### Vision

Make the Best Lithium Battery in the World, and Become a Technology Leader

### Mission

Providing the Highest Quality Lithium Battery to Society



# Contents Company Introduction About EVE 01 Manufacturing Capability 02 Primary Lithium Battery Li-SOCI2 Batteries 05 Li-MnO2 Batteries 07 Li-FeS2 Batteries 09 High Temperature Batteries 11 Implantation Type Batteries 12

3	Rechargable Lithium-ion Battery					
	Lithium-ion Batteries	15				

Energy Storage System 17

Super Pulse Capacitor

SPC 19

SPC1520 / SPC1550 20

Advanced Battery Leading Technology Start the Intelligent Life

### Advanced Lithium Battery



### Provide the Highest Quality Lithium Battery to Society

EVE Energy Co., Ltd was founded in 2001 and specializes in high-energy lithium batteries. EVE is the largest provider of Primary lithium cells within China. In October 2009, EVE became the first company listed on GEM in Shenzhen (Stock code: 300014.SZ).

EVE insists on independent development and technological innovation. Today EVE holds 79 national patents, two of which were granted the "China Patent Award of Excellence" by the State Intellectual Property Office, and possessed the advantages of technology and production scale in the field Lithium batteries.

EVE has worked hard to earn the trust of all our customers. Customers who demand high quality products, competitive pricing and above all open lines of communication which allow on time delivery dates. Many of our innovative products require a fast turnaround timeframe. EVE must have the flexibility to offer this service without sacrificing quality. The customer's requirements always come first. Our job is to listen to those requirements and then formulate a production plan. EVE has become the one of the major global suppliers with advanced technology level in "Green" high-energy lithium batteries. Presently our products are widely used in the following application fields, Global intelligent meters, Automotive, Safety and Security, Data communications, Intelligent transportation, Consumer electronics, E-cigarette, Model Airplane, Power tools, E-bike and Energy storage etc.

Make the Best Lithium Battery in the World, and Become a Technology Leader.

### Manufacturing Capability

Safety and reliability is the primary consideration of lithium battery, and EVE sets up our quality standard of lithium battery. According to the following standards:













### **Automation Equipment and Scale Production**

With advanced automatic equipments and high-tech analytical instruments, EVE has formed the comprehensive and high-volume manufacturing capabilities for design, cell production and battery assembly.







### **Major Awards**

EVE was identified as the one of the first 29 Innovative Enterprises in Guangdong province by Guangdong Science and Technology Department in 2008

EVE was identified as "National torch plan key high-tech enterprise" by Ministry of Science and Technology in 2009

EVE was identified as The Demonstration Enterprises of "Top innovative enterprises developing project" by Guangdong Ministry of Science and Technology Department in 2010

EVE was approved to build "Post-Doctoral Scientific Research Center" by National Human Resources Department in 2010

EVE was identified as the one of the first 50 "Strategic Emerging Industry Backbone Enterprises" by Guangdong Economic and Information Commission in 2010

EVE was identified as the provincial "Key Laboratory for Enterprises" by Guangdong Science and Technology Department in 2011

EVE was approved to build "Lithium Battery Engineering Center with national engineering power" by Guangdong Science and Technology Department in 2012





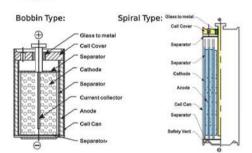
# Lithium Primary Battery

Li-SOCl <sub>2</sub> Batteries	05
Li−MnO₂ Batteries	07
Li−FeS₂ Batteries	09
High Temperature Batteries	11
Implantation Type Batteries	12





Lithium thionyl chloride cells have a metallic Lithium anode (the lightest of all the metals) and a liquid cathode comprising a porcus carbon current collector filled with thionyl chloride (SOCl2). They deliver a voltage of 3.6 V and are cylindrical in shape, in 1/2AA to D format, with spiral electrodes for power applications and bobbin construction for prolonged discharge. Lithium thionyl chloride batteries are the primary battery currently with the highest voltage and energy, longest storage, and the least self-discharge rate. Those batteries are ideal for such long-term applications as power for electric devices and electric power, water, heat and gas meters, and especially as a backup power source for memory ICS.



### **Applications**

- AMR utility metering
- (Electricity meter, Gas meter, Water meter and Heat meter)
- Automated meter reading
- Alarms and security wireless devices
- Mobile asset tracking
- GPS
- Emergency location transmitters beacons (ELTs, EPIRBs)
- Professional electronics
- Military radiocommunication
- Sonobuoys
- Oil exploration
- Automotive telematics
- Telemetry







### Key Feature

### High Cell Voltage

The battery has an open-circuit voltage of 3.67V and an operating voltage of 3.60V, which are considerably higher than in any other commercially available primary batteries.

### Wide Operating Temperature Range

The battery is capable of operation in a wide temperature range normally from ~60°C to +85°C. One special series has an extended temperature range up to 150°C.

