

VALVE REGULATED LEAD-ACID RECHARGEABLE BATTERY

DC Series

Deep Cycle 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 life in deep cycle applications.

FL12450DC

(12V45Ah/10hr)

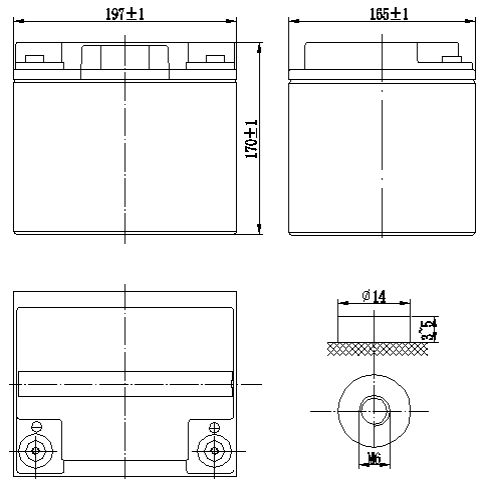


Application

- 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.



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	FL12450DC			
Designed Cycle Life	>350 Cycles @ -0.5CA to 9.6V			
Capacity (25°C)	20HR(2.27A, 10.8V)	10HR(4.5A, 10.8V)	5HR(7.43A, 10.5V)	1HR(28.2A, 9.60V)
	45.4Ah	45Ah	37.15Ah	28.2Ah
Dimensions	Length	Width	Height	Total Height
	197±1mm	165±1mm	170±1mm	170±1mm
Approx. weight (±3%)	14Kg (30.86lbs)			
Internal resistance	Full charged at 25°C: Approx. 9.2mOhms			
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: 11.25A		13.6-13.8V(-20mV/°C)	

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Constant current discharge ratings-amperes at 25°C

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	149	104	79.4	46.5	28.2	12.4	8.10	4.64	2.34
1.65V	142	100	75.5	44.8	27.2	12.0	7.88	4.60	2.32
1.70V	133	94.0	71.6	43.0	26.1	11.6	7.65	4.55	2.30
1.75V	125	88.4	67.8	41.2	25.1	11.1	7.43	4.52	2.28
1.80V	116	83.8	63.9	39.5	24.1	10.6	7.20	4.50	2.27

Constant power discharge ratings-watts at 25°C

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	268	189	144	85.1	51.9	22.9	15.1	8.67	4.39
1.65V	253	179	137	81.5	49.7	22.1	14.6	8.56	4.34
1.70V	237	168	129	77.8	47.6	21.2	14.1	8.42	4.28
1.75V	221	157	121	74.2	45.4	20.2	13.6	8.28	4.23
1.80V	205	148	114	70.7	43.3	19.2	13.1	8.08	4.17

