

TCS® | SONGLI GROUP

TCS®

SONGLI BATTERY



SALES CENTER:

XIAMEN SONGLI NEW ENERGY TECHNOLOGY CO., LTD

Add: 19/Floor, No.11 Nantou Road, Guanyinshan, Siming District, Xiamen 361000, Fujian, China

Http:// www.songligroup.com | E-mail: sales@songligroup.com | Tel: 0592-3255666 | Fax: 0592-3255606

FACTORY INFORMATION:

SONGLI (JINJIANG) NEW ENERGY TECHNOLOGY CO., LTD

Add: Songshan Development Area, Jinjiang, Fujian

QUANZHOU KAIYING POWER CO., LTD.

Add: Laogang Village, Chengxiang Town, Quanzhou, Fujian



SINCE 1995

TCS Sales Network ★ TCS FACTORY ● CUSTOMERS



Official Website



WeChat Homepage



Online Store
Power Battery



Online Store
Storage Battery

01-04

COMPANY PROFILES

Founded in 1995, TCS Songli Battery is one of the earliest battery manufacturers in China, specializing in R&D, manufacturing and marketing for storage batteries.



05-08

PRODUCTION WORKSHOP

Professional manufacturing process;
First-class production facility;
Sophisticated technical know-how.



09-20

MOTORCYCLE BATTERY

Dry Charge Conventional Lead Acid Battery
Dry Charge Maintenance Free Lead Acid Battery
Sealed Maintenance Free Lead Acid Battery
Sealed Maintenance Free Gel Battery
All of them are basically applicable to universal models of motorcycle worldwide.



21-24

POWER BATTERY

They are mainly used in two-wheeler, three-wheeler and electric road vehicles. Common voltage of battery packs includes 36V, 48V, 60V and 72V, etc.



25-34

CAR BATTERY

There are two main types of batteries for large vehicles, Dry Charge Conventional Lead Acid Battery and Sealed Maintenance Free Battery, widely used in diverse cars and trucks.



35-46

STORAGE BATTERY

The industries Storage Battery being used cover Electric system, Electronic toys, Electric tools, Security system, Emergency lighting, Back-up power supply, Solar energy system and Wind power system, etc.





FACTORY VIEW



Office

Exhibition Room

Innovation Incubation Center

SINCE 1995

Songli Battery was founded in 1995, which specializes in advanced battery research, development, production and marketing. Songli Battery is one of the earliest battery brands in China. Company's products are widely used in motorcycles, electric bicycles, cars and industries and all kinds of special purposes with more than two hundred varieties and specifications.

After more than 20 years of development, Songli Battery keeps growing. The production base covers an area of more than 400,000 square meters with more than 3000 employees. It has a complete set of modern standard factory buildings, office buildings and employee apartment buildings. Songli Battery has advanced battery production lines and technology, and has been continuously introducing the world's leading automated assembly welding, auto wrapping machines and other equipments. Songli Battery actively cooperates with the government to develop the Non-Cadmium Container Formation Technology of battery, and constantly expands the self-brand advantage. The factory produces nearly 4,000,000 batteries per month, and the total annual production capacity is more than 6,000,000 KVAh.



Songli Battery has become a major enterprise, which gradually develops into one of the largest domestic battery manufacturers. The company has perfect quality assurance system, and has passed ISO9001/14001/18001 quality management system certification. With rich experience in production of battery, perfect innovation system, good relationship with customers and reliable pre-sales, sales and after-sales service, company maintains the stable dealership in China and abroad and has service agencies in many cities. In overseas, the business has been expanded to the Middle East, America, Africa, Southeast Asia and more than 100 countries and regions.

In order to participate in market competition, Songli Battery has developed quickly through technical innovation, technology development, joint venture cooperation, merger and joint operations. The company has now formed a group business model with Hongkong Songli Group as the core, Xiamen Songli New Energy Technology Co., Ltd, Xiamen Songli Import and Export Co., Ltd and Jin Jiang Songli Battery Co., Ltd as subsidiaries, holding (participating) shares of the company, while constantly integrating market resources. It has invested and cooperated with many battery enterprises.

Enterprise certificate

We apply for the certifications for our products, to provide customers with the most powerful reputation guarantee ...



CERTIFICATES



Manufacturing Workshop



Charging Workshop



Plates Making



Powder Workshop



Acid Filler

TCS Brand Explanatory Comments

T-Technology Oriented: Based on lead acid battery products, seek and make researches on the new technologies of battery products and develop new products catering the market trend and requirements.

C-Customer Cared: Provide the high quality products for customers as well as improve the corporate philosophy on customer service and care.

S-Superior Quality: Centered on products quality and always insisted on providing superior quality batteries for customers.

PRODUCTION WORKSHOP

We have the international first-class battery production equipments and technologies, introducing and strictly following the international advanced standards and production process. With strict quality control procedures, to produce high quality products and provide a powerful guarantee, to lay a solid foundation for our reputation.