### High Energy Density

The electrochemical system exhibits the highest energy density of any available primary battery, up to 650Wh/kg and 1280Wh/L.

### Long Operating Life and Superior Shelf Life

The self-discharge of Li/SOCI<sub>2</sub> battery is extremely low (less than 1% per year at 20°C), which can support long storage periods and achieve a service life of 10 to 20 years.

### **Excellent Safety**

The complete line of products is recognized and regularly supervised by Underwriters Laboratories, and meet UN transportation test requirements.

### Hermetically Sealed Case

The hermetically sealed case is essential for the long shelf life and inherent safety of the devices in which the batteries are used. The cover is welded to the can. A glass—to—metal seal is used to insulate the positive terminal. A safety vent is used on the negative terminals for spiral type.

Product Portfolio January 2013

Model	Reference Model	Nominal Voltage(V)	Nominal Capacity(mAh)	Maximun Continuous Current(mA)	MaximunPulse Current(mA)	Operating Temperature(°C)	MaximunDimensions (mm)	Weight (g)
CYLINDRICAL	CELLS(BO	BBIN TYPE	)					
ER13170		3.6	550	10	20	-60℃-+85℃	13.5 X 17.8	6
ER14250	1/2AA	3.6	1200	15	50	-60℃-+85℃	14.5 X 25.4	10
ER14335	2/3AA	3.6	1650	35	75	-60℃~+85℃	14.5 X 33.5	12
ER14505	AA	3.6	2700	50	150	-60°C~+85°C	14.5 X 50.5	19
ER17335	2/3A	3.6	2100	60	100	-60℃-+85℃	17.5 X 33.5	17
ER17505	Α	3.6	3600	130	180	-60℃~+85℃	17.5 X 50.5	26
ER18505	Α	3.6	4000	130	180	-60℃~+85℃	18.7 X 50.5	28
ER26500	С	3.6	8500	150	300	-60℃-+85℃	26.2 X 50.0	52
ER34615	D	3.6	19000	230	400	-60℃-+85℃	33.1 X 61.5	100
ER341245	DD	3.6	35000	420	500	-60℃-+85℃	33.1 X 124.5	195
CYLINDRICAL	CELLS(BO	BBIN PULS	E TYPE)					
ER14250V	1/2AA	3.6	1200	40	100	-60℃-+85℃	14.5 X 25.4	10
ER14505V	AA	3.6	2600	100	200	-60℃-+85℃	14.5 X 50.5	19
CYLINDRICAL	CELLS(BO	BBIN TYPE	SAFE-PLUS SE	ERIES)				
ER14250H	1/2AA	3.6	1200	35	50	-60℃~+85℃	14.5 X 25.4	10
CYLINDRICAL	CELLS (SF	PIRAL TYPE	SAFE-PLUS SE	ERIES)				
ER14250M	1/2AA	3.6	750	100	250	-60℃-+85℃	14.5 X 25.4	10
ER14335M	2/3AA	3.6	1300	200	500	-60℃~+85℃	14.5 X 33.5	15
ER14505M	AA	3.6	2000	400	1000	-60℃~+85℃	14.5 X 50.7	21
ER17505M	А	3.6	2800	1000	2000	-60℃-+85℃	17.5 X 50.5	29
ER18505M	Α	3.6	3500	1000	2000	-60℃-+85℃	18.7 X 50.5	33
ER26500M	С	3.6	6000	1000	2000	-60℃~+85℃	26.2 X 50.0	55
ER34615M	D	3.6	13000	2000	4000	-60℃-+85℃	33.1 X 61.5	110
WAFER CELL	S					-		
ER22G68	BEL	3.6	400	5	20	-60℃~+85℃	22.6 X 8.0	6
ER32L65	1/10D	3.6	1000	10	50	-60℃-+85℃	32.9 X 7.1	19
ER32L100	1/6D	3.6	1700	10	50	-60℃-+85℃	32.9 X 10.5	24
HIGH-TEMPE	RATURE SI	ERIES		-				
ER14250MR-150	1/2AA	3.6	800	50	100	-40℃-+150℃	14.7 X 25.4	10
ER21102MR-150	Slim CC	3.6	10000	200	400	-40°C~+150°C	21.0 X 103.0	78
ER26102S-150	CC	3.6	16000	340	700	-40℃~+150℃	25.4 X 103.0	103
ER321250MR-150	DD	3.6	28000	425	850	-40°C~+150°C	32.5 X 127.5	189
ER331270HR-150	DD	3.6	28000	500	1000	-40°C~+150°C	32.8 X 127.5	189
PRISMATIC C	ELLS		1,000,000			A MARIE MAGICANA		
EF651615	LTC-3FN	3.6	400	5	20	-60℃-+85℃	16.8 X 15.8 X 6.8	5
EF651620	LTC-5FN	3.6	550	10	20	-60℃-+85℃	16.8 X 20.1 X 6.8	6
EF651625	LTC-7FN	3.6	800	7	10	-60℃~+85℃	16.8 X 25.8 X 6.8	8
EF702338	LTC-16M	3.6	1600	20	50	-60℃~+85℃	23.3 X 38.3 X 7.2	19
PROFESSION	IAL TPMS C	ELLS(COIN	TYPE)					
ER14100		3.6	280	5	15	-60°C~+125°C	14.5 X 11.0	4.5
ER1860		3.6	280	5	15	-60℃~+125℃	18.2 X 6.5	5.5
ER2450T		3.6	500	5	20	-60°C~+125°C	24.5 X 6.2	9
PROFESSION	IAL TPMS C		MATIC TYPE)					
EF651615T	LTC-3FN	3.6	400	10	20	-60℃~+125℃	16.8 X 15.8 X 6.8	5
EF651625T	LTC-7FN	3.6	750	10	30	-60°C~+125°C	16.8 X 25.8 X 6.8	8



