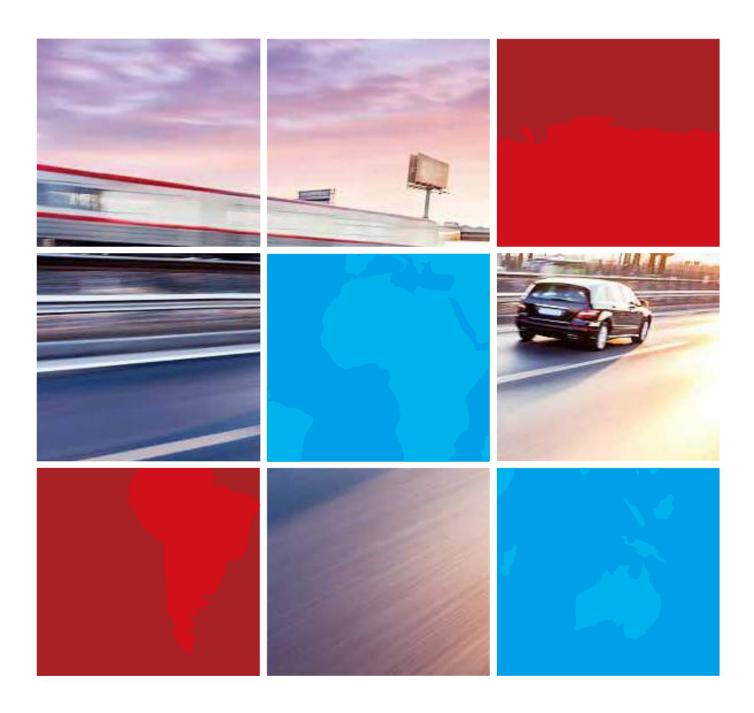


## AUTOMOTIVE BATTERY MAINTENANCE FREE TYPE





www.hang-tian.com

SPACEFLIGHT POWER SUPPLY (LONGNAN) CO.,LTD

Address: Liren Industrial Zone,Longnan,Ganzhou,Jiangxi Province China

Email: ht@hang-tian.Com



### COMPANY PROFILE





Established in 1994, Zhongshan Spaceflight power supply Co., Ltd is a professional lead acid battery provider in China. We specialize in maintenance free car battery, ups battery, solar battery and golf battery. Our factory is located in Jiangxi Province, covering 290, 000 square metres manufacturing area with production capacity of 2.5 million pieces per year. To guarantee our product quality, all production processes are strictly controlled under the standard of ISO 9001. As an industry leader of expertize, we don't just offer great product, service and expertize, we're also committed to offer you peace of mind long after you have received your products.

P03 P04

# FACTORY IMAGE

# PRODUCTION PROCESS





























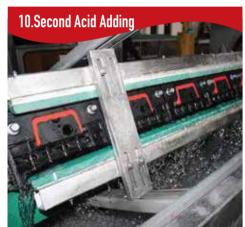
## **PRODUCTION**

# **PROCESS**



















### **STRONG STARTING POWER**





•Plates are made of high purity lead, Pb-Ca alloy and stannum(Sn) alloy, helps to keep the car batteries anti-oxidization, anti-corrosion, less water loss, low self-discharge and superior



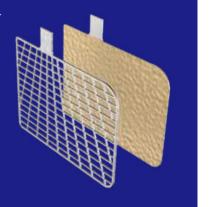
•Forging technique enable the car batteries with low water loss, minimized self-discharge rate



•Unique grid design, significantly reduce short circuits caused by grid corrosion.



