



### Applications and Key Benefits

- + Designed to achieve optimal performance and to protect from power disturbances  
ideal for:
  - high rate discharge UPS application
  - emergency power supply systems
  - IT network operations and data centers
  - emergency lighting
- + 12 volt monoblocs
- + Very high energy density allows more compact battery layout and footprint
- + Easy installation in cabinets or racks
- + Non-spillable
- + Flame retardant plastics
- + VRLA AGM and gas recombination technology with 99% internal recombination
- + Maintenance free without topping-up
- + Non-hazardous for air/sea/rail/ road transportation
- + 100% Recyclable

### Applicable Standards

- IEC 60896 Part 21 - VRLA methods of testing
- IEC 60896 Part 22 - VRLA requirements
- BS 6290 Part 4 - specifications for VRLA classification
- Eurobat "High Performance" - 10-12 years

### FIAMM Manufacturing

- ISO 9001 Quality Management System
- ISO 14001 Environmental Management System
- OHSAS 18001 - Workplace Safety & Health

### Technical Features

- Gravity casted grids with high purity lead calcium tin alloy
- Active material on both sides of the grids guarantees optimized performance
- Minimal grid growth and corrosion resistant for prolonged service life
- Electrolyte fully absorbed in glass mat "AGM" separators with extremely high micro porosity
- Threaded female M5/M6/M8 terminal posts guarantee highest conductivity, maximum torque retention and easy installation
- Leak-resistant post seals prevent acid seepage over a wide temperature range
- Cells equipped with one-way safety valves that open at 5 PSI and close at 3 PSI to allow excess gas to escape when overcharging
- Flame arrestors prevent sparks or flames from entering the battery
- ABS IEC 707 FV0 and UL 94 V0 (LOI greater than 28%) flame retardant plastics
- Container and lid designed for unsurpassed mechanical strength made of thick walled plastics
- < 2% self-discharge per month at 20°C allows 6 months shelf life
- Remote venting system available for applications which require limited gassing to be vented externally (available on 12FLB250 to 12FLB450)



## FIAMM FLB range

| BATTERY TYPE | NOMINAL VOLTAGE (V) | CAPACITY at 25°C (Ah) | SHORT CIRCUIT CURRENT (A) | INTERNAL RESISTANCE (mΩ) | DIMENSIONS (mm) |       |        | WEIGHT (kg) | TERMINALS |
|--------------|---------------------|-----------------------|---------------------------|--------------------------|-----------------|-------|--------|-------------|-----------|
|              |                     | 20 hrs to 1.75 VPC    | IEC 60896 21-22           | IEC 60896 21-22          | Length          | Width | Height |             |           |
| 12 FLB 100   | 12                  | 26                    | 768                       | 16.4                     | 166             | 175   | 125    | 9.35        | M5/12     |
| 12 FLB 150   | 12                  | 40                    | 1270                      | 9.8                      | 197             | 165   | 170    | 14.0        | M6/16     |
| 12 FLB 200   | 12                  | 55                    | 1550                      | 8.3                      | 229             | 138   | 212    | 18.5        | M6/16     |
| 12 FLB 250   | 12                  | 70                    | 1975                      | 6.5                      | 272             | 166   | 195    | 23.5        | M8/18     |
| 12 FLB 300   | 12                  | 75                    | 2620                      | 4.8                      | 261             | 174   | 218    | 27.0        | M8/18     |
| 12 FLB 350   | 12                  | 90                    | 2430                      | 5.2                      | 302             | 174   | 218    | 31.0        | M8/18     |
| 12 FLB 400   | 12                  | 100                   | 3260                      | 3.8                      | 341             | 174   | 218    | 34.5        | M8/18     |
| 12 FLB 450   | 12                  | 115                   | 3870                      | 3.2                      | 379             | 174   | 218    | 38.5        | M8/18     |
| 12 FLB 540   | 12                  | 150                   | 3660                      | 3.4                      | 338             | 174   | 277.5  | 44.5        | M8/18     |
| 12 FLB 700   | 12                  | 235                   | 4480                      | 2.8                      | 260             | 500   | 235    | 75.0        | M8/18     |

## DISCHARGE WATTS PER CELL TO 1.67 V/CELL AT 25°C

| BATTERY TYPE | MINUTES |     |     |      |      |      |      |
|--------------|---------|-----|-----|------|------|------|------|
|              | 5       | 10  | 15  | 20   | 30   | 45   | 60   |
| 12 FLB 100   | 186     | 126 | 103 | 86.1 | 65.4 | 47.4 | 37.4 |
| 12 FLB 150   | 286     | 201 | 156 | 127  | 93.9 | 68.3 | 53.4 |
| 12 FLB 200   | 354     | 256 | 204 | 167  | 125  | 91.9 | 73.4 |
| 12 FLB 250   | 489     | 339 | 257 | 207  | 152  | 108  | 86.8 |
| 12 FLB 300   | 557     | 397 | 311 | 254  | 186  | 134  | 106  |
| 12 FLB 350   | 669     | 477 | 374 | 305  | 224  | 161  | 128  |
| 12 FLB 400   | 743     | 530 | 415 | 339  | 248  | 179  | 142  |
| 12 FLB 450   | 855     | 609 | 477 | 390  | 286  | 206  | 163  |
| 12 FLB 540   | 874     | 658 | 540 | 449  | 341  | 249  | 195  |
| 12 FLB 700   | 935     | 883 | 735 | 600  | 451  | 334  | 273  |

### Electrical Characteristics

- ✚ FLOAT VOLTAGE CHARGE AT 25°C: 2.26 V/cell
- ✚ BOOST CHARGE: 2.35 V/cell
- ✚ FLOAT VOLTAGE COMPENSATION WITH TEMPERATURE: -2.5 mV/°C per cell