

# SHANGHAI OE INDUSTRIAL CO., LTD. PRODUCT BROCHURE - MARINE BATTERY

# **PURPOSE-BUILT SMART EV BATTERY SYSTEM**

Brogen can customize and develop battery systems for various application scenarios according to customer needs, equipped with our self-developed battery management system to ensure the scientific utilization of battery energy, extend the cycle life of the battery system, and enhance system safety.

We have developed a comprehensive and well-structured project engagement service system designed to support your project at every stage, from pre-sales consultation to in-sales execution and post-sales support.

Understand your needs -> System design -> Technical coordination -> Parts/system test -> Shipping -> Post-sales technical support

# **Applications**







Trailer



Bus/Coach



Logistics Vehicle











ehicle Train

**Construction Machinery** 



# **PRODUCT CERTIFICATION**

 Our products are of excellent quality, and we can assist clients in applying for industry certifications, providing documents for certifications that cover specialized standards such as MSDS, UN38.3, ISO26262 and R100.



# **PRODUCT VALIDATION**

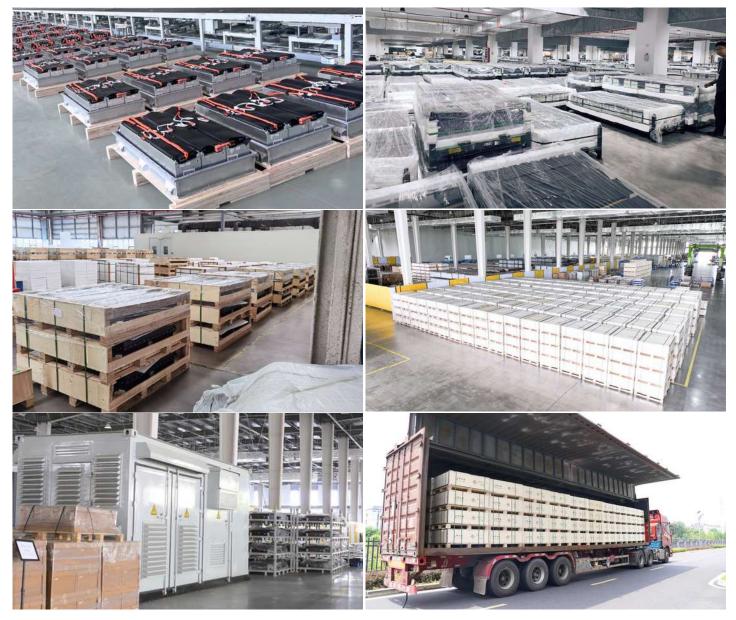
- The Testing and Validation Center has obtained CNAS laboratory accreditation, equipped with industry-leading testing and validation facilities and a high-caliber testing team.
- It possesses professional capabilities for comprehensive BMS testing, PACK charge-discharge testing, and PACK system EOL testing, meeting the company's full-range testing needs from batteries to systems. With its professional testing expertise, it ensures the safety and reliability of product quality.



# **SMART MANUFACTURING**

- The Smart Manufacturing Center is equipped with a fully automated SMT high-speed placement line, an automatic conformal coating line, an aging room, a wire harness manufacturing workshop, fully automated module production lines, flexible module production lines, and complete packaging assembly lines.
- Through continuous process innovation and leveraging digitalization and automation, we enhance product quality and strive to establish a benchmark factory in the new energy industry.





