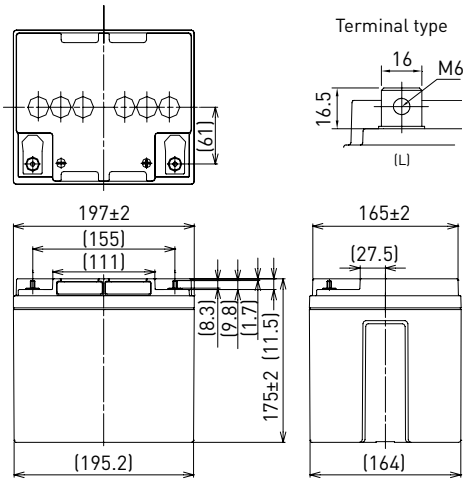


LC-QA1242P

FOR STANDBY POWER SUPPLIES.  
EXPECTED TRICKLE DESIGN LIFE: 15 YEARS AT 20°C.

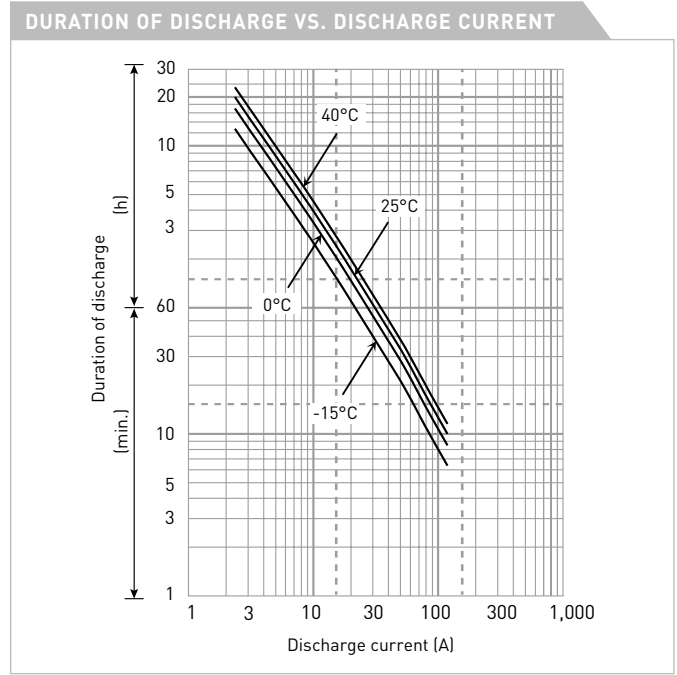
DIMENSIONS (MM)



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

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

| SPECIFICATIONS                  |   | LC-QA1242P |
|---------------------------------|---|------------|
| Name                            | LC-QA1242P  |            |
| Nominal voltage                 | 12V   |            |
| Nominal capacity (20 hour rate) | 42Ah  |            |
| Dimensions                      | Length  | 197mm      |
|                                 | Width   | 165mm      |
|                                 | Height  | 180mm      |
| Approx. mass                    | 15.5kg  |            |
| Terminal                        | M6 bolt/nut                                       |            |
| Capacity (25°C)                 | 20 hour rate                                      | 47Ah       |
|                                 | 10 hour rate                                      | 45Ah       |
|                                 | 3 hour rate                                       | 36Ah       |
|                                 | 1 hour rate                                       | 29Ah       |
| Impedance                       | Fully charged battery (25°C)                      | 8mΩ        |
|                                 | 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%        |



