

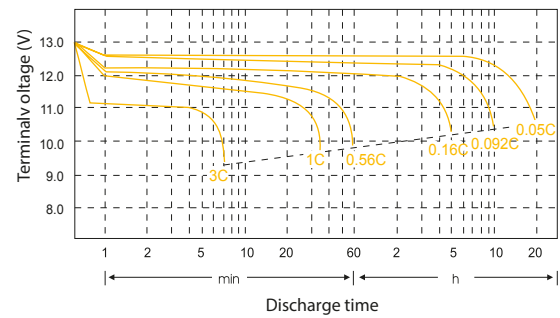
Specifications

| | | |
|-------------------------------|-------------------------------|--------------------|
| Nominal Voltage | 12V | |
| Rated Capacity (20 hour rate) | 65Ah | |
| Dimensions | Total Height (with terminals) | 6.97 inches(177mm) |
| | Height | 6.97 inches(177mm) |
| | length | 13.8 inches(350mm) |
| | width | 6.57 inches(167mm) |
| Weight | Approx.43.34 Pound(19.7kg) | |

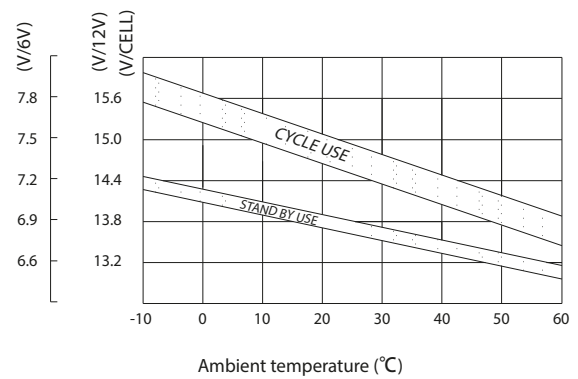
Characteristics

| | | |
|---|-------------------------------------|--|
| Capacity 77°F (25°C) | 20 hour rate (3.25A) | 65 Ah |
| | 10 hour rate (5.98A) | 59.8 Ah |
| | 5 hour rate (10.4A) | 52 Ah |
| | 1hour rate (39.0A) | 39 Ah |
| | 15Minute Rate (107A) | 26.8 Ah |
| Internal Resistance | Full charged Battery 77°F (25°C) | 7.0 mΩ |
| | 104°F (40°C) | 102% |
| Capacity affected by Temperature (20hour rate) | 77°F (25°C) | 100% |
| | 32°F (0°C) | 85% |
| | 5°F (-15°C) | 65% |
| Self-Discharge 77°F (25°C) | Capacity after 3 month storage | 91% |
| | Capacity after 6 month storage | 81% |
| | Capacity after 12 month storage | 60% |
| Max. Discharge Current 77°F (25°C) | 650A(5S) | |
| Terminal | M2 / B5 / B11 | |
| Charge (Constant Voltage) | Cycle | Initial Charging Current less than 19.5A Voltage 14.4~14.7V / 77°F (25°C) |
| | Float | Voltage 13.5~13.8V / 77°F (25°C) |

Discharge Curves 77°F(25°C)



Relationship between charge voltage and temperature



Constant Current Discharge (AMPERES @25°C)

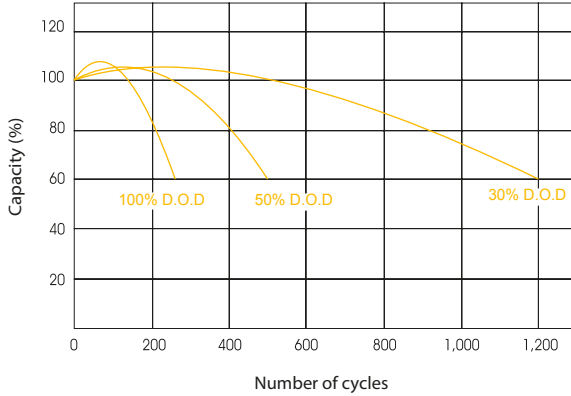
| F.V/Tme | 10Min | 15Min | 30Min | 60Min | 2H | 3H | 4H | 5H | 8H | 10H | 20H |
|---------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.60 | 146 | 107 | 70.9 | 41.6 | 24.5 | 16.8 | 13.2 | 11.4 | 7.73 | 6.48 | 3.39 |
| 1.65 | 140 | 103 | 68.2 | 40.0 | 23.6 | 16.6 | 13.1 | 11.3 | 7.65 | 6.42 | 3.36 |
| 1.70 | 133 | 101 | 64.8 | 39.2 | 23.2 | 16.3 | 12.8 | 10.9 | 7.43 | 6.26 | 3.34 |
| 1.75 | 116 | 91.9 | 56.2 | 39.0 | 22.5 | 15.9 | 12.4 | 10.4 | 7.34 | 5.98 | 3.25 |
| 1.80 | 112 | 88.4 | 54.0 | 37.5 | 21.6 | 15.3 | 11.9 | 10.0 | 7.06 | 5.75 | 3.13 |
| 1.85 | 91.8 | 76.9 | 49.7 | 34.5 | 20.7 | 14.5 | 11.3 | 9.50 | 6.71 | 5.46 | 2.97 |

Constant Power Discharge (WATTS PER CELL@25°C)

