

VALVE REGULATED LEAD-ACID RECHARGEABLE BATTERY

FL EV Series

FL EV series batteries are designed to have a large amount of stored current discharged between charging sessions, with very heavy non-porous battery plates to withstand repeated major discharging and charging cycle(deep cycle). The Deep-cycle batteries uses a different chemistry for the plates active paste material, and a slightly stronger electrolyte than normal battery electrolyte, which allows for a much longer

Application

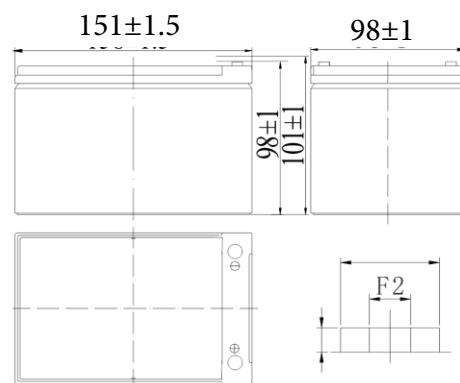
- Alarm System
- Cable Television
- Power tools
- Emergency Power System
- Security System
- Medical Equipment
- Solar and Wind Power System
- Communication Equipment
- Control Equipment
- Toys

General Features

- Sealed and maintenance free operation.
- Non-Spillable construction design.
- ABS containers and covers (UL94HB, UL94V-0) optional.
- Safety valve installation for explosion proof .
- High quality and high reliability.
- Exceptional deep discharge recovery performance.
- Low self discharge characteristic.
- Flexibility design for multiple install positions.

FL12140EV

(12V14.0Ah/20hr)



CONSTRUCTION

Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

TECHNOLOGY PARAMETER

Battery model	FL12140EV			
Designed Cycle Life	>350 Cycles @ -0.5CA to 9.6V			
Capacity (25°C)	20HR(0.85A, 10.5V)	10HR(1.35A, 10.5V)	5HR(2.86A, 10.5V)	1HR(11.4A, 9.60V)
	14Ah	13.5Ah	13.3Ah	11.4Ah
Dimensions	Length	Width	Height	Total Height
	151±1.5mm	98±1mm	98±1mm	101±1mm
Approx. weight (±3%)	4.30Kg (9.48 lbs)			
Internal resistance	Full charged at 25°C: Approx. 15mOhms			
Self discharge	3% of capacity declined per month at 25 °C (average)			
Capacity Affected by Temp.(20HR)	40 °C	25 °C	0 °C	-15 °C
	102%	100%	85%	65%
Charge Voltage (25 °C)	Cycle use		Float use	
	14.4-14.7V(-30mV/°C), max. Current: 5.1A		13.6-13.8V(-20mV/°C)	

VALVE REGULATED LEAD-ACID RECHARGEABLE BATTERY

FL12140EV (12V14.0Ah/20hr)

Constant current discharge ratings-amperes at 25°C

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	66.7	46.7	35.6	20.0	11.4	4.77	3.12	1.72	0.89
1.65V	63.4	44.6	33.8	19.2	11.2	4.62	3.03	1.69	0.87
1.70V	59.6	42.1	32.1	18.4	10.9	4.46	2.94	1.66	0.86
1.75V	55.9	39.6	30.4	17.5	10.4	4.27	2.86	1.64	0.85
1.80V	52.1	37.5	28.6	16.6	9.94	4.08	2.77	1.61	0.83

Constant power discharge ratings-watts at 25°C

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	123	86.4	66.1	37.4	21.4	9.02	5.92	3.29	1.71
1.65V	117	82.1	62.6	35.8	20.9	8.68	5.73	3.22	1.67
1.70V	109	77.1	59.0	34.0	20.3	8.35	5.53	3.14	1.64
1.75V	102	72.1	55.6	32.2	19.3	7.94	5.34	3.08	1.61
1.80V	93.8	67.6	51.8	30.2	18.2	7.50	5.13	2.99	1.56

