



Vision Group Company Profile

June.2024

VRLA & SODIUM

SHENZHEN CENTER POWER TECH.CO.,LTD.

Stock code **002733**

C O N T E N T S

Part 01



Company
Introduction

Part 02



Group
Organization

Part 03



Products and
Technology
Introduction

Part 04



Sodium Products

1994 Founded | 2014 Public

The world's leading provider of smart energy solutions



Mission

Green Our Earth
Power Your Vision



corporate vision

To be a global leader in smart
energy solution



Stock Code

002733



400+ R&D



4000+ Employees



Shenzhen Nanshan

▶ Head Office

Hubei Wuhan

▶ Hydrogen factory

Hubei Jingshan

▶ VRLA & LFP Factory

Shenzhen Dapeng

▶ LFP Factory

Shanxi Datong

▶ Hydrogen factory

Vietnam

▶ VRLA & LFP Factory

Our service network covers more than **100+** countries and regions worldwide. Dedicated to providing solutions for valve-regulated lead-acid batteries, lithium-ion batteries, fuel cells and other products

1994

Company officially established

2003

Lithium company established

2005

Hubei Vision established

2007

Vietnam Factory established

2009

European branch established

2011

US branch established

2014

Vision Battery Stock Listing

2014

HydraV Fuel Cell Co., Ltd. established

2018

Vietnam lithium factory established and operation

2019

Hydrogen fuel cell reactor in operation

2020

Awarded national level post-doctoral research station

2021

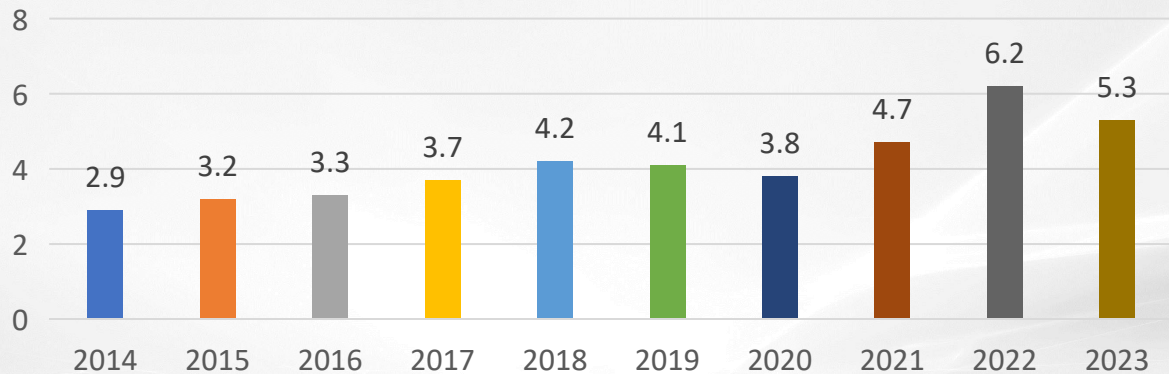
Selected as one of the top 500 companies in Shenzhen in 2021

2022

Awarded the title of "Shenzhen Famous Brand" for the sixth consecutive year
Received many awards in the field of energy storage

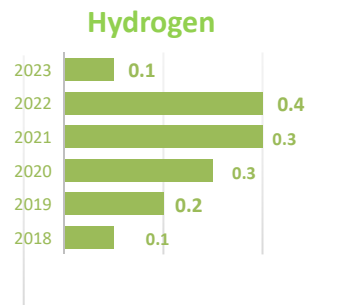
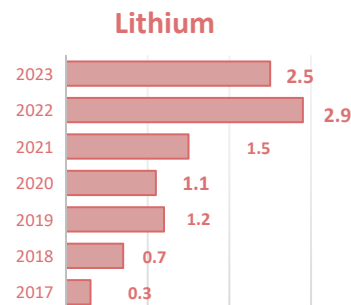
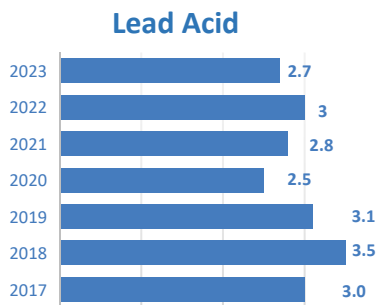
Annual sales

Unit: 100 million dollar



Product Sales Trend

Unit: 100 million dollars



ISO9001

ISO14001

ISO45001

ISO26000

IATF16949:2016



5

System
Certifications

Domestic certifications, Thiel Certification, Golden Sun Certification, Telecom Equipment Seismic Performance Test Certificate, China Electric Power Research Institute Certification, etc.; US UL Certification, EU CE Certification, Germany VDS Certification, India BIS Certification, Korea KC Certification, Saudi SASO Certification, EU/US Battery Directive, International CB Certification, IEC Test Certificate, UN38.3 Certification, EU RoHS certification, and other international certifications



15

Product
certifications

Patents for inventions
 Utility models
 Design Patents

National Postdoctoral Research Station National Enterprise Technology Centre
 National Specialized and New "Small Giant" Enterprise 2021 Global Top 500 New
 Energy Enterprises List 2021 Shenzhen Top 500 Enterprises 2020 Reputable
 Export Enterprise 2020 Top 100 Enterprises in China's Light Industry 2019 China
 Top 100 Lithium-ion Battery Export Enterprises Top 10 Enterprises in China's
 Light Industry Lead Storage Battery Industry Guangdong Famous Trademark
 Shenzhen Famous Brand Shenzhen Private Leading Backbone Enterprise



408

**Company
 Patents**



119

Honors



ecovadis

SHENZHEN CENTER POWER TECH CO LTD (GROUP)

has been awarded a
Silver medal

as a recognition of their EcoVadis Rating

- MARCH 2023 -



Ecovadis Assessment

Vision Group has accumulated rich industry battery technical experience in the past 30 years, successfully launched 3 generations of products in the market with core technologies and well recognized by global customers.



