

FEATURES

- Low gas emissions
99% plus recombination
- Excellent recovery from deep discharge
- Leak proof – Sealed batteries
- ABS resin case to UL94-HB conform
- Road transport to UN2800 (Batteries, Wet, Non-Spillable)
- Air Transport to Special Provision 'A67' 'IATA' & 'ICAO'. (Batteries, Wet, Non-Spillable)

RS PRO Lead Acid Battery 12V, 38Ah

RS Stock No.: 537-5517



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

These RS PRO lead-acid batteries are suitable for standby and floating load applications. These rechargeable batteries have a long service life.

General Specifications

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

Electrical Specifications

| | |
|---------------------------------------|---|
| Capacity | 38Ah |
| Nominal Voltage | 12V |
| Terminal Type | T6 |
| Cells Per Unit | 6V |
| Voltage Per Unit | 12V |
| Max. Discharge Current | 456A (5 sec) |
| Max. Charging Current Limit | 11.4A |
| Float charging Voltage | 13.5VDC to 13.8VDC/unit Average at 25°C |
| Internal Resistance | 10mOhm |
| Equalization and Cycle Service | 14.4VDC to 15.0VDC/unit Average at 25°C |

| | |
|-----------------------|---|
| 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

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|-------------------|-----------------------|
| Dimensions | 197mm x 165mm x 170mm |
| Height | 197mm |
| Length | 165mm |
| Width | 170mm |
| Weight | 12.2kg |

Operation Environment Specifications

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|--|--|
| Operating Temperature Range | Charge: 0°C to 40°C Discharge: -15°C to 50°C Storage: -15°C to +50°C /20 → +60°C |
| Nominal Operating Temperature Range | 25 ±3°C (77 ±5°F) |

Approvals

| | |
|----------------------------------|---------|
| Compliance/Certifications | UL94-HB |
|----------------------------------|---------|



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

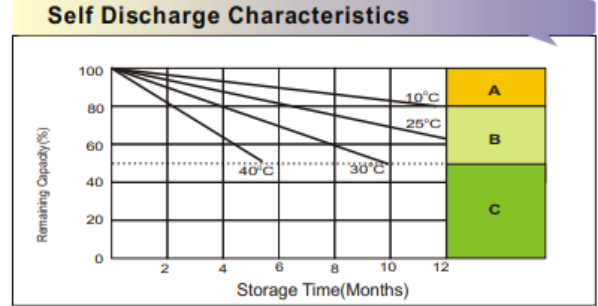
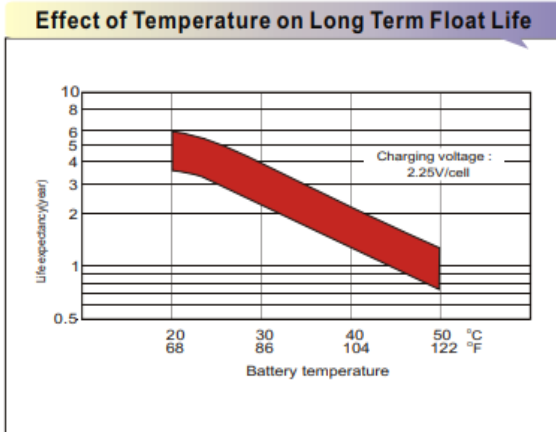
| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 65.0 | 51.1 | 43.5 | 36.4 | 28.9 | 21.9 | 17.9 | 11.4 | 9.02 | 7.37 | 5.94 | 5.17 | 4.20 | 3.59 | 1.96 |
| 1.80V/cell | 87.3 | 65.3 | 52.5 | 43.0 | 34.1 | 25.4 | 20.1 | 12.5 | 9.71 | 7.87 | 6.38 | 5.55 | 4.45 | 3.80 | 2.00 |
| 1.75V/cell | 98.4 | 71.8 | 57.4 | 46.2 | 35.4 | 26.4 | 21.0 | 12.9 | 9.89 | 8.04 | 6.54 | 5.70 | 4.53 | 3.84 | 2.02 |
| 1.70V/cell | 108.4 | 78.2 | 61.3 | 48.6 | 36.9 | 27.5 | 21.7 | 13.4 | 10.2 | 8.26 | 6.71 | 5.82 | 4.59 | 3.88 | 2.03 |
| 1.65V/cell | 119.5 | 84.4 | 65.1 | 51.6 | 38.9 | 28.1 | 22.4 | 13.8 | 10.6 | 8.54 | 6.90 | 5.95 | 4.67 | 3.96 | 2.06 |
| 1.60V/cell | 131.8 | 91.7 | 69.7 | 55.0 | 41.0 | 29.3 | 23.2 | 14.3 | 10.9 | 8.81 | 7.13 | 6.08 | 4.71 | 4.00 | 2.07 |

