



## 12FM10 (24V10Ah)

**LONGWAY®** Standard battery is design for a general purpose by KaiYing Power. 12FM10 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 **LONGWAY®** batteries, all are rechargeable highly efficient, leak proof and maintenance free.



### Specifications:

Cells per Unit	12
Normal Voltage	24V
Capacity	10Ah@20Hr-rate to 1.75V per cell@25°C
Weight	Approx. (6.0±3%) kg (13.22lbs)
Maximum Discharge Current	100A(5sec)
Internal Resistance	Approx.34mΩ full charged @25°C
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Nominal Operating Temperature Range	25°C±3°C
Float Charging Voltage	27.4~27.8VDC/unit Average @25°C
Maximum Charging Current	3.0A
Equalization and Cycle Service	28.8V~30.0VDC/unit Average @ 25°C
Self Discharge	LONGWAY 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

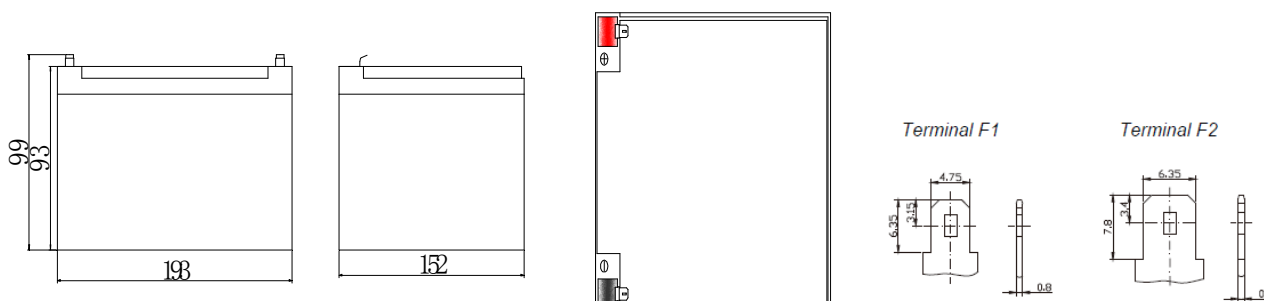


ISO 9001:2008 Standard



ISO 14001:2004 Standard

### Dimensions: L193\*W152\*H93(TH99)



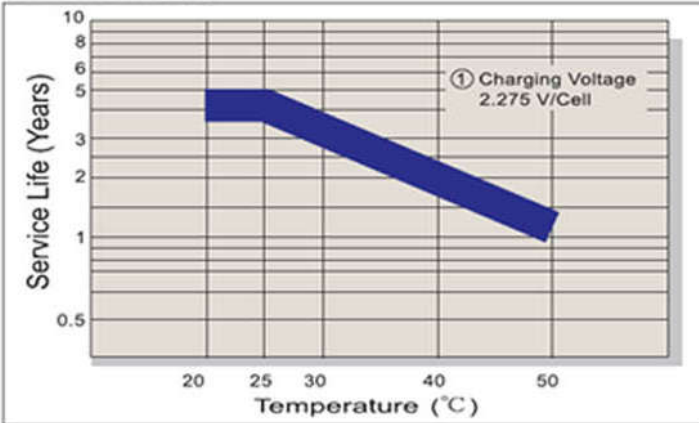
### Constant Power Discharge Characteristics (A, 25 °C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
19.20	38.0	24.0	19.0	11.0	6.35	3.54	3.03	1.78	1.12	0.93	0.51
19.80	36.9	23.3	18.5	10.7	6.19	3.52	3.02	1.77	1.11	0.93	0.51
20.40	36.1	22.8	18.2	10.6	6.10	3.50	2.99	1.75	1.10	0.93	0.50
21.00	34.6	21.8	17.7	10.2	5.91	3.47	2.96	1.73	1.09	0.92	0.50
21.60	33.9	21.4	17.3	10.0	5.79	3.43	2.93	1.72	1.08	0.92	0.50

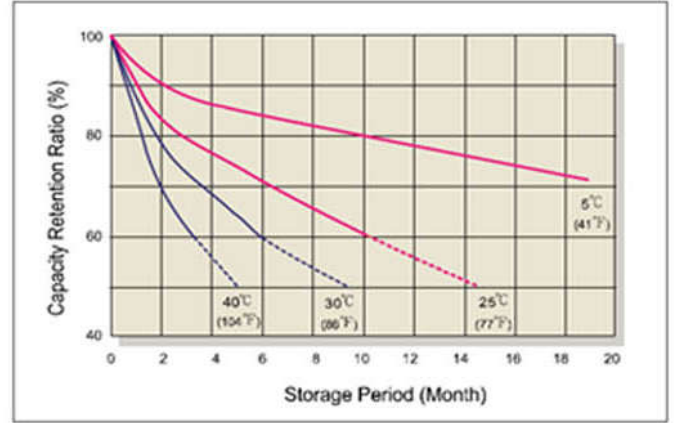
### Constant Power Discharge Characteristics (Watt, 25 °C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
19.20	821	527	420	252	146	82.5	70.65	42.0	26.5	22.4	12.2
19.80	796	511	409	246	143	81.9	71.03	41.8	26.4	22.3	12.1
20.40	780	501	403	242	141	81.5	70.32	41.4	26.1	22.2	12.1
21.00	747	480	390	234	137	80.7	69.62	41.0	25.9	22.1	12.0
21.60	733	471	383	230	134	79.9	68.92	40.5	25.6	22.1	12.0

