

FIAMM

Industrial Batteries

FGL

series



Applications and Key Benefits

- + Designed to achieve optimal performance and to protect from power disturbances
ideal for:
 - Emergency lighting
 - Signaling
 - Security & alarm systems
 - Industry & process controls
 - UPS application
 - Minor traction
 - Renewable energy storage
- + Optimized for discharge up to 20 hours
- + 10 year design life in float operation in temperature controlled environment
- + VRLA AGM and gas recombination technology with 99% internal recombination
- + Non-spillable and maintenance free
- + Non-hazardous for air/sea/rail/ road transportation
- + 100% Recyclable

| Model | Nominal voltage (V) | Capacity (Ah) | | | | Weight (kg) | Dimensions (mm) | | | | Terminal Type |
|-----------|---------------------|--------------------------------|--------------------------------|-------------------------------|---------------------------------|-------------|-----------------|-----|-----|-----|---------------|
| | | Discharge 20 h rate 1.75V/cell | Discharge 10 h rate 1.75V/cell | Discharge 5 h rate 1.70V/cell | Discharge 1.5 h rate 1.60V/cell | | L | W | H | TH | |
| 12FGL27 | 12 | 27 | 24 | 22 | 18 | 9.0 | 166 | 175 | 117 | 125 | ROUND M5 |
| 12FGL33 | 12 | 33 | 30 | 27 | 22 | 12.0 | 196 | 130 | 159 | 164 | ROUND M6 |
| 12FGL42 | 12 | 42 | 38 | 34 | 29 | 13.8 | 197 | 165 | 170 | 170 | ROUND M6 |
| 12FGL55 | 12 | 55 | 50 | 45 | 37 | 18.2 | 229 | 138 | 207 | 212 | ROUND M6 |
| 12FGL70 | 12 | 70 | 63 | 58 | 49 | 23.2 | 272 | 166 | 191 | 195 | ROUND M6 |
| 12FGL70/L | 12 | 70 | 62 | 57 | 48 | 22.6 | 350 | 166 | 175 | 175 | ROUND M6 |
| 12FGL80 | 12 | 80 | 73 | 67 | 54 | 27.0 | 259 | 168 | 208 | 213 | ROUND M8 |
| 12FGL100 | 12 | 100 | 94 | 85 | 71 | 32.5 | 329 | 172 | 214 | 221 | ROUND M6 |
| 12FGL120 | 12 | 120 | 112 | 102 | 85 | 38.0 | 407 | 173 | 220 | 225 | ROUND M8 |
| 12FGL150 | 12 | 150 | 141 | 127 | 106 | 46.2 | 483 | 170 | 220 | 220 | ROUND M8 |
| 12FGL205 | 12 | 205 | 190 | 172 | 142 | 66.0 | 500 | 226 | 235 | 235 | ROUND M8 |

TH = total height including terminals

Technical Features

- **Grids:** gravity casted grids with high purity lead calcium tin alloy
- **Separators:** electrolyte fully absorbed in glass mat "AGM" separators with extremely high micro porosity
- **Terminal posts:** threaded inserts provide high conductivity, retain required torque values and allow for easy installation
- **Post seals:** high integrity post seal design prevents acid leakage over a wide temperature range
- **One-way safety valves** allow excess gas to escape when overcharging
- **Flame arrestors** prevent any errant spark or flame from entering the battery
- **Container and cover:** made of thick walled ABS plastics, designed for unsurpassed mechanical strength
- **Shelf life:** < 2% self-discharge per month at 20°C allows 6 months shelf life

Constant Current discharge table (Amperes)

