

Gelled Silica technology for superior performance. Valve regulated, spill proof construction performance. Valve regulated, spill proof construction allows safe operation in any position. Approved for transport by air. D.O.T., I.A.T.A., F.A.A. and C.A.B. certified. U.L. recognized under file number MH 20567.

Maintenance-Free

Specification

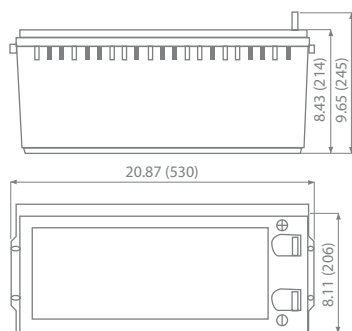
Nominal Voltage	12 volts		
Nominal Capacity	77° F (25° C)		
20-hr. (9.00A)	180 Ah		
10-hr. (16.7A)	167 Ah		
5-hr. (30.6A)	153 Ah		
1-hr. (108A)	108 Ah		
Approximate Weight	114.6 lbs (52 kgs)		
Internal Resistance (approx.)	5mΩ		
Shelf Life (% of normal capacity at 68° F (20° C))			
3 Months	6 Months	12 Months	
91%	83%	64%	
Temperature Dependency of Capacity (20 hour rate)			
104° F (40°C)	77° F (25°C)	32° F (0°C)	5° F (-15°C)
102%	100%	85%	65%
GEL Operational Temperature			
Charge	32°F to 104°F (0°C to 45°C)		
Discharge	5°F to 113°F (-15°C to 50°C)		
GEL Storage Temperature	5°F to 104°F (-15°C to 45°C)		



Due to continuous improvements to our products, product may vary slightly from depiction.

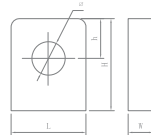
Charge Method (Constant Voltage)		
Cycle Use (Repeating Use)	Initial Current	36.0 A or smaller
	Control Voltage	14.2 - 14.4 V
Float Use		
	Control Voltage	13.2 - 13.4 V

Physical Dimensions: in (mm)



L: 20.87 in (530 mm)
W: 8.11 in (206 mm)
H: 8.43 in (214 mm)
TH: 9.65 in (245 mm)
 Tolerances are +/- 0.04 in. (+/- 1 mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

Terminals



L Series (L Type Terminal)

Dimension Type	L	W	H	h	ø
L4	26.5	8.0	24.5	12.0	9.0

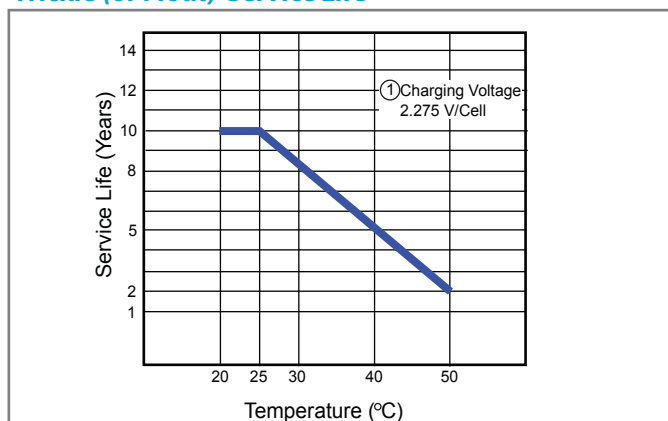
Constant Current Discharge Characteristics Unit:A (25°C, 77°F)

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	159	102	60	44	34	28	20	18	9.6
10.20V	149	96	57	43	33	28	19	17	9.4
10.50V	142	93	55	41	33	27	19	17	9.3
10.80V	136	90	54	40	32	27	19	17	9.2
11.10V	128	87	53	39	31	26	18	16	8.7

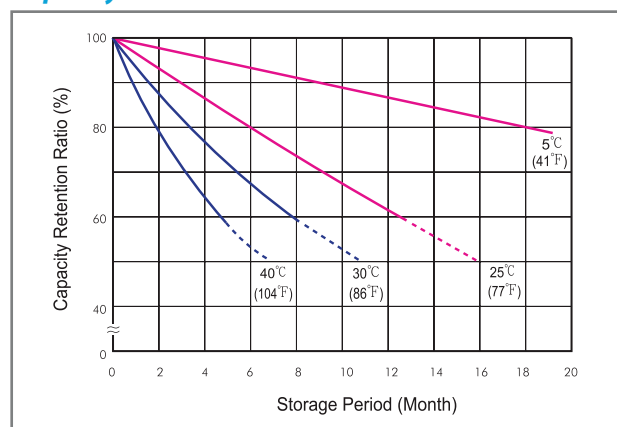
Constant Power Discharge Characteristics Unit:W (25°C, 77°F)

