

Super High Energy Series

Nickel-Metal Hydride

VH Cs 3200 XL

Saft has upgraded its Ni-MH Cs range with the VH Cs 3200 XL offering +30% more life duration than the previous version. This cell is ideally suited for cordless power tool applications requiring a fast charge and a high discharge rate (40A), as well as energy applications thanks to its excellent capacity of 3200 mAh.

To meet customers' requirements, Saft provides custom-designed and standardized battery systems including electronic monitoring units.

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

Applications

- Cordless power tools
- Professional appliances
- Professional flashlights
- Personal electric vehicles
- Radio control models
- Vacuum cleaners

Main advantages

- Super high capacity
- Excellent cycling performance
- High mid-discharge voltage
- Extended storage capability

Technology

- Foam positive electrode
- Metal-hydride negative electrode
- Innovative mechanical closure process

Temperature range in discharge

- 10°C to + 40°C



Electrical characteristics

Nominal voltage (V)	1.2
Typical capacity (mAh)*	3200
IEC rated capacity (mAh)*	3000
IEC designation	HRX 23/43
Impedance at 1000 Hz (m Ω)	<4

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

Dimensions

Diameter (mm)	22.0 ± 0.05
Height (mm)	42.7 ± 0.2
Top projection (mm)	0.8 ± 0.2
Top flat area diameter (mm)	9.0 min
Weight (g)	58

Dimensions are given for bare cells.

Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast	1-2	0 to + 35	up to 3000
Standard	16	0 to + 40	300
Topping	(after a main charge)		200 to 300
Trickle*	(after topping)		80 to 100

End of charge cut-off is requested: dT/dt recommended, -dV acceptable.

Maximum discharge current

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

* Peak duration: 0.3 second - final discharge Voltage 0.6 Volt/Cell.



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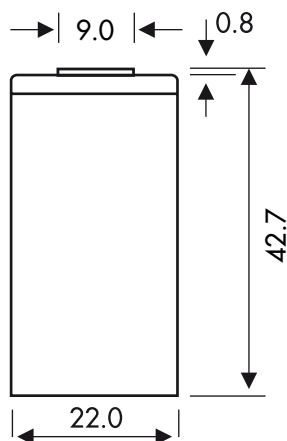
Storage

Recommended: + 5°C to + 25°C
Relative humidity: 65 ± 5 %

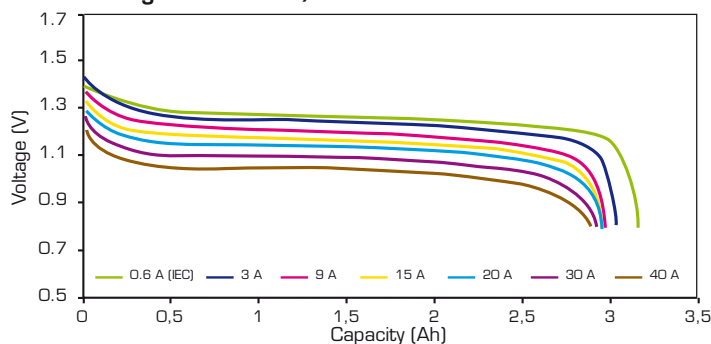
Typical performances

For graphs shown, C is the IEC₅ capacity.

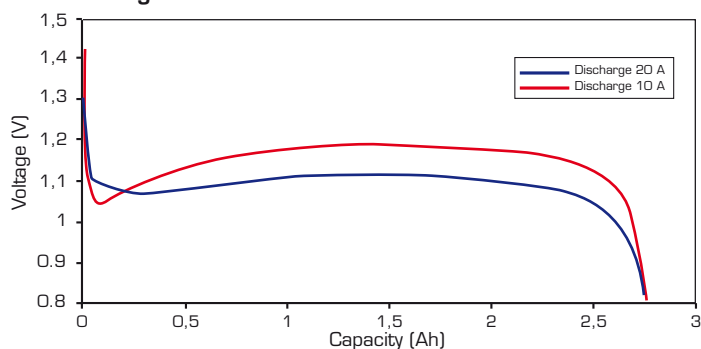
Dimensions are in mm.



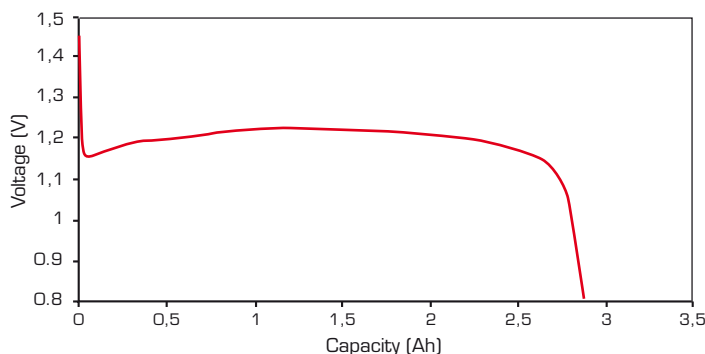
Discharge at different discharge rates at room temperature after charge 2h24 at C/2



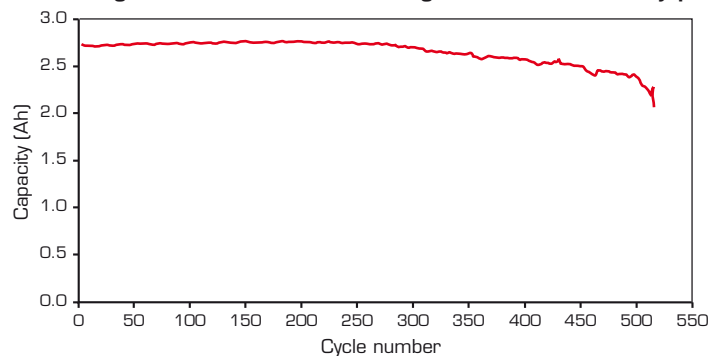
Discharge at different discharge rates at -10°C after charge at C



Discharge at 5A at -20°C after charge at C



Capacity evolution during cycling at room temperature (Discharge at 10A after fast charge for a 18V battery pack)



Data are given for single cells.
Please consult Saft for any use of this cell in other conditions than those given in this data sheet.

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