

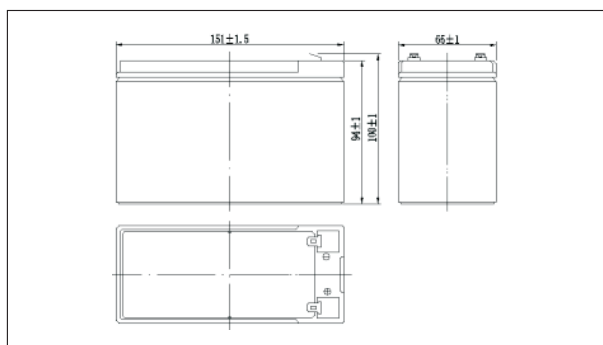
HR1228W-FR (12V28 Watts/cell)

Specifications

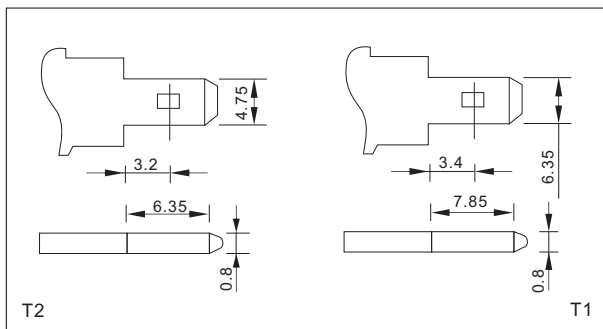
Nominal Voltage	12V	
Number of cell	6 cells	
Rated capacity(15min.rat)	28 Watts/cell	
Dimensions	Length	151±1.5mm(5.94inch)
	Width	65±1mm(2.56inch)
	Height	94±1mm(3.70inch)
	Total Height	100±1mm(3.94inch)
Approx. Weight	2.3kg(5.18lbs)±4%	



Outer dimensions (mm)



Terminal Type (mm)



Characteristics

Capacity(20HR,25°C)	7.5Ah	
Capacity(15min.rate,25°C)	28 Watts/cell	
Terminal type	T2/T1	
Internal resistance (Fully charged,25°C)	Approx. 14m Ω	
Capacity affected by temperature (20HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 months	Remaining Capacity:91%
	6 months	Remaining Capacity:82%
	12 months	Remaining Capacity:65%
Nominal operating temperature	25°C ±3°C(77°F ±5°F)	
Operating temperature range	Discharge	-15°C~50°C(5°F~122°F)
	Charge	-10°C~50°C(14°F~122°F)
	Storage	-20°C~50°C(-4°F~122°F)
Float charging voltage(25°C)	13.50 to 13.80V Temperature compensation: -18mV/°C	
Cyclic charging voltage(25°C)	14.50 to 15.00V Temperature compensation: -30mV/°C	
Maximum charging current	2.7A	
Maximum discharge current	135A(5 sec.)	
Designed floating life(20°C)	5years	

Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Leaddioxide	Lead	ABS	ABS	AGM	Sulfuric acid	Rubber	Copper

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

F.V/Time	5min	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h
1.60V/cell	31.3	19.3	15.1	12.0	8.12	6.01	4.91	2.81	2.00	1.61	1.38
1.67V/cell	29.9	18.4	14.6	11.5	7.85	5.81	4.80	2.79	1.98	1.58	1.37
1.70V/cell	29.1	17.9	14.2	11.2	7.71	5.71	4.72	2.77	1.97	1.59	1.36
1.75V/cell	27.9	17.2	13.8	10.9	7.52	5.57	4.62	2.73	1.96	1.57	1.35
1.80V/cell	26.3	16.1	13.0	10.3	7.25	5.36	4.48	2.66	1.91	1.53	1.32

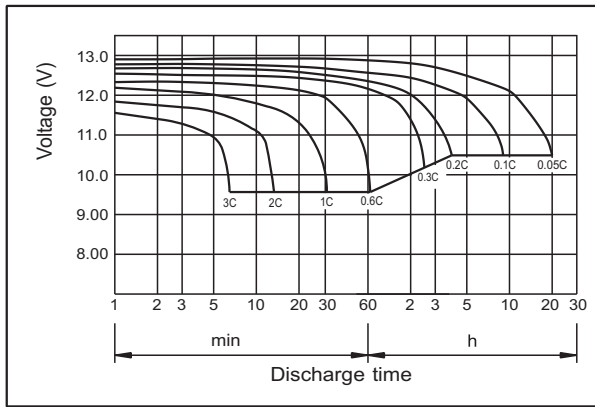
Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h
1.60V/cell	60.1	37.4	30.0	23.7	16.1	11.9	9.78	5.59	4.01	3.23	2.78
1.67V/cell	57.38	35.7	28.9	22.8	15.6	11.5	9.52	5.54	3.98	3.20	2.75
1.70V/cell	55.8	34.8	28.1	22.3	15.3	14.4	9.35	5.51	3.96	3.19	2.74
1.75V/cell	53.5	33.2	27.2	21.5	14.9	11.0	9.18	5.43	3.94	3.17	2.72
1.80V/cell	50.5	31.5	25.8	20.4	14.4	10.6	8.84	5.29	3.82	3.07	2.64

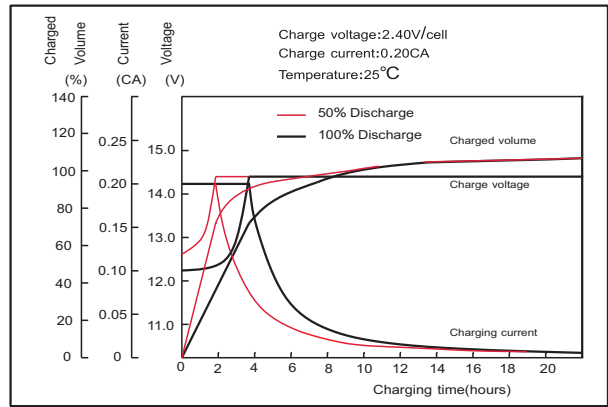
Note: The above characteristics data can be obtained within three charge or discharge cycles.

