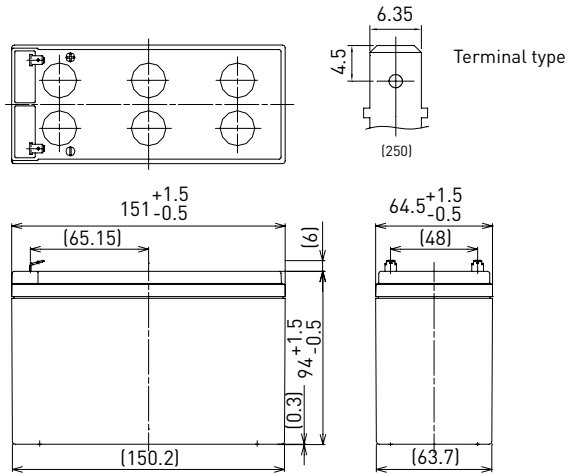


UP-VW1245P

DIMENSIONS (MM)



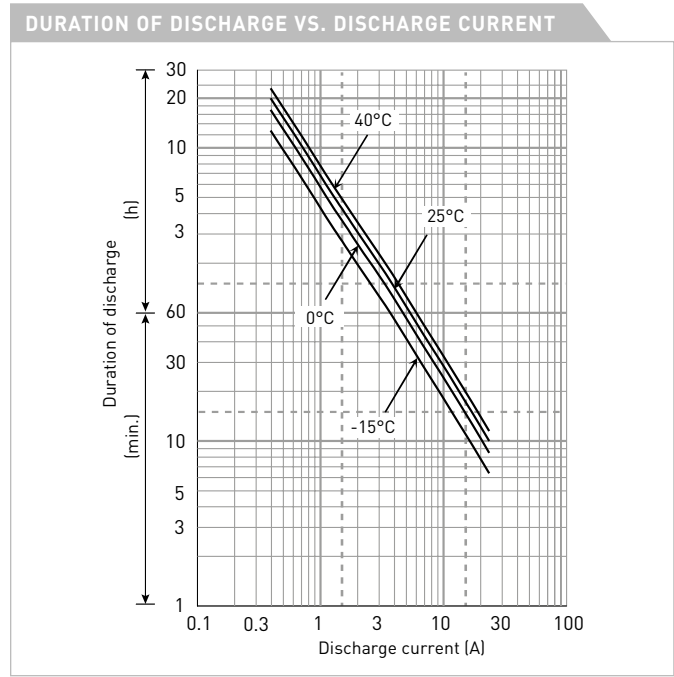
FOR STANDBY POWER SUPPLIES.  
 EXPECTED TRICKLE DESIGN LIFE: 6 – 9 YEARS AT 20°C  
 ACCORDING TO EUROBAT.



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

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

| SPECIFICATIONS                                    |                              |        |
|---|------------------------------|--------|
| Name  | UP-VW1245P1                  |        |
| Nominal voltage                                   | 12V                          |        |
| Rated power (cell@10MR)                           | 45W                          |        |
| Dimensions  | Length                       | 151mm  |
|   | Width                        | 64.5mm |
|   | Height                       | 100mm  |
| Approx. mass                                      | 2.55kg                       |        |
| Terminal  | Faston 250                   |        |
| Capacity (25°C)                                   | 30 minute rate               | 112W   |
|   | 15 minute rate               | 195W   |
|   | 10 minute rate               | 270W   |
|   | 5 minute rate                | 410W   |
| Impedance   | Fully charged battery (25°C) | 20mΩ   |
|   |                              |        |
| 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           | 3min. | 5min. | 10min. | 15min. | 20min. | 30min. | 45min. | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 10h  | 20h               |
| 9.6V              | 530   | 410   | 270    | 195    | 159    | 112    | 82.1   | 65.7 | 45.2 | 34.9 | 26.0 | 20.0 | 16.5 | 13.3 | 8.79 | 4.76              |
| 9.9V              | 509   | 400   | 263    | 194    | 158    | 111    | 81.6   | 65.1 | 44.3 | 34.7 | 25.9 | 19.8 | 16.4 | 13.2 | 8.75 | 4.75              |
| 10.2V             | 490   | 390   | 258    | 193    | 156    | 110    | 80.8   | 64.4 | 43.4 | 33.9 | 25.6 | 19.7 | 16.2 | 13.1 | 8.65 | 4.73              |
| 10.5V             | 463   | 360   | 246    | 187    | 151    | 109    | 78.7   | 63.0 | 41.7 | 32.8 | 25.2 | 19.5 | 16.1 | 13.0 | 8.62 | 4.72              |
| 10.8V             | 434   | 330   | 234    | 180    | 146    | 108    | 78.3   | 61.8 | 41.3 | 31.1 | 24.7 | 19.3 | 15.7 | 12.7 | 8.52 | 4.69              |

