

## FEATURES

- AGM Deep Cycle battery – longer life
- Special grid alloy: less gassing
- Optimised manufacturing process - deep discharge
- Robust ABS material - increases the strength of the battery container

## RS PRO Lead Acid Battery 12V, 38Ah

RS Stock No.: 727-0423



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

A series of RS PRO rechargeable lead-acid batteries. 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 lead acid rechargeable battery is sealed and has many uses. RS PRO offers a range of lead acid rechargeable batteries with different voltages and chargers to suit all your requirements. All models are highly reliable and offer excellent quality, performance and durability.

[727-0405](#) - 12V, 20Ah

[727-0417](#) - 12V, 13Ah

[727-0420](#) - 12V, 33Ah

[727-0423](#) - 12V, 38Ah

[727-0427](#) - 12V, 100Ah

[727-0433](#) - 12V, 120Ah

[727-0436](#) - 12V, 55Ah

[727-0439](#) - 12V, 75Ah

## General Specifications

<b>Technology</b>	AGM
<b>Designed for Cyclic Application</b>	Yes
<b>Eurobat Classification</b>	3 to 5 Years
<b>Container Material</b>	A.B.S. (UL94-HB) conform
<b>Application</b>	Cyclic products

## Electrical Specifications

<b>Capacity</b>	38Ah
<b>Nominal Voltage</b>	12V
<b>Terminal Type</b>	T6
<b>Cells Per Unit</b>	6V
<b>Voltage Per Unit</b>	12V
<b>Max. Discharge Current</b>	456A (5 sec)
<b>Max. Charging Current Limit</b>	11.4A
<b>Float charging Voltage</b>	13.5VDC to 13.8VDC/unit Average at 25°C
<b>Internal Resistance</b>	9mOhm
<b>Equalization and Cycle Service</b>	14.4VDC to 15.0VDC/unit Average at 25°C
<b>Self-Discharge</b>	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

<b>Dimensions</b>	260mm x 168mm x 208mm
<b>Height</b>	260mm
<b>Length</b>	168mm
<b>Width</b>	208mm
<b>Weight</b>	14.2kg

