

## FEATURES

- Nominal voltage of 12 V
- Capacity of 25.8 Ah
- Measures 164 (L) x 125 (W) x 172 (D) mm
- Weight of 7.9 kg
- T12 terminal
- Flammability UL94 V-0
- AGM construction so leak- and spill-proof
- Designed for UPS products (high discharge rate applications)
- Eurobat classification so will last up to 12 Years
- Operational temperature of -20°C to +55°C
- Installation temperature of 0°C to +50°C

## RS PRO Lead Acid Battery - 12V, 25.8Ah

RS Stock No.: 174-8863



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

Back-up power is essential to provide electricity for high-rate applications such as emergency lighting, renewable energy. The RS PRO 12 V sealed, lead-acid batteries have a capacity of 25.8 Ah so they'll meet your critical power requirements. They have an absorbent glass mat (AGM) so they're spill-proof.

## General Specifications

<b>Technology</b>	AGM
<b>Designed for Cyclic Application</b>	No
<b>Designed High Rate Application</b>	Yes
<b>Eurobat Classification</b>	10 to 12 Years
<b>Container Material</b>	ABS
<b>Application</b>	High Discharge Rate Applications

## Electrical Specifications

<b>Capacity</b>	25.8Ah
<b>Nominal Voltage</b>	12V
<b>Terminal Type</b>	T12
<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12V
<b>Max. Discharge Current</b>	540A (5 sec)
<b>Max. Charging Current Limit</b>	8.1 A
<b>Float charging Voltage</b>	13.5to 13.8VDC/unit Average at 25 °C
<b>Internal Resistance</b>	Approx. 12mohm
<b>Equalization and Cycle Service</b>	14.4VDC to15.0VDC/unit Average at 25°C
<b>Self-Discharge</b>	Self-discharge ratio less than 3% per month.

## Mechanical Specifications

<b>Dimensions</b>	164mm x 175mm x 125mm
<b>Height</b>	175mm
<b>Length</b>	125mm
<b>Width</b>	164mm
<b>Weight</b>	7.9kg

## Operation Environment Specifications

<b>Operating Temperature Range</b>	Discharge : -15°C to 50°C (5°F to 122 °F) Charge : 0°C to 40°C (32°F to 104 °F) Storage : -15°C to 40°C (5°F to 104 °F)
<b>Nominal Operating Temperature Range</b>	25°C ± 3°C

## Approvals

<b>Compliance/Certifications</b>	UL94-V0
<b>Flame Resistant</b>	Yes

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

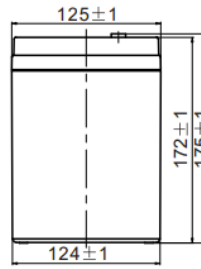
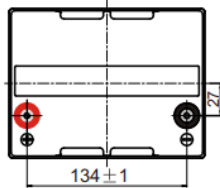
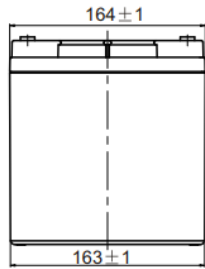
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	121.5	93.3	76.8	65.3	51.0	38.9	31.7	18.9	13.9	11.0	9.18	7.91	6.26	5.22	2.74
1.80V/cell	137.1	102.2	82.2	68.4	53.6	40.8	33.4	19.8	14.3	11.3	9.45	8.13	6.42	5.33	2.77
1.75V/cell	154.5	108.1	86.6	72.3	55.3	41.7	34.1	20.2	14.6	11.5	9.55	8.23	6.52	5.42	2.82
1.70V/cell	167.8	114.3	89.2	74.2	56.6	42.6	34.8	20.5	14.8	11.7	9.72	8.39	6.61	5.47	2.85
1.67V/cell	177.1	118.7	92.8	76.3	57.9	43.4	35.5	20.8	15.0	11.8	9.89	8.53	6.70	5.54	2.89
1.60V/cell	181.9	121.3	94.8	78.2	59.3	44.0	35.9	21.0	15.2	12.0	10.0	8.62	6.77	5.61	2.94

