

WP20-12IE 12Volt 20Ah

Specifications

Nominal Voltage(V) 12V

Nominal Capacity

| | | | | |
|--------------|-------|----|---------|---------|
| 20 hour rate | (1A | to | 10.50V) | 20Ah |
| 10 hour rate | (1.9A | to | 10.50V) | 19Ah |
| 5 hour rate | (3.4A | to | 10.20V) | 17Ah |
| 1 C | (20A | to | 9.60V) | 11.33Ah |
| 3 C | (60A | to | 9.60V) | 8Ah |

Weight Approx. 5.95kg(13.09Lbs.)

Internal Resistance (at 1KHz) Approx. 10 mΩ

Maximum Discharge Current for

5 seconds: 300A

Charging Methods at 25 (77)

Cycle use:

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mV/ /cell

Maximum Charging Current : 6A

Standby use:

Float Charging Voltage 13.5 to 13.8V

Coefficient -3.0mV/ /cell

Operating Temperature Range

| | | | |
|-----------|----------|----|-----------|
| Charge | -15 (5) | to | 40 (104) |
| Discharge | -15 (5) | to | 50 (122) |
| Storage | -15 (5) | to | 40 (104) |

Charge Retention (shelf life) at 20 (68)

| | |
|---------|-----|
| 1 month | 92% |
| 3 month | 90% |
| 6 month | 80% |

Case Material ABS UL94 HB

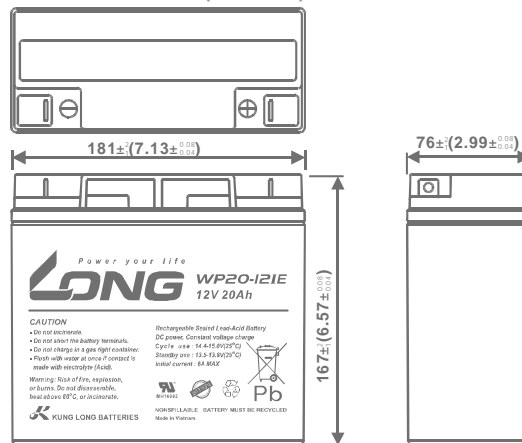
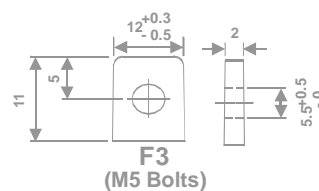
Option: Flammability resistance of (UL94 V-0)

Terminal F3

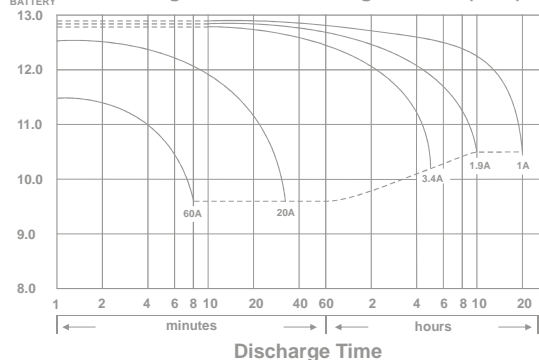


Dimensions

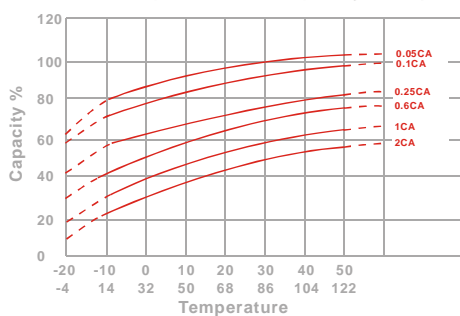
mm(inch)



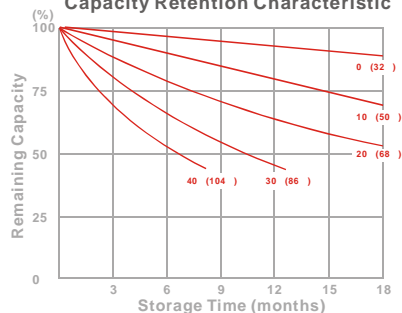
(v) FOR 12V BATTERY Discharge Time VS. Discharge Current (25)



