

Specifications

Nominal Voltage	12V	
Rated Capacity (20 hour rate)	150Ah	
Dimensions	Total Height (with terminals)	8.70 inches(221mm)
	Height	8.50 inches(216mm)
	length	20.94 inches(532mm)
	width	8.15 inches(207mm)
Weight	Approx.105.2 Pound(47.8kg)	

Characteristics

Capacity 77°F (25°C)	20 hour rate (7.5A)	150 Ah
	10 hour rate (13.8A)	138 Ah
	5 hour rate (24.0A)	120 Ah
	1hour rate (90.0A)	90 Ah
	15Minute Rate (246A)	61.5 Ah
Internal Resistance	Full charged Battery 77°F(25°C)	3 MΩ
	104°F(40°C)	102%
Capacity affected by Temperature (20hour rate)	77°F(25°C)	100%
	32°F(0°C)	85%
	5°F(-15°C)	65%
Self-Discharge 77°F (25°C)	Capacity after 3 month storage	91%
	Capacity after 6 month storage	81%
	Capacity after 12 month storage	60%
Max. Discharge Current 77°F (25°C)	1000A(5S)	
Terminal	M5	
Charge (Constant Voltage)	Cycle	Initial Charging Current less than 30A Voltage 14.4~14.7 V / 77°F (25°C)
	Float	Voltage 13.5~13.8V / 77°F(25°C)

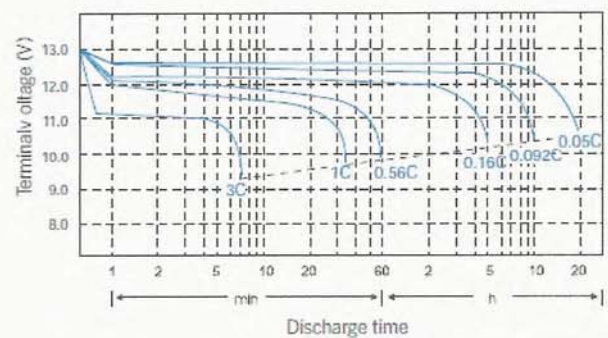
Constant Current Discharge (AMPERES @25°C)

FV/Time	5Min	10Min	15Min	30Min	60Min	2H	3H	4H	5H	10H	20H
1.65	461	322	249	155	119	81.7	56.8	38.9	26.1	14.9	6.74
1.70	426	303	239	132	112	77.7	55.0	37.5	25.2	14.5	6.52
1.80	336	255	203	111	106	72.6	53.0	35.8	23.7	13.8	6.28

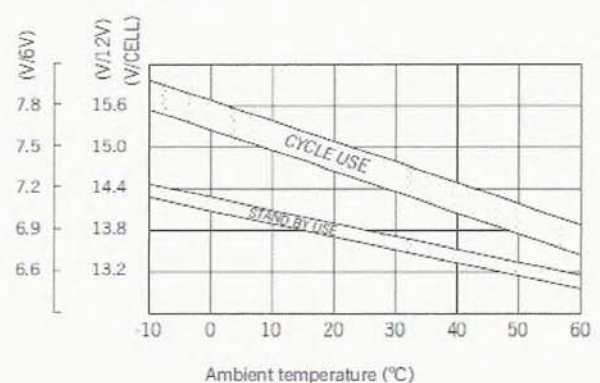
Constant Power Discharge (WATTS PER CELL@25°C)

Cut off voltage V/cell	5min	10min	15min	30min	45min	1h	2h	3h	5h	10h	24h
1.60	821	583	454	286	219	178	106	73.7	48.6	27.8	12.2
1.65	804	576	451	282	217	175	104	72.0	48.1	27.6	12.1
1.67	801	571	450	276	213	172	103	71.3	47.8	27.5	12.0
1.70	757	560	441	247	210	168	102	70.4	47.1	27.2	11.9
1.75	691	519	411	234	208	162	101	69.6	46.5	27.0	11.8
1.80	626	487	391	214	205	159	100	68.7	45.2	26.5	11.6
1.85	501	404	342	208	188	148	95.5	67.8	44.0	25.2	11.4

Discharge Curves 77°F (25°C)

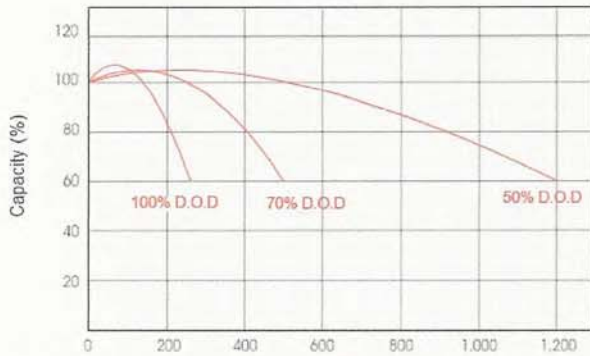


Relationship between charge voltage and temperature

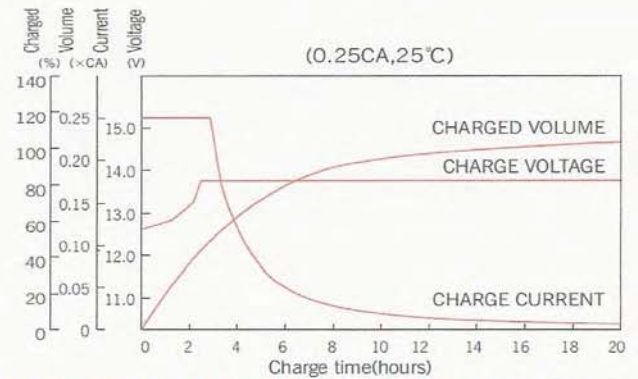


The operating environment temperature above 40°C should be avoided. After long term storage, The battery actual capacity would be less than the rated capacity. Full capacity will be obtained through several charge/discharge cycles. To get the longest life, KSTAR battery should be fully charged before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

