

**SSLA Battery Range** 





HE SSLA BATTERY RANGE HAS BEEN DESIGNED TO COVER A WIDE RANGE OF APPLICATIONS. THE FOOTPRINT OF BATTERIES IS ALSO IDEAL FOR CRITICAL INSTALLATIONS. CONNECTION IS SIMPLE ON SMALLER MODELS SIZES THANKS TO THE EASY 'FAST-ON' TERMINALS.

THE FIAMM SSLA RANGE HAS FOUR DIFFERENT PRODUCT FAMILIES. EACH ONE IS SPECIFICALLY DESIGNED TO OPTIMISE THE BEST SOLUTION FOR THE APPLICATION.

**FG** DESIGNED TO MEET MEDIUM TO LONG DISCHARGE RATES AND WITH A DESIGN LIFE OF 5 YEARS. THE RANGE IS AVAILABLE IN 6V OR 12V BLOCKS WITH A CAPACITY RANGE OF 1.2 - 70AH.

**FGH** DESIGNED FOR MAXIMUM PERFORMANCE IN CRITICAL POWER APPLICATIONS SUCH AS UPS. THE RANGE IS AVAILABLE IN 12V BLOCKS WITH A CAPACITY RANGE OF 5 - 18AH.

**FGHL** CLASSIFIED "LONG LIFE" ACCORDING EUROBAT INDUSTRY STANDARD, WHICH MEANS 10 YEARS DESIGN LIFE. THE RANGE IS AVAILABLE WITH A CAPACITY RANGE OF 5 - 12AH.

**FGC** AN IDEAL SOLUTION FOR CYCLIC APPLICATIONS WITH A DESIGN LIFE OF 5 YEARS. RANGE IS AVAILABLE FROM 12 - 42AH.

THESE PRODUCTS ARE DESIGNED TO GIVE A WIDE RANGE OF SOLUTIONS TO ALL APPLICATIONS AND OFFER UNSURPASSED PROVEN RELIABILITY, COMPLIANT WITH THE HIGHEST RECOGNISED INTERNATIONAL STANDARDS. SSLA USES VRLA TECHNOLOGY WITH 99% INTERNAL RECOMBINATION EFFICIENCY, IS NON-SPILLABLE AND MAINTENANCE FREE THEREFORE REQUIRES NO TOPPING UP OF ELECTROLYTE DURING ITS FLOAT-LIFE. SSLA RANGE IS NON-HAZARDOUS FOR AIR/SEA/RAIL/ROAD TRANSPORTATION AND IS 100% RECYCLABLE. SSLA HAS A SELF-DISCHARGE RATE LESS THAN 2% PER MONTH, GUARANTEEING LONG SHELF-LIFE.

\*SSLA (SMALL SEALED LEAD ACID) ARE BATTERIES WITH CAPACITY (AH) TILL MAX 24AH. THE FIAMM SSLA FIAMM RANGE CONTAINS SOME SIZES THAT EXCEED THIS LIMIT. HOWEVER SOME SIZES ARE OF A LARGER CAPACITY DUE TO APPLICATIONS.





#### **SPECIFICATIONS**

Special lead calcium tin alloy grid, designed to resist corrosion and provide short recharge time

VRLA AGM technology using low resistance high microporous fiberglass separators

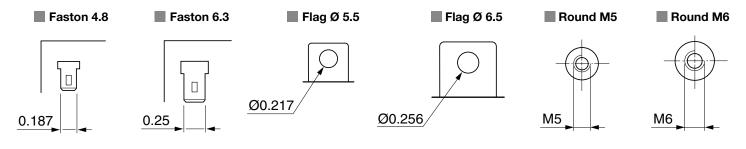
Leak resistant post seal, faston, flag and threaded female, terminals with high conductivity and maximum torque resistance

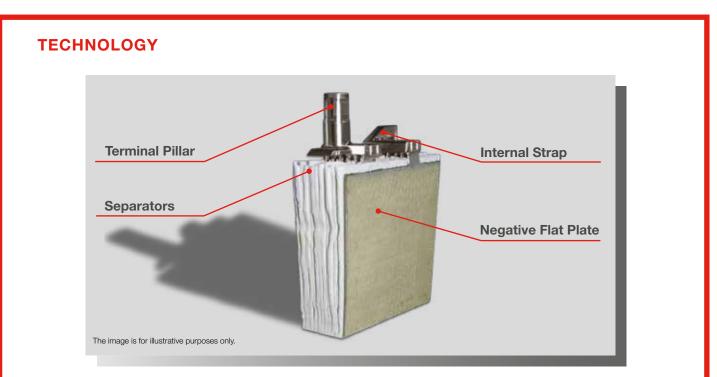
One-way safety relief valves allow gas to escape and prevent the ingress of oxygen

ABS plastic (for FGHL range flame retardant ABS plastic to IEC 707 FV0 and UL94 FV0 - LOI greater than 28%)

Installation in any orientation (excluding permanently inverted)

