

DURAXO
LITHIUM SOLUTIONS



" SINGAPORE'S HOMETGROWN
LITHIUM-ION SOLUTIONS. "

www.batteryasia.com.sg

HELLO...

Thanks for reading this catalogue. You have chosen to explore the amazing journey with us on our Duroxo Lithium-Ion Solution for material handling equipment.

Back in 2018, we embarked on a journey to design and build a Lithium-Ion Solution together with Temasek Polytechnic and Enterprise Singapore. After more than 15 000 man-hours, and millions of dollars spent on trials and testing, we have finally found the perfect solution!!

With the aid of this catalogue, let us take you through the key features and benefits of using the DUROXO Lithium-Ion solution.

Andrew Richard Thay

Director

DUROXO

LITHIUM SOLUTIONS

DUROXO modules are designed with the flexibility of capacity and size adjustments based on the demand.

Duroxo 51.2v_604



Duroxo 51.2v_302



ABOUT US.

DEVELOP YOUR BUSINESS WITH US!

Battery Asia (S) Pte Ltd, had been in the energy solution market for more than 10 years now and we pride ourselves as a fast, competent, reliable and a high inventory supplier in ASIA. Our understanding on the demand of alternative energy source for material handling equipment have led us to develop our own DUROXO Lithium-Ion Battery. With ability to build, diagnosis and certify our solutions before we send them to you. We provide different business models to cater to your operational requirements. Let's work together to build your business empire!

WHAT WE ARE?

WE are the exclusive distributor of leading lead-acid manufacturers from GREECE and JAPAN. Sunlight and Lifftop have been dominating the global market for close to half a century and we have been representing them for the past 10 years. Aside from the lead acid batteries, we are representing Leading brand of battery chargers from Italy as well as battery handling equipment from the United States of America and Italy.

WHY WE ARE?

Backed with years of regional network, technical knowledge and strong finance capabilities, we pride ourselves as the leading energy solution provider for all material handling equipment. We build on our years of experiences and strong government support to provide an international standard Lithium-Ion solution for you.

HOW WE WORK?

WE build and develop a partnership with you. We first understand your concern, then build a solution to address your most troublesome batteries issue. We know your problem as we are part of the supply chain and we are here to share the solutions with you!

We are proud to share that we have been providing our products and services to more than 2000 clients around our region. Feedback and testimonials are well received and very encouraging.

2000+

Clients

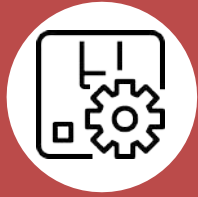
14

Countries (ASIA)

500+

Projects done

OUR SERVICE.



We Diagnose

- With engineering knowledge on Lithium-Ion battery diagnosis
- With testing equipment to assist on data collection and diagnosis
- With technical reporting



We Design

- Based on actual ground requirements
- Based on application needs
- Based on budget



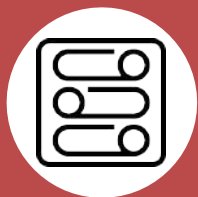
We Build

- Our own solution with international standards and certification
- Build in Singapore only



We Repair

- Ability to repair any Lithium-Ion solutions (T&C apply)
- Ability to repair our own solution on site and remotely



We Customize

- Build to your need
- Build based on your operational requirements



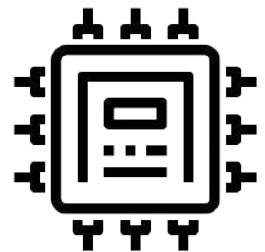
We Analyze

- Generating data to provide specific information
- Back end support with daily data analysis

PRODUCT OVERVIEW.

Modular Concept

- **Flexibility**
DUROXO modules are designed with the flexibility of capacity and size adjustments based on the demand.
- **Enforced Structure**
Cells are secured in aluminum alloy steel frame and riveted together to enforce its structure.
- **Serial-Parallel Welded Connection, High Quality**
Intercell connection are via serial-parallel welded connection.
High quality plastic parts isolated the metal parts and prevented short circuit.



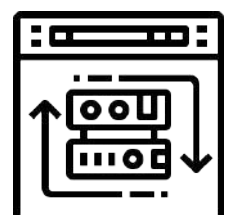
Web Base Monitoring

- **Dual-Level Authorized Groups**
Dual-level authorized groups: Administrators and the Customer, where administrators will manage the customers and the battery packs.
- **Compatibility - PC, PAD and Mobile Devices**
Compatible with full terminals through browser- PC, PAD and hand-phone with live chart for battery system monitoring and diagnostics: voltage, current, temperature, SOC, SOH, charge cycle, failure.
Automatic alert gateway via email and SMS to be sent to the customers.
Location tracking on Google map view and usage report - export history data during specific period.
For rental - Usage-based fee calculation - bill generated based on the usage.



