


## TECHNICAL SPECIFICATIONS FOR SOFTBATTERY®

 **5238 1.5V – 3535 1.5V – 3654 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 medical and logistics sensors, pharmaceutical & cosmetical transdermal delivery patches, functional packaging & printing and new disposable applications.

SoftBattery	5238 1.5V	3535 1.5V	3654 3.0V
<b>Dimensions</b>			
Thickness	0.7 mm	0.7 mm	0.7 mm
Outer dimensions	52 mm x 38 mm	35 mm x 35 mm	36 mm x 54 mm
Maximum weight <sup>(1)</sup>	2.4 g	1.0 g	2.0 g
<b>Performance <sup>(2)</sup></b>			
Nominal voltage <sup>(3)</sup>	1.5 V	1.5 V	3.0 V
Minimum initial capacity <sup>(4)</sup>	40 mAh @ 1 mA	20 mAh @ 1 mA	20 mAh @ 1 mA
Initial internal resistance	~ 55 Ω	~ 80 Ω	~ 90 Ω
Maximum peak current <sup>(4)</sup>	10 mA (5 ms)	10 mA (5 ms)	10 mA (5 ms)
Shelf lifetime <sup>(5)</sup>	Min. 2 years		
<b>General</b>			
Chemistry	Zinc – Manganese dioxide – Zinc chloride		
Operating temperature <sup>(6)</sup>	-35°C...50°C (-31°F...122°F)		
Operating humidity <sup>(7)</sup>	20...90 %RH		

(1) Average for 10 cells.

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

(3) Open circuit voltage 1.5 V...1.8 V and 3.0 V...3.6 V, respectively.

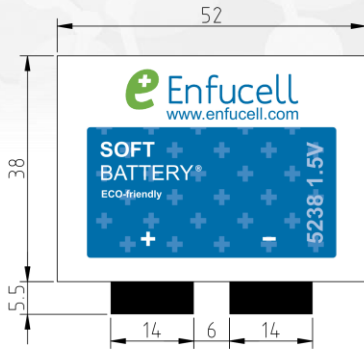
(4) Cut-off voltage 0.9 V and 1.8 V, respectively.

(5) In original battery package at 23°C (73°F).

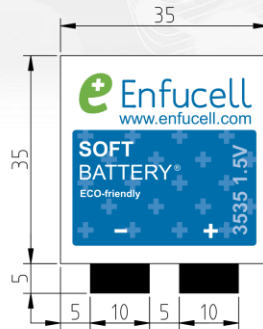
(6) Only limited exposure to elevated temperatures is recommended. Reduced performance below 0°C (32°F).

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

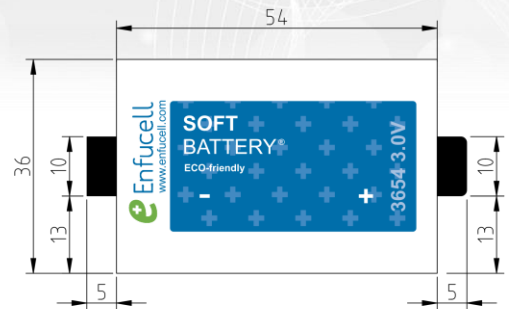





5238 1.5V





3535 1.5V





3654 3.0V


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**Bending:** SoftBattery® can be attached to a curved surface with a minimum radius of 35 mm. Frequent bending may reduce the performance.
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**Customized SoftBattery® versions:** Outer dimensions, thickness and shape of battery as well as terminal size and location can be tailored according to customer needs.
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**Storage:** For optimal battery performance, 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 and physical processes inside the batteries and therefore retain the lifetime.
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**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.
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**Disposal and recycling:** Contact your local authorities for disposal or recycling regulations in your area. Inks printed on battery package are non-toxic. Therefore, packaging materials of SoftBattery® can be recycled or disposed of among normal household waste.
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**Warning:** SoftBattery® is not rechargeable. Attempts to recharge will damage the battery.
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**Warranty:** All specifications and technical advice are based on our most current knowledge and experience. Use of the SoftBattery® products is beyond our control and, therefore, entirely at your responsibility.

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