

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, 38Ah

RS Stock No.: 883-8850



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 gel rechargeable battery is sealed and has many uses. RS PRO offers a range of gel rechargeable batteries with different voltages and capacities to suit all your requirements. 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	38Ah
Nominal Voltage	12V
Terminal Type	T6
Cells Per Unit	6V
Voltage Per Unit	12V
Max. Discharge Current	380A (5 sec)
Max. Charging Current Limit	7.6A
Float charging Voltage	13.5VDC to 13.8VDC/unit Average at 25°C
Internal Resistance	12mOhm
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	197mm x 165mm x 170mm
Height	197mm
Length	165mm
Width	170mm
Weight	13.5kg

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)

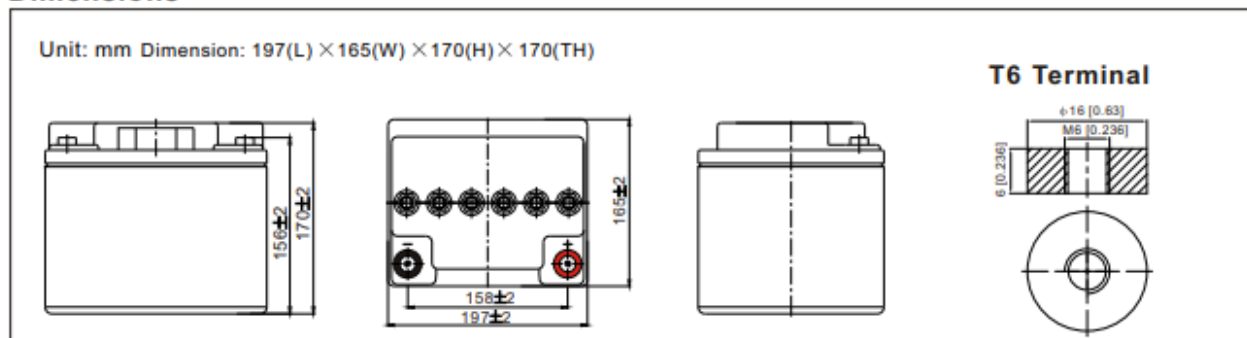
Approvals

Compliance/Certifications	UL94-HB
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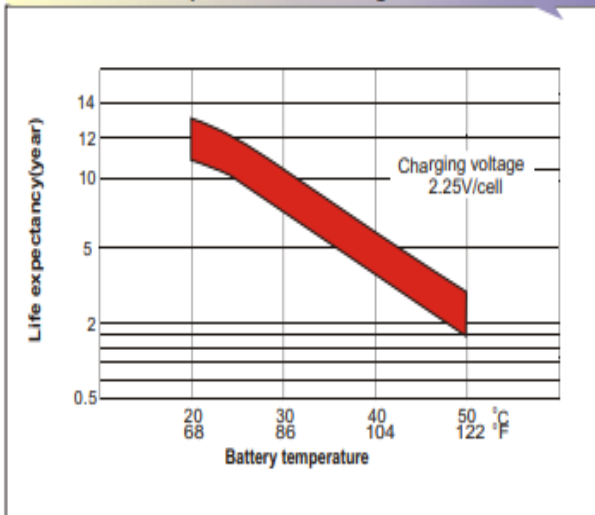
Constant Current Discharge Characteristics : A (25 °C)													Amps	
F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	32.1	25.2	19.3	16.1	10.2	7.79	6.45	5.57	4.81	4.26	3.84	3.51	3.32	1.82
1.80V/cell	36.8	28.2	21.2	17.8	11.1	8.35	6.84	5.85	5.05	4.46	4.02	3.69	3.47	1.90
1.75V/cell	41.4	31.0	23.0	19.0	11.7	8.82	7.16	6.08	5.23	4.61	4.15	3.80	3.53	1.94
1.70V/cell	44.6	33.2	24.4	20.1	12.4	9.18	7.40	6.27	5.41	4.77	4.28	3.90	3.62	1.96
1.67V/cell	46.4	34.5	25.2	20.9	12.7	9.47	7.58	6.40	5.50	4.84	4.34	3.95	3.66	1.98
1.60V/cell	50.3	36.9	27.1	22.2	13.3	9.85	7.87	6.60	5.63	4.94	4.42	4.04	3.73	2.01

