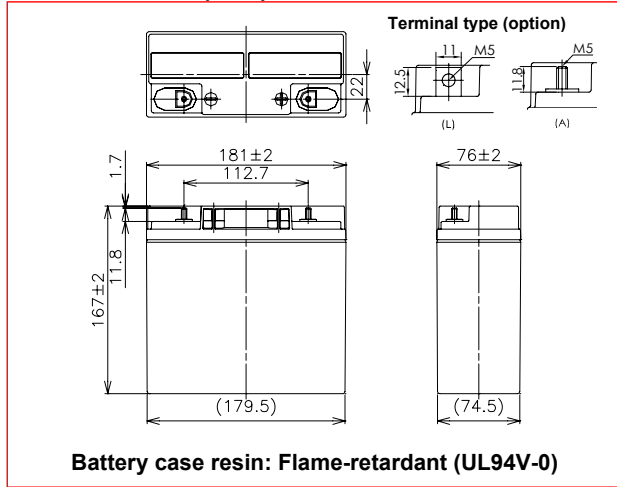


LC-P1220

For standby power supplies
 Expected trickle life: Approx.6 years at 25°C, approx.10 years at 20°C



■ Dimensions(mm)



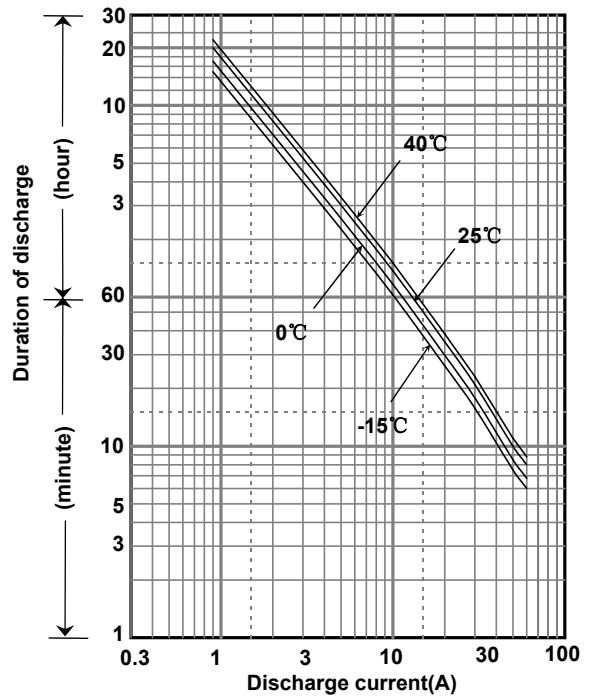
■ Specification

| | | |
|----------------------|------------------------------------|--------|
| Nominal Voltage | 12V | |
| Rated Capacity(20HR) | 20Ah | |
| Dimensions | Length | 181 mm |
| | Width | 76 mm |
| | Height | 167 mm |
| | Total height | 167 mm |
| Approx. Mass | 6.20 kg | |
| Terminal | M5 threaded post Bolt and Nut type | |

■ Characteristics

| | | |
|---|-------------------------------|-------|
| Capacity (25 °C) | 20 hour rate | 20Ah |
| | 10 hour rate | 18Ah |
| | 5 hour rate | 16Ah |
| | 1 hour rate | 12Ah |
| Internal Resistance | Fully charged battery (25 °C) | 11 mΩ |
| Temperature Dependency of Capacity (20 hour rate) | 40 °C | 102% |
| | 25 °C | 100% |
| | 0 °C | 85% |
| | -15 °C | 65% |
| Self Discharge (25 °C) | After 3 months | 91% |
| | After 6 months | 82% |
| | After 12 months | 64% |

■ Duration of discharge vs. discharge current



■ Watt Table(25°C)

| Cut-off V | (Wattage/Battery) | | | | | | | | | | | | | | | | |
|-----------|-------------------|------|-------|-------|-------|-------|-------|-----|------|------|------|------|------|------|------|------|------|
| | 3min | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 10h | 20h | 24h |
| 9.6V | 1202 | 948 | 619 | 473 | 396 | 296 | 209 | 167 | 115 | 88.8 | 66.1 | 50.8 | 41.9 | 33.7 | 22.3 | 12.1 | 10.1 |
| 9.9V | 1115 | 889 | 607 | 470 | 390 | 293 | 207 | 167 | 113 | 88.1 | 65.8 | 50.5 | 41.6 | 33.6 | 22.2 | 12.1 | 10.1 |
| 10.2V | 1029 | 833 | 591 | 460 | 383 | 289 | 205 | 164 | 110 | 85.8 | 65.1 | 50.1 | 41.3 | 33.3 | 22.0 | 12.0 | 10.0 |
| 10.5V | 914 | 746 | 548 | 428 | 364 | 283 | 202 | 160 | 108 | 82.9 | 64.1 | 49.8 | 40.9 | 32.9 | 21.9 | 12.0 | 10.0 |
| 10.8V | 772 | 660 | 488 | 399 | 354 | 273 | 199 | 157 | 105 | 78.9 | 62.8 | 49.1 | 39.9 | 32.4 | 21.7 | 11.9 | 9.9 |

