

# SP



SP Battery Range

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**T**HE SP RANGE IS DESIGNED TO SATISFY A WIDE RANGE OF APPLICATIONS REQUIRING HIGH LEVEL OF SECURITY AND RELIABILITY.

SP BATTERIES OFFER GOOD PERFORMANCE WITH ANY DISCHARGE PROFILE. SP BLOCS CAN BE INSTALLED IN CABINETS OR RACKS. SP USES PROVEN VRLA TECHNOLOGY WITH 99% INTERNAL RECOMBINATION EFFICIENCY, IS NON-SPILLABLE AND MAINTENANCE FREE THEREFORE REQUIRES NO TOPPING UP OF ELECTROLYTE DURING ITS FLOAT-LIFE. SP RANGE IS NON-HAZARDOUS FOR AIR/SEA/RAIL/ROAD TRANSPORTATION AND IS 100% RECYCLABLE. SP HAS A SELF-DISCHARGE RATE LESS THAN 2% PER MONTH, GUARANTEEING LONG SHELF-LIFE.



MAIN 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, threaded female M5/M6/M8 terminals with high conductivity and maximum torque resistance

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

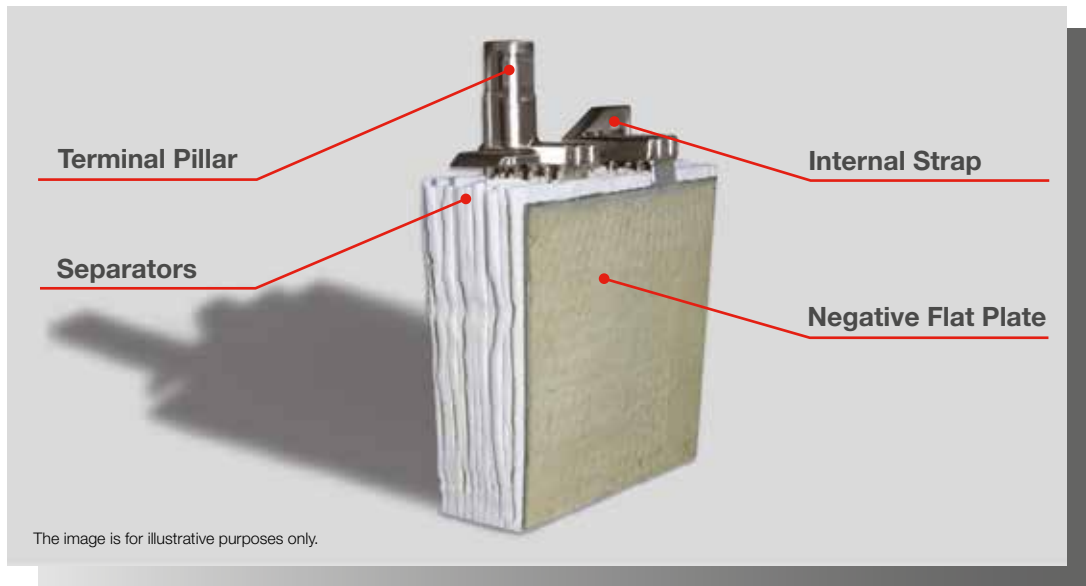
Flame arrestors prevent sparks or flames entering the battery

Flame retardant ABS plastic to IEC 707 FV0 and UL94 FV0 (LOI greater than 28%) designed for superior mechanical strength

Heat sealed box to lid weld for superior integrity

Installation in any orientation (excluding permanently inverted)

## TECHNOLOGY



FIAMM SP 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 TYPE	NOMINAL VOLTAGE (V)	CAPACITY (Ah) 20 hrs to 1.75 VPC at 20°C	SHORT CIRCUIT CURRENT IEC 60896-21-22	INTERNAL RESISTANCE IEC 60896 21-22	NOMINAL DIMENSIONS (mm)				TYPICAL WEIGHT (kg)	TERMINAL TYPE
					Length	Width	Height	Tot. Height		
12SP26	12	26	630	11	166	175	125	116	8.8	Female M6
12SP33	12	33	890	8.0	197	130	159	163	10	Female M6
12SP42	12	42	1010	8.0	197	166	173	163	14	Female M6
12SP55	12	55	1400	7.2	230	140	207	212	17	Female M6
12SP70	12	70	1300	7.3	268	174	190	194	20	Female M8
12SP72	12	70	1300	7.3	348	167	177	161	21	Female M8
12SP80	12	80	1500	6.6	260	168	209	214	23	Female M8
12SP100	12	100	2100	5.7	329	172	215	222	31	Female M8
12SP120	12	120	2250	5.3	407	173	220	225	37	Female M8
12SP150	12	150	3000	4.8	483	170	240	239	45	Female M8
12SP210	12	205	3200	3.0	522	239	218	223	61	Female M8
12SP240	12	240	4300	2.8	520	269	203	208	71	Female M8

