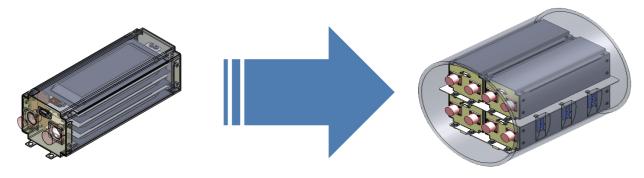
## **GS** Yuasa Lithium-ion Batteries for UUV/AUV

#### Custom-made battery system

GS Yuasa can offer safe and reliable custom battery solutions, including battery management electronics and charging systems.



#### For North American customers

As subsidiaries of GS Yuasa, GS Yuasa Technology develops and manufactures lithium-ion cells and batteries for specialty applications. GS Yuasa Lithium Power provides technical and sales support to North American customers. The value we offer is rooted in the knowledge, technology and expertise developed through more than a century of research, development and experience.

For support, please email us or submit an inquiry through our websites below.

#### GS Yuasa Technology Ltd.

Sales Department E-mail : gyt@jp. gs-yuasa.com Website : https://www.gs-yuasa.com/gyt/jp/inguiry/index.asp

#### **GS** Yuasa Lithium Power

1150 Northmeadow PKWY Suite 118, Roswell, GA 30076 Phone: 888-479-8272 E-mail : sales@gsyuasa-lp.com Website : http://www.gsyuasa-lp.com/content/contact



#### Next to you

Disclaime

Specifications, appearance and performance of all products in this catalog is subject to change without prior notice due to further improvements and developments.

#### 20190501-500

# Lithium-ion Batteries for UUV/AUV

Wherever you explore, we are always "Next to you".



### Next to you

GSYUASA

400



## Wherever you explore, we are always "Next to you"

In the early 1900's, GS Yuasa started a specialty battery business in support of an undersea program. Since then, we've accumulated experience and know-how through the development of cells and batteries for UUVs, AUVs, and human-operated deep sea vehicles - many deployed to explore the most extreme environments. Our energy storage technologies are widely deployed in applications where reliability and safety are critical including launch vehicles, commercial aircraft, satellites and the International Space Station.

#### Cell product line up

## Pouch 18 Ah and 60 Ah

Cells suitable for vehicles requiring light weight and high energy density

- Very high specific energy of about 170 Wh/kg
- High pressure resistance up to the depth of 4,500 meters
- High flexibility in pack dimensions and capacity



## Prismatic 30 Ah and 120 Ah

Heavy duty metal case cells for subsea vehicles and storage systems

- Significant field service heritage without failure
- High specific energy
- Long life

### Prismatic 400 Ah with metallic bellows

Designed for human occupied submersible

- Very high pressure resistance up to the depth of 6,500 meters
- Ultra-high rated capacity of 400 Ah
- Demonstrated safety in more than 700 SHINKAI 6500 dives
- Long life



GSYUASA

4004

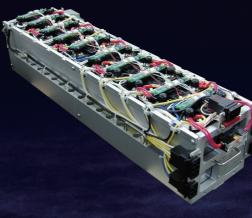
#### Rich experience and heritage

## For Defense & Security

18 ampere-hour pouch cells are used as the battery of MHI's prototype multipurpose AUV.

#### Other defense deployments

- Prismatic 120 Ah for mine disposal vehicle
- Prismatic 120 Ah for mine detection UUV
- Prismatic 30 Ah for training target UUV



## For Oceanography

and AUVs.

Autonomous vehicle deployments - Prismatic 30 Ah for 3,500 meters depth AUV - Prismatic 120 Ah for 4,000 meters depth AUV

## For Human Occupied Submersible

Prismatic 400 Ah lithium-ion cells are used as a main power source of Japanese submersible SHINKAI 6500.

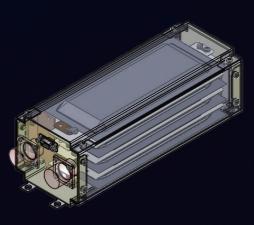






For more information, please visit http://www.gsyuasa-lp.com/specialty-lithium-batteries





We can offer batteries well suited for space-constrained UUVs