1994

Lead- acid
batteries



2003

Lithium
batteries



2014

Hydrogen
Fuel Cell

SOLUTION

Energy
storage

UPS

Motive
Power

Telecom

PRODUCTION MANUFACTURING

With **6** production bases located in Shenzhen, Jingshan, Wuhan, Datong and in China, and Ho Chi Minh in Vietnam, Annual lead-acid battery capacity **5GWh**, Annual lithium battery capacity **5GWh**, Annual Hydrogen fuel cell stacks **28,000** sets

Vietnam

Scale -- **82000m²**

Capacity -- Approx. **300,000** KVAH/Month

Approx. **800,000** Small batteries /Month ,
250,000 Big Batteries /Month.



Wuhan&Datong

Scale -- **220000m²**

Capacity -- **35000** Sets/Yea (Fuel cell generator systems)



Shenzhen

Scale – **180,000m²**

Capacity -- Batteries approx. **1.2GWh/Year**
Stack approx. **5000** Sets/Year

Jingshan, Hubei

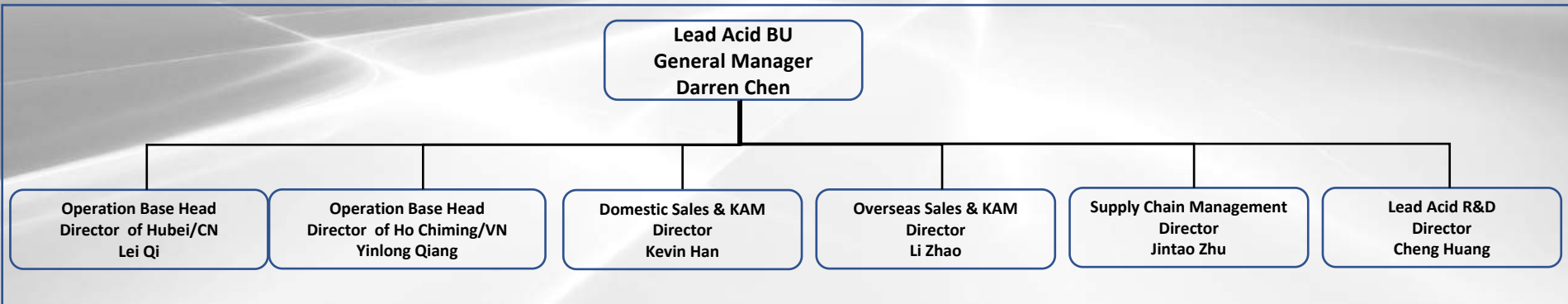
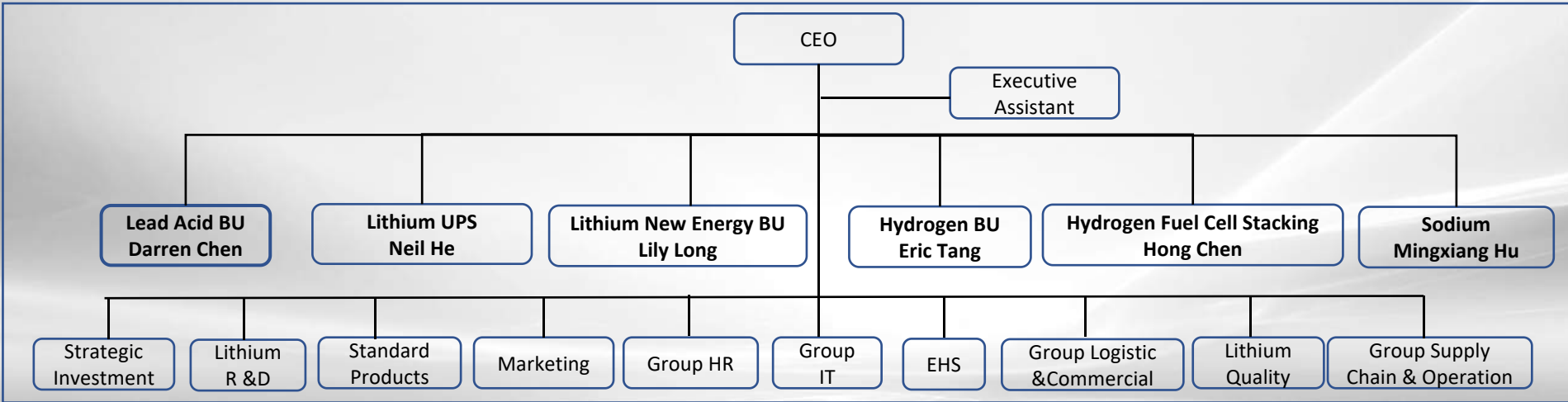
Scale -- **220000m²**

Capacity -- Polar plates **60,000** Tons/Year
Batteries **2750,000** KVAH/Year

Hubei Lithium

Scale -- **100000m²**

Capacity -- Approx. **4** GWh/Year



Product Introduction

V R L A

B a t t e r y



World-Leading Smart Energy Solution Provider

Vision Lead Acid Product



- AGM CP Series
- AGM FM Series
- AGM UPS Series
- AGM CT&CTA Series
- CG Series
- EV Series
- CL Series
- Deep Cycle Series



