.72	69.72	43.20	25.44	14.40	11.33	9.13	7.49	4.22	2.22
1.70V	117.96	84.84	66.12	41.28	24.96	14.28	10.91	8.86	7.31	4.15	2.20
1.75V	110.16	79.68	62.76	39.84	24.36	13.92	10.63	8.64	7.14	4.07	2.16
1.80V	99.84	73.68	58.20	38.76	23.40	13.56	10.49	8.48	6.98	3.97	2.14

ES-CYCLE LIFE EXPECTANCY



Discharge Characteristics



Version : IN01ES26

Unlimited Power
ROCKET
Since 1952
BATTERY

Global Battery Co. Ltd, South Korea
formerly known as Global & Yuasa Co. Ltd.

ES 26-12

12V - 26Ah

INTRODUCTION

The most advanced technology of ROCKET, Valve Regulated Lead Acid batteries make them highly useful in a broad range of applications. The use of high-purity calcium alloy maximizes the longevity of ROCKET batteries to ensure excellent performance in any circumstances.

ES Series are specially designed to provide better cyclic life and are ideally suited for areas prone to frequent power failures.

The unique construction coupled with the use of special sealing epoxies and long sealing paths of ROCKET series ensures that no electrolyte leakage can occur from terminals or cases of any ROCKET Baterries. This feature ensures safe & efficient operation of ROCKET batteries in any position.

TECHNICAL FEATURES

- Non-Spillable Sealed Construction
- Absorptive 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
- IEC 60896 PART 1 & 2
- BS6290-4,
- Eurobat Guide - HIGH Performance

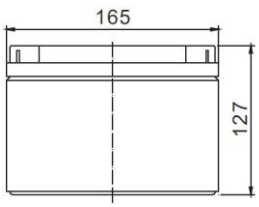
SPECIFICATION

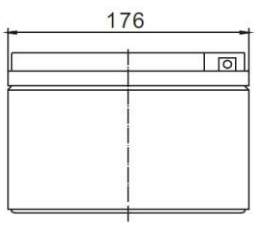
Nominal Voltage		12V
Capacity (20HR, 25°C)		26Ah
Dimension	Length	165mm (6.50inch)
	Width	176mm (6.939inch)
	Height	127mm (5.0inch)
	Total Height	127mm (5.0inch)
Approx Weight		8.1kg (17.8lbs)
Design Life		7 Years

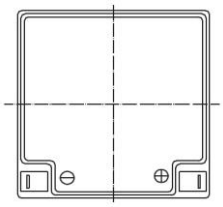
CHARACTERISTICS

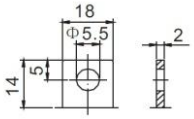
Capacity 25°C (77°F)	20 hour rate	26Ah
	10 hour rate	24.3Ah
	5 hour rate	22.1Ah
	1 hour rate	15.7Ah
Internal resistance (Fully charge, 25°C)		12mΩ
Self-discharge (25°C)	1 month	Remaining Capacity:97%
Operating temperature range	Discharge	-20°C~60°C
	Charge	-10°C~60°C
	Storage	-20°C~60°C
Maximum discharge current		77°F(25°C)390A(5 Sec.)
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Cyclic Use		Cycle Use 14.4 to 14.9V
		Max. charging Current 7.8A
		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).