SINCE
1995

PRODUCT TYPE



Songli Battery was founded in 1995, which specializes in advanced battery research, development, production and marketing. Songli Battery is one of the earliest battery brands in China. Company's products are widely used in motorcycles, electric bicycles, cars and industries and all kinds of special purposes with more than two hundred varieties and specifications.



STORAGE BATTERY APPLICATIONS

- Engine starter
- Electric tools
- Electric toys
- Electric power system
- Marine equipment
- Computer backup power
- Solar system/Wind system
- Emergency lightening system
- Communication equipment
- Fire& Security& Alarm system
- Cable TV
- Control system
- Nuclear power plant
- Generating station
- Telecom system
- Peak load compensation energy storage device
- Uninterrupted Power Supply(UPS)
- Backup& Standby power

PRODUCT DESCRIPTION

Safety: no leakage on battery terminal, ensure using in safe and reliable

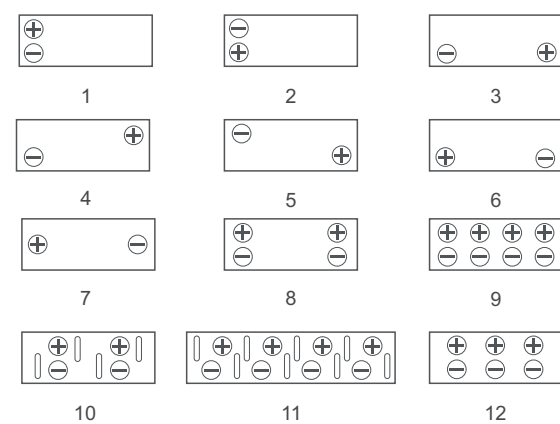
Maintenance free: due to all internal generated gas restore to water, do not need water replenishment

Exhaust air system: it can exhaust excess gas and make air pressure up to normal range when battery overcharges and internal pressure is over high, this time safe valve will close by itself, so there will be not additional gas accumulate.

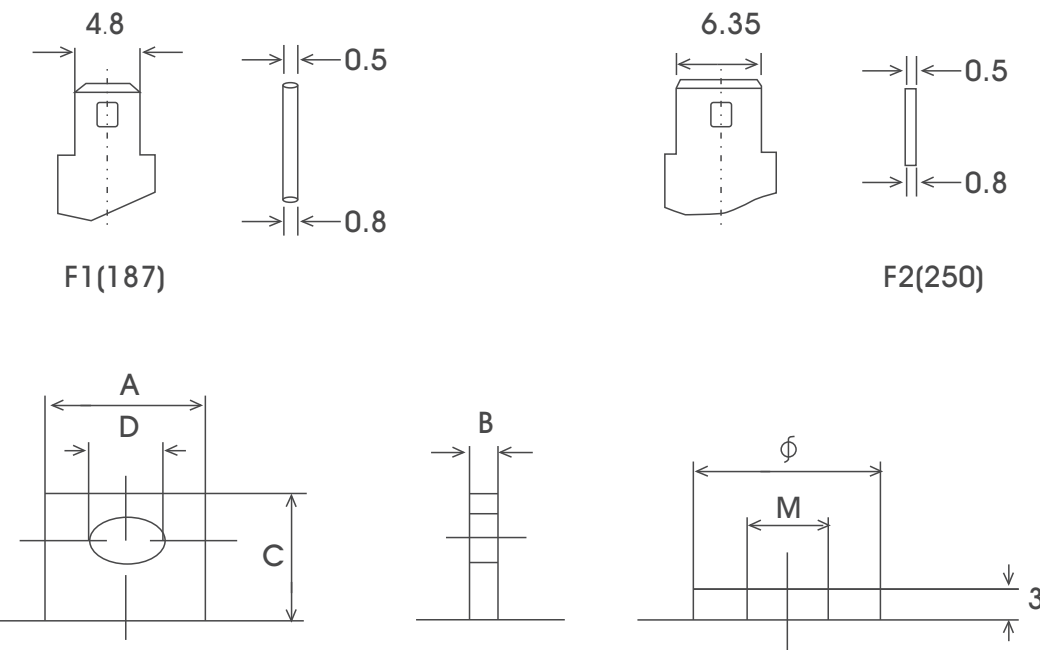
No free acid: special separator adsorb electrolyte, so there is no free acid inside battery, then battery can be installed in various position.



