



### Applications and Key Benefits

- + Designed for highest reliability in standby mode, for high performance, high current and deep discharge applications  
Ideal for:
  - Nuclear and thermal power plants
  - Electrical utilities
  - Power supply units for substations
  - Switchgear
  - Signaling and emergency lighting
  - IT datacenters
  - Starter batteries for diesel generators
- + 25 year design life in float operation in temperature controlled environments
- + 100% rated capacity throughout the battery life  
No requirement to oversize the battery
- + Excellent for high current discharge (1 to 60 min), and medium to long discharge (2 to 8 hours)
- + Long life even in the worst operating conditions
- + Extra thick pure lead Planté plates
- + High reliability post seal
- + Extremely long topping-up intervals
- + 100% Recyclable

### Applicable Standards

- DIN 40738 - specification GroE cells
- IEC 60896 part 11 - vented types requirements & tests
- BS 6290 part 2 - British Standard Planté specification
- UK National Grid (with optional nut & bolt terminals)

### FIAMM Manufacturing

- ISO 9001 - Quality Management System
- ISO 14001 - Environmental Management System

### Technical Features

- Positive GroE (Planté) plates, cast from pure lead to avoid capacity drop during the long battery life
- Negative plates with rugged pasted grid construction with a service life compatible with the positive plates  
The alloy and curing process are designed to maintain the porosity of the active material during operation
- High purity sulphuric electrolyte with a very low specific gravity of 1.22 ( ±0.01) at 20°C
- Microporous separators maximize electrolyte utilization, minimize resistance and guarantee lowest self discharge
- Cell containers are injection molded from high quality transparent SAN (styrene acrylonitrile) for easy cell status inspection
- Lids made of opaque ABS
- Female threaded M10 terminals and pillars with solid brass inserts ensure highest conductivity and perfect contact (Optional nut and bolt type terminals with copper inserts)
- High integrity post seal design to avoid electrolyte leakage and terminal corrosion
- Vent plugs effectively return acid spray to the cell under normal operating conditions of float and boost charging  
The vent plugs have a ceramic filter and bayonet lock, designed to prevent any errant spark or flame from entering the cell
- Dedicated service hole allows topping-up without removal of the vent plug
- Flame retardant lids are optional
- Flexible, fully insulated cable connectors with insulated screw with probe hole on the top for electrical measurement
- External recombination plugs optionally available
- < 3% self-discharge per month at 20°C allows 4 months shelf life
- Optional seismic racks UBC zone 4



# ENDURLITE

## SGL / SGH GroE

### FIAMM SGL-SGH GroE range

DIN 40738 Type	Model	Capacity (Ah) at 20°C		Short Circuit Current (A)	Internal Resistance (mOhm)	Weight (kg)	Electrolyte (liters)	Dimensions (mm)		
		10 hrs to 1.80 VPC	5 hrs to 1.80 VPC	IEC 60896-11	IEC 60896-11			Length	Width	Height
3 GroE 75	SGL 7D	79	66	1627	0.226	17.5	5.4	182	153	415
4 GroE 100	SGL 9D	105	88	2163	0.301	19.7	5.2	182	153	415
5 GroE 125	SGL 11D	131	11	2698	0.375	21.9	5.1	182	153	415
6 GroE 150	SGL 13D	155	132	3193	0.444	24.1	4.9	182	153	415
7 GroE 175	SGL 15D	183	154	3769	0.525	26.3	4.8	182	153	415
8 GroE 200	SGL 17D	209	176	4305	0.599	33.2	7.7	182	228	415
9 GroE 225	SGL 19D	235	198	4841	0.674	35.4	7.5	182	228	415
10 GroE 250	SGL 21D	261	220	5376	0.749	37.6	7.4	182	228	415
11 GroE 275	SGL 23D	287	242	5912	0.823	39.8	7.2	182	228	415
12 GroE 300	SGL 25D	314	264	6468	0.901	42.0	7.0	182	228	415
13 GroE 325	SGL 27D	340	286	7004	0.975	52.5	11.6	182	340	415
14 GroE 350	SGL 29D	366	308	7539	1.050	54.6	11.3	182	340	415
15 GroE 375	SGL 31D	392	330	8075	1.125	56.7	11.1	182	340	415
16 GroE 400	SGL 33D	418	352	8610	1.199	58.9	10.9	182	340	415
17 GroE 425	SGL 35D	444	374	9146	1.274	61.0	10.6	182	340	415
18 GroE 450	SGL 37D	470	396	9682	1.348	63.0	10.3	182	340	415
5 GroE 500	SGH 11D	550	440	8000	0.181	96	26.6	328	268	607
6 GroE 600	SGH 13D	660	528	9600	0.151	106	26.4	328	268	607
7 GroE 700	SGH 15D	770	616	11200	0.129	114	26.2	328	268	607
8 GroE 800	SGH 17D	880	704	12800	0.113	123	25.4	328	268	607
9 GroE 900	SGH 19D	990	792	14400	0.100	132	24.6	328	268	607
10 GroE 1000	SGH 21D	1100	880	16000	0.090	141	23.8	328	268	607
11 GroE 1100	SGH 23D	1210	968	17600	0.082	150	23.0	328	268	607
12 GroE 1200	SGH 25D	1320	1056	19200	0.075	174	32.0	328	348	607
13 GroE 1300	SGH 27D	1430	1144	20800	0.069	182	31.1	328	348	607
14 GroE 1400	SGH 29D	1540	1232	22400	0.093	191	30.3	328	348	607
15 GroE 1500	SGH 31D	1650	1320	24000	0.087	199	29.5	328	348	607
16 GroE 1600	SGH 33D	1760	1408	25600	0.081	225	40.2	328	438	607
17 GroE 1700	SGH 35D	1870	1496	27200	0.076	234	39.3	328	438	607
18 GroE 1800	SGH 37D	1980	1584	28800	0.072	242	38.5	328	438	607
19 GroE 1900	SGH 39D	2090	1672	30400	0.068	251	37.7	328	438	607
20 GroE 2000	SGH 41D	2200	1760	32000	0.065	259	36.9	328	438	607
21 GroE 2100	SGH 43D	2310	1848	33600	0.062	295	47.5	328	529	607
22 GroE 2200	SGH 45D	2420	1936	35200	0.059	303	46.7	328	529	607
23 GroE 2300	SGH 47D	2530	2024	36800	0.057	312	45.5	328	529	607
24 GroE 2400	SGH 49D	2640	2112	38400	0.054	320	45.1	328	529	607
25 GroE 2500	SGH 51D	2750	2200	40000	0.052	337	48.4	328	574	607
26 GroE 2600	SGH 53D	2860	2288	41600	0.050	346	47.5	328	574	607

#### Electrical Characteristics

- ✦ NOMINAL VOLTAGE: 2 V/cell
- ✦ FLOAT VOLTAGE CHARGE AT 20°C: 2.23 V/cell
- ✦ BOOST CHARGE: 2.4 V/cell

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