

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.

DC12180

(12V18.0Ah/20hr)

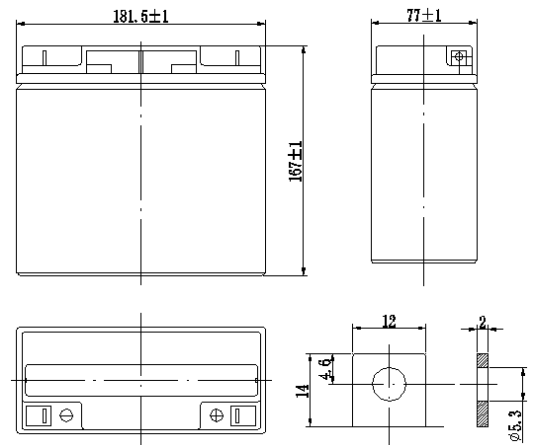


Application

- 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	DC12180			
Designed Cycle Life	> 350 Cycles @ -0.5CA to 9.6V			
Capacity (25°C)	20hR(0.9A, 10.5V)	10hR(1.76A, 10.5V)	5hR(3.07A, 10.5V)	1hR(12.6A, 9.60V)
	18Ah	17.6Ah	15.35Ah	12.6Ah
Dimensions	Length	Width	Height	Total Height
	181.5±1mm	77±1mm	167±1mm	167±1mm
Approx. weight (±5%)	5.5Kg			
Internal resistance	Full charged at 25°C: Approx. 14mOhms			
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: 5.4A		13.6-13.8V(-20mV/°C)	

DC12180 (12V18.0Ah/20hr)

Constant current discharge ratings-amperes at 25°C

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	73.9	51.7	39.4	22.2	12.6	5.13	3.35	1.85	0.945
1.65V	70.2	49.4	37.4	21.3	12.4	4.97	3.26	1.82	0.924
1.70V	66.0	46.6	35.5	20.4	12.1	4.80	3.17	1.79	0.912
1.75V	61.9	43.9	33.6	19.3	11.6	4.59	3.07	1.76	0.900
1.80V	57.7	41.5	31.7	18.4	11.0	4.39	2.98	1.73	0.884

Constant power discharge ratings-watts at 25°C

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	137	96	73.2	41.4	23.7	9.70	6.37	3.54	1.81
1.65V	129	90.9	69.3	39.6	23.1	9.34	6.16	3.46	1.76
1.70V	121	85.3	65.4	37.7	22.4	8.98	5.95	3.37	1.73
1.75V	113	79.8	61.5	35.6	21.4	8.55	5.75	3.31	1.70
1.80V	104	74.8	57.3	33.4	20.1	8.07	5.51	3.21	1.65