TERMINAL DIRECTION:



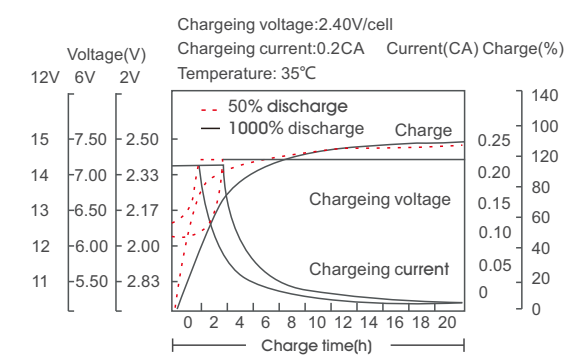
TERMINAL DIMENSIONS(mm):



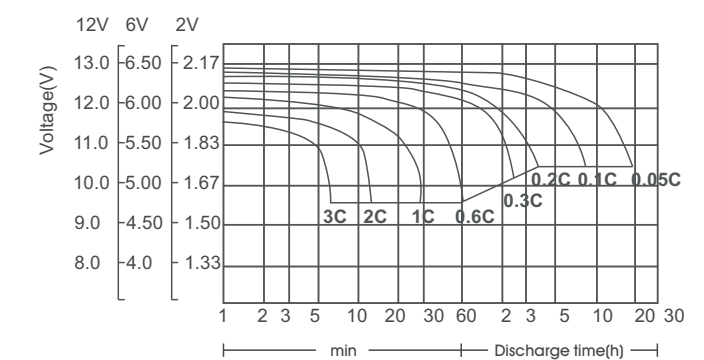
Type	A	B	C	D	Material
F5	16.5	6	15	6.2	Lead
F6	18	3	19	7	Copper
F7	18	9.6	18	9.5	Lead
F8	26	8	24	8.6	Lead
F9	26.5	10	23	8.5	Lead
F10	26	8.3	23	8.5	Lead
F11	27	8.3	26	9	Lead
F17	12	2	14	5.5	Copper

Type	M	Φ	Material
D1	4	10	Copper
D2	5	10	Copper
F12	8	20	Copper
F13	8	16	Copper
F14	6	14	Copper
F15	8	18	Copper
F16	10	18	Copper
F18	5	12	Copper
F19	6	16	Copper
M6	6	14/16	Copper

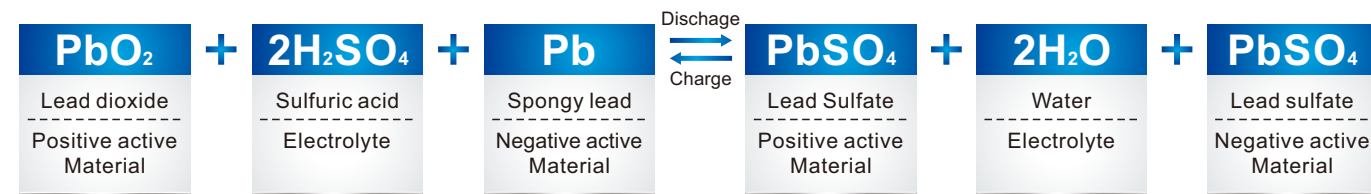
● Charge characteristic curve as follows



● Small size battery Discharge characteristic curve



CHEMICAL REACTION IN VRLA BATTERY AS FOLLOWS



While battery is discharged, the concentration of sulfuric acid is gradually decreased and lead sulfate is formed under the reaction between lead dioxide of positive electrode, spongy lead of negative electrode and the sulfuric acid in the electrolyte. While charging, lead sulfate in the positive and negative electrode is transformed to lead dioxide and spongy lead, and with the separation of sulfuric ions, the concentration of sulfuric acid will increase.

During the last charging period of traditional lead acid battery, water is consumed by the reaction of hydrogen evolution. So it requires compensation of water. With the application of moist spongy lead, it promptly reacts with oxygen, which effectively controls the decrease of water.

It is same as the traditional batteries from the beginning of charge to before the final stage, but when it is over-charged and in the last period of charge, the electric power will start to decompose water, negative electrode will be in discharge condition because oxygen from the positive plate reacts with spongy lead of negative plate and sulfuric acid of electrolyte. That restrains the hydrogen evolution on the negative plates.

The part of negative electrode in discharge condition will transform to spongy lead while charging. The quantity of spongy lead formed from charging equals to the quantity of sulfate lead as the result of absorbing the oxygen from positive electrode, which keeps the balance of negative electrode, and also make it possible to seal battery.

