High Energy Series

Nickel-Cadmium VSE 4/5 A

Saft has upgraded its Ni-Cd product offer and has launched the VSE 4/5 A cell to meet the needs of increasingly light and compact applications.

Foam electrode technology has especially been developed for the VSE series. The result is an "ultra-high energy" battery, fully recommended for the whole range of professional appliances.

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

- Professional appliances
- Radio control models
- Home appliances
- Communication appliances

Main advantages

- Cycling application
- · Quick and fast charge
- · Super high energy series giving a higher operating time
- · Good storage retention

Technology

- Foam 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)*	1300
IEC minimum capacity (mAh)*	1200
IEC designation	KRMR 17/43
Impedance at 1000 Hz (m Ω)	17

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

Dimensions	
Diameter (mm)	16.6 ± 0.1
Height (mm)	42 ± 0.3
Top projection (mm)	0.7 ± 0.2
Top flat area diameter (mm)	4 ± 0.2
Weight (g)	28

Dimensions are given for bare cells.

Charge conditions			
Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast	~1	+ 10 to + 40	1200
Standard	16	0 to + 50	120
Trickle*			30 to 40

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	3.6
Peak (A) at + 20°C*	38

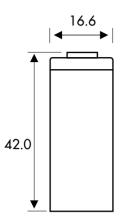
^{*} Peak duration: 0.3 second - final discharge voltage 0.65 volt/cell.



Typical performances

For graphs shown, C is the $\rm IEC_5$ capacity.

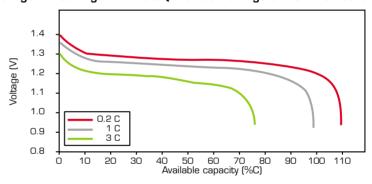
Dimensions are in mm.



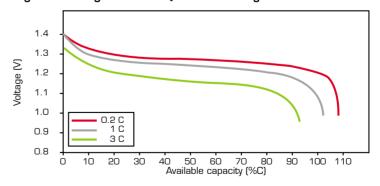
Voltage in slow charge (current O.1 C) 1.7 1.6 2.0°C + 20°C + 40°C 1.6 1.7 1.8 1.9 1.9 1.19 1.10

Voltage in fast charge (current C) 10°C 1.7 20°C 45°C 1.6 Voltage [V] 1.5 1.4 1.3 1.2 20 30 40 50 Time (min) 60 70 80

Voltage in discharge at + 20°C (after slow charge 0.1 C x 16 hours at + 20°C)



Voltage in discharge at + 20°C (after fast charge 0.1 C x 1.2 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.

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