

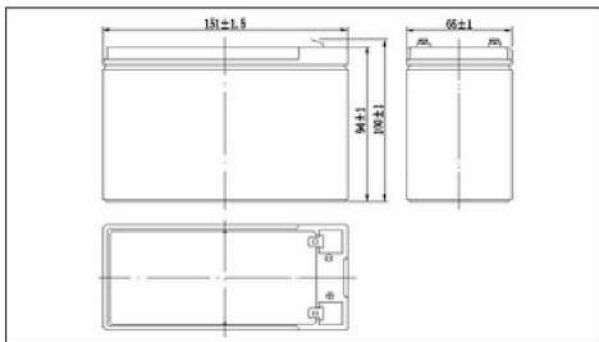
## KR12-7Ah (12V 7Ah)

### Specifications

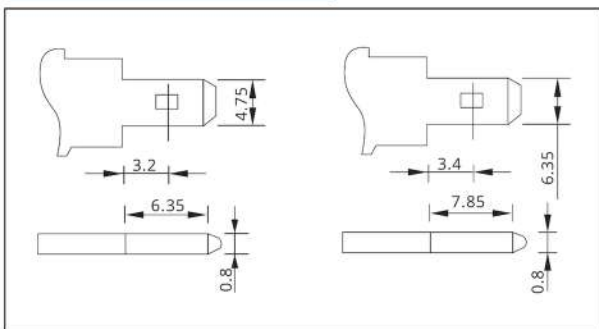
Nominal Voltage	12V	
Number of cells	6 cells	
Rated capacity (15 min.)	28 watts/cell	
Dimensions	Length	151+/-1mm
	Width	65+/-1mm
	Height	194+/-1mm
	Total height	100+/-1mm
Approximated weight	2.1kgs+/-5%	



### Outer dimensions (mm)



### Terminal Type (mm)



### Characteristics

Capacity (20HR,25°C)	7Ah	
Capacity (15min.rate,25°C)	28W/Cell	
Terminal type	T1/T2	
Internal resistance (Fully charged @ 25°C)	20mΩ	
Capacity affected by temperature (10HR)	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	
Operating temperature range	Discharge	-15°C - 50°C
	Charge	-15°C - 50°C
	Storage	-20°C - 50°C
Float charging voltage (25°C)	13.5 to 13.80V Temp. compensation -18mV/°C	
Cyclic charging voltage (25°C)	14.5 to 15.00V Temp. compensation -30mV/°C	
Maximum charging current	2.1A	
Terminal material	Copper	
Maximum discharge current	105A (5 sec.)	
Designed floating life (20°C)	10 years	

### Construction

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

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

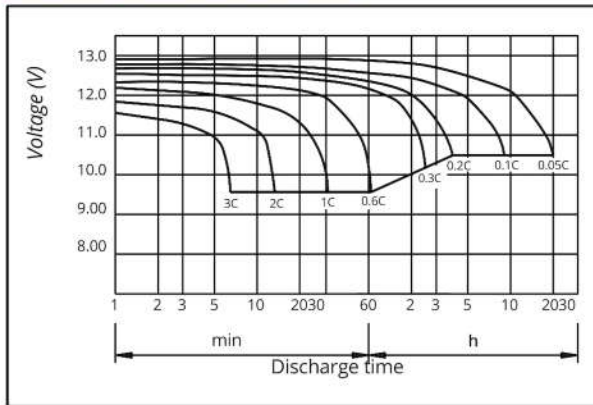
F.V/Time	5min	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h
1.60V/cell	31.8	21.8	18.5	14.8	9.8	6.80	4.8	3.8	2.8	1.8	1.72
1.67V/cell	29.7	20.7	17.7	14.1	9.3	5.84	4.7	3.7	2.7	1.7	1.61
1.70V/cell	29.2	20.2	17.2	13.8	9.2	5.72	4.64	3.6	2.6	1.6	1.60
1.75V/cell	28.3	19.3	16.8	13.3	8.3	5.55	4.5	3.3	2.3	1.3	1.59
1.80V/cell	26.1	19.1	16.1	13.1	8.1	5.31	4.4	3.1	2.1	1.1	1.55

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

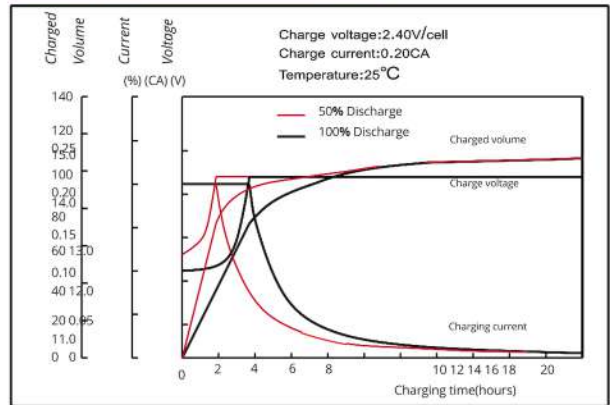
F.V/Time	5min	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h
1.60V/cell	54.8	36.8	29.8	24.9	18.9	14.8	13.8	9.58	7.82	5.80	3.27
1.67V/cell	57.7	34.7	29.0	23.8	17.7	13.7	12.7	9.52	7.78	5.77	3.24
1.70V/cell	56.7	33.9	28.2	23.2	17.2	12.3	12.2	9.48	7.66	5.75	3.22
1.75V/cell	54.9	32.3	27.3	22.3	16.5	12.1	11.8	9.39	7.63	5.73	3.20
1.80V/cell	51.4	31.1	26.3	21.1	15.9	11.5	11.4	9.22	7.49	5.61	3.11

