

ONE OF THE LEADING
VALVE-REGULATED LEAD ACID
BATTERY MANUFACTURERS
IN THE WORLD

VALVE
REGULATED LEAD
ACID BATTERY

VISION

2018 Ver 1.0

VISION GROUP

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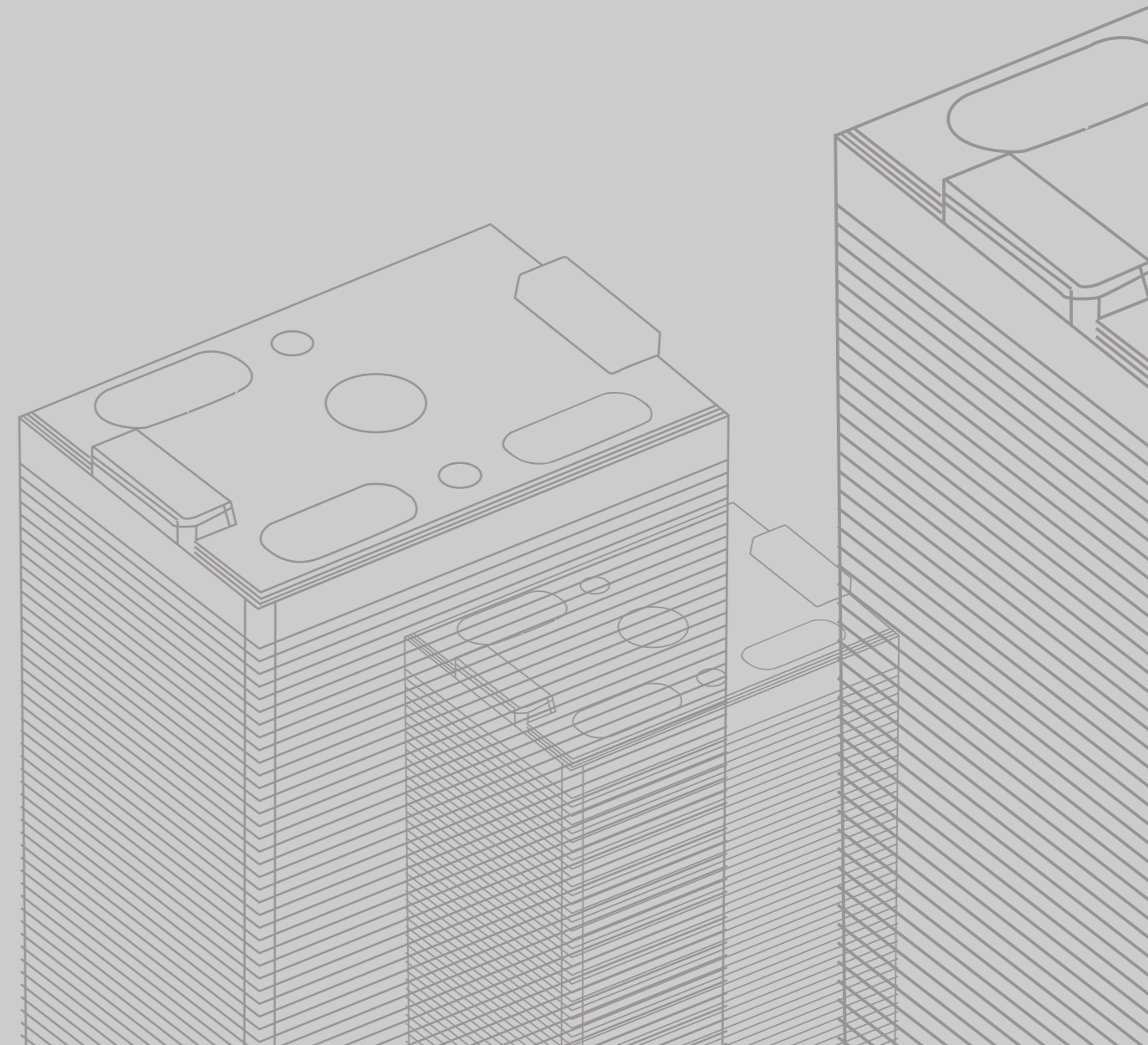


ONE OF THE FAMOUS VALVE-REGULATED LEAD ACID BATTERY MANUFACTURERS IN THE WORLD

www.vision-batt.com



INTELLIGENT ENERGY STORAGE TO SERVE THE WORLD
TO BECOME THE LEADER OF INTELLIGENT ENERGY STORAGE
SOLUTION WORLDWIDE



Company Profile

Vision Group was founded in 1994 with headquarter in Shenzhen, and it is one of the well-known service provider in Smart Energy Storage Solution industry around the world. Vision Group went public on the Shenzhen Stock Exchange in 2014 with the Stock code 002733, and the sales had reached 2.6 billion (RMB) in 2017. Vision group has three RD and production base in Shenzhen, Hubei, Yangzhou and Vietnam, which cover the area of 370,000m². We have 4000 employees, and the total production capacity in Lead Acid Battery Product is more than 6,000,000 KVAH per year and 11 billion in Lithium Battery Product at present. Vision Group set up branches in Mainland China, Hong Kong, Singapore, India, Europe and USA, and our global sales networks are all over the world more than 100 countries or regions.

Vision Group has nearly 100 RD researchers. We have more than 100 patents and win a number of national and international technical innovation awards so far. Vision Group had been rated as the "National high-tech enterprise", "Excellent Private Enterprises in China", and the "The Top 50 Private Enterprise in Shenzhen". We are also recognized as "Well-known Trademarks in Guangdong" in 2010. Products from Vision Group had obtained numerous certifications such as ISO9001, ISO14001, OHSAS18000, UL, CE, RoHS, TLC, VDS, BS, IEC and so on.

