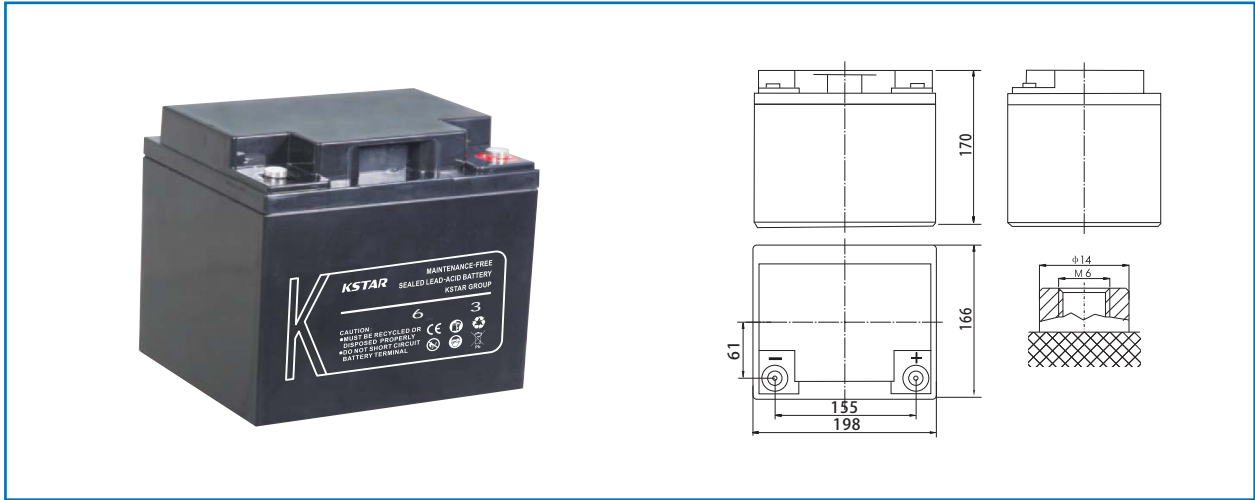


6-FM-40

PalPower/KStar



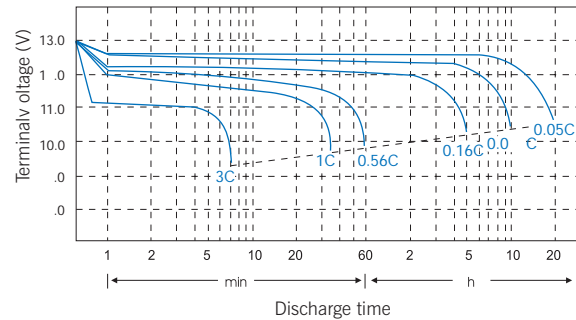
Specifications

Nominal Voltage	12V	
Rated Capacity (20 hour rate)	40Ah	
Dimensions	Total Height (with terminals)	6.70 inches(170mm)
	Height	6.70 inches(170mm)
	length	7.80 inches(198mm)
	width	6.54 inches(166mm)
Weight	Approx.26.4 Pound(12.0kg)	

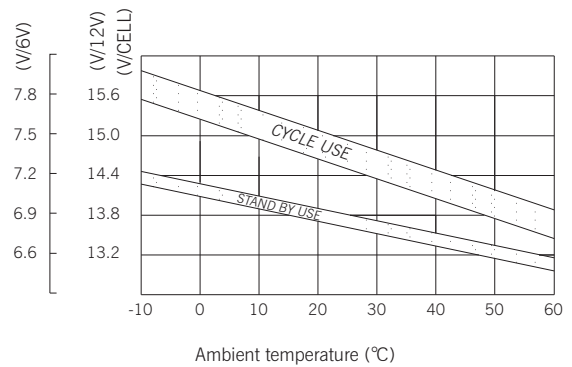
Characteristics

Capacity 77°F (25°C)	20 hour rate (1.90A)	40.0 Ah
	10 hour rate (3.42A)	34.2 Ah
	5 hour rate (6.08A)	30.4 Ah
	1hour rate (22.8A)	22.8 Ah
	15Minute Rate (62.7A)	15.7 Ah
Internal Resistance	Full charged Battery 77°F (25°C)	8 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)	380A(5S)	
Terminal	M1	
Charge (Constant Voltage)	Cycle	Initial Charging Current less than 11.4A Voltage 14.4~14.7 V / 77°F (25°C)
	Float	Voltage 13.5~13.8V / 77°F (25°C)

