



# Super Pulse Capacitor SPC



The EVE design and production of the super pulse capacitor (EVE-SPC) is a momentary high-current discharge energy storage devices can be achieved within a temperature range of -40 °C to 85 °C pulse discharge. EVE-ES pulse power is a long-life lithium batteries and super pulse capacitor in parallel with the power system, is the ideal power source for long-term standby and high-current pulse applications. In terms of design, EVE uses a unique safety valve and sealing, to ensure power supply in the use of process safety and reliability.

### Key Feature

- High and stable Voltage 3.6V(optional 3.9V)
- High pulse current capability
- No passivation effects
- Wide operating temperature range(-40°C to +85°C)
- Very low self discharge(less than 2% per year)
- End of life indication capability
- High reliability(Hermetic laser sealing,PS sealing cap group)
- Light weight
- Safe design(Anti-explosion valve device)

### Main Applications

- Utility Meters(AMR)
- GPS tracking devices/GSM modems
- Asset,Container & Cargo Tracking
- RFID transponders
- Sonar Buoys
- Data loggers
- Communication Equipment
- Emergency & Medical Devices

| Model DataSheet | Cell Size Ref | Nominal Capacity(Ah) | Nominal Discharge Current (mA) | Dimensions (metric) Diameter / Height |
|-----------------|---------------|----------------------|--------------------------------|---------------------------------------|
|-----------------|---------------|----------------------|--------------------------------|---------------------------------------|

#### ES POWER SYSTEM PACKS

|          |            |       |   |                    |
|----------|------------|-------|---|--------------------|
| ES141520 | Main Power | 2.40  | 2 | Ø 16.5 X 75.0      |
| ES261520 | Main Power | 8.50  | 3 | Ø 29.0 X 67.0      |
| ES341520 | Main Power | 19.00 | 4 | Ø 34.0 X 78.0      |
| ES141550 | Main Power | 2.40  | 2 | 55.0 X 32.0 X 16.0 |
| ES261550 | Main Power | 8.50  | 3 | 55.0 X 44.0 X 28.0 |
| ES341550 | Main Power | 19.00 | 4 | 64.0 X 50.0 X 35.0 |

| Model DataSheet | Cell Size Ref | Nominal Capacity(As) | Nominal Discharge Current (mA) | Dimensions (metric) Diameter/Height | Available Terminations |
|-----------------|---------------|----------------------|--------------------------------|-------------------------------------|------------------------|
|-----------------|---------------|----------------------|--------------------------------|-------------------------------------|------------------------|

#### SPC SERIES

|         |       |     |     |             |             |
|---------|-------|-----|-----|-------------|-------------|
| SPC1520 | 2/5AA | 140 | 50  | 15.1 X 21.0 | S I 2PT 3PT |
| SPC1550 | AA    | 560 | 100 | 15.1 X 51.0 | S I 2PT 3PT |

| Model | Reference Model | Nominal Voltage(V) | Nominal Capacity(mAh) | Maximun Continuous Current(mA) | Maximun Pulse Current(mA) | Operating Temperature(°C) | Maximun Dimensions(mm) Diameter/Height | Weight (g) |
|-------|-----------------|--------------------|-----------------------|--------------------------------|---------------------------|---------------------------|--|------------|
|-------|-----------------|--------------------|-----------------------|--------------------------------|---------------------------|---------------------------|--|------------|

#### ER SERIES

|          |       |     |       |     |     |             |              |     |
|----------|-------|-----|-------|-----|-----|-------------|--------------|-----|
| ER14250  | 1/2AA | 3.6 | 1200  | 15  | 50  | -60°C~+85°C | 14.5 X 25.4  | 10  |
| ER14335  | 2/3AA | 3.6 | 1650  | 75  | 150 | -60°C~+85°C | 14.5 X 33.5  | 12  |
| ER14505  | AA    | 3.6 | 2700  | 40  | 150 | -60°C~+85°C | 14.5 X 50.5  | 19  |
| ER17505  | A     | 3.6 | 3600  | 130 | 180 | -60°C~+85°C | 17.5 X 50.5  | 26  |
| ER18505  | A     | 3.6 | 4000  | 130 | 180 | -60°C~+85°C | 18.7 X 50.5  | 28  |
| ER26500  | C     | 3.6 | 8500  | 150 | 300 | -60°C~+85°C | 26.2 X 50.0  | 52  |
| ER34615  | D     | 3.6 | 19000 | 230 | 400 | -60°C~+85°C | 33.1 X 61.5  | 100 |
| ER341245 | DD    | 3.6 | 35000 | 420 | 500 | -60°C~+85°C | 33.1 X 124.5 | 195 |