Vision group devote to leading the way for Smart Energy Storage with the mission of intelligent energy storage to serve the world. We serve our products mainly in UPS, Telecomm, EV, Renewable Storage and other industries. We can provide products from different categories including Valve-Regulated Lead Acid Battery, Lithium-ion Battery, Hybrid Battery, etc. The VRLA battery includes AGM series, Deep Cycle series, Pure Lead series and Gel series. The Lithium-ion Battery covers Lithium Cobalt Oxide Series, Lithium Manganese Oxide Series and Lithium Iron Phosphate Series.

As one of the leading industrial battery manufacturers, Vision Group is keeping quality and environment protection first and foremost in minds. No matter in clean production, pollutant emissions, or employee health, we are strictly in accordance with national policy. We passed a national check and verification for Enterprise Environmental Protection in 2011, and we are the benchmarking enterprise in China now.

Vision Group now is providing exceptional product applications and technical services (product scope including communication, UPS, EV, Photovoltaic, wind power, power, electronics and digital equipment) to customers among 100 countries and regions. Our main customers and partners are as follows – Vertiv (formerly Emerson), Schneider, EAST, China Mobile, ZTE, HUAWEI, China Southern Power Grid, China Telecom, WUZHOU LONG Motors and Dongfeng Motor.

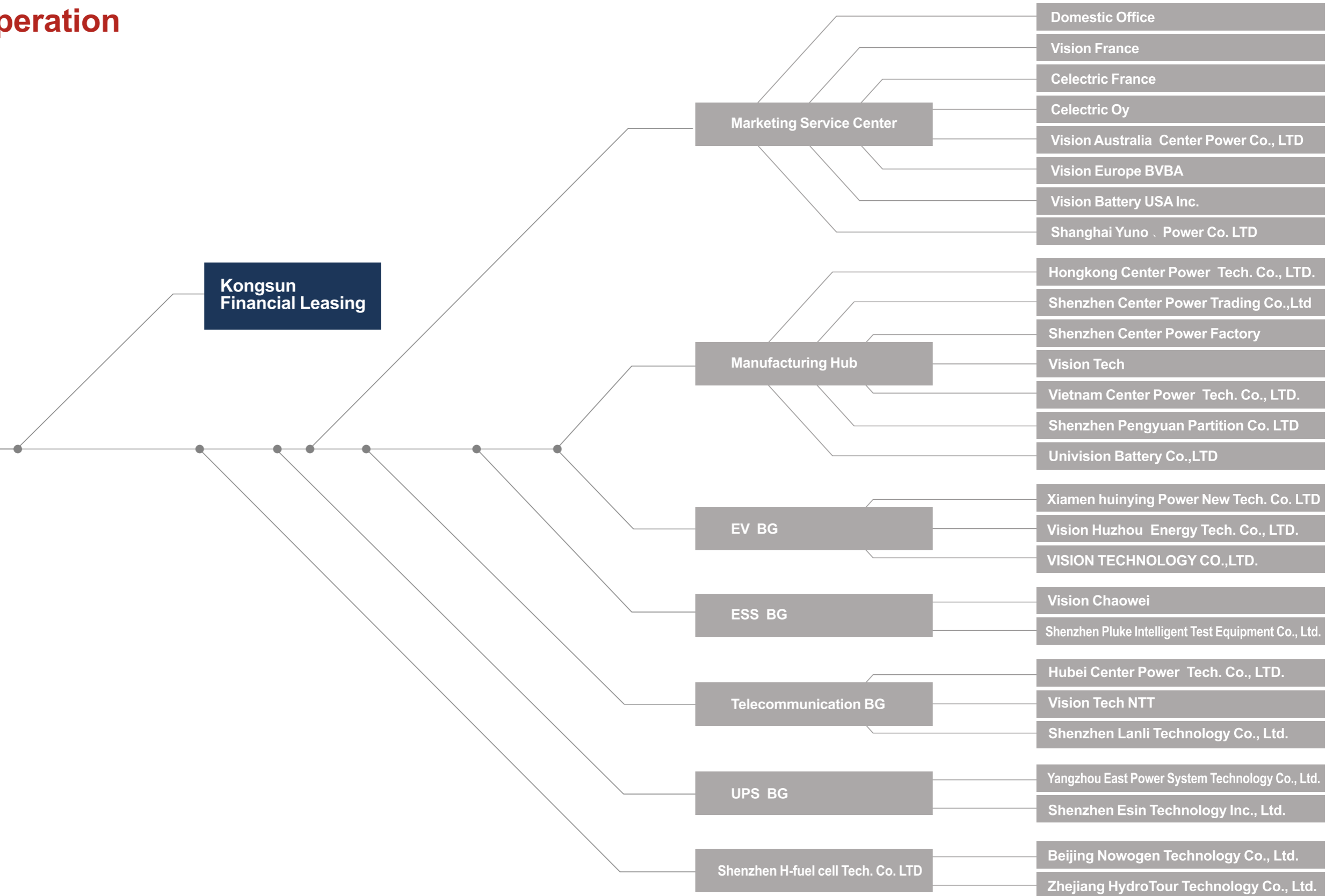
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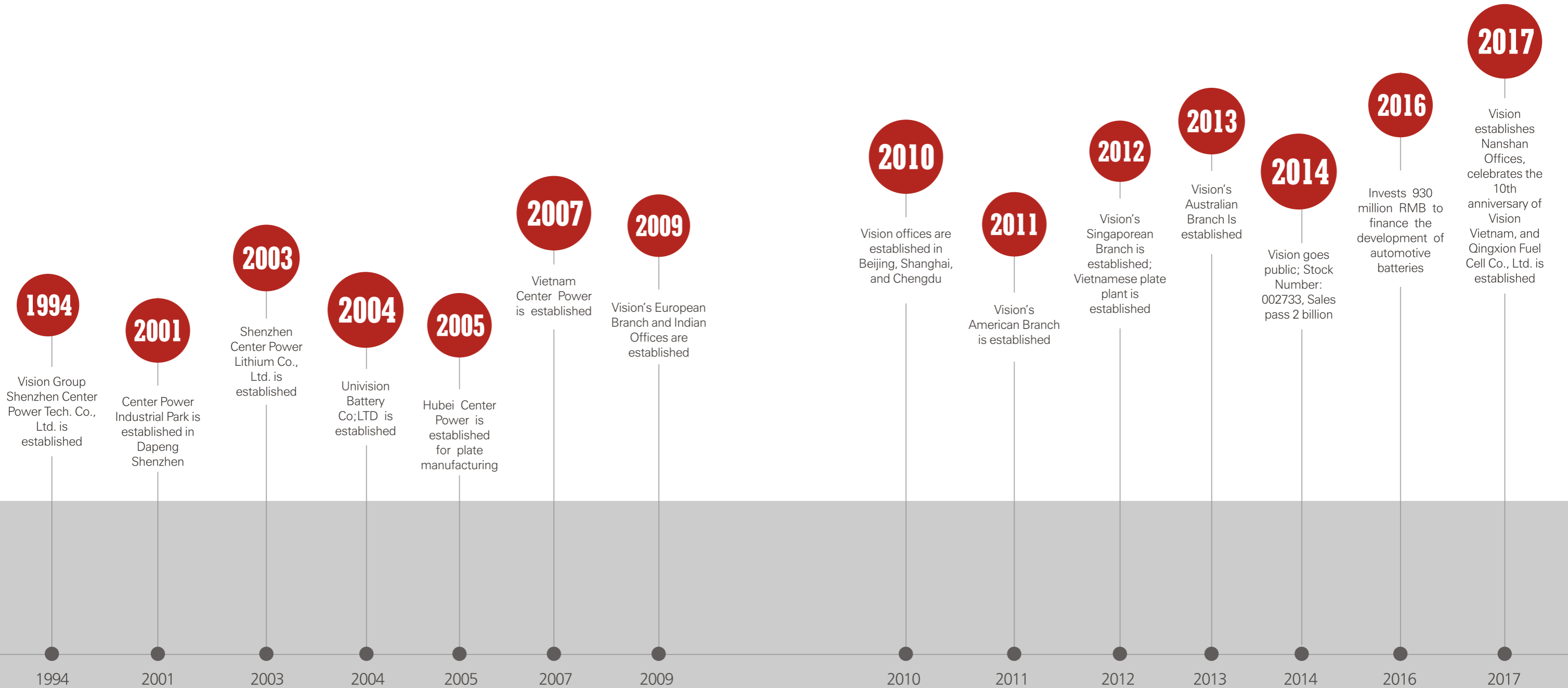
Vision Group Operation Organization