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	1688	1182	689	506	394	325	229	207	112
10.20V	1621	1110	658	492	384	319	224	201	109
10.50V	1576	1075	642	480	378	315	223	199	108
10.80V	1578	1045	629	471	370	309	218	198	107
11.10V	1517	1032	627	465	368	308	217	192	104

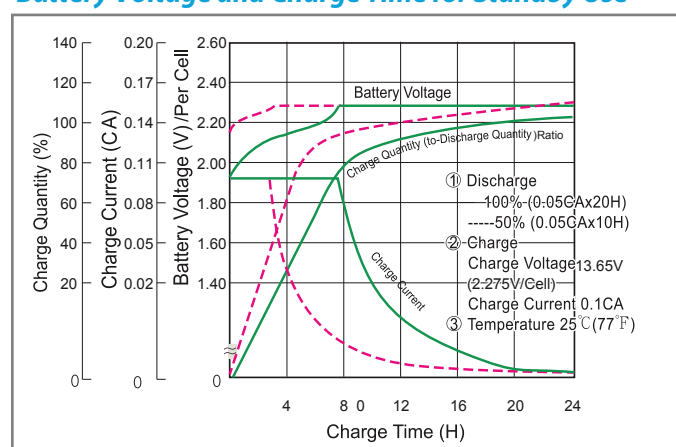
Trickle (or Float) Service Life



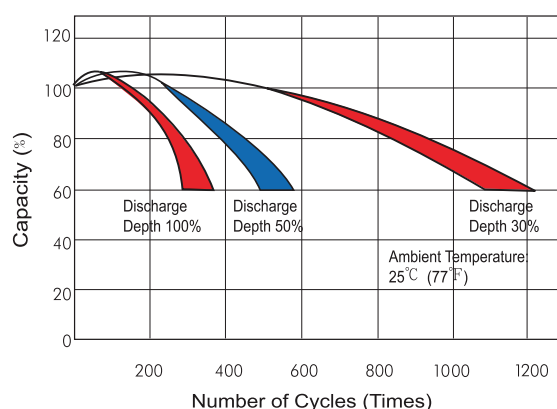
Capacity Retention Characteristic



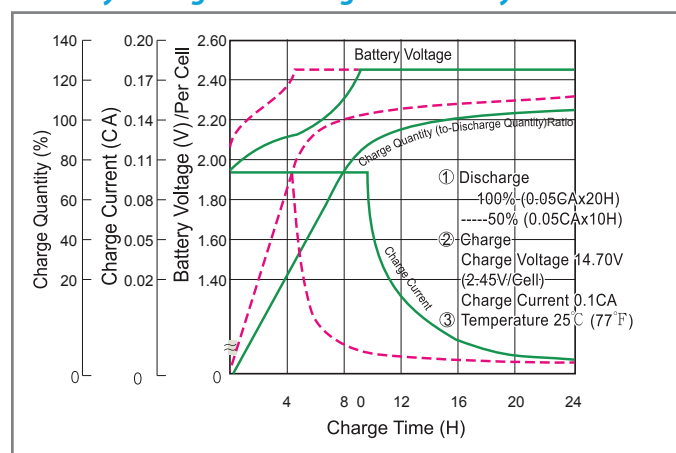
Battery Voltage and Charge Time for Standby Use



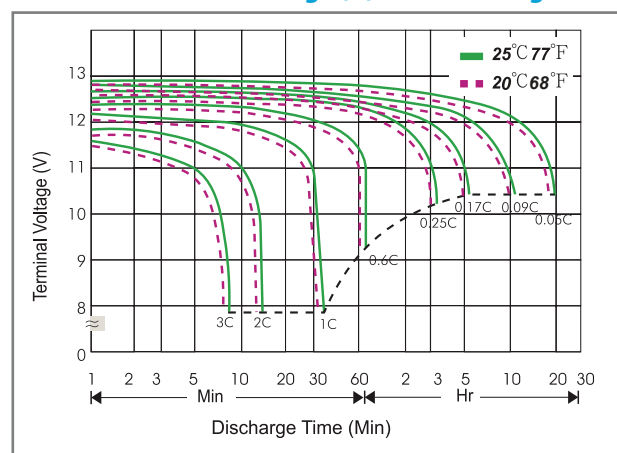
Cycle Service Life



Battery Voltage and Charge Time for Cycle Use



Terminal Voltage (V) and Discharge Time



Charge Current & Final Discharge Voltage

Application	Charge Voltage(V/Cell)			Max.Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C(77°F)	2.38	2.37~2.40	0.20C
Standby	25°C(77°F)	2.22	2.20~2.23	

Final Discharge Voltage V/Cell	1.75	1.70	1.65	1.60
Discharge Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C