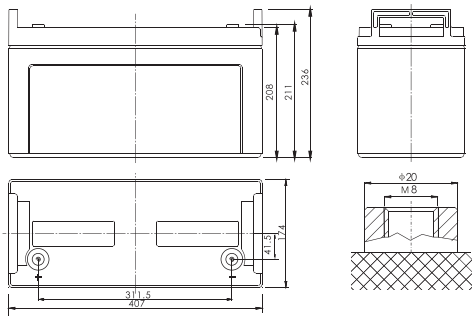
6-FM-100

FM Series
For General Use



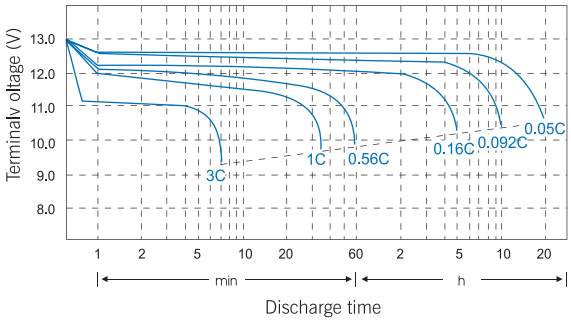
Specifications

Nominal Voltage		12V
Rated Capacity (20 hour rate)		100Ah
Dimensions	Total Height (with terminals)	9.29 inches(236mm)
	Height	8.19 inches(208mm)
	length	16.02 inches(407mm)
	width	6.85 inches(174mm)
Weight		Approx.72.6 Pound(33.0kg)

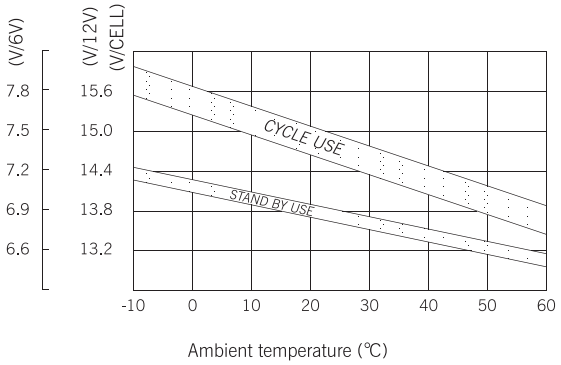
Characteristics

Capacity 77℉(25℃)	20 hour rate (5.0A)	100 Ah
	10 hour rate (9.2A)	92 Ah
	5 hour rate (16.0A)	80 Ah
	1hour rate (60.0A)	60 Ah
	15Minute Rate (164A)	41 Ah
Internal Resistance	Full charged Battery 77℉(25℃)	5 mΩ
Capacity affected by Temperature (20hour rate)	104℉(40℃)	102%
	77℉(25℃)	100%
	32℉(0℃)	85%
	5℉(-15℃)	65%
Self-Discharge 77℉(25℃)	Capacity after 3 month storage	91%
	Capacity after 6 month storage	81%
	Capacity after 12 month storage	60%
Max. Discharge Current 77℉(25℃)	800A(5S)	
Terminal	M3	
Charge (Constant Voltage) Cycle	Initial Charging Current less than 30A	
	Voltage 14.4~14.7 V / 77℉(25℃)	
Float	Voltage 13.5~13.8V / 77℉(25℃)	

Discharge Curves 77℉(25℃)



Relationship between charge voltage and temperature



Constant Current Discharge (AMPERES @25℃)

F.V/Time	10Min	15Min	30Min	60Min	2H	3H	4H	5H	8H	10H	20H
1.60	226	164	106	63.4	36.9	25.8	20.6	17.7	12.1	9.90	5.17
1.65	217	158	102	61.0	35.5	25.5	20.4	17.5	12.0	9.80	5.12
1.70	205	151	86.8	60.5	34.6	25.0	19.9	16.9	11.9	9.59	5.06
1.75	180	142	81.5	60.0	34.3	24.5	19.3	16.0	11.6	9.20	5.00
1.80	173	137	78.4	57.7	33.0	23.6	18.5	15.4	11.2	8.85	4.81
1.85	142	119	72.1	53.1	31.7	22.4	17.6	14.6	10.6	8.41	4.57

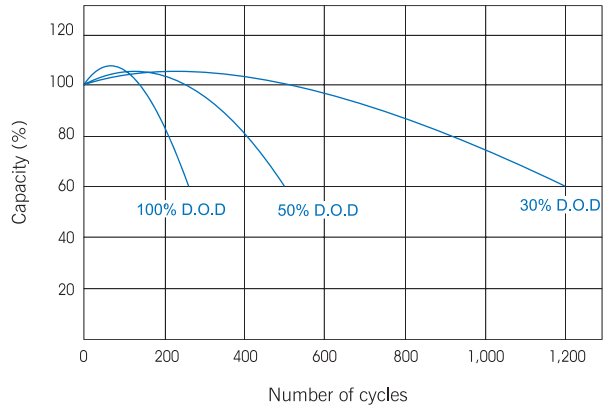
Constant Power Discharge (WATTS PER CELL@25℃)