www.rocketbatteries.net

ES 26-12

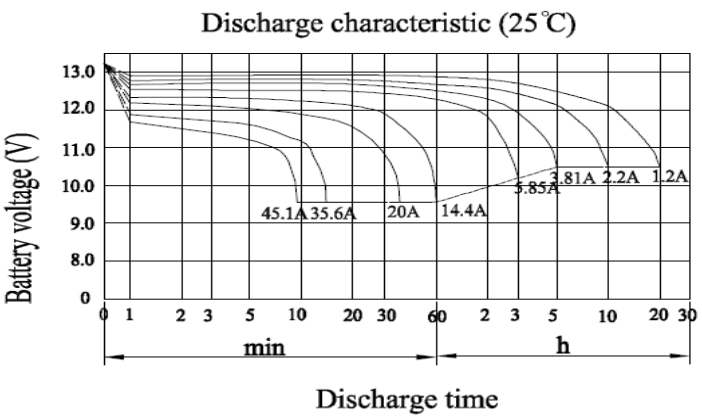
12V - 26Ah

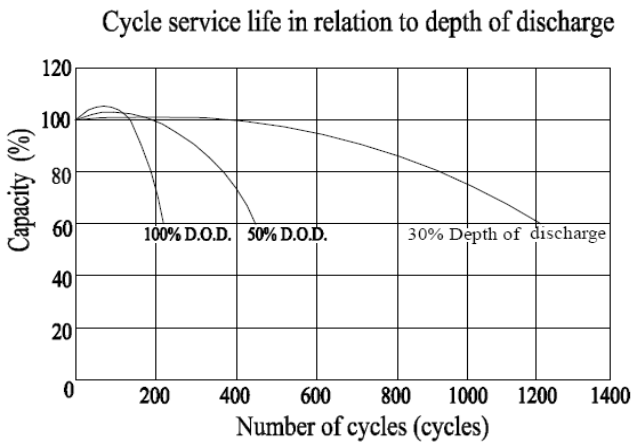
CONSTANT CURRENT DISCHARGE (Amperes) at 25°C

End Point Volts/Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	60min	90min	2 hr	3 hr	4 hr
1.60	83.2	55.8	44.3	36.4	31.5	27.8	24.8	22.6	20.8	17.0	12.8	10.23	7.42	5.91
1.65	82.4	55.3	43.9	36.0	31.2	27.5	24.6	22.4	20.6	16.8	12.7	10.13	7.35	5.85
1.70	81.4	54.6	43.3	35.6	30.8	27.2	24.3	22.1	20.4	16.6	12.5	10.00	7.25	5.78
1.75	79.7	53.4	42.4	34.8	30.1	26.6	23.8	21.6	19.9	16.3	12.2	9.79	7.10	5.65
1.80	74.9	50.2	39.9	32.7	28.3	25.0	22.3	20.3	18.7	15.3	11.5	9.20	6.67	5.31
1.85	70.1	47.0	37.3	30.6	26.5	23.4	20.9	19.0	17.5	14.3	10.77	8.61	6.25	4.97

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

End Point Volts/Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	60min	90min	2 hr	3 hr	4 hr
1.60	180	104.4	77.6	63.0	54.0	47.3	42.4	38.5	35.6	28.9	21.4	17.3	12.75	10.21
1.65	179	103.4	76.8	62.4	53.4	46.8	42.0	38.2	35.3	28.6	21.2	17.1	12.63	10.11
1.70	176	101.9	75.7	61.5	52.7	46.1	41.4	37.6	34.8	28.2	20.9	16.9	12.44	9.97
1.75	173	99.9	74.2	60.3	51.6	45.2	40.6	36.9	34.1	27.7	20.5	16.5	12.20	9.77
1.80	162	93.9	69.8	56.7	48.5	42.5	38.1	34.7	32.0	26.0	19.3	15.5	11.47	9.19
1.85	152	87.9	65.3	53.1	45.4	39.8	35.7	32.4	30.0	24.3	18.0	14.6	10.73	8.60





Version : ION01ES26

Unlimited Power
ROCKET
Since 1952
BATTERY

Global Battery Co. Ltd, South Korea
formerly known as Global & Yuasa Co. Ltd.

ES 42-12

12V - 42Ah

INTRODUCTION

The most advanced technology of ROCKET, Valve Regulated Lead Acid batteries make them highly useful in a broad range of applications. The use of high-purity calcium alloy maximizes the longevity of ROCKET batteries to ensure excellent performance in any circumstances.

ES Series are specially designed to provide better cyclic life and are ideally suited for areas prone to frequent power failures.

The unique construction coupled with the use of special sealing epoxies and long sealing paths of ROCKET series ensures that no electrolyte leakage can occur from terminals or cases of any ROCKET Baterries. This feature ensures safe & efficient operation of ROCKET batteries in any position.