Reaction after the final stage of charge and chemical equation as below:

Fig.3:Reaction From Beginning Of Charge To Before the Final Stage

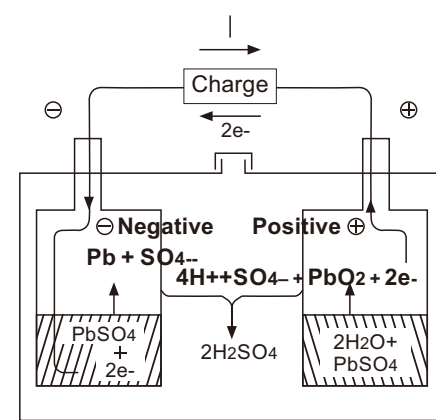
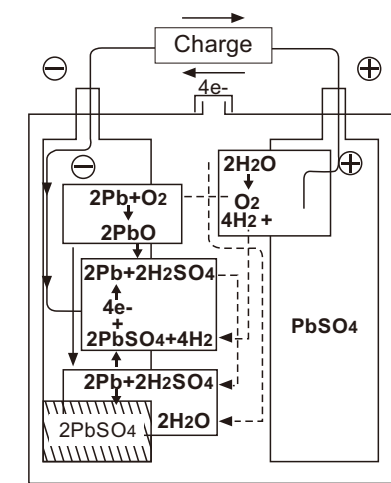


Fig.4:Reaction after final stage of charge:



- ① $2H_2O \rightarrow O_2 + 4H^+ + 4e^-$
Reaction at positive plate
- ② $2Pb + O_2 \rightarrow 2PbO$
Migrates to negative plate surface
- ③ $PbO + 2H_2SO_4 \rightarrow 2PbSO_4 + 2H_2O$
Chemical reaction of spongy lead with oxygen
- ④ **Reduction of PbSO₄**
 $PbSO_4 + 4H^+ + 4e^- \rightarrow 2Pb + 2H_2SO_4$
Chemical reaction of pbo with electrolytes
- $O_2 + 4H^+ + 4e^- \rightarrow 2H_2O$
Chemical reaction of pbo with electrolytes

MAINTENANCE In order to prevent battery troubles, inspect the battery regularly in the following manner and keep records.

Monthly check			
What to inspect	Method	Stand spec	.Measures in case of irregularity
Total battery voltage during float charge	Measure total voltage by voltmeter	Float charge voltage* number of batteries	Adjusted to the float charge voltage number of batteries
Half year check			
Total battery voltage during float charge	Measure total battery voltage by voltmeter of class 0.5 or better	Total battery voltage shall be product of float charge voltage with battery quanting	Adjust if the voltage value is outside standard
Individual battery voltage during float charge	Measure total battery voltage by voltmeter of lass 0.5 or better	Within 2.25+_ 0.1V/cell	Contact us for remedy; Any battery showing errors greater than permissible value shall be repaired or replaced
Appearance	Check for damage or leakage at container and cover	Replaced by electric tank or roof without damage or leakage acid	If leakage is found verify the cause, for container and cover having cracks, the battery shall be replaced
	Check for contamination by dust, etc	Battery no dust pollution	If contaminated, clean with wet cloth.
	Check for rust in the cubicle, battery stand, connecting plates, connecting wires and terminals	Battery holder Plate Connecting cable Termination rust	Perform cleaning, rust preventive treatment, painting of touch up.
One-year inspection (following inspection shall be added to six-months inspection)			
Connecting parts	Tighten bolts and nuts	Checking (connecting screw stud books and torque)	

BATTERY CONSTRUCTION

Safety valve

Synthesized with EPDM rubber and Teflon, the function of safety valve is to release gas when the internal pressure rises abnormally which can prevent water losses and protect battery from explosion by over-pressure and over-heat.

Container&cover

Battery case includes container and cover. Container is used to hold positive and negative plates and electrolyte. Preventing impurities entering cells, cover also can avoid acid leakage and venting. Containing all materials relating charge and discharge, ABS and PP material are chosen as battery case because of their well performance in insulativity, mechanical strength, anti-corrosion and heat resistance.

Electrolyte

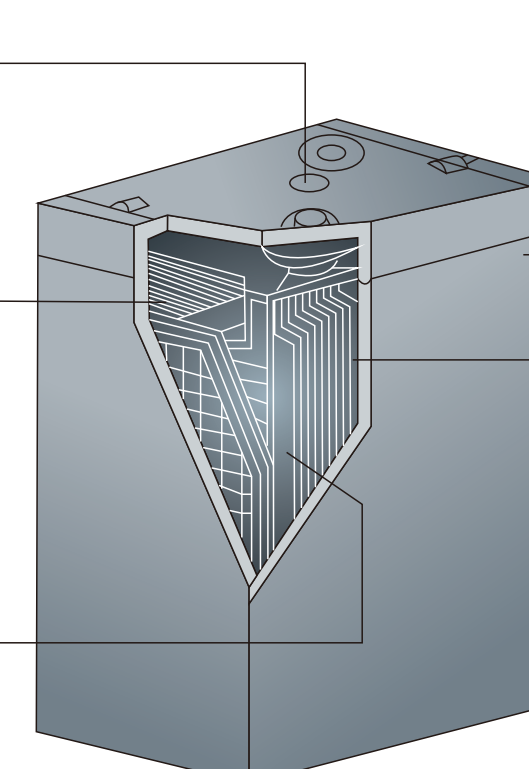
Electrolyte is compounded with sulfuric acid, deionized water or distilled water. It takes part in the electrochemical reaction and plays as the medium of positive and negative ions in liquid and temperature between plates.