Final Voltage: 1.67 V/cell - Temperature: 25°C

| Model | 5 min | 10 min | 15 min | 20 min | 30 min | 45 min | 1 hour | 2 hours | 3 hours | 5 hours | 10 hours | 20 hours |
|-----------|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|----------|----------|
| 12FGL27 | 86.5 | 61.7 | 47.8 | 39.4 | 29.4 | 21.4 | 17.0 | 9.59 | 6.88 | 4.52 | 2.51 | 1.38 |
| 12FGL33 | 106 | 75.4 | 58.5 | 48.1 | 35.9 | 26.1 | 20.7 | 11.7 | 8.40 | 5.52 | 3.07 | 1.69 |
| 12FGL42 | 141 | 98.2 | 75.3 | 61.2 | 45.9 | 33.4 | 26.2 | 14.5 | 10.5 | 6.96 | 3.88 | 2.15 |
| 12FGL55 | 163 | 122 | 97.2 | 80.3 | 60.2 | 44.0 | 34.7 | 19.4 | 13.9 | 9.14 | 5.09 | 2.81 |
| 12FGL70 | 195 | 150 | 120 | 100 | 75.5 | 55.1 | 43.7 | 24.5 | 17.7 | 11.6 | 6.47 | 3.59 |
| 12FGL70/L | 191 | 147 | 118 | 98.4 | 74.0 | 54.0 | 42.8 | 24.0 | 17.3 | 11.4 | 6.34 | 3.52 |
| 12FGL80 | 243 | 181 | 143 | 119 | 89.8 | 65.4 | 51.5 | 28.7 | 20.4 | 13.3 | 7.58 | 4.05 |
| 12FGL100 | 309 | 230 | 184 | 152 | 113 | 81.6 | 64.5 | 35.9 | 25.5 | 16.7 | 9.45 | 5.07 |
| 12FGL120 | 389 | 284 | 224 | 185 | 135 | 98.1 | 77.3 | 43.1 | 30.6 | 20.1 | 11.4 | 6.08 |
| 12FGL150 | 455 | 334 | 267 | 221 | 165 | 121 | 96.4 | 53.8 | 38.3 | 25.1 | 14.2 | 7.60 |
| 12FGL205 | 617 | 454 | 358 | 296 | 220 | 162 | 129 | 73.6 | 52.2 | 34.1 | 19.3 | 10.3 |

Constant Power discharge table (Watts per bloc)

Final Voltage: 1.67 V/cell - Temperature: 25°C

| Model | 5 min | 10 min | 15 min | 20 min | 30 min | 45 min | 1 hour | 2 hours | 3 hours | 5 hours | 10 hours | 20 hours |
|-----------|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|----------|----------|
| 12FGL27 | 868 | 637 | 504 | 423 | 321 | 238 | 192 | 110 | 79.3 | 52.5 | 29.2 | 16.2 |
| 12FGL33 | 1061 | 779 | 617 | 517 | 393 | 291 | 235 | 134 | 96.9 | 64.1 | 35.7 | 19.8 |
| 12FGL42 | 1418 | 1011 | 794 | 657 | 502 | 372 | 296 | 166 | 121 | 80.9 | 45.2 | 25.1 |
| 12FGL55 | 1639 | 1268 | 1023 | 862 | 659 | 492 | 393 | 221 | 160 | 106 | 59.3 | 32.9 |
| 12FGL70 | 1960 | 1545 | 1281 | 1076 | 826 | 614 | 493 | 281 | 204 | 135 | 75.4 | 41.9 |
| 12FGL70/L | 1921 | 1514 | 1255 | 1054 | 810 | 602 | 483 | 275 | 200 | 133 | 73.9 | 41.1 |
| 12FGL80 | 2552 | 1935 | 1553 | 1295 | 988 | 725 | 575 | 324 | 231 | 152 | 87.1 | 46.8 |
| 12FGL100 | 3240 | 2462 | 1988 | 1657 | 1240 | 906 | 718 | 405 | 289 | 190 | 109 | 58.5 |
| 12FGL120 | 4085 | 3045 | 2422 | 2011 | 1494 | 1087 | 862 | 486 | 347 | 229 | 131 | 70.2 |
| 12FGL150 | 4772 | 3586 | 2900 | 2408 | 1820 | 1346 | 1075 | 607 | 434 | 286 | 163 | 87.7 |
| 12FGL205 | 6477 | 4862 | 3875 | 3231 | 2426 | 1796 | 1444 | 830 | 593 | 391 | 223 | 120 |

Applicable Standards

- IEC 60896 Part 21 - VRLA methods of testing
- IEC 60896 Part 22 - VRLA requirements
- UL Recognized

FIAMM Manufacturing

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

FIAMM Distributionscenter Berlin
ELEKTRO.TEC GmbH
Eichborndamm 129-139
D-13403 Berlin

Tel.: +49 (0) 30/4111024
Fax: +49 (0) 30/4111025
info@fiamm-batterie.de
www.fiamm-batterie.de



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