

### Features

#### Heavy Duty Multi-Purpose Series:

- Provides extended life in applications where variety and combination of general cycling, standby, and wider temperature fluctuation environments.
- 5 year service life in standby applications at 25° C temperatures.
- Cycles over 300 times at 60% depth of discharge yet will perform equally well in standby and other applications where both conditions are required.
- Valve Regulated Lead Acid (VRLA), Absorbent Glass Mat (AGM) Technology – Safe operation in any position
- Lead-calcium alloy grids and the use of high purity virgin lead
- Externally sealed Flame retardant ABS case and cover to UL94-HB specifications
- UL recognized (UR) as a component in UL approved equipment installations under File number MH46202
- Classified as non-spillable status for transportation making it non-hazardous for normal transportation processes. Approved for transport by air. Fulfills US D.O.T., I.A.T.A., F.A.A., C.A.B. handling and shipping requirements
- For more details on special design and construction details see Features and Benefits publication on [www.oraclebattery.com](http://www.oraclebattery.com)



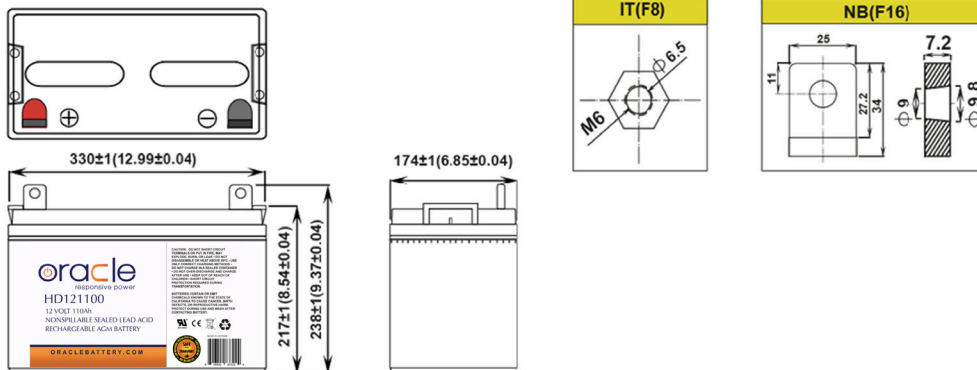
### Specification

<b>Cell per unit</b>	6	<b>Ambient Temperature</b>
<b>Nominal Voltage (V)</b>	12	Charge 0°C (32°F) to 40°C (104°F)
<b>Nominal Capacity (Ah)</b>	110Ah @ 20 hour rate to 1.75vpc	Discharge -15°C (5°F) to 50°C (122°F)
<b>Weight</b>	Approx 30.4kg (67.0lbs.)	Storage -15°C (5°F) to 40°C (104°F)
<b>Internal Resistance (1KHz)</b>	5.0mΩ	<b>Max Charge Current</b>
<b>Max Discharge Current (5s)</b>	1000A (5s)	Max charge current 33A
<b>Battery Life</b>	Stand by : 3~5 years	<b>Cycle use:</b> Charge voltage: 14.4 to 15.0V
<b>Terminal Type</b>	NB(F16)/IT(F8)	<b>Stand by:</b> Charge voltage: 13.50 to 13.80V
<b>Container Material</b>	ABS 94-HB flame retardant case (94V-0 Optional)	

