

12FM4.5B (24V4.5Ah)



KAIYING® Standard battery is design for a general purpose by KaiYing Power. 24FM4.5B is a general purpose battery up to 5 years in star service or more than 260 cycles at 100% discharge in cycle service. As with all **KAIYING®** batteries, all are rechargeable highly efficient, leak proof and

maintenance free.

Specifications:

Cells per Unit	12
Normal Voltage	24V
Capacity	4.5Ah@20Hr-rate to 1.75V per cell@25°C
Weight	Approx.(2.87±3%)kg
Maximum Discharge Current	45A(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	1.35A
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



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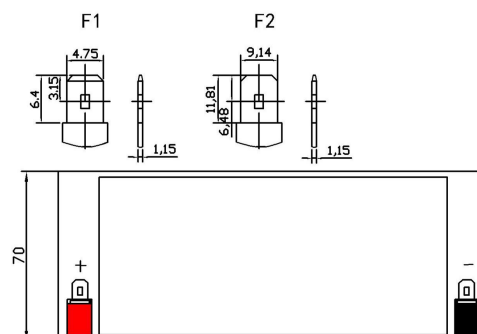
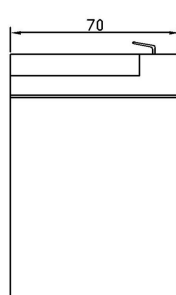
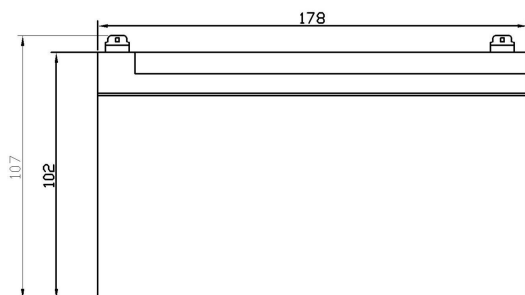
ISO 9001:2008 Standard



ISO 14001:2004 Standard



Dimensions: L178*W70*H102(TH107)