VISION GROUP
Shenzhen Center Power
Tech. Co., LTD.



Development Path



Focus Area



Telecomm Solution

Telecomm Solutions from Vison Group, providing customers with lead-acid and lithium-electricity solutions. The products include lithium iron phosphate batteries for communication, high-temperature batteries, battery cells for base stations and computer rooms, and integrated power supply systems, which have a wide range of applicable environments.



Telecomm



UPS

UPS Solution

Vision Group has three major types of UPS solutions: lead acid solutions, pure lead solutions and lithium solutions. Vision Group is committed to providing high quality and reliable solutions for customers in data, industrial, and UPS management worldwide.

FOCUS AREA



Energy Storage Solution

The energy storage solutions from Vision Group include home energy storage, commercial energy storage, and Grid energy storage solutions to meet the needs of a variety of applications. At the same time, we have the choice of lead carbon and lithium battery to provide customers with efficient energy storage solutions.



Energy Storage



EV Solution

As a complete provider of intelligent power battery system solutions, we can provide systemization and integration of charging facilities, vehicle design, operation, and maintenance for high speed vehicles, low speed vehicles, special vehicles, and electric vehicles. Intelligent service solutions.



EV

Fuel Cell Solution



1st Gen Metal Battery Stack

Nowogen's new metallic plate PEMFC stack design is completed with breakthroughs in production accuracy, flow-field design, materials science, and water management. By using a single plate design to achieve reduction, oxygenation and cooling functions, the metallic plate design simplifies the overall structure, creating a smaller overall footprint and higher energy density. The metallic stack can support mid-to high-range pressures due to novel sealing materials and methods as well as flow-field design. Stack rated power is available from a range of 20 – 100kW, satisfying the vast majority of power applications.



3rd Gen Composite Battery Stack

Nowogen's third generation of liquid-cooled PEMFC stack raises single-cell power to 180W with combined stack rated power of 18–72kW due to breakthroughs in cell and flow-field design. This newest, third generation stack design complies with mid-to high-pressure operation requirements and also benefits from strictly managed and homogenous production by Nowogen's new automated assembly line.



