



## 6FM40S(12V40Ah)

LONGWAY® 6FM40S is specially designed for green energy systems. 6FM40S have a good deep cycle property, maintenance-free. It can be used for more than 350 cycles at 100% discharge in cycle service, up to 12 years in standby service.



### Specifications:

Cells per Unit	6
Normal Voltage	12V
Capacity	40Ah@10Hr-rate to 1.80V per cell@25°C
	46Ah@100Hr-rate to 1.90V per cell@25°C
Weight	Approx. (13.2±3%) kg (29.10lbs)
Maximum Discharge Current	400A(5sec)
Internal Resistance	Approx. 8mΩ 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	13.7~13.9VDC/unit Average @25°C
Maximum Charging Current	10A
Equalization and Cycle Service	14.4V~15.0VDC/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	Terminal F9
Container Material	ABS(UL94-HB) *Flammability resistance of (UL94-V0) can be available upon request



ISO 9001:2008 Standard



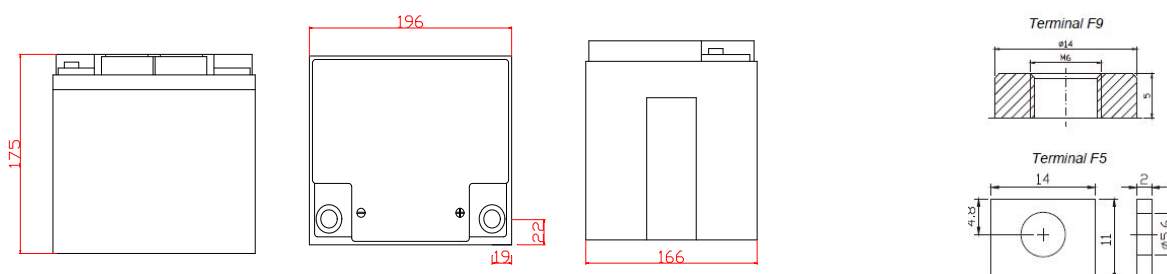
ISO 14001:2004 Standard



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**Dimensions:** L198\*W166\*H175(TH175)mm



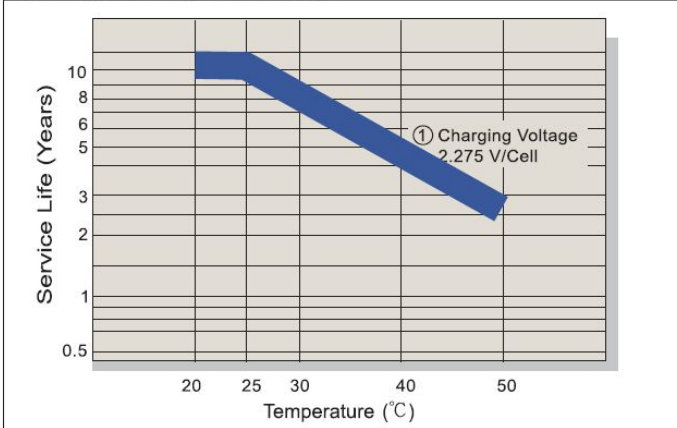
### Constant Current Discharge Characteristics (A, 25 °C)

F.V/TIME	15min	30min	60min	2h	3h	5h	8h	10h	20h	48h	100h
9.60	72.4	45.2	26.0	15.7	10.8	7.31	4.90	4.06	2.13	0.99	0.48
9.90	71.0	44.3	25.5	15.6	10.7	7.27	4.85	4.04	2.12	0.97	0.48
10.2	69.5	43.4	25.0	15.4	10.6	7.20	4.83	4.02	2.11	0.96	0.47
10.5	67.3	42.0	24.2	15.2	10.5	7.13	4.80	4.01	2.11	0.95	0.46
10.8	66.0	41.2	23.7	15.0	10.4	7.06	4.70	4.00	2.10	0.93	0.46

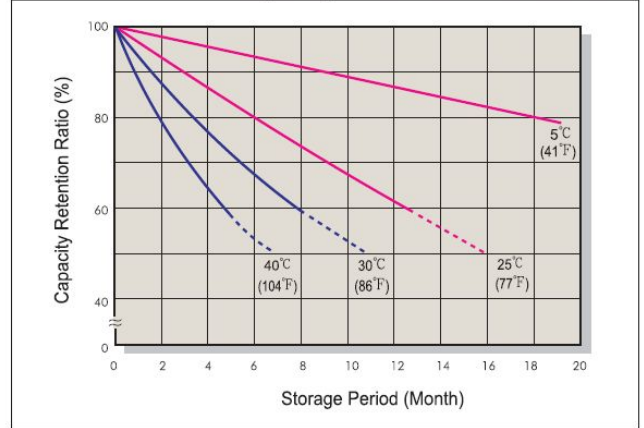
### Constant Power Discharge Characteristics (Watt, 25 °C)