| WATT TABLE (25°C) |        |        |        |        |        |     |      |     |     |     |      |      | [Wattage/battery] |      |
|-------------------|--------|--------|--------|--------|--------|-----|------|-----|-----|-----|------|------|-------------------|------|
| Cut-off           | 10min. | 15min. | 20min. | 30min. | 45min. | 1h  | 1.5h | 2h  | 3h  | 4h  | 5h   | 6h   | 10h               | 20h  |
| 9.6V              | 1,313  | 993    | 805    | 621    | 444    | 354 | 256  | 220 | 156 | 121 | 101  | 86.0 | 55.2              | 28.1 |
| 9.9V              | 1,252  | 930    | 775    | 597    | 435    | 349 | 253  | 215 | 152 | 117 | 98.9 | 84.5 | 54.3              | 28.1 |
| 10.2V             | 1,187  | 868    | 724    | 574    | 425    | 344 | 249  | 205 | 149 | 116 | 97.6 | 83.2 | 53.9              | 28.1 |
| 10.5V             | 1,176  | 847    | 694    | 545    | 414    | 327 | 237  | 202 | 142 | 113 | 93.4 | 79.4 | 50.4              | 26.9 |
| 10.8V             | 1,170  | 826    | 673    | 517    | 405    | 320 | 231  | 195 | 139 | 110 | 90.2 | 76.9 | 49.1              | 25.1 |

| AMPERE TABLE (25°C) |        |        |        |        |        |      |      |      |      |      |      |      | [Ampere/battery] |      |
|---------------------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------------------|------|
| Cut-off             | 10min. | 15min. | 20min. | 30min. | 45min. | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 10h              | 20h  |
| 9.6V                | 123    | 94.5   | 81.0   | 60.1   | 39.3   | 29.8 | 23.0 | 17.8 | 12.5 | 10.4 | 8.44 | 7.43 | 4.50             | 2.36 |
| 9.9V                | 121    | 93.4   | 79.9   | 58.4   | 39.0   | 29.6 | 22.3 | 17.7 | 12.3 | 10.3 | 8.35 | 7.37 | 4.50             | 2.36 |
| 10.2V               | 119    | 92.3   | 78.8   | 57.3   | 38.9   | 29.4 | 20.7 | 17.4 | 12.0 | 10.2 | 8.30 | 7.31 | 4.50             | 2.36 |
| 10.5V               | 116    | 90.0   | 77.6   | 56.3   | 38.8   | 29.3 | 20.1 | 16.9 | 11.9 | 10.1 | 8.26 | 7.20 | 4.50             | 2.36 |
| 10.8V               | 107    | 86.6   | 75.4   | 55.1   | 37.4   | 28.1 | 19.1 | 16.4 | 11.5 | 9.90 | 8.21 | 7.09 | 4.50             | 2.36 |

All mentioned values are average values

LC-QA1242P

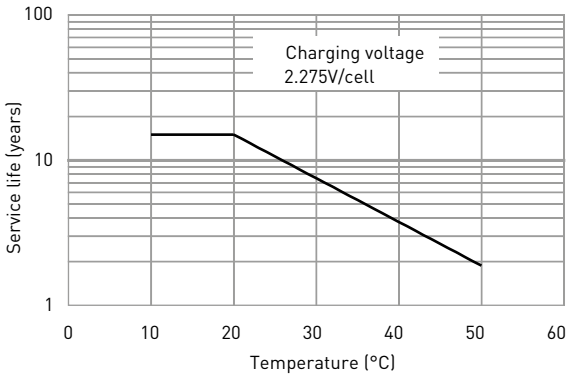
CHARGING METHOD (25°C)

**Trickle use** Control voltage: 13.6V - 13.8V  
Initial current: 6.30A or smaller

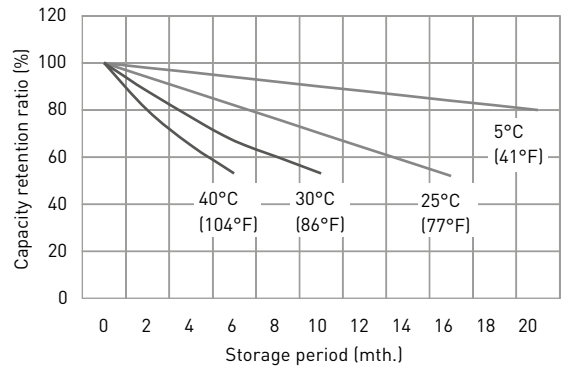
CUT-OFF VOLTAGE

|                          |               |               |               |               |              |
|--------------------------|---------------|---------------|---------------|---------------|--------------|
| <b>Discharge current</b> | 2.10A - 8.40A | 8.40A - 21.0A | 21.0A - 42.0A | 42.0A - 84.0A | 84.0A - 126A |
| <b>Cut-off voltage</b>   | 10.5V         | 10.2V         | 9.9V          | 9.3V          | 8.7V         |