HR1228W-FR (12V28 Watts/cell)

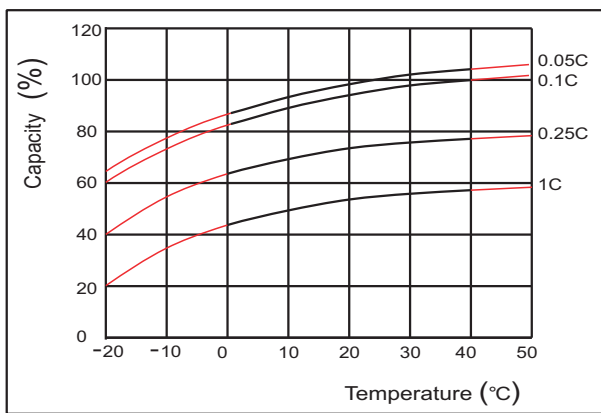
Discharge characteristics(25°C)



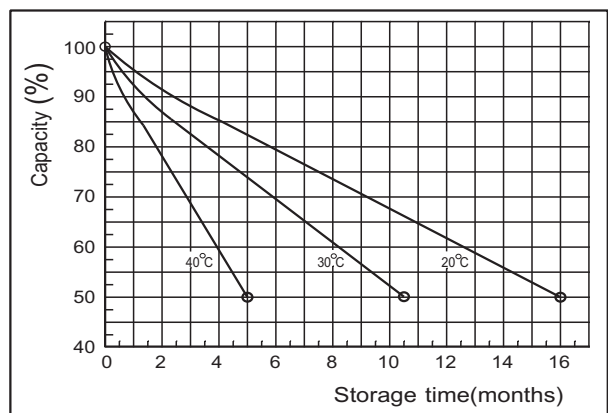
Charging characteristics (25°C)



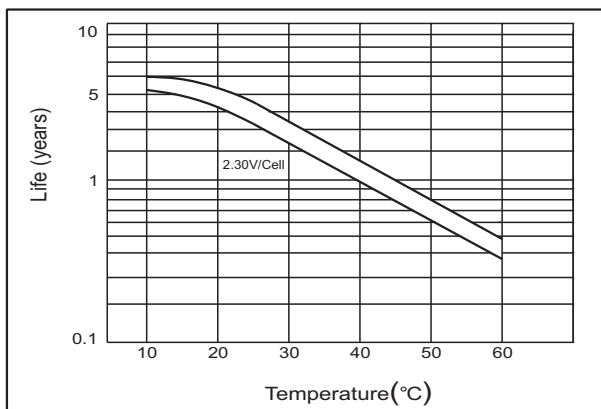
Effect of Temperature on Capacity



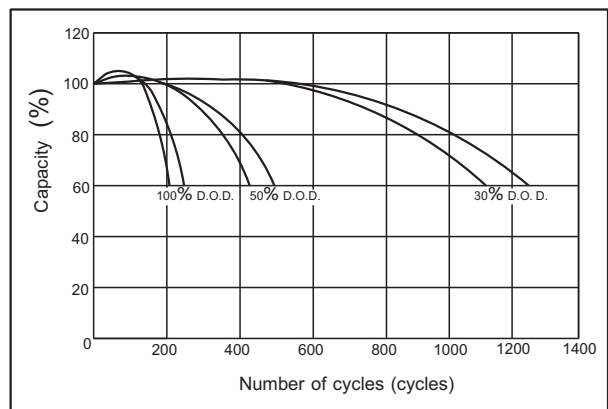
Self-discharge characteristics



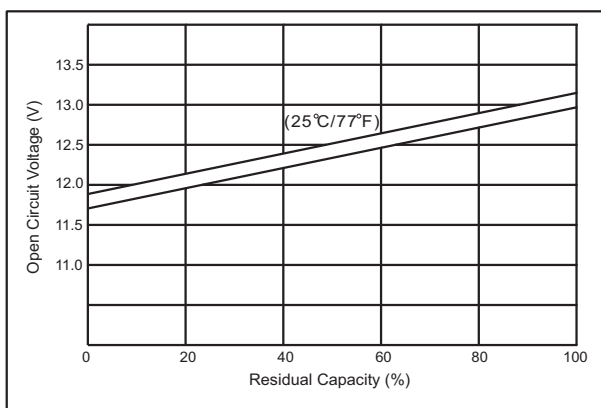
Floating Life on Temperature



Cycle service Life on D.O.D (25°C)



The relationship for OCV and Capacity (25°C)



The relationship for Charging voltage and Temperature