# MARINE POWER -STANDARD BATTERY STRING



#### **Features**

- Type approval by CCS
- The modular design facilitates transportation, installation, system construction, operation, and maintenance
- The integrate exhausted gas duct will reduce the risk of fire or explosion in the battery compartment
- Battery string level thermal management: Air cooling/liquid cooling optional
- C5 Enclosure anticorrosion class: Apply for inland river and ocean applications

#### **Marine Standard Battery String**

Nominal Voltage (V)	Number of Series(S)	Nominal Energy (kWh)	
384.0	120	241.92	
384.0	120	215.04	
384.0	120	483.84	
384.0	120	430.08	
403.0	126	338.69	
403.2	126	112.90	
460.8	144	129.02	
518.4	162	145.15	
576.0	180	161.28	
633.6	198	177.41	
691.2	216	193.54	
748.8	234	209.66	
806.4	252	225.79	
864.0	270	241.97	
864.0	270	267.84	

# MARINE POWER - DNV, BV TYPE APPROVAL BATTERY STRING



#### **Features**

- Complete certification: type approval by DNV, BV
- Thermal management: liquid cooling + liquid heating
- Fire prevention and control, leakage detection to ensure safety
- C5 Enclosure anticorrosion class: Apply for inland river and Marine applications
- IP44 protection class: ensure the battery system operating environment

#### DNV, BV Type approval Marine Battery String

Cell	LF280K LF280K		
Connection Mode	1P270S 8P270S		
Nominal Energy	241.92 kWh	1935.36 kWh	
Battery String Size	1654*1085*2233mm	13232*1085*2233mm	
Nominal Capacity	280Ah	2240Ah	
Maximum Continuous Charge/Discharge Current	280Ah/280Ah	2240A/2240A	
Nominal Voltage	864 VDC	864 VDC	
Voltage Range	783-945 VDC	783-945 VDC	
Weight	2000+50kg	16000 50kg	
Communication Protocol	CAN/RS485 CAN/RS485		
Explosion-proof design	Explosion-proof breather valve	Explosion-proof breather valve	
Case Material	Welding of square steel Welding of square stee		
Protection Degree	IP44 IP44		
Thermal Management	liquid cooling/heating	Liquid cooling/heating	
BMS	Integrated BMS	Integrated BMS	
Start Mode	Local+remote startup	Localtremote startup	
Alarm	Buzzer	Buzzer	

## **MARINE POWER - HIGH C-RATE BATTERY MODULE & BATTERY STRING**





#### **Features**

- **High C-rate**: up to 3C
- Meet design requirements of the mainstream classification society
- Safety Ensure: fire detection and leakage detection in pack
- Temperature Control and Equalize: efficient liquid cooling + active temperature equalization
- C5 Enclosure Anticorrosion Grade: apply for inland and marine

#### **High C-rate marine battery module**

Item	OE-B4-1P48S-11	OE-B4-2P24S-11	
Cell	LF125P	LF125P	
Configuration	1P48S	2P24S	
Nominal Voltage	154.56 VDC	77.28 VDC	
Operating Voltage Range	139.2 VDC-168 VDC	69.6 VDC-84 VDC	
Charge and Discharge Rate	Max.3C	Max.1.5C	
Capacity	125Ah	250Ah	
Energy	19.32 kWh	19.32 kWh	
Energy Density	125 Wh/Kg	125 Wh/Kg	
Volume Density	150 Wh/L	150 Wh/L	
Thermal Management	Top and bottom liquid cooling	Top and bottom liquid cooling	
Service Life	≥6000, 70% EOL	≥6000, 70% EOL	
Operating Temperature	-20-45°C	-20-45°C	
Anticorrosion Grade	C5	C5	
Max.Operating Altitude	2000m	2000m	
Size (W*D*H)	900*674*196mm	900*674*196mm	
Protection Rating	IP67	IP67	

#### High C-rate marine battery string

Item	Parameters	
Cell	LF125P	
Connection Mode	1P288S	
Nominal Energy	115.92 kWh	
Battery String Size	1000*1000*2500	
Nominal Capacity	125Ah	
Maximum Continuous Charge/Discharge Current	≤375A	
Nominal Voltage	927.36 VDC	
Voltage Range	835.2-1008 VDC	
Weight	1240+50kg	
Communication Mode	CAN/RS485	
Explosion-proof Design	Explosion-proof breath valve	
Case Material	Welding of square steel	
Anticorrosion Class	C5	
BMS	Integrated BMS	
Thermal Management	Double plate liquid cooling	
Protection Degree	IP44	
Start Mode	Local+ remote startup	
Alarm	Buzzer	



