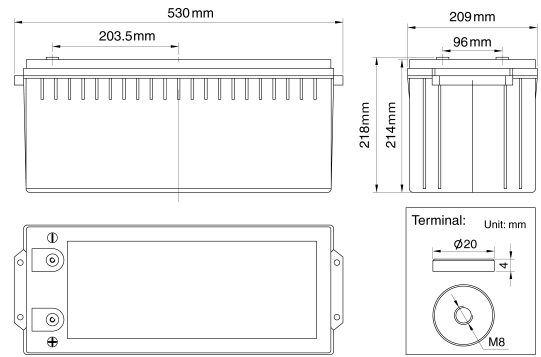


HL180-12



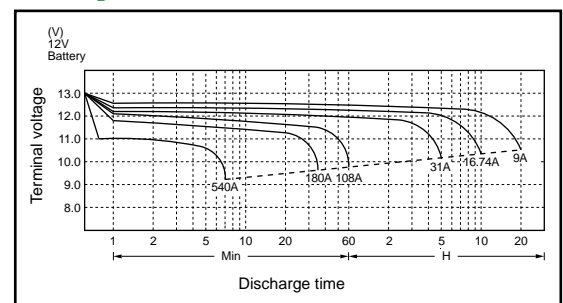
Specifications

Nominal Voltage		12V
Rated Capacity(20 hour rate)		180AH
Dimension	Total Height (with terminals)	218mm(8.58inches)
	Height	214mm(8.43inches)
	Length	530mm(20.87inches)
	Width	209mm(8.23inches)
Weight		Approx.58.5kg(128.97lbs)

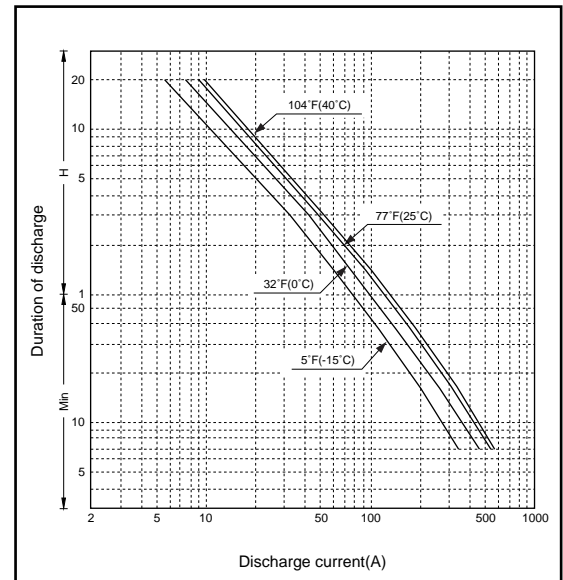
Characteristics

Capacity 77°F(25°C)	20 hour rate(9A)	180AH
	10 hour rate(16.7A)	167AH
	5 hour rate(31A)	155AH
	1 hour rate(108A)	108AH
Internal Resistance	Full charged Battery 77°F(25°C)	2.3mΩ
Capacity affected by Temperature (20 hour rate)	104°F(40°C)	102%
	77°F(25°C)	100%
	32°F(0°C)	85%
	5°F(-15°C)	65%
Self-Discharge 77°F(25°C)	Capacity after 3 month storage	91%
	Capacity after 6 month storage	82%
	Capacity after 12 month storage	64%
Max. Discharge Current 77°F(25°C)	2700A(5S)	
Terminal	Standard	F17
	Optional	F10
Charging (Constant Voltage)	Cycle	Initial Charging Current 36A Or Small 14.5V~14.9V/77°F(25°C)
	Float	13.6V~13.8V/77°F(25°C)

Discharge characteristics 77°F(25°C)



Duration of discharge vs. Discharge current



Note The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values.

Constant Power Discharge Watts Per Cell @ 77°F(25°C)

End Point Volt/cell	Operation Time To End Point Voltage								
	5min	10min	15min	20min	30min	40min	50min	60min	90min
1.75	774	619	521	452	356	288	247	218	158
1.70	820	656	544	469	365	299	252	219	160
1.67	865	684	562	475	370	300	257	220	162
1.65	874	693	570	481	373	302	259	222	164
1.60	918	719	589	497	378	306	261	224	166

Constant Current Discharge Rating Amperes @ 77°F(25°C)

End Point Volt/cell	Operation Time To End Point Voltage													
	5min	10min	30min	60min	2hr	3hr	4hr	5hr	6hr	7hr	8hr	10hr	20hr	24hr
1.75	418	282	187	108	62.5	45.0	35.3	31.0	26.0	22.3	19.6	16.7	9.00	7.54
1.80	382	260	176	106	61.2	43.5	34.2	30.2	25.3	21.5	19.2	16.2	8.82	7.39
1.85	306	226	158	97	56.4	40.9	32.4	28.7	23.9	20.5	18.3	15.5	8.37	7.06
1.90	231	187	134	83	51.9	37.8	30.1	26.7	22.3	19.1	17.1	14.5	7.83	6.58