■ Ampere Table(25°C)

| Cut-off V | (Ampere/Battery) | | | | | | | | | | | | | | | | |
|-----------|------------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|
| | 3min | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 10h | 20h | 24h |
| 9.6V | 108 | 85.0 | 55.3 | 41.1 | 34.2 | 25.3 | 17.8 | 14.2 | 9.72 | 7.50 | 5.56 | 4.25 | 3.50 | 2.81 | 1.86 | 1.01 | 0.842 |
| 9.9V | 100 | 79.7 | 54.2 | 40.8 | 33.6 | 25.0 | 17.7 | 14.2 | 9.53 | 7.44 | 5.53 | 4.22 | 3.47 | 2.80 | 1.85 | 1.01 | 0.839 |
| 10.2V | 92.5 | 74.7 | 52.8 | 40.0 | 33.1 | 24.7 | 17.5 | 13.9 | 9.33 | 7.25 | 5.47 | 4.19 | 3.44 | 2.78 | 1.83 | 1.00 | 0.836 |
| 10.5V | 82.2 | 66.9 | 48.9 | 37.2 | 31.4 | 24.2 | 17.2 | 13.6 | 9.14 | 7.00 | 5.39 | 4.17 | 3.42 | 2.74 | 1.83 | 1.00 | 0.833 |
| 10.8V | 69.4 | 59.2 | 43.6 | 34.7 | 30.6 | 23.3 | 16.9 | 13.3 | 8.89 | 6.67 | 5.28 | 4.11 | 3.33 | 2.70 | 1.81 | 0.99 | 0.828 |

■ Charging Method

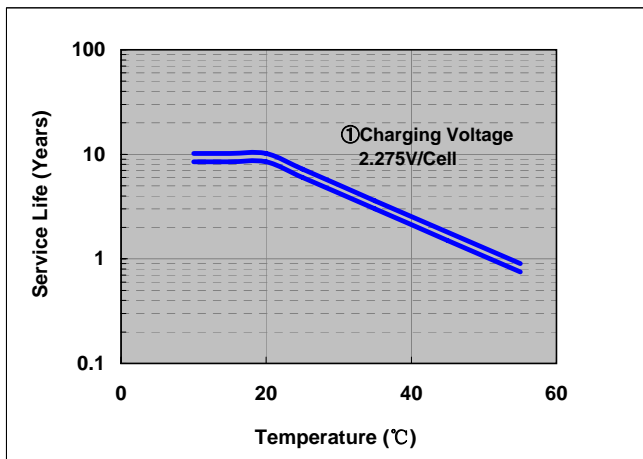
(25°C)

| | |
|-------------|---|
| Trickle use | Control voltage 13.6-13.8V; Initial current 3.0A or smaller |
|-------------|---|

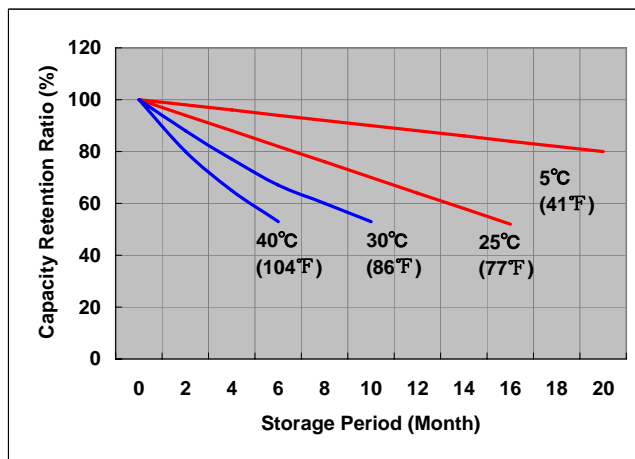
■ Cut off voltage

| | | | | | |
|---------------------|-----------|----------|---------|---------|---------|
| Discharge current | 1.0A-4.0A | 4.0A-10A | 10A-20A | 20A-40A | 40A-60A |
| Cut off voltage (V) | 10.5 | 10.2 | 9.9 | 9.3 | 8.7 |

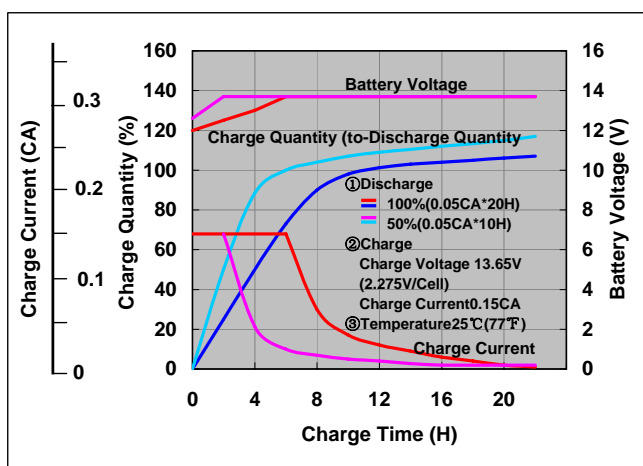
■ Influence of Temperature on Trickle life



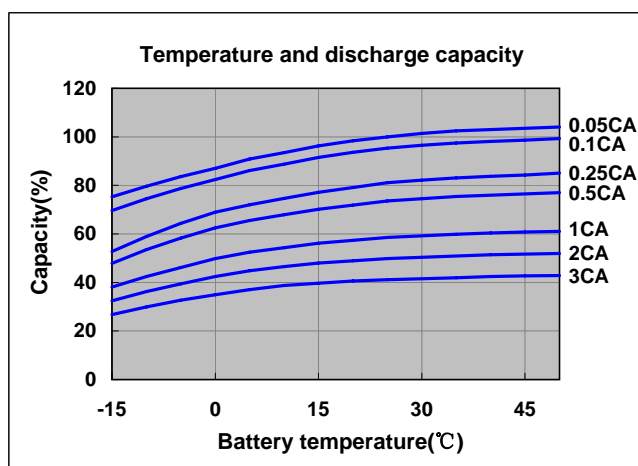
■ Residual capacity test result



■ Constant-voltage and constant-current charge characteristics



■ Discharge capacity by temperature and by discharge current



■ Discharge characteristics (25°C)