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

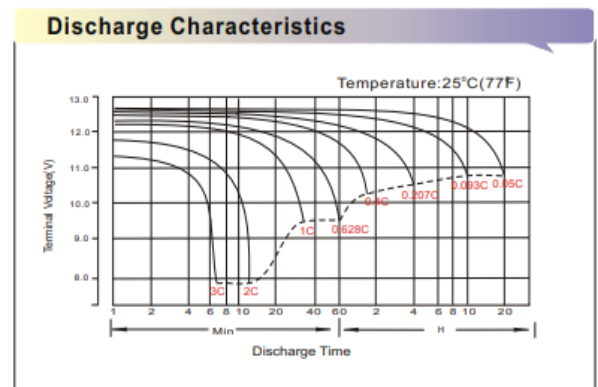
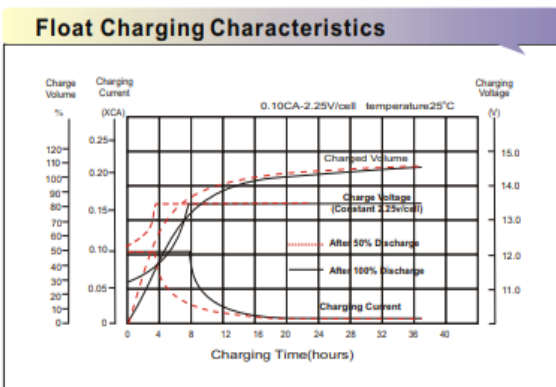
| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 118.9 | 94.5 | 81.1 | 68.6 | 55.1 | 42.1 | 34.6 | 22.2 | 17.6 | 14.4 | 11.6 | 10.2 | 8.29 | 7.10 | 3.88 |
| 1.80V/cell | 157.9 | 119.3 | 96.7 | 79.9 | 64.0 | 48.5 | 38.5 | 24.0 | 18.8 | 15.3 | 12.4 | 10.9 | 8.77 | 7.51 | 3.91 |
| 1.75V/cell | 174.3 | 128.9 | 104.3 | 85.1 | 65.9 | 49.9 | 40.1 | 24.8 | 19.1 | 15.6 | 12.7 | 11.1 | 8.90 | 7.57 | 3.94 |
| 1.70V/cell | 186.6 | 137.4 | 109.9 | 88.7 | 68.2 | 51.7 | 41.2 | 25.8 | 19.6 | 16.0 | 13.0 | 11.3 | 9.01 | 7.64 | 4.01 |
| 1.65V/cell | 202.8 | 146.9 | 115.9 | 93.6 | 71.4 | 52.5 | 42.3 | 26.3 | 20.3 | 16.5 | 13.3 | 11.6 | 9.13 | 7.79 | 4.06 |
| 1.60V/cell | 218.5 | 155.8 | 121.9 | 98.6 | 74.8 | 54.4 | 43.6 | 27.1 | 20.9 | 16.9 | 13.7 | 11.8 | 9.20 | 7.86 | 4.08 |

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% |



- 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



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:

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|------------------|---|
| 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 |

Dimensions