#### **TERMINALS TYPE**





FIAMM SSLA RANGE USE AGM (ABSORBED GLASS MAT) TECHNOLOGY. THE ELECTROLYTE IS ABSORBED IN FIBERGLASS SEPARATORS WITH 99% INTERNAL GAS RECOMBINATION EFFICIENCY. BLOCS ARE GRANTS NON-SPILLABLE AND MAINTENANCE FREE THEREFORE REQUIRES NO TOPPING UP OF ELECTROLYTE DURING ITS WHOLE LIFE. LOW SELF-DISCHARGE ALLOWS 6 MONTHS SHELF LIFE.



| BATTERY<br>TYPE | VDS* | NOMINAL<br>VOLTAGE<br>(V) | CAPACITY (Ah)               |        | NOMINAL DIM | IENSIONS (in.) | TYPICAL<br>WEIGHT | TERMINAL<br>TYPE |            |
|-----------------|------|---------------------------|-----------------------------|--------|-------------|----------------|-------------------|------------------|------------|
|                 |      |                           | 20 H to 1.75 VPC<br>at 77°F | Length | Width       | Height         | Tot. Height**     | (lbs)            |            |
| FG 10121        |      | 6                         | 1.2                         | 3.82   | 0.94        | 2.01           | 2.28              | 0.62             | Faston 4.8 |
| FG 10301        | •    | 6                         | 3.0                         | 5.28   | 1.30        | 2.36           | 2.60              | 1.32             | Faston 4.8 |
| FG 10381        |      | 6                         | 3.8                         | 2.60   | 1.30        | 4.69           | 4.92              | 1.34             | Faston 4.8 |
| FG 10451        |      | 6                         | 4.5                         | 2.76   | 1.85        | 3.98           | 4.17              | 1.59             | Faston 4.8 |
| FG 10721        |      | 6                         | 7.2                         | 5.91   | 1.34        | 3.70           | 3.94              | 2.65             | Faston 4.8 |
| FG 11201        | •    | 6                         | 12                          | 5.94   | 1.97        | 3.66           | 3.90              | 3.97             | Faston 4.8 |
| FG 11202        | •    | 6                         | 12                          | 5.94   | 1.97        | 3.66           | 3.90              | 3.97             | Faston 6.3 |
| FG 20121        | •    | 12                        | 1.2                         | 3.82   | 1.89        | 2.01           | 2.24              | 1.19             | Faston 4.8 |
| FG 20121A       |      | 12                        | 1.2                         | 3.82   | 1.69        | 2.01           | 2.28              | 1.15             | Faston 4.8 |
| FG 20201        | •    | 12                        | 2.0                         | 7.01   | 1.38        | 2.36           | 2.56              | 1.76             | Faston 4.8 |
| FG 20271        |      | 12                        | 2.7                         | 3.11   | 2.20        | 3.90           | 4.13              | 2.43             | Faston 4.8 |
| FG 20341        |      | 12                        | 3.4                         | 5.28   | 2.56        | 2.36           | 2.60              | 2.87             | Faston 4.8 |
| FG 20451        |      | 12                        | 4.5                         | 3.54   | 2.76        | 3.98           | 4.21              | 3.31             | Faston 4.8 |
| FG 20721        | •    | 12                        | 7.2                         | 5.94   | 2.56        | 3.74           | 3.98              | 5.07             | Faston 4.8 |
| FG 20722        | •    | 12                        | 7.2                         | 5.94   | 2.56        | 3.74           | 3.98              | 5.07             | Faston 6.3 |
| FG 21201        | •    | 12                        | 12                          | 5.94   | 3.86        | 3.74           | 3.94              | 8.38             | Faston 4.8 |
| FG 21202        | •    | 12                        | 12                          | 5.94   | 3.86        | 3.74           | 3.94              | 8.38             | Faston 6.3 |
| FG 21803        | •    | 12                        | 18                          | 7.13   | 2.99        | 6.57           | 6.57              | 12.1             | Flag Ø5.5  |
| FG 22703        | •    | 12                        | 27                          | 6.54   | 6.89        | 4.92           | 4.92              | 19.2             | Flag Ø5.5  |
| FG 24204        | •    | 12                        | 42                          | 7.76   | 6.50        | 6.69           | 6.69              | 29.8             | Flag Ø6.5  |
| FG 27004        | •    | 12                        | 70                          | 13.78  | 6.54        | 6.85           | 6.85              | 51.4             | Flag Ø6.5  |

\* Model available also with VDS

\*\*Tot. Height = total height including terminals

## FGC

| BATTERY<br>TYPE | NOMINAL<br>VOLTAGE<br>(V) | CAPACITY (Ah)               |        | NOMINAL DIM | ENSIONS (mm) | TYPICAL<br>WEIGHT      | TERMINAL<br>TYPE |            |
|-----------------|---------------------------|-----------------------------|--------|-------------|--------------|------------------------|------------------|------------|
|                 |                           | 20 H to 1.75 VPC<br>at 25°C | Length | Width       | Height       | Height (termi-<br>nal) | (kg)             |            |
| FGC 21202       | 12                        | 12                          | 151    | 98          | 95           | 100                    | 4.0              | Faston 6.3 |
| FGC 21803       | 12                        | 18                          | 181    | 76          | 167          | 163                    | 6.3              | Flag Ø5.5  |
| FGC 22705       | 12                        | 27                          | 166    | 175         | 125          | 113                    | 9.3              | Round M5   |
| FGC 23505       | 12                        | 35                          | 197    | 130         | 159          | 157                    | 11.1             | Round M5   |
| FGC 24207       | 12                        | 42                          | 199    | 166         | 171          | 153                    | 13.4             | Round M6   |



