

# FHC

Designed For High Cyclic Applications In Rugged Conditions

**FHC Battery Range**

+  
FIAMM.COM

**FIAMM**  
+ -

**F** IAMM FHC IS SPECIALLY DESIGNED TO MEET THE HIGH CYCLIC APPLICATIONS REQUIREMENTS. THE BATTERY HAS BEEN PURPOSED DEVELOPED FOR DEMANDING APPLICATIONS WHERE THE PRODUCT CAN BE SUBJECT TO FREQUENT DEEP OR PARTIAL DISCHARGES. IN STANDARD BATTERIES SUCH USAGE CAN SHORTEN THE LIFE. THE FIAMM FHC RANGE HAS BEEN DESIGNED TO OVERCOME THIS PROBLEM AND INCREASE LIFE.

THE FIAMM FHC RANGE IS FRONT TERMINAL DESIGNED FOR EASY INSTALLATION AND IS IDEAL FOR USE IN 19" AND 23" CABINET. IT ALLOWS FOR EASY ACCESS FOR MAINTENANCE, REDUCING THE INSTALLATION FOOTPRINT AND MAXIMIZING THE CYCLIC ABILITY. FHC USES FIAMM'S PROVEN VRLA TECHNOLOGY WHICH HAS A 99% INTERNAL RECOMBINATION EFFICIENCY, IS NON-SPILLABLE AND MAINTENANCE FREE THEREFORE REQUIRES NO TOPPING-UP OF ELECTROLYTE DURING ITS FLOAT-LIFE.

THE FHC RANGE IS COMPLIANT WITH THE HIGHEST RECOGNISED INTERNATIONAL STANDARDS, AND IS NON-HAZARDOUS FOR AIR/SEA/RAIL/ROAD TRANSPORTATION. IT IS ALSO 100% RECYCLABLE AND HAS A SELF-DISCHARGE RATE OF LESS THAN 2% PER MONTH: GUARANTEEING LONG SHELF-LIFE.



#### MAIN APPLICATIONS:



TELECOMMUNICATION



RENEWABLE ENERGY



RAILWAYS

## SPECIFICATIONS

Unsurpassed cyclic characteristics: > 2000 cycles at 50% DoD \*

Partial State of Charge usage compliant thanks to the innovative carbon additives

Consistent charging current due to advanced active material formulation

Leak resistant post seal, threaded female M8 terminals with high conductivity and maximum torque resistance

VRLA AGM technology thanks to one-way safety relief valves: gas to escape and prevent the ingress of oxygen

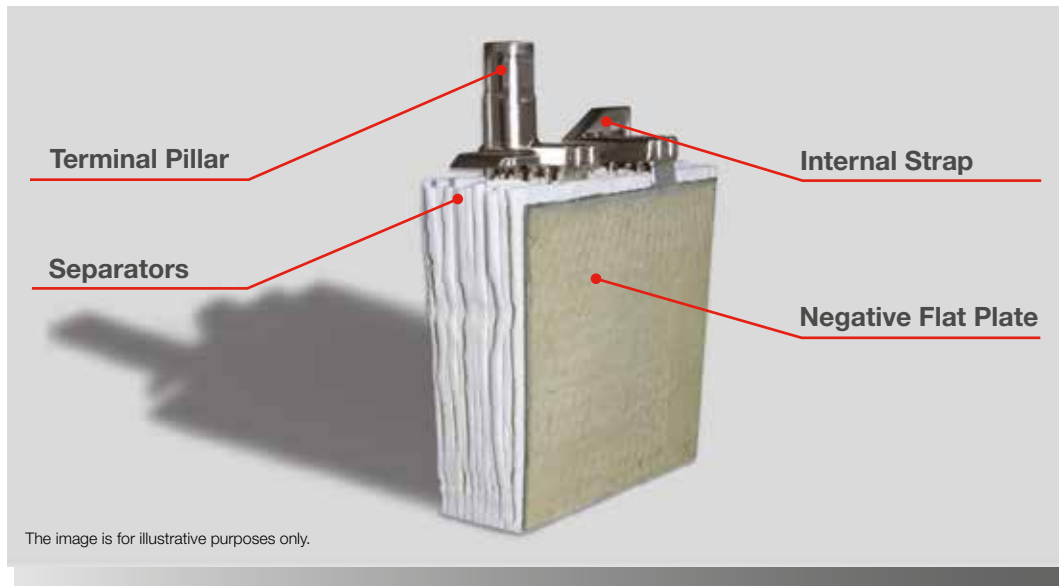
Flame retardant ABS-PC plastic to IEC 707 and UL94 FV0 (LOI greater than 28%) to guarantee superior thermal stability

One-way safety relief valves allow gas to escape and prevent the ingress of oxygen and flame arrestors prevent sparks or flames entering the battery

Installation in vertical or side orientation (side positioning is recommended for high cyclic usage)

\* according indications from the manufacturer

## TECHNOLOGY



FIAMM FHC 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) 10 H to 1.8 VPC at 20°C	SHORT CIRCUIT CURRENT (A) IEC 60896 21-22	INTERNAL RESISTANCE (mOhm) IEC 60896 21-22	NOMINAL DIMENSIONS (mm)			TYPICAL WEIGHT (kg)
					Length	Width	Height	
12FHC95	12	95	2550	4.8	108	395	275	34
12FHC145	12	145	2590	4.8	110	531	314	50
12FHC175	12	175	2900	4.3	126	558	321	59