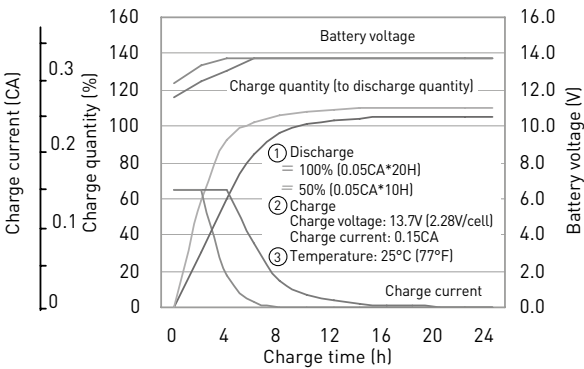
INFLUENCE OF TEMPERATURE ON TRICKLE LIFE



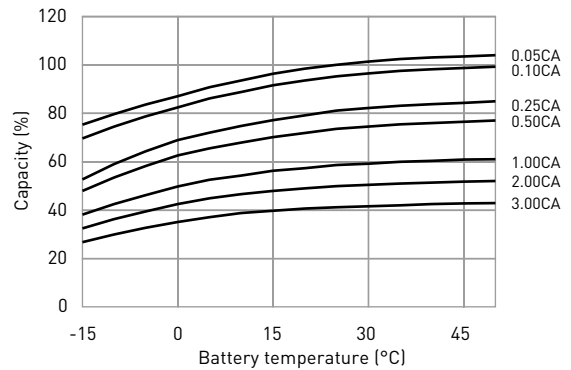
RESIDUAL CAPACITY TEST RESULT



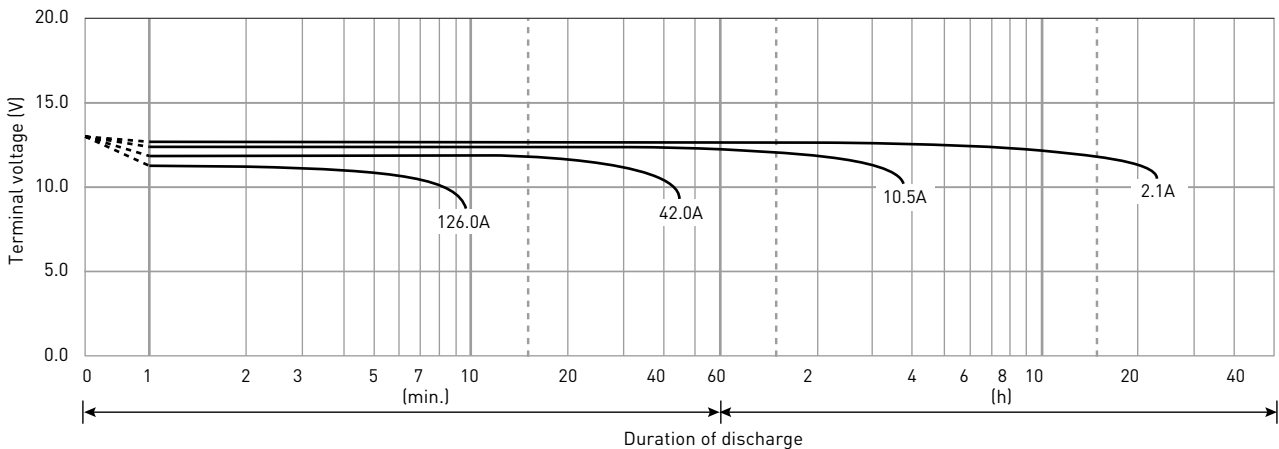
CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR TRICKLE USE



DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



DISCHARGE CHARACTERISTICS



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