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, 33Ah

RS Stock No.: 727-0420

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.

The range includes the following Lead Acid Battery with 12 Volts and different ampere-hours capacity:
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	33Ah
Nominal Voltage	12V
Terminal Type	T6
Cells Per Unit	6V
Voltage Per Unit	12V
Max. Discharge Current	4954A (5 sec)
Max. Charging Current Limit	2.7A
Float charging Voltage	13.5VDC to 13.8VDC/unit Average at 25ºC
Internal Resistance	13mOhm
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	195mm x 130mm x 164mm
Height	195mm
Length	130mm
Width	164mm
Weight	11.2kg

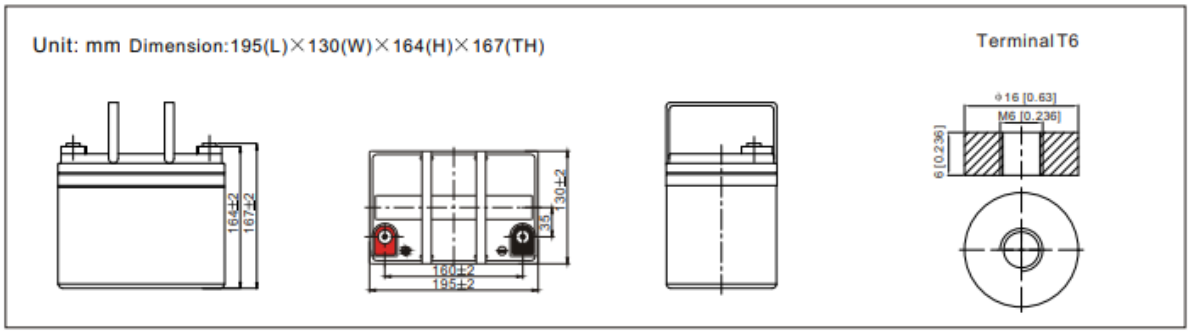
Operation Environment Specifications

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

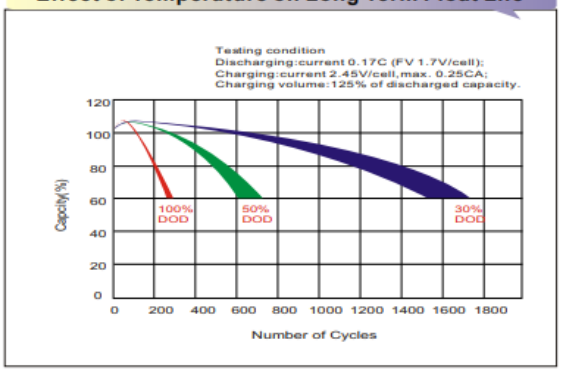
Compliance/Certifications	UL94-HB

Dimensions

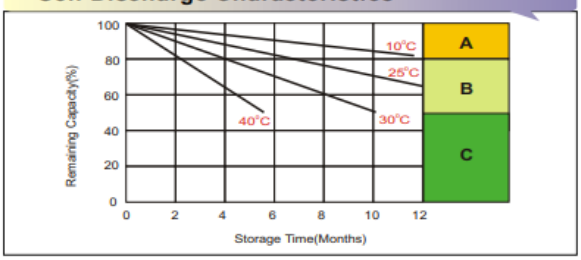

Unit: mm Dimension:195(L)×130(W)×164(H)×167(TH)
Terminal T6
164±2
167±2
160±2
195±2
35
30±2
φ16 [0.63]
M6 [0.236]
6 [0.236]


727-0420 [12V33AH/20HR]
Maintenance-free Sealed Lead-acid Battery
CONSTANT VOLTAGE CHARGE
Pb

Effect of Temperature on Long Term Float Life



Self Discharge Characteristics

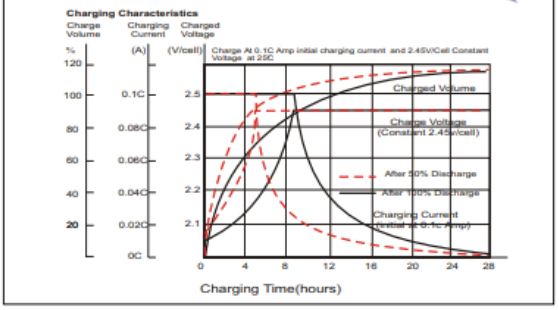


A No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

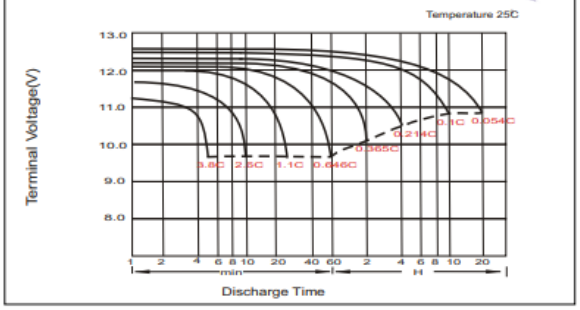
B Supplementary charge required before use.Optional charging way as below:
1.Charged for above 3 days at limted current 0.25CA and constant volatge 2.25V/cell.
2.Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell.
3.Charged for 8~10hours at limted current 0.05CA .

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

Cycle Charging Characteristics



Discharge Characteristics



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%

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	48.3	40.7	35.5	25.6	20.3	16.5	10.2	7.98	6.46	5.25	4.58	3.74	3.12	1.75
1.80V/cell	61.7	49.1	42.0	30.2	23.6	18.5	11.2	8.59	6.90	5.64	4.91	3.97	3.30	1.77
1.75V/cell	67.8	53.7	45.2	31.3	24.5	19.3	11.6	8.75	7.06	5.79	5.05	4.04	3.33	1.79
1.70V/cell	73.9	57.3	47.5	32.6	25.5	19.9	12.0	8.99	7.24	5.93	5.15	4.09	3.37	1.82
1.65V/cell	79.8	60.9	50.4	34.4	26.1	20.6	12.4	9.37	7.49	6.10	5.27	4.16	3.44	1.84
1.60V/cell	86.6	65.1	53.7	36.3	27.2	21.3	12.8	9.66	7.73	6.30	5.38	4.20	3.47	1.85

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	90.1	76.6	67.7	49.1	39.3	32.0	19.9	15.6	12.7	10.3	9.05	7.40	6.17	3.51
1.80V/cell	113.6	91.2	78.8	57.3	45.3	35.6	21.6	16.7	13.4	11.0	9.67	7.84	6.53	3.53
1.75V/cell	123.3	98.7	84.1	59.2	46.8	37.1	22.4	17.0	13.7	11.3	9.92	7.96	6.59	3.56
1.70V/cell	132.6	104.6	87.9	61.3	48.5	38.2	23.2	17.4	14.1	11.6	10.1	8.07	6.65	3.63
1.65V/cell	142.0	110.5	92.9	64.4	49.6	39.3	23.8	18.1	14.5	11.9	10.3	8.19	6.78	3.67
1.60V/cell	151.6	116.8	97.9	67.3	51.2	40.4	24.4	18.5	14.9	12.2	10.5	8.26	6.85	3.68

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