## ELECTRICAL CHARACTERISTICS

Float Voltage: 2.26 V/cell at 25°C

Boost Voltage: 2.40 V/cell

Float Voltage Compensation with Temperature: -2.5 mV/cell/°C

Self-Discharge at 25°C: <2%/month

## STANDARDS

IEC 60896 Part 21 - VRLA methods of testing

IEC 60896 Part 22 - VRLA requirements

Eurobat "10-12 years LONG LIFE"

UL Recognized (except 12SP240)

## CERTIFICATIONS

ISO 9001

Quality Management System

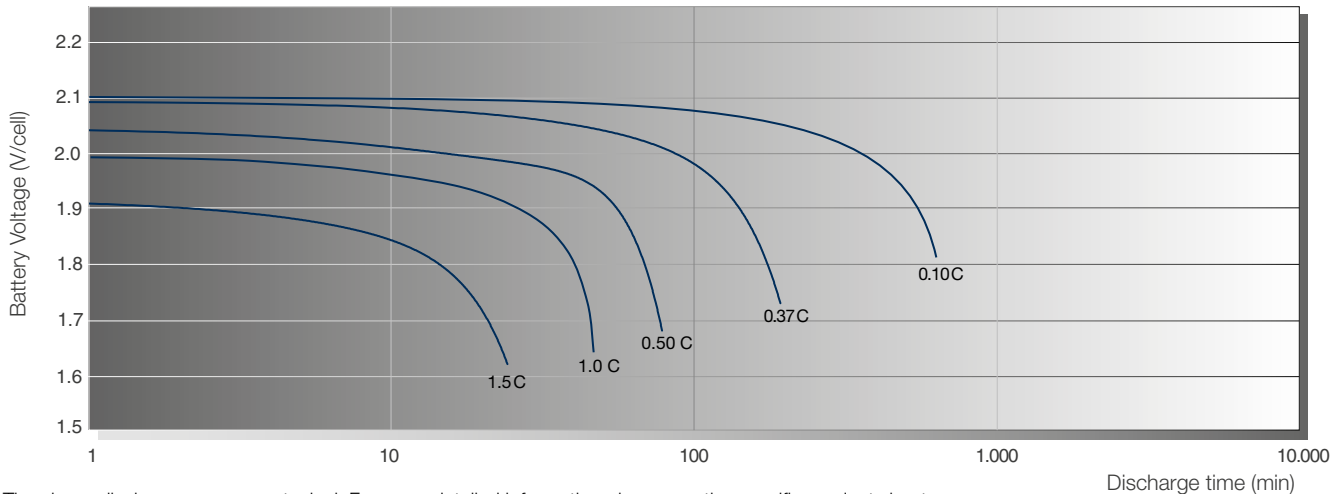
ISO 14001

Environmental Management System

ISO 45001

Workplace Safety & Health

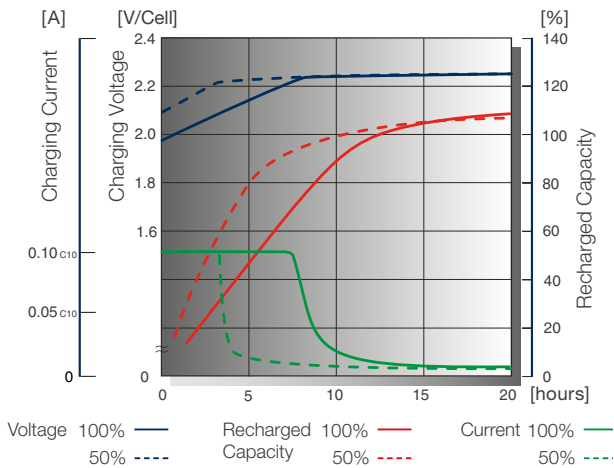
## DISCHARGE CURVES at different current / final voltage (at 25°C)



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

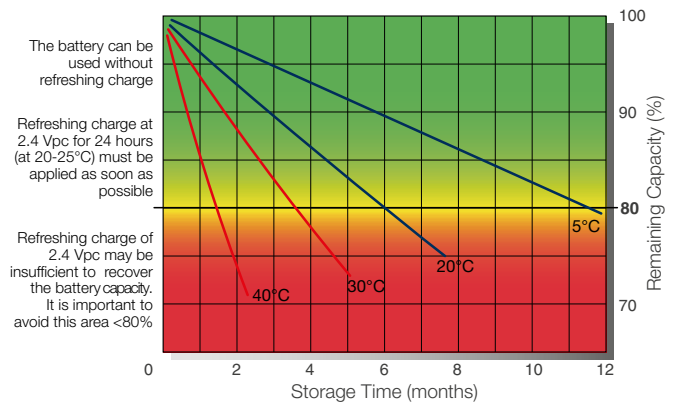
## TYPICAL CHARGE CURVES

Battery Voltage and Charge Time for Standby Use (at 25°C)



## STORAGE

Capacity loss during storage at various temperatures



### FIAMM Asia Pacific PTE LTD

21 Toh Guan Road East, #09-08

608609 Singapore - Republic of Singapore

Tel. +65 68676150

Fax +65 68626550

infostandby.asia@fiamm.com

www.fiamm.com

linkedin.com/company/fiammenergytechnology

youtube.com/user/FIAMMvideo

fiamm.batteries

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