AGM CP Series

BATTERY TYPE	NOMINAL VOLTAGE(V)	Nominal Capacity (20hr/Ah)	LENGTH		WIDTH		HEIGHT		TOTAL HEIGHT		TERMINAL	WEIGHT (APPROX)	
			mm	in	mm	in	mm	in	mm	in		Kg	lbs
CP1208	12	0.8	96	3.78	25	0.98	62	2.44	62	2.44	T9/T13/T14 T15/T47	0.34	0.75
CP1212	12	1.2	97	3.82	43	1.69	52	2.05	58	2.28	F1	0.53	1.17
CP1223	12	2.3	178	7.01	35	1.38	61	2.4	67	2.64	F1	0.99	2.18
CP1223C	12	1.8	182	7.17	24	0.94	61	2.4	61	2.4	T10	0.65	1.43
CP1229	12	2.9	79	3.11	55.5	2.19	98.5	3.88	104	4.09	F1	1.05	2.31
CP1245E	12	4.5	90	3.54	70	2.76	101	3.98	107	4.21	F1/F2	1.55	3.41
CP1250HR	12	5	90	3.54	70	2.76	101	3.98	107	4.21	F1/F2	1.72	3.79
CP1260	12	6	151	5.94	52	2.05	94	3.7	99	3.9	F1/F2/+F2-F1	2.18	4.8
CP1265Y	12	6.5	151	5.94	65	2.56	94	3.7	100	3.94	F1/F2	1.9	4.19
CP1270	12	7	151	5.94	65	2.56	93.5	3.68	100	3.94	F1/F2/+F2-F1	2.32	5.12
CP1270Y	12	7	151	5.94	65	2.56	94	3.7	100	3.94	F1/F2	2	4.84
CP1275	12	7.5	151	5.94	65	2.56	94	3.7	100	3.94	F1/F2	2.3	5.07
CP1290	12	9	151	5.94	65	2.56	94	3.7	100	3.94	F1/F2	2.8	6.17
CP6120	6	12	151	5.94	50	1.97	94	3.7	100	3.94	F1/F2	1.85	4.08
CP12120	12	12	151	5.94	98	3.86	95	3.74	101	3.98	F1/F2	3.67	8.01
CP12120D	12	12	151	5.94	98	3.86	95	3.74	101	3.98	F1/F2/+T28-F2	4.4	9.7
CP12140T	12	14	216	8.5	71	2.8	140	5.51	140	5.51	+F2-F1	4.74	10.45
CP12170	12	17	181	7.13	77	3.03	167	6.57	167	6.57	F2/F3	5.5	12.1
CP12170E	12	17	181	7.13	77	3.03	167	6.57	167	6.57	F3	5.3	11.7
CP12170E-X	12	17	181	7.13	77	3.03	167	6.57	167	6.57	F13	5.3	11.7
CP12240	12	24	166	6.54	175	6.89	125	4.92	125	4.92	F2/F3	8.1	17.8
CP12240E	12	24	166	6.54	175	6.89	125	4.92	125	4.92	F3/F4	7.6	16.8
CP12240E-X	12	24	166	6.54	175	6.89	125	4.92	125	4.92	F13	7.6	16.8
CP12280S-X	12	28	165	6.5	125	4.92	175	6.89	182	7.17	F13	9.3	20.5
CP12400F-X	12	40	197.5	7.77	165.5	6.52	170	6.69	170	6.69	F11	12.8	28.2
CP12650F-X	12	65	350	13.8	167	6.57	179	7.05	179	7.05	F11	20.4	45

Applications

- Alarm Systems
- Communications Equipment
- Toys
- Electronic Cash Registers
- Emergency lighting Systems
- Fire & Security System
- Geophysical Equipment
- Marine Equipment
- Medical Equipment
- Solar Powered System
- Telecommunications System
- Television & Video Recorder
- Uninterruptible Power Supplies
- Electrical System
- Vending Machines

General Features

- Adequate capacity & Sealed Construction
- Long Services Life & Maintenance-Free Operation
- Heavy Duty Grid
- Low Self Discharge

AGM FM Series



BATTERY TYPE	NOMINAL VOLTAGE(V)	Nominal Capacity (10hr/Ah)	LENGTH		WIDTH		HEIGHT		TOTAL HEIGHT		TERMINAL	WEIGHT(APPROX)	
			mm	in	mm	in	mm	in	mm	in		Kg	lbs
3FM33	6	33	159	6.26	85	3.35	165	6.5	171	6.73	F2	5.8	12.9
3FM225-X	6	225	320	12.6	176	6.93	225	8.86	230	9.06	F12	30.5	67.3
6FM29	12	29	166	6.35	125	4.92	187	7.36	187	7.36	S4f	10.1	22.3
6FM33-X	12	33	195	7.68	130	5.12	155	6.1	180	7.09	F7	11	24.3
6FM40	12	40	197	7.76	165	6.5	170	6.69	170	6.69	F11	14.7	32.4
6FM40E-X	12	40	197.5	7.78	165.5	6.52	170	6.69	170	6.69	F11	13.8	30.4
6FM45-X	12	45	197.5	7.78	165.5	6.52	170	6.69	170	6.69	F11	14.6	32.2
6FM55E-X	12	55	239	9.41	132	5.2	205	8.07	210	8.27	F11	15.3	33.7
6FM55-X	12	55	239	9.41	132	5.2	205	8.07	210	8.27	F11	17.3	38.2
6FM60E-X	12	60	258	10.16	166	6.54	206	8.11	215	8.46	F11	20.7	45.6
6FM60-X	12	60	258	10.2	166	6.54	206	8.11	215	8.46	F11	24	52.9
6FM65E-X	12	65	350	13.78	167	6.75	179	7.05	179	7.05	F11	22.4	49.4
6FM65-X	12	65	350	13.78	167	6.75	179	7.05	179	7.05	F11	23.4	51.6
6FM75-X	12	75	258	10.16	166	6.54	206	8.11	215	8.46	F11	22.5	49.6
6FM80-X	12	80	350	13.8	167	6.57	179	7.05	179	7.05	F11	22.5	49.6
6FM90E-X	12	90	305.5	12	168.5	6.63	210.5	8.29	215.5	8.48	F11/F12	26.5	58.4
6FM100E-X	12	100	330	12.99	171	6.73	215	8.46	222	8.74	F11/F12	29	63.9
6FM100-X	12	100	330	13	171	6.73	215	8.46	220	8.66	F11/F12	32	70.6
6FM120-X	12	120	410	16.1	176	6.73	224	8.82	224	8.82	F12	38	83.8
6FM134-X	12	134	341	13.4	173	6.73	283	11.1	287	11.3	F15	40	88.2
6FM150M-X	12	150	482	19	170	6.69	240	9.45	240	9.45	F12	42.5	93.7
6FM150-X	12	150	482	19	170	6.69	240	9.45	240	9.45	F12	48.4	106.7
6FM175-X	12	175	530	20.87	209	8.23	215	8.46	220	8.66	F12	55.5	122.4
6FM200-X	12	200	522	20.55	238	9.37	218	8.58	223	8.78	F12	65	143
6FM230-X	12	230	520	20.5	269	10.6	203	8	208	8.2	F12	72.6	160.1