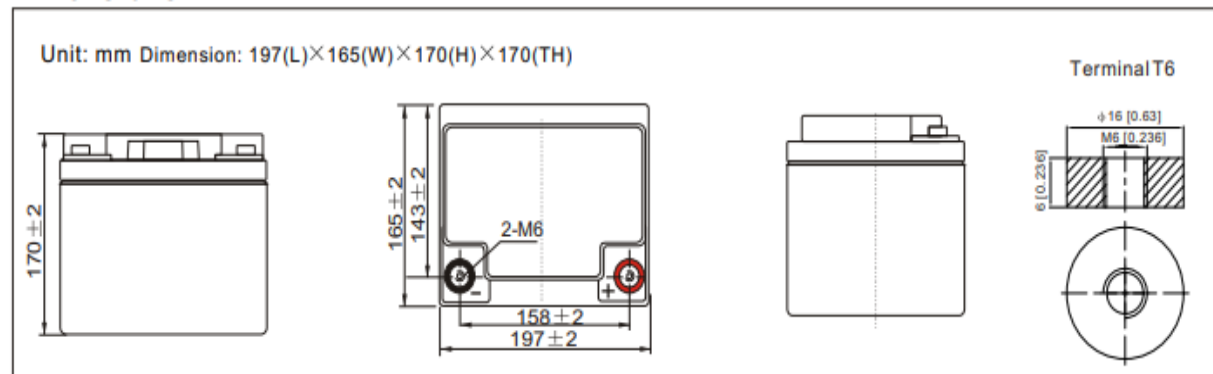
## Operation Environment Specifications

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

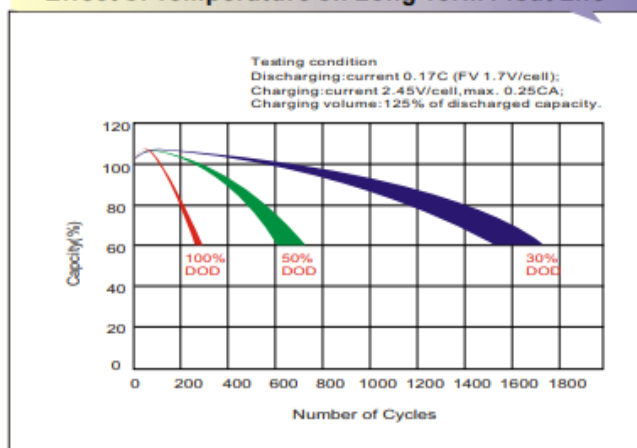
## Approvals

<b>Compliance/Certifications</b>	UL94-HB
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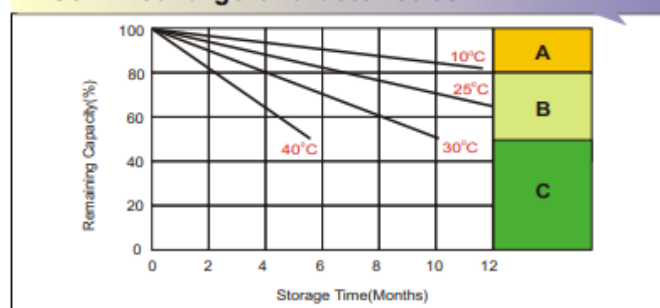
## Dimensions



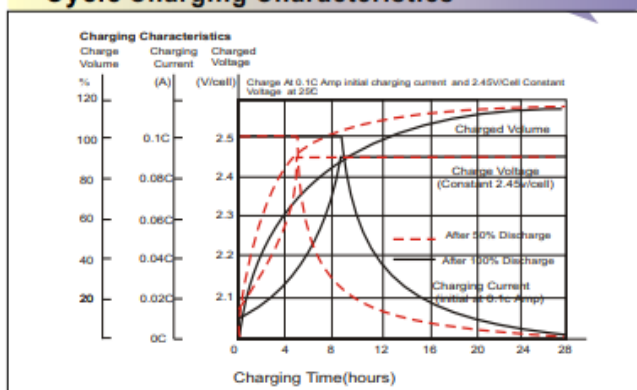
## Effect of Temperature on Long Term Float Life



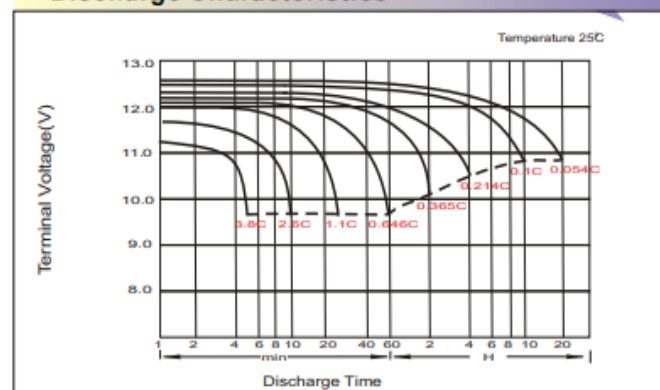
## Self Discharge Characteristics



## Cycle Charging Characteristics



## Discharge Characteristics



## Constant Current Discharge Characteristics : A (25°C)

Amps

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	55.6	46.8	40.9	29.4	23.4	19.0	11.8	9.19	7.44	6.05	5.28	4.31	3.59	2.02
1.80V/cell	71.1	56.6	48.4	34.7	27.2	21.3	12.9	9.89	7.95	6.49	5.66	4.57	3.80	2.04
1.75V/cell	78.1	61.8	52.0	36.1	28.2	22.2	13.3	10.1	8.12	6.67	5.81	4.65	3.84	2.06
1.70V/cell	85.1	66.0	54.7	37.5	29.3	22.9	13.9	10.4	8.34	6.83	5.94	4.71	3.88	2.09
1.65V/cell	91.9	70.1	58.1	39.6	30.1	23.7	14.3	10.8	8.63	7.02	6.06	4.79	3.96	2.12
1.60V/cell	99.8	75.0	61.9	41.8	31.4	24.5	14.7	11.1	8.90	7.25	6.20	4.83	4.00	2.13

## Constant Power Discharge Characteristics : W (25°C)

Watts

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	103.8	88.3	78.0	56.6	45.2	36.8	23.0	18.0	14.6	11.9	10.42	8.52	7.11	4.04
1.80V/cell	130.9	105.1	90.8	65.9	52.2	41.0	24.9	19.2	15.5	12.7	11.14	9.02	7.52	4.07
1.75V/cell	142.0	113.6	96.8	68.1	53.9	42.7	25.8	19.5	15.8	13.0	11.43	9.17	7.59	4.10
1.70V/cell	152.6	120.4	101.2	70.6	55.9	44.0	26.7	20.0	16.2	13.3	11.65	9.29	7.66	4.18
1.65V/cell	163.6	127.2	107.0	74.2	57.1	45.3	27.4	20.8	16.7	13.7	11.89	9.43	7.81	4.22
1.60V/cell	174.6	134.4	112.8	77.5	58.9	46.5	28.1	21.4	17.2	14.1	12.12	9.51	7.89	4.24

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) ≤ 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	-0.2Cx2h+0.1CAx 12h
Fast	-0.2Cx2h+0.3CAx4.0h