Discharge Curves 77°F (25°C)



Relationship between charge voltage and temperature



Constant Current Discharge (AMPERES @25°C)

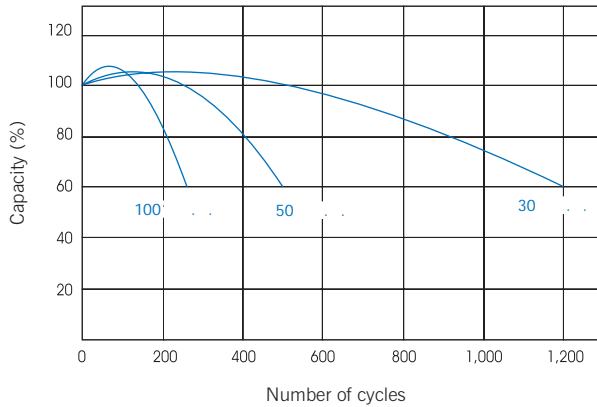
F.V/Time	5Min	10Min	15Min	30Min	60Min	2H	3H	4H	5H	10H	20H
1.65	108	77.6	60.8	38.3	28.7	22.3	13.4	9.79	6.47	3.86	1.76
1.70	103	73.1	57.3	36.2	26.9	21.3	13.0	9.50	6.21	3.72	1.69
1.80	81.0	61.2	48.9	33.3	24.8	20.7	12.5	9.03	5.92	3.50	1.59

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

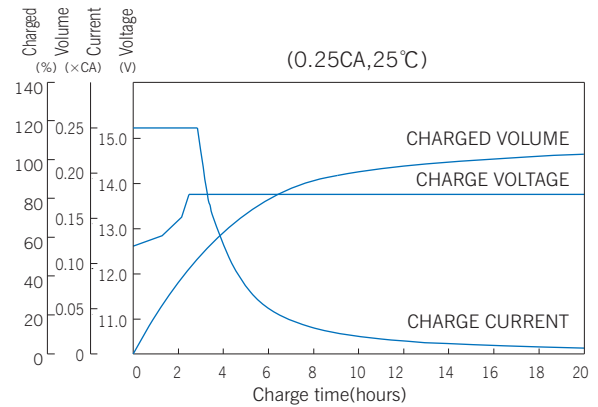
Cut off voltage V/cell	5min	10min	15min	30min	45min	1h	2h	3h	5h	10h	24h
1.6	198	143	113.0	70.2	52.7	44.6	25.3	18.0	12.1	6.76	2.92
1.65	189	139	110.0	69.7	52.3	43.2	24.5	17.8	11.9	6.70	2.90
1.67	186	137	108.0	68.8	51.3	42.6	24.4	17.7	11.8	6.62	2.87
1.7	184	135	106.0	67.6	50.4	41.9	24.2	17.5	11.6	6.56	2.81
1.75	171	127	102.0	67.4	49.6	41.6	24.0	17.4	11.5	6.50	2.76
1.8	151	117	94.1	64.1	47.8	40.9	23.6	17.0	11.3	6.28	2.68
1.85	121	96.9	82.7	58.3	45.4	38	22.7	16.5	10.70	6.00	2.60

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.