Applications

- UPS
- Telecom Systems
- Solar Systems
- Cable TV
- Electric Wheelchair
- Power Station
- Marine Equipment
- Military Equipment
- Golf Car
- Electric Fork
- Electrical System
- Railway System

General Features

- High Reliability and Good Quality .
- Deep Discharge Recovery .
- High Power Density .
- Long Service Life.



Applications

- Communication equipment
- Uninterruptible power supplies
- Telecommunication systems
- Electronic cash registers
- Microprocessor based office machines
- Other standby power supplies

General Features

- Maintenance-Free Operation
- Low Self-discharge
- Front access terminals for easy and quick connection
- Low internal resistance
- Lower self discharge
- Design life 12+ years

BATTERY TYPE	NOMINAL VOLTAGE(V)	Nominal Capacity (10hr/Ah)	LENGTH		WIDTH		HEIGHT		TOTAL HEIGHT		TERMINAL	WEIGHT(APPROX)	
			mm	in	mm	in	mm	in	mm	in		Kg	lbs
CT12-50EX	12	50	277	10.9	106	4.17	229	9.02	243	9.57	F11	16.3	35.9
CT12-50X	12	50	277	10.9	106	4.17	229	9.02	243	9.57	F11	17.3	38.1
CT12-80X	12	80	564	22.2	115	4.53	189	7.44	189	7.44	F11/F19	28.2	62.2
CT12-100EX	12	100	508	20	110	4.33	223	8.78	238	9.37	F18	28.5	62.8
CT12-100X	12	100	508	20	110	4.33	223	8.78	238	9.37	F18	32.5	71.6
CT12-100X-HTB	12	100	508	20	110	4.33	223	8.94	227	8.94	F18	32.5	71.6
CT12-100YEX	12	100	508	20	110	4.33	231	9.09	231	9.09	F12	29.4	64.8
CT12-100YX-HTB	12	100	395	15.6	110	4.33	286	11.3	293	11.5	F12	31	68.3
CT12-105EX	12	105	395	15.6	110	4.33	286	11.3	293	11.5	F12	31.5	69.4
CT12-105X	12	105	395	15.6	110	4.33	286	11.3	293	11.5	F12	35	77.2
CT12-105X-TB	12	105	395	15.6	110	4.33	286	11.3	293	11.5	F12	35	77.2
CT12-125EX	12	125	436	17.2	108	4.25	317	12.5	317	12.5	F15	36	79.4
CT12-125X	12	125	436	17.2	108	4.25	317	12.5	317	12.5	F15	40	88.2
CT12-150EX	12	150	548	21.6	105	4.13	316	12.4	316	12.4	F15	45.5	100
CT12-150X	12	150	548	21.6	105	4.13	316	12.4	316	12.4	F15	48.8	107.7
CT12-150X-HTB	12	150	552	21.7	110	4.33	288	11.3	295	11.6	F12	48.8	107.7
CT12-150YX	12	150	548	21.6	105	4.13	316	12.4	316	12.4	F15	41	88
CT12-150ZEX	12	150	552	21.7	110	4.33	288	11.3	295	11.6	F12	42.5	93.7
CT12-150ZX	12	150	552	21.7	110	4.33	288	11.3	295	11.6	F12	48.2	105.3
CT12-155X	12	155	551	21.7	110	4.33	316	12.4	316	12.4	F15	52	113.6
CT12-180X	12	180	546	21.5	125	4.92	317	12.5	317	12.5	F15	58.5	129.1
CT12-180X-HTB	12	180	558	22	125	4.92	317	12.5	317	12.5	F15	58.5	129.1
CT12-180YX	12	50	546	21.5	125	4.92	317	12.5	323	12.7	F15	49.5	109.2
CTA12-50X	12	50	279	11	105	4.13	280	11	280	11	F15	20	44.1
CTA12-75X	12	75	563	22.2	115	4.53	188	7.4	188	7.4	F15	28.5	62.8
CTA12-85X	12	85	393	15.5	125	4.92	256	10.1	256	10.1	F15	33	72.8
CTA12-100X	12	100	558	22	125	4.92	228	8.98	228	8.98	F12	42	92.65
CTA12-155X	12	155	546	21.5	125	4.92	315	12.4	315	12.4	F15	61.6	135.88