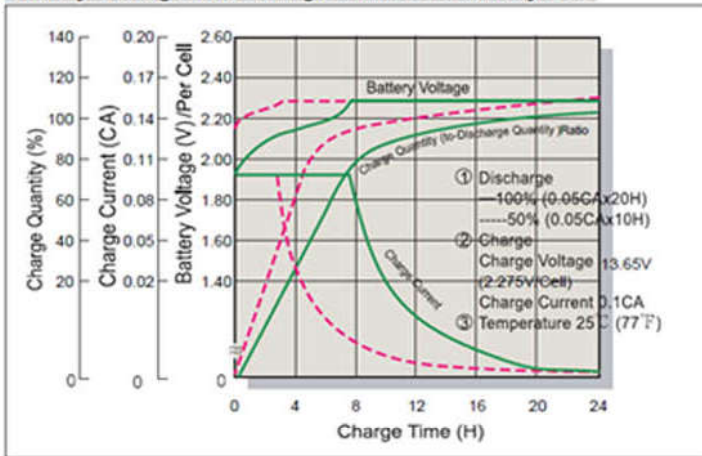
### Float Service Life



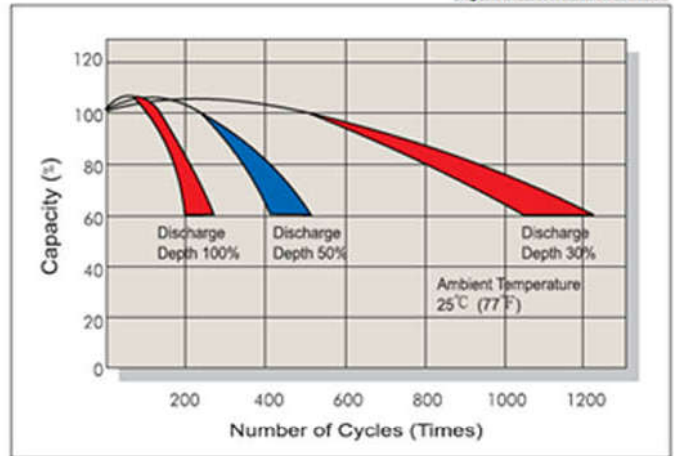
### Capacity Retention Characteristic



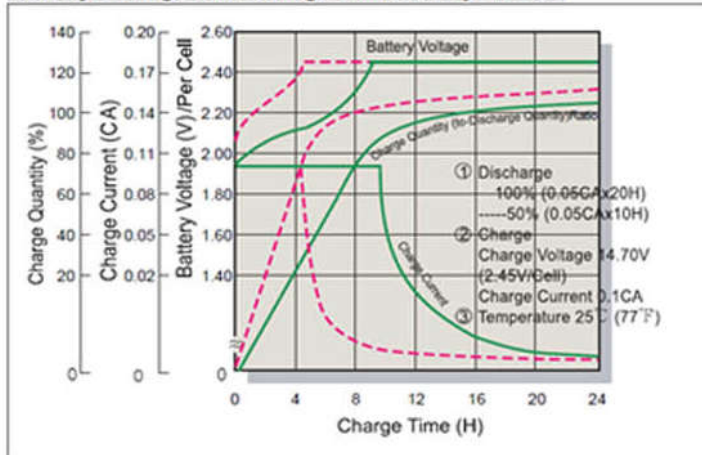
### Battery Voltage and Charge Time for Standby use



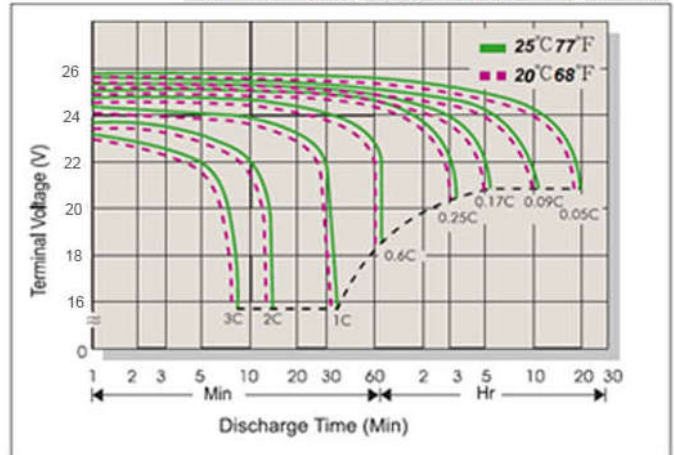
### Cycle Service Life



### 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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