•Highway – like grid design optimize current path so that the current transmission is more



**P07** 



# INTRODUCING LEAD ACID BATTERIES















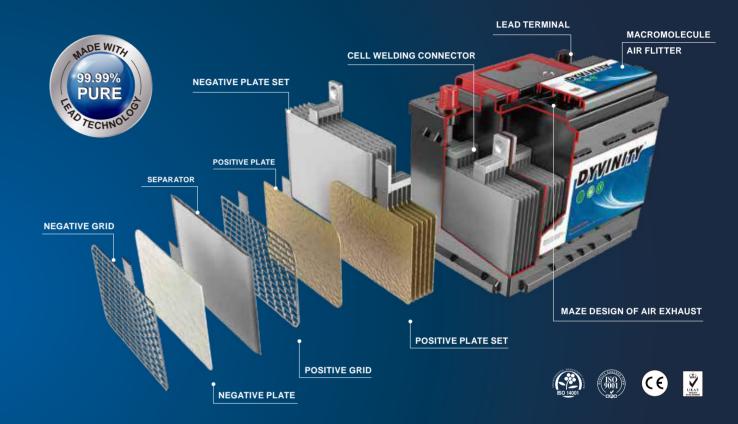




#### AUTOMOTIVE, HEAVY DUTY, MARINE, GOLF, OTHER ELECTRIC EQUIPMENT

Spaceflight offers one of the most extensive lines of automotive and light truch batteries – with sizes and power levels to fit 97% of vehicles on the road today. Our expanding range of products and technologies enables you to present a variety of application solutions and quality tiers resulting in increased sales and greater customer satisfaction.

# Brand/Product Features



SEALED MAINTENANCE FREE & LOW SELF DISCHARGE

No need for checking electrolyte level and topping throughout its life. Sealed construction ensures no leakage or seepage of electrolyte from terminal or casing.

STARTING POWER

Strong starting and staying power so your battery stays strong and performs like new, day after day.

EXTREME CLIMATE

Advanced heavy duty grids provide added durability under today's harsh operating conditions.

SPILL PROOF

Clean, safe, non-spillable battery construction.

ECO-FRIENDLY

No liquid or acid leakage. stronger resistance to corrode the unique gas recombination technology effectively nullifies generation of gas during normal use.

SUPERIOR HIGH RATE DISCHARGE

Very low internal resistance and very high electrolyte - active material reactive interface - allows very high currents for short and medium duration.