AGM HFS Series



BATTERY TYPE	NOMINAL VOLTAGE(V)	Nominal Capacity (10hr/Ah)	LENGTH		WIDTH		HEIGHT		TOTAL HEIGHT		TERMINAL	WEIGHT(APPROX)	
			mm	in	mm	in	mm	in	mm	in		Kg	lbs
HFS12-115W-X	12	26	165	6.5	125	4.92	175	6.89	175	6.89	F13	9.6	21.2
HFS12-150W-X	12	33	195	7.68	130	5.12	155	6.1	168	6.61	F11	11.5	25.4
HFS12-200W-X	12	55	229	9.02	138	5.43	208	8.19	213	8.39	F11	17	37.5
HFS12-320W-X	12	75	258	10.2	166	6.54	210	8.27	215	8.46	F11	24.5	54
HFS12-360W-X	12	85	306	12	170	6.69	220	8.66	225	8.86	F12	28.1	61.9
HFS12-400W-X	12	90	306	12.06	168	6.62	210	8.27	215	8.47	F12/F45	29.2	64.4
HFS12-420W-X	12	100	328.5	12.94	172	6.78	212.5	8.37	220	8.67	F12/F45	32.3	71.2
HFS12-450W-X	12	120	410	16.14	176	6.93	224	8.82	224	8.82	F12	36.5	80.5
HFS12-500W-X	12	134	340	13.4	172	6.78	279	11	286.5	11.3	F48/F15	40	88.2
HFS12-540W-X	12	140	340	13.4	172	6.78	279	11	286.5	11.3	F48/F15	41.5	91.5
HFS12-560W-X	12	150	482	18.9	170	6.69	240	9.4	240	9.4	F10	45	99.2
HFS12-710W-X	12	192	530	20.8	209	8.2	215	8.5	220	8.7	F10	57	126
HFS12-820W-X	12	220	522	20.5	238	9.37	218	8.6	223	8.8	F38	67.5	148.9
HFS12-400W-X	12	90	306	12	170	6.69	220	8.66	225	8.86	F12/F45	29.2	64.4
HFS12-420W-X	12	100	339	13.3	173	6.81	215	8.46	220	8.66	F12/F45	31.5	69.4
HFS12-500W-X	12	134	341	13.4	173	6.81	279	11	283	11.1	F48/F15	39.5	87.1
HFS12-540W-X	12	140	341	13.4	173	6.81	279	11	283	11.2	F48/F15	41	90.4
HFS12-850W-X	12	220	526	20.7	238	9.37	246	9.7	246	9.7	F38	69	152.2

General Features

- Maintenance-Free Operation
- Lower internal Resistance.
- Superior energy density and very high power output.
- Operates at a low internal pressure.
- Power range from 90W to 850W per cell for 15' @ 1.67Vpc
- Design life :12years at 20 °C

Applications

- Office machines and Computers
- Telecommunications
- UPS Equipment
- Electrical System
- Vending machine

Deep Cycle Series



Applications

- Solar Systems
- Wheelchair
- Golf Cart
- Marine Equipment
- Power Station
- Railway Systems
- Telecom Systems
- Cable TV Systems
- Emergency Power System

General Features

- Maintenance-Free Operation
- Environmentally friendly
- High Reliability and Good Quality
- Deep Discharge Recovery
- High Power Density
- Long Service Life, in Float or Cyclic
- International Standard, JIS and DIN

BATTERY TYPE	NOMINAL VOLTAGE(V)	Nominal Capacity (10hr/Ah)	LENGTH		WIDTH		HEIGHT		TOTAL HEIGHT		TERMINAL	WEIGHT(APPROX)	
			mm	in	mm	in	mm	in	mm	in		Kg	lbs
3FM180D-X	6	180	306	12	164	6.46	220	8.66	225	8.86	F12	28.6	63.1
3FM200D-X	6	200	240	9.45	185	7.28	275	10.83	275	10.83	F12	32.5	71.69
3FM225D-X	6	225	320	12.6	176	6.89	225	8.86	230	9.06	F12	30.5	67.3
6FM33D	12	33	195	7.68	130	5.12	155	6.1	180	7.09	F7	11	24.3
6FM33D-X	12	33(20hr)	195	7.68	130	5.12	155	6.1	168	6.61	F11	11	24.3
6FM33HD-X	12	33	195	7.68	130	5.12	155	6.1	168	6.61	F11	10.4	22.9
6FM40D-X	12	40(20hr)	197.5	7.78	165.5	6.52	170	6.69	170	6.69	F11	14.7	21.4
6FM45D-X	12	45Ah(20hr)	197.5	7.78	165.5	6.52	170	6.69	170	6.69	F11	14.6	32.2
6FM55D-X	12	51.7	239	9.41	132	5.2	205	8.07	210	8.27	F11	16.7	36.8
6FM55TD-X	12	51.7	229	9.01	138	5.43	208	8.18	213	8.38	F11/F12	18.5	40.8
6FM65D-X	12	65(20hr)	350	13.78	167	6.75	179	7.05	179	7.05	F11	23.4	51.5
6FM75D-X	12	75(20hr)	258	10.16	166	6.54	206	8.11	215	8.46	F11/F12	23.5	51.8
6FM75TD-X	12	75(20hr)	258	10.16	166	6.54	210	8.27	215	8.46	F21	24	52.9
6FM80D-X	12	75.6(20hr)	350	13.78	167	6.57	179	7.05	179	7.05	F11	22.5	49.6
6FM90TD	12	88.6	306	12.05	169	6.65	210	8.27	234	9.21	F17	30	66.1
6FM100D	12	100(20hr)	330	12.99	171	6.73	214	8.43	220	8.66	F5	32	70.5
6FM100D-X	12	100(20hr)	330	12.99	171	6.73	215	8.46	220	8.66	F11/F12	32	70.5
6FM100Z-X	12	100	330	13	171	6.73	215	8.46	220	8.66	F11/F12	30	66.1
6FM120D	12	120(20hr)	410	16.14	176	6.93	224	8.82	224	8.82	F5	36.5	80.5
6FM120D-X	12	120(20hr)	410	16.14	176	6.93	224	8.82	224	8.82	F12	36.5	80.5
6FM120SD-X	12	120(20hr)	330	12.99	171	6.73	215	8.46	222	8.74	F11/F12	32.5	71.6
6FM134D-X	12	134(20hr)	341	13.4	173	6.73	283	11.1	287	11.3	F15	42.5	93.7
6FM150D	12	150(20hr)	482	19	170	6.69	240	9.45	240	9.45	F5	47	103.6
6FM150D-X	12	150(20hr)	482	19	170	6.69	240	9.45	240	9.45	F12	47	103.6
6FM150Z-X	12	150	482	19	170	6.69	240	9.45	240	9.45	F12	44.5	98.1
6FM200D-X	12	200(20hr)	522	20.55	238	9.37	218	8.58	223	8.78	F12	65	143.3
6FM200Z-X	12	200	522	20.55	238	9.37	218	8.58	223	8.78	F12	62.5	137.8
6FM250Z-X	12	250	520	20.5	269	10.6	221	8.7	227	8.9	F12	74	163.1