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	61.5	48.6	37.3	31.4	20.0	15.3	12.7	11.0	9.52	8.45	7.64	6.99	6.61	3.64
1.80V/cell	69.6	53.8	40.9	34.4	21.5	16.3	13.4	11.5	10.0	8.82	7.98	7.33	6.90	3.79
1.75V/cell	77.3	58.7	43.9	36.7	22.7	17.2	14.0	11.9	10.3	9.11	8.22	7.54	7.03	3.86
1.70V/cell	82.4	62.3	46.2	38.6	24.0	17.8	14.4	12.3	10.6	9.39	8.45	7.74	7.18	3.90
1.67V/cell	84.8	64.0	47.5	39.8	24.5	18.3	14.7	12.5	10.8	9.50	8.56	7.82	7.26	3.94
1.60V/cell	90.8	67.9	50.7	42.1	25.3	19.0	15.2	12.8	11.0	9.68	8.69	7.97	7.39	3.99

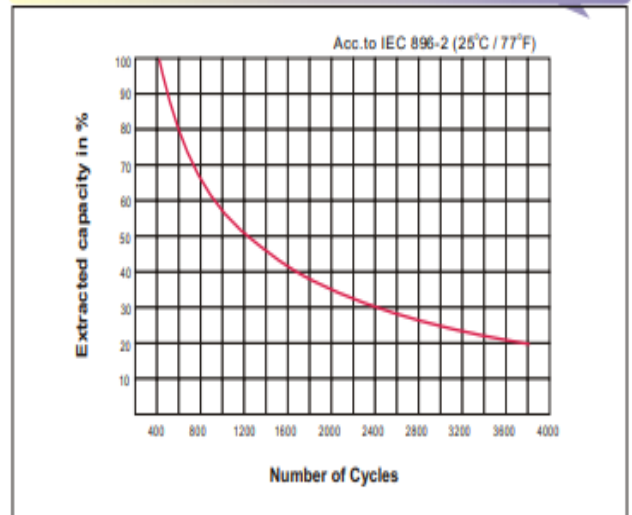
Dimensions



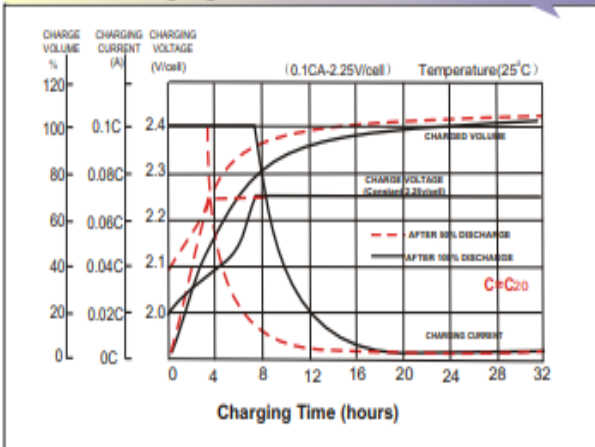
Effect of Temperature on Long Term Float Life



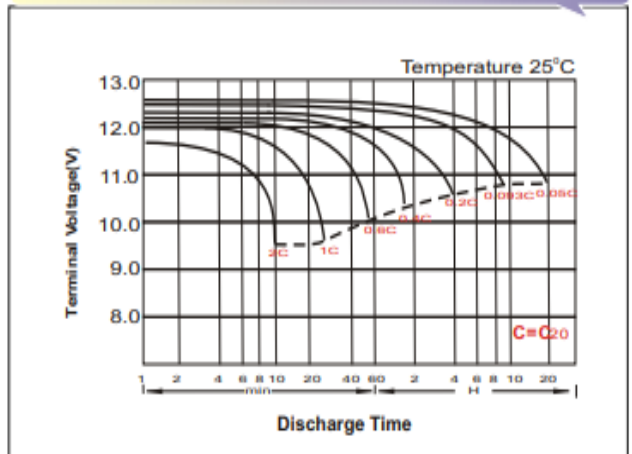
Cycle Life in Relation to Depth of Discharge



Float Charging Characteristics



Discharge Characteristics



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%

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.60V
Discharge Current (A)	(A) $\leq 0.2C$	$0.2C < (A) < 1.0C$	(A) $\geq 1.0C$

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