Standard Series Nickel-Cadmium VRE D

Engineered for cycling applications Saft's VRE D cell ideally suits for a wide range of portable applications.

It is well adapted for applications requiring a permanent charge (C/2O) at temperatures of up to +  $35^{\circ}$ C.

To meet customers' requirements, Saft provides custom-designed and standardized battery packs.

For your battery design and system needs, please contact Saft's engineers.

## Applications

- Electric bicycles, scooters and wheelchairs
- Professionnal electronics devices
- Lighting equipment
- Military equipment

## Main advantages

- Super high capacity
- Fast charge
- Good storage ability
- Excellent cycling performance

#### Technology

- Sintered positive electrode
- Plastic bonded negative electrode

#### Temperature range in discharge

- 40°C to + 60°C

## Storage

Recommended:  $+ 5^{\circ}$ C to  $+ 25^{\circ}$ C Relative humidity:  $65 \pm 5$  %



Electrical characteristics	
Nominal voltage (V)	1.2
Typical capacity (mAh)*	5100
IEC minimum capacity (mAh)*	4500
IEC designation	KRHR 33/62
Impedance at 1000 Hz (m $\Omega$ )	< 4
* Change 16 h at C/10, disabange at C/5	

\* Charge 16 h at C/10, discharge at C/5.

Dimensions	
Diameter (mm)	32.15 ± 0.10
Height (mm)	58.2 ± 0.4
Top projection (mm)	1.4 ± 0.4
Top flat area diameter (mm)	5.6 ± 0.1
Weight (g)	150

Dimensions are given for bare cells.

Charge conditions			
Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast*	~1	+ 10 to + 40	up to 4500
Standard	16	+ 5 to + 50	450
Trickle* *			110 to 225

\* End of charge cut-off is requested: -dV or dT°C/dt. \*\* Trickle charge follows fast charge.

Maximum discharge current	
Continuous (A) at + 20°C	40
Peak (A) at + 20°C*	150

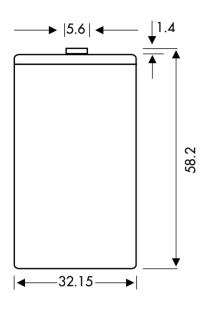
\* Peak duration: 0.3 second - final discharge voltage 0.65 volt/cell.

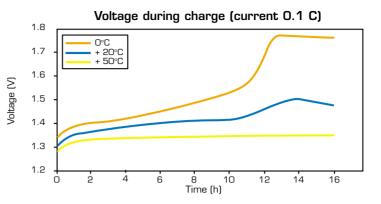


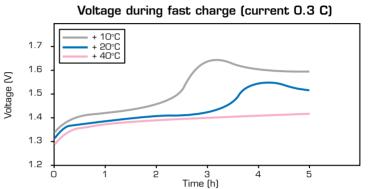
#### **Typical performances**

For graphs shown, C is the  $\mbox{IEC}_5$  capacity.

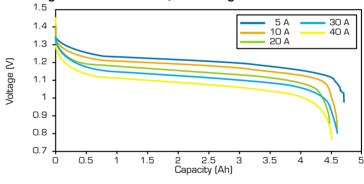
Dimensions are in mm.

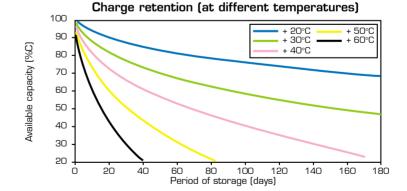






### Discharge at different rates (after charge 0.1 C x 16 hours at + 20°C)





Data are given for single cells. Please consult Saft for utilization of cell outside this datasheet.

Data in this document are subject to change without notice and become contractual only after written confirmation by Saft.

# Saft Rechargeable Battery Systems

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