P09 P10

# PRODUCT APPLICATION









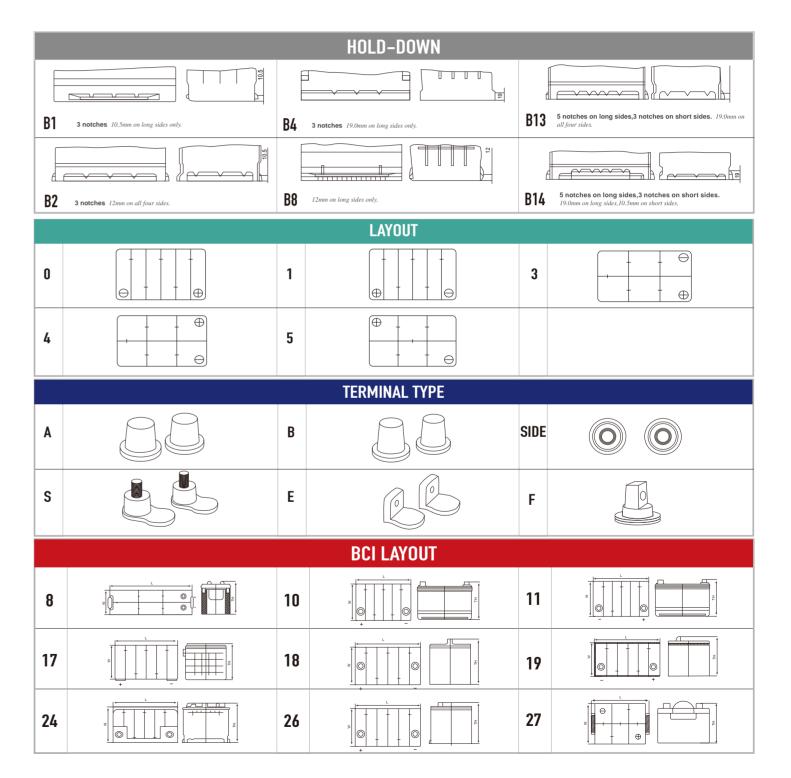








# BAR CHARTS



P11 P12



## MAINTENANCE FREE SERIES - DIN

GROUP NUMBER (NEW)  TYPE (NEW)  20HR (AH) (MIN)  CCA(-18°c)  DIMENSION(mm)  CCA(-18°c)  LENGTH WIDTH HEIGHT TOTAL HEIGHT	APPROX WET WEIGHT(KG)	LAYOUT		
TOTAL   (NEVV)   20HR (AH) (MIN)   LENGTH WIDTH HEIGHT TOTAL			TERMINAL	HOLD-DOWN
TIEIOTT	WEIGHT(KG)		TERMINAL	
LBN1 53628 36 54 320 211 175 175	11.3	1/0	А	B14
54465 44 68 350 211 175 175	11.7	1/0	А	B14
LN1 54459 44 70 350 211 175 190 190	11.9	1/0	А	B14
LBN2 55046 50 79 460 245 174 177 177	13.8	1/0	А	B14
55515 55 90 500 248 175 175 175	14	1/0	А	B14
55415 54 79 460 245 175 190 190	13.6	1/0	А	B14
55530 55 88 460 245 175 190 190	13.9	1/0	А	B14
LN2 56219 60 98 500 245 175 190 190	15.5	1/0	А	B14
56068 60 98 500 248 175 190 190	15.2	1/0	А	B14
56069 60 108 500 248 175 190 190	15.4	1/0	А	B14
55415 54 88 500 281 172 175 175	16.4	1/0	А	B14
LBN3 57117 71 122 550 273 174 175 175	15.9	1/0	А	B14
56420 64 106 520 273 173 171 171	15.6	1/0	А	B14
560691 60 110 530 273 173 191 191	15	1/0	А	B14
57217 66 110 540 273 173 191 191	15.9	1/0	А	B14
57219 72 122 600 273 173 191 191	16	1/0	А	B14
57220 72 124 610 273 174 190 190	16.5	1/0	Α	B14
LN4 58043 80 140 550 315 175 190 190	19.8	1/0	А	В3
56420 64 106 520 281 172 175 175	15.8	1/0	Α	B14
LBN5 56618 66 112 600 281 172 175 175	16.4	1/0	А	B14
58815 88 156 650 352 175 176 176	21.5	1/0	Α	В3
58821 88 154 670 351 175 192 192	21	1/0	А	B14
LN5 58827 88 154 670 351 175 192 192	21.4	1/0	Α	B14
59040 95 175 650 352 175 190 190	23	1/0	А	B14
60038 100 182 650 352 175 190 190	24	1/0	А	B14
LN6 60026 100 203 650 381 175 190 190	24.8	1/0	А	В3