Automotive Fuel-Cell System

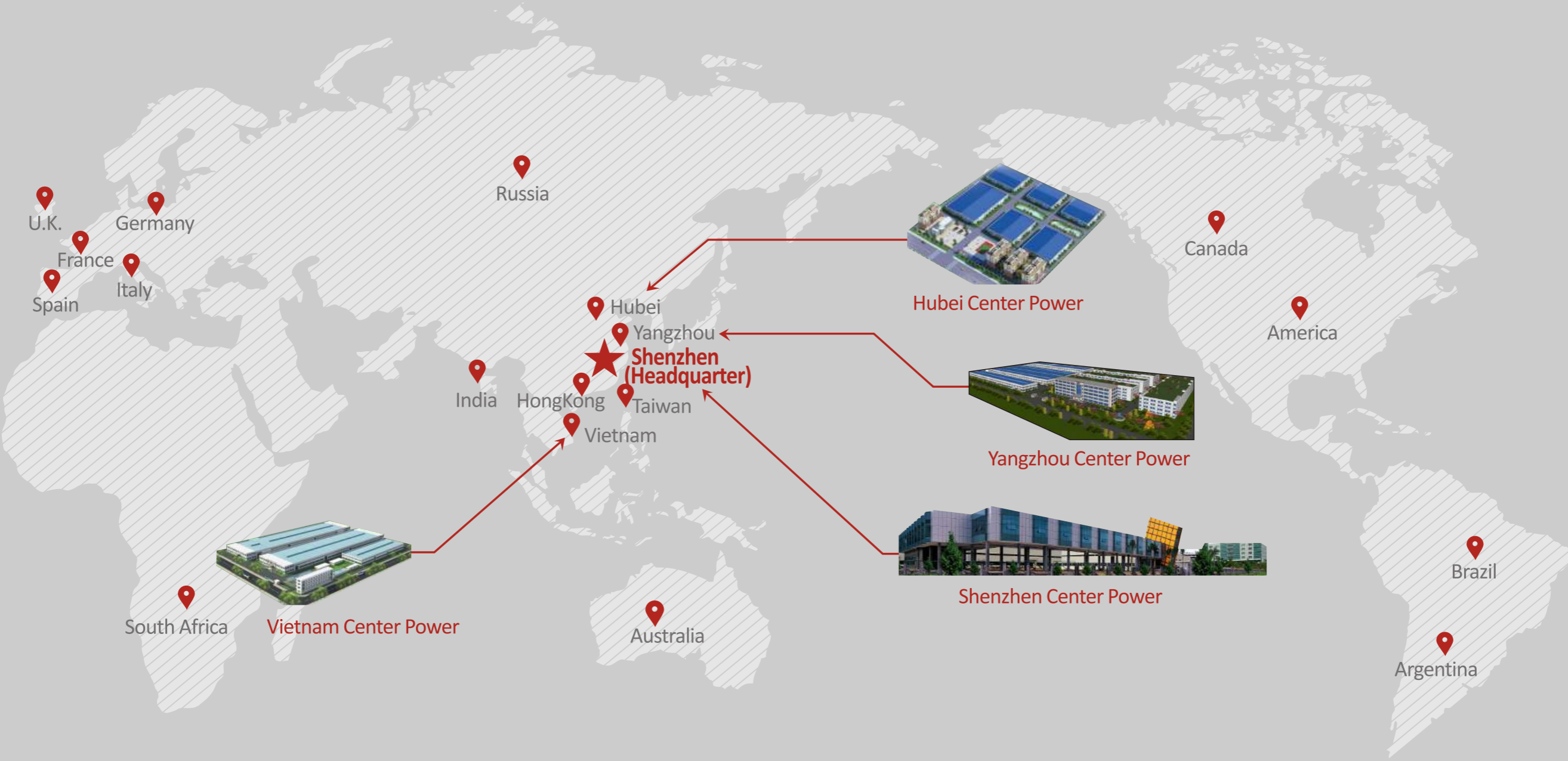
It is a complete fuel cell engine dedicated for auto applications. This system delivers power up to 30kW, with features of light weight design, fast response time, high power density and IP67 rating.



Fuel Cell Commercial Vehicles

We've partnered with many of the country's leading automotive plants, and have already produced many models of fuel-cell passenger and logistics vehicles. Many of those vehicles are already in operation. NOWOGEN provides one-stop fuel-cell solutions that can help automotive companies enter the fuel-cell battery stack industry and apply for public use.

International Brand Global Sales



Extensive Product Range

Vision Group has one of most extensive product ranges in the industry. With one of the largest and most qualified Research and Development teams among VRLA manufacturers and many years of experience in the development of new products to meet customer needs, Vision has created the largest variety of models and chemistries. This unique advantage allows Vision Group to provide its customers with the best solution for any application they may have by offering a model that optimizes cost, performance, weight, and size to meet or exceed their needs.



CP

FM

HFS

CL

CT

GEL

Long Life

Pure Lead

EV

LiFe PO4

LiCoO₂

LiMn₂O₄

Hybrid

.....

R&D Center

Vision Group R&D Center consists of over 80 highly trained professional staff that are responsible for new product research and development and the continued improvement to current products. Vision understands the importance of continual improvement of the products and invests heavily in its R&D center. The R&D center cooperates with leading and famous science and technology institutions in China and with world-renowned international companies. This cooperation allows them to work with the newest and most technology advanced materials available and to reduce the turnaround time of development of new products. Vision Group has won many national prizes for its new technology improvements and holds more than 100 patents in advancements of materials, processes, and products. As the heart of the battery, the R&D center's greatest focus is on the grid and plate forming technologies. These specialized plate technologies include EV battery, Gel Battery, Pure Lead GY battery and Nano scale materials for lithium-iron phosphate.

Advanced R&D System

- Postdoctoral innovation practice base ;
- More than professional 80 R&D engineers;
- Yearly investment on R&D more than 3% of sales volume;
- Senior professors help conduct advanced research;
- World first-class experimental testing equipment;
- Project Funding from Government more than 10 million RMB.



