

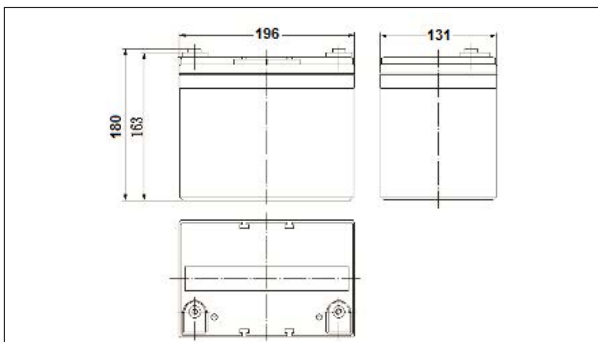
HR12150W-FR (12V150 Watts/cell)

● Specifications

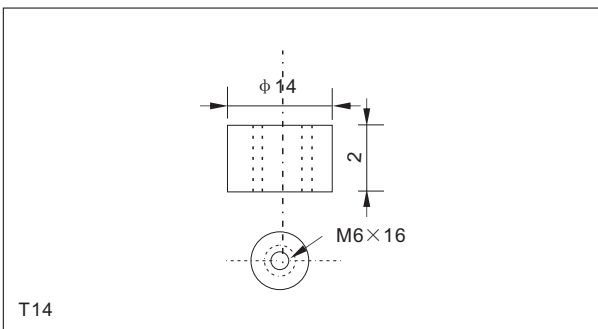
| | | |
|---------------------------|---------------------|-------------------|
| Nominal Voltage | 12V | |
| Number of cell | 6 cells | |
| Rated capacity(15min.rat) | 150 Watts/cell | |
| Dimensions | Length | 196±2mm(7.72inch) |
| | Width | 131±2mm(5.16inch) |
| | Height | 163±2mm(6.42inch) |
| | Total Height | 180±2mm(7.09inch) |
| Approx. Weight | 11.5kg(25.36lbs)±3% | |



● Outer dimensions (mm)



● Terminal Type (mm)



● Characteristics

| | | |
|--|---|------------------------|
| Capacity(10HR,25°C) | 40Ah | |
| Capacity(15min.rate,25°C) | 150 Watts/cell | |
| Terminal type | T14 | |
| Internal resistance (Fully charged,25°C) | Approx.8m Ω | |
| Capacity affected by temperature (20HR) | 40°C | 102% |
| | 25°C | 100% |
| | 0°C | 85% |
| | -15°C | 65% |
| Self-discharge (25°C) | 3 months | Remaining Capacity:91% |
| | 6 months | Remaining Capacity:82% |
| | 12 months | Remaining Capacity:65% |
| Nominal operating temperature | 25°C ±3°C(77°F ±5°F) | |
| Operating temperature range | Discharge | -15°C~50°C(5°F~122°F) |
| | Charge | -10°C~50°C(14°F~122°F) |
| | Storage | -20°C~50°C(-4°F~122°F) |
| Float charging voltage(25°C) | 13.50 to 13.80V Temperature compensation: -18mV/°C | |
| Cyclic charging voltage(25°C) | 14.50 to 15.00V Temperature compensation: -30mV/°C | |
| Maximum charging current | 9.9A | |
| Maximum discharge current | 330A(5 sec.) | |
| Designed floating life(20°C) | 10years | |

● Construction

| Component | Positive plate | Negative plate | Container | Cover | Separator | Electrolyte | Safety valve | Terminal |
|--------------|----------------|----------------|-----------|-------|-----------|---------------|--------------|----------|
| Raw material | Leaddioxide | Lead | ABS | ABS | AGM | Sulfuric acid | Rubber | Copper |

● Constant Current Discharge Characteristics Unit:A(25°C,77°F)