## ELECTRICAL CHARACTERISTICS

Float Voltage: 2.26 V/cell at 25°C  
 Boost Voltage: 2.45 V/cell  
 Float Voltage Compensation with Temperature: -2.5 mV/cell/°C  
 Self-Discharge at 20°C: <2%/month

## STANDARDS

IEC 60896 Part 21 - VRLA methods of testing  
 IEC 60896 Part 22 - VRLA requirements  
 BS6334 / UL 94 V0 / IEC 707 FV0  
 Eurobat ">12 years VERY LONG LIFE"



## CERTIFICATIONS

ISO 9001  
Quality Management System

ISO 14001  
Environmental Management System

IS 45001  
Workplace Safety & Health

## ACCESSORIES

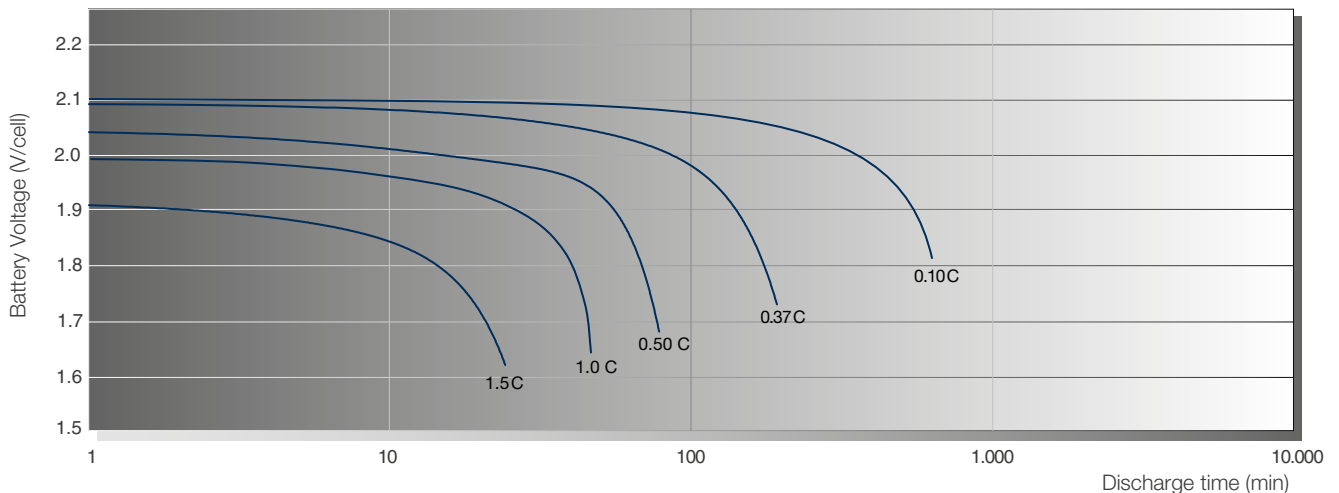
RVS  
(remote venting system) for applications which require remote gassing

Rack for battery installation  
(standard and anti-seismic)

Cabinets for battery installation  
(including electrical protections and disconnection)

Battery monitoring systems

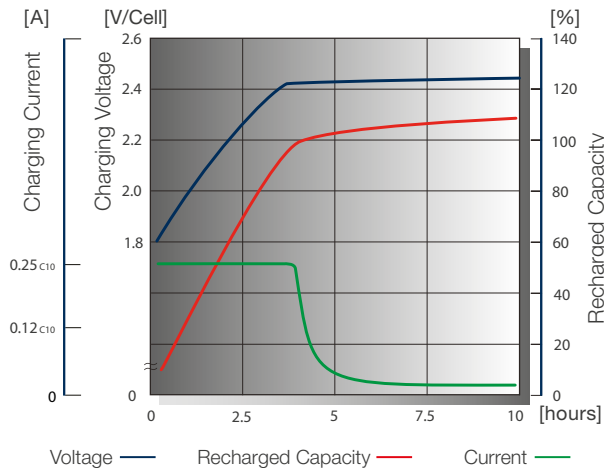
### DISCHARGE CURVES at different current / final voltage (at 20°C)



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

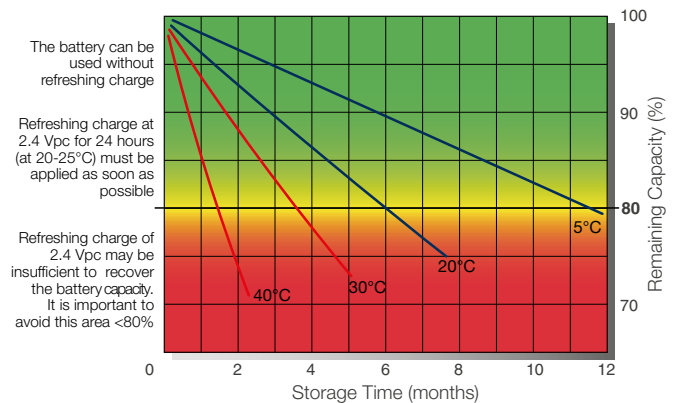
### TYPICAL CHARGE CURVES

Battery Voltage and Charge Time for Cyclic Use (at 20°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

[in linkedin.com/company/fiammenergytechnology](https://www.linkedin.com/company/fiammenergytechnology)  
[yt youtube.com/user/FIAMMvideo](https://www.youtube.com/user/FIAMMvideo)  
[fb fiamm.batteries](https://www.facebook.com/fiamm.batteries)  
[tw fiammbatteries](https://www.instagram.com/fiammbatteries)