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, 100Ah

RS Stock No.: 727-0427

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

Technology	AGM
Designed for Cyclic Application	Yes
Eurobat Classification	3 to 5 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	1200A (5 sec)
Max. Charging Current Limit	30.0A
Float charging Voltage	13.5VDC to 13.8VDC/unit Average at 25ºC
Internal Resistance	4.9mOhm
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 us

Mechanical Specifications

Dimensions	330mm x 173mm x 212mm
Height	330mm
Length	173mm
Width	212mm
Weight	30.6kg

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

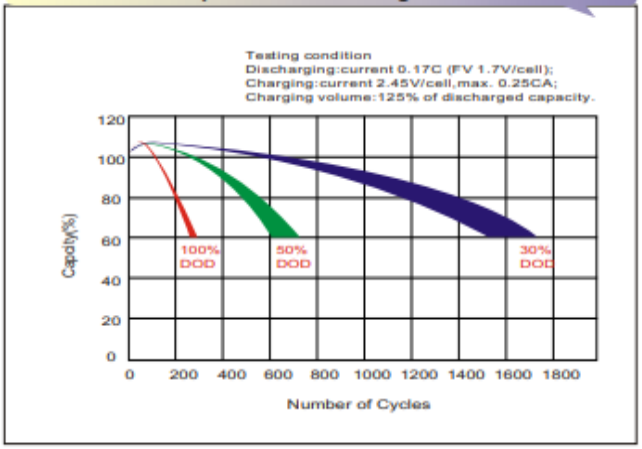
Constant Current Discharge Characteristics : A (25°C) — Amps

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	146.4	123.2	107.7	77.5	61.5	49.9	31.0	24.2	19.6	15.9	13.9	11.3	9.4	5.31
1.80V/cell	187.1	148.9	127.3	91.4	71.6	55.9	33.9	26.0	20.9	17.1	14.9	12.0	10.0	5.36
1.75V/cell	205.6	162.6	136.9	94.9	74.3	58.5	35.1	26.5	21.4	17.5	15.3	12.2	10.1	5.41
1.70V/cell	224.1	173.6	143.9	98.8	77.2	60.4	36.5	27.2	22.0	18.0	15.6	12.4	10.2	5.51
1.65V/cell	241.8	184.6	152.8	104.2	79.2	62.4	37.5	28.4	22.7	18.5	16.0	12.6	10.4	5.58
1.60V/cell	262.5	197.4	162.8	110.0	82.5	64.6	38.8	29.3	23.4	19.1	16.3	12.7	10.5	5.61

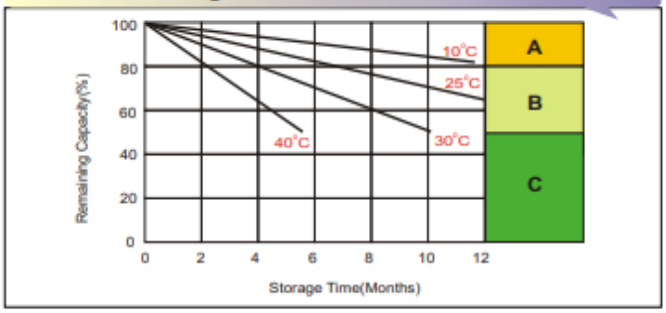
Constant Power Discharge Characteristics : W (25°C) — Watts

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	273.2	232.3	205.2	148.8	119.0	96.9	60.4	47.2	38.4	31.3	27.4	22.4	18.7	10.6
1.80V/cell	344.4	276.5	238.8	173.5	137.3	107.9	65.6	50.6	40.8	33.5	29.3	23.7	19.8	10.7
1.75V/cell	373.8	299.1	254.8	179.3	141.8	112.5	67.8	51.4	41.6	34.3	30.1	24.1	20.0	10.8
1.70V/cell	401.7	316.9	266.3	185.8	147.0	115.7	70.3	52.7	42.6	35.1	30.7	24.5	20.2	11.0
1.65V/cell	430.4	334.8	281.5	195.2	150.2	119.2	72.1	54.8	44.0	36.0	31.3	24.8	20.6	11.1
1.60V/cell	459.4	353.8	296.8	204.0	155.1	122.5	74.1	56.2	45.1	37.0	31.9	25.0	20.8	11.2