BATTERY TYPE	NOMINAL VOLTAGE(V)	Nominal Capacity (10hr/An)	LENGTH		WIDTH		HEIGHT		TOTAL HEIGHT		TERMINAL	WEIGHT(APPROX)	
			mm	in	mm	in	mm	in	mm	in		Kg	lbs
CG2-200PE	2	200	173	6.81	111	4.37	330	13	364	14.3	F10	15.2	33.5
CG2-300PE	2	300	171	6.73	151	5.94	330	13	364	14.3	F10	20	44.1
CG2-400PE	2	400	210	8.27	176	6.93	330	13	367	14.5	F10	27	59.5
CG2-500PE	2	500	242	9.53	173	6.81	330	13	365	14.4	F10	31	68.4
CG2-600PE	2	600	302	11.9	175	6.89	330	13	367	14.5	F10	40	88.2
CG2-800PE	2	800	410	16.1	175	6.89	330	13	367	14.5	F10	53.5	118
CG2-1000PE	2	1000	475	18.7	175	6.89	330	13	367	14.5	F10	63.5	140
CG2-1500PE	2	1500	400	15.75	350	13.78	345	13.58	382	15.04	F10	105	231.6
CG2-2000PE	2	2000	490	19.29	350	13.78	345	13.58	382	15.04	F10	120	264.7
CG12-55PEX	2	55	350	13.78	167	6.57	179	7.05	179	7.05	F11	18.5	40.8
CG12-90PEX	12	90	330	13.0	171	6.73	215	8.46	220	8.66	F11	29.5	65
CG12-105PEX	12	105	410	16.14	176	6.93	224	8.82	224	8.82	F12	35.5	78.3
CG12-120PEX	12	120	482	19	170	6.69	240	9.45	240	9.45	F12	44.5	98.2
CG12-135PEX	12	135	482	19	170	6.69	240	9.45	240	9.45	F12	46	101.4
CG12-160PEX	12	160	530	20.87	209	8.23	215	8.46	220	8.66	F12	56.5	124.6
CG12-180PEX	12	180	522	20.55	238	9.37	218	8.58	223	8.78	F12	63	138.9
CG12-200PEX	12	200	520	20.47	269	10.59	203	7.99	208	8.19	F12	70	154.4
CG12-220PEX	12	220	521	20.5	269	10.59	220	8.66	227	8.94	F12	75.5	166.4
CGT12-100PEX	12	100	436	17.2	108	4.25	317	12.5	317	12.5	F15	39.4	86.9
CGT12-120PEX	12	120	552	21.7	110	4.33	288	11.3	295	11.6	F12	44.5	98.2
CGT12-160PEX	12	160	546	21.5	125	4.92	317	12.5	323	12.7	F15	53.5	118

Introduction

- Our company is the first one to develop real power gel battery in strict accordance with international standards in china.

General Features

- With the Sonnenschein gel technologies and standards, use the Germany most advanced high porosity PVC-SiO2 separator, and the silica gel fixed electrolyte.

High power HFS Series with Front Terminal

Constant Power Discharge Date (Watts per cell at 1.75V 25°C)

	5min	10min	15min	20min	25min	30min	60min	C10
HFS12-370WF-X	597	442	370	294	258	221	124	19.8
HFS12-430WF-X	615	490	430	326	269	235	132	22
HFS12-500WF-X	694	581	500	379	312	273	258	28.1
HFS12-600WF-X	780	656	600	465	423	343	188	30.4
HFS12-630WF-X	874	732	630	436	375	328	190	32
HFS12-700WF-X	972	789	700	509	437	383	222	38.9



New feature

- 12 years design life
- 2-3 years warranty

Application

- IDC data center
- High power UPS
- Telecom

New Process: Stamping grid plate technology

Stamping Grid Plate Technology

Description

Stamping Grid plate, also called pure lead grid are manufactured using high-purity original ecological lead through purification and stamping to form positive and negative grid lead strips. Unlike traditional gravity cast lead calcium tin alloy grids, pure lead grids are denser and more corrosion-resistant in high temperature environment!



Advantage

- ✓ Long service life;
- ✓ Sufficient capacity and good consistency;
- ✓ Fast charge performance;
- ✓ Wide working temperature range (-40~+60°C);
- ✓ Good sealing performance, safe and reliable;
- ✓ Thin plate pure lead technology, high energy density.

New Process: Stamping grid plate technology



Available models:

Small blocks: 7Ah/9Ah --- CP1290P/CP1270P

Big blocks:

