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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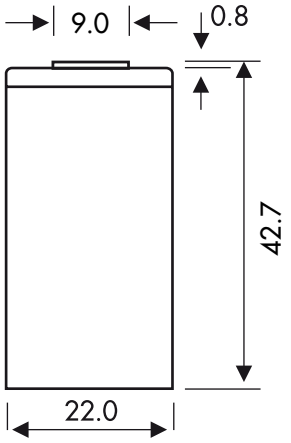
Storage

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

Typical performances

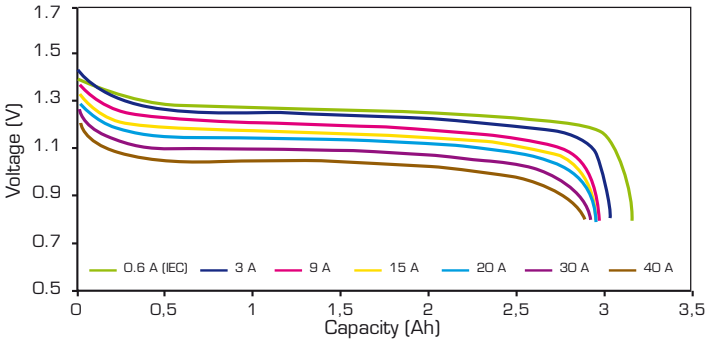
For graphs shown, C is the IEC_5 capacity.

Dimensions are in mm.

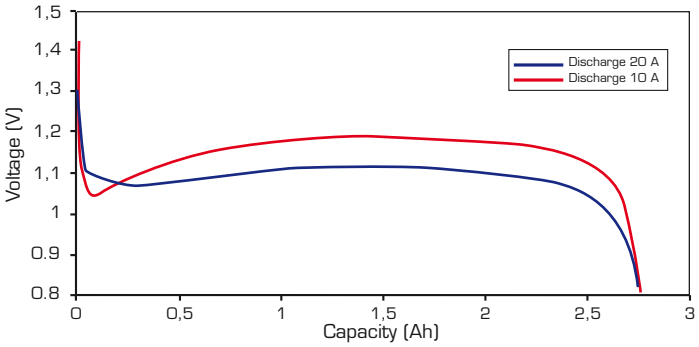


Data are given for single cells. Please consult Saft for any use of this cell in other conditions than those given in this data sheet.

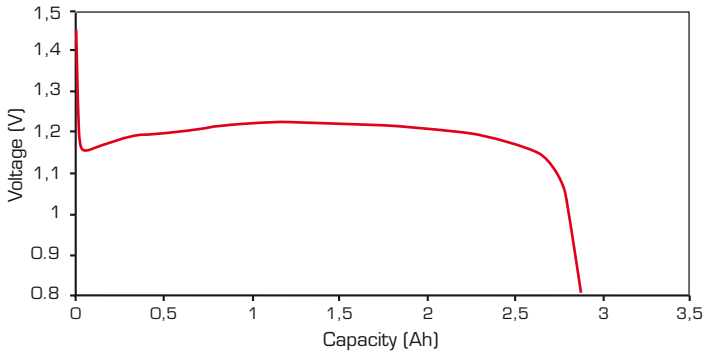
Discharge at different discharge rates at room temperature after charge 2h24 at C/2



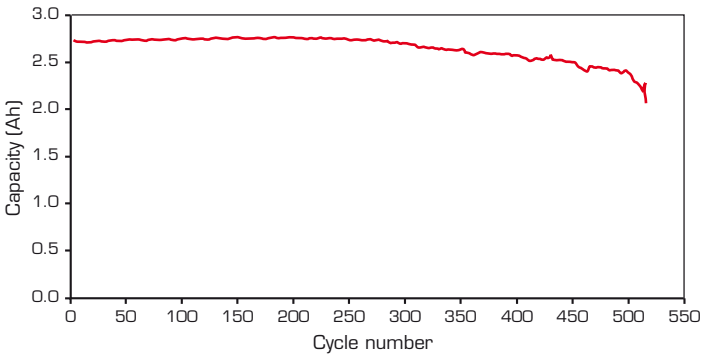
Discharge at different discharge rates at -10°C after charge at C



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)



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