



# AUTOMOTIVE BATTERY

PRODUCT BROCHURE



## TIANNENG INTERNATIONAL CO.,LIMITED

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**\$11.6 billion**

2023 Annual Sales

**A+H Listed**

6888.19.SH/00819.HK

**4000+**

Patents

**No.21**

Global New Energy Enterprise Ranking

# Company Profile

Tianneng is a Global Leading New Energy Company committed to providing environmentally-friendly battery solutions for various industries worldwide since 1986.

Tianneng now has more than 30,000 employees and more than 130 subsidiaries around the world. There are 18 production bases in 7 provinces in China and 1 overseas manufacturing center in Vietnam. Tianneng set up 7 R&D centers to constantly develop technology and keep innovation in the area of lead acid batteries, lithium batteries, hydrogen Fuel Cells, and Sodium-ion batteries.

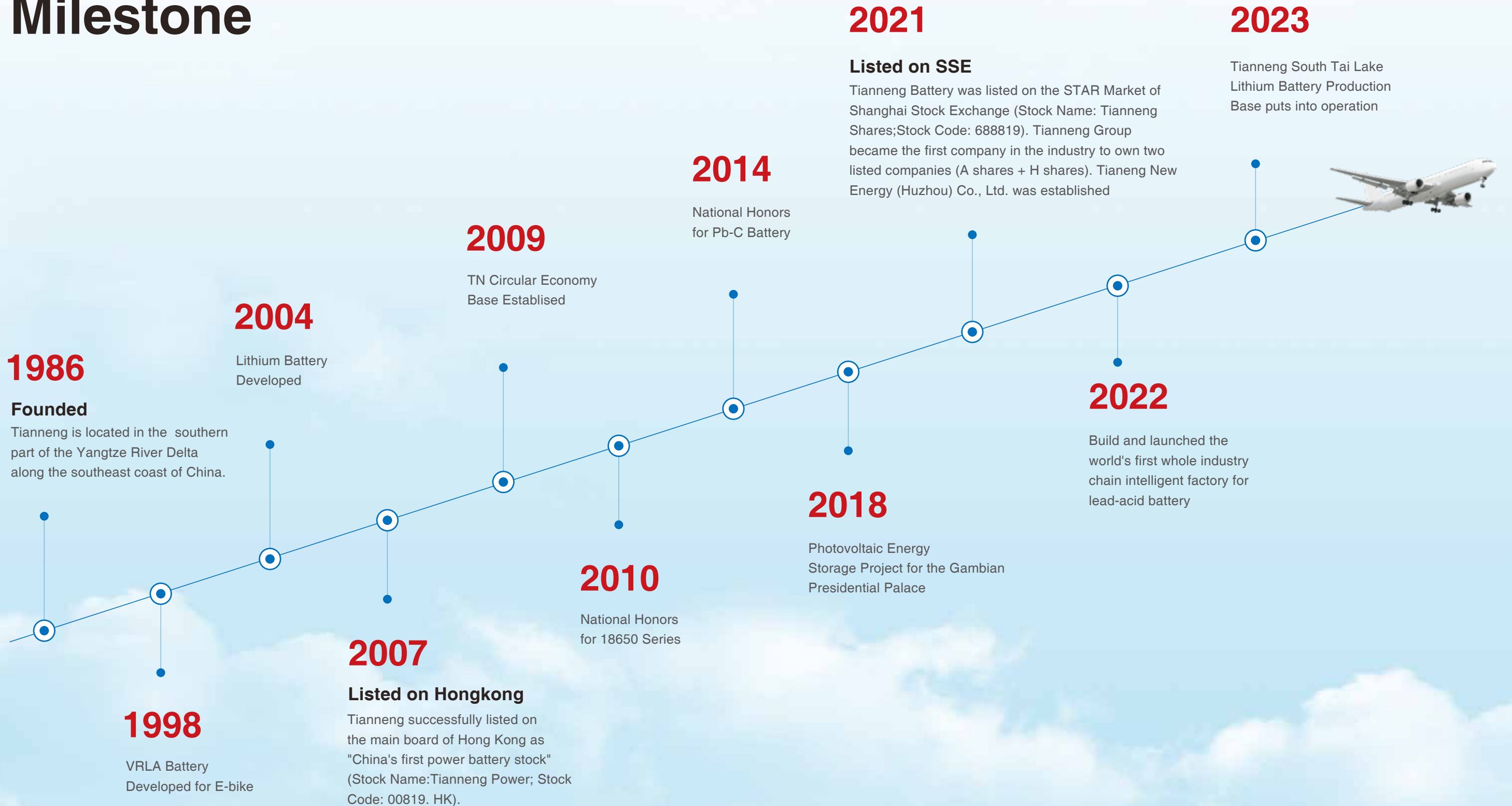
## Honor:

- Top 1 in China Lead Acid Battery
- Top 10 in the Chinese battery industry
- Top 500 Chinese enterprises
- Global top 500 new energy enterprises

## Main Business areas:

- Battery and system Solutions (Motive, SLI, Energy Storage)
- Battery Recycling Solutions (Lead Acid battery recycling, Lithium-ion battery recycling)

# Milestone



# Global Footprint

- 100+ Countries Footprint.
- 11+ Lenovo Oversea Branches.
- Tianneng has a global footprint around the world, our business covers more than 100 countries and regions.
- **Market Performance**  
2023 Global Delivery: **110Gwh+**

## Headquarters

- **HQ:** Huzhou, Zhejiang, China
- **INT HQ:** Hongkong, China

## Branch

- **APAC:** Vietnam, Thailand, Indonesia, Philippines, Australia & New Zealand
- **South Asia:** India
- **MENA (Middle East and North Africa) :** South Africa, Turkey, Nigeria
- **Americas:** America, Argentina, Colombia
- **Europe:** Netherlands, Germany



# Intelligent Factory

## Strong research and development strength

 <p><b>170+</b> Define industry standards</p>	 <p><b>4800+</b> Industry patents</p>	 <p><b>2</b> CNAS laboratories</p>
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In the intelligent factory, there are intelligent full-automatic production lines composed of first-class equipments, efficient energy-saving and environmental protection lines, and precise data command lines with the feature of achieving flexible manufacturing, energy conservation and environmental protection, and data traceability.



# STARTER BATTERY-C SERIES

## Strength

- Recommended Temperature ≤ 70 °C
- Suitable for Conventional Vehicle
- High Capacity Density (Large Charge/ Discharge Capacity)

## Product Appearance



### PRODUCT FEATURE

- **Long Life Cycle**  
Rare earth alloy grid→Extend Cycle Life
- **Strong Starting Capacity**  
Special Partition→Low Internal Resistance and Low Water loss
- **Excellent Vibration Resistance**  
Elastic reinforcement technology →Effectively Prevent the Active Materials Shedding
- **Excellent Charging Acceptance**  
Special Electrolyte Formula→Great Charging Capacity
- **Maintenance Free**  
Labyrinth Top Cover Structure→Don't Need to Add Water and Acid

### APPLICATION

- Passenger Car
- Commercial Vehicle

# STARTER BATTERY-S SERIES

## Strength

- Recommended Temperature ≤ 70 °C
- Suitable For Conventional Vehicle in a Cold Region of High Latitude or Altitude
- High Capacity Density (Large Charge/ discharge Capacity)

## Product Appearance



### PRODUCT FEATURE

- **Long Life Cycle**  
High Tin Alloy Grid&Multistage Rolling Casting→Technology Extend Cycle Life
- **Stronger Starting Capacity**  
Multi-plate Design+Special Partition→Larger Discharge Capacity, Stronger Starting Capacity than Standard Battery.
- **Excellent Vibration Resistance**  
Elastic reinforcement technology →Effectively Prevent the Active Materials Shedding
- **Excellent Charging Acceptance**  
Special Electrolyte Formula→Great Charging Capacity
- **Maintenance Free**  
Labyrinth Top Cover Structure→Don't Need to Add Water and Acid

### APPLICATION

- Passenger Car
- Commercial Vehicle

# EFB Start-stop Battery

## Strength

- Great Performance on Frequent and Continuous Engine Starting
- Save Fuel by 2% - 6% with Start Stop System
- Suitable for Conventional Vehicles Equipped with Idle Start Stop System
- Recommended Temperature  $\leq 70^{\circ}\text{C}$

