



HR12-21W

KAIYING® Standard battery is design for a general purpose by KaiYing Power. HR12-21W is a g eneral purpose battery up to 5 years in star service As with all **KAIYING®** batteries, all are rechargeable highly efficient, leak proof and maintenance free.



pecifications:

Cells per Unit	6
Normal Voltage	12V
Power	21W@15min-rate to 1.80V per cell@25°C
Weight	Approx. (1.69±3%)kg (3.72lbs)
Maximum Discharge Current	50A(5sec)
Internal Resistance	Approx. 20mΩ full charged @25°C
Operating Temperature Range	Discharge: -15°C~50°C Charge: -15°C~40°C Storage: -15°C~40°C
Nominal Operating Temperature Range	25°C±3°C(77°F±5°F)
Float Charging Voltage	13.6~13.8VDC/unit Average @25°C
Maximum Charging Current	1.5A
Equalization and Cycle Service	14.4V~15.0VDC/unit Average @ 25°C
Self Discharge	KAIYING Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	F1/F2
Container Material	ABS(UL94-HB) *Flammability resistance of (UL94-V0) can be available upon request



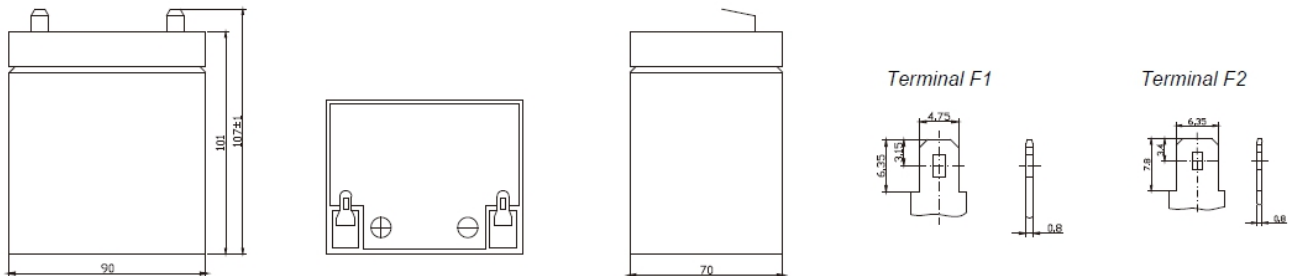
ISO 9001:2008 Standard



ISO 14001:2004 Standard



Dimensions: L90*W70*H102(TH107)



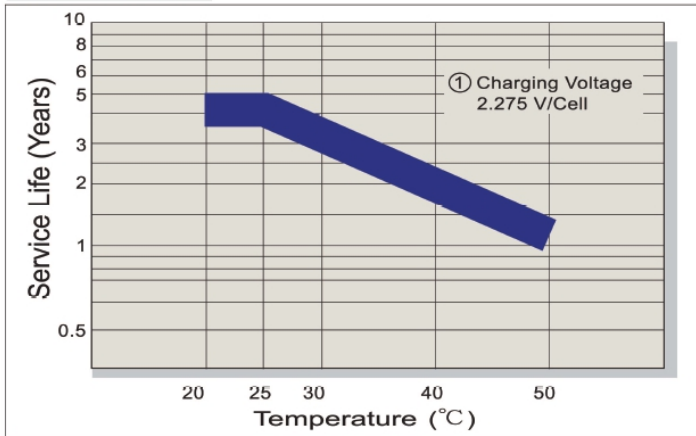
Constant Current Discharge Characteristics (A, 25 °C)

F.V/TIME	5min	10min	15min	30min	60min	3h	5h	10h	20h
1.60V/cell	27.98	18.58	13.43	7.626	4.383	1.737	1.259	0.061	0.341
1.65V/cell	26.36	17.47	12.63	7.232	4.181	1.667	1.208	0.599	0.341
1.70V/cell	24.64	16.46	12.02	6.838	3.979	1.586	1.147	0.568	0.319
1.75V/cell	23.03	15.45	11.21	6.444	3.777	1.475	1.056	0.508	0.275
1.80V/cell	22.02	14.95	10.91	6.272	3.687	1.424	1.015	0.477	0.253

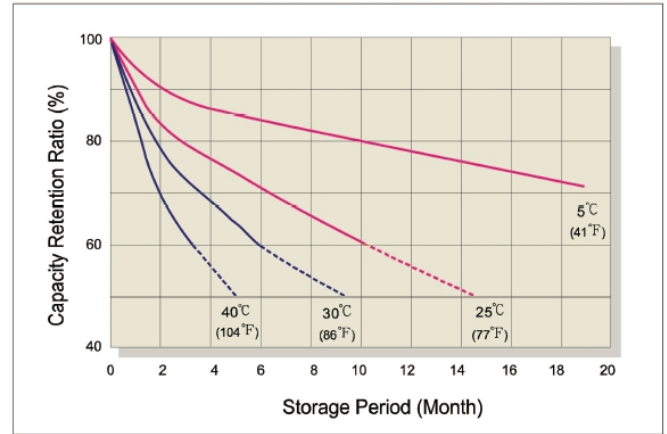
Constant Power Discharge Characteristics (Watt, 25 °C)

