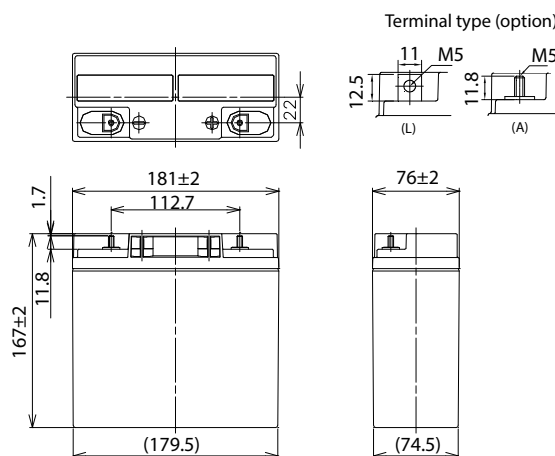




## LC-P1220P

FOR STANDBY POWER SUPPLIES.  
 EXPECTED TRICKLE DESIGN LIFE: 10 – 12 YEARS AT 20°C  
 ACCORDING TO EUROBAT.

## DIMENSIONS (MM)



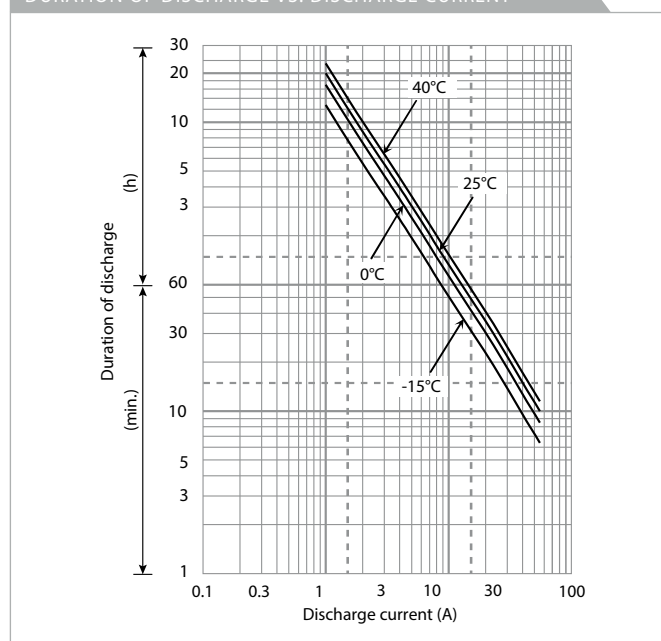
Contents indicated (including the recycle marking, etc.)  
 are subject to change without notice.

Battery case resin: flame retardant (UL94 V-0)

## SPECIFICATIONS

| Name                                              |                              | LC-P1220P/AP                |
|---------------------------------------------------|------------------------------|-----------------------------|
| Nominal voltage                                   |                              | 12V                         |
| Nominal capacity (20 hour rate)                   |                              | 20Ah                        |
| Dimensions                                        | Length                       | 181mm                       |
|                                                   | Width                        | 76mm                        |
|                                                   | Height                       | 167mm                       |
| Approx. mass                                      |                              | 5.80kg                      |
| Terminal                                          |                              | M5 bolt/nut & threaded post |
| Capacity (25°C)                                   | 20 hour rate                 | 20Ah                        |
|                                                   | 10 hour rate                 | 17Ah                        |
|                                                   | 3 hour rate                  | 15Ah                        |
|                                                   | 1 hour rate                  | 12Ah                        |
| Impedance                                         | Fully charged battery (25°C) | 15mΩ                        |
|                                                   |                              |                             |
| 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 month                | 91%                         |
|                                                   | After 6 month                | 82%                         |
|                                                   | After 12 month               | 64%                         |