Cooperated with Industrial organization

- Cooperates with famous foreign companies to develop new technology ;
- Cooperates with well-known universities on new materials research;
- Participate in industry peak technology seminar.



Quality Management System →

Model after ISO 9001

Awarded By ISO 9002 (1994~1999)

Awarded By ISO 9001 (latest version from 2018~2021)

All processes are fully documented(4 layers)by

Quality Manual

Quality System Procedures

Process Instruction

Quality Records

Internal process audit twice a year

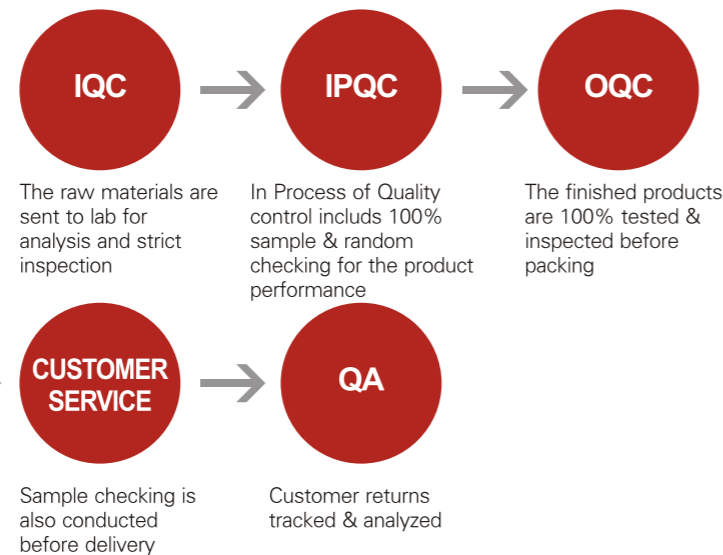
Open actions and corrective actions are closely monitored

Management review once a year

Opportunities for improvement identified and executed



Quality Assurance System →



Quality Policy ↓

- Striving constantly for perfection, with quality as the foundation
- Fulfilling all promises completely, putting the customer first

Quality Objective ↓

- Providing 100% satisfying high quality products;
- Providing 100% satisfying delivery;
- Providing 100% satisfying service;
- To be the leading producer in battery technology

Environmental Protection ↓

- Waste gas emission is 1/3 of the government standard emission
- 100% of the industrial waste water is recycled
- Produces emissions at 1/3 of the government standards
- Have the ISO 14000 environmental management Certificate
- Occupational health and safety Certificate





AGM Battery CP Series

From 0.8Ah to 65Ah



The VISION CF series valve regulated lead acid batteries are designed with AGM (Absorbent Glass Mat) technology and for general application purposes, such as UPS, telecom, and electrical utilities.

Designed to last for 5 years, these batteries comply with the most popular international standards, such as the IEC60896-21/22, VDS 2344:2005-12(06), BS6290-4, and the Eurobat Guide. The battery containers and covers are available with in the V0 class flame retardant ABS and HBO ABS plastics.

Product Standards

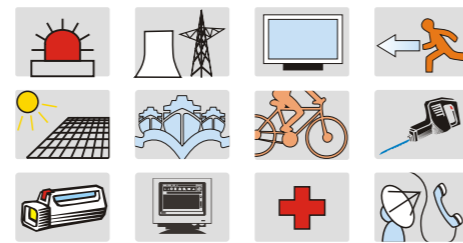
You can expect our batteries meet the standards of JIS, DIN, IEC and BS6290-4. We have obtained ISO9001&ISO14001 certification, UL approval(MH25860) and CE approval for all types of batteries. All these render our batteries to be compatible with requirements of world-level equipments.

General Features

- Stable Quality & High Reliability
- Sealed Construction
- Environmentally friendly
- Maintenance-Free Operation
- Low Pressure Venting System
- Heavy Duty Grid
- Low Self Discharge
- U.L.Component Recognition(MH25860)

Applications

- Alarm Systems
- Cable Television
- Communications Equipment
- Control Equipment
- Computers
- Electronic Cash Registers
- Electric Test Equipment
- Electric Powered Bicycle and Wheel chair
- Emergency lighting Systems
- Fire & Security
- Geophysical Equipment
- Marine Equipment
- Medical Equipment
- Micro Processor Based Office Machines
- Portable Cine & Video Lights
- Power Tools
- Solar Powered Systems
- Telecommunications Systems
- Television & Video Recorders
- Toys
- Uninterruptible Power Supplies
- Vending Machines



VISION Valve Regulated Lead Acid Batteries

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
CP612	6	1.2	97	3.82	24	0.94	52	2.05	58	2.28	F1	0.31	0.68
CP632	6	3.2	134	5.27	34	1.34	61	2.4	67	2.64	F1	0.65	1.43
CP640E	6	4	70	2.76	47	1.85	98	3.86	104	4.09	F1/F2+F2-F1	0.66	1.45
CP645	6	4.5	70	2.76	47	1.85	101	3.98	107	4.21	F1/F2	0.77	1.7
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

* Weight Deviation: ± 5%!

AGM BATTERY
CP SERIES

AGM Battery
FM Series

HFS Series

AGM Battery
CL Series

CT Series

Gel Series

AGM Battery
Deep Cycle Series

Electric Vehicle
Series



AGM Battery FM Series

From 7.2Ah to 230Ah



VISION FM series are designed for general-purpose applications, such as UPS, telecom, and electrical utilities.

