

## LC-P1224P

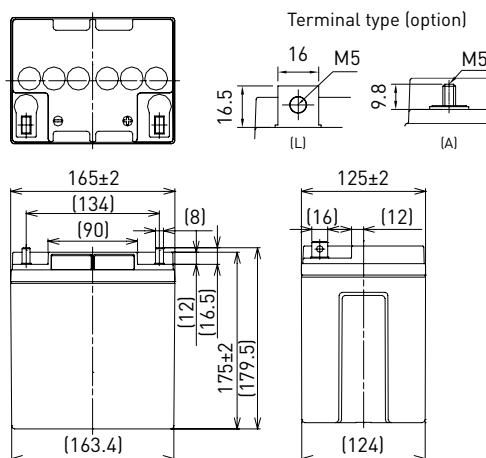
## DIMENSIONS (MM)



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

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

VdS  
G198049

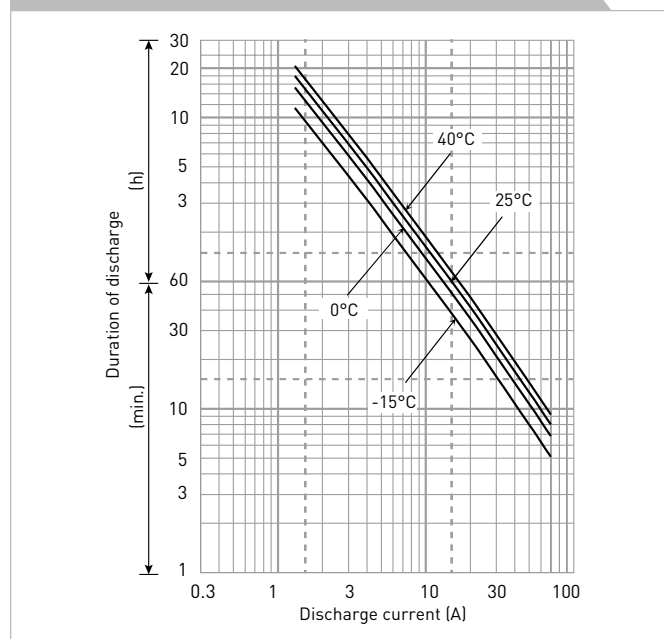


Battery case resin: flame retardant (UL94 V-0)

## SPECIFICATIONS

| Name                                              |                              | LC-P1224PG/APG              |
|---------------------------------------------------|------------------------------|-----------------------------|
| Nominal voltage                                   |                              | 12V                         |
| Nominal capacity (20 hour rate)                   |                              | 24Ah                        |
| Dimensions                                        | Length                       | 165mm                       |
|                                                   | Width                        | 125mm                       |
|                                                   | Height                       | 179.5mm/175mm               |
| Approx. mass                                      |                              | 8.05kg                      |
| Terminal                                          |                              | M5 bolt/nut & threaded post |
| Capacity (25°C)                                   | 20 hour rate                 | 24Ah                        |
|                                                   | 10 hour rate                 | 22Ah                        |
|                                                   | 3 hour rate                  | 18Ah                        |
|                                                   | 1 hour rate                  | 14Ah                        |
| Impedance                                         | Fully charged battery (25°C) | 11mΩ                        |
|                                                   | 40°C                         | 102%                        |
| Temperature dependency of capacity (20 hour rate) | 25°C                         | 100%                        |
|                                                   | 0°C                          | 85%                         |
|                                                   | -15°C                        | 65%                         |
| Remaining capacity (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    | 992   | 739    | 523    | 441    | 317    | 234    | 183 | 118  | 104  | 73.8 | 58.6 | 47.9 | 40.8 | 26.4 | 14.6 |
| 9.9V    | 931   | 724    | 520    | 434    | 314    | 232    | 181 | 116  | 103  | 73.4 | 58.2 | 47.5 | 40.6 | 26.3 | 14.6 |
| 10.2V   | 872   | 706    | 509    | 426    | 310    | 230    | 179 | 113  | 101  | 72.7 | 57.8 | 47.2 | 40.3 | 26.0 | 14.5 |
| 10.5V   | 782   | 654    | 474    | 405    | 303    | 226    | 175 | 111  | 97.2 | 71.6 | 57.4 | 46.8 | 39.8 | 25.9 | 14.4 |
| 10.8V   | 691   | 583    | 442    | 394    | 293    | 223    | 172 | 108  | 92.6 | 70.1 | 56.6 | 45.6 | 39.2 | 25.6 | 14.3 |

## 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    | 89.0  | 66.0   | 45.5   | 38.0   | 27.1   | 19.9   | 14.6 | 10.0 | 8.80 | 6.20 | 4.90 | 3.89 | 3.40 | 2.27 | 1.23 |
| 9.9V    | 83.5  | 64.7   | 45.2   | 37.4   | 26.8   | 19.8   | 14.5 | 9.80 | 8.73 | 6.17 | 4.87 | 3.86 | 3.39 | 2.26 | 1.22 |
| 10.2V   | 78.2  | 63.0   | 44.3   | 36.8   | 26.5   | 19.6   | 14.3 | 9.60 | 8.51 | 6.11 | 4.84 | 3.83 | 3.36 | 2.23 | 1.21 |
| 10.5V   | 70.1  | 58.4   | 41.2   | 34.9   | 25.9   | 19.3   | 14.0 | 9.40 | 8.21 | 6.01 | 4.80 | 3.80 | 3.32 | 2.22 | 1.20 |
| 10.8V   | 62.0  | 52.1   | 38.4   | 34.0   | 25.0   | 19.0   | 13.7 | 9.14 | 7.82 | 5.89 | 4.74 | 3.71 | 3.27 | 2.20 | 1.19 |

