

AccuForce 12V - 55Ah | VRLA Battery



Applications

- Uninterruptible Power Supplies (UPS)
- Electric Power Systems (EPS)
- Emergency backup power supplies
- Electronic apparatus and equipment
- Communication power supplies
- DC power supplies
- Auto control system

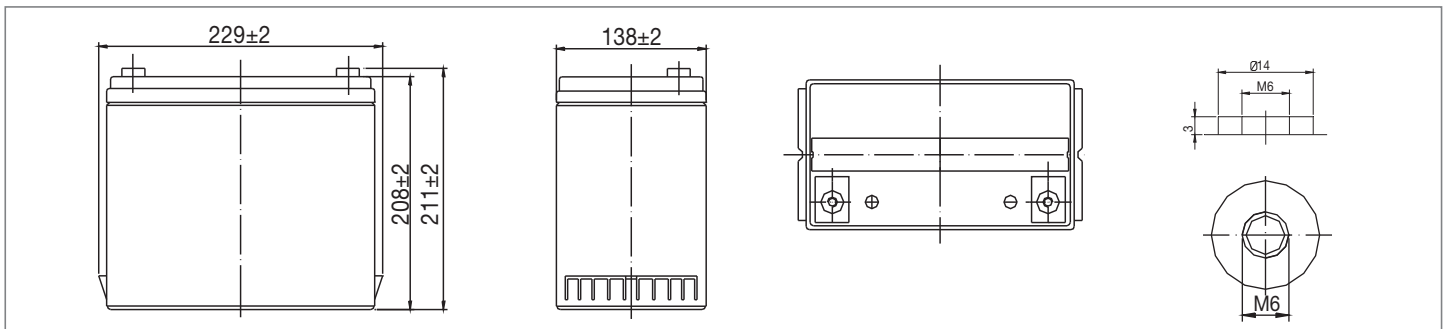
Specifications

| | | |
|--------------------------------|---|---------------|
| Nominal Voltage | 12 V | |
| Number of cells | 6 | |
| Design Life | 10 years | |
| Dimensions | Length | 229 mm |
| | Width | 138 mm |
| | Height | 208 mm |
| | Total Height | 211 mm |
| Approx. Weight | 15.3 kg | |
| | 20 hours rate (2.89 A, 10.8 V) | 57.80 Ah |
| Nominal Capacity (25°C) | 10 hours rate (5.50 A, 10.8 V) | 55.00 Ah |
| | 5 hours rate (9.63 A, 10.5 V) | 48.15 Ah |
| | 1 hour rate (34.10 A, 9.6 V) | 34.10 Ah |
| | Max. Discharge Current (25°C) | 550 A (5s) |
| Internal Resistance | 6.5 mOhms | |
| Fully Charged battery (25°C) | 3% of capacity declined per month at 20°C (average) | |
| Self-Discharge | Discharge | : -15°C~50°C |
| | Charge | : -10°C~50°C |
| | Storage | : -20°C~50°C |
| Operating Temperature Range | 1512 A | |
| | Short Circuit Current | |
| Charge Methods: | Cycle use | 2.40-2.45 Vpc |
| | Maximum charging current | 16.5 A |
| Constant Voltage Charge (25°C) | Temperature compensation | -30 mV/°C |
| | Standby use | 2.23-2.27 Vpc |
| | Temperature compensation | -18 mV/°C |
| | | |

Battery Construction

| Component | Positive Plate | Negative Plate | Container | Cover | Safety Valve | Terminal | Separator | Electrolyte |
|--------------|----------------|----------------|-----------|-------|--------------|----------|------------|---------------|
| Raw material | Lead dioxide | Lead | ABS | ABS | Rubber | Copper | Fiberglass | Sulfuric acid |

Dimensions



Constant Current Discharge (Amperes) at 25°C

| End Voltage (Volts/Cell) | 10min | 15min | 30min | 1h | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|--------------------------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.60 V | 116 | 90.8 | 55.0 | 34.1 | 20.1 | 14.0 | 11.5 | 9.82 | 6.73 | 5.60 | 2.94 |
| 1.65 V | 112 | 88.6 | 53.9 | 33.6 | 20.0 | 13.9 | 11.4 | 9.76 | 6.69 | 5.59 | 2.93 |
| 1.70 V | 107 | 85.3 | 52.3 | 32.7 | 19.8 | 13.8 | 11.4 | 9.69 | 6.65 | 5.57 | 2.93 |
| 1.75 V | 103 | 82.4 | 51.0 | 32.1 | 19.5 | 13.8 | 11.3 | 9.63 | 6.60 | 5.54 | 2.91 |
| 1.80 V | 97.0 | 78.0 | 49.1 | 31.1 | 19.0 | 13.3 | 10.9 | 9.34 | 6.40 | 5.50 | 2.89 |

