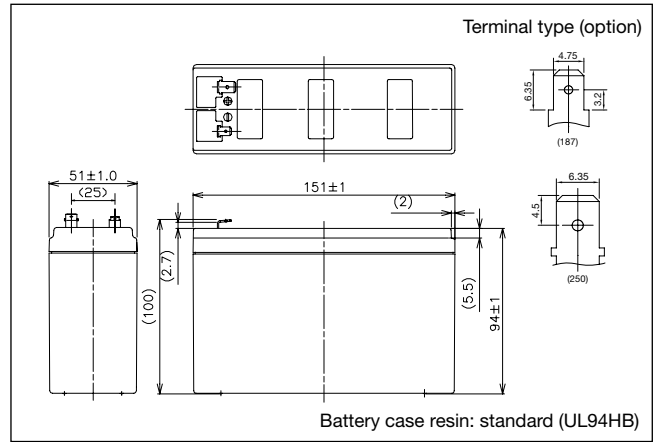


**UP-RWA1232P1/P2**

For standby power supplies.  
Expected trickle design life: 6 – 9 years at 20 °C according to Eurobat.



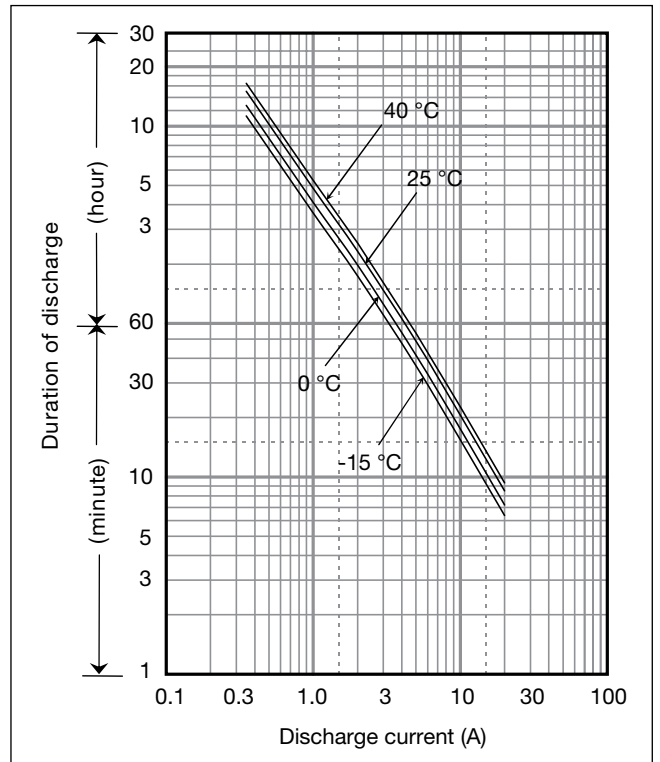
**Dimensions (mm)**



**Specifications**

|                                   |  |        |
|-----------------------------------|--|--------|
| Nominal voltage                   | 12 V   |        |
| Nominal capacity (10 minute rate) | 192 W  |        |
| Dimensions                        | Length                                       | 151 mm |
|                                   | Width  | 51 mm  |
|                                   | Height                                       | 94 mm  |
|                                   | Total Height                                 | 100 mm |
| Approx. mass                      | 2 kg   |        |
| Terminal                          | Faston 250 with hole or Faston 187/250 mixed |        |

**Duration of discharge vs Discharge current**



**Characteristics**

|   |                               |       |
|---|-------------------------------|-------|
| Capacity (25 °C)                                  | 20 hour rate                  | 97 W  |
|   | 10 hour rate                  | 157 W |
|   | 5 hour rate                   | 192 W |
|   | 1 hour rate                   | 310 W |
| Internal resistance                               | Fully charged battery (25 °C) | 33 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 %  |

**Watt Table**

(Wattage/Battery)

| Cut-off V | 3min | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 10h  | 20h  | 24h  |
|-----------|------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 9.6V      | 410  | 310  | 192   | 157   | 128   | 97.0  | 71.1  | 56.9 | 39.1 | 30.3 | 22.5 | 17.3 | 14.3 | 11.5 | 7.61 | 4.12 | 3.44 |
| 9.9V      | 386  | 295  | 187   | 150   | 124   | 95.0  | 70.7  | 56.9 | 38.3 | 30.0 | 22.4 | 17.2 | 14.2 | 11.4 | 7.58 | 4.11 | 3.43 |
| 10.2V     | 361  | 281  | 182   | 142   | 120   | 93.0  | 67.7  | 53.9 | 36.3 | 28.4 | 21.5 | 16.5 | 13.6 | 11.0 | 7.25 | 3.97 | 3.31 |
| 10.5V     | 327  | 255  | 174   | 136   | 115   | 89.5  | 65.9  | 52.8 | 34.9 | 27.5 | 21.5 | 16.5 | 13.5 | 10.9 | 7.22 | 3.96 | 3.30 |
| 10.8V     | 294  | 230  | 164   | 130   | 110   | 86.0  | 61.7  | 48.8 | 32.6 | 24.5 | 19.5 | 15.2 | 12.4 | 10.0 | 6.73 | 3.70 | 3.08 |