F.V/TIME	15min	30min	60min	2h	3h	5h	8h	10h	20h	48h	100h
9.60	799	515	301	181	127	86.4	58.8	48.5	25.6	1.98	0.96
9.90	783	505	290	180	126	86.0	58.2	48.2	25.5	1.94	0.95
10.2	767	495	285	178	125	85.1	57.9	48.0	25.4	1.91	0.94
10.5	743	479	276	176	123	84.3	57.6	47.9	25.3	1.89	0.93
10.8	729	470	270	174	122	83.4	56.4	47.8	25.2	1.86	0.92

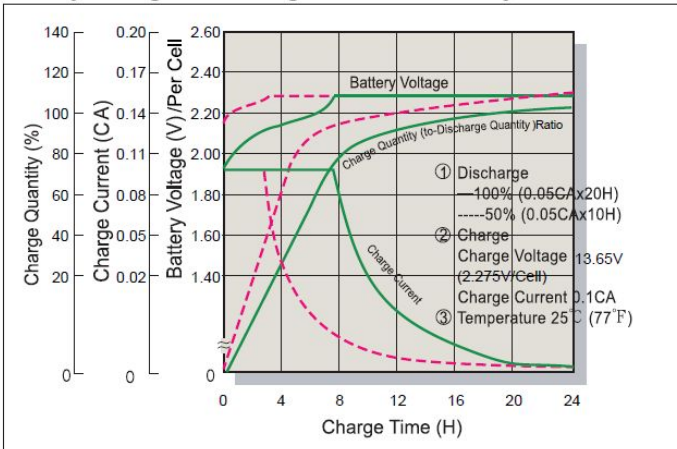
### Trickle (or Float) Service Life



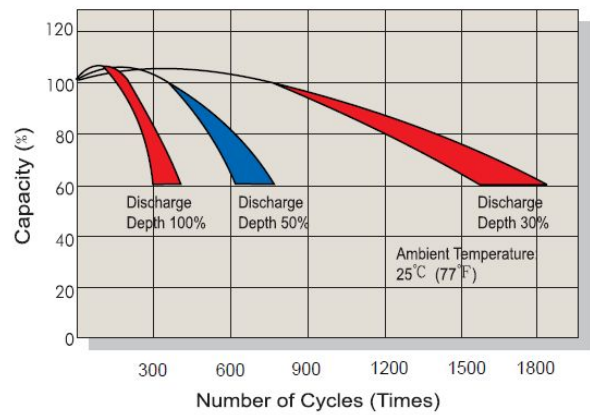
### Capacity Retention Characteristic



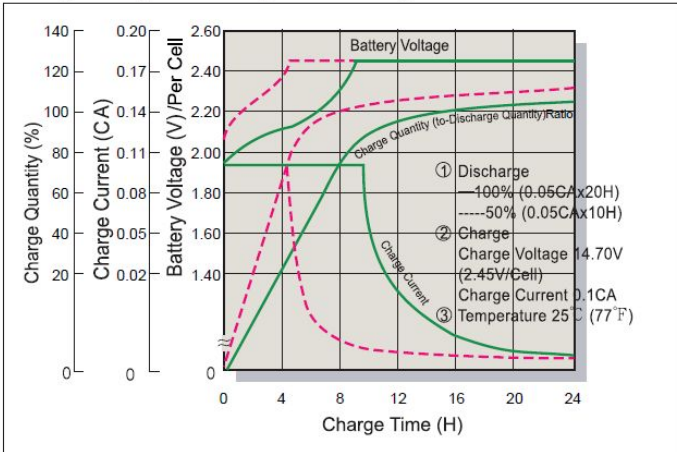
### Battery Voltage and Charge Time for Standby Use



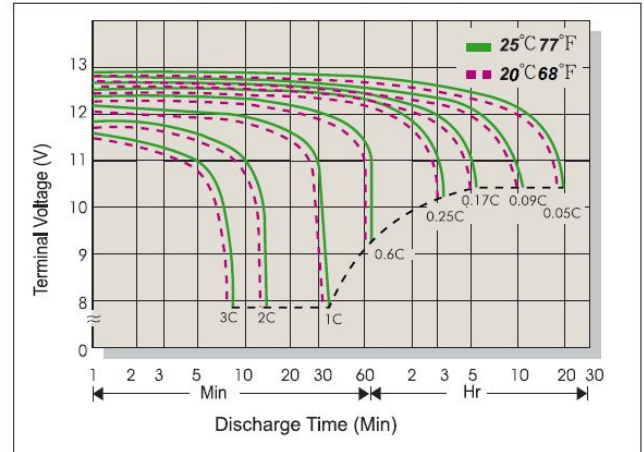
### Cycle Service Life



### 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	0.25 C
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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