With its 20 years of battery life, the AGM Battery FM Series comply to the most popular international standards, such as the IEC60896-21/22, VDS 2344: 2005-12 (06) the BS6290-4, and the Eurobat Guide. The battery container and cover are available both in the V0 class flame retardant ABS and HBO ABS plastics. With more than 15 years of production experience, the VISION FM series of VRLA batteries are recognized as some of the most reliable and high quality battery systems in the industry.

Product Standards

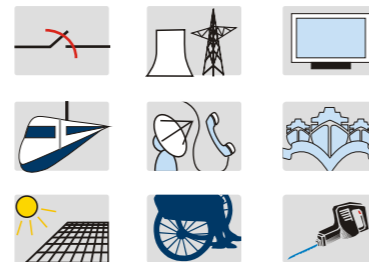
You can expect our batteries meet the standards of JIS, DIN, IEC and BS6290-4. We have obtained ISO9001 & ISO14001 certification, UL approval(MH25860) and CE approval for all types of batteries. All these render our batteries to be compatible with requirements of world-level equipments.

General Features

- Environmentally friendly
- High Reliability and Good Quality
- Lower internal Resistance
- High Power Density
- Long Service Life, in Float and Cyclic
- International Standard, JIS and DIN
- α-EV technology
- Thick pasted plates with high quality lead-tin-calcium alloy grids for long service life

Applications

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



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

* Weight Deviation: ± 3%!



HFS Series

• HFS Series •



Product Information

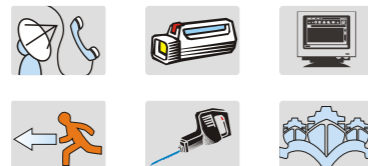
The VISION HFS Series batteries are specially designed for applications where high power output is needed. With an optimized design combining efficient battery grids and a special plate paste chemistry, the HFS series can deliver up to 40% more power than the VISION standard CF/FM series.

Features and Benefits

- Environmentally friendly
- Lower internal Resistance
- Positive and negative plates in lead-calcium tin alloy
- Superior energy density and very high power output
- Operates at a low internal pressure
- Gas Recombination
- A recognized component of UL
- Lead calcium grids for extended life Six months shelf life at 20°C
- Power range from 13W to 890W per cell for 10min@1.60V/cell
- Design life: 5-10 years.

Applications

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



VISION Valve Regulated Lead Acid Batteries

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
Heat Seal HFS12-400W-X	12	90	306	12	170	6.69	220	8.66	225	8.86	F12/F45	29.2	64.4
Heat Seal HFS12-420W-X	12	100	339	13.3	173	6.81	215	8.46	220	8.66	F12/F45	31.5	69.4
Heat Seal HFS12-500W-X	12	134	341	13.4	173	6.81	279	11	283	11.1	F48/F15	39.5	87.1
Heat Seal HFS12-540W-X	12	140	341	13.4	173	6.81	279	11	283	11.2	F48/F15	41	90.4
Heat Seal HFS12-850W-X	12	220	526	20.7	238	9.37	246	9.7	246	9.7	F38	69	152.2

AGM BATTERY CP SERIES

AGM Battery FM Series

HFS Series

AGM Battery CL Series

CT Series

Gel Series

AGM Battery Deep Cycle Series

Electric Vehicle Series

* Weight Deviation: ± 3%!



AGM Battery CL Series

From 100Ah to 3000Ah



The VISION CL series of VRLA batteries are recognized as one of the most reliable and highest quality battery systems in the industry. The VISION CL series batteries are designed with advanced AGM (Absorbent Glass Mat) technology. Designed to last for at least 20 years, the batteries comply with the most popular international standards, such as IEC60896-21/22, BS6290-4, and the Eurobat Guide.

Product Standards

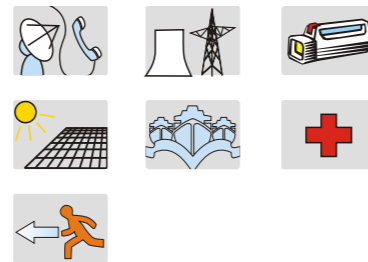
You can expect our batteries meet the standards of JIS, DIN, IEC and BS6290-4. We have obtained ISO9001 & ISO14001 certification, UL approval(MH25860) and CE approval for all types of batteries. All these render our batteries to be compatible with requirements of world-level equipments.

General Features

- Environmentally friendly
- Completely Maintenance-Free
- Wide Operating Temperature Range(-15°C~+45°C)
- Longer Life (Designed to last 20 years)
- Explosion Proof
- Valve Regulated & High Discharge Rate Capability
- Low Self Discharge
- Independent of Position
- Ease of Shipment
- No required balanced charging or boosting
- No Memory

Applications

- Communication equipment
- Telecommunication control equipment
- Emergency lighting systems
- Electric power systems
- Power station
- Nuclear power station
- Solar powered and wind powered systems
- Load leveling and storage equipment
- Marine equipment
- Power generation plants
- Alarm systems
- Uninterruptible power supplies
- Stand-by power for computers
- Medical equipment
- Fire and security systems
- Control equipment
- Stand-by electric power



VISION Valve Regulated Lead Acid Batteries

CL 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	168	6.61	F11	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

* Weight Deviation: ± 3%!

AGM BATTERY CP SERIES

AGM Battery FM Series

HFS Series

AGM Battery CL Series

CT Series

Gel Series

AGM Battery Deep Cycle Series

Electric Vehicle Series



CT Series



The VISION 12V front terminal type battery is mainly used in the field of communication, which is new in design, reasonable in structure, and occupies the leading position in the industry across the globe.

As with previous INTELEC (International Telecommunications Energy) conferences, many were concerned about the life and durability of VRLA batteries, which can be flexibly employed across numerous applications in the field of communications. In order to ensure a consistent power supply at all times, essential facilities are backed by high performance battery systems. Sudden breaks in the power supply are no problem. If the power suddenly fails, battery systems will immediately take over the emergency power supply.

