

# NEW!

## VRE Cs 1800 High Energy series

Nickel-Cadmium



To expand its Ni-Cd Cs offer, Saft launches a new High Energy Ni-Cd Cs cell, the VRE Cs 1800.

Developed to fit consumer power tools and home appliances, this cell is also perfectly designed for all equipment where an extended cycle life and a longer operating time are required, such as radio control toys, etc.

To meet customers requirements, Saft will provide custom-designed and standardized battery packs.

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

### Electrical characteristics

Nominal voltage (V)	1.2
IEC typical capacity (mAh) at C/5	1 800
IEC minimum capacity (mAh) at C/5	1 700
IEC designation	KRH 23/43
Impedance at 1000 Hz (mΩ)	5

### Dimensional characteristics

Diameter (mm)	22.0 ± 0.2
Height (mm)	41.9 ± 0.3
Top projection (mm)	0.8 ± 0.2
Top flat area diameter (mm)	10.5
Weight (g)	50

Dimensions are given for bare cells

### Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast	~ 1	+ 10 to + 45	1 800
Quick	~ 4	+ 5 to + 50	600
Standard	16	0 to + 50	180
Permanent		0 to + 50	90 ~ 150
Trickle*		-5 to + 50	60

\*Trickle charge follows fast, quick or standard charge

### Maximum discharge current

Continuous (A) at +20°C	18
Peak (A) at +20°C*	40

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

### Applications

- Power tools (drills, screw drivers, etc)
- Lawn and gardening equipment
- Home appliances (vacuum cleaners, etc)
- Toys and consumer products
- Payment terminals

### Main advantages

- Cycling application
- Permanent, quick and 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

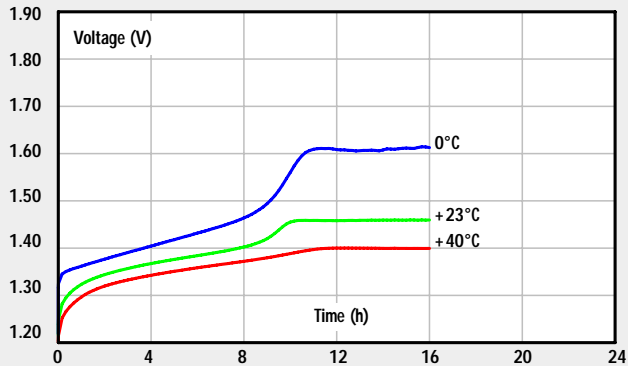
Relative humidity: 65 ± 5%

Please consult Saft for utilization of cell outside this specification

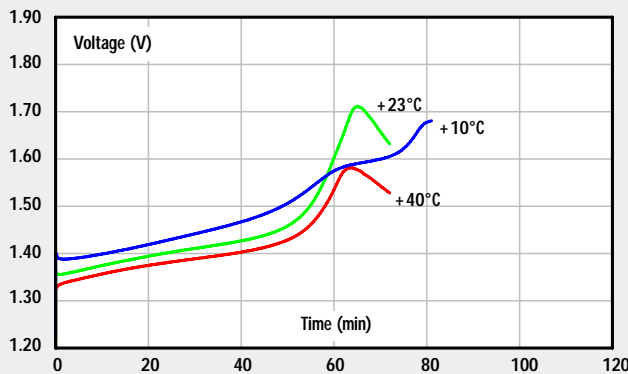
# VRE Cs 1800

## Typical performances

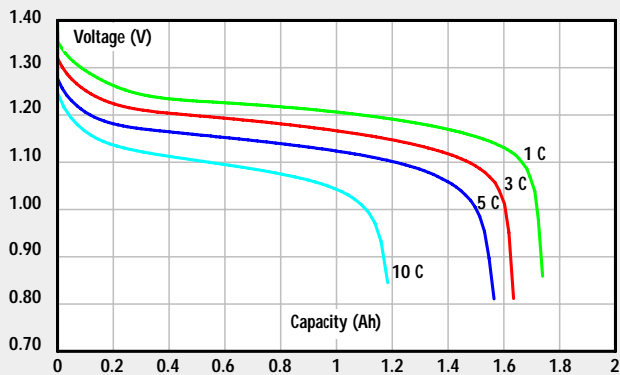
For graphs shown,  
C is the IEC C<sub>5</sub> capacity.



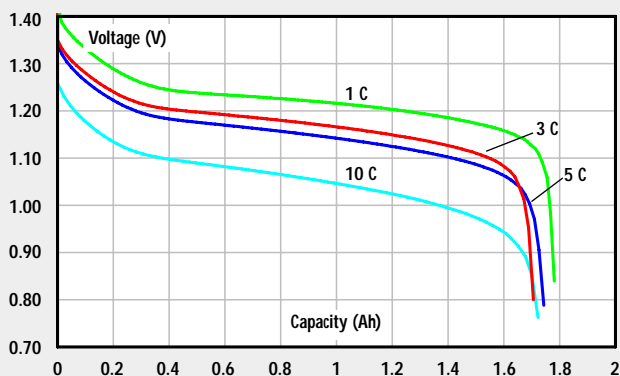
Voltage in slow charge  
current 0.1 C



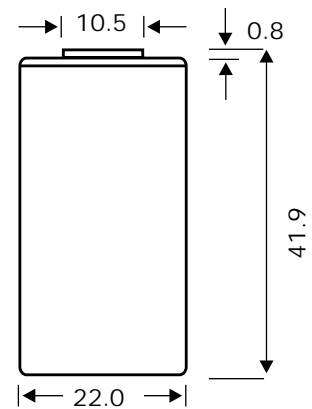
Voltage in fast charge  
current 1 C



Voltage in discharge  
at +20°C  
after charge at  
0.1 C x 16 h



Voltage in discharge  
at +20°C  
after charge at  
1 C - DV cut-off



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