※Latest version can be downloaded from EVE website at [www.evebattery.com](http://www.evebattery.com)

# SPC1520

## Electrical Characteristics (For batteries stored at RT for 1 year or less)

Capacity when charged to 3.67 V----- 140 As  
 Capacity when charged to 3.90 V----- 210 As  
 Discharge end voltage 2.5 V (discharge below 2.5 V at RT may increase the SPC1520 internal impedance).

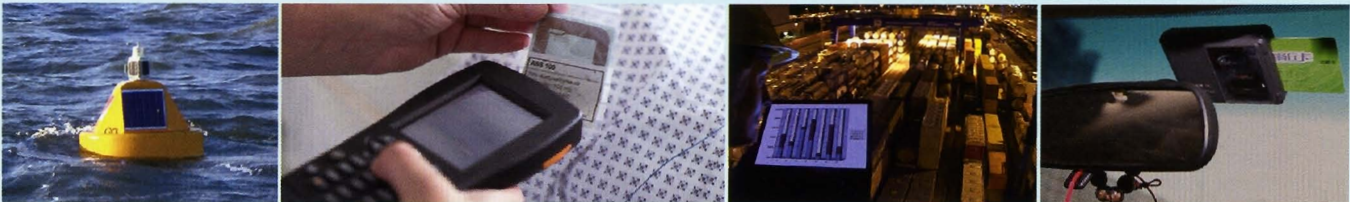


## Operating Conditions

Maximum discharge current:  
 Continuous----- 0.5 A  
 Pulse, 1 sec----- 2.0 A  
 Charge (constant current)  
 Max. charge voltage----- 3.95 V  
 Max. charge current----- 50 mA  
 Operating temperature range----- -40°C ~ +85°C  
 Storage temperature range----- -40°C ~ +60°C  
 AC impedance at RT----- < 150 mΩ at 1 kHz  
 Self discharge at RT----- 1 μA  
 Self discharge at 80°C----- 5 μA

Shelf life at different storage temperature to 80% of initial capacity

| Temperature | SPC1520 | SPC1520 and ER Battery System |
|-------------|---------|-------------------------------|
| RT          | 3 years | 10 years                      |
| 60°C        | 4 weeks | 7 years                       |
| 80°C        | 1 week  | At least 1 year               |



## Electrical Characteristics (For batteries stored at RT for 1 year or less)

# SPC1550

Capacity when charged to 3.67 V----- 560 As  
 Capacity when charged to 3.90 V----- 850 As  
 Discharge end voltage 2.5 V (discharge below 2.5 V at RT may increase the SPC1550 internal impedance).



## Operating Conditions

Maximum discharge current:  
 Continuous----- 2.0 A  
 Pulse, 1 sec----- 5.0 A  
 Charge (constant current)  
 Max. charge voltage----- 3.95 V  
 Max. charge current----- 100 mA  
 Operating temperature range----- -40°C ~ +85°C  
 Storage temperature range----- -40°C ~ +60°C  
 AC impedance at RT----- < 100 mΩ at 1 kHz  
 Self discharge at RT----- 3 μA  
 Self discharge at 80°C----- 15 μA

Shelf life at different storage temperature to 80% of initial capacity

| Temperature | SPC1550 | SPC1550 and ER Battery System |
|-------------|---------|-------------------------------|
| RT          | 3 years | 10 years                      |
| 60°C        | 4 weeks | 7 years                       |
| 80°C        | 1 week  | At least 1 year               |

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