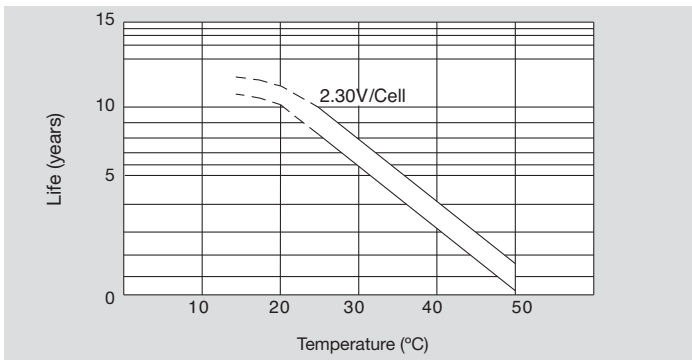
Constant Power Discharge (Watts) at 25°C

| End Voltage (Volts/Cell) | 10min | 15min | 30min | 1h | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|--------------------------|-------|-------|-------|-----|-----|-----|-----|-----|------|------|------|
| 1.60 V | 1247 | 996 | 617 | 389 | 233 | 165 | 135 | 116 | 80.0 | 66.9 | 35.3 |
| 1.65 V | 1210 | 973 | 605 | 383 | 231 | 164 | 134 | 115 | 79.5 | 66.7 | 35.2 |
| 1.70 V | 1160 | 937 | 586 | 373 | 229 | 163 | 134 | 115 | 79.0 | 66.5 | 35.1 |
| 1.75 V | 1110 | 905 | 572 | 366 | 226 | 162 | 133 | 114 | 78.4 | 66.1 | 34.9 |
| 1.80 V | 1048 | 857 | 551 | 355 | 220 | 157 | 129 | 110 | 76.1 | 65.7 | 34.7 |

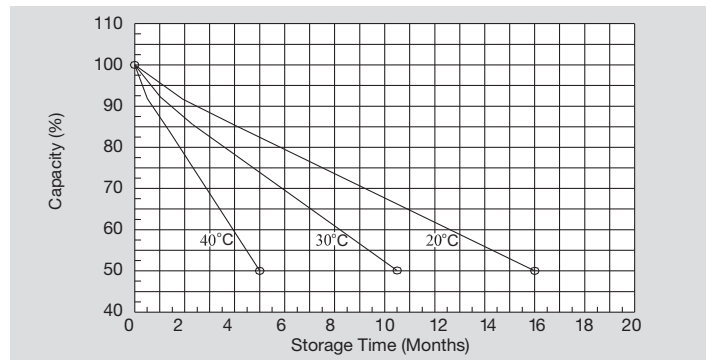
(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.

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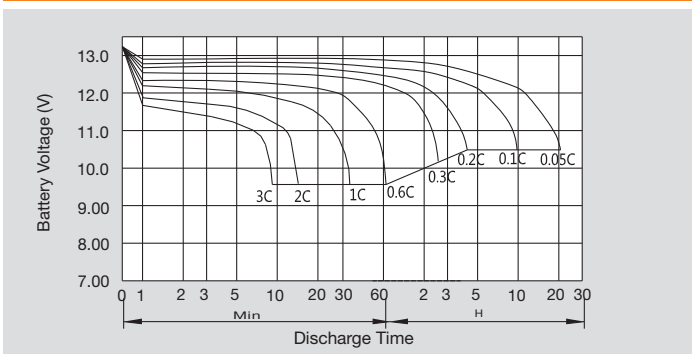
Temperature Effects on Float Life



