



## 12LC-180

12V 193Ah



Q-Batteries Akku 12LC-180 battery is a special deep cycle battery which is designed for intensive cyclic discharge usage. Because of the very thick lead plates it's possible to achieve more cycles and longer lifetime.

### Application:

Electric wheelchair, caravan/marine, cleaning machines, golf cart, vehicle lifts, solar energy system, u.v.m.

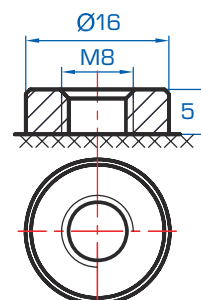
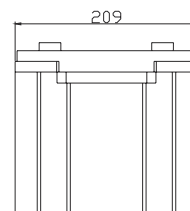
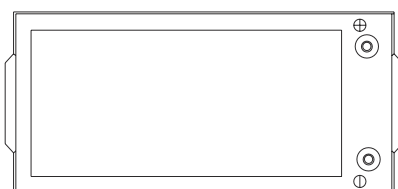
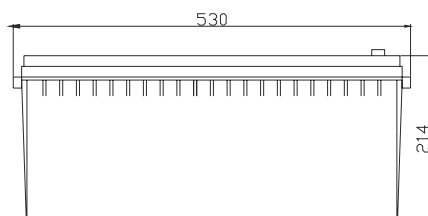


### Specification:

Voltage Per Unit	12 V		
Capacity	193 Ah	@20hr-rate to 1.8V per cell @25°C	
Cells Per Unit	6		
Weight	ca. 53 kg +/- 3%		
Max. Discharge Current	1800 A (5 sec.)		
Internal Resistance	ca. 4 m Ω		
Operating Temperature Range Normal	Discharge: - 15°C – 50°C	Charge: - 10°C – 50°C	Storage: - 20°C – 50°C
Operating Temperature Range	25°C ± 5°C		
Self Discharge	Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.		
Terminal	F12 (M8 bolt)		
Container Material	A.B.S. (UL94-HB)		

### Dimensions:

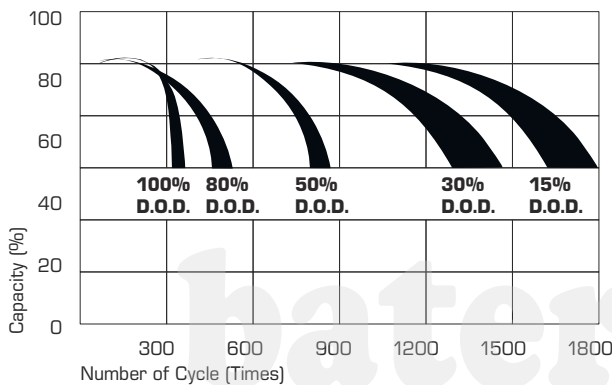
530 Length x 209 Width x 214 mm Height



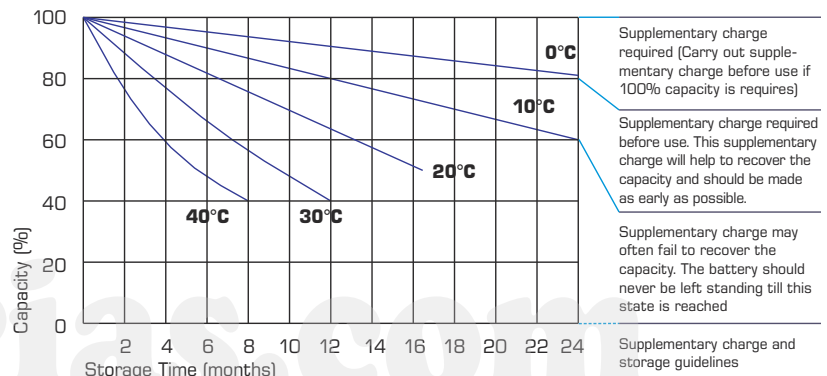
## Constant current discharge characteristics: A (25°C)

F.V/Time	5 Min.	10 Min.	15 Min.	30 Min.	1 HR	2 HR	3 HR	4 HR	5 HR	8 HR	10 HR	20 HR
9.60 V	519.5	387.9	320.0	202.8	117.0	70.01	48.39	39.66	32.46	22.36	18.91	10.40
10.0 V	504.5	369.1	313.5	199.4	116.5	69.48	48.20	39.47	32.27	22.18	18.72	10.21
10.2 V	494.9	356.1	308.5	197.7	115.4	68.96	47.83	39.29	32.08	22.00	18.54	10.02
10.5 V	454.2	328.6	293.8	192.7	114.3	68.43	47.65	38.92	31.70	21.81	18.36	9.83
10.8 V	418.8	299.6	276.3	184.3	111.6	67.20	46.35	38.01	31.12	21.45	18.18	9.64
11.1 V	376.4	267.8	247.8	172.6	106.0	64.22	44.31	36.17	29.79	20.54	17.63	9.07

## Life characteristics of cyclic use:



## Storage characteristic:



## Capacity Factors with different Temperature:

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
GEL Battery	6V & 12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V & 12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

## Charging Method:

Charge the batteries at least once every six months, if they are stored at 25°C

Constant Voltage (V)	-0.2C x 2h + 2.4-2.45V/Cell x 24h, max. Current 0.3CA
Constant Current (A)	-0.2C x 2h + 0.1CA x 12h
Fast	-0.2C x 2h + 0.3CA x 4.0h