

## FEATURES

- Using oxygen recombination technology
- PbCaSn alloy for plate grids-less gassing, less self-discharging
- High-quality AGM separator
- High purity raw material
- Silver-coated copper terminals (T1, T2 terminal)
- ABS material

## RS PRO Lead Acid Battery 12V, 100Ah

RS Stock No.: 727-0398



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

RS PRO Lead acid batteries are suitable for use across a number of industries as well as for general purpose. They are sealed and have many uses, and are ideal for standby & float applications. These batteries are long life rechargeable batteries.

[727-0382](#) - 6V, 7Ah

[727-0385](#) - 6V, 3.2Ah

[727-0388](#) - 6V, 1.2Ah

[727-0391](#) - 12V, 20Ah

[727-0394](#) - 12V, 35Ah

[727-0398](#) - 12V, 100Ah

[727-0401](#) - 12V, 120Ah

[727-0408](#) - 12V, 55Ah

## General Specifications

<b>Technology</b>	AGM
<b>Designed for Cyclic Application</b>	No
<b>Eurobat Classification</b>	3 to 5 Years,
<b>Container Material</b>	A.B.S. (UL94-HB) conform
<b>Application</b>	Standby & Float applications

**Electrical Specifications**

<b>Capacity</b>	100Ah
<b>Nominal Voltage</b>	12V
<b>Terminal Type</b>	T11
<b>Cells Per Unit</b>	6V
<b>Voltage Per Unit</b>	12V
<b>Max. Discharge Current</b>	1200A (5 sec)
<b>Max. Charging Current Limit</b>	30.0A
<b>Float charging Voltage</b>	13.5VDC to 13.8VDC/unit Average at 25°C
<b>Internal Resistance</b>	4.9mOhm
<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>	330mm x 173mm x 212mm
<b>Height</b>	330mm
<b>Length</b>	173mm
<b>Width</b>	212mm
<b>Weight</b>	30.6kg

**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 )

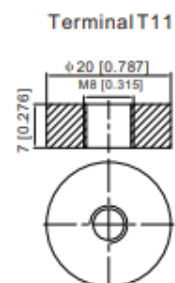
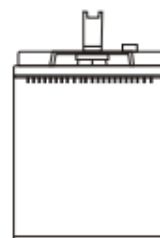
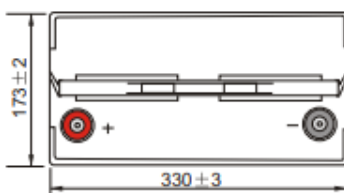
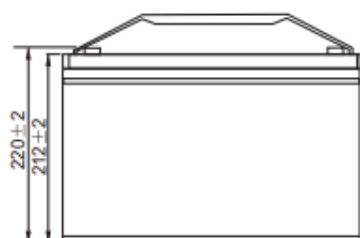
**Approvals**

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

Unit: mm Dimension: 330(L)×173(W)×212(H)×220(TH)



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

Amps

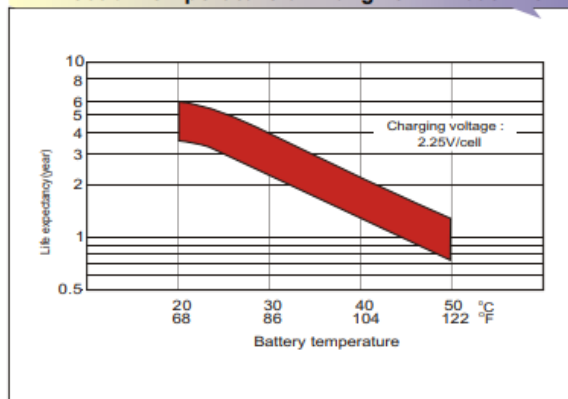
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	173.6	146.4	130.2	115.3	87.5	65.2	52.4	31.3	23.5	19.2	16.4	14.4	11.6	9.65	5.13
1.80V/cell	210.0	167.6	143.7	123.5	92.1	68.7	55.1	33.1	24.6	20.2	17.2	15.0	12.0	10.0	5.20
1.75V/cell	237.0	186.3	154.0	130.8	96.5	71.3	57.1	34.4	25.4	20.7	17.6	15.3	12.2	10.1	5.29
1.70V/cell	261.6	199.5	165.1	138.9	101.8	74.6	59.5	35.3	26.0	21.2	17.9	15.6	12.4	10.2	5.34
1.65V/cell	291.7	215.1	178.5	146.6	106.7	77.4	61.9	36.3	26.7	21.7	18.3	15.9	12.6	10.3	5.40
1.60V/cell	330.8	232.5	188.5	154.3	112.3	80.5	63.8	37.5	27.6	22.2	18.6	16.2	12.7	10.5	5.45