Features

- Environmental friendly
- Thick pasted plates with high quality lead-tin-calcium alloy grids for extended battery life
- Centralized venting system for gas ventilation
- Plastics or rope handles for handling and installation convenience
- Front access terminals for easy and quick connection
- Low internal resistance
- Lower self discharge
- Designed to last up to 12 years
- Case and cover in strong flame retardant ABS, V0 class.

Applications

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



VISION Valve Regulated Lead Acid Batteries

CT Series

BATTERY TYPE	NOMINAL VOLTAGE(V)	Nominal Capacity (10hr/Ar)	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

* Weight Deviation: ± 3%!

AGM BATTERY
CP SERIES

AGM Battery
FM Series

HFS Series

AGM Battery
CL Series

CT Series

Gel Series

AGM Battery
Deep Cycle Series

Electric Vehicle
Series



Gel Series



The VISION Gel series battery is manufactured with a special sheet separator and colloidal or foamed silica. The batteries use silica gel to immobilize the electrolyte inside the battery. The silica gel technology has been proven to extend battery cycle life and performance at colder ambient temperatures. The deep discharge cycles are increased by 50% when compared to AGM batteries.

General Features

- Environmentally friendly
- Longer Service Life
- High Reliability and Quality
- High Power Density
- Excellent Recovery from Deep Discharge
- Living Up to Prevailing Standards
- Non-sensitive—to Occasional Deep Discharges
- International leading technology
- Germany PVC Separator and SiO₂. 100% Pinhole test technology

Applications

- Solar and wind systems
- Cable TV
- Telecommunications
- Wheelchair
- Marine Equipment
- Military Equipment
- Emergency lighting
- Power Plants
- Medical Devices
- Golf Cart



VISION Valve Regulated Lead Acid Batteries

Gel 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
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

* Weight Deviation: ± 3%!

- AGM BATTERY CP SERIES
- AGM Battery FM Series
- HFS Series
- AGM Battery CL Series
- CT Series
- Gel Series**
- AGM Battery Deep Cycle Series
- Electric Vehicle Series



AGM Battery Deep Cycle Series

From 9Ah to 3000Ah



The VISION Deep Cycle series batteries are designed for deep discharges, armed with extremely heavy non-porous battery plates in order to withstand repeated discharges of great magnitude and deep charging cycles (deep cycle). The VISION Deep Cycle batteries use a unique chemistry for plates with an active-paste material, and slightly stronger electrolytes than normal batteries, which allows for longer battery life in the application of deep cycles.

Product Standards

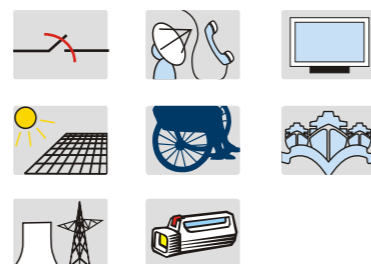
Compliant with international standards JIS c8702, BS 6290/4 and IEC60896-21/22. Classified as long life according to the Eurobat Guide/HF. Able to be shipped as non-hazardous cargo. SHENZHEN CENTER POWER production facilities are certificated to ISO9001/ISO14001.

General Features

- 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

Applications

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



VISION Valve Regulated Lead Acid Batteries

Deep Cycle 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
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

* Weight Deviation: ± 3%!



Electric Vehicle Series



The Vision EV series batteries use advanced technology with a specially designed grid and active material. They use anchored plates and a high impact reinforced polypropylene case which can withstand the most extreme of environments and vibrations. The EV series uses a wide range of common commercial battery sizes for ease of fit into applications.

The Vision EV series Dry Cell Batteries provide superior performance capacities and reliability. Using state of the art dry cell technology, the EV series is designed for environmentally sensitive areas that require enhanced cycle life capabilities in commercial, industrial, residential, and private applications. The maintenance-free (VRLA) construction and advanced design features make the EV series the definitive choice for a wide variety of applications.

Performance Characteristics:

- Environmental friendly
- Computer - aided 99.99% pure heavy-duty lead calcium grid design
- Anchored plate groups to guard against vibration
- Tank formed plates for evenly formed and capacity matched plates
- Wide operating temperatures (-40° to 60°)
- Industry leading size and performance options
- Double insulating Micro porous glass fiber separators
- Flame arresting pressure regulated safety sealing valves for safety
- Low self discharge rates (1-3%/month)
- Multi-terminal options
- Removable carry handles
- Classified as "Non-Spillable Battery" for transport
- Complies with DOT HMR49, Non-Hazardous Material

Applications:

- Golf and Electric Vehicles
- Floor Machines
- Aerial Lifts and Fork Lifts
- Solar and Renewable Energy
- Marine and RV
- Broadband and Cable TV
- Mobility and Medical Equipment
- Telecommunications
- Uninterruptible Power Supplies

