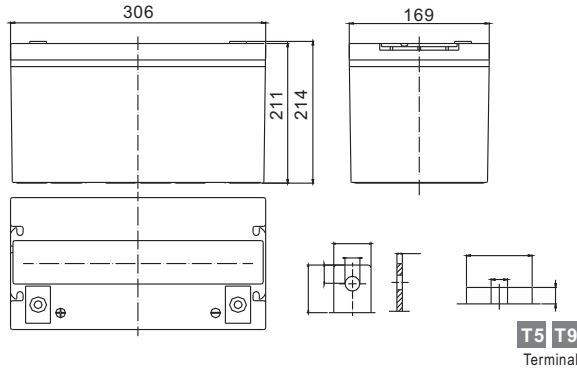


HR 12310W (12V330Watts/cell@15min.Rate)



Dimension(mm)



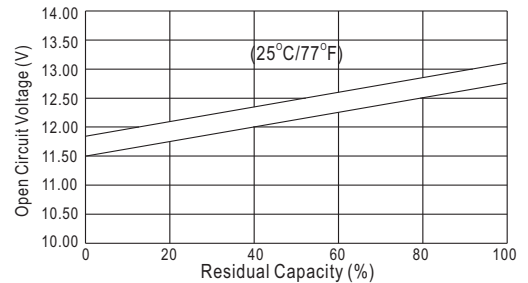
Specification

Nominal Voltage		12 V
Capacity(10HR, 25°C)		90Ah(330Watt/cell @15min rate)
Dimension	Length	306mm (12.0inch)
	Width	169mm (6.7inch)
	Height	211mm (8.3inch)
	Total Height(T5/T9)	233mm(9.2inch)/214mm (8.4inch)
Approx. Weight		30.5kg (67.3lbs)

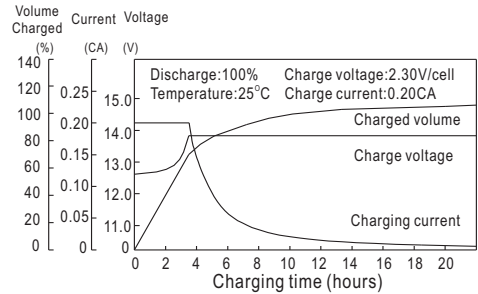
Characteristics

Capacity 20°C (68□) To 1.70V/Cell	20 hour rate	95Ah
	10 hour rate	90Ah
	5 hour rate	81Ah
	1 hour rate	56.2Ah
	15 min rate	42.7Ah
Internal resistance(Fully charged, 25°C)		Approx.4.5m Ω
Capacity affected by temperature (10HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 month	Remaining Capacity: 91%
	6 month	Remaining Capacity: 82%
	12 month	Remaining Capacity: 65%
Nominal operating temperature		25°C ±3°C(77°F ±5°F)
Operating temperature range		-15°C~50°C(5°F~122°F)
Float charging voltage(25°C)		13.50 to 13.80V
Cyclic charging voltage(25°C)		14.50 to 14.90V
Maximum charging current		27A
Terminal material		Copper
Maximum discharge current		800A(5 sec.)

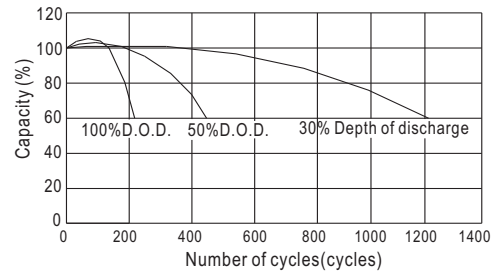
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



Charging Characteristics(25°C)



Cycle Life(25°C)



Constant Current Discharge Characteristics (A, 25°C)

F.V/TIME	5min	10min	15min	30min	60min	3h	5h	10h	20h
1.60V/cell	333	219	178	95.4	58.5	23.3	16.4	9.14	4.8
1.67V/cell	322	212	173	93	57	23.1	16.3	9.11	4.78
1.70V/cell	316	208	171	91.6	56.2	23	16.2	9.05	4.75
1.80V/cell	297	195	162	87	53.4	22.5	15.9	9	4.73

Constant Power Discharge Characteristics (Watt/Cell, 25°C)

5min	10min	15min	30min	60min	3h	5h	10h	20h
599	404	338	178	111	45.7	32.4	18.2	9.59
579	391	330	174	108	45.3	32.1	18.1	9.56
569	384	324	171	107	45	31.9	18	9.51
534	361	308	163	101	44.1	31.3	18	9.45