TECHNICAL FEATURES

- Non-Spillable Sealed Construction
- Absorptive 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
- IEC 60896 PART 1 & 2
- BS6290-4,
- Eurobat Guide - HIGH Performance

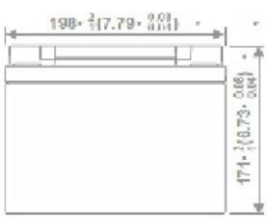
SPECIFICATION

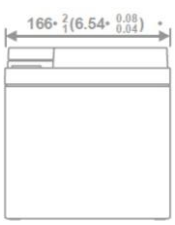
Nominal Voltage		12V
Capacity (20HR, 25°C)		42Ah
Dimension	Length	198mm (7.79inch)
	Width	166mm (6.54inch)
	Height	171mm (6.73inch)
	Total Height	171mm (6.73inch)
Approx Weight		13.1kg (28.82lbs)
Design Life		10 Years

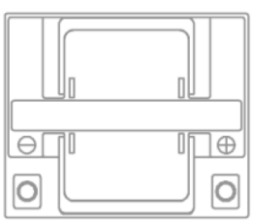
CHARACTERISTICS

Capacity 25°C (77°F)	20 hour rate	42Ah
	10 hour rate	40Ah
	5 hour rate	34.85Ah
	1 hour rate	25Ah
Internal resistance (Fully charge, 25°C)		9.5mΩ
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) 400A(5 Sec.)
Short circuit current		900A
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Cyclic Use		Cycle Use 14.4 to 14.7V
		Max. charging Current 12A
		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).







www.rocketbatteries.net

ES 42-12

12V - 42Ah

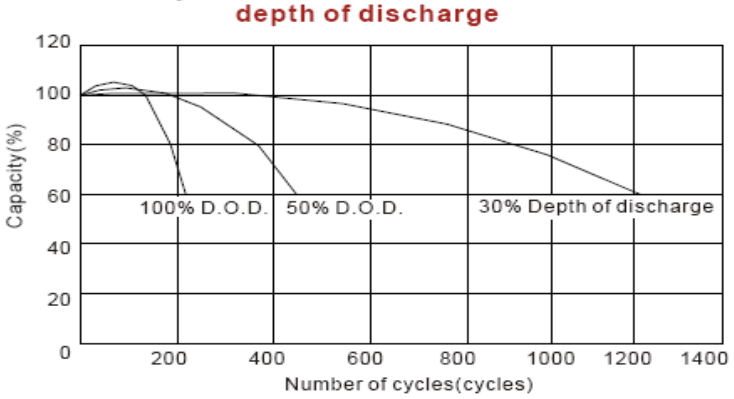
CONSTANT CURRENT DISCHARGE (Amperes) at 25°C

F.V/TIME.	5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	10hr	20hr
1.60V	178	111.0	81.4	42.9	24.9	14.3	10.40	8.21	7.13	4.12	2.14
1.65V	174	109.0	80.2	42.2	24.6	14.1	10.20	8.13	7.06	4.07	2.12
1.67V	171	107.0	79.1	40.9	24.4	13.9	10.10	8.09	7.02	4.02	2.09
1.70V	168	105.0	77.8	40	24.2	13.8	10.00	8.06	6.98	3.98	2.07
1.75V	157	102.0	73.3	38.7	23.8	13.5	9.84	7.88	6.84	3.87	2.03
1.80V	140	99.2	66.4	34.9	23.4	13.1	9.62	7.63	6.68	3.70	1.95
1.85V	116	89.0	56.5	30.7	22.7	12.6	9.27	7.34	6.43	3.52	1.87

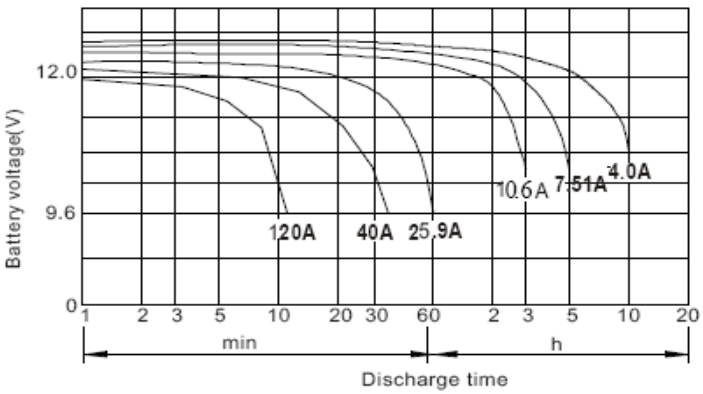
CONSTANT POWER DISCHARGE (Watts per cell) at 25°C