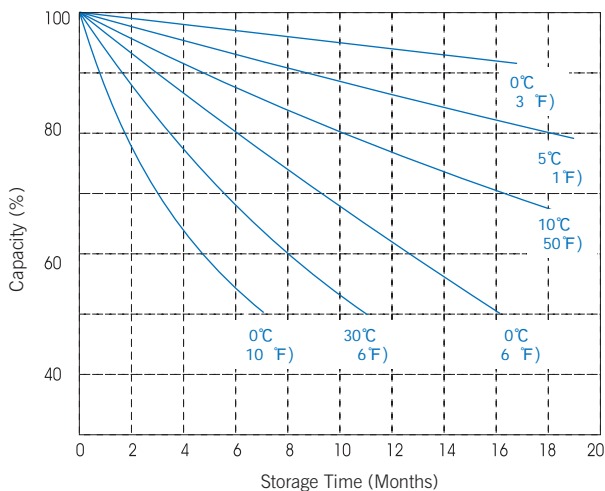
Cycle service life in relation to depth of discharge



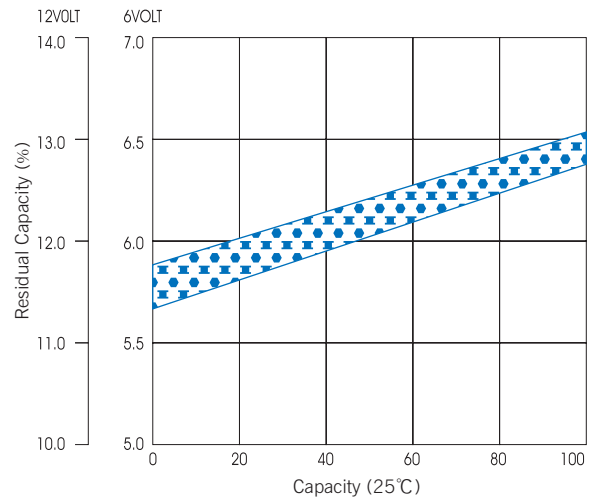
Constant voltage charge characteristic



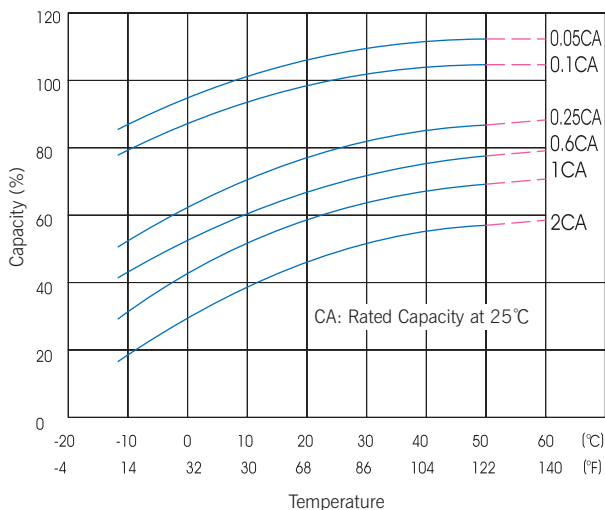
Self-Discharge Characteristics



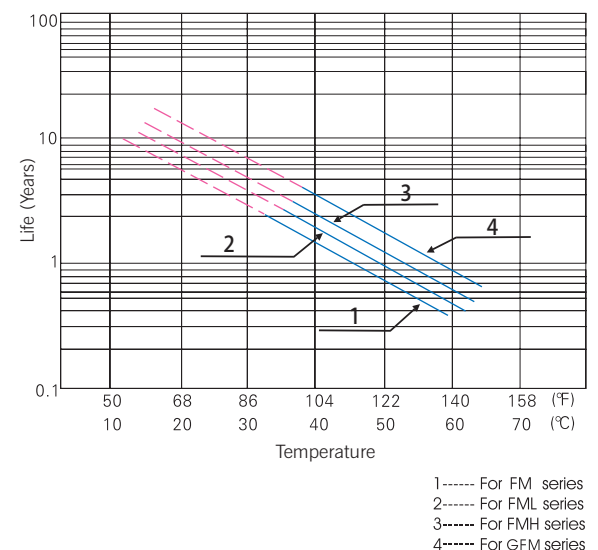
Relationship of OCV and Residual Capacity % (25°C)



Temperature effects on capacity



Temperature effects float life



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