

# **FIAMM ENERGY**

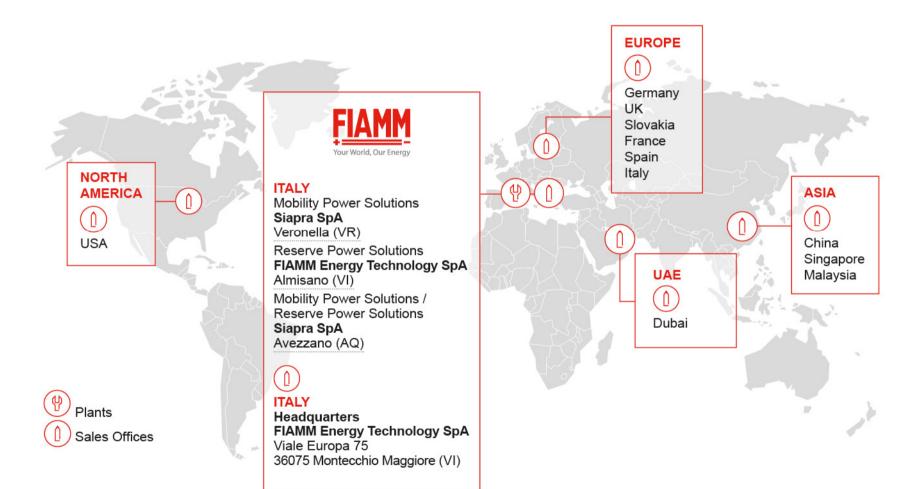
### ABOUT FIAMM



1942	1950	1970	1980
<ul> <li>Establishment of FIAMM (Fabbrica Italiana Accumulatori Motocarri Montecchio, i.e. Italian Factory of Tricar Batteries in Montecchio).</li> <li>The production focuses on electric traction and automotive starter batteries.</li> </ul>	<ul> <li>FIAMM attends motor shows together with the major car manufacturers. A FIAMM battery is fitted in the Ferrari that wins the Mille Miglia race in 1950. The first OE supply for a major brand is for Innocenti's Lambretta.</li> </ul>	<ul> <li>Production of batteries for motorbikes.</li> <li>FIAMM becomes the original equipment supplier for the most important European car manufacturers.</li> <li>Sip and Enel among the customers in the stationary batteries field.</li> </ul>	<ul> <li>Export of stationary batteries to the USA</li> <li>Entry in the two main European markets with FIAMM Germany and FIAMM France.</li> <li>Success in the world of sports in Rally, F1, Formula Indy, Paris Dakar and Offshore.</li> </ul>
<ul> <li>The Company appoints a new generation of professional management.</li> </ul>	<ul> <li>Opening of new plants abroad.</li> <li>Acquisition of many battery distributors across Europe.</li> <li>Significant investments in technology.</li> </ul>	<ul> <li>Acquisition of 51% of the shares of FIAMM Energy Technology S.p.A. by Hitachi Chemical.</li> </ul>	<ul> <li>Showa Denko acquires 100% of Hitachi Chemical's shares which from October 1st changes its name to Showa Denko Materials Co.</li> </ul>
1990	2000	2017	2020

### FIAMM IN THE WORLD





### **RESERVE POWER SOLUTIONS/1**



FIAMM Reserve Power Solutions is an internationally recognised leader in the development and supply of a wide range of industrial batteries and energy storage systems. We design and manufacture backup power solutions to guarantee the continuity of the energy supply to the critical applications when the main power is cut off. We are proud to supply many world's leading companies.



### **RESERVE POWER SOLUTIONS/2**



Main application fields:

- telecommunications
- data centres
- railways
- power plants
- petrochemical plants
- energy storage from renewable sources



### **RESERVE POWER SOLUTIONS/3**



With over 70 years of experience, FIAMM Reserve Power Solutions diversifies its offer thanks to indepth technical knowledge and understanding of how products are used in the different applications.

We are working with our partners and customers for the development of next generation solutions that will meet the vital requirements for the future of our planet.



