

Technical Specifications for SoftBattery® Reg 1,5V, Mini 1,5V and Reg 3,0V

Enfucell's thin, flexible and eco-friendly SoftBattery® is made with Enfucell allPrinted™ technology. It represents a new generation of battery technology, and offers a completely new level of performance in terms of customized dimensions and efficiency in manufacturing process, compared to conventional battery technology.

SoftBattery® is best suited for applications with average power consumption below 1,0 mW. Typical applications include RFID tags and microsensors, pharmaceutical & cosmetical transdermal delivery patches, functional packaging & printing and new disposable applications.

	Reg 1,5V	Mini 1,5V	Reg 3,0V
Dimensions			
Maximum thickness	0,7 mm	0,7 mm	0,7 mm
Outer dimensions (± 1 mm)	60 mm x 72 mm	36 mm x 46 mm	60 mm x 42 mm
Maximum weight ⁽¹⁾	2,9 g	0,90 g	1,4 g
Performance⁽²⁾			
Nominal voltage ⁽³⁾	1,5 V	1,5 V	3,0 V
Minimum initial capacity	90 mAh ⁽⁴⁾	18 mAh ⁽⁵⁾	10 mAh ⁽⁶⁾
Initial internal resistance	~50 Ω	~150 Ω	~300 Ω
Shelf lifetime	Min. 2 years	Min. 1 year	Min. 1 year
General			
Chemistry	Zinc - Manganese dioxide – Zinc chloride		
Operating temperature ⁽⁷⁾	-35 °C...50 °C (-31 °F...122 °F)		
Operating humidity ⁽⁸⁾	20...90 %RH		

(1) Average for 10 cells.

(2) Temperature 23 °C (73 °F), relative humidity 50 %.

(3) Open circuit voltage 1,5V...1,8V and 3,0...3.6V, respectively.

(4) Current 0,6 mA, cut-off voltage 0,9 V.

(5) Current 0,2 mA, cut-off voltage 0,9 V.

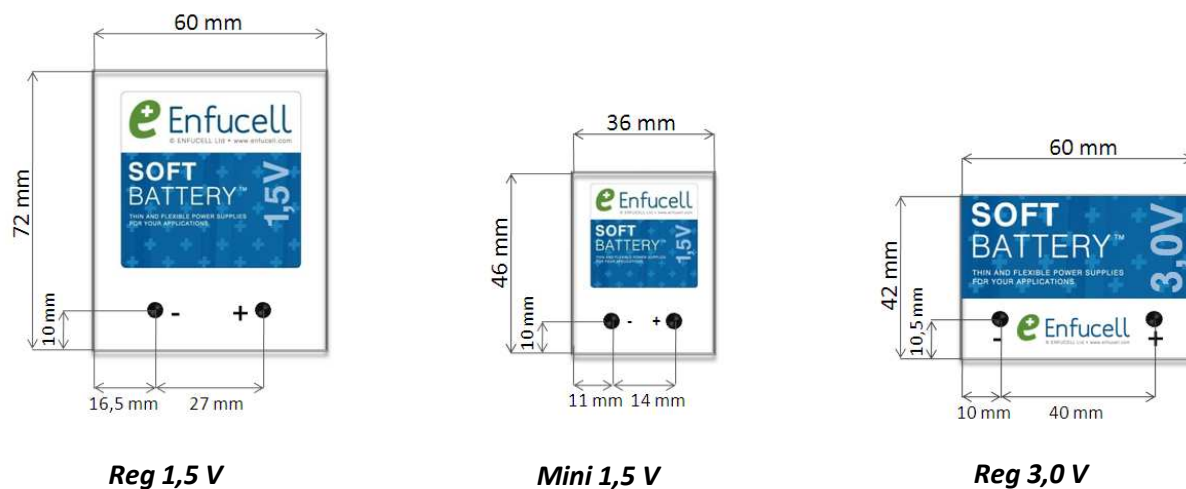
(6) Current 0,2 mA, cut-off voltage 1,8 V.

(7) Only limited exposure to elevated temperatures is recommended. Reduced performance at temperatures below 0 °C (32 °F).

(8) Only limited exposure to extreme humidity conditions is recommended.

Bending: SoftBattery® can be attached to a curved surface with a minimum radius of 25 mm. Frequent bending may reduce the performance.

Please ask for a datasheet of SoftBattery Dev 4,5V and Dev 6,0V developmental versions.



All dimensions are in mm. Tolerances are up to ± 1 mm.
 Anode and cathode terminal holes have diameter of 4 mm.
 CAD files are available on request.

Customized SoftBattery® versions: Outer dimensions, thickness and shape of battery as well as terminal size and location can be tailored according to customer needs.

Storage: For optimal battery performance, please store the batteries between 0 °C...10 °C (32 °F... 50 °F) and keep them in the sealed bag until use. This will minimize the chemical processes inside the batteries and therefore extend the lifetime.

Materials: Carefully chosen plastic films with optimal characteristics to SoftBattery® performance are used as sealing materials. Standard products have conventional plastic films that are used in packaging industry but other grades are available on request. Anode and cathode terminals are made of polymer based conductive ink. All materials are RoHS compatible.

Disposal and recycling: Contact your local authorities for disposal or recycling regulations in your area. Inks printed on packaging are non-toxic. Therefore, packaging of SoftBattery® can be disposed of in normal household waste or recycled.

Warning: SoftBattery® is not rechargeable, attempt to recharge will damage the battery.

Further information and recommendations for attaching and connecting SoftBattery® to applications are available on request.



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