Lithium manganese dioxide cells have a metallic Lithium anode (the lightest of all the metals) and a solid manganese dioxide cathode, immersed in a non-corrosive, non-toxic organic electrolyte. They deliver a voltage of 3V and are cylindrical, coin and soft pack in shape, in 1/2 AA to D format, with spiral electrodes. EVE's original sealing technology and highly heat-resistant material expends operating temperature range remarkably, making the batteries supremely suitable for automobile applications ---- for powering TPMS (Tire Pressure Monitoring System) sensors.

### Key Feature

### High Cell Voltage

The battery has an operating voltage of above 3.00V, which are considerably higher than in any other commercially available primary batteries.

### Flexible Configurations

The battery is available in a wide range of solder contact configurations, wire connector or in combination with battery holder.

### **Excellent Storage Characteristics**

The self-discharge of Li/MnO<sub>2</sub> battery is extremely low (less than 1% per year at 20°C), which can support up to 10 years storage with minimum deterioration.

The complete line of products is recognized and regularly supervised by Underwriters Laboratories, and meet UN transportation test requirements. No need for expensive safety electronics.

### **Environmental Friendly**

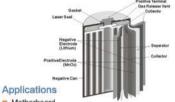
Li/MnO<sub>2</sub> batteries contain no polluting metals, such as cadmium, lead, mercury, etc., or the contents of the polluting metals are within the international standards.

### Wide Operating Temperature Range

The battery is capable of operation in a wide temperature range normally from -40°C to +85°C for cylindrical type and -20°C to +70°C for button type. Particularly EVE also offers high temperature button cells for TPMS application with -40℃ to +125℃.



### Cylindrical Spiral Type:



- Motherboard
- Remote
- Hazardous gas sensor
- Electronic access control systems
- Fire alarm electronic product
- High-end electronic toys
- Digital cameras
- Utility meter
- Medical equipment
- Logistics identification and tracking systems
- ETC
- Electronic tags
- Test meters