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 60min | 2h | 3h | 4h | 5h | 6h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 1.60V/cell | 84.9 | 69.5 | 55.6 | 39.4 | 29.3 | 23.9 | 12.1 | 8.65 | 6.97 | 6.06 | 5.18 |
| 1.67V/cell | 81.1 | 67.4 | 53.4 | 38.1 | 28.4 | 23.3 | 12.0 | 8.57 | 6.91 | 6.01 | 5.14 |
| 1.70V/cell | 79.0 | 65.3 | 52.3 | 37.4 | 27.9 | 23.0 | 11.9 | 8.54 | 6.88 | 5.98 | 5.12 |
| 1.75V/cell | 75.6 | 63.1 | 50.5 | 36.5 | 27.2 | 22.5 | 11.7 | 8.48 | 6.83 | 5.94 | 5.08 |
| 1.80V/cell | 71.4 | 59.8 | 47.8 | 35.2 | 26.2 | 21.8 | 11.4 | 8.23 | 6.63 | 5.76 | 4.93 |

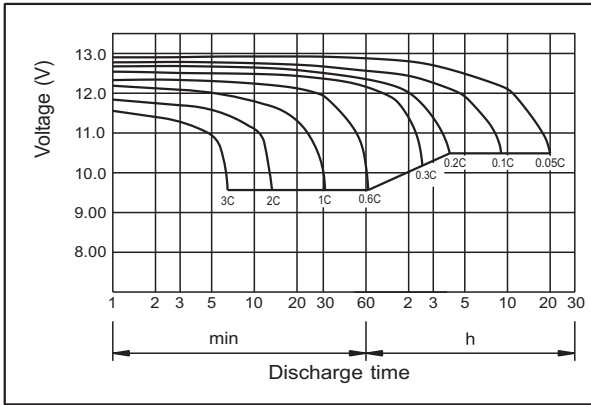
● Constant Power Discharge Characteristics Unit:W(25°C,77°F)

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 60min | 2h | 3h | 4h | 5h | 6h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 1.60V/cell | 160 | 134 | 107 | 76.0 | 56.6 | 46.2 | 23.5 | 17.0 | 13.7 | 12.0 | 10.3 |
| 1.67V/cell | 153 | 130 | 103 | 73.6 | 54.8 | 45.0 | 23.3 | 16.9 | 13.6 | 11.9 | 10.2 |
| 1.70V/cell | 149 | 126 | 101 | 72.2 | 53.8 | 44.4 | 23.2 | 16.8 | 13.6 | 11.8 | 10.1 |
| 1.75V/cell | 142 | 122 | 97.4 | 70.5 | 52.5 | 43.5 | 22.8 | 16.7 | 13.5 | 11.8 | 10.1 |
| 1.80V/cell | 134 | 115 | 92.3 | 67.9 | 50.6 | 42.1 | 22.2 | 16.2 | 13.1 | 11.4 | 9.76 |

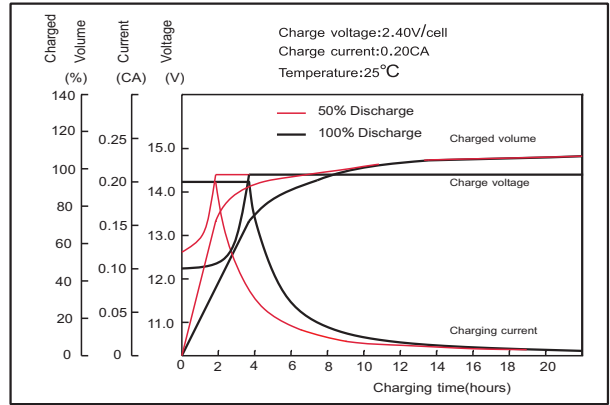
Note: The above characteristics data can be obtained within three charge or discharge cycles.