Separator

Separator in VRLA battery should consist of porous mass and adsorb massive electrolyte to make sure the free movement of electrolyte, positive and negative ions. As the carrier of electrolyte, separator also should prevent the short circuit between positive and negative plates. Providing the shortest distance for negative and positive electrode, separator prevents lead paste to be damaged and dropped, and prevents the contact between the cast and electrode even when the active materials is off the plates. It also can stop the spread and shift of hazardous substance. Glass fiber, as the normal and frequent choice, is characterized with strong adsorbability, tiny aperture, high porosity, large pore area, high mechanical strength, strong resistance to acid corrosion and chemical oxidizing.

Grid

To collect and transfer current, grid-shape alloy (PB-CA-SN) plays a part of supporting active materials and distributing current in active materials equally.





SMALL SIZE BATTERY SERIES

storage battery

No.	Model	Voltage (V)	Capacity (Ah)	Dimensions(mm)				Terminal Type	Terminal Position	Weight (Kg)±5%
				(L)±1.5	(W)±1.0	(H)±2.0	(TH)±2.0			
1	SL4-3.5S	4	3.5	48	48	102	108	F2	3	0.41
2	SL4-4.5	4	4.5							0.48
3	SL6-1.2	6	1.2	97	24	52	58	F1	6	0.29
4	SL6-2.8	6	2.8							0.50
5	SL6-3.5S	6	3.5	70	47	101	107	F1	4	0.61
6	SL6-4E	6	4.0							0.65
7	SL6-4	6	4.0							0.67
8	SL6-4.5	6	4.5							0.71
9	SL6-4.5H	6	4.5							0.74
10	SL6-5.0	6	5.0							0.79
11	SL6-6.5	6	6.5	151	35	94	100	F1/F2	6	1.05
12	SL6-7	6	7.0							1.10
13	SL6-7.5	6	7.5							1.18
14	SL6-10	6	10.0	151	50	94	100	F1/F2	6	1.55
15	SL6-10H	6	10.0							1.65
16	SL6-12	6	12.0							1.75
17	SL12-1.2	12	1.2	97	43	52	58	F1	2	0.55
18	SL12-2	12	2.0							0.80
19	SL12-2.3	12	2.3	178	35	61	67	F1	6	0.90
20	SL12-2.3A	12	2.3							0.71
21	SL12-2.6A	12	2.6	70	48	98	104	F1	6	0.75
22	SL12-2.9	12	2.9							1.05
23	SL12-3.2	12	3.2	134	67	61	67	F1	2	1.21
24	SL12-4	12	4.0							1.36
25	SL12-4.5	12	4.5	90	70	101	107	F1/F2	6	1.43
26	SL12-5	12	5.0							1.53
27	SL12-6	12	6.0							1.86
28	SL12-6.5	12	6.5	151	65	94	100	F1/F2	1	1.98
29	SL12-7	12	7.0							2.07
30	SL12-7.2	12	7.2							2.15
31	SL12-7.5	12	7.5							2.25
32	SL12-8.5	12	8.5							2.37
33	SL12-9	12	9.0							2.48
34	SL12-10	12	10.0	151	98	95	101	F1/F2	1	2.80
35	SL12-10H	12	10.0							3.12
36	SL12-12	12	12.0							3.25
37	SL12-12H	12	12.0	181	77	167	167	F17/F18	3	3.45
38	SL12-15	12	15.0							4.60
39	SL12-17	12	17.0							5.10
40	SL12-18	12	18.0							5.25
41	SL12-20	12	20.0							5.50
42	SL12-24	12	24.0							7.60
43	SL12-26	12	26.0	175	166	125	125	F17/F18	3	7.80
44	SL12-28	12	28.0							8.20
45	SL12-24A	12	28.0							8.10
46	SL12-28A	12	32.0	165	125	175	175	F18	3	9.30
47	SL24-3.5	24	3.5							180