| AMPERE TABLE (25°C) |       |       |        |        |        |        |        |      |      |      |      |      |      |      |       | (Ampere/battery) |
|---------------------|-------|-------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|-------|------------------|
| Cut-off             | 3min. | 5min. | 10min. | 15min. | 20min. | 30min. | 45min. | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 10h   | 20h              |
| 9.6V                | 47.7  | 36.8  | 23.9   | 17.0   | 13.7   | 9.57   | 6.99   | 5.57 | 3.82 | 2.95 | 2.19 | 1.67 | 1.38 | 1.11 | 0.732 | 0.397            |
| 9.9V                | 45.8  | 35.9  | 23.5   | 16.9   | 13.6   | 9.55   | 6.95   | 5.50 | 3.75 | 2.93 | 2.17 | 1.66 | 1.37 | 1.10 | 0.729 | 0.396            |
| 10.2V               | 44.1  | 35.0  | 23.0   | 16.8   | 13.5   | 9.49   | 6.88   | 5.46 | 3.67 | 2.86 | 2.15 | 1.65 | 1.36 | 1.09 | 0.721 | 0.394            |
| 10.5V               | 41.6  | 32.3  | 22.0   | 16.3   | 13.0   | 9.40   | 6.70   | 5.35 | 3.53 | 2.77 | 2.11 | 1.64 | 1.35 | 1.08 | 0.718 | 0.393            |
| 10.8V               | 39.0  | 29.6  | 20.9   | 15.7   | 12.6   | 9.32   | 6.67   | 5.25 | 3.50 | 2.62 | 2.08 | 1.62 | 1.31 | 1.06 | 0.710 | 0.391            |

All mentioned values are average values

## UP-VW1245P

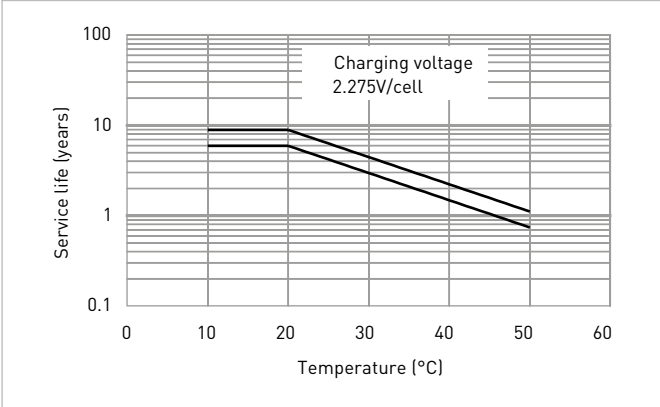
### CHARGING METHOD (25°C)

**Trickle use** Control voltage: 13.6V - 13.8V  
Initial current: 1.20A or smaller

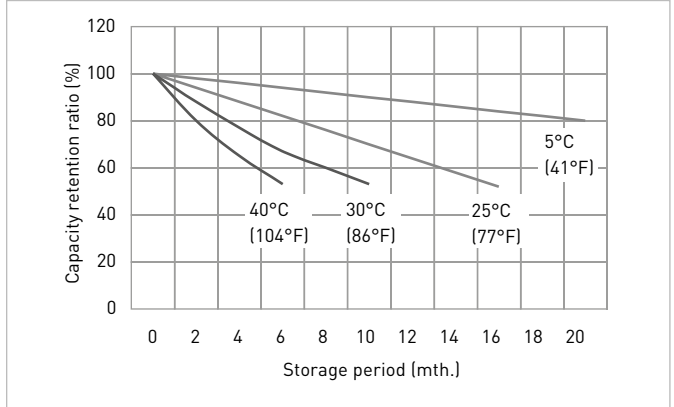
### CUT-OFF VOLTAGE

|                          |                |               |               |               |               |
|--------------------------|----------------|---------------|---------------|---------------|---------------|
| <b>Discharge current</b> | 0.400A - 1.60A | 1.60A - 4.00A | 4.00A - 8.00A | 8.00A - 16.0A | 16.0A - 24.0A |
| <b>Cut-off voltage</b>   | 10.5V          | 10.2V         | 9.9V          | 9.3V          | 8.7V          |