All mentioned values are average values

## LC-P1224P

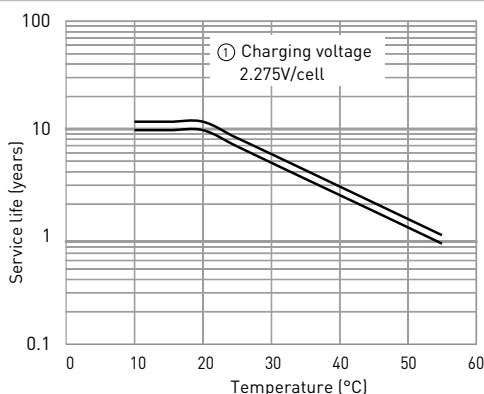
### CHARGING METHOD (25°C)

**Trickle use** Control voltage: 13.6V - 13.8V  
Initial current: 3.6A or smaller

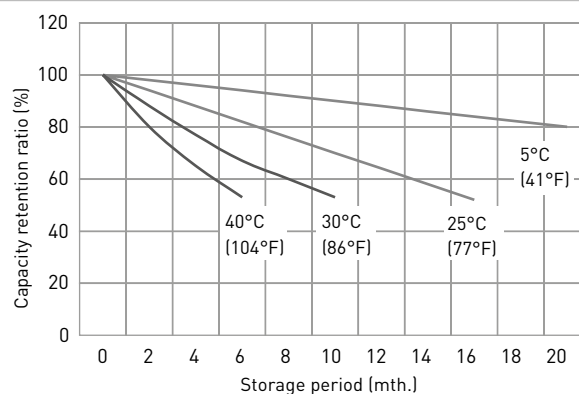
### CUT-OFF VOLTAGE

| Discharge current   | 1.2A - 4.8A | 4.8A - 12A | 12A - 24A | 24A - 48A | 48A - 72A |
|---------------------|-------------|------------|-----------|-----------|-----------|
| Cut-off voltage (V) | 10.5        | 10.2       | 9.9       | 9.3       | 8.7       |

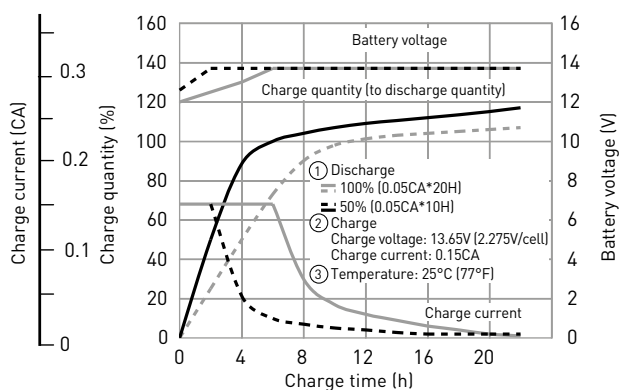
### INFLUENCE OF TEMPERATURE ON TRICKLE LIFE



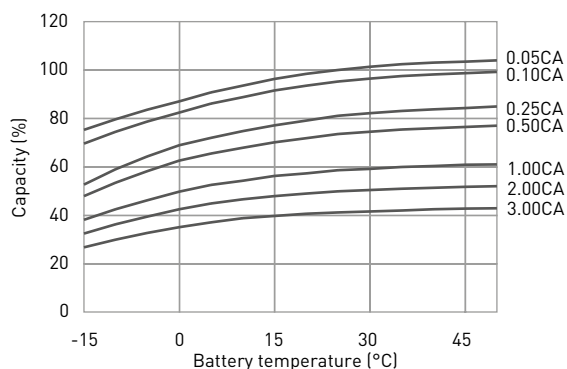
### RESIDUAL CAPACITY VS. STORAGE PERIOD



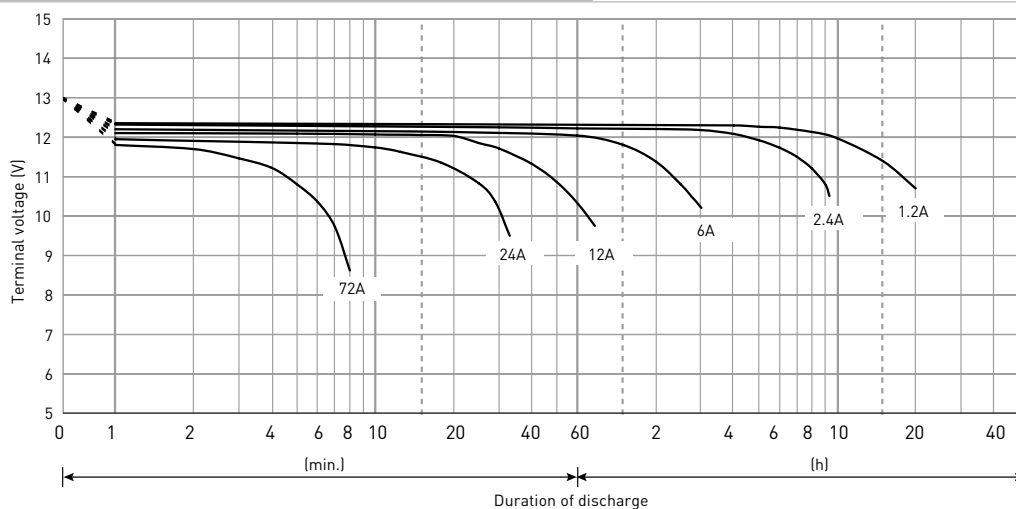
### CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR TRICKLE USE



### 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. Regarding handling and safety please consult our VRLA technical handbook chapter 1.