MIDDLE SIZE BATTERY SERIES

storage battery

No.	Model	Voltage	Capacity	Dimensions(mm)				Terminal Type	Terminal Position	Weight (Kg)±5%						
		(V)	(Ah)	(L)±1.5	(W)±1.0	(H)±2.0	(TH)±2.0									
1	SL6-36	6	36	162	88	164	170	F2	5	5.6						
2	SL6-42	6	42							6.1						
3	SL6-100	6	100	194	170	205	210	F14	4	15.5						
4	SL6-150	6	150	260	180	245	250	F13	5	23.0						
5	SL6-300	6	300	295	178	345	348	F13	5	47.0						
6	SL12-24L	12	24	195	130	155	166	F14	6	7.0						
7	SL12-29	12	24							9.1						
8	SL12-31	12	31							9.6						
9	SL12-33	12	33							10.0						
10	SL12-35	12	35							10.5						
11	SL12-38	12	38							12.0						
12	SL12-40	12	40							12.3						
13	SL12-42	12	42	197	165	170	170	F19	3	13.5						
14	SL12-45	12	45							14.0						
15	SL12-33S	12	33	229	138	211	214	F14	6	12.5						
16	SL12-50	12	50							15.0						
17	SL12-55	12	55							17.0						
18	SL12-50A	12	50	229	138	205	210	F19	6	15.5						
19	SL12-55A	12	55	260	168	211	214	F14	6	18.5						
20	SL12-60	12	60							20.0						
21	SL12-70	12	70							21.5						
22	SL12-75	12	75							22.0						
23	SL12-80	12	80							23						
24	SL12-40S	12	40							350	167	179	179	F12	3	15.7
25	SL12-50S	12	50													17.0
26	SL12-54	12	54	17.8												
27	SL12-60A	12	60	19.0												
28	SL12-65	12	65	20.0												
29	SL12-70A	12	70	306	169	211	214	F14	6	21.0						
30	SL12-80A	12	80							23.5						
31	SL12-90V	12	90							23.5						
32	SL12-90E	12	90	330	171	214	220	F12	6	26.0						
33	SL12-90	12	90							26.5						
34	SL12-70S	12	70	330	171	214	220	F12	6	24.3						
35	SL12-80S	12	80							25.5						
36	SL12-90AE	12	90							27.0						
37	SL12-90A	12	90	330	171	214	220	F12	6	27.5						
38	SL12-100E	12	100							28.5						
39	SL12-100	12	100							29.5						

No.	Model	Voltage	Capacity	Dimensions(mm)				Terminal Type	Terminal Position	Weight (Kg)±5%						
		(V)	(Ah)	(L)±1.5	(W)±1.0	(H)±2.0	(TH)±2.0									
40	SL12-110	12	110	330	171	214	220	F12	6	32.0						
41	SL12-130	12	130							33.4						
42	SL12-120A	12	120	409	176	225	225	F12	6	34.0						
43	SL12-90S	12	90	406	173	208	238	F12	6	29.5						
44	SL12-100S	12	100							31.0						
45	SL12-110S	12	110							32.0						
46	SL12-120	12	120							34.0						
47	SL12-135	12	135	340	172	282	284	F12	6	40.5						
48		12	135							42.5						
49	SL12-110S	12	110	485	172	240	240	F12	6	40.5						
50	SL12-120S	12	120							43.0						
51	SL12-135S	12	135							40.5						
52	SL12-150	12	150	522	238	218	221	F12	2	43.0						
53	SL12-150A	12	150							47.0						
54	SL12-160	12	160							530	207	210	213	F12	2	49.5
55	SL12-180	12	180													52.5
56	SL12-150S	12	150							522	238	218	221	F12	2	51.5
57	SL12-180S	12	180													55.5
58	SL12-190S	12	190													57.0
59	SL12-200	12	200	59.5												
60	SL12-220	12	220	62.0												
61	SL12-225	12	225	60.5												
62	SL12-250	12	250	521	269	220	223	F12	2	71.0						



FRONT TERMINAL BATTERY SERIES

storage battery

No.	Model	Voltage	Capacity	Dimensions(mm)				Terminal Type	Terminal Position	Weight (Kg)±5%
		(V)	(Ah)	(L)±1.5	(W)±1.0	(H)±2.0	(TH)±2.0			
1	SL12-50FT	12	50	277	106	221	221	F14	2	15.5
2	SL12-75FT	12	75	562	114	189	189	F14	2	24.5
3	SL12-100FT	12	100	506	110	224	239	F14	2	31.0
4	SL12-100AFT	12	100	395	110	286	286	F14	2	31.0
5	SL12-110FT	12	110	395	110	286	286	F14	2	33.0
6	SL12-120FT	12	120	551	110	239	239	F13	2	36.0
7	SL12-125FT	12	125	436	108	317	317	F13	2	37.0
8	SL12-150FT	12	150	551	110	287	287	F13	2	48.5
9	SL12-175FT	12	180	560	125	317	323	F13	2	53.8
10	SL12-180FT	12	180	560	125	317	323	F13	2	56.0
11	SL12-200FT	12	195	560	125	317	323	F13	2	57.0