**Product Portfolio** January 2013

Model	Reference Model	Nominal Voltage(V)	Nominal Capacity(mAh)	Maximun Continuous Current(mA)	MaximunPulse Current(mA)	Operating Temperature(℃)	MaximunDimensions (mm)	Weight (g)
							备注: *CR123A为	半密封结构
CYLINDRICA	AL CELLS(BO	DBBIN TYPE	E)					
CR14250		3.0	650	500	1500	-40℃~+85℃	14.5 X 25.0	11
CR14335		3.0	800	1000	2000	-40℃~+85℃	14.5 X 33.5	14
CR14505		3.0	1600	1500	3000	-40℃~+85℃	14.5 X 50.5	21
CR2		3.0	850	1000	2000	-40℃~+85℃	15.6 X 27.0	13
CR15270		3.0	850	1000	2000	-40℃~+85℃	15.6 X 27.0	13
CR17250		3.0	750	1000	2000	-40°C-+85°C	17.0 X 25.0	14
CR17335		3.0	1500	700	2500	-40℃~+85℃	17.0 X 33.8	16.5
CR123A*		3.0	1500	1500	3000	-40℃~+60℃	17.0 X 34.5	17
CR17450		3.0	2400	1500	3000	-40℃~+85℃	17.0 X 45.0	23
CR17505		3.0	2400	1500	3000	-40°C~+85°C	17.0 X 50.5	30
CR18505		3.0	2800	2000	3000	-40℃~+85℃	18.5 X 50.5	35
CR26500		3.0	5000	2000	3000	-40℃~+85℃	26.0 X 50.5	62
CR34615		3.0	10000	2000	3000	-40℃~+85℃	34.0 X 61.5	125
2CR5		6.0	1500	1500	3000	-40℃~+85℃	34.0 X 17.0 X 45.0	42
CR-P2		6.0	1500	1500	3000	-40℃~+85℃	35.0 X 19.5 X 36.0	42
CR14250SE		3.0	950	7	70	-40°C~+85°C	14.5 X 25.0	11.5
CR17335SE		3.0	2000	10	100	-40℃~+85℃	17.0 X 7.5 X 33.55	18
BUTTON CE	LLS							
CR1025		3.0	30	2	5	-20℃~+70℃	10.0 X 2.5	0.6
CR1216		3.0	28	2	5	-20℃~+70℃	12.5 X 1.6	0.7
CR1220		3.0	35	2	5	-20℃~+70℃	12.5 X 2.0	0.9
CR1225		3.0	50	2	5	-20°C~+70°C	12.5 X 2.5	1.0
CR1616		3.0	50	3	8	-20℃~+70℃	16.0 X 1.6	1.2
CR1620		3.0	70	3	8	-20℃~+70℃	16.0 X 2.0	1.3
CR1625		3.0	95	3	8	-20℃~+70℃	16.0 X 2.5	1.4
CR1632		3.0	120	3	8	-20℃~+70℃	16.0 X 3.2	1.6
CR2016		3.0	80	3	15	-20℃~+70℃	20.0 X 1.6	1.8
CR2025		3.0	160	3	15	-20℃~+70℃	20.0 X 2.5	2.5
CR2032		3.0	225	3	15	-20℃-+70℃	20.0 X 3.2	3.1
CR2320		3.0	150	6	25	-20℃~+70℃	23.0 X 2.0	2.9
CR2330		3.0	225	6	25	-20℃~+70℃	23.0 X 3.0	4.0
CR2354		3.0	500	6	25	-20℃~+70℃	23.0 X 5.4	6.0
CR2430		3.0	280	6	25	-20℃~+70℃	24.5 X 3.0	4.5
CR2450		3.0	600	6	25	-20℃~+70℃	24.5 X 5.0	6.5
CR2477		3.0	1000	6	25	-20℃~+70℃	24.5 X 7.7	8.0
CR3032		3.0	500	6	25	-20℃-+70℃	30.0 X 3.2	7.5
BUTTON CE	LLSFORLE	D						
CR2032SL		3.0	300000(CYCLE)	15mA 1.8S ONE CYCLE	15	-20℃-+70℃	20.0 X 3.2	3.1
VOLT CEL	LS							
CR9V-P		9.0	1200	120	400	-40°C-+85°C	26.2 X 17.2 X 49.2	50.5
SOFT PACK	CELLS							
CF502445		3.0	1100	120	400	-40℃-+60℃	5.2 X 25.0 X 45.0	9
CF284646		3.0	800			-40℃-+60℃	2.9 X 46.0 X 46.0	9
CF652230		3.0	800	300	500	-40℃-+60℃	6.7 X 23.0 X 31.0	6.5

\*\*Latest version can be downloaded from EVE website at www.evebattery.com 07

### Li-FeS<sub>2</sub> Batteries



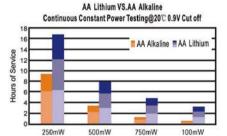
Cylindrical lithium iron disulfide batteries have Lithium for the anode, iron disulfide for the cathode, and a lithium sait in an organic solvent blend as the electrolyte. They deliver a voltage of 1.5 V and are designed for superior performance. They are compatible in any application using 1.5 volt battery types AA and AAA. Some of the advantages of those batteries are: work at low temperature extremes where other types will not, excellent performance even after 15 year storage at ambient conditions and longer service than other primary battery types.

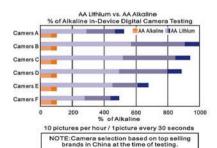


AA FR6



AAA FR03





### **Applications**

- Digital cameras
- Wireless mouse or keyboard
- GPS
- Calculators
- Digital Video
- Electronic clocks
- Medical equipment
- Electronic dictionaries
- Measuring instrument
- Sensors
- Radio transceiver
- Other electronic equipments





### Key Feature

Direct drop-in compatibility in applications using 1.5 volt "AA" and "AAA" battery sizes.

Far greater power than other battery types.

Provides longer service than other battery types in moderate to heavy drain applications.

Greater service advantage over other battery types at low temperature extremes operating at -40°C.

Higher operating voltage and flatter discharge curve than other 1.5V battery types.

Superior leakage resistance compared to other 1.5V battery types.

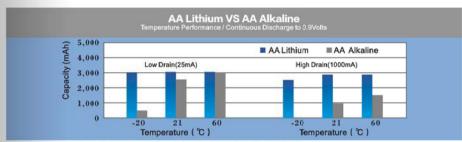
Outstanding service maintenance when stored at ambient conditions.

Considerably lighter than other 1.5V battery types.

Good service maintenance after high temperature storage up to +60  $^{\circ}\text{C}$  .

No added mercury, cadmium, or lead.