**Ampere Table**

(Ampere/Battery)

| Cut-off V | 3min | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 10h   | 20h   | 24h   |
|-----------|------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|-------|-------|-------|
| 9.6V      | 36.9 | 27.8 | 17.1  | 13.7  | 11.0  | 8.29  | 6.06  | 4.83 | 3.31 | 2.56 | 1.89 | 1.45 | 1.19 | 0.96 | 0.634 | 0.344 | 0.287 |
| 9.9V      | 34.7 | 26.5 | 16.7  | 13.0  | 10.7  | 8.12  | 6.02  | 4.83 | 3.25 | 2.54 | 1.88 | 1.44 | 1.18 | 0.95 | 0.631 | 0.343 | 0.286 |
| 10.2V     | 32.5 | 25.2 | 16.3  | 12.3  | 10.3  | 7.95  | 5.77  | 4.58 | 3.08 | 2.40 | 1.80 | 1.38 | 1.14 | 0.92 | 0.604 | 0.331 | 0.276 |
| 10.5V     | 29.5 | 22.9 | 15.5  | 11.8  | 9.9   | 7.65  | 5.61  | 4.48 | 2.96 | 2.32 | 1.81 | 1.38 | 1.13 | 0.91 | 0.602 | 0.330 | 0.275 |
| 10.8V     | 26.4 | 20.6 | 14.6  | 11.3  | 9.5   | 7.35  | 5.26  | 4.14 | 2.76 | 2.07 | 1.64 | 1.28 | 1.03 | 0.84 | 0.560 | 0.309 | 0.257 |

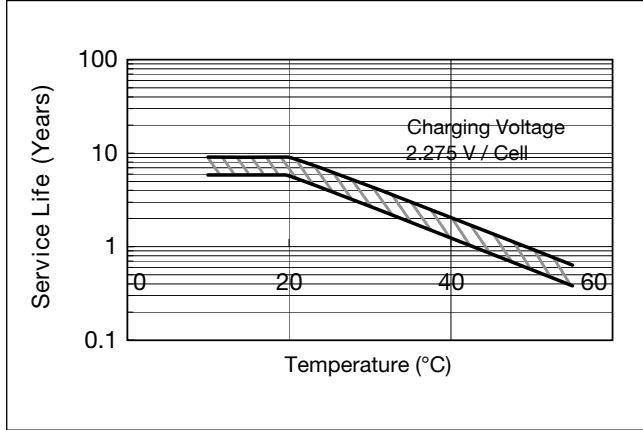
**Charging Method**

|             |   |
|-------------|---|
| Trickle use | Control voltage: 13.6 - 13.8 V;<br>Initial current: 1.05 A or smaller |
|-------------|---|

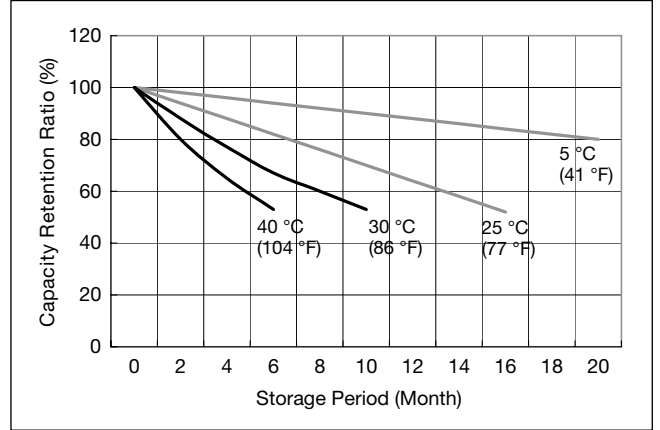
**Cut off voltage**

|                     |                |               |             |            |             |
|---------------------|----------------|---------------|-------------|------------|-------------|
| Discharge current   | 0.35 A - 1.4 A | 1.4 A - 3.5 A | 3.5 A - 7 A | 7 A - 14 A | 14 A - 21 A |
| Cut off voltage (V) | 10.5           | 10.2          | 9.9         | 9.3        | 8.7         |

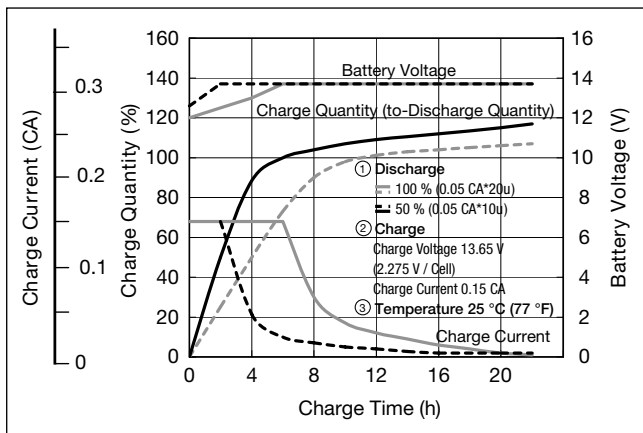
**Influence of Temperature on Trickle life**



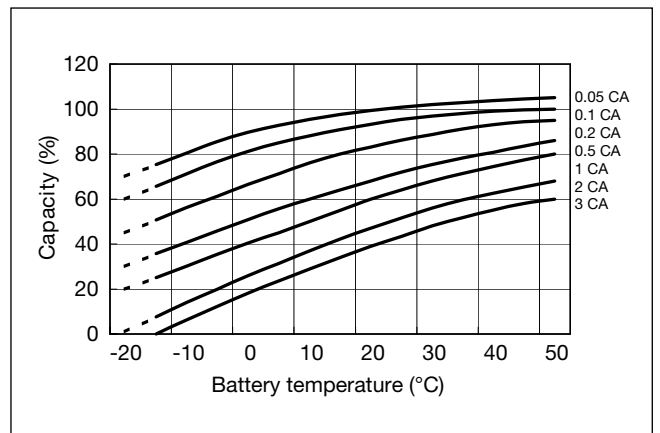
**Residual capacity vs storage period**



**Constant-voltage and constant-current charge characteristics for Trickle use**



**Discharge capacity by temperature and by discharge current**



**Discharge characteristics**