DEEP CYCLE BATTERY SERIES

storage battery

No.	Model	Voltage (V)	Capacity (Ah)	Dimensions(mm)				Terminal Type	Terminal Position	Weight (Kg)±5%
				(L)±1.5	(W)±1.0	(H)±2.0	(TH)±2.0			
1	SLD6-100	6	100	194	170	205	210	F14	4	15.5
2	SLD6-150	6	150	260	180	245	250	F13	5	23.0
3	SLD6-180	6	180	307	169	220	225	F13	5	27.0
4	SLD6-200	6	200	321	176	226	229	F13	4	29.5
5	SLD12-7	12	7.0	151	65	94	100	F1/F2	1	2.15
6	SLD12-12	12	12.0	151	98	95	101	F1/F2	1	3.45
7	SLD12-18	12	18.0	181	77	167	167	F17/F18	3	5.25
8	SLD12-24	12	24.0	166	175	125	125	F17/F18	3	7.40
9	SLD12-33	12	33.0	195	130	155	166	F14	6	10.0
10	SLD12-40	12	40.0	197	165	170	170	F14	3	12.5
11	SLD12-50	12	50.0	229	138	211	214	F14	6	15.5
12	SLD12-50A	12	50.0	229	138	205	210	F14	6	15.5
13	SLD12-70	12	70.0	260	168	211	214	F14	6	21.5
14	SLD12-65	12	65.0	350	167	175	175	F14	3	20.0
15	SLD12-90	12	90.0	306	169	211	214	F14	6	27.0
16	SLD12-100	12	100	330	171	214	220	F14	6	29.5
17	SLD12-120A	12	120	409	176	225	225	F13	6	34.0
18	SLD12-120	12	120	406	173	208	238	F13	6	34.0
19	SLD12-150	12	150	485	172	240	240	F13	6	43.0
20	SLD12-160	12	160	530	207	210	213	F13	2	47.5
21	SLD12-180	12	180							52.5
22	SLD12-200	12	200	522	238	218	221	F13	2	59.5
23	SLD12-250	12	250	521	269	220	223	F13	2	71.0
24	SLD2-100	2	100	171	72	205	210	F13	7	5.60
25	SLD2-150	2	150	171	102	206	221	F13	4	8.00
26	SLD2-200	2	200	171	111	330	364	F12	7	12.8
27	SLD2-300	2	300	171	151	330	364	F12	7	18.0
28	SLD2-400	2	400	210	175	330	367	F12	8	25.0
29	SLD2-500	2	500	241	175	330	365	F12	8	30.0
30	SLD2-600	2	600	302	175	330	367	F12	8	36.0
31	SLD2-800	2	800	410	175	330	367	F12	9	50.0
32	SLD2-1000	2	1000	475	175	330	367	F12	9	60.0
33	SLD2-1500	2	1500	400	350	345	382	F12	10	93.0
34	SLD2-2000	2	2000	490	350	345	382	F12	11	120
35	SLD2-3000	2	3000	710	350	345	382	F12	11	180



GEL BATTERY SERIES

storage battery

No.	Model	Voltage (V)	Capacity (Ah)	Dimensions(mm)				Terminal Type	Terminal Position	Weight (Kg)±5%
				(L)±1.5	(W)±1.0	(H)±2.0	(TH)±2.0			
1	SLG6-100	6	100	194	170	205	210	F14	4	15.5
2	SLG6-150	6	150	260	180	245	250	F13	5	23.0
3	SLG6-180	6	180	307	169	220	225	F13	5	27.0
4	SLG6-200	6	200	321	176	226	229	F13	4	29.5
5	SLG12-7	12	7.0	151	65	94	100	F1/F2	1	2.15
6	SLG12-12	12	12.0	151	98	95	101	F1/F2	1	3.45
7	SLG12-18	12	18.0	181	77	167	167	F17/F18	3	5.25
8	SLG12-24	12	24.0	166	175	125	125	F17/F18	3	7.40
9	SLG12-33	12	33.0	195	130	155	166	F14	6	10.0
10	SLG12-40	12	40.0	197	165	170	170	F14	3	12.5
11	SLG12-50	12	50.0	229	138	211	214	F14	6	15.5
12	SLG12-50A	12	50.0	229	138	205	210	F14	6	15.5
13	SLG12-70	12	70.0	260	168	211	214	F14	6	21.5
14	SLG12-65	12	65.0	350	167	175	175	F14	3	20.0
15	SLG12-90	12	90.0	306	169	211	214	F14	6	27.0
16	SLG12-100	12	100	330	171	214	220	F14	6	29.5
17	SLG12-120A	12	120	409	176	225	225	F13	6	34.0
18	SLG12-120	12	120	406	173	208	238	F13	6	34.0
19	SLG12-150	12	150	485	172	240	240	F13	6	43.0
20	SLG12-160	12	160	530	207	210	213	F13	2	47.5
21	SLG12-180	12	180							52.5
22	SLG12-200	12	200	522	238	218	221	F13	2	59.5
23	SLG12-250	12	250	521	269	220	223	F13	2	71.0
24	SLG2-100	2	100	171	72	205	210	F13	7	5.60
25	SLG2-150	2	150	171	102	206	221	F13	4	8.00
26	SLG2-200	2	200	171	111	330	364	F12	7	12.8
27	SLG2-300	2	300	171	151	330	364	F12	7	18.0
28	SLG2-400	2	400	210	175	330	367	F12	8	25.0
29	SLG2-500	2	500	241	175	330	365	F12	8	30.0
30	SLG2-600	2	600	302	175	330	367	F12	8	36.0
31	SLG2-800	2	800	410	175	330	367	F12	9	50.0
32	SLG2-1000	2	1000	475	175	330	367	F12	9	60.0
33	SLG2-1500	2	1500	400	350	345	382	F12	10	93.0
34	SLG2-2000	2	2000	490	350	345	382	F12	11	120
35	SLG2-3000	2	3000	710	350	345	382	F12	11	180