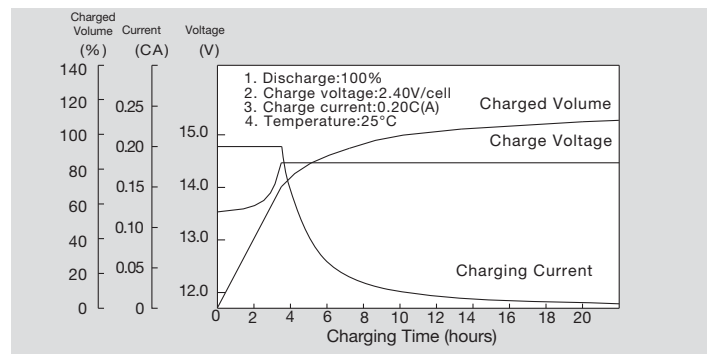
Self Discharge Characteristics



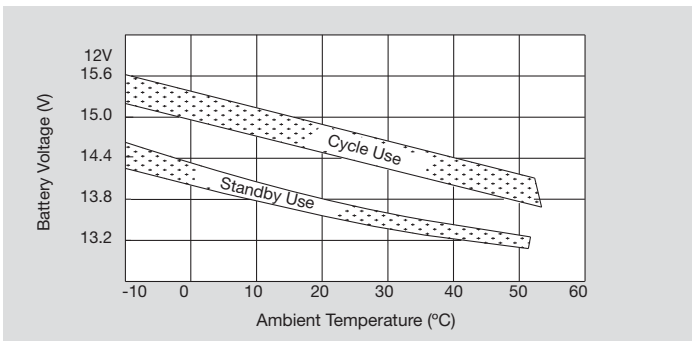
Discharge Characteristics (25°C)



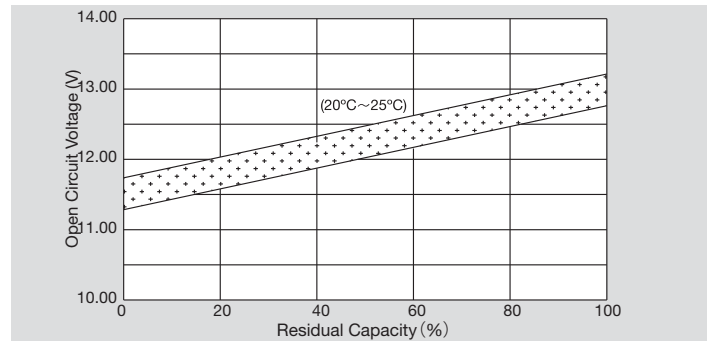
Constant Voltage Charging Characteristic (0.25 CA, 25°C)



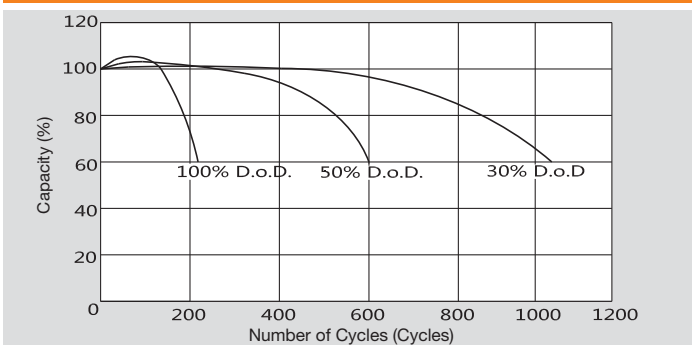
Relationship Between Charging Voltage and Temperature



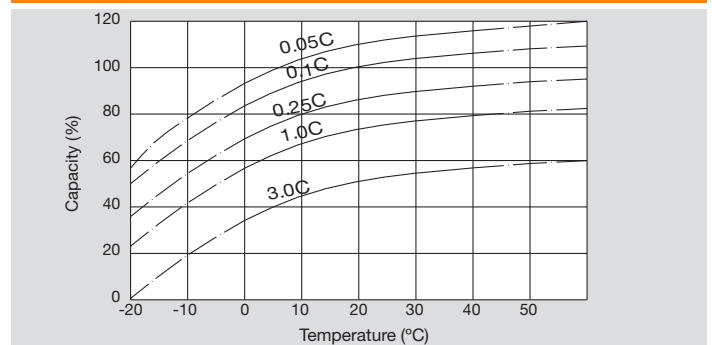
Relationship Between OCV and Residual Capacity (25°C)



Cycle Service Life in Relation to Depth of Discharge



Temperature Effects on Capacity



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