EV 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
6-DZM-12	12	12 (2h)	151	5.94	99	3.9	98	3.86	103	4.06	F2	4.5	9.92
6-DZM-20	12	20 (2h)	181	7.13	77	3.03	170	6.7	170	6.7	F29	7.25	16
EV4D-240A-AT	12	240(20h)	528	20.8	222	8.7	229	9	250	9.8	A1T1+A2T2-	64.6	142.4
EV6-200A-X	6	190	244	9.6	188	7.4	275	10.8	275	10.8	F12	30	66.1
EV8D-330A-AT	12	330(20h)	528	20.8	282	11.1	229	9	250	9.8	A1T1+A2T2-	82.9	182.8
EV12-155A-AM	12	110	327	12.9	176	6.9	254	10	274	10.8	AM	40.6	89.5
EV24-75-X	12	75(20h)	258	10.1	169	6.6	204	8	209	8.2	F11	24	52.9
EV24-85A-AM	12	85(20h)	272	10.7	172	6.8	206	8.1	226	8.9	AM	25.1	55.3
EV27-100A-AM	12	100(20h)	323	12.7	172	6.8	206	8.1	226	8.9	AM	29.5	65
EV31-115A-AM	12	115(20h)	330	13	169	6.7	216	8.5	236	9.3	AM	74.1	33.6
EV34-65A-X	12	65	260	10.2	168	6.6	178	7	183	7.2	F21	20.5	45.2
EVGC-220A-AM	6	220(20h)	260	10.2	180	7.1	254	10	274	10.8	AM	30	66.1
EVGC-220B-AM	6	220(20h)	260	10.2	180	7.1	254	10	274	10.8	AM	28	61.7
EVGH6-210A-AM	6	209	260	10.2	180	7.1	254	10.2	275	10.8	AM	35	77.2
EVGT6-280A-AM	6	280(20h)	260	10.2	180	7.1	273	10.7	295	11.6	AM	38	83.8
EVGT8-185A-X	8	185(20h)	260	10.2	182	7.2	295	11.6	301	11.9	F12	40.6	89.5
EVGT12-110A-X	12	110	260	10.2	182	7.2	295	11.6	300	11.8	F12	41.5	91.5
EVL16-400A-AM	6	400(20h)	295	11.6	180	7.1	405	15.9	426	16.8	AM	55.5	122.4
SC4D-180A-AT	12	12	528	20.8	222	8.7	229	9	250	9.8	A1T1+A2T1-	58	128

* Weight Deviation: ± 3%!

AGM BATTERY CP SERIES
AGM Battery FM Series
HFS Series
AGM Battery CL Series
CT Series
Gel Series
AGM Battery Deep Cycle Series
Electric Vehicle Series

Successful Cases in UPS Field

Amazon West Cloud Valley Data Center in Ningxia



- Battery Configuration: HF12-850WP-X
- Quantity of Battery : 2660
- Project Values:
 - Professional, customized service
 - User-specified battery delivery
 - Quarterly inspections under warranty
 - Nov. 11 live-in technicians

GDS Data Center in Shanghai



- Battery Configuration: 2V600Ah
- Quantity of Battery: 12000
- Project Values:
 - Battery + UPS specific solutions
 - A maintenance period exceeding five years
 - Factory-direct warranty for a turnkey project
 - Third-party quality assurance

Successful Cases in telecomm Field

Telecomm Base Station Project in Indonesia Island



- **Station Type:** Island Oil Hybrid Model
- **Battery Configuration:** 48V50Ah
- **Quantity of Battery :** 4 or 8 / per station
- **System Capacity:** 48V200Ah or 48V400Ah
- **Quantity of Station:** 500

- **Project Values:**
In the first half of 2013, they worked effectively after successive implementations. The original island base station had no air conditioning, and depended on the status of the oil generators to generate electricity. The current power situation has been greatly improved.

Telecomm Project in Bengal



- **Station Type:** Grid + Solar Hybrid Model
- **Battery Configuration:** 48V100Ah
- **Units Per Station:** 4 / per station
- **System Capacity:** 48V100Ah
- **Quantity of Station:** 1200
- **Project Values:** In the second half of 2014, they were implemented successively. They worked well and greatly improved the original outdoor base stations, which had zero air conditioning and a weak power supply.

VNPT 2G/3G Telecomm Project in Vietnam



- **Station Type:** Grid + Battery Hybrid Model
- **Battery Configuration:** CG2V、CT12V、CGT12V
- **Quantity of Station:**
more than 7000 / per station
- **Project Values:** Accumulated more than 60,000 batteries over 17 years to provide telecommunications convenience for tens of millions of people in Vietnam

Successful Cases in Energy Storage Solution

Xingjiang Construction Corps Photovoltaic Off-Grid Project



- **Project Type:** National Golden Sun Project
- **Station Installation:** 125KW Off-Grid Station (CL2000 2*110 pieces)
Total Capacity-0.88MWH
75KW Off-Grid Station (CL1500 3*110 pieces)
Total Capacity-0.99MWH
65KW Off-Grid Station (CL1000 2*110 pieces)
Total Capacity-0.44MWH
- **Project Values:** To bring power to the electricity-deficient people in Xinjiang

Lithium Power Plant Dehumidification Cuts Peaks and Fills Valleys



- **Project Type:** Cutting Peaks and Filling Valleys
- **Battery Configuration:** Lead-Carbon 2V500AH
- **System Scale:** 100kVA/0.522MWH
- **Project Values:** To provide support for peak power consumption of customer equipment, adjust power load, reduce differences between the peaks and the valleys of the power grid load, and balance the power generation and power consumption, enabling the significant reduction of power bills.

Successful Cases in EV and Lithium Series Solution

POTEVIO 6111 Hybrid Power Bus



- Battery Model: 336V60Ah Lithium Iron Phosphate
- Quad-connected batteries in series
- Strong Cooling (Cabin-induced wind)
- Meets IP67 ice and dust-proof standards
- Battery maintains charged power (monthly) $\geq 95\%$

Golden Dragon 6827 Pure Electric Bus



- Battery Model : 576V180Ah Lithium Iron Phosphate
- 3-parallel 180-series, hexa-connected batteries
- Meets IP67 ice and dust-proof standards
- Battery maintains charged power (monthly) $\geq 95\%$
- Meets heavy loads