

FZA 2.3-12

12V 2.3AH



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Physical Specification

Part Number:	FZA 2.3-12
Length:	178 ± 2 mm (7.00 inches)
Width:	35 ± 2 mm (1.38 inches)
Container Height:	60 ± 2 mm (2.36 inches)
Total Height (with terminal):	66 ± 2 mm (2.60 inches)
Approx Weight:	Approx 0.89kg (1.96lbs)

Specifications

Terminal Type	Normal Voltage	12V
	Normal Capacity (20HR)	2.3 AH
	Standard Terminal	F1
Container Material	Optional Terminal	-
	Standard Option	ABS
	Flame Retardant Option (FR)	UL94:VO
Rated Capacity	2.40 AH/0.115A	(20hr, 1.80V/cell, 25°C / 77°F)
	2.23 AH/0.214A	(10hr, 1.80V/cell, 25°C / 77°F)
	1.95 AH/0.39A	(5hr, 1.75V/cell, 25°C / 77°F)
	1.79 AH/0.59A	(3hr, 1.75V/cell, 25°C / 77°F)
	1.44 AH/1.44A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	34.5A (5s)	
Internal Resistance	Approx 100mΩ	
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F) Charge: 0 ~ 40°C (5 ~ 104°F) Storage: -15 ~ 40°C (5 ~ 104°F)
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
	Cycle Use	Initial Charging Current less than 0.69A.Voltage 14.4V ~ 15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C
	Standby Use	No limit on Initial Charging Current Voltage 13.5V ~ 13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C
	Capacity affected by Temperature	40°C (104°F) 103%
		25°C (77°F) 100%
		0°C (32°F) 86%
Design Floating Life at 20°C	5 Years	

Dimensions

F1 Terminal



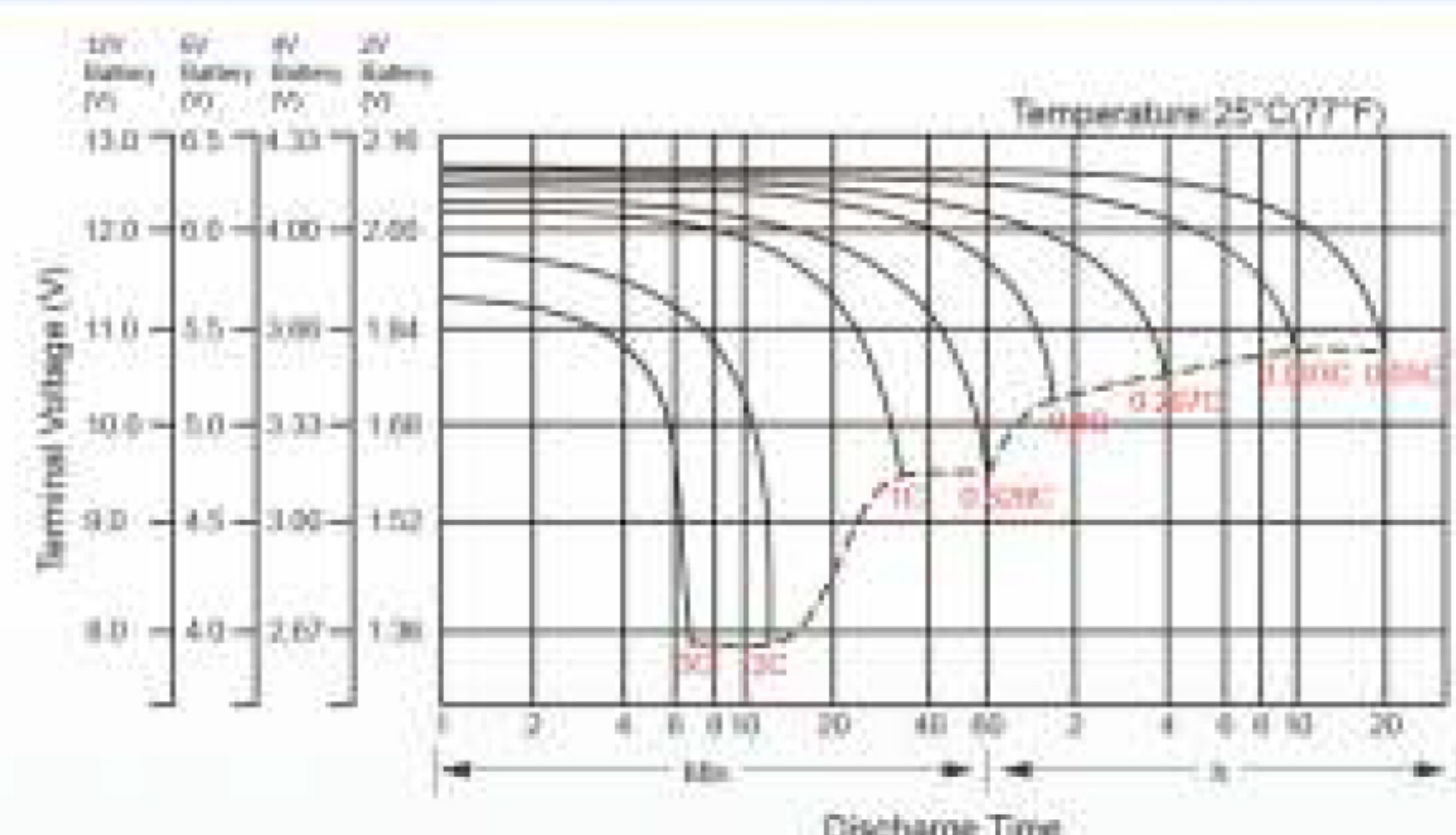
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	4.38	3.36	2.79	2.41	1.86	1.37	1.16	0.68	0.54	0.44	0.355	0.308	0.248	0.207	0.114
1.80V/cell	5.88	4.30	3.37	2.85	2.20	1.60	1.30	0.75	0.58	0.46	0.381	0.330	0.263	0.214	0.115
1.75V/cell	6.63	4.72	3.68	3.06	2.28	1.66	1.36	0.77	0.59	0.47	0.391	0.339	0.268	0.220	0.116
1.70V/cell	7.30	5.15	3.93	3.22	2.37	1.72	1.40	0.79	0.60	0.49	0.401	0.346	0.272	0.224	0.118
1.65V/cell	8.05	5.55	4.17	3.42	2.51	1.77	1.43	0.81	0.63	0.50	0.412	0.354	0.276	0.229	0.120
1.60V/cell	8.88	6.03	4.46	3.64	2.65	1.84	1.44	0.84	0.65	0.52	0.426	0.362	0.279	0.231	0.121

