

FEATURES

- Cyclic products
- Maintenance free valve regulated lead LPG Series acid batteries
- Long-time discharge
- Suitable for space and storage electric power use
- Special plate design, long cycle lifetime
- Long storage time
- Good deep discharge resilience performance

RS PRO Gel Battery 12V, 100Ah

RS Stock No.: 883-8866



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

These batteries are made from an ABS material which greatly increases the strength of the battery container. Suitable for use across a number of industries as well as for cyclic products. This rechargeable battery is sealed and has many uses. All models are highly reliable and offer excellent quality, performance and durability.

[883-8844](#) - 12V, 17Ah

[883-8850](#) - 12V, 38Ah

[883-8853](#) - 12V, 26Ah

[883-8856](#) - 12V, 31Ah

[883-8866](#) - 12V, 100Ah

[883-8869](#) - 12V, 60Ah

General Specifications

Technology	Gel
Designed for Cyclic Application	Yes
Eurobat Classification	10 to 12 Years
Container Material	A.B.S. (UL94-HB) conform
Application	Cyclic products

Electrical Specifications

Capacity	100Ah
Nominal Voltage	12V
Terminal Type	T11
Cells Per Unit	6V
Voltage Per Unit	12V
Max. Discharge Current	1000A (5 sec)
Max. Charging Current Limit	20A
Float charging Voltage	13.5VDC to 13.8VDC/unit Average at 25°C
Internal Resistance	5.9mOhm
Equalization and Cycle Service	14.4VDC to 15.0VDC/unit Average at 25°C
Self-Discharge	The batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.

Mechanical Specifications

Dimensions	330mm x 173mm x 212mm
Height	330mm
Length	173mm
Width	212mm
Weight	31kg

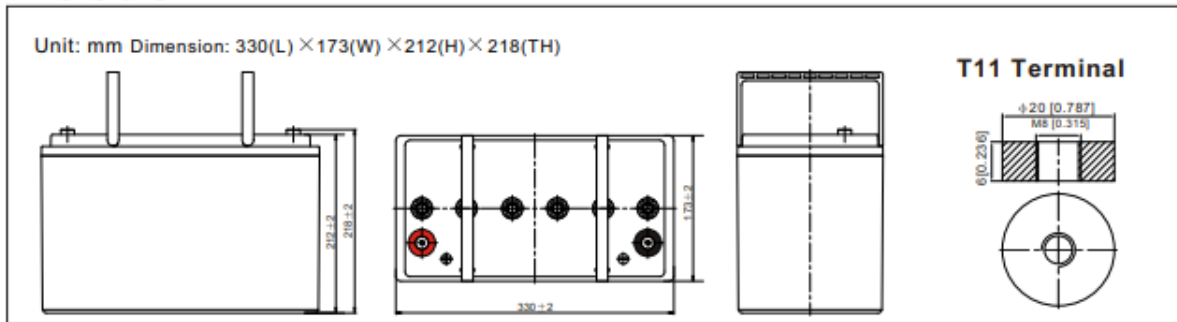
Operation Environment Specifications

Operating Temperature Range	Discharge : -20°C to 55°C Charge : 0°C to 40°C Storage : -20°C to 50°C
Nominal Operating Temperature Range	25 ±3°C (77 ±5°F)

Approvals

Compliance/Certifications	UL94-HB
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Dimensions



Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method

Constant Voltage	-0.2Cx2h+2.4-2.45V/Cellx24h, Max. Current 0.3CA
Constant Current	0.1C until the voltage reaching 14.4V, then 0.1Cx4h

Available Capacity Subject to Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%

Constant Current Discharge Characteristics : A (25 °C)