### MAINTENANCE FREE SERIES-JIS

GROUP	TYPE	TYPE	CAPACITY	RC		DIMENSION(mm)				APPROX			
NUMBER	(NEW)	(OLD)	20HR (AH)	(MIN)	CCA(-18°c)	LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT	WET WEIGHT(KG)	LAYOUT	TERMINAL	HOLD-DOV
	36B20L	NS40L	34	50	320	198	130	195	215	9.8	0	В	В0
B20	36B20R	NS40	34	50	320	198	130	195	215	9.8	1	В	В0
D2U	36B20L	NS40ZL	36	55	330	198	130	195	215	10.2	0	В	В0
	36B20R	NS40Z	36	55	330	198	130	195	215	10.2	1	В	В0
	46B24L	NS60L	45	71	350	237	128	192	213	11.9	0	Α	B0/B4
	46B24R	NS60	45	71	350	237	128	192	213	11.9	1	Α	B0/B4
	46B24LS	NS60L(S)	45	71	350	237	128	192	213	11.9	0	В	B0/B4
B24	46B24RS	NS60R(S)	45	71	350	237	128	192	213	11.9	1	В	B0/B4
D24	55B24L	NX100-S6L	48	75	450	237	128	192	213	12.3	0	Α	B0/B4
	55B24R	NX100-S6	48	75	450	237	128	192	213	12.3	1	Α	B0/B4
	55B24LS	NX100-S6L(S)	48	75	450	237	128	192	213	12.3	0	В	B0/B4
	55B24RS	NX100-S6(S)	48	75	450	237	128	192	213	12.3	1	В	B0/B4
	55D23L		50	90	500	234	172	180	201	14.2	0	Α	B4
Doo	55D23R		50	90	500	234	172	180	201	14.2	1	А	B4
D23	75D23L		65	110	600	230	172	195	217	15.4	0	Α	B4
	75D23R		65	110	600	230	172	195	217	15.4	1	А	B4
	55D26L	N50ZL	60	98	530	265	172	199	221	16.1	0	Α	В8
	55D26R	N50ZL	60	98	530	265	172	199	221	16.1	1	Α	В8
	65D26L	NC70L	60	100	570	265	172	199	221	16.8	0	А	В8
D26	65D26R	NCS70	60	100	570	265	172	199	221	16.8	1	Α	В8
	80D26L	NX110-5L	70	120	620	265	172	199	221	17.6	0	А	В8
	80D26R	NX110-5	70	120	620	265	172	199	221	17.6	1	А	В8
	65D31L	N70L	70	118	550	309	172	199	221	18.7	0	А	В8
	65D31R	N70	70	118	550	309	172	199	221	18.7	1	А	В8
	75D31L	N70ZL	75	130	620	309	172	199	221	19.6	0	А	В8
D31	75D31R	N70Z	75	130	620	309	172	199	221	19.6	1	А	B8
	95D31L	NX120-7L	80	140	600	309	172	199	221	20.4	0	А	В8
	95D31R	NX120-7	80	140	600	309	172	199	221	20.4	1	А	B8
	34-60	34600	60	100	500	265	171	190	211	16.7	1/0	А	В8
	65-6YD	-	65	110	600	302	191	187	198	19.2	1/0	А	B8
	N100L	95E41L	100	182	650	402	170	206	230	25.5	0	E/A	В0
	N100	95E41R	100	182	650	402	170	206	230	25.5	1	E/A	В0
	NS120L	115E41L	110	212	720	402	170	206	230	26.1	0	E/A	В0
	NS120	115E41R	110	212	720	402	170	206	230	26.1	1	E/A	В0
	N120	115F51	120	224	700	508	180	218	240	34.5	4	A	В0
F51	N120R	115F51R	120	224	700	508	180	218	240	34.5	3	А	В0
	N150	145G51	150	292	800	490	202	171	207	38.5	4	E/A	В0
	N150R	145G51R	150	292	800	490	202	171	207	38.5	3	E/A	В0
	N170	195G51	150	292	800	508	222	220	252	43	4	E/A	В0
	N170R	195G51R	150	292	800	508	222	220	252	43	3	E/A	В0
	N200	190H52	200	409	1000	508	265	218	250	50.2	4	E/A	В0
	N200R	190H52R	200	409	1000	508	265	218	250	50.2	3	E/A	В0