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

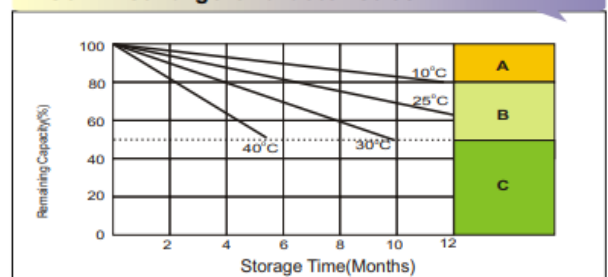
Watts

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	322.5	274.9	247.1	220.5	168.5	126.4	102.2	60.8	45.7	37.5	32.2	28.2	22.9	19.1	10.2
1.80V/cell	386.4	312.2	271.0	235.1	176.8	132.7	107.2	63.8	47.7	39.2	33.6	29.4	23.7	19.8	10.3
1.75V/cell	431.3	344.9	288.7	247.8	184.3	137.3	110.8	66.0	49.1	40.1	34.3	29.9	24.0	19.9	10.4
1.70V/cell	470.9	366.5	307.7	261.8	193.6	143.0	115.0	67.6	50.1	41.0	34.8	30.4	24.3	20.1	10.5
1.65V/cell	519.3	391.4	330.2	274.5	201.9	147.7	119.1	69.2	51.3	41.8	35.3	30.8	24.6	20.3	10.6
1.60V/cell	578.9	418.2	345.1	286.6	211.1	152.9	122.4	71.1	52.7	42.6	35.9	31.3	24.8	20.5	10.7

## Effect of Temperature on Long Term Float Life



## Self Discharge Characteristics

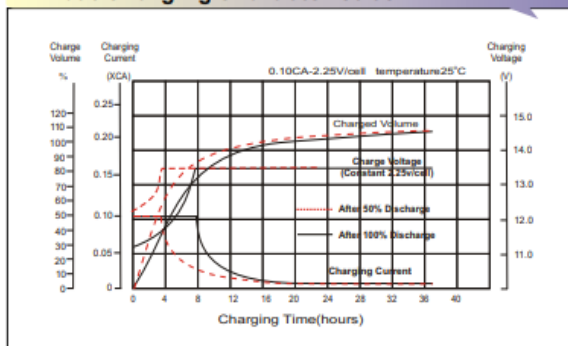


**A** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)

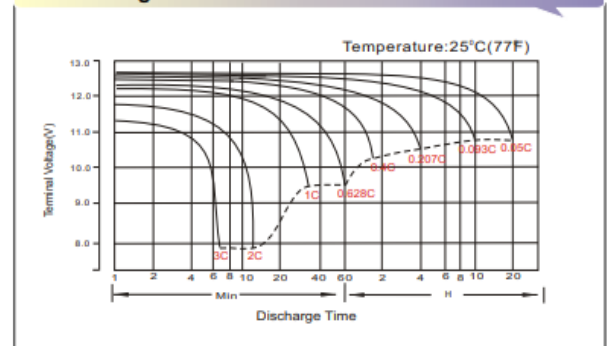
**B** Supplementary charge required before use. Optional charging way as below:  
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.  
3. Charged for 8-10 hours at limited current 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°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