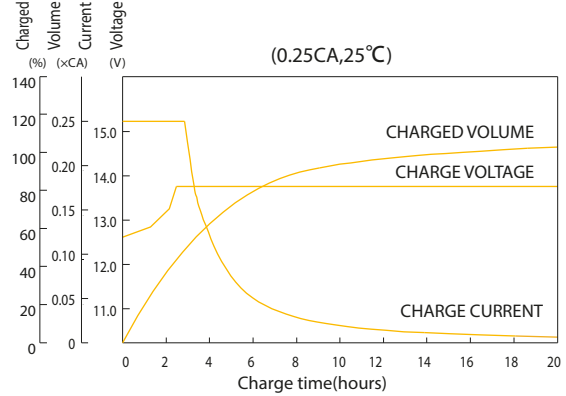
| Cut off voltage V/cell | 10Min | 15Min | 30Min | 60Min | 2H | 3H | 4H | 5H | 8H | 10H | 20H |
|------------------------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.60 | 254 | 194 | 127 | 77.2 | 45.3 | 31.8 | 25.0 | 20.9 | 14.2 | 11.8 | 6.42 |
| 1.65 | 251 | 192 | 124 | 76.4 | 44.7 | 31.5 | 24.8 | 20.7 | 14.1 | 11.6 | 6.40 |
| 1.70 | 246 | 187 | 121 | 75.0 | 43.6 | 31.2 | 24.5 | 20.3 | 13.9 | 11.3 | 6.35 |
| 1.75 | 230 | 182 | 111 | 74.8 | 43.1 | 30.8 | 24.2 | 20.1 | 13.8 | 11.2 | 6.32 |
| 1.80 | 214 | 170 | 104 | 74.4 | 42.4 | 30.1 | 23.8 | 20.0 | 13.5 | 11.0 | 6.30 |
| 1.85 | 177 | 149 | 96.0 | 69.2 | 41.4 | 29.7 | 23.2 | 19.1 | 13.0 | 10.9 | 5.94 |

The operating environment temperature above 40°C should be avoided, After long term storage, The battery actual capacity would be less than the rated capacity. Full capacity will be obtained through several charge/discharge cycles. To get the longest life, ENSMART battery should be fully charged before storage.

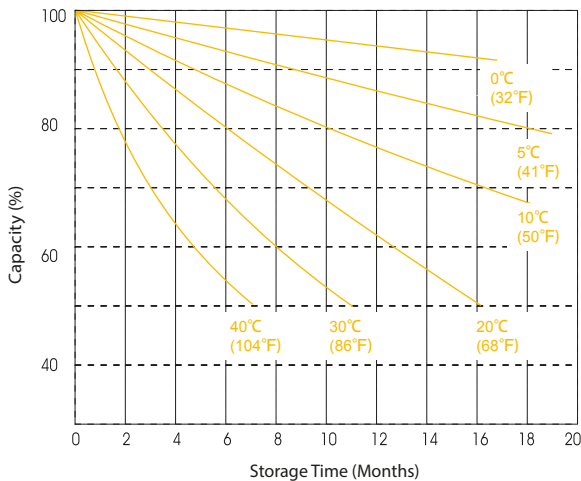
■ Cycle service life in relation to depth of discharge



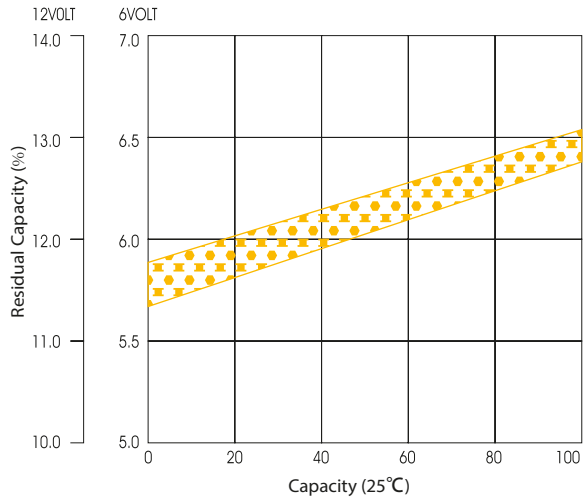
■ Constant voltage charge characteristic



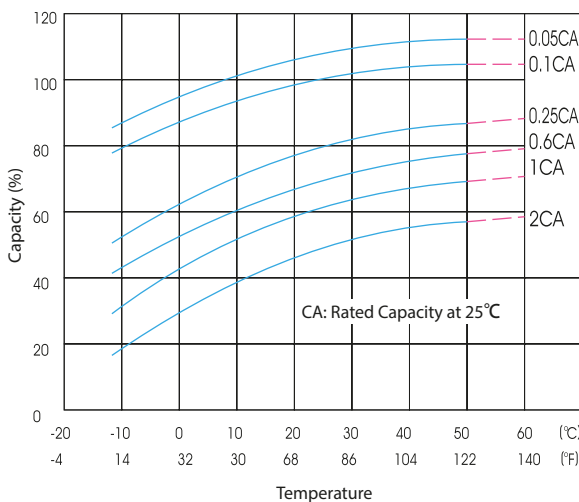
■ Self-Discharge Characteristics



■ Relationship of OCV and Residual Capacity % (25°C)



■ Temperature effects on capacity



■ Temperature effects float life