100Ah/120Ah/150Ah at some series products

6FM100P-X/6FM120P-X/6FM150P-X



Pure Lead Array Grains

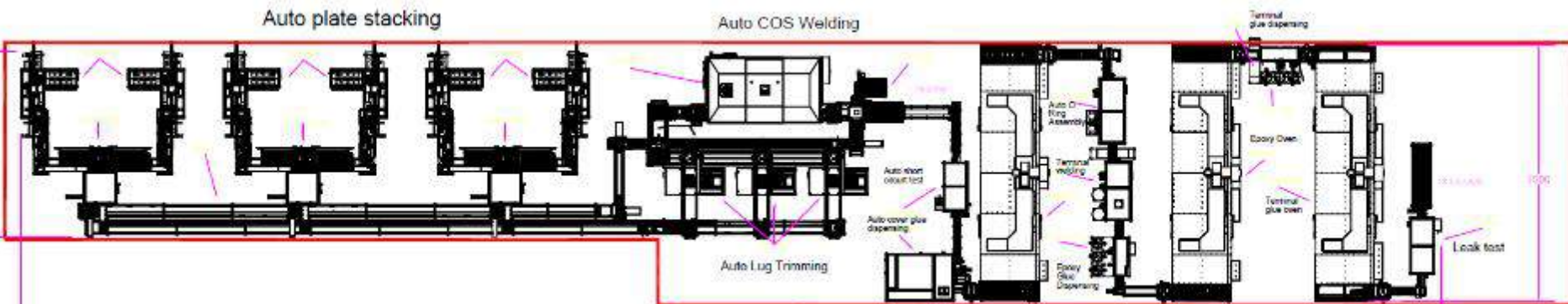


Normal Array Grains

The alloys grains arrays of pure lead grid is more dense and uniform

Higher alloy corrosion resistance improves overall active material utilization. It reduces battery internal impedance and concentration polarization, increases battery conversion efficiency, and shortens battery charging time.

New Process: Small blocks automated assembly line



Auto assembly line for 12V 7Ah and 9Ah in mass production since May of 2023.





PARAGONAGE BY VISION

2024-04



A GREENER WORLD WITH SODIUM

SHENZHEN CENTER POWER TECH.CO.,LTD.

Stock code **002733**

Contents

- Vision Sodium
- Why Sodium
- Application
- Vision Sodium Products
- Application Cases



R&D Shenzhen, China

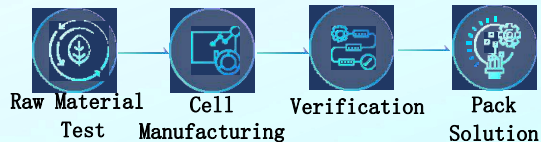
R&D Facility

4,000 Sqrms

Electrolyte Lab
Cell Test Lab
Pack Test Lab
Cell NPI Line



Well established battery cell and pack development capability



Manufacturing Wuxi, China

Manufacturing Facility

1,200 sqrms

Cylindric Cell
Manufacturing Capacity

500 MW / Year

Soft Shell Battery Cell
Manufacturing Capacity

900,000 pcs/Year

Product Advantage- 1

Extreme Performance in Low Temperature

-20°C
Ambient Temperature

90%+
Capacity

Battery -20°C Discharge Feature

LFP 50% NCM 60% VRLA 60%

Product Advantage- 2

Extreme Performance in Application Safety



Product Advantage- 3

More Friendly to Environment

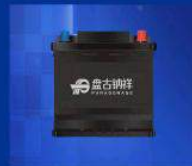
Sodium is more abundant and widely distributed in the Earth's crust compared to lithium. Therefore, from a resource availability perspective, sodium-based batteries has an advantage as they rely on a more plentiful element, which will also result in a stable and cheaper cost



Sodium batteries typically use water-based electrolytes, which will be less harmful to the environment compared to the organic solvents used in lithium batteries.

Vision Sodium Applications

- Energy Storage Systems
- Telecom
- Mid-Low Speed EV / Bicycles
- Starter Battery



Start-stop battery



UPS



Construction machinery



Electric two-wheeler



Electric tricycle



Telecom stations power



Portable energy storage



Household energy storage



Industrial and commercial energy storage

Vision Sodium Products-Cells



71174207-230AH

Item	Conventional parameter	Remark	
Standard charge	Continuous current 0.2C, cut-off voltage 4.0V, cut-off current 0.05C	46A	
Standard discharge	0.2c constant discharge to 1.5V	46A	
Internal resistance	≤3.0mΩ	/	
Discharging current	Maximum continuous current 0.5C, cut-off voltage 1.5V	115A	
Charge current	Maximum continuous current 0.2C, cut-off voltage 4.0V, cut-off current 0.05C	46A	
	Maximum continuous current 0.2C, cut-off voltage 4.0V, cut-off current 0.05C	115A	
	Maximum continuous current 0.2C, cut-off voltage 4.0V, cut-off current 0.05C	115A	
Discharge operating temperature	-40~60°C	/	
Charge operating temperature	0~45°C	/	
Battery size	L	W	H
	174.0±0.5MM	71.0±0.5MM	207.0±0.5MM



Soft pack battery

Item	Conventional parameter	Remark	
Standard charge	Continuous current 0.5C, cut-off voltage 4.0V, cut-off current 0.05C	4A	
Standard discharge	Continuous current 0.5C, cut-off voltage 1.5V	4A	
Internal resistance	≤2mΩ	/	
Charging current	Maximum continuous current 1C, cut-off voltage 4.0V, cut-off current 0.05C (15-20°C)	8A	
	Maximum continuous current 3C, cut-off voltage 4.0V, cut-off current 0.05C (20-25°C)	24A	
	Maximum continuous current 2C, cut-off voltage 4.0V, cut-off current 0.05C (25-35°C)	16A	
Discharge current	Maximum continuous current 30C, cut-off voltage 1.5V	240A	
Discharge operating temperature	-40~60°C	/	
Charge operating temperature	0~45°C	/	
Battery size	L	W	H
	160±0.5MM	7±0.5MM	116±0.5MM



32140-10AH

Item	Conventional parameter	Remark	
Standard charge	0.2C constant current constant voltage charge to 4.0V, cut-off current 0.05C	20A	
Standard discharge	0.2C constant discharge to 1.5V	20A	
Internal resistance	≤3.0mΩ	/	
Charging current	Maximum continuous current 1.0C, cut-off voltage 4.0V, cut-off current 0.05C	15-45°C@10.0A	
	Maximum continuous current 0.2C, cut-off voltage 4.0V, cut-off current 0.05C	0-15°C@2.0A	
Discharge current	Maximum continuous current 0.5C, cut-off voltage 4.0V, cut-off current 0.05C	-40-15°C@5.0A	
	Maximum continuous current 5.0C, cut-off voltage 4.0V, cut-off current 0.05C	15-45°C@50.0A	
	Maximum continuous current 1.0C, cut-off voltage 4.0V, cut-off current 0.05C	45-60°C@10.0A	
Discharge operating temperature	-40~60°C	/	
Charge operating temperature	0~45°C	/	
Battery size	D	H	/
	47.0±0.5MM	150.0±0.5MM	/