F.V/TIME.	5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	10hr	20hr
1.60V	321	197.2	153.0	85.0	48.5	28.7	21.00	16.20	14.78	7.87	4.35
1.65V	316	193.3	149.3	83.7	48.0	28.3	20.67	16.02	14.63	7.73	4.23
1.67V	310	189.3	146.8	82.3	47.7	28.0	20.50	15.92	14.53	7.63	4.15
1.70V	304	186.2	144.5	81.2	47.3	27.8	20.33	15.83	14.43	7.55	4.08
1.75V	284	173.0	135.8	76.5	46.5	27.3	20.00	15.57	14.20	7.35	3.93
1.80V	252	152.3	122.3	69.3	45.3	26.8	19.50	15.27	13.93	7.15	3.75
1.85V	207	123.5	102.8	59.0	43.8	25.8	18.83	14.85	13.57	6.93	3.55

Cycle service life in relation to depth of discharge



Discharge characteristic (25°C)



Version : ION01ES42

Unlimited Power
ROCKET BATTERY
Since 1952

Global Battery Co. Ltd, South Korea
formerly known as Global & Yuasa Co. Ltd.

ES 65-12

12V - 65Ah

INTRODUCTION

The most advanced technology of ROCKET, Valve Regulated Lead Acid batteries make them highly useful in a broad range of applications. The use of high-purity calcium alloy maximizes the longevity of ROCKET batteries to ensure excellent performance in any circumstances.

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TECHNICAL FEATURES

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

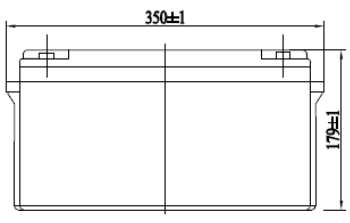
SPECIFICATION

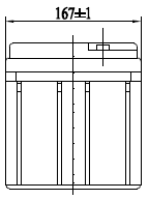
Nominal Voltage		12V
Capacity (20HR, 25°C)		65Ah
Dimension	Length	350mm (13.78inch)
	Width	167mm (6.57inch)
	Height	179mm (7.05inch)
	Total Height	179mm (7.05inch)
Approx Weight		19.5kg (43.0lbs)
Design Life		10 Years

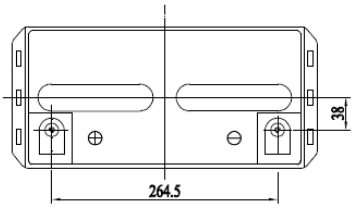
CHARACTERISTICS

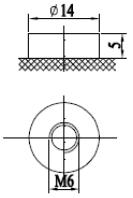
Capacity 25°C (77°F)	20 hour rate	65Ah
	10 hour rate	61Ah
	5 hour rate	54.5Ah
	1 hour rate	44.2Ah
Internal resistance (Fully charge, 25°C)		6m Ω
Self-discharge (25°C)	1 month	Remaining Capacity:97%
Operating temperature range	Discharge	-20°C~60°C
	Charge	-10°C~60°C
	Storage	-20°C~60°C
Maximum discharge current		77°F(25°C) 650A(5 Sec.)
Short circuit current		1700A
Charge Methods (Constant Voltage Charge 77°F(25°C)) - Cyclic Use		Cycle Use 14.4 to 14.7V
		Max. charging Current 19.5A
		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).









Version : ION01ES65

ES 65-12

12V - 65Ah

CONSTANT CURRENT DISCHARGE (Amperes) at 25°C

End Point Volts/ Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min
1.60V	212	151	126	98.8	82.4	75.4	63	57.4	53	49.5	46.6
1.65V	201	144	121	93.2	78.7	73.3	61.5	56.6	52.8	48.5	44.9
1.70V	189	137	115	91.2	76.8	71.3	59.4	54.2	50.1	46.7	43.8
1.75V	177	129	109	88.1	75.6	69.2	59.2	53.9	49.8	46.2	43.3
1.80V	164	120	102	81.9	70.4	66.9	55.6	50.9	47.3	43.7	40.7