### **RESERVE POWER** SOLUTIONS: KEY CLIENTS



- ABB
- AEG
- AT&T
- DEUTSCHE TELEKOM
- EATON
- EDF
- ELTEK
- ENEL
- ERICSSON
- NOKIA

- RS COMPONENT
- SCHNEIDER ELECTRIC
- SIEMENS
- TELEFONICA
- TELECOM ITALIA
- VERTIV
- VODAFONE

### **RESERVE POWER SOLUTION: APPLICATIONS**





**Telecommunication** 



Security Systems & Emergency Lighting



Leisure



**UPS & Data Center** 



**Utilities & Industry** 



Railways



**Light Traction** 



**Renewable Energy** 

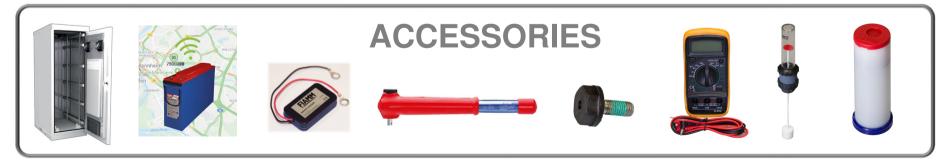


Oil & Gas

### TECHNOLOGIES AND PRODUCT FAMILIES

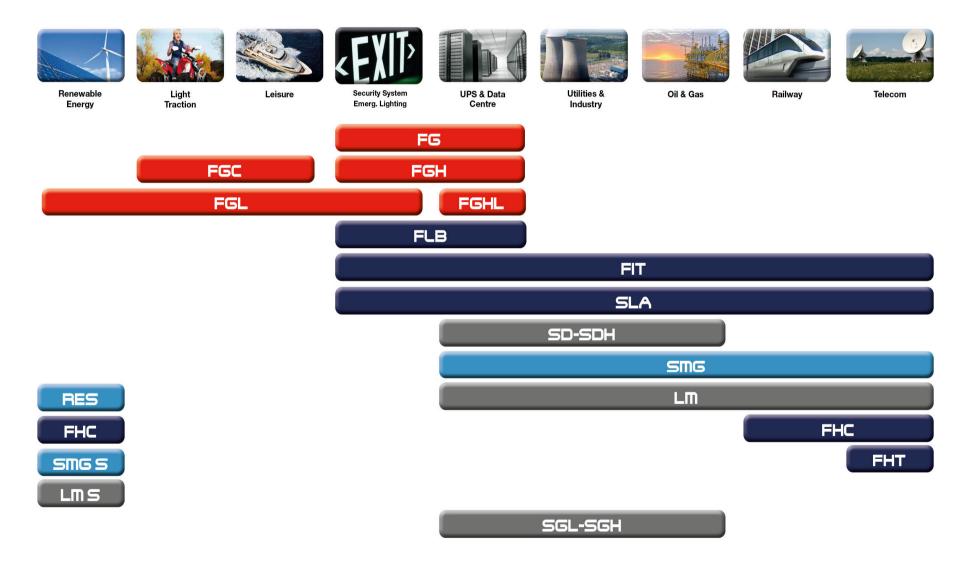






### APPLICATIONS AND PRODUCT FAMILIES







### **FLB RANGE**







#### Security System & L Emergency Lighting

n & UPS & Data iting Centre

- FAM FLB T2TLB350P A & O O O O
- VRLA AGM design
- 10-12 year long life
- Top terminal and front terminal design
- High Energy Density
- Capacities from 100W/cell to 700W/cell at 15 min rate
- Specially designed for UPS and High Rate applications
- Flame retardant plastic UL94 V0

# FLB RANGE: TECHNICAL FEATURES

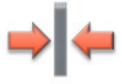




More plate surface High plate numbers increases current supply



Radial grid design This feature decrease electrical resistance so corrosion is limited



Group compression

High plategroup compression means lower electrical resistance, limiting floating currents



**Continuous casting** / **pasting negative plate** Very high process reliability and plate parameters stability



**Optimized \*COS technology** 

Positive and negative lead pots are managed with different temperatures in order to guarantee a perfect plates melting

\* Casting On Strap

### **SSLA RANGE**







**FGH** 



Security System & **Emergency Lighting** 

**UPS & Data** Centre



Security System & **UPS & Data Emergency Lighting** 





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UPS & Data Centre





Light Traction



Centre



•

- From 1,2Ah to 65Ah •
- 5 years design life
- From 23W to 65W \*
- 5 years design life
- From 22W to 48W \* •
- 10 years design life ٠
- From 12 Ah to 42Ah •
- 5 years design life

# SSLA RANGE: TECHNICAL FEATURES





#### **Fast on terminals**

Copper terminals permit a quick installation, furthermore standard dimensions allow an easy replacement



### **Standard layout**

Standard footprint follow common dimensions used market so replacements have no impact



#### Wide range coverage

The SSLA range are ideal for any application case: 5 years design life standard, high rate, 10 years design life + high rate, cyclic application. Battery size is from 1,2Ah to 65Ah



# ACCESSORIES

# FIAMM SMARTLOGGER





- Voltage and temperature measurements
- View and download battery performance data via mobile app or computer
- Alarm signals to when defined voltage and temperature threshold are exceed
- Very low energy consumption will not affect battery performance
- Designed for retrofitting possibility to reset the device if the battery is replaced

### **OUTDOOR CABINETS**





- Protect batteries and preserve their health
- Robust and stable design thanks to metal proles
- Wide environmental temperature coverage
- Unified design to offer flexibility on each configuration
- Air conditioning and heater provided

# **INDOOR CABINETS**





- Protect batteries
- Roboust and stable design thanks to metal proles
- External frame is welded to guarantee the stability
- Modular / scalable
- Air holes for ventilation
- Compact design

### RACKS



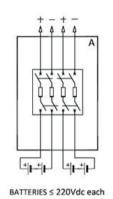




- High mechanical resistance
- Anti-siesmic design on request
- Anti-acid coating to preserve the integrity
- Modular
- Allow the best cells positioning: it means easy installation and quick maintenance on cells

# **PROTECTION BOX**





- Protect batteries from short circuits
- Robust and stable design thanks to metal proles
- Can be placed on wall to save space
- IP 65 (no cable glands is supplied)
- Compact design
- Fuses are included







www.fiamm.com