Vision Sodium Products-Packs



TELECOM base station battery

Item	Conventional parameter		
Nominal voltage	48V		
Nominal energy (25°C, 0.5C)	80AH		
Nominal energy (25°C, 0.5C)	3840Wh		
Weight	42.3Kg		
Combination mode	16S4P		
Cycle life (25°C, 0.5C)	≥1500		
Operating voltage	24-64V		
Charging temperature	0-45°C		
Discharging temperature	-20°C-60°C		
Charging current	Operating voltage Maximum charging current 80A, standard charging current 40A		
Discharge current	Operating voltage Maximum discharging current 80A, standard discharging current 40A		
Protection function	Over voltage protection over current protection low voltage protection over temperature protection low temperature protection reverse protection short circuit protection		
Dimension(L*W*H)	L	W	H
	442.0±0.5MM	480.0±0.5MM	140.0±0.5MM



Two-wheeler battery pack

Item	Conventional parameter		
Battery model	32140		
Nominal voltage	48V (16S)		
Nominal capacity (25°C, 0.5C)	20AH (2P)		
Nominal energy (25°C, 0.5C)	960Wh		
Weight	10kg		
Applicable motor power	≤400W		
Range	70-100km		
Discharge temperature	-40°C	-20°C	25°C
Discharge capacity	70%	85%	100%
Charging current (25°C)	Maximum continuous current 1.0C, cut-off voltage 4.0V, cut-off current 0.05C		
Discharge current	Maximum continuous current 5.0C, cut-off voltage 1.5V, cut-off current 0.05c		
Dimension	L	W	H
	165MM	160MM	320MM

Vision Sodium Products- Packs



Sodium battery for small UPS SIB12-165W

Item	Conventional parameter			
Battery model	18650			
Nominal voltage	12V (4S)			
Nominal capacity (25°C, 0.5C)	3.9AH (3P)			
Nominal energy (25°C, 0.5C)	46.8Wh			
Weight	0.6kg			
Constant power	425W	250W	165W	85W
Backup time	5min	10min	15min	30min
Discharge temperature	25°C			
Discharge capacity	1C 3.9AH (3P)			
Charging current (25°C)	Maximum continuous current 1.0C, cut-off voltage 3.9V, cut-off current 0.05C			
Discharge current	Maximum continuous current 10.0c, cut-off voltage 1.5V/cell			
Dimension	L	W	H	
	151.0MM	65.0MM	101.0MM	

Starting power supply 1270

Item	Conventional parameter		
Nominal voltage	12V		
Nominal energy (25°C, 0.5C)	70AH		
Nominal energy (25°C, 0.5C)	840WH		
Weight	10kg		
Combination mode	4S7P		
Cycle life (25°C, 0.5C)	> 1000次		
Internal resistance	< 50mΩ		
Operating voltage	7.2V-16.0V		
Charging temperature	0°C-45°C		
Discharging temperature	-20°C-60°C		
Charging current	Maximum continuous current 70A, cut-off voltage 4.0V, cut-off current 0.05C; (20-25°C)		
Discharge current	Maximum instantaneous current 720A, cut-off current 0.05C (20-25°C)		
Protection function	Over voltage protection over current protection low voltage protection over temperature protection low temperature protection reverse protection short circuit protection		
Dimension	L	W	H
	306.0MM	174.0MM	200.0MM

Vision Sodium Application Cases



Two/Three wheels electrical bikes- China

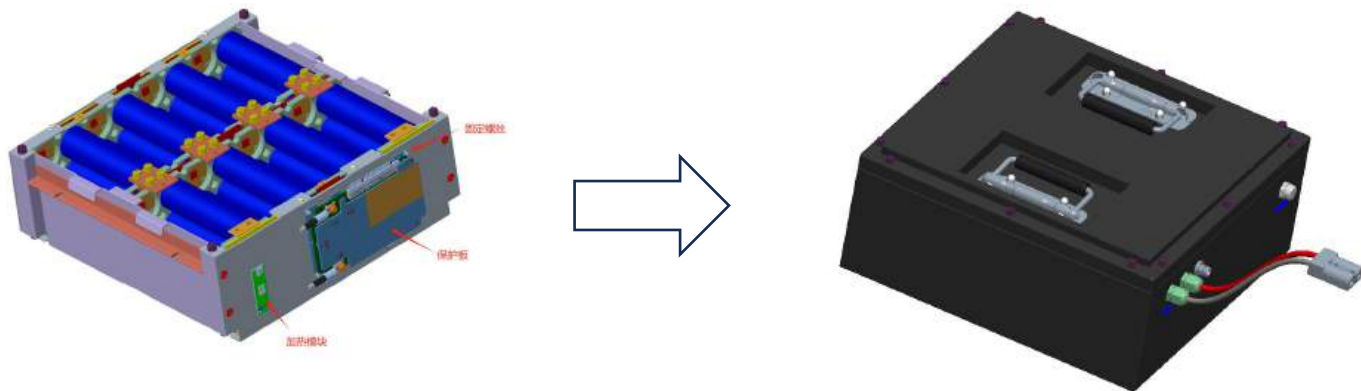
Vision Sodium Application Cases



Telecom Project in Nordic Countries



**Starter Battery for an international
Car manufacturer-China**



An AGV Power Solution in Europe Nordic country



Stock code 002733

THANK YOU

SHENZHEN CENTER POWER TECH.CO.,LTD.

www.vision-batt.com