## Product Appearance



## PRODUCT FEATURE

- **Long Life Cycle --- 2 Times Longer than SLA Battery**
  - ①Special Rare Earth Alloy Formula→Enhance Grid Strength, Corrosion Resistance, Creep resistance
  - ②High Temperature Steaming and Curing Process→Extend Cycling Life
- **Strong Starting Capacity (Large CCA)---1.1Times Stronger than Original Battery**
  - ①Middle Ear Dense Grid Technology→Excellent Large Current Discharge Performance at Low Temperature
  - ②Duralife Technology→Low internal resistance and Strong Starting Ability at Low Temperature
- **Excellent Charging Acceptance**
  - ①Advanced Electrolyte Additive →Great Charging Capacity
  - ②High-energy Carbon Material →Great Charging Capacity
- **Excellent Vibration Resistance**
  - Tight Assembly Technology→ Effectively Prevent the Active Materials Shedding

## APPLICATION

- Passenger Car

# AGM Start-stop Battery

## Strength

- High Security without Leakage
- Great Performance on Frequent and Continuous Engine Starting
- Save Fuel by 4% - 8% with Start Stop System
- Suitable for High-end Vehicles Equipped with Idle Start Stop System
- Recommended Temperature  $\leq 60^{\circ}\text{C}$

## Product Appearance



## PRODUCT FEATURE

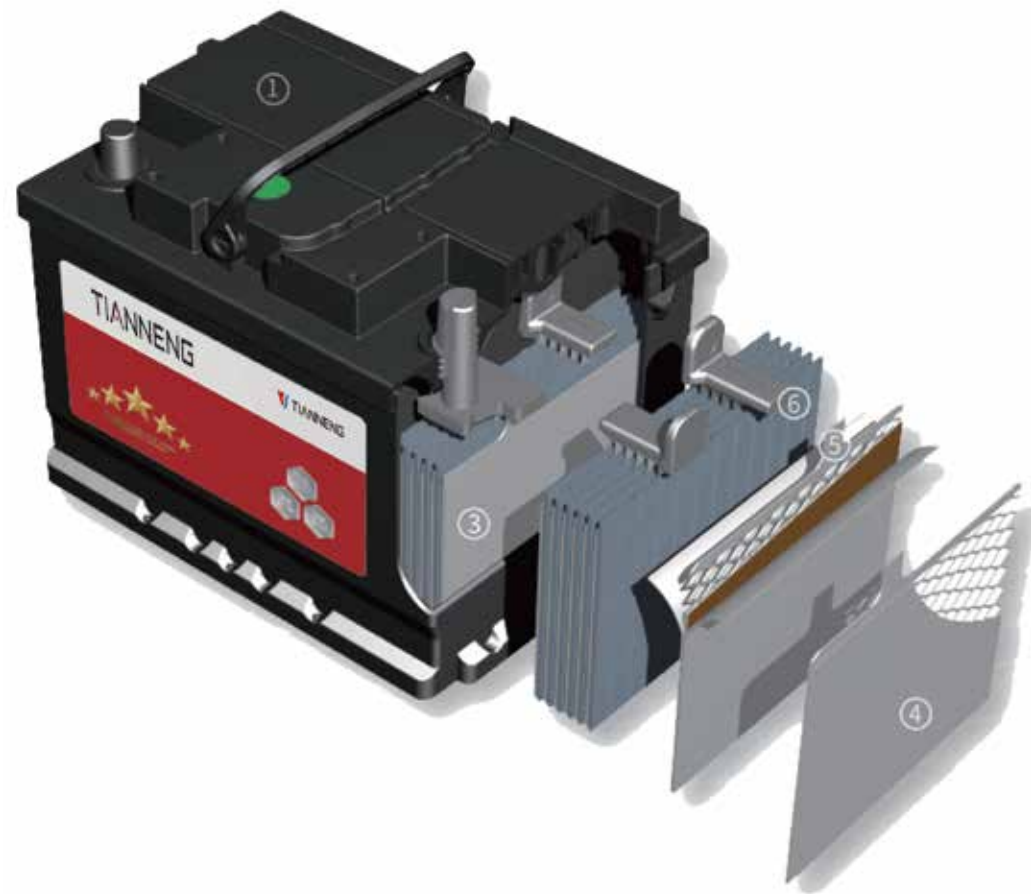
- **Long Life Cycle --- 3 Times Longer than SLA Battery**
  - ①Special Rare Earth Alloy Formula→Enhance Grid Strength, Corrosion Resistance, Creep resistance
  - ②High Temperature Steaming and Curing Process→Extend Cycling Life
- **Strong Starting Capacity (Large CCA)---1.2 Times Stronger than SLA Battery**
  - ①Large Grid→Excellent Large Current Discharge Performance at Low Temperature
  - ②Special Grid Structure Design →Low Internal Resistance and High Current Discharge Capacity
- **Excellent Charging Acceptance**
  - ①Advanced Electrolyte Additive →Great Charging Capacity
  - ②High-energy Carbon Material →Great Charging Capacity
- **Excellent Vibration Resistance**
  - High Elastic Fiberglass Partition → Effectively Prevent the Active Materials Shedding