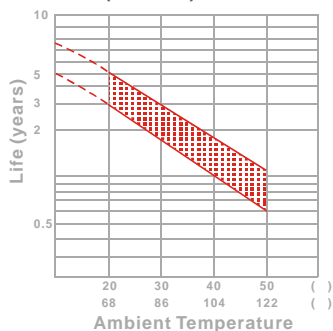
Effect of Temperature on Capacity 25 (77 °)



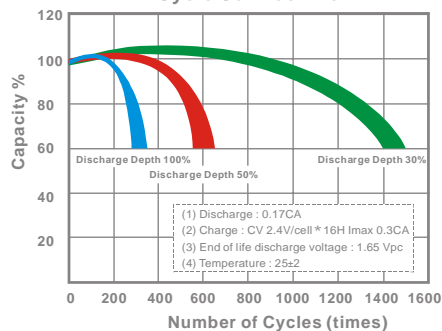
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



- PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25 (77 °)

| End Voltage | | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Time | | | | | | | | |
| 5 | min | 108 | 125 | 136 | 143 | 145 | 147 | 149 |
| 10 | min | 77.1 | 87.0 | 94.3 | 98.7 | 99.8 | 101 | 102 |
| 15 | min | 64.5 | 72.2 | 78.8 | 81.8 | 82.6 | 83.5 | 84.4 |
| 30 | min | 34.8 | 37.2 | 39.8 | 41.3 | 41.8 | 42.3 | 42.7 |
| 60 | min | 22.2 | 23.2 | 24.0 | 24.7 | 24.8 | 25.2 | 25.5 |
| 120 | min | 12.2 | 12.7 | 13.0 | 13.5 | 13.6 | 13.7 | 13.8 |
| 180 | min | 9.53 | 9.88 | 10.1 | 10.3 | 10.4 | 10.5 | 10.6 |
| 240 | min | 7.63 | 7.93 | 8.12 | 8.27 | 8.32 | 8.38 | 8.46 |
| 300 | min | 6.65 | 6.88 | 7.00 | 7.10 | 7.13 | 7.18 | 7.24 |
| 600 | min | 3.87 | 3.98 | 4.07 | 4.13 | 4.15 | 4.19 | 4.22 |
| 1200 | min | 2.05 | 2.12 | 2.17 | 2.20 | 2.22 | 2.23 | 2.25 |

- Discharge Rates in Amperes to Various End Voltages at 25 (77 °)

| End Voltage | | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Time | | | | | | | | |
| 5 | min | 68.2 | 73.9 | 77.5 | 80.7 | 82.0 | 83.4 | 85.8 |
| 10 | min | 45.8 | 48.9 | 51.4 | 53.5 | 54.4 | 55.4 | 57.0 |
| 15 | min | 34.7 | 37.3 | 39.0 | 40.5 | 41.1 | 41.7 | 42.6 |
| 30 | min | 18.5 | 20.0 | 21.1 | 22.0 | 22.2 | 22.6 | 23.2 |
| 60 | min | 11.1 | 11.7 | 12.2 | 12.6 | 12.7 | 12.9 | 13.1 |
| 120 | min | 6.25 | 6.47 | 6.61 | 6.73 | 6.77 | 6.82 | 6.89 |
| 180 | min | 4.73 | 4.90 | 5.00 | 5.08 | 5.11 | 5.15 | 5.21 |
| 240 | min | 3.88 | 3.97 | 4.04 | 4.09 | 4.11 | 4.14 | 4.17 |
| 300 | min | 3.41 | 3.48 | 3.53 | 3.57 | 3.58 | 3.60 | 3.62 |
| 600 | min | 1.97 | 2.00 | 2.02 | 2.04 | 2.05 | 2.06 | 2.07 |
| 1200 | min | 1.00 | 1.03 | 1.05 | 1.07 | 1.08 | 1.09 | 1.10 |

All data on the spec. sheet is an average value:

The tolerance range : X<6min(+15%~-15%), 6min X<10min(+12%~-12%), 10min X < 60min(+8% ~-8%), X 60min(+5%~-5%)