### Product Portfolio January 2013



Comparison of capacity between Li-FeS2 battery and alkaline battery at different temperature and discharge current

### Characteristics

Characteristics	Lithium	Alkaline	Ni/MH
Temperature	Superior	Good	Superior
Weight	33% <alkaline< td=""><td>33%&gt;Lithium</td><td>33%<alkaline< td=""></alkaline<></td></alkaline<>	33%>Lithium	33% <alkaline< td=""></alkaline<>
Shelf Life	10 to 15 Years	5 to 7 Years	3 to 5 Years
Leakage Resistance	Superior	Good	Good
Discharge Curve	Flat	Sloping	Flat
High Rate Capability	Superior	Fair	Superior

### **AA Specifications**

Items	Specifications	Remarks
Nominal Voltage(V)	1.5	
Max Continuous Current(mA)	2000	
Max Pulse Current(mA)	3000mA	2 sec on; 8 sec off
Operating Voltage(V)	1.5	Discharged at 200mA
Nominal Capacity(mAh)	3000	Discharged at 1000mA to 0.8 Volt at 20 ± 2℃
Operating Temp(°C)	-40~60	None Section State of the Section Sect
Typical Weight(g)	15.6	
Typical Li Content(g)	0.98	
Storage Temp(℃)	10-30	Battery self-discharge rate increases with the rise of environmental temperature and humidity, so recommended temperature at 5°C-30°C and humidity less then 70%RH
Shelf Life	15 Years	

### **AAA Specifications**

Items	Specifications	Remarks
Nominal Voltage(V)	1.5	
Max Continuous Current(mA)	1000	
Max Pulse Current(mA)	2000	2 sec on; 8 sec off
Operating Voltage(V)	1.5	Discharged at 100mA
Nominal Capacity(mAh)	1250	Discharged at 350mA to 0.8 Volt at 20 ± 2°C
Operating Temp(°C)	-40~60	
Typical Weight(g)	7.0	
Typical Li Content(g)	0.5	
Storage Temp(℃)	10-30	Battery self-discharge rate increases with the rise of environmental temperature and humidity, so recommended temperature at 5°C-30°C and humidity less then 70%RH
Shelf Life	15 Years	



### **Electrical Characteristics**

(typical values for cells stored for one year or less,at +30℃)	
Nominal capacity	28A
varies according to current drain, temperature and cut off voltage.	
Nominal capacity	3.6\
Maximum recommended continuous current	500m/
(To get 50% of the nominal capacity at +20°C with 2.0V cut off. Higher currents possible, consult EVE.)	
Storage (Recommended)	+30%
(for more severe condition consult EVE)	
Operating temperature range	40°C-+150°1
(Operation at temperature different from ambient may lead to reduced capacity and lower voltage plateau readings)	
Cell Diameter(nominal)	
Cell Lengty(nominal)	127.5mm
Cell Weigth	1899
Lithium Weight	

Model	Reference Model	Nominal Voltage(V)	Nominal Capacity(Ah)	Maximun Continuous Current(mA)	Operating Temperature(°C)	MaximunDimensions (mm)	Weight (g)
CYLINDRICAL CEL	LS						
ER14250MR-150	1/2AA	3.6	0.8	50	-40℃~+150℃	14.5 X 25.4	10
ER26102S-150	cc	3.6	16	340	-40°C~+150°C	25.4 X 103.0	103
ER331270HR-150	DD	3.6	28	500	-40°C-+150°C	32.8 X 127.5	189
ER321250MR-150	DD	3.6	28	450	-40℃~+150℃	32.5 X 127.5	189
ER21102MR-150	Slim CC	3.6	10	200	-40°C~+150°C	21.0 X 103.0	78







### **Key Feature**

Stainless steel container

Primary cell(non-rechargeable)

High voltage response, stable during most of the lifetime of the application

Hermetic glass-to-metal sealing

Built to withstand extreme shock and vibration

Wide operating temperature range as low as -40℃ and up to +150℃

Low self discharge rate(1%per year at 20℃)

Restricted for transportation(Class 9)

Custom terminations available

### Main Applications

- · Downhole oil & gas
- Measurement While Drilling(MWD)
- Logging While Drilling(LWD)
- · Military devices

INTERNATIONAL SIZE REFERENCE: CC



### Implantation Type Lithium Thionyl Chloride Batteries

### Capabilities

Very high energy density Low rate discharge for primary batteries with a good shelf life

### Main Applications

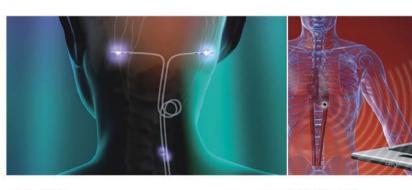
- Implantable electrical nerve stimulation device
- Implantable cardiac pacemakers
- Implantable nerve monitoring system

### Nominal Capacity (350mAh to 8Ah)

## Chemistry SOCI2 Case Material Titanium or Stainless Shape Parismatic or D-Shaped Internal Configuration Bobbin or Elliptical Wound Volume (CC) 1.66 to 24 Weight 5.0g to 55g