## APPLICATION

- Passenger Car



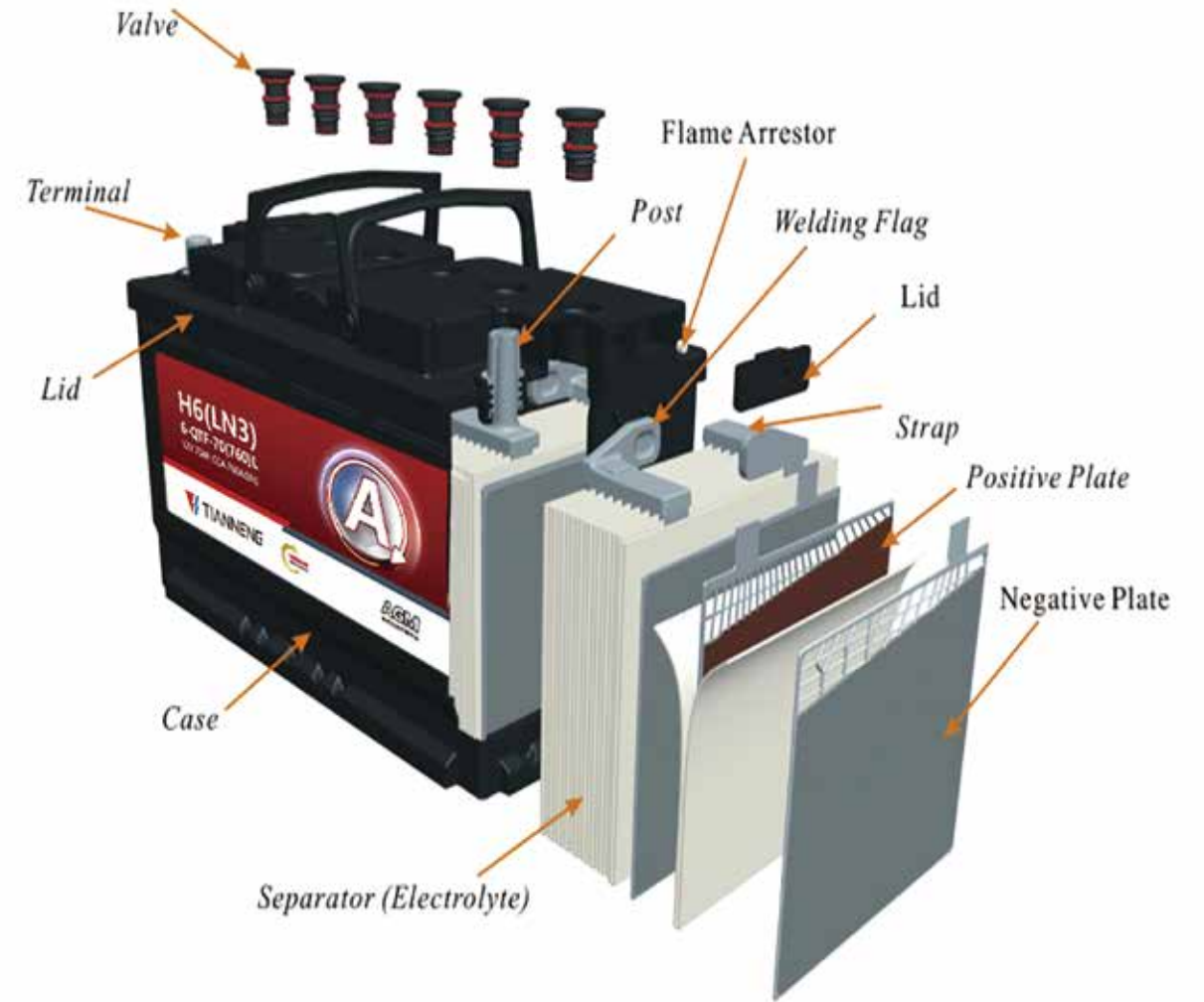
# Product structure drawing



**STARTER BATTERY-S SERIES**

**STARTER BATTERY-C SERIES**

**EFB START-STOP BATTERY**



**AGM START-STOP VALVE-OPERATED BATTERY**

# PRODUCT INTRODUCTION

Starter battery

EFB Start-stop battery

AGM Start-stop battery



# Starter Battery

## Product Parameters



STARTER BATTERY-C SERIES													
S/N	Model	International Model	International Standard	Nominal Voltage (V)	RC (min)	CCA/-18°C (A)	Dimension(mm)				Weight(kg)	Terminal	Layout
							L	W	H	TH			
1	46B24LS TA-C	46B24	JIS	12	61	360	238	129	203	227	11.1±1.0	T2	L
2	46B24RS TA-C	46B24	JIS	12	61	360	238	129	203	227	11.1±1.0	T2	R
3	46B24L TA-C	46B24	JIS	12	61	360	238	129	203	227	11.1±1.0	T1	L
4	46B24R TA-C	46B24	JIS	12	61	360	238	129	203	227	11.1±1.0	T1	R
5	46B24LX TA-C	46B24	JIS	12	61	360	238	129	203	227	11.1±1.0	T1	L
6	46B24LSX TA-C	46B24	JIS	12	61	360	238	129	203	227	11.1±1.0	T2	L
7	55D23LX TA-C	55D23	JIS	12	82	485	232	173	204	225	14.1±1.0	T2	L
8	55D23RX TA-C	55D23	JIS	12	82	485	232	173	204	225	14.1±1.0	T2	R
9	55D26LX TA-C	55D26	JIS	12	88	485	260	173	204	225	15.3±1.0	T2	L
10	55D26RX TA-C	55D26	JIS	12	88	485	260	173	204	225	15.3±1.0	T2	R
11	80D26LX TA-C	80D26	JIS	12	100	500	260	173	204	225	16.5±1.0	T2	L

STARTER BATTERY-C SERIES													
S/N	Model	International Model	International Standard	Nominal Voltage (V)	RC (min)	CCA/-18°C (A)	Dimension(mm)				Weight(kg)	Terminal	Layout