## MARINE POWER BATTERY CONTAINER





#### **Features**

- High safety: A60 fireproof/ Flexible system configuration
- Supporting parallel connections between multiple containers
- Supporting battery-swapping O&M
- With liquid cooling for temperature equalization
- Standard interface output
- Large capacity configuration
- Compatibility with port shore power
- External dimension: 6058mm\*2438mm\*2591mm

#### Standard marine power container

Nominal Voltage(VDC)	Voltage Range(VDC)	Nominal Capacity(Ah)	Nominal Energy(kWh)	Weight(T)
748	678~819	1400	1048	18.4
806	730~882		1128	19.0
864	783~945		1209	19.8
633	574~693	1680	1064	18.6
691	626~756		1161	19.3
748	678~819		1257	20.3
806	730~882		1354	21.0
864	783~945		1451	21.8
576	522~630	1960	1128	19.1
633	574~693		1241	20.2
691	626~756		1354	21.0
748	678~819		1467	22.0
806	730~882		1580	22.9
864	783~945		1693	23.9
576	522~630	2240	1290	20.5
633	574~693		1419	21.7
691	626~756		1548	22.7
748	678~819		1677	23.9
806	730~882		1806	24.8
864	783~945		1935	27
806.4	730.8~882	2480	1999.87	26
576	522~630	2520	1451	21.9
633	574~693		1596	23.3
691	626~756		1741	24.3
748	678~819		1886	25.7



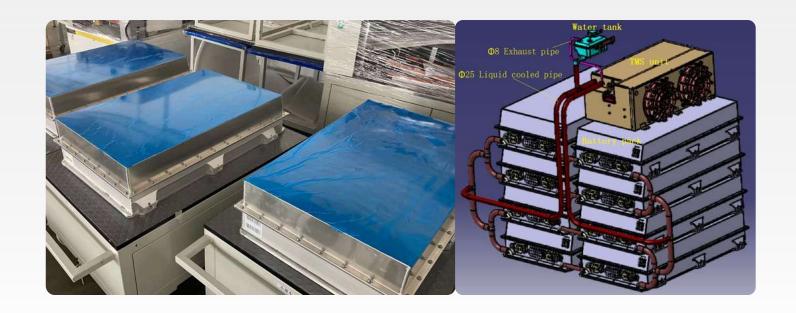
Explore BROGEN's latest projects, delivering exceptional client service, excellent value and sustainable practices.

Our hige voltage battery systems are carefully designed to meet your specific needs through a versatile battery pack design.