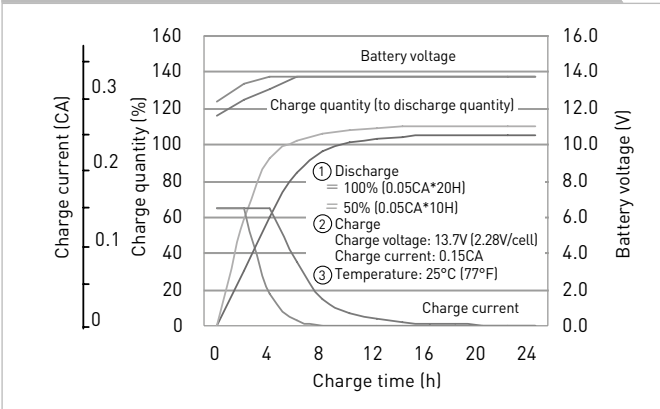
### INFLUENCE OF TEMPERATURE ON TRICKLE LIFE



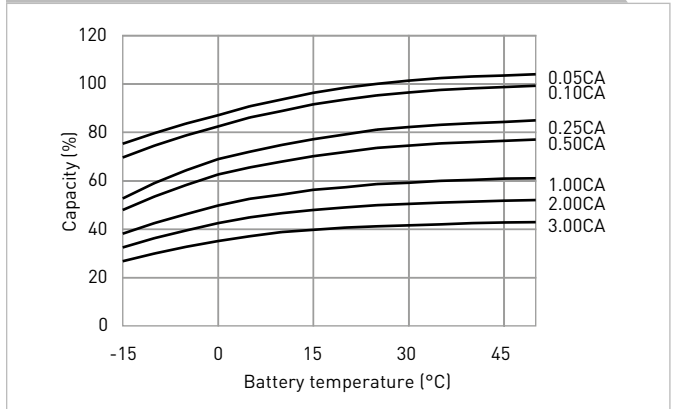
### RESIDUAL CAPACITY TEST RESULT



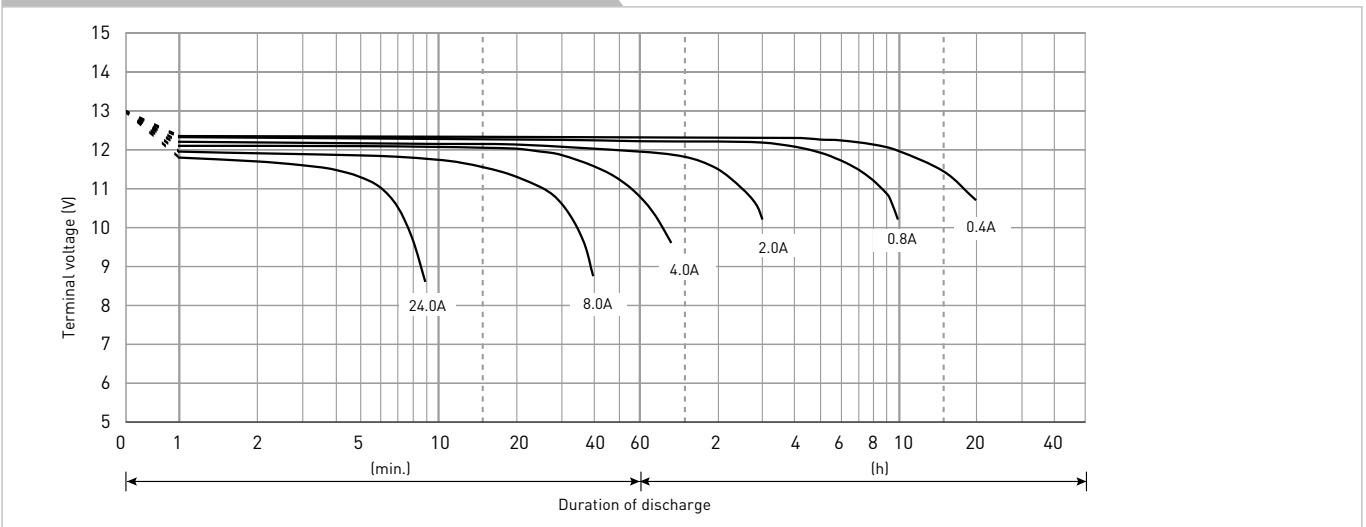
### CONSTANT-VOLTAGE CONSTANT-CURRENT CHARGE CHARACTERISTICS FOR TRICKLE USE



### DISCHARGE CAPACITY BY TEMPERATURE AND BY DISCHARGE CURRENT



### DISCHARGE CHARACTERISTICS



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