							L	W	H	TH			
12	80D26RX TA-C	80D26	JIS	12	100	500	260	173	204	225	16.5±1.0	T2	R
13	95D31LX TA-C	95D31	JIS	12	140	630	306	173	204	225	19.4±1.0	T2	L
14	95D31RX TA-C	95D31	JIS	12	140	630	306	173	204	225	19.4±1.0	T2	R
15	105E41R TA-C	105E41	JIS	12	180	700	408 <sup>±.4</sup>	173 <sup>±.4</sup>	205 <sup>±.4</sup>	226	24.8±1.0	T2	R
16	105E41RB TA-C	105E41	JIS	12	180	700	408 <sup>±.4</sup>	173 <sup>±.4</sup>	205 <sup>±.4</sup>	234	24.8±1.0	B	R
17	115E41R TA-C	115E41	JIS	12	170	730	408 <sup>±.4</sup>	173 <sup>±.4</sup>	205 <sup>±.4</sup>	226	25.5±1.0	T2	R
18	58500 TA-C	58500	SAE	12	65	370	250	174	158	177	11.8±1.0	T2	R
19	85610 TA-C	85610	SAE	12	90	470	230	173	181	203	14±1.0	T2	L
20	86610 TA-C	86610	SAE	12	90	470	230	173	181	203	14±1.0	T2	R
21	L2-400 TA-C	L2-400	EN	12	85	485	242	175	190	190	14.1±1.0	T2	L
22	L2-400R TA-C	L2-400	EN	12	85	485	242	175	190	190	14.1±1.0	T2	R
23	T6 TA-C	T6	EN	12	100	525	278	175	175	175	15.5±1.0	T2	L
24	N150R TA-C	N150	JIS	12	240	800	510	216	194	217	35.8±1.0	T2	R
25	N150RB TA-C	N150	JIS	12	240	800	510	216	194	229	36±1.0	B	R
26	N180L TA-C	N180	JIS	12	275	850	510	216	194	217	38.5±1.0	T2	L
27	N180R TA-C	N180	JIS	12	275	900	510	216	194	217	38.5±1.0	T2	R
28	N200L TA-C	N200	JIS	12	340	1100	510	216	194	217	46.5±1.5	T2	L
29	N200R TA-C	N200	JIS	12	340	1100	510	216	194	217	46.5±1.5	T2	R
30	N225L TA-C	N225	JIS	12	400	1180	514	267	213	236	54.5±3	T2	L
31	N225R TA-C	N225	JIS	12	400	1180	514	267	213	236	54.5±3	T2	R