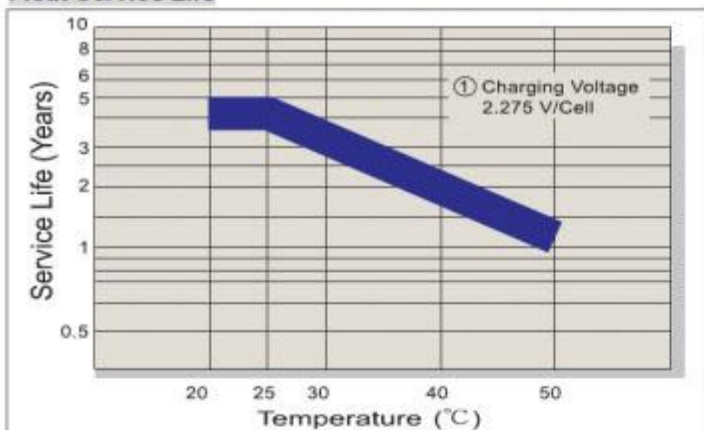
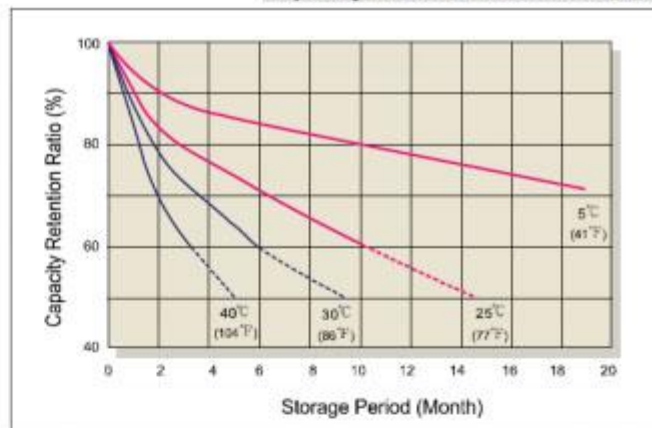
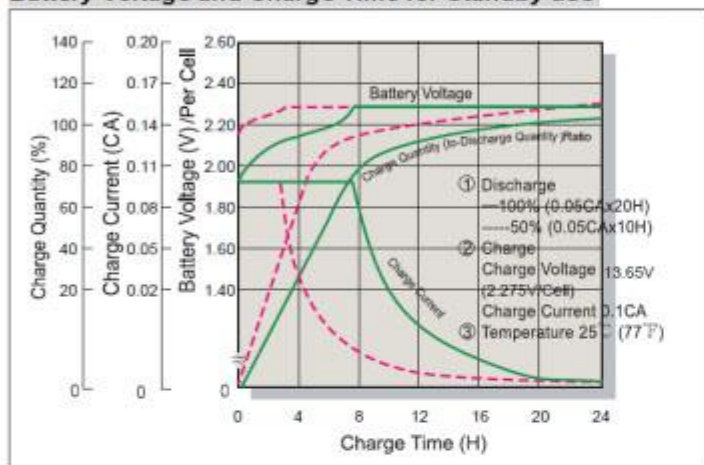
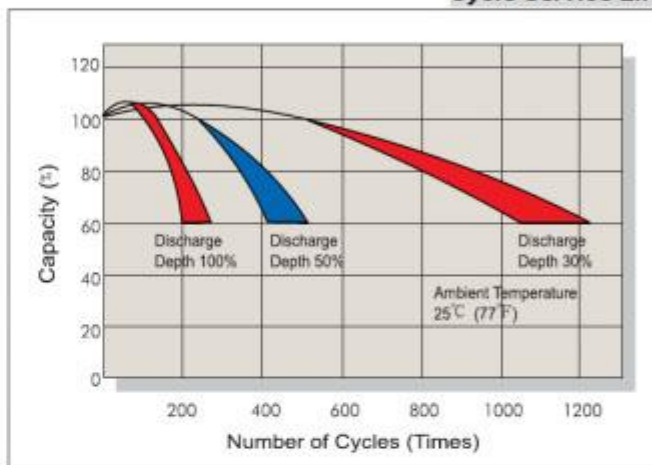
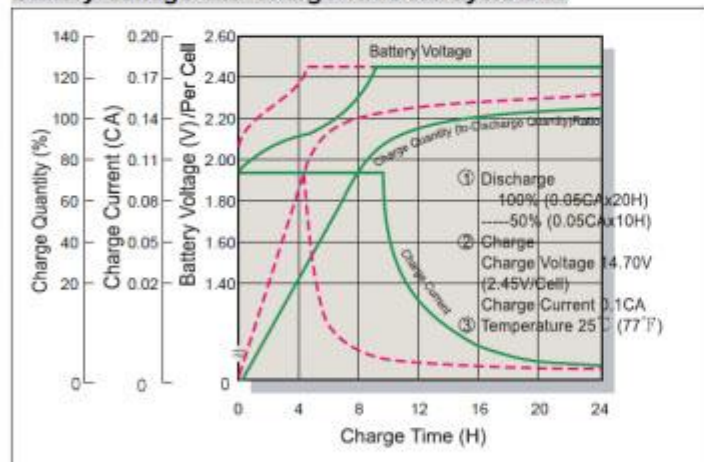
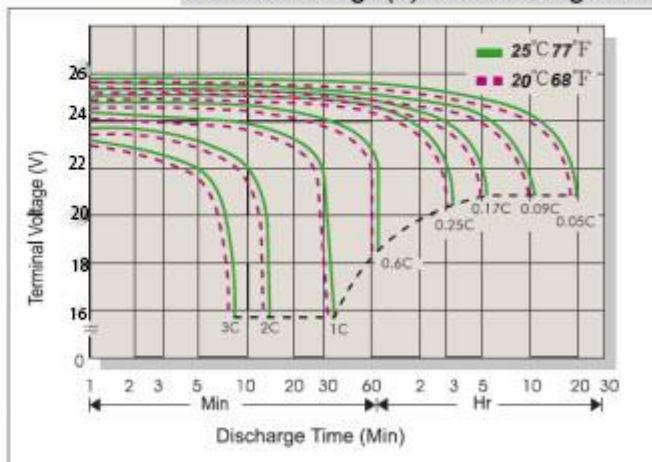


Constant Current Discharge Characteristics (A, 25 °C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
19.2	17.1	10.8	8.55	4.95	2.93	1.60	1.14	0.78	0.50	0.42	0.23
19.8	16.6	10.5	8.34	4.83	2.85	1.59	1.14	0.77	0.50	0.42	0.23
20.4	16.2	10.3	8.21	4.75	2.81	1.58	1.13	0.77	0.49	0.42	0.23
21.0	15.7	9.94	7.95	4.60	2.72	1.56	1.11	0.76	0.50	0.42	0.23
21.6	15.3	9.64	7.80	4.51	2.67	1.54	1.10	0.75	0.49	0.41	0.23

Constant Power Discharge Characteristics (Watt, 25 °C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
19.2	372	244	195	113.4	67.8	37.4	27.2	18.54	11.94	10.08	5.48
19.8	370	236	190	110.6	66	37.2	27	18.46	11.96	10.1	5.48
20.4	362	232	187.2	109	65	36.8	26.8	18.26	11.84	10	5.44
21.0	352	224	181.2	105.6	63	36.4	26.4	18.08	11.88	9.96	5.42
21.6	340	218	177.8	103.4	61.8	36.2	26.2	17.9	11.76	9.94	5.4

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	0.5C~<(A) <1.0C	(A)>1.0C

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