## 280 kWh 614V Bus Battery

#### Turkey | 8m Bus, 12m Bus

8 battery boxes; high-voltage box (including BMS); 8KW water cooling unit



# 280 kWh 614V Bus Battery

#### **Australia | Double-decker Bus**

8 battery boxes; 8KW water cooling unit

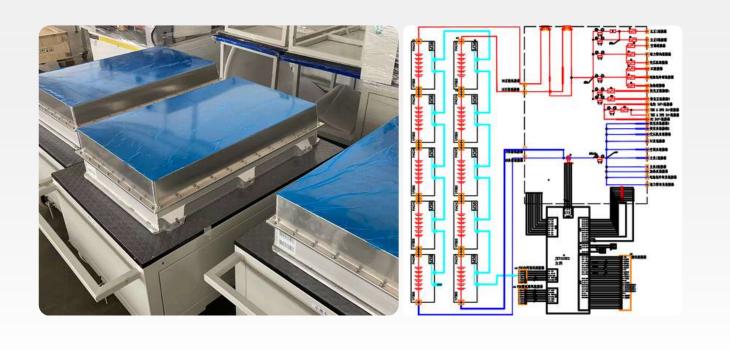




# 350 kWh 576V Bus Battery

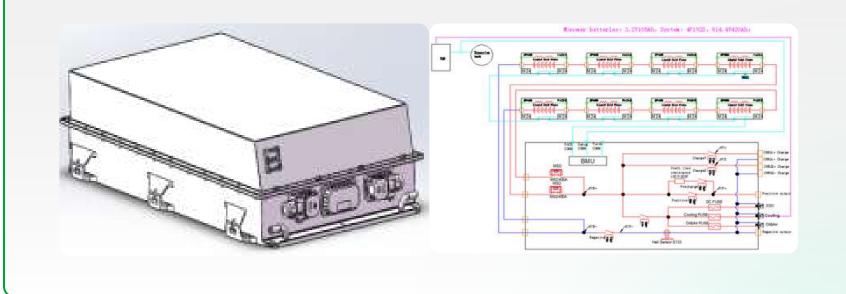
#### Middle East | 12m Bus

10 battery boxes; BMS System 576V 608Ah 350.21kWh



# 258 kWh 614V Train Battery Indonesia | Train 8 battery boxes: PDII: 7.6KW water cooling ur

8 battery boxes; PDU; 7.6KW water cooling unit System 614V 420Ah 258kWh





# 500 kWh 640V Truck Battery

#### **Australia | 15T Mining Truck**

5 blade battery B boxes; high-voltage box; 2\*15KW BTMS

#### **Explore More**



# 49 kWh 326V Truck Battery

#### **Chile | Light Truck**

326.4V 150Ah air-cooled battery pack; BMU; BCU; 6.6KW OBC+1.5KW DCDC

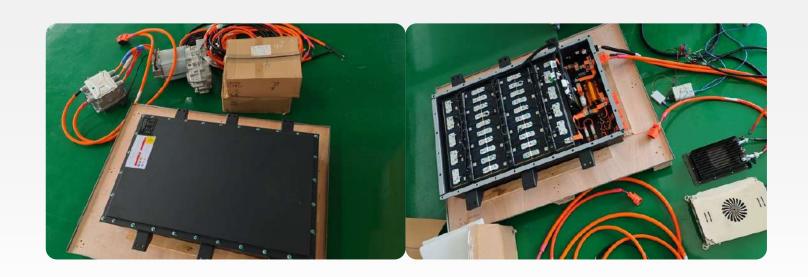




# 14 kWh 96V ORV Battery

#### **Turkey | Recreational Off-road Vehicle**

96V 150Ah battery pack; 96V 105Ah battery pack; 6.6KW on board charger



# 483 kWh 576V Boat Battery

#### Spain | 6T Boat

2 independent group (241 kWh) with each containing 2 clusters (120 kWh) and each cluster containing 10 modules.

#### **Explore More**















120.9 kWh 8m City bus

93.5 kWh 8m City bus

150.5 kWh 10m City bus

64.5 kWh 6.6m City bus









30.46 kWh Mini bus

104.42 kWh Heavy truck

116.03 kWh Dump truck

48 kWh Tractors





16.58 kWh Fuel cell light truck



66.8 kWh Aircraft towing tractor



60.02 kWh Fuel cell heavy truck



46.6 kWh Baggage belt loader



50 kWh - Street sweeper



193.5 kWh Airport ground power unit



41.6 kWh - Street sweeper



266.4 kWh Port AGV









2240 kWh Passenger ferry

3700 kWh Pure electric bulk carrier

3400 kWh Cruise ship

5161 kWh Pure electric tugboat









1200 kWh Farming platform

354 kWh New energy reachstacker

7800 kWh Electric container ship

145 kWh Salmon farming boat



# CONNECT WITH US.

# Website

https://brogenbattery.com/

# **Email**

inquiry@brogenbattery.com

# WhatsApp

+86 193 5213 5902

# **Social Media**

in Shanghai OE Industrial Co., Ltd.

@BrogenEVSolution