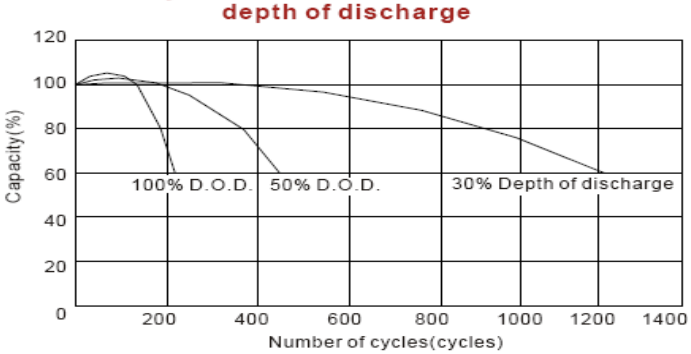
End Point Volts/Cell	1h	1.25h	1.5h	1.75h	2h	2.25h	2.5h	2.75h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	45.1	36.2	30.9	27.5	24.3	22.2	20.3	19.2	18.4	14.2	11.8	10.4	9.19	8.28	7.58	6.70	5.9	3.2
1.65V	44.0	35.0	29.5	26.7	23.3	21.6	19.6	18.7	18	13.7	11.6	10.1	8.96	8.1	7.43	6.58	5.81	3.12
1.70V	43.0	33.9	29.2	25.9	23.1	21.0	19.4	18.2	17.6	13.5	11.3	9.92	8.79	7.95	7.29	6.56	5.75	3.06
1.75V	41.9	32.7	28.8	25.1	22.8	20.4	19.2	17.7	17.2	13.3	11.0	9.74	8.62	7.78	7.13	6.53	5.62	2.97
1.80V	41.0	31.5	27.3	24.3	21.8	19.8	18.5	17.2	16.9	13	10.7	9.57	8.47	7.65	7.01	6.50	5.53	2.86

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

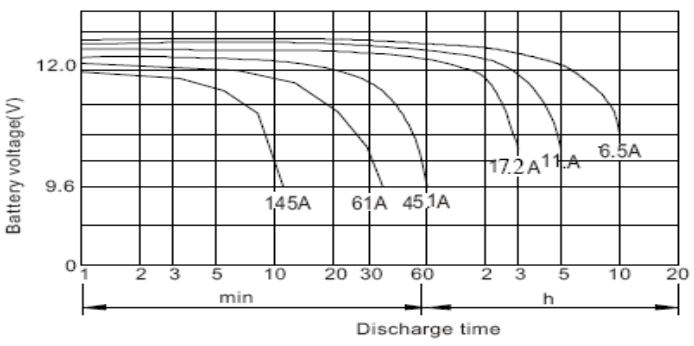
End Point Volts/ Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min
1.60V	378	275	207	167	145	129	117	106	99.1	91.1	85.5
1.65V	356	261	203	164	142	128	114	104	97.6	89.5	83.8
1.70V	335	246	200	160	139	127	108	100	95.7	87.6	81.9
1.75V	314	231	196	156	136	124	106	98.3	93.6	85.6	80
1.80V	302	215	187	152	132	122	104	96.9	91.3	84.7	79.4

End Point Volts/Cell	1h	1.25h	1.5h	1.75h	2h	2.25h	2.5h	2.75h	3h	4h	5h	6h	7h	8h	9h	10h	12h
1.60V	81.8	66.3	57.7	51.5	47.5	42.5	39.1	37.2	33.8	27.2	22.5	19.6	17.3	15.5	14.2	13.1	11.1
1.65V	80.0	65.7	56.4	50.5	46.6	41.5	38.3	36.3	33.2	26.8	22.3	19.4	17.1	15.3	14	12.9	11
1.70V	78.3	65.2	55.5	49.5	45.6	40.6	38.1	35.4	32.5	26.6	22.0	19.2	16.9	15.2	13.9	12.8	10.9
1.75V	76.5	64.6	53.9	48.5	44.5	39.6	36.7	34.4	31.8	25.9	21.7	18.9	16.7	15	13.7	12.7	10.8
1.80V	75.7	64	53.4	47.5	43.3	38.6	36	33.5	31.1	25.5	21.4	18.7	16.5	14.9	13.6	12.6	10.7

Cycle service life in relation to depth of discharge



Discharge characteristic (25°C)



Unlimited Power
ROCKET BATTERY
Since 1952

Global Battery Co. Ltd, South Korea
formerly known as Global & Yuasa Co. Ltd.

