



## 12FM5 (24V5Ah)

**KAIYING®** Standard battery is design for a general purpose by KaiYing Power. 24FM5 is a general purpose battery up to 5 years in star service .As with all **KAIYING®** batteries, all are rechargeable highly efficient, leak proof and maintenance free.



ISO 9001:2008 Standard



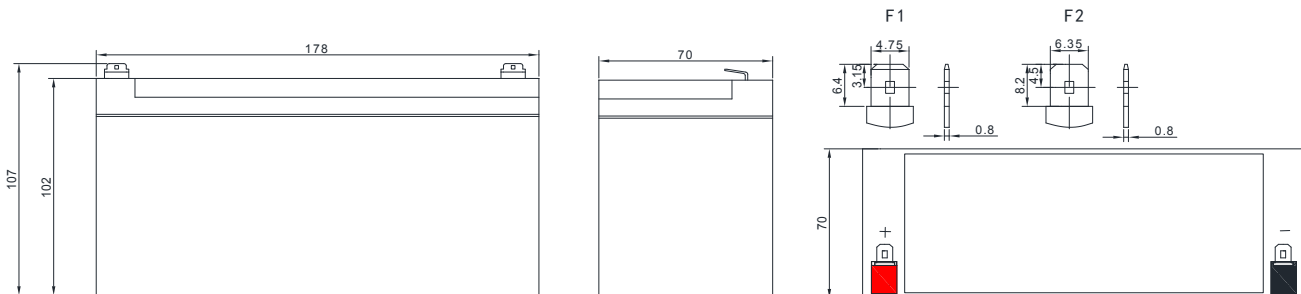
ISO 14001:2004 Standard



### Specifications:

Cells per Unit	12
Normal Voltage	24V
Capacity	5Ah@20hr-rate to 1.75V per cell@25°C
Weight	Approx.(2.91±3%)kg
Maximum Discharge Current	50A(5sec)
Internal Resistance	Approx. 55mΩ 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
Float Charging Voltage	27.2~27.6VDC/unit Average @25°C
Maximum Charging Current	1.50A
Equalization and Cycle Service	28.8V~30.0VDC/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(0.187)/F2(0.250)
Container Material	ABS(UL94-HB) *Flammability resistance of (UL94-V0) can be available upon request

### Dimensions: L178\*W70\*H102(TH107)



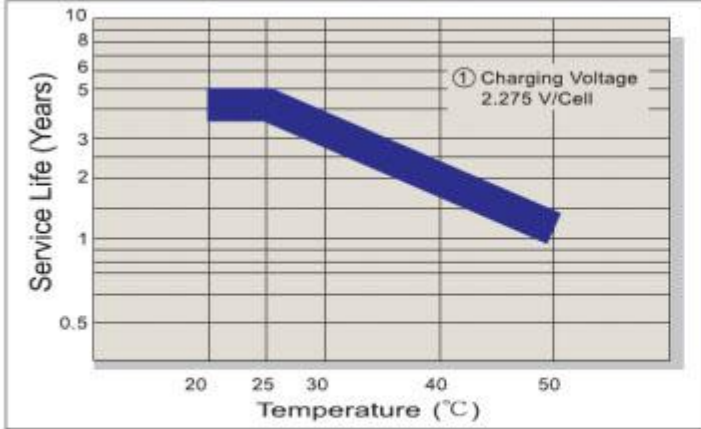
### Constant Current Discharge Characteristics (A, 25 °C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
19.2	19.3	12.3	9.75	5.75	3.28	1.80	1.29	0.89	0.58	0.47	0.25
19.8	18.7	11.9	9.51	5.61	3.19	1.79	1.29	0.88	0.58	0.47	0.25
20.4	18.3	11.6	9.36	5.52	3.14	1.78	1.28	0.88	0.57	0.47	0.25
21.0	17.7	11.3	9.07	5.35	3.05	1.76	1.26	0.87	0.58	0.46	0.25
21.6	17.2	10.9	8.89	5.24	2.99	1.74	1.25	0.86	0.57	0.46	0.25

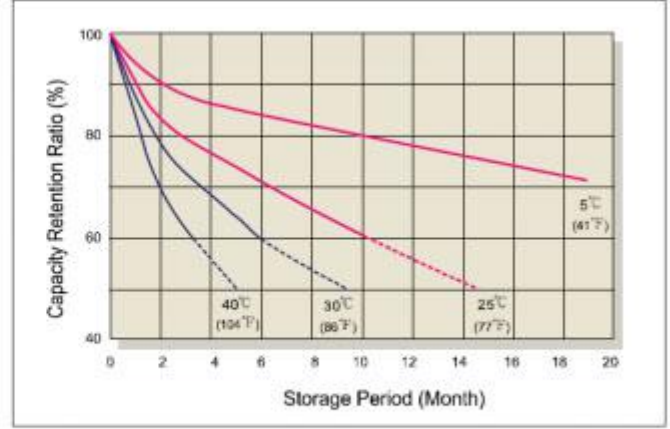
### Constant Power Discharge Characteristics (Watt, 25 °C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
19.2	430	276	222	139	75.8	42.2	30.8	21.2	13.98	11.26	6.1
19.8	416	268	216	128.4	74.0	42	30.6	21.2	13.88	11.28	6.1
20.4	408	262	214	126.6	72.8	41.6	30.2	20.8	13.74	11.16	6.04
21.0	396	254	206	122.6	70.6	41.2	30	20.6	13.8	11.14	6.02
21.6	384	246	202	120.2	69.2	40.8	29.6	20.4	13.66	11.1	6.0