## HR1221W-FR (12V21 Watts/cell)

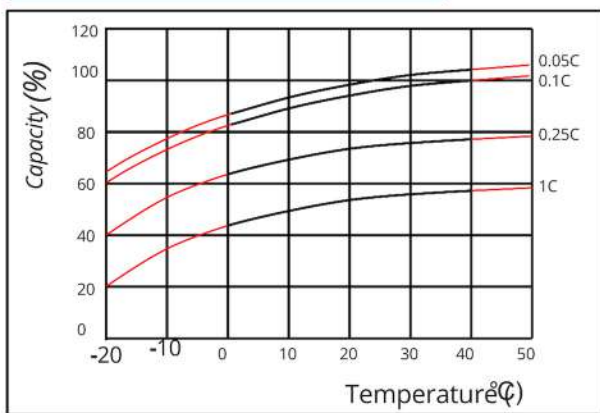
### Discharge characteristics(25°C)



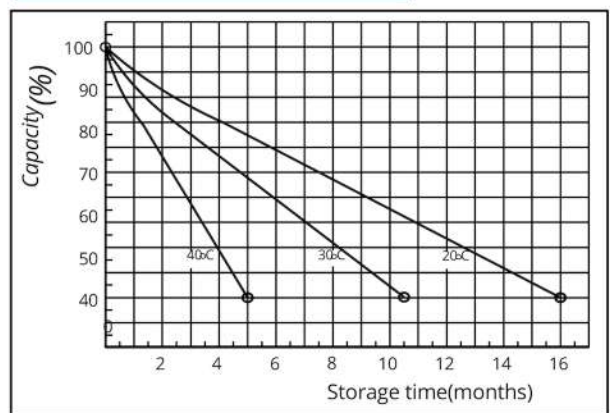
### Charging characteristics (25°C)



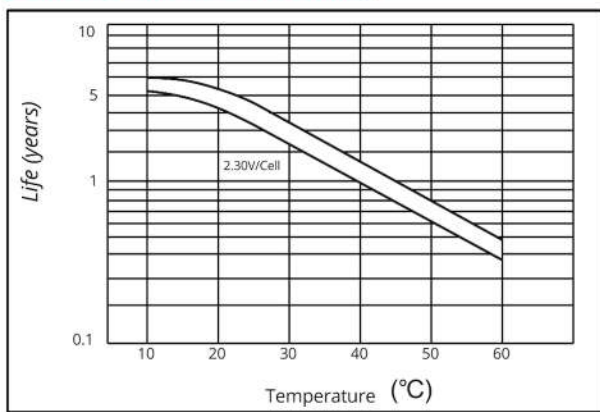
### Effect of Temperature on Capacity



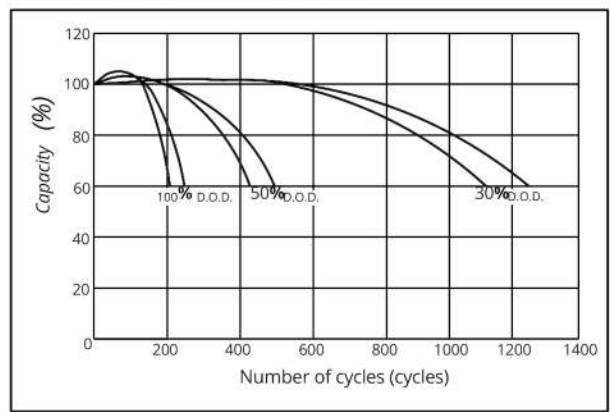
### Self-discharge characteristics



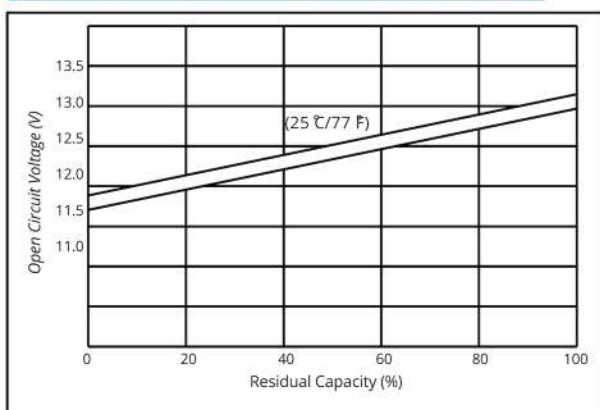
### Floating Life on Temperature



### Cycle service Life on D.O.D



### The relationship for OCV and Capacity (25°C)



### The relationship for Charging voltage and Temperature