F.V/TIME	5min	10min	15min	30min	60min	3h	5h	10h	20h
1.60V/cell	48.58	32.72	24.85	14.24	8.484	3.343	2.416	1.177	0.671
1.65V/cell	46.46	31.51	24.04	13.84	8.252	3.283	2.375	1.167	0.649
1.70V/cell	44.34	30.30	23.13	13.43	8.019	3.182	2.304	1.127	0.627
1.75V/cell	42.42	29.00	22.22	12.83	7.787	3.030	2.162	1.035	0.561
1.80V/cell	40.30	27.78	21.41	12.42	7.555	2.899	2.060	0.964	0.517

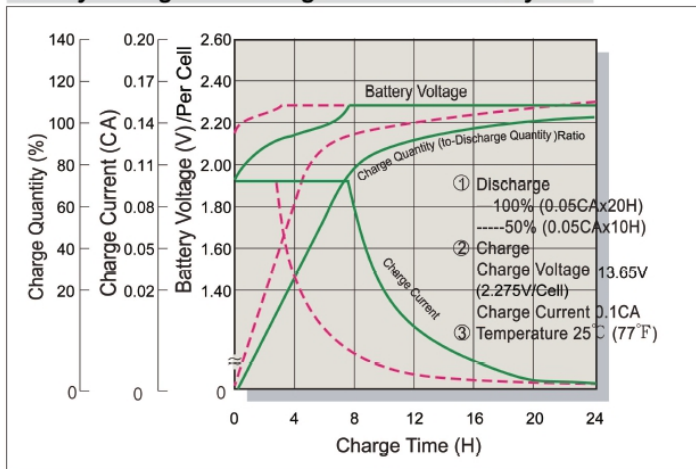
Float Service Life



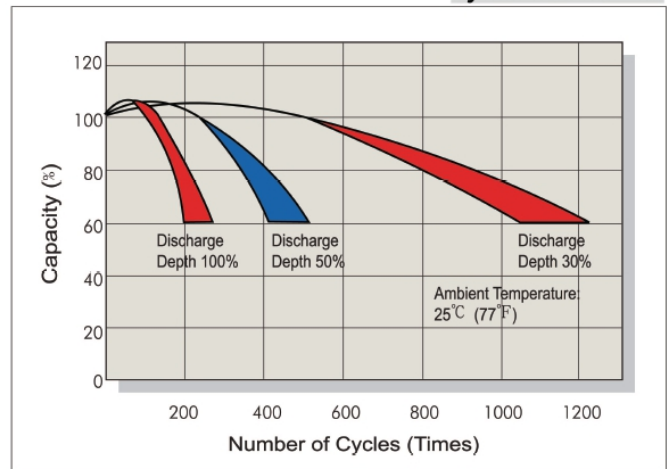
Capacity Retention Characteristic



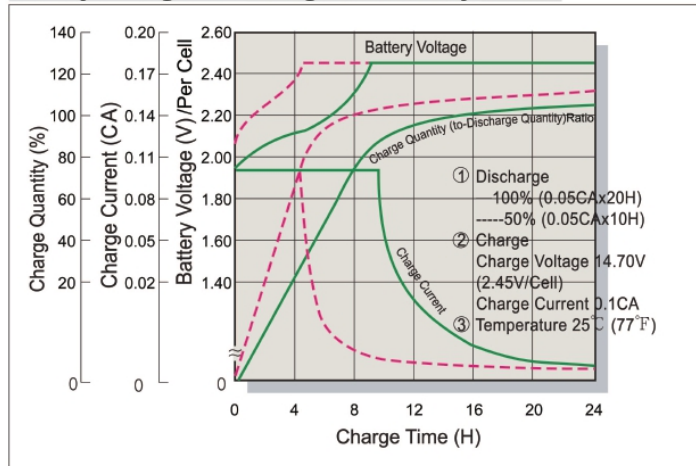
Battery Voltage and Charge Time for Standby use



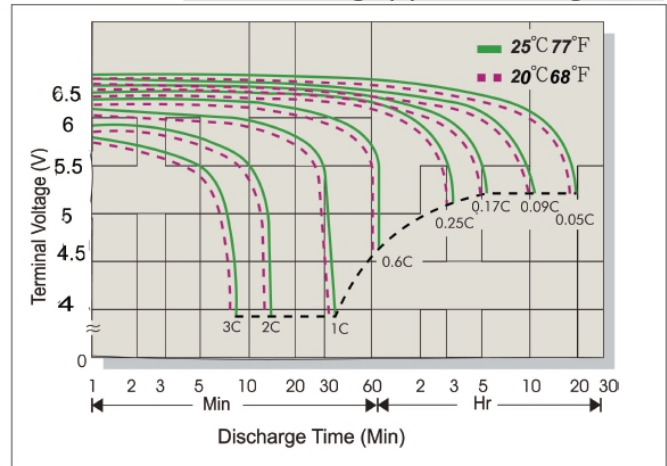
Cycle Service Life



Battery Voltage and Charge Time for Cycle Use



Terminal Voltage (V) and Discharge Time



Charging Procedures

Application	Charge Voltage(V/cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C(77°F)	2.45	2.40~2.50	0.3C
Standby	25°C(77°F)	2.275	2.25~2.30	

Discharge Current VS. Discharge Voltage

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

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