FEATURES

- An excellent long-life expectancy of 6 years
- The battery can be stored for more than 6 months at 25°C
- A.B.S. UL94 -HB container
- 12V voltage per unit and capacity of 5.4 Ah (ampere-hour)

RS PRO Lead Acid Battery 12V, 5.4Ah

RS Stock No.: 174-8857

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 RS PRO lead-acid batteries are suitable for standby and floating load applications.
These rechargeable batteries have a long service life.

General Specifications

Technology	AGM
Designed for Cyclic Application	No
Container Material	(UL94 -HB) conform
Application	Standby & float applications

Electrical Specifications

Capacity	5.4Ah
Nominal Voltage	12V
Terminal Type	T1
Cells Per Unit	6V
Voltage Per Unit	12V
Max. Discharge Current	81A (5 sec)
Max. Charging Current Limit	1.62A
Float charging Voltage	13.5VDC to 13.8VDC/unit Average at 25ºC
Internal Resistance	30mOhm
Equalization and Cycle Service	14.4VDC to15.0VDC/unit Average at 25ºC
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	90mm x 70mm x 101mm
Height	90mm
Length	70mm
Width	101mm
Weight	1.7kg

Operation Environment Specifications

Operating Temperature Range	Discharge : -15°C to 50 °C Charge : 0°C to 40 °C Storage : -15°C to 40°C
Nominal Operating Temperature Range	25 ±3°C (77 ±5°F)

Approvals

Compliance/Certifications	UL94-HB
Flame Resistant	No

Constant Current Discharge Characteristics : A (25°C)

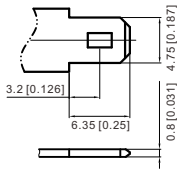
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	10.4	7.23	5.96	5.17	4.15	3.19	2.61	1.59	1.21	0.998	0.847	0.734	0.583	0.485	0.267
1.80V/cell	12.7	8.62	6.91	5.85	4.59	3.48	2.81	1.69	1.28	1.05	0.883	0.766	0.605	0.502	0.270
1.75V/cell	15.1	9.75	7.62	6.37	4.90	3.69	2.95	1.77	1.32	1.08	0.907	0.785	0.621	0.512	0.273
1.70V/cell	17.1	10.8	8.25	6.84	5.15	3.84	3.08	1.84	1.36	1.11	0.930	0.804	0.630	0.521	0.278
1.65V/cell	18.9	11.6	8.73	7.18	5.37	3.99	3.21	1.89	1.40	1.13	0.950	0.819	0.641	0.528	0.281
1.60V/cell	19.8	12.1	9.09	7.40	5.52	4.08	3.28	1.95	1.43	1.16	0.970	0.835	0.654	0.537	0.283

Constant Power Discharge Characteristics : W (25°C)

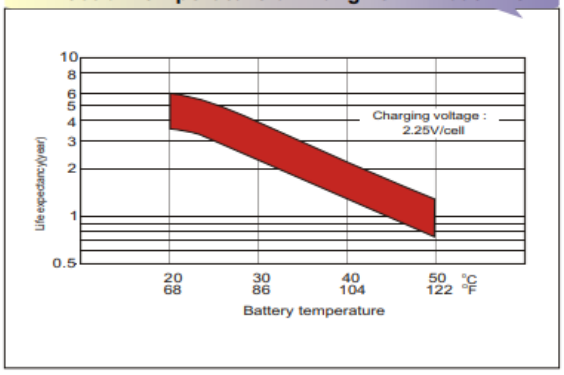
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	19.6	13.8	11.5	10.0	8.09	6.25	5.14	3.15	2.41	1.99	1.69	1.47	1.17	0.978	0.540
1.80V/cell	23.8	16.3	13.2	11.2	8.89	6.77	5.50	3.33	2.52	2.08	1.76	1.53	1.21	1.01	0.543
1.75V/cell	27.8	18.2	14.4	12.1	9.43	7.16	5.76	3.46	2.59	2.13	1.79	1.55	1.23	1.02	0.544
1.70V/cell	31.2	19.9	15.4	12.9	9.84	7.39	5.97	3.58	2.67	2.17	1.83	1.58	1.25	1.03	0.551
1.65V/cell	33.9	21.1	16.1	13.5	10.2	7.63	6.17	3.66	2.72	2.21	1.86	1.61	1.26	1.04	0.556
1.60V/cell	35.1	21.7	16.6	13.7	10.3	7.72	6.26	3.75	2.77	2.25	1.89	1.63	1.28	1.05	0.556

T1 Terminal

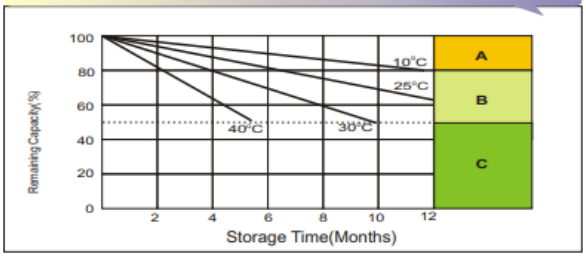
FASTON TYPE (Copper) quick disconnect tabs; silver coating for better conductivity



Effect of Temperature on Long Term Float Life



Self Discharge Characteristics

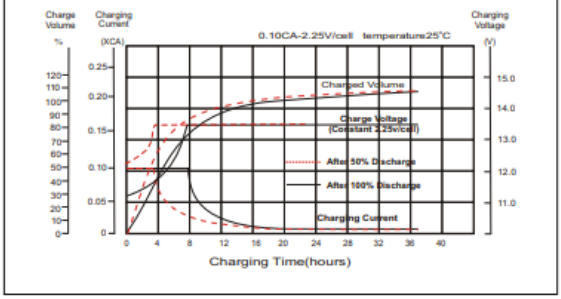


A No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

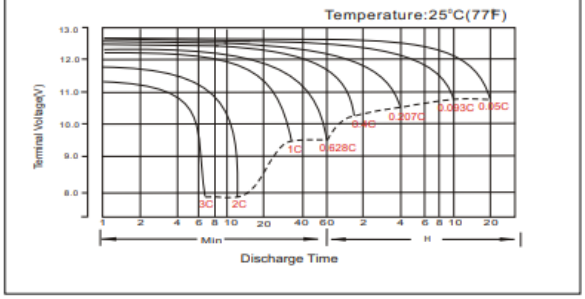
B Supplementary charge required before use.Optional charging way as below:
1.Charged for above 3 days at limted current 0.25CA and constant volatge 2.25V/cell.
2.Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell.
3.Charged for 8~10hours at limted current 0.05CA .

C Avoid this storage period unless regular Top charge.
Supplementary charge may often fail to recover the full capacity

Float Charging Characteristics



Discharge Characteristics



Available Capacity Subject to Temperature

Battery Type		-20℃	-10℃	0℃	5℃	10℃	20℃	25℃	30℃	40℃	45℃
AGM Battery	6V&12V	46%	66%	86%	89%	93%	98%	100%	102%	103%	105%

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