

# Standard Series

## Nickel-Cadmium

### VRE Cs 1800

To expand its Ni-Cd offer, Saft has launched new High Energy Ni-Cd Cs cells, the VRE Cs 1800.

Developed to fit Professional electronics and home appliances, these cells are also perfectly designed for all equipment where an extended cycle life and a longer operating time are required.

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

- Power tools
- Radio controls
- Lawn and gardening equipment
- Home appliances
- Payment terminals

#### Main advantages

- Cycling application
- Fast charge
- Extended cycle life
- Good charge retention

#### Technology

- Sintered positive electrode
- Plastic bonded negative electrode

#### Temperature range in discharge

- 20°C to + 60°C

#### Storage

Recommended: + 5°C to + 25°C

Relative humidity: 65 ± 5 %



#### Electrical characteristics

Nominal voltage [V]	1.2
Typical capacity [mAh]*	1800
IEC minimum capacity [mAh]*	1700
IEC designation	KRHR 23/43
Impedance at 1000 Hz [m Ω]	5

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

#### Dimensions

Diameter [mm]	22.0 + 0.15/- 0.05
Height [mm]	41.9 ± 0.3
Top projection [mm]	0.8 ± 0.2
Top flat area diameter [mm]	10.0 ± 0.2
Weight [g]	49

Dimensions are given for bare cells.

#### Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast*	~ 1	+ 10 to + 45	up to 1700
Standard	16	0 to + 50	170
Trickle**			45 to 80

\* 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	17
Peak [A] at + 20°C*	130

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

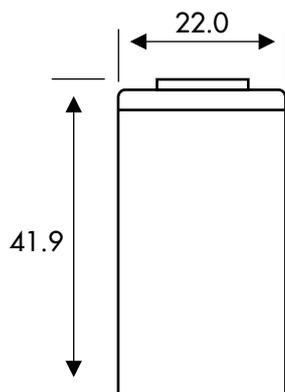


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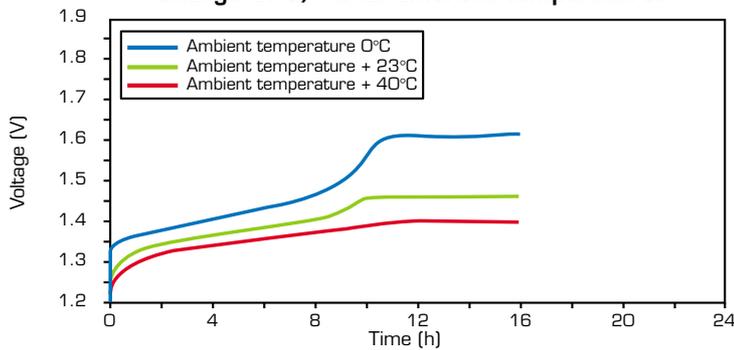
### Typical performances

For graphs shown, C is the IEC<sub>5</sub> capacity.

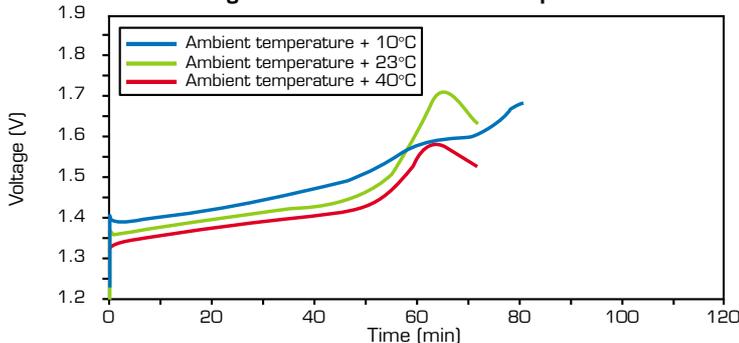
Dimensions are in mm.



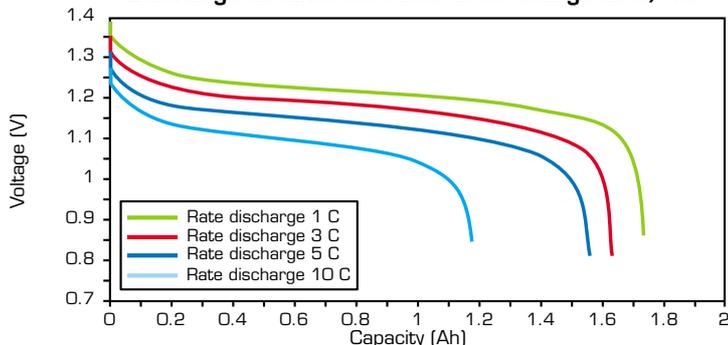
### Charge at C/10 at different temperatures



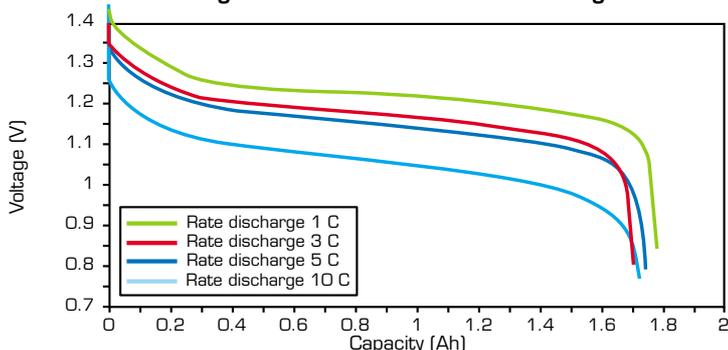
### Charge at 1 C at different temperatures



### Discharge at different rates after charge at C/10



### Discharge at different rates after charge at 1 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.

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