STARTER BATTERY-S SERIES													
S/N	Model	International Model	International Standard	Nominal Voltage (V)	Nominal Capacity (Ah)	CCA/-18°C (A)	Dimension				Weight(kg)	Terminal	Layout
							L	W	H	TH			
1	38B20L TA-S	38B20	JIS	12	36	325	197	129	203	227	10.1±0.5	T1	L
2	38B20R TA-S	38B20	JIS	12	36	325	197	129	203	227	10.1±0.5	T1	R
3	55B24LS TA-S	55B24	JIS	12	45	400	238	129	203	227	11.8±1.0	T2	L
4	55B24RS TA-S	55B24	JIS	12	45	400	238	129	203	227	11.8±1.0	T2	R
5	55B24L TA-S	55B24	JIS	12	45	400	238	129	203	227	11.8±1.0	T1	L
6	55B24LSX TA-S	55B24	JIS	12	45	400	238	129	203	227	11.9±1.0	T2	L
7	55D23LX TA-S	55D23	JIS	12	60	500	232	173	204	225	15.4±1.0	T2	L
8	75D23LX TA-S	75D23	JIS	12	65	520	232	173	204	225	15.8±1.0	T2	L
9	55D26LX TA-S	55D26	JIS	12	60	500	260	173	204	225	16.5±1.0	T2	L
10	55D26RX TA-S	55D26	JIS	12	60	500	260	173	204	225	16.5±1.0	T2	R
11	80D26LX TA-S	80D26	JIS	12	70	600	260	173	204	225	17.8±1.0	T2	L
12	80D26RX TA-S	80D26	JIS	12	70	600	260	173	204	225	17.8±1.0	T2	R
13	95D31LX TA-S	95D31	JIS	12	80	660	306	173	204	225	20.1±1.0	T2	L
14	95D31RX TA-S	95D31	JIS	12	80	660	306	173	204	225	20.1±1.0	T2	R
15	105E41R TA-S	105E41	JIS	12	100	720	408 <sup>±4</sup>	173 <sup>±4</sup>	205 <sup>±4</sup>	226	26±1.0	T2	R
16	115E41R TA-S	115E41	JIS	12	120	850	408 <sup>±4</sup>	173 <sup>±4</sup>	205 <sup>±4</sup>	226	27.8±1.0	T2	R
17	31S750 TA-S	G31	SAE	12	90	750	334	176	222	239	24.7±1.0	S	R

STARTER BATTERY-S SERIES													
S/N	Model	International Model	International Standard	Nominal Voltage (V)	Nominal Capacity (Ah)	CCA/-18°C (A)	Dimension				Weight(kg)	Terminal	Layout
							L	W	H	TH			
18	58500 TA-S	58500	SAE	12	48	430	250	174	158	177	12.9±1.0	T2	R
19	85610 TA-S	85610	SAE	12	55	550	230	173	181	203	15.1±1.0	T2	L
20	86610 TA-S	86610	SAE	12	55	550	230	173	181	203	15.1±1.0	T2	R
21	L2-400 TA-S	L2-400	EN	12	60	550	242	175	190	190	15.1±1.0	T2	L
22	L2-400R TA-S	L2-400	EN	12	60	550	242	175	190	190	15.1±1.0	T2	R
23	57220 TA-S	57220	EN	12	72	650	278	175	190	190	18±1.0	T2	L
24	20-82 TA-S	20-82	EN	12	80	680	315	175	190	190	19.9±1.0	T2	L
25	20-100 TA-S	20-100	EN	12	100	750	353	175	190	190	23±1.0	T2	L
26	54565 TA-S	54565	EN	12	45	350	207	175	175	175	11.8±1.0	T2	L
27	54565R TA-S	54565	EN	12	45	350	207	175	175	175	11.8±1.0	T2	R
28	T6 TA-S	T6	EN	12	66	590	278	175	175	175	16.5±1.0	T2	L
29	N120R TA-S	N120	JIS	12	120	780	507	183	194	216	32.5±1.0	T2	R
30	N135R TA-S	N135	JIS	12	135	850	507	183	194	216	33.8±1.0	T2	R
31	N150R TA-S	N150	JIS	12	150	850	510	216	194	217	38.5±1.0	T2	R
32	N150RB TA-S	N150	JIS	12	150	850	510	216	194	229	38.8±1.0	B	R
33	N165R TA-S	N165	JIS	12	165	900	510	216	194	217	40±1.0	T2	R
34	N180R TA-S	N180	JIS	12	180	950	510	216	194	217	41.5±1.0	T2	R
35	N200L TA-S	N200	JIS	12	200	1100	514	267	213	236	50±1.0	T2	L