## DURATION OF DISCHARGE VS. DISCHARGE CURRENT



## WATT TABLE (25°C)

(Wattage/battery)

| Cut-off | 5min. | 10min. | 15min. | 20min. | 30min. | 45min. | 1h  | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 10h  | 20h  |
|---------|-------|--------|--------|--------|--------|--------|-----|------|------|------|------|------|------|------|------|
| 9.6V    | 853   | 557    | 425    | 357    | 266    | 188    | 150 | 103  | 83.1 | 61.9 | 47.5 | 39.2 | 31.5 | 21.6 | 11.7 |
| 9.9V    | 800   | 546    | 423    | 351    | 263    | 186    | 148 | 101  | 82.5 | 61.5 | 47.2 | 38.9 | 31.4 | 21.5 | 11.7 |
| 10.2V   | 750   | 532    | 414    | 345    | 260    | 185    | 146 | 99.1 | 80.3 | 60.9 | 46.9 | 38.6 | 31.2 | 21.3 | 11.6 |
| 10.5V   | 672   | 493    | 385    | 328    | 254    | 182    | 145 | 97.0 | 77.5 | 60.0 | 46.6 | 38.3 | 30.8 | 21.2 | 11.6 |
| 10.8V   | 594   | 440    | 359    | 319    | 246    | 179    | 141 | 94.3 | 73.9 | 58.8 | 46.0 | 37.4 | 30.3 | 21.0 | 11.5 |

## AMPERE TABLE (25°C)

(Ampere/battery)

| Cut-off | 5min. | 10min. | 15min. | 20min. | 30min. | 45min. | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 10h  | 20h   |
|---------|-------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|-------|
| 9.6V    | 85.0  | 55.3   | 40.0   | 34.2   | 24.0   | 16.9   | 12.7 | 9.04 | 6.98 | 5.17 | 3.95 | 3.26 | 2.61 | 1.75 | 1.01  |
| 9.9V    | 79.7  | 54.2   | 39.7   | 33.6   | 23.7   | 16.8   | 12.6 | 8.86 | 6.92 | 5.14 | 3.93 | 3.23 | 2.60 | 1.75 | 1.01  |
| 10.2V   | 74.7  | 52.8   | 38.9   | 33.1   | 23.5   | 16.6   | 12.4 | 8.68 | 6.74 | 5.09 | 3.90 | 3.20 | 2.58 | 1.73 | 1.00  |
| 10.5V   | 66.9  | 48.9   | 36.2   | 31.4   | 22.9   | 16.4   | 12.2 | 8.50 | 6.51 | 5.01 | 3.88 | 3.18 | 2.55 | 1.72 | 1.00  |
| 10.8V   | 59.2  | 43.6   | 33.8   | 30.6   | 22.2   | 16.1   | 12.0 | 8.27 | 6.20 | 4.91 | 3.82 | 3.10 | 2.51 | 1.70 | 0.994 |

All mentioned values are average values

## LC-P1220P

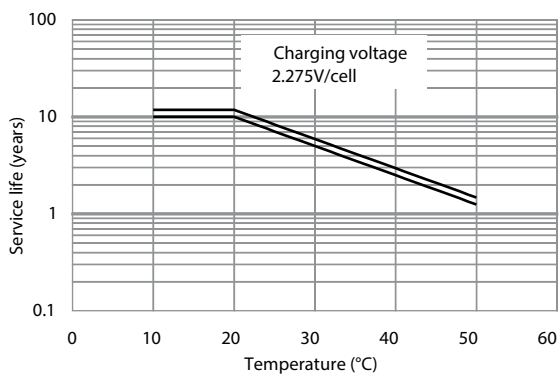
### CHARGING METHOD (25°C)

Trickle use  
Control voltage: 13.6V - 13.8V  
Initial current: 3.00A or smaller

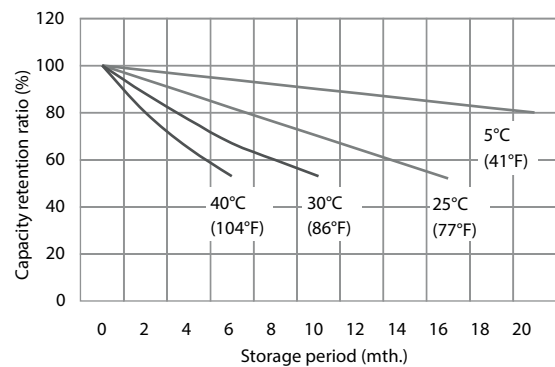
### CUT-OFF VOLTAGE

| Discharge current | 1.00A - 4.00A | 4.00A - 10.0A | 10.0A - 20.0A | 20.0A - 40.0A | 40.0A - 60.0A |
|-------------------|---------------|---------------|---------------|---------------|---------------|
| Cut-off voltage   | 10.5V         | 10.2V         | 9.9V          | 9.3V          | 8.7V          |