### 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	62.5	47.7	39.0	33.0	25.7	19.5	15.8	9.40	6.86	5.44	4.51	3.88	3.05	2.54	1.32
1.80V/cell	71.2	52.8	42.2	34.9	27.2	20.6	16.8	9.88	7.12	5.61	4.67	4.01	3.15	2.61	1.35
1.75V/cell	81.1	56.4	44.8	37.3	28.3	21.3	17.3	10.2	7.32	5.74	4.75	4.08	3.22	2.66	1.38
1.70V/cell	89.1	60.3	46.8	38.6	29.2	21.9	17.7	10.4	7.47	5.88	4.87	4.19	3.29	2.71	1.40
1.67V/cell	94.8	63.0	48.9	40.1	30.1	22.5	18.2	10.6	7.62	5.98	4.98	4.28	3.34	2.75	1.43
1.60V/cell	98.5	65.1	50.5	41.5	31.1	23.0	18.6	10.8	7.76	6.12	5.10	4.37	3.41	2.81	1.47

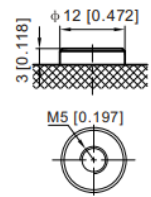
## Dimensions

Unit: mm Dimension: 164 (L) × 125 (W) × 175 (H)

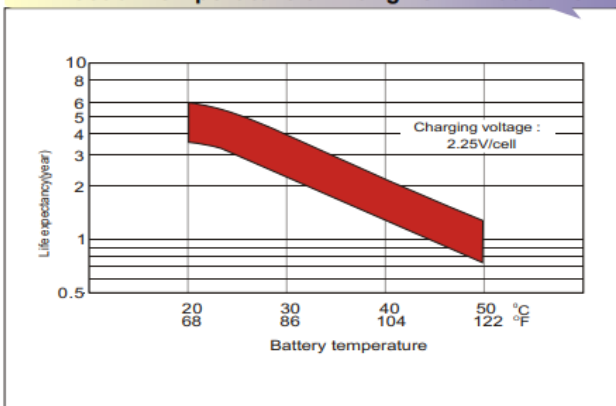


### T12 Terminal

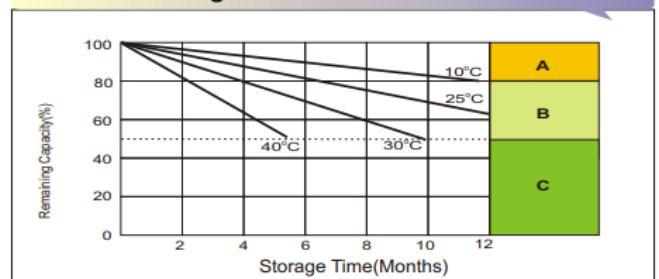
Unit: mm



## Effect of Temperature on Long Term Float Life

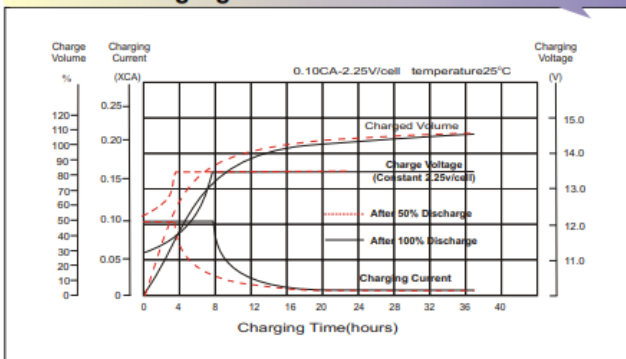


## Self Discharge Characteristics

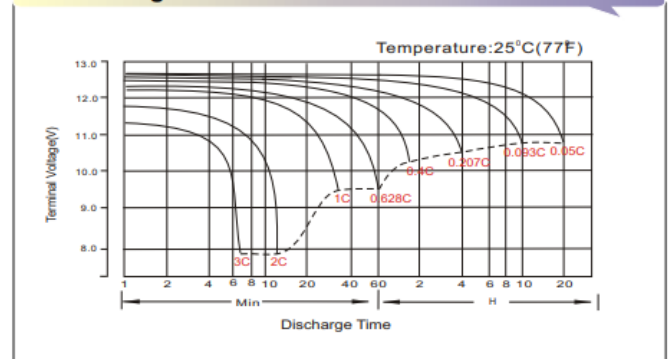


- A** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:  
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
2. Charged for 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	$-0.2C \times 2h + 2.4 \sim 2.45V / \text{Cell} \times 24h$ , Max. Current 0.3CA
Constant Current	0.1C until the voltage reaching 14.4V, then 0.1Cx4h

## Maintenance & Cautions

<b>Float Service:</b>
◆ It is recommended to check battery/Float voltage each month.
<b>Equalisation charge:</b>
◆ Equalisation charging is recommended once every 3 to 6 months using.
◆ Discharge 100% rated capacity.
◆ Charge 2.35v/cell constant voltage, maximum 0.3CA 24hrs.