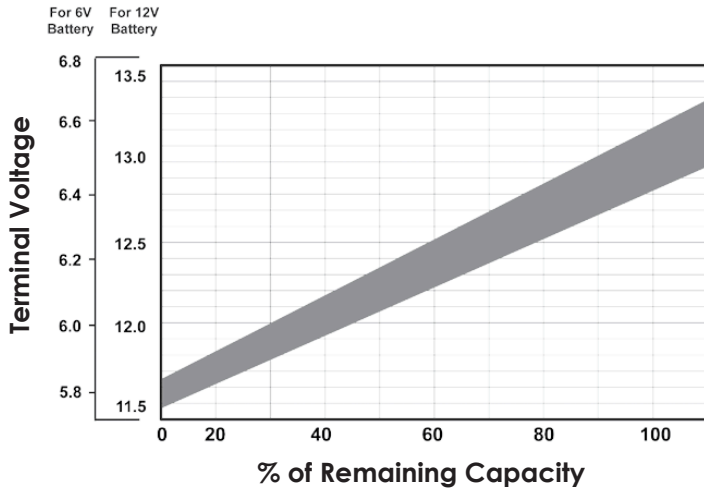


### Dimensions

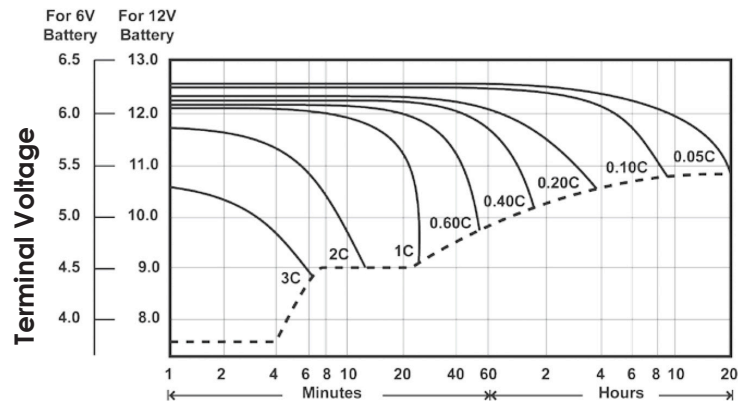
	Length	Width	Height	Total Height
Unit mm	330±1	173±1	212±1	265±1
Unit inch	12.99±0.04	6.81±0.04	8.35±0.04	10.43±0.04



## Terminal Voltage



## Discharge Times



Time to Ending Voltage

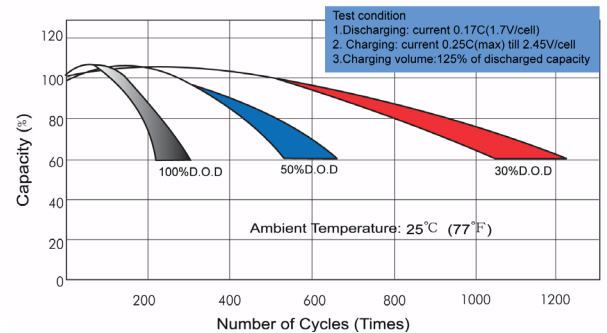
## Charge Voltages

Temperature Compensated Charging	Average Temperature	Cycle Charging Volts Per Cell	Float Charging Volts Per Cell
	-40°C (-40°F)	2.85-2.95	2.38-2.43
	-20°C (-4°F)	2.67-2.77	2.34-2.39
	-10°C (14°F)	2.61-2.71	2.32-2.37
	0°C (32°F)	2.55-2.65	2.30-2.35
	10°C (50°F)	2.49-2.59	2.28-2.33
	20°C (68°F)	2.43-2.53	2.26-2.31
	25°C (77°F)	2.40-2.50	2.25-2.30
	30°C (86°F)	2.37-2.47	2.24-2.29
	40°C (104°F)	2.31-2.41	2.22-2.27
50°C (122°F)	2.25-2.35	2.20-2.25	

## Temperature Storage

Average Storage Temperature	Recharging Interval
68°F	Every 9 months
77°F	Every 6 months
95°F	Every 3 months

## Cycle Life



## Constant Current Discharge Characteristics (25°C 77°F)

F.V/Time	5MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	363.8	191.3	112.3	63.1	36.4	26.77	18.04	12.32	10.19	5.47
1.67V	335.6	180.0	99.9	61.1	35.2	25.32	17.75	12.22	9.99	5.36
1.70V	325.9	169.2	98.0	58.6	34.2	24.93	17.36	12.03	9.89	5.32
1.75V	295.9	157.1	89.3	56.3	31.5	24.06	17.07	11.83	9.80	5.22
1.80V	259.0	145.5	69.1	54.2	25.0	22.99	16.68	11.64	9.70	5.10



**HD121100 12V 110Ah**  
 Sealed Lead Acid AGM Battery