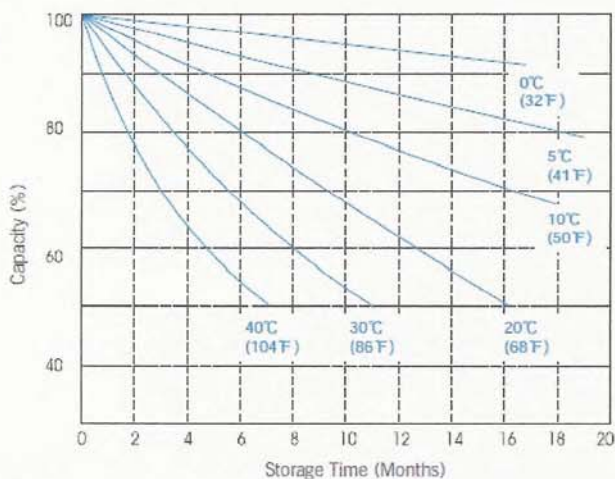
Cycle service life in relation to depth of discharge



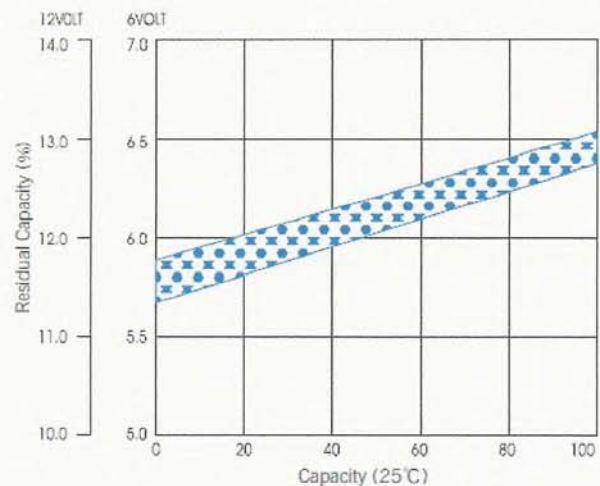
Constant voltage charge characteristic



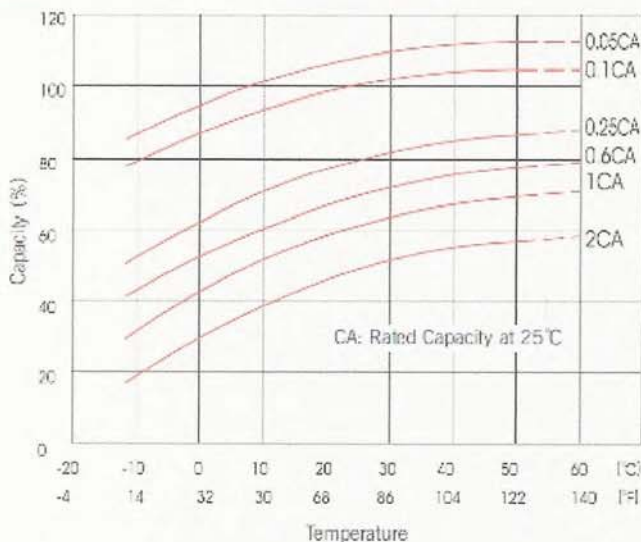
Self-Discharge Characteristics



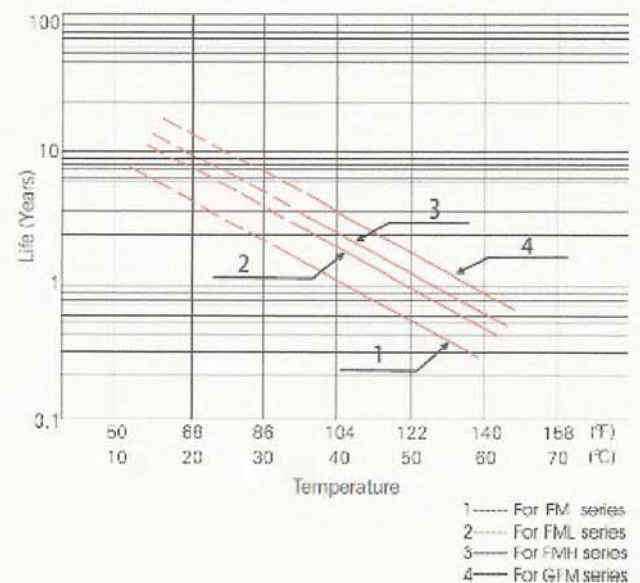
Relationship of OCV and Residual Capacity % (25°C)



Temperature effects on capacity



Temperature effects float life



1----- For FM series
2----- For FML series
3----- For FMH series
4----- For FJM series