Communication Mode

- **Real-Time Data**
WIFI and LTE wireless communication technologies have been integrated into the system, to allow the BMU to update the real-time data to the backend analytics system flexibly.
- **Track and Monitor system, remotely**
The backend analytics system has been deployed for the user/owner to track and monitor the battery power system remotely, as well as receive the warning message generated by the system.



System Protection

- **3 Points of Temperature in 1 Module**

System will monitor up to 3 points of temperature within one module by the MMU. Based on these measurements, the MMU can detect and trigger the Over Temperature Protection (OTP) before thermal run-away, as well as updating to the BMU frequently. In addition, a portable fire extinguishing apparatus will be equipped for increasing the safety level.

- **System Monitoring of All Voltage**

System will monitor all the voltage of battery cells/battery module in the Module Management Unit (MMU). Based on the measurement, the MMU is able to detect and trigger the Over Voltage Protection (OVP), Under Voltage Protection (UVP) if any by updating to the Battery Management Unit (BMU).



"Duroxo - Viewer" - Hand-held Device

- **Touch Screen LCD Display**

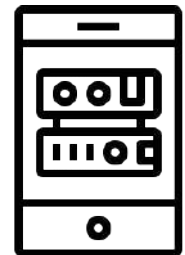
Standalone touch screen LCD display with one-key system On/Off control and password protection. Easy mount by strong magnet back cover.

- **Sound Alert Alarm**

Sound alarm integrated to alert users on fault and LED system status indication of: Power, Parameters, Status, Alarm.

- **Supports WIFI, 4G/5G Communication**

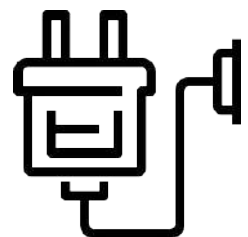
WIFI communication by default and 4G/5G communication.



Power and Charging Socket

- **Swift and Easy Operation**

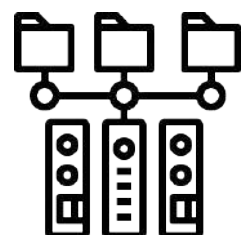
Two separate sockets design: One for Supply and one for Charging.



Data Log

- **Storing Real-Time Local Data**

The on-board memory enables the system to store the measured data (Voltage/Current/Temperature) and running status (SOC/SOH/balancing data) in real-time locally. The local data will be as the buffer before transmitted to remote data center. This feature will be very useful especially when the wireless signal is not available or not stable.



OUR PACKAGES.

We offer a variety of package for our customers. They vary from direct Sales and part rental and full rental.

DIRECT SALES

Clients can directly purchase the battery and chargers. We offer a site study on the visibility of using the Lithium-Ion battery.

PART RENTAL

In part rental, the clients have the opportunity to pay up front fix amount of asset price and remaining amount will be divided to the agreed monthly rate.

As such, monthly rates are reduced to a fix amount.

FULL RENTAL

In full rental, clients will be offered a monthly rental rate based on their rental duration. In board concept, the longer the rental period, the more economical it will be. At the end of the rental contract, client have the option to purchase the system based on the given capacity left in the system.

In BAS, we view your business as our own, this implies that we care about your business growth and expansion. We take on the responsibility for the products we sold to you by monitoring and analyzing its performance. We, further stretch our responsibilities by providing pre-warning alert should such incident happens.

SALES & AFTER SALES SERVICE NETWORK

We can support our customers everywhere across ASIA.

BAS has developed a complete range of service tools to help customers obtain better performance from their batteries.



It is not only a Battery, but an All-In-One Solution.

Web Based Monitoring

With Duroxo Lithium-Ion solution, you are not only buying a lithium-Ion battery but also a top-notch system. You are also supported by our strong back-end cloud base, data software that monitors all charging and discharging, etc of the battery.



Accurate State of Charge and High Current Active Balancing

High accuracy of the State of Charge (SOC) estimation will be achieved by equipping with the dynamic self-calibrated algorithm. To prolong the life span of the battery pack, an up to 10A high current active balancing algorithm will be integrated into the system.



APPLICATIONS

1. RV / Caravan/ Motorhome / Camping car
2. Golf Cart / Trolley
3. Outdoor Portable Power Supply
4. Solar Street LED Lights
5. Forklifts



CUSTOMER REVIEWS.



Sharan Pinto

General Manager
Hyster-Yale Lift Trucks Singapore

"Battery Asia team is very Professional and
Technically Competent."

***The ONE, leading Energy solutions provider
for the Logistics and Warehousing industry.***

BAS

BATTERY ASIA (S) PTE LTD

MOVING FORWARD

THANK YOU

We are pleased to on-board you on this amazing journey with us.
Continue reading on our website: <http://www.batteryasia.com.sg>

BAS

BATTERY ASIA (S) PTE LTD

*The ONE, leading Energy solutions provider
for the Logistics and Warehousing industry.*

Address :

No. 30 Tuas Avenue 10
Level 7 (Office) #01-01
(Warehouse)
Singapore 639150

Contact :

Tel: +65 6316 3661

Fax: +65 6316 3662

sales@batteryasia.com.sg