HR12150W-FR (12V150 Watts/cell)

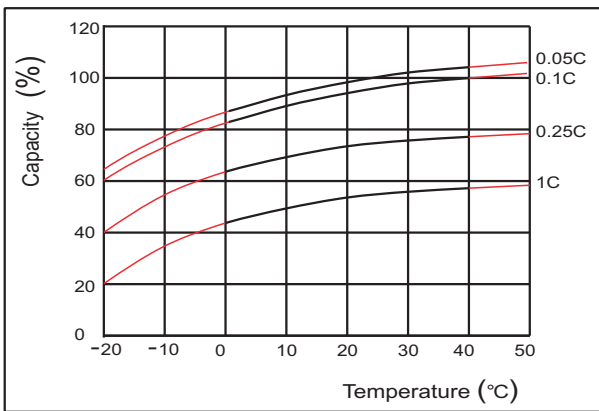
● **Discharge characteristics(25°C)**



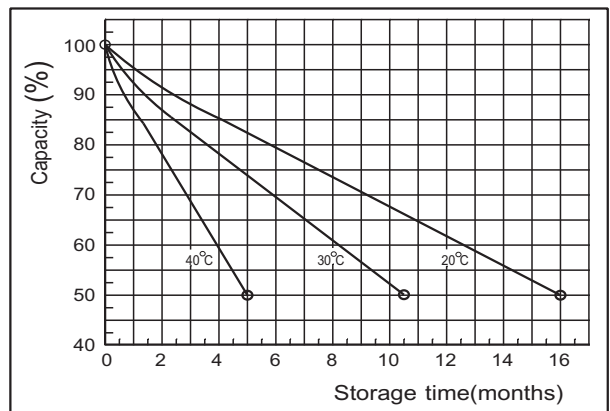
● **Charging characteristics (25°C)**



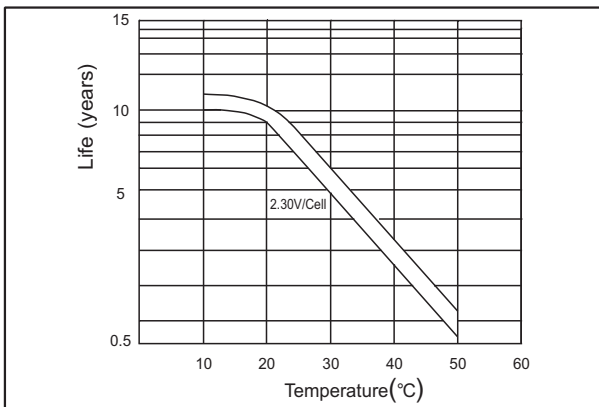
● **Effect of Temperature on Capacity**



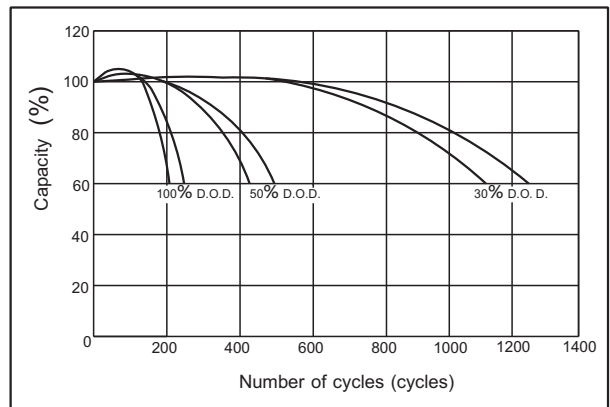
● **Self-discharge characteristics**



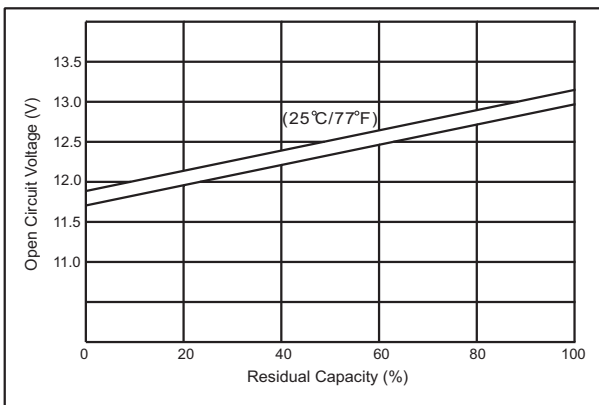
● **Floating Life on Temperature**



● **Cycle service Life on D.O.D (25°C)**



● **The relationship for OCV and Capacity (25°C)**



● **The relationship for Charging voltage and Temperature**

