









## Battery box FG21803 24V - 18Ah C20

### **Protection mode:**

Type of protection: II 2G EEx e II

Class of temperature: T6

Ambient Temp: -20/+50°C

Zones: 1-2

## **Description:**

FG21803 24V 18Ah C20 is a general purpose application battery. Within the FG range Fiamm offer 6V and 12V monoblocs at various amp hour capacities enable the right battery selection for each requirement. FIAMM Sealed Power is a Manufacturer of VRLA batteries; and is supported by a dedicated sales network with market knowledge and experience of small sealed lead acid battery applications.

1 x Battery box including 2 x FIAMM FG21803 cells (approx. dimensions 240x230x h200mm). The battery box is manufactured in stainless steel AISI 316L with bolted on top plate, complete with 2 x stainless steel cable glands.



(Cable above unsupplied)



### **Technical specs:**

Nominal Voltage	12 Volt						
Nominal Capacity	18ah 20 hours rate to 1,75 Vpc at 25°C						
Float charging voltage	13.50 - 13.80 V/bloc at 25 °C						
Boost charge voltage	14.40 - 15.00 V/bloc at 25 °C						
Float voltage compensation	-18mV/°C						
Maximum charging current	3 A						
Case	ABS with HB fiammability rate (according UL 94)						
Internal resistance	$20~\text{m}\Omega$ in full charged condition						
Operative temperature range	-20 °C to 50 °C						
Shelf life procedures	As batteries lose part of their capacity, during storage, due to self discharge. Fiamm recommends FG range of batteries can be stored for 6 months at an Ambient temperature of 20 and 25 °C (see attached graph on reverse). Longer storage requires a recharge.  This should be carried out in line with Fiamm recommended method; 2.4 V/cell for no longer than 24 hours at 20 °C						





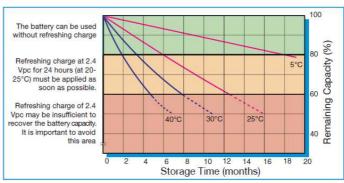




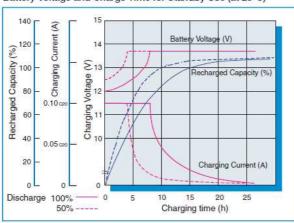


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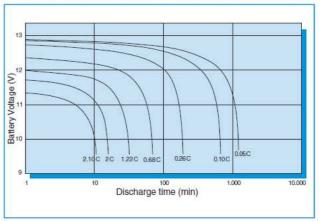
Capacity loss during storage at various temperatures



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



### Discharge curves at different current / final voltage (at 25°C)



### Costant Current discharge table (Amperes)

end voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hour	2 hour	3 hour	5 hour	10 hour	20 hour
9,60 V	60,2	40,2	30,2	24,5	18,1	13,5	10,9	6,35	4,66	3,11	1,72	0,94
9,90 V	58,3	39,3	29,7	24,1	17,9	13,3	10,8	6,28	4,61	3,06	1,70	0,93
10,02 V	57,3	38,7	29,3	23,9	17,8	13,2	10,7	6,22	4,58	3,04	1,69	0,92
10,20 V	55,8	38,1	29,0	23,7	17,7	13,2	10,7	6,17	4,55	3,02	1,67	0,92
10,50 V	53,5	37,0	28,3	23,2	17,4	13,0	10,5	6,06	4,46	2,96	1,64	0,90
10,80 V	50,9	36,0	27,7	22,7	17,1	12,8	10,4	5,96	4,40	2,91	1,61	0,89

### Costant Power discharge table (Watts per bloc)

end voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hour	2 hour	3 hour	5 hour	10 hour	20 hour
9,60 V	100	68,8	52,8	43,5	33,0	24,9	20,5	12,1	8,92	5,98	3,33	1,83
9,90 V	97,6	67,6	52,1	43,1	32,7	24,7	20,3	12,0	8,86	5,92	3,31	1,81
10,02 V	96,0	66,8	51,6	42,8	32,5	24,6	20,2	11,9	8,82	5,89	3,29	1,80
10,20 V	93,6	65,8	51,1	42,5	32,3	24,5	20,1	11,8	8,78	5,87	3,27	1,80
10,50 V	90,0	64,2	50,1	41,8	32,0	24,3	19,9	11,6	8,66	5,79	3,23	1,79
10,80 V	86,0	62,6	49,3	41,2	31,6	24,0	19,7	11,5	8,57	5,70	3,17	1,78