### **Cell Operating Parameters**

Open Circuit Voltage	3.6	
Nominal Running Voltage	3.5 (C/350)	
Min. discharge voltage	3.0	
Self Discharge Rate:	<2% per year	
measured at 20°C		
Energy Density (Wh/I)	800 to 1,000	



### **Key Feature**

High energy density, and the ability of pulses; Self-discharge rate, long service life; Stable discharge voltage, 37°C under the current output is stable; Fully sealed, not overnight, no radiation, good safety performance;

### **Typical Applications**

### Neurostimulation

Drug Pumps and Body Fluid Pumps Monitors

11



### Rechargable Lithium-ion Battery

Lithium-ion Batteries 15
Energy Storage System 17





Lithium-ion battery as one kind of rechargeable energy is getting more and more attentions according to the worldwide energy saving. Based on the development concept of "Supply Safe and Reliable" EVE offers a variety of high performance lithium-ion batteries with advanced automation equipments including polymer lithium-ion cell, prismatic Lithium-ion cell, Cylindrical Lithium-ion cell, lithium-ion energy storage and power battery.

### Key Feature

### High Energy Density

The energy density of EVE lithium-ion batteries varies from chemistry to chemistry. The specific energy density can range from 100 Wh/Kg to 125 Wh/Kg, and volumetric energy density from 250 Wh/L to 300 Wh/L.

### High Voltage

The operating voltage of single Lithium-ion cell is 3.7V, equivalent to 3 series nickel-cadmium battery or nickel metal hydrogen battery.

### Long Cycle Life

The cycle life of lithium-ion battery is over 500 in normal discharge condition.

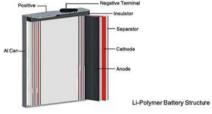
### Lower Self-discharge

The self-discharge rate is 2% per month, and only half of nickelcadmium battery or nickel metal hydrogen battery.

### **Environmental Friendly**

Lithium-ion batteries contain no polluting metals, such as cadmium, lead, mercury, etc., or the contents of the polluting metals are within the international standards.

### Prismatic Battery Structure





### Applications

Prismatic and cylindrical lithium-ion batteries are widely used in the area of mobile phone, laptop, backup power source, UPS, power tools, E-bike and digital products, etc.

Polymer lithium-ion batteries could be used in even more applications because of their changeable shape, such as MP3/MP4, Bluetooth, Portable DVD, E-Cigarette, E-book, Toys, GPS, etc.