ESC 100-12

12V - 100Ah

INTRODUCTION

The most popular series of ROCKET Batteries; The ESC series has been performing with a proven track record f 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
- Absorptive 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

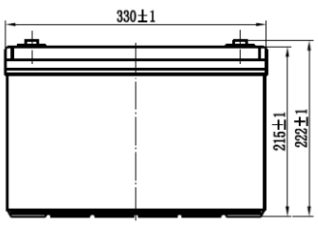
SPECIFICATION

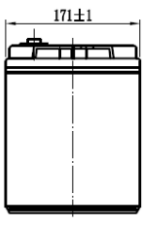
Nominal Voltage		12V
Capacity (20HR, 25°C)		100Ah
Dimension	Length	330mm (12.99inch)
	Width	171mm (6.73inch)
	Height	214mm (8.43inch)
	Total Height	220mm (8.66inch)
Approx Weight		28.5kg
Design Life		10 Years

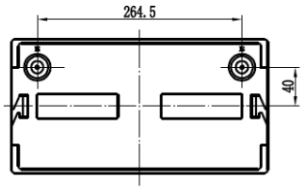
CHARACTERISTICS

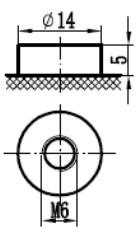
Capacity 25°C (77°F)	20 hour rate	100Ah
	10 hour rate	96Ah
	5 hour rate	90.5Ah
	1 hour rate	69Ah
Internal resistance (Fully charge, 25°C)		4.2mΩ
Self-discharge (25°C)	1 month	Remaining Capacity:97%
Operating temperature range	Discharge	-20°C~60°C
	Charge	-10°C~60°C
	Storage	-20°C~60°C
Maximum discharge 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).









Version : ION01ESC100

ESC 100-12

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	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

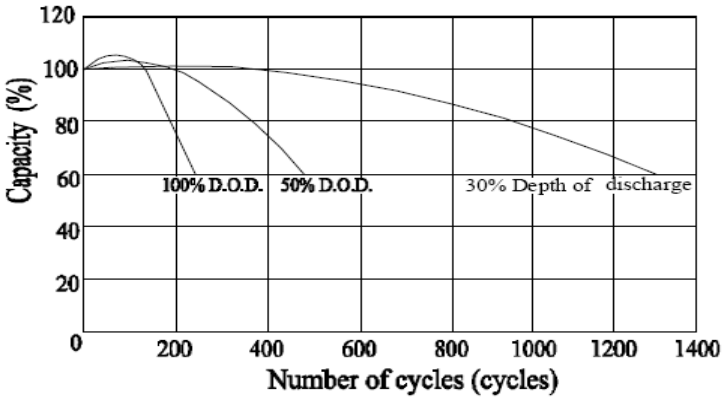
End Point Volts/Cell	1.25h	1. 5h	1.75h	2h	2.25h	2. 5h	2.75h	3h	4h	5h	6h	7h	8h	9h	10h	12h	24h
1.60V	54. 5	47. 1	41. 5	37. 5	33. 8	31. 8	29. 5	25. 1	20. 4	17. 6	16. 3	14. 3	12. 9	11. 7	10. 8	9. 06	4. 7
1.65V	52. 7	45. 1	40. 3	36. 4	33. 0	31. 2	28. 9	24. 6	19. 8	17. 3	15. 7	13. 9	12. 5	11. 5	10. 6	9. 01	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

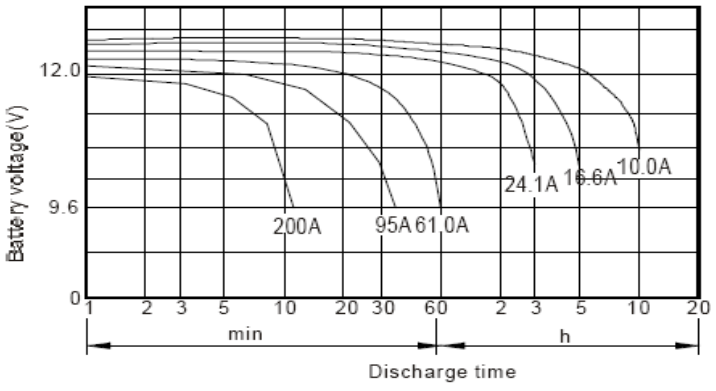
End Point Volts/Cell	5min	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	1h
1. 60V	528	372	304	250	213	186	178	162	138	130	125	119
1. 65V	491	353	299	242	203	180	170	156	134	127	122	117
1. 70V	454	335	290	231	196	176	163	149	132	124	119	116
1. 75V	419	317	279	226	190	170	159	145	129	121	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℃)



Version : ION01ESC100