P14

### MAINTENANCE FREE SERIES-BCI

BCI GR.	CATALOGUE	001/001	RC		DIMENSION(MM)					
NO.	NO.	CCA(BCI)	(MIN)	LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT	LAYOUT	TERMINAL	HOLD-DOWM
21	21-450	450	80	200	172	200	220	10	A	B1
21R	21R-450	450	80	200	172	200	220	11	A	B1
	24-450	450	80	256	176	193	214	10	Α	B1
	24-500	500	90	256	176	193	214	10	A	B1
24	24-550	550	100	256	176	193	214	10	A	B1
	24-600	600	113	256	176	193	214	10	A	B1
	24-630	630	125	256	176	193	214	10	A	B1
	24R-450	450	80	256	176	193	214	11	A	B1
	24R-500	500	90	256	176	193	214	11	A	B1
24R	24R-550	550	100	256	176	193	214	11	A	B1
	24R-600	600	113	256	176	193	214	11	А	B1
	24R-630	630	125	256	176	193	214	11	А	B1
25	25-500	500	100	225	172	200	222	10	A	B1
	26-450	450	80	208	172	176	197	10	A	B1
26	26-550	550	100	208	172	176	197	10	A	B1
	26R-450	450	80	208	172	176	197	11	A	B1
26R	26R-550	550	100	208	172	176	197	11	A	B1
	27-600	600	113	300	172	200	221	10	A	B1
	27-630	630	130	300	172	200	221	10	A	B1
	27-670	670	140	300	172	200	221	10	A	B1
	27-710	710	140	300	172	200	221	10	A	B1
	27-750	750	155	300	172	200	221	10	A	B1
	27R-600	600	113	300	172	200	221	11	A	B1
	27R-630	630	130	300	172	200	221	11	A	B1
27R	27R-670	670	140	300	172	200	221	11	A	B1
	27R-710	710	140	300	172	200	221	11	A	B1
	27R-750	750	155	300	172	200	221	11	A	B1
	31-700	700	160	330	172	218	242	18	s	-
31	31-750	750	170	330	172	218	242	18	S	-
	31-800	800	180	330	172	218	242	18	s	-
	34-550	550	100	263	175	184	205	10	A	B8
34	34-600	600	110	263	175	184	205	10	A	B8
	34-650	650	115	263	175	184	205	10	A	B8
	34R-550	550	100	263	175	184	205	11	A	B8
34R	34R-600	600	110	263	175	184	205	11	A	В8
	34R-650	650	115	263	175	184	205	11	A	В8
35	35-500	500	100	225	172	201	222	11	A	B8
	40R-500	500	110	280	174	175	175	24	A	B13
	40R-550	550	120	280	174	175	175	24	A	B13
41	41-525	525	110	284	173	172	172	24	A	B1
	42-450	450	85	241	174	175	175	24	A	B13
42	42-480	480	95	241	174	175	175	24	A	B13
43	43-650	650	120	312	174	190	190	24	A	B13
	47-480	480	80	241	176	190	190	24	A	B13
47	47-480	500	90	241	176	190	190	24	A	B13
	47-550	550	100	241	176	190	190	24	A	B13
	47-550	330	100	241	170	130	130	24	Α	D13