Amps

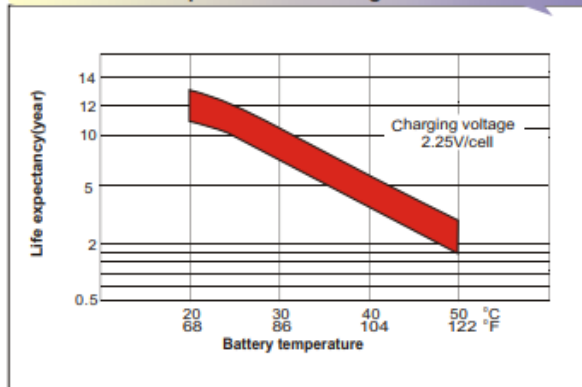
F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	84.6	66.4	50.7	42.4	26.9	20.5	17.0	14.7	12.3	10.9	9.8	8.96	8.47	4.61
1.80V/cell	96.9	74.2	55.9	46.8	29.1	22.0	18.0	15.4	12.9	11.4	10.3	9.42	8.85	4.80
1.75V/cell	108.9	81.6	60.4	50.1	30.9	23.2	18.9	16.0	13.3	11.8	10.6	9.7	9.00	4.90
1.70V/cell	117.3	87.4	64.1	53.0	32.7	24.2	19.5	16.5	13.8	12.2	10.9	10.0	9.23	4.96
1.67V/cell	122.1	90.8	66.4	55.0	33.6	24.9	20.0	16.8	14.0	12.3	11.1	10.1	9.34	5.01
1.60V/cell	132.3	97.2	71.3	58.4	34.9	25.9	20.7	17.4	14.4	12.6	11.3	10.3	9.53	5.08

Constant Power Discharge Characteristics : W (25 °C)

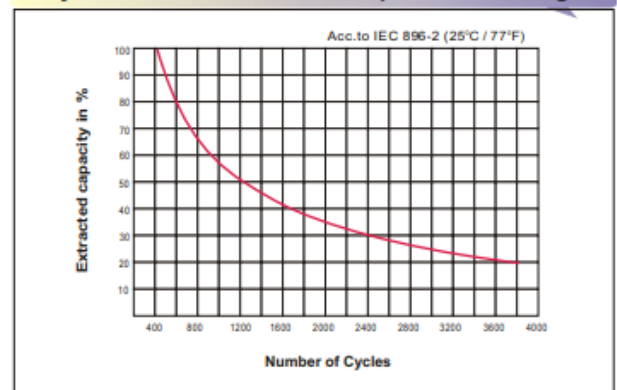
Watts

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	161.9	128.0	98.2	82.6	52.6	40.2	33.4	28.9	24.3	21.6	19.5	17.8	16.9	9.20
1.80V/cell	183.0	141.6	107.5	90.7	56.6	42.9	35.3	30.3	25.4	22.5	20.4	18.7	17.6	9.57
1.75V/cell	203.4	154.4	115.4	96.5	59.8	45.2	36.8	31.4	26.3	23.3	21.0	19.3	17.9	9.75
1.70V/cell	216.8	163.9	121.7	101.6	63.1	46.9	37.9	32.3	27.1	24.0	21.6	19.7	18.3	9.86
1.67V/cell	223.1	168.5	125.1	104.8	64.4	48.2	38.7	32.8	27.5	24.3	21.9	20.0	18.5	9.95
1.60V/cell	239.1	178.7	133.4	110.7	66.7	49.9	40.1	33.8	28.1	24.7	22.2	20.3	18.9	10.1

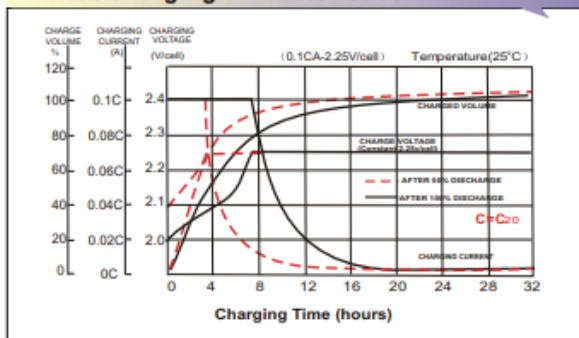
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Float Charging Characteristics



Discharge Characteristics