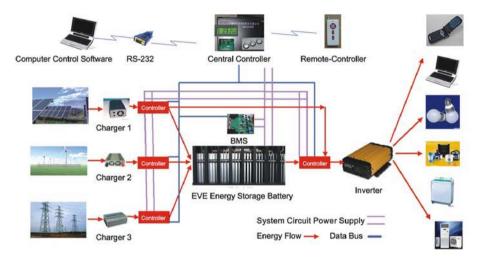
Product Portfolio January 2013

Model	Nomina Capacity (mAh)	Min Capacity (mAh)	MaximunDimensions (mm)	Max impedance < (mohm)	Nominal Voltage(V)	Weight (g)	Chemistry	Applications
Energy Stora	age & Power	Battery		1.0				
26650	3000	2950	26.0 X 65.0	15	3.2	84	LFP	
32650	4000	3950	32.2 X 65.0	15	3.2	115	LFP	
32650	5000	4900	32.2 X 65.0	12	3.2	150	LFP	
8568270	10000	9800	85.0 X 68.0 X 270.0	10	3.2	280	LFP	
1067220	10000	9800	10.0 X 67.0 X 220.0	10	3.2	280	LFP	EV UEV Devented
75103193	10000	9800	7.5 X 103.0 X 193.0	10	3.6	250	NCM	EV. HEV. Power tool
8067220	10000	9800	8.3 X 67.0 X 220.0	10	3.6	220	NCM	Energy storage device
8568270	10000	9800	8.5 X 68.0 X 270.0	10	3.7	270	LMO	
1184121	15000	14500	11.0 X 84.0 X 121.0	4	3.6	250	LiCo	
10150225	20000	19600	10.0 X 150.0 X 225.0	6	3.2	580	LFP	
12155230	20000	19600	12.0 X 155.0 X 230.0	2	2.3	830	LTO	
Digital Produ	icts Special E	Battery		-	- Indiana			
402030	185	180	4.2 X 20.5 X 30.5	150	3.7	4.2		Mp3 / Mp4
602025	190	180	6.2 X 20.5 X 20.5	150	3.7	4.2		Mp3 / Mp4
402035	230	230	4.2 X 20.5 X 35.5	120	3.7	5.2		Mp3 / Mp4
602030	250	260	6.2 X 20.5 X 30.5	100	3.7	6		Lighter
602035	385	380	6.1 X 20.5 X 35.5	150	3.7	8		Education pen
602535	470	460	6.2 X 25.5 X 35.5	100	3.7	9.1		Power grid
423248	600	600	6.0 X 32.5 X 48.5	60	3.7	14		Cell phones
483264	1000	1000	4.8 X 32.5 X 64.5	50	3.7	17.5		Camera
503759	1200	1200	5.2 X 37.5 X 59.5	80	3.7	23.3		GPS
305080	1250	1200	3.2 X 50.5 X 80.5	60	3.7	22		Digital products
523759	1300	1300	5.4 X 37.5 X 59.5	80	3.7	25		Cell phones
803443	1300	1250	8.2 X 34.5 X 43.5	60	3.7	23.5		GPS
325686	1650	1600	3.4 X 56.5 X 86.5	60	3.7	30		Tablets
433695	2000	2000	4.5 X 36.5 X 95.5	60	3.7	35		Tablets
6532100	2300	2300	6.7 X 32.5 X 100.5	40	3.7	38		DVD
605080	2350	2300	6.2 X 50.5 X 80.5	50	3.7	40		DVD
4573100	2850	2800	4.7 X 73.5 X 100.5	40	3.7	50		Tablets
465895	3100	3050	4.8 X 58.8 X 95.5	40	3.7	55		Tablets
505895	3500	3500	5.3 X 58.5 X 95.5	40	3.7	55		Tablets
4561121	4750	4700	4.7 X 61.5 X 121.5	50	3.7	100		Tablets
E-cigar Spe	11.00	111111111111111111111111111111111111111						
06600	100	90	6.5 X 62.0	120	3.7	2.3		
75360	120	110	7.8 X 38.0	120	3.7	2.5		
75400	150	140	7.8 X 42.0	100	3.7	3.0		
75530	200	190	7.8 X 54.0	100	3.7	3.9		
08330	135	125	8.5 X 35.0	100	3.7	2.7		
08400	190	180	8.5 X 42.0	100	3.7	4.0		
08500	250	230	8.5 X 52.0	80	3.7	5.4		E-cigar
08570	280	270	8.5 X 59.0	80	3.7	5.9		
08600	280	270	8.5 X 62.0	80	3.7	6.4		
130450	660	650	13.5 X 47.0	50	3.7	12.5	-	
130600	910	900	13.5 X 62.0	50	3.7	16.8		
100000	310	900	10.0 \ 02.0	30	0.1	10.0		

\*Latest version can be downloaded from EVE website at www.evebattery.com

### **Energy Storage System**

With the emergence of wind power, solar power and the other new energy sources, and development of intelligent grid technology as well, large-scale energy storage station is come into being to meet peak power allocation. EVE is developing the environmental-protection lithium-ion energy storage battery with the lightest, fast charge and discharge, and cycle life of over 15,000 times to meet the future demand of energy storage stations and new energy vehicle charging stations. EVE strives to become an advanced enterprise in the field of energy storage battery industry before 2015.



### Main Function

New energy generation directly to the household power supply, excess electricity can be stored by the battery.



### Main Function

More convenient modular design, assembly and disassembly, subject to the upgrading and expansion

Long-life design, EVE storage battery life of more than 8 years

Redundant design to adapt to a variety of complex application environments Interactive design, easier maintenance

interactive design, dasier maintenance

Intelligent design, PC computer software monitoring

A key to start, automatic



Product Portfolio January 2013

	Moble	CNXT- 1000-A1	CNXT- 2000-A1	CNXT- 6000-A	CNXT- 6000-B	CNXT- 10000-B	Remark
	Capacity(Wh)	1000	2500	6000	6000	10000	
Battery	Chemical Systems	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4	
	Life	≥8year	≥8year	≥8year	>8year	≥8year	
	Mains voltage (V)	110V/60HZ	110V/60HZ	110V/60HZ	230V/50HZ	230V/50HZ	
	The solar power generation module voltage (V)	DC72V	DC72V	DC144V	DC144V	DC288V	Optional
Import	Wind turbine components voltage (V)	110V/60HZ	110V/60HZ	110V/60HZ	230V/50HZ	230V/50HZ	Optional
	Rated power (W)	350	350	750	750	1250	
	Rated charging time (h)	3	7.2	8	8	8	
	Rated voltage (V)	110V/60HZ	110V/60HZ	110V/60HZ	230V/50HZ	230V/50HZ	
Export	Rated power (W)	400	1000	1500	1500	2500	
	Rated discharge time (h)	2.5	2	4	4	4	
Power Supply	Operating voltage (V)	24/12/5/3.3	24/12/5/3.3	24/12/5/3.3	24/12/5/3.3	24/12/5/3.3	
	Maximum power consumption (mA)	200	220	280	280	390	
	Maximum standby power consumption (mA)	5	6	10	10	14	
	Automatically select the input source	٧	V	٧	٧	٧	
	Priority output of green energy (battery, solar, grid Valley Electric)	٧	v	٧	v	v	
Function	Automatic battery charge and discharge	cc-cv	cc-cv	cc-cv	cc-cv	cc-cv	
unction	Connect the PC,	RS-232	RS-232	RS-232	RS-232	Ethernet	Optional
	LCD parameter display			V	V	V	
	LED status indication	٧	V	٧	v	٧	
	Abnormal sound and light alarm	٧	V	V	v	٧	
	Battery over-voltage protection	٧	V	V	٧	٧	
	Battery overcurrent protection	٧	V	V	v	V	
Protection	Battery over-discharge protection	٧	V	V	٧	V	
	Battery over-temperature protection	٧	V	v	v	V	
	Battery short-circuit protection	٧	V	V	v	V	
	Shape	Box-type	Box-type	Cabinet-type	Cabinet-type	Cabinet-type	
Eutoria-	Length (mm)	685	710	600	600	800	
Exterior	Width (mm)	225	250	450	450	500	
	Height (mm)	316	546	900	900	1100	
Weight	Machine weight (KG)	≤16	≤30	≤90	≤90	≤170	