### MAINTENANCE FREE SERIES-BCI

BCI GR.	CATALOGUE	CCA(BCI)	RC		DIN	MENSION(MM)		LAYOUT	TERMINAL	HOLD-DOWM
NO.	NO.	00/1(001)	(MIN)	LENGTH	WIDTH	HEIGHT	TOTAL HEIGHT	LATOUT	TENVINAL	HOLD-DOWN
	47R-480	480	80	241	176	190	190	24	А	B13
47R	47R-500	500	90	241	176	190	190	24	А	B13
	47R-550	550	100	241	176	190	190	24	Α	B13
48	48-600	600	110	278	174	189	189	24	А	B13
	48-650	650	120	278	174	189	189	24	А	B13
	49-710	710	140	352	174	189	189	24	А	B13
49	49-750	750	150	352	174	189	189	24	А	B13
	49-850	850	160	352	174	189	189	24	А	B13
51	51-430	430	71	234	127	200	220	10	Α	-
51R	51R-431	430	71	234	127	200	220	11	А	-
55	55-430	430	71	230	154	202	222	10	Α	В8
58	58-450	450	75	236	176	159	180	26	А	B1
58R	58R-451	450	75	236	176	159	180	19	Α	B1
65	65-650	650	130	294	187	171	191	10	А	В8
03	65-750	750	155	294	187	171	191	10	А	В8
65R	65R-650	650	130	294	187	171	191	11	А	В8
0310	65R-750	750	155	294	187	171	191	11	А	В8
	70-400	400	71	208	179	181	181	17	SIDE	В8
70	70-450	450	80	208	179	181	181	17	SIDE	В8
	70-500	500	90	208	179	181	181	17	SIDE	B8
	70-550	550	100	208	179	181	181	17	SIDE	B8
74	74-500	500	100	260	180	201	222	17	SIDE	В8
	74-550	550	110	260	180	201	222	17	SIDE	В8
	75-500	500	90	230	179	181	181	17	SIDE	В8
75	75-550	550	100	230	179	181	181	17	SIDE	B8
	75-600	600	113	230	179	181	181	17	SIDE	B8
	75-630	630	125	230	179	181	181	17	SIDE	B8
	78-550	550	100	263	181	185	185	17	SIDE	B8
78	78-610	610	105	263	181	185	185	17	SIDE	B8
	78-630	630	115	263	181	185	185	17	SIDE	B8
85	85-550	550	90	225	172	186	207	11	А	B8
	85-610	610	90	225	172	186	207	11	А	B8
86	86-550	550	90	225	172	186	207	10	A	B8
	86-610	610	90	225	172	186	207	10	Α	B8
90	90-450	450	80	241	174	175	175	24	A	B13
91	91-600	600	100	280	174	175	175	24	A	B13
92	92-650	650	130	312	174	175	175	24	A	B13
93	93-800	800	150	352	174	175	175	24	Α .	B13
94R	94R-640	640	135	312	173	190	190	24	A	B13
4D	4D-1000	1000	300	507	220	212	235	8	Α .	-
8D	8D-1200 8D-1400	1200 1400	420 460	512 512	265 265	216 216	240	8	A A	-
6T	6T-750	750	180	287	255	207	230	27	A	-

P15 P16

# USER GUIDE

#### For our battery end user

- •Please choose correct model for your vehicle.
- •Check the mgaic-eye indicator is in green before you buy.
- •Confirm your car engine charging system with an output voltage between 13.8V to 14.4V.
- •If the total power of equipment is higher than the battery design work load, please change to higher capacity model.

### Please noted during charging

- •Constant coltage charging:please charge with16V (maximum 16.2V) keep good ventilation. Reduce charging voltage if battery temperature rise over 45°C or charging current over 25A.
- •Constant current charging: please charge with current 0.1C<sub>20</sub>A, and can not over this limit. Please stop charging if indicator turn green or open circuit over 12.65V.

### Something you should know

- •Do not connet and avoid accidentally connection between positive and nagative pole with metalic conductor to avoid short circuit.
- •Avoid convert connection or unstable connection.
- •Do not fill in unqualified electrolyte or water.
- •Do not operate under insufficient electrolyte condition. Semi maintenance free battery should be filled in pure water regularly.
- •Do not use in deep cycle(capacity lower than 50%, electrolyte density below 1,200g/ml).
- •Keep safe vent-valve work properly to avid explosion caused by valve failure.
- •Do not invert or incline more than 45° during stransfer or storing.
- •Keep ventilation on during charging. No smoking.
- •Wear goggle when remove or check the battery.

# 1 ENTERPRISE SCALE

### SPACEFLEGHT POWER SUPPLY (LONGNAN) CO., LTD

Battery Production Base ADD:Liren Industrial Zone, Longnan, Ganzhou, Jiangxi Province

### ZHONGSHAN SPACEFLIGHT POWER SUPPLY CO., LTD(A)

Battery Sales, business Center ADD:Weimin High-teah Development Area, Fusha, Zhongshan, Guangdong Province

### ZHONGSHAN SPACEFLIGHT POWER SUPPLY CO., LTD(B)

Battery Sales, business Center ADD: Weimin High-teah Development Area,Fusha, Zhongshan, Guangdong Province

#### **GUANGZHOU BASED OFFICE**

International Trade Office ADD:No.83 Guangyuan West Road, Yuexiu District, Guangzhou, Guangdong









P17 P18