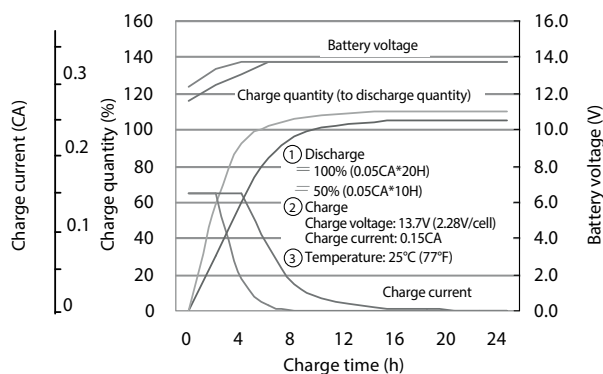
### INFLUENCE OF TEMPERATURE ON TRICKLE LIFE



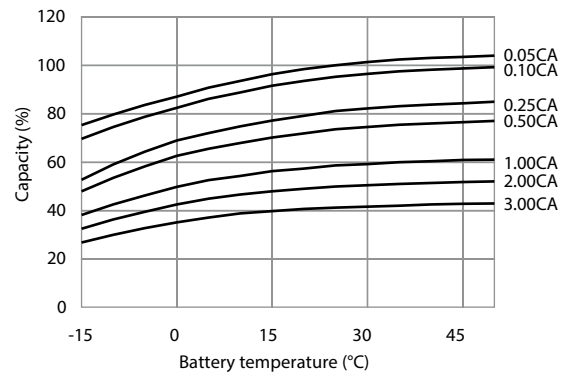
### RESIDUAL CAPACITY TEST RESULT



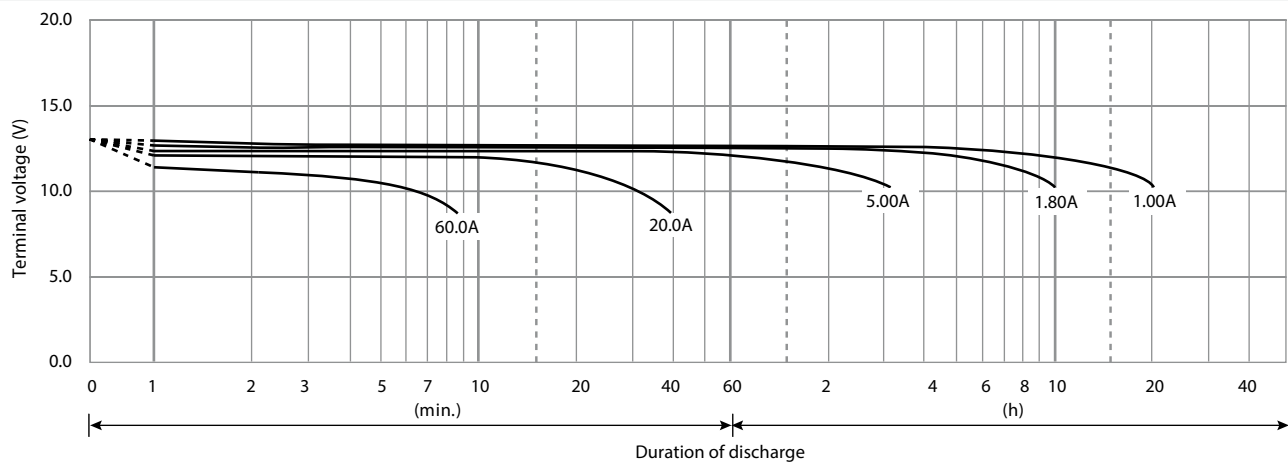
### CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR TRICKLE USE



### DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



### DISCHARGE CHARACTERISTICS



The data in this document are for descriptive purposes only and are not intended to make or imply any guarantee or warranty. Re please consult our VRLA technical handbook chapter 1.

garding handling and safety