

|                                                    |                                                                                         | Conditions                                                                                                     |        |
|----------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------|
| <b>cell type:</b>                                  | NiMH                                                                                    |                                                                                                                |        |
| <b>cell size:</b>                                  | C                                                                                       |                                                                                                                |        |
| <b>nominal voltage:</b>                            | 1.2 V                                                                                   |                                                                                                                |        |
| <b>max. charge voltage:</b>                        | 1.5 V                                                                                   | at standard charge (0.1C / 20°C)                                                                               |        |
| <b>capacity</b>                                    |                                                                                         |                                                                                                                |        |
| nominal:                                           | 4500 mAh                                                                                | discharge at 0.2C                                                                                              |        |
| minimum:                                           | 4300 mAh                                                                                | discharge at 0.2C                                                                                              |        |
|                                                    | 3870 mAh                                                                                | discharge at 1C                                                                                                |        |
|                                                    |                                                                                         | 1.0V end discharge voltage                                                                                     |        |
|                                                    |                                                                                         | ta: 20°C                                                                                                       |        |
| <b>max. continuous discharge current:</b>          | 13.5 A                                                                                  | ta: 0...45°C                                                                                                   |        |
| <b>charge</b>                                      |                                                                                         | current                                                                                                        | time   |
| standard charge:                                   |                                                                                         | 450 mA                                                                                                         | 16hrs  |
| quick charge:                                      |                                                                                         | 1250 mA                                                                                                        | 4hrs   |
| fast charge:                                       |                                                                                         | 2000 mA                                                                                                        | 2.5hrs |
| recommended charge termination control parameters: | 0...5 mV<br>0.8...1 °C<br>45...50 °C                                                    | - delta V<br>temperature rise per minute<br>TCO (temperature cut off)                                          |        |
| trickle charge current:                            | 40...200 mA                                                                             | (recommended)                                                                                                  |        |
| continuous overcharge:<br>(less than 1 year)       | ≤ 400 mA                                                                                | no conspicuous deformation<br>no leakage                                                                       |        |
| <b>internal resistance:</b><br>(impedance)         | ≤ 6 mΩ                                                                                  | at 1KHz<br>battery fully charged                                                                               |        |
| <b>life expectancy:</b>                            | ≥ 500 cycles                                                                            | acc. IEC standard                                                                                              |        |
| <b>self discharge</b>                              |                                                                                         |                                                                                                                |        |
| charge retention:                                  | ≥ 85 %                                                                                  | after 6 months storage                                                                                         |        |
| (at ≤ 20°C ambient)                                | ≥ 80 %                                                                                  | after 12 months storage                                                                                        |        |
| <b>initial capacity:</b>                           | ≥ 3000 mAh                                                                              | within 30 days after delivery<br>discharge at 0.2C                                                             |        |
| <b>ambient temperature range:</b>                  | 0...45 °C<br>10...40 °C<br>- 20...55 °C<br>- 20...50 °C<br>- 20...40 °C<br>- 20...30 °C | standard charge<br>fast charge<br>discharge<br>storage (≤3months)<br>storage (≤6months)<br>storage (≤24months) |        |

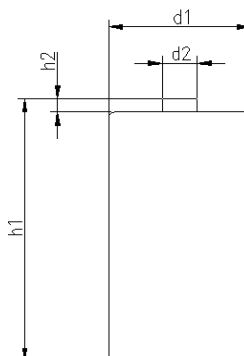
QCT1: 20/4100/10  
QCT2: 30/3800/15

#### mechanical specifications

cell dimensions

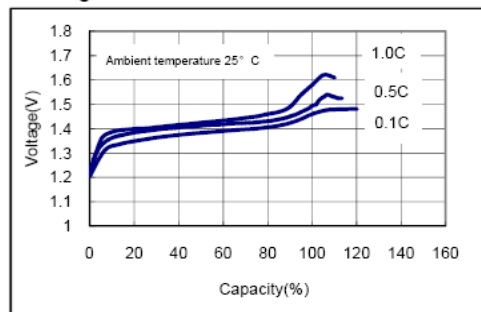
diameter d1: 25.8 - 0.8 mm  
diameter d2: approx. 11.0 mm  
height h1: 50.0 - 2.0 mm  
height h2: 0.0 - 0.3 mm

weight: 80 ± 5 g

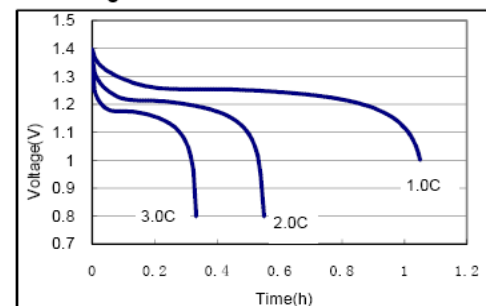


#### Diagrams

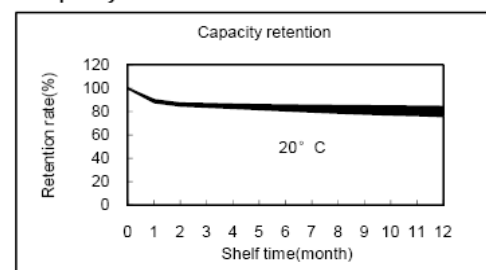
##### Charge characteristics



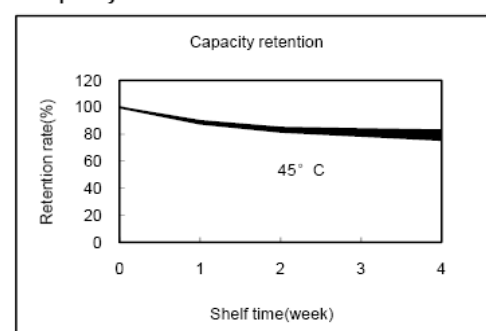
##### Discharge characteristics



##### Capacity retention characteristics



##### Capacity retention characteristics



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|  |                                          |                          |
|--|------------------------------------------|--------------------------|
|  | <b>ANSMANN Specifications for model:</b> | <b>C4500mAh FLAT TOP</b> |
|  | data sheet no. / part no.                | 2310-3001                |
|  | supplier no.                             | 701344                   |
|  | author / date                            | TG / 10.02.2014          |

Manufacturer reserves the right to alter or amend the design, model and specification without prior notice