# Start-stop Battery

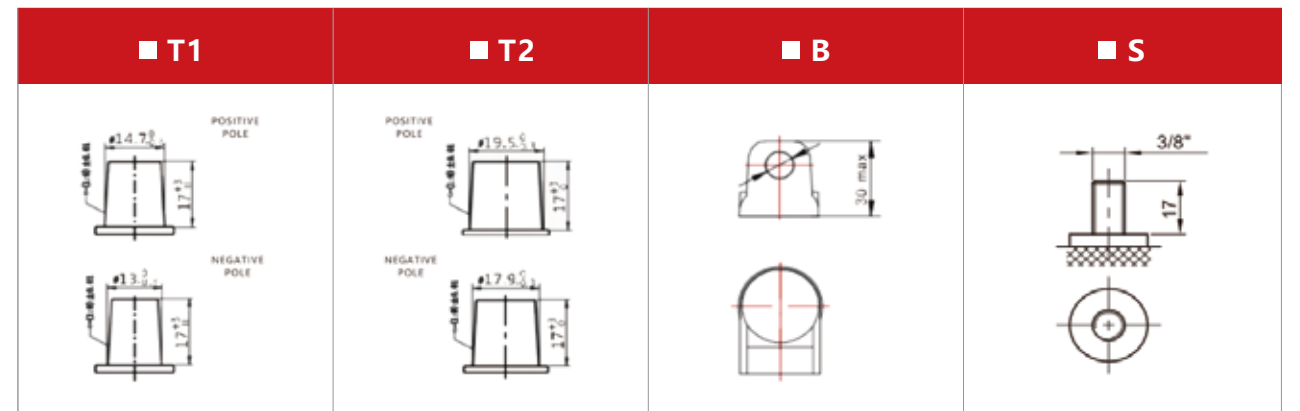
Product Parameters



TAS (EFB START-STOP)												
S/N	Model	International Model	International Standard	Nominal Voltage (V)	Nominal Capacity (Ah)	CCA/-18°C (A)	Dimension				Terminal	Layout
							L	W	H	TH		
1	Q-85 TAS	Q-85	JIS	12	60	610	232	173	204	225	T2	L
2	Q-85R TAS	Q-85R	JIS	12	60	610	232	173	204	225	T2	R
3	S-95 TAS	S-95	JIS	12	75	660	260	173	204	225	T2	L
4	H5(LN2) TAS	H5(LN2)	EN	12	60	640	242	175	190	190	T2	L
5	H5(LN2)R TAS	H5(LN2)	EN	12	60	640	242	175	190	190	T2	R
6	H6(LN3) TAS	H6(LN3)	EN	12	70	700	278	175	190	190	T2	L
7	H7(LN4) TAS	H7(LN4)	EN	12	80	750	315	175	190	190	T2	L
8	T7(LBN4) TAS	T7(LBN4)	EN	12	75	700	315	175	175	175	T2	L


TAA (AGM START-STOP)												
S/N	Model	International Model	International Standard	Nominal Voltage (V)	Nominal Capacity (Ah)	CCA/-18°C (A)	Dimension /+2mm				Terminal	Layout
							L	W	H	TH		
1	H4(LN1) TAA	H4(LN1)	EN	12	50	570	207	175	190	190	T2	L
2	H5(LN2) TAA	H5(LN2)	EN	12	60	660	242	175	190	190	T2	L
3	H6(LN3) TAA	H6(LN3)	EN	12	70	720	278	175	190	190	T2	L
4	H7(LN4) TAA	H7(LN4)	EN	12	80	800	315	175	190	190	T2	L
5	H8(LN5) TAA	H8(LN5)	EN	12	92	850	353	175	190	190	T2	L
6	H9(LN6) TAA	H9(LN6)	EN	12	105	950	394	175	190	190	T2	L


## Terminal



# CONTACT US NOW!

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