

HD12220 12V 22Ah

Sealed Lead Acid AGM Battery

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



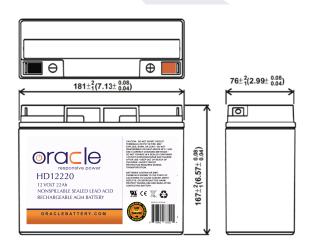


Specification

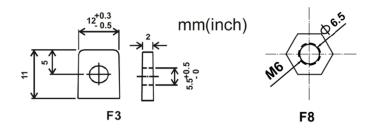
Cell per unit	6	Ambient Temperature			
Nominal Voltage (V)	12	Charge 0°C (32°F) to 40°C (104°F)			
Nominal Capacity (Ah)	22Ah @ 20 hou <mark>r rate</mark> to 1.75vpc	Discharge -15°C (5°F) to 50°C (122°F)			
Weight	Approx 6.22kg (13.71lbs.)	Storage -1 <mark>5°C (5</mark> °F) to 40°C (104°F)			
Internal Resistance (1KHz)	9mΩ	Max Charge C <mark>urren</mark> t			
Max Discharge Current (5s)	Max Discharge Current (5s) 300A (5s) Max charge current 6.6A				
Battery Life	Stand by : 3~5 <mark>years</mark>	Cycle use: Charge voltage: 14.4 to 15.0V			
Terminal Type	NB(F3)/IT(F8)	Stand by: Charge voltage: 13.50 to 13.80V			
Container Material	ABS 94-HB flame retardant case (94V-0 Optional)				



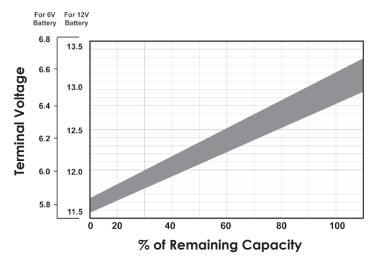
Dimensions



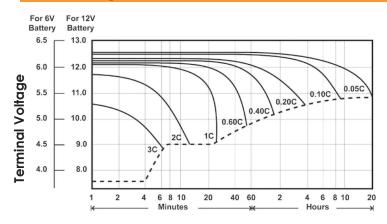
Length		Width	Height	Total Height	
Unit mm	181±1	76±1	67±1	167±1	
Unit inch	7.13±0.04	2.99±0.04	6.57±0.04	6.57±0.04	



Terminal Voltage



Discharge Times



Time to Ending Voltage

Charge Voltages

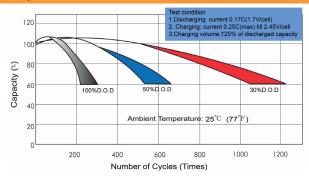
Temperature Compensated Charging

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	101.3	48.3	27.0	15.1	7.85	5.78	3.76	2.58	2.11	1.11
1.67V	98.4	46.9	26.7	14.9	7.77	5.72	3.74	2.57	2.10	1.11
1.70V	93.7	46.0	25.9	14.8	7.70	5.67	3.72	2.56	2.09	1.10
1.75V	88.4	44.8	25.7	14.5	7.64	5.63	3.70	2.54	2.08	1.10
1.80V	74.9	42.7	24.7	14.1	7.59	5.59	3.68	2.53	2.07	1.10



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