|    | BATTERY<br>TYPE | NOMINAL<br>VOLTAGE<br>(V) | CAPACITY (Ah)               |        | NOMINAL DIM | TYPICAL<br>WEIGHT | TERMINAL<br>TYPE       |      |            |
|----|-----------------|---------------------------|-----------------------------|--------|-------------|-------------------|------------------------|------|------------|
|    |                 |                           | 20 H to 1.75 VPC<br>at 25°C | Length | Width       | Height            | Height (termi-<br>nal) | (kg) |            |
| 12 | FGH 23 slim     | 12                        | 5.0                         | 151    | 51          | 95                | 100                    | 1.9  | Faston 4.8 |
|    | 12 FGH 23       | 12                        | 5.0                         | 90     | 70          | 101               | 107                    | 1.8  | Faston 6.3 |
|    | 12 FGH 36       | 12                        | 9.0                         | 151    | 65          | 95                | 100                    | 2.7  | Faston 6.3 |
|    | 12 FGH 50       | 12                        | 12                          | 151    | 98          | 95                | 100                    | 3.8  | Faston 6.3 |
|    | 12 FGH 65       | 12                        | 18                          | 181    | 76          | 167               | 163                    | 5.6  | Flag Ø5.5  |

# FGHL

| BATTERY<br>TYPE | NOMINAL<br>VOLTAGE<br>(V) | CAPACITY (Ah)               |        | NOMINAL DIM | ENSIONS (mm) | TYPICAL<br>WEIGHT      | TERMINAL<br>TYPE |            |
|-----------------|---------------------------|-----------------------------|--------|-------------|--------------|------------------------|------------------|------------|
|                 |                           | 20 H to 1.75 VPC<br>at 25°C | Length | Width       | Height       | Height (termi-<br>nal) | (kg)             |            |
| 12 FGHL 22      | 12                        | 5.0                         | 90     | 70          | 101          | 106                    | 1.9              | Faston 6.3 |
| 12 FGHL 28      | 12                        | 7.2                         | 151    | 65          | 95           | 100                    | 2.6              | Faston 6.3 |
| 12 FGHL 34      | 12                        | 8.4                         | 151    | 65          | 95           | 100                    | 2.7              | Faston 6.3 |
| 12 FGHL 48      | 12                        | 12                          | 151    | 98          | 95           | 100                    | 4.0              | Faston 6.3 |

### **ELECTRICAL CHARACTERISTICS**

Float Voltage: 2.25-2.30 V/cell at 77°F Boost Voltage for cyclic use: 2.40-2.50 V/cell at 77°F Float Voltage Compensation with Temperature: -1.39 mV/cell/°F Self-Discharge at 77°F: <2%/month

#### **STANDARDS**

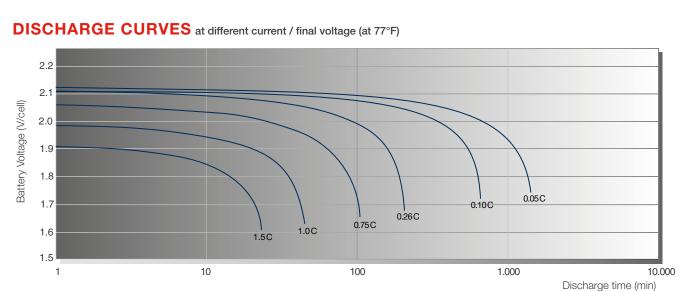
IEC 60896 Part 21 - VRLA methods of testing IEC 60896 Part 22 - VRLA requirements Eurobat "3-5 years standard commercial" for FG FGH FGC and "10-12 years long life" for FGHL UL Recognized

#### CERTIFICATIONS

ISO 9001 Quality Management System

ISO 14001 Environmental Management System

OHSAS 18001 Workplace Safety & Health



The above discharge curves are typical. For more detailed information please see the specific product sheets.

[%] 140

120

100

80

40

20

0

20 [hours]

Current 100%

Capac

60 beg

Rechar

50% ----

## **TYPICAL CHARGE CURVES**

[A]

Charging Current

0.10 c

0.05 c

0

Voltage 100% -

[V/Cell] 2.4

2.2

Voltage

Charging /

1.6

0

50% ----

0

5

Capacity

10

50% ----

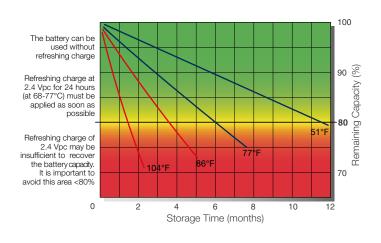
Recharged 100%

15

Battery Voltage and Charge Time for Standby Use (at 77°F)

#### STORAGE

Capacity loss during storage at various temperatures



# **FIAMM**

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