Effect of Temperature on Long Term Float Life



Self Discharge Characteristics

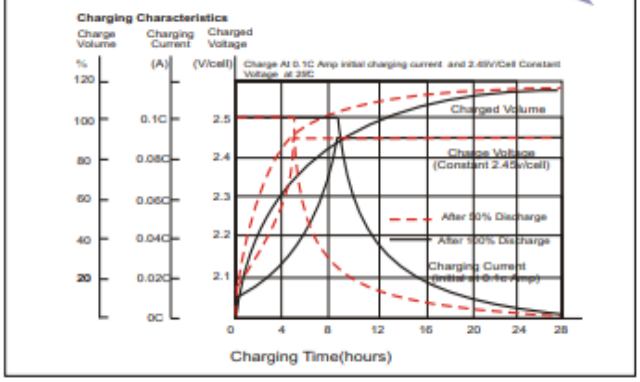


A No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

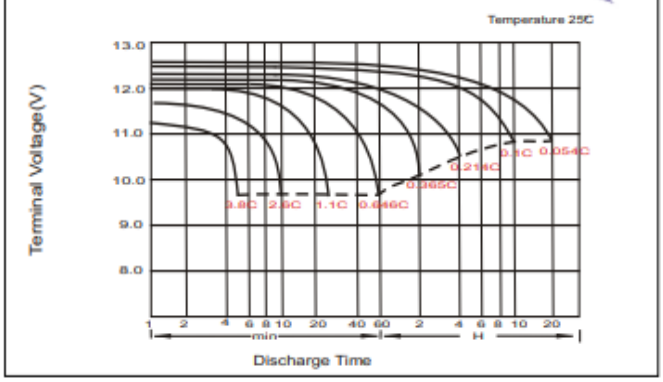
B Supplementary charge required before use.Optional charging way as below:
1.Charged for above 3 days at limted current 0.25CA and constant volatge 2.25V/cell.
2.Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell.
3.Charged for 8~10hours at limted current 0.05CA .

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

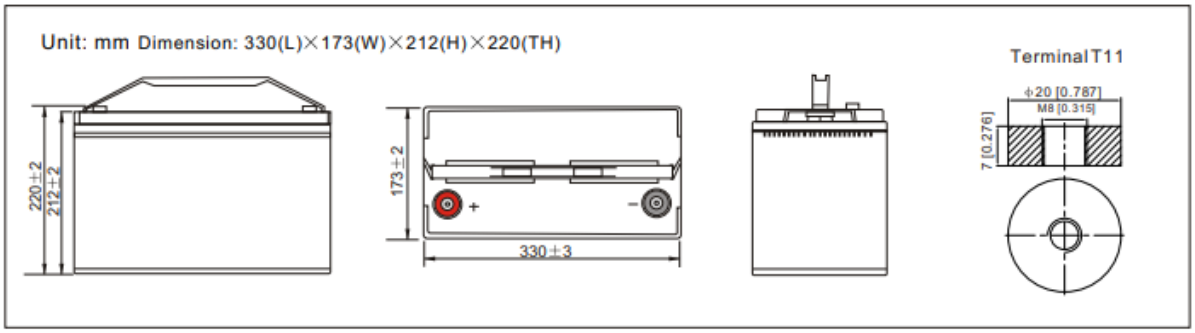
Cycle Charging Characteristics



Discharge Characteristics



Dimensions



Available Capacity Subject to Temperature

Battery Type		-20℃	-10℃	0℃	5℃	10℃	20℃	25℃	30℃	40℃	45℃
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