\*\*Latest version can be downloaded from EVE website at www.evebattery.com

### 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 Data Sheet	Cell Size Ref	Nominal Capacity(mAh)	Nominal Discharge Current (mA)	Dimensions (metric) Diameter / Height
ES POWER S	YSTEM PACKS			
ES141520	Main Power	2400	2	Ø16.5 X 75.0
ES261520	Main Power	8500	3	Ø29.0 X 67.0
ES341520	Main Power	19000	4	Ø34.0 X 78.0
ES141550	Main Power	2400	2	55.0 X 32.0 X 16.0
ES261550	Main Power	8500	3	55.0 X 44.0 X 28.0
ES341550	Main Power	19000	4	64.0 X 50.0 X 35.0

Model Data Sheet	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 2PI 3PI
SPC1550	AA	560	100	15.1 X 51.0	S I 2PI 3PI

Model	Reference Model	Nominal Voltage(V)	Nominal Capacity(mAh)	Maximun Continuous Current(mA)	MaximunPulse Current(mA)	Operating Temperature(℃)	MaximunDimensions Diameter×Height(mm)	Weight
ER SERIES				-				
ER14250	1/2AA	3.6	1200	15	50	-60℃~+85℃	14.5 X 25.4	10
ER14335	2/3AA	3.6	1650	75	150	-60℃~+85℃	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℃~+85℃	17.5 X 50.5	26
ER18505	A	3.6	4000	130	180	-60℃~+85℃	18.7 X 50.5	28
ER26500	С	3.6	8500	150	300	-60℃~+85℃	26.2 X 50.0	52
ER34615	D	3.6	19000	230	400	-60℃~+85℃	33.1 X 61.5	100
ER341245	DD	3.6	35000	420	500	-60℃~+85℃	33.1 X 124.5	195

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

SPC1520

Discharge end voltage 2.5 V (discharge below 2.5 V at RT may increase the SPC1520 internal impedance).



### Mechanical Characteristics

Length21.0 mm max	Diameter15.1 mm max	Weight7.5 gr max
		Trong

### **Operating Conditions**

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

Temperature	SPC1520	SPC1520 and ER Battery System	
RT	3 years	10 years	
60℃	4 weeks	7 years	
308	1 week	At least 1 year	

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

at RT for 1 year or less) SPC 1550

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).



### **Mechanical Characteristics**

Length51.0 mm max	Diameter15.1 mm max	Weight20.5 gr max
-------------------	---------------------	-------------------

### **Operating Conditions**

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

Temperature	SPC1550	SPC1550 and ER Battery System
RT	3 years	10 years
60℃	4 weeks	7 years
30℃	1 week	At least 1 year

19







Sales company and sales office in the USA, Canada and Brazil

Sales office and distributor in Europe, including: England, Germany, France, Russia, Netherlands, Bulgaria, Poland, Turkey and Scandinavia

Sales office in Asia & Pacific, including: Hongkong, Taiwan, Japan, Korea, India, Israel , Singapore and Malaysia

- 甲方确认设计内容与设计效果符合甲方要求。 设计内容:文字数据与图片信息; 设计效果:画册尺寸以合同为主,画册纸张与色彩效果,印刷成品和打样稿存在10%内的色差,属于正常范围;
- 一旦甲方确认设计,项目将进入制作阶段。
- 3. 制作阶段期间,如甲方需要对已经确认的项目进行调整,甲方则需要承担额外的调整费用,费用经商议后,再另行修改。
- 4. 经甲方确认审核,乙方的项目设计符合甲方要求,特此认可。 本样稿由甲方代表人签字确认生效,进行印刷。

(本协议内容为签字确认稿,此内容将不会出现在印刷成品内)

### EVE ENERGY CO., LTD.

No.36, Huifeng 7th Road, Zhongkai Hi-Tech Zone, Huizhou, Guangdong, China Tel: +86-752-2606966 Fax: +86-752-2606033

E-mail: sales@evebattery.com

Web: www.evebattery.com



