OPzV BATTERY SERIES

storage battery

No.	Model	Voltage	Capacity (Ah)	Dimensions(mm)				Terminal Type	Terminal Position	Weight (Kg)±5%
		(V)		(L)±1.5	(W)±1.0	(H)±2.0	(TH)±2.0			
1	OPzV 200	2	200	103	206	355	390	F12	7	18.2
2	OPzV 250	2	250	124	206	355	390	F12	7	22.4
3	OPzV300	2	300	145	206	355	390	F12	7	26.4
4	OPzV350	2	350	124	206	471	506	F12	7	29.0
5	OPzV 420	2	420	145	206	471	506	F12	7	35.0
6	OPzV 500	2	500	166	206	471	506	F12	7	39.0
7	OPzV 600	2	600	145	206	646	681	F12	7	48.0
8	OPzV 800	2	800	191	210	646	681	F12	8	65.0
9	OPzV 1000	2	1000	233	210	646	681	F12	8	78.5
10	OPzV 1200	2	1200	275	210	646	681	F12	8	93.0
11	OPzV 1500	2	1500	275	210	796	931	F12	8	115
12	OPzV 2000	2	2000	397	212	772	807	F12	12	155
13	OPzV 2500	2	2500	487	212	772	807	F12	9	192
14	OPzV 3000	2	3000	576	212	772	807	F12	9	228

2V BATTERY SERIES

storage battery

No.	Model	Voltage	Capacity (Ah)	Dimensions(mm)				Terminal Type	Terminal Position	Weight (Kg)±5%
		(V)		(L)±1.5	(W)±1.0	(H)±2.0	(TH)±2.0			
1	SL2-100	2	100	171	72	205	210	F13	7	5.6
2	SL2-160	2	160	171	111	330	364	F12	7	11.0
3	SL2-200	2	200	171	111	330	364	F12	7	12.8
4	SL2-250	2	250	171	111	330	364	F12	7	14.5
5	SL2-300	2	300	171	151	330	364	F12	7	18
6	SL2-400	2	400	210	175	330	367	F12	8	25
7	SL2-500	2	500	241	175	330	365	F12	8	30
8	SL2-600	2	600	302	175	330	367	F12	8	36
8	SL2-650	2	650	302	175	330	367	F12	8	37.5
9	SL2-800	2	800	410	175	330	367	F12	9	50
10	SL2-1000	2	1000	475	175	330	367	F12	9	60
11	SL2-1500	2	1500	400	350	345	382	F12	10	93
12	SL2-2000	2	2000	490	350	345	382	F12	11	120
13	SL2-3000	2	3000	710	352	345	382	F12	11	180

OPzS BATTERY SERIES

storage battery

No.	Model	Voltage (V)	Capacity (Ah)	Dimensions(mm)				Terminal Type	Terminal Position	Weight(Kg ±5%)		
				(L)±1.5	(W)±1.0	(H)±2.0	(TH)±2.0			Dry weight	Wet weight	Acid weight
1	OPzS 200	2	200	103	206	355	410	F12	7	12.9	17.4	4.5
2	OPzS 250	2	250	124	206	355	410	F12	7	15.0	20.5	5.5
3	OPzS 300	2	300	145	206	355	410	F12	7	18.5	24.5	6.0
4	OPzS 350	2	350	124	206	471	526	F12	7	21.0	28.0	7.0
5	OPzS 420	2	420	145	206	471	526	F12	7	23.0	32.0	9.0
6	OPzS 490	2	490	166	206	471	526	F12	7	28.2	38.0	9.8
7	OPzS 600	2	600	145	206	646	701	F12	7	35.0	47.0	12.0
8	OPzS 800	2	800	191	210	646	701	F12	8	46.9	64.0	17.1
9	OPzS 1000	2	1000	233	210	646	701	F12	8	58.0	78.0	20.0
10	OPzS 1200	2	1200	275	210	646	701	F12	8	68.0	92.0	24.0
11	OPzS 1500	2	1500	275	210	796	851	F12	8	83.8	113.8	30.0
12	OPzS 2000	2	2000	397	212	772	827	F12	12	110	152	42.0
13	OPzS 2500	2	2500	487	212	772	827	F12	9	132	185	53.0
14	OPzS 3000	2	3000	576	212	772	827	F12	9	159	222	63.0

APPLICATION FIELD