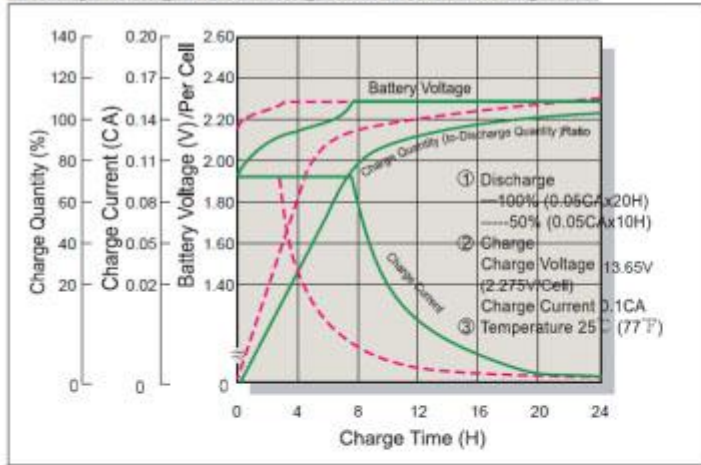
**Float Service Life**



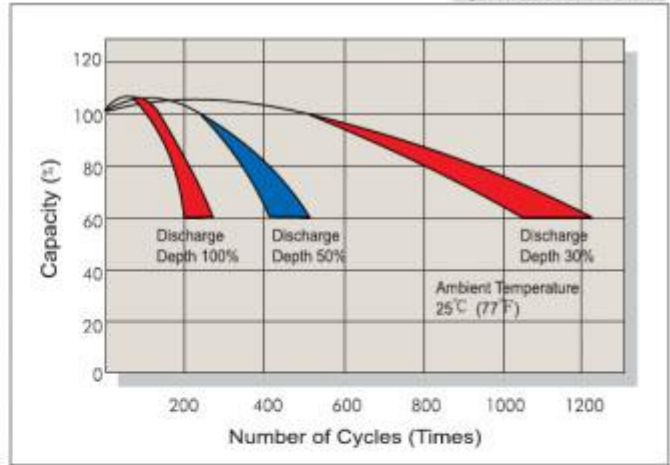
**Capacity Retention Characteristic**



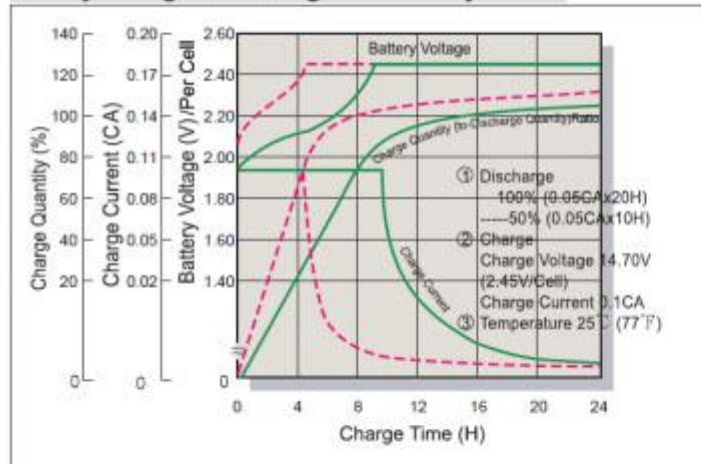
**Battery Voltage and Charge Time for Standby use**



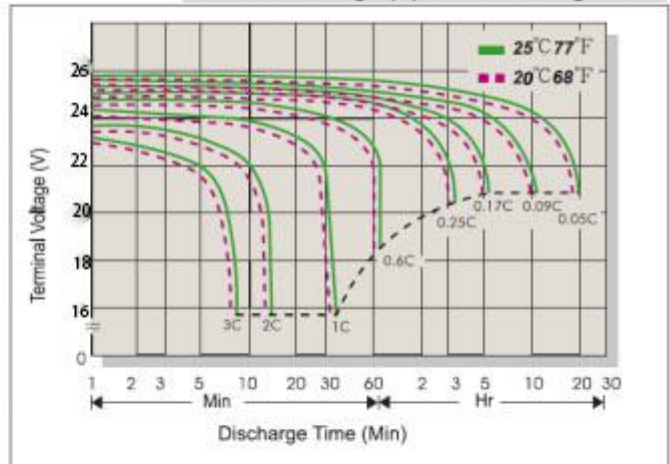
**Cycle Service Life**



**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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