F.V/Time	10Min	15Min	30Min	60Min	2H	3H	4H	5H	8H	10H	20H
1.60	394	307	191	119	70.0	49.1	38.7	32.4	22.9	18.3	9.73
1.65	389	304	185	115	69.1	49.0	38.6	32.2	22.8	18.2	9.72
1.70	379	291	162	111	68.4	47.7	37.7	31.6	22.3	18.1	9.68
1.75	346	274	156	108	67.9	46.4	36.8	31.0	21.7	18.0	9.67
1.80	330	264	151	107	66.6	46.1	36.4	30.5	21.4	17.7	9.65
1.85	273	231	141	104	64.2	45.0	35.4	29.6	20.1	16.9	9.14

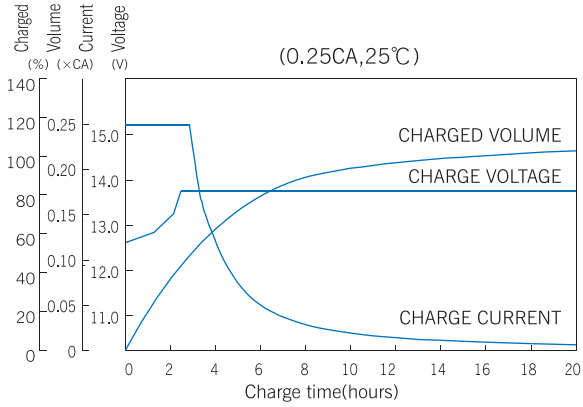
6-FM-100

The operating environment temperature above 40℃ should be avoided ,After long term storage, The battery actual capacity would be less than the rated capacity. Full capacity will be obtained through several charge/discharge cycles.
To get the longest life, KSTAR battery should be fully charged before storage.

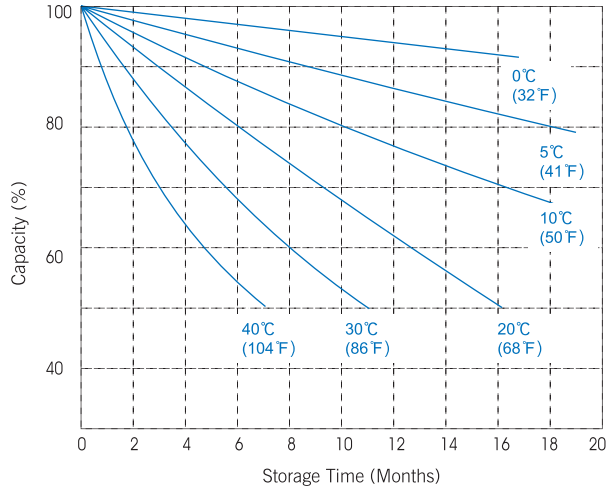
■ Cycle service life in relation to depth of discharge



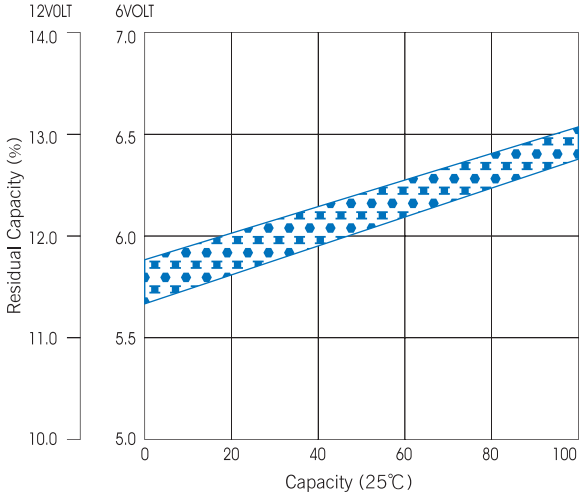
■ Constant voltage charge characteristic



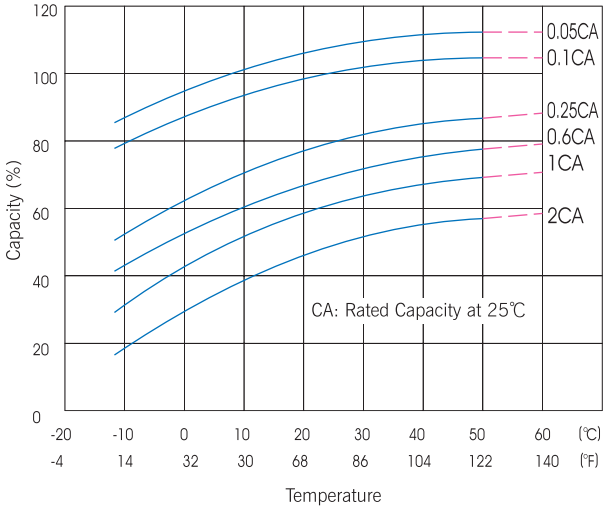
■ Self-Discharge Characteristics



■ Relationship of OCV and Residual Capacity % (25℃)



■ Temperature effects on capacity



■ Temperature effects float life