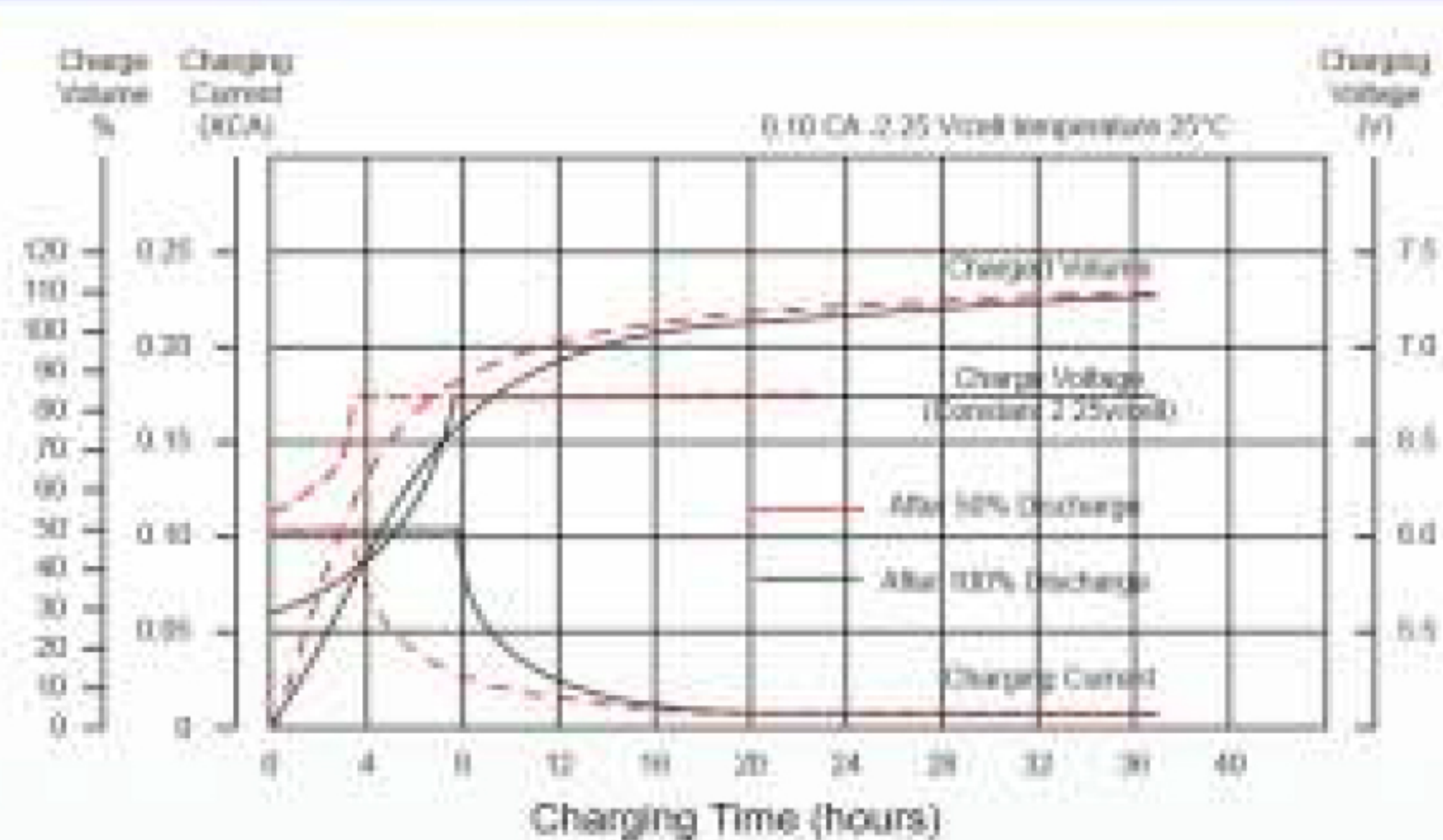
Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	8.01	6.21	5.20	4.54	3.55	2.64	2.23	1.33	1.04	0.85	0.696	0.605	0.490	0.411	0.226
1.80V/cell	10.6	7.85	6.20	5.29	4.12	3.04	2.49	1.44	1.12	0.90	0.743	0.647	0.518	0.423	0.227
1.75V/cell	11.7	8.48	6.69	5.64	4.25	3.13	2.59	1.49	1.13	0.92	0.760	0.662	0.526	0.433	0.229
1.70V/cell	12.6	9.04	7.04	5.88	4.40	3.24	2.66	1.52	1.16	0.94	0.778	0.675	0.533	0.442	0.233
1.65V/cell	13.7	9.66	7.43	6.20	4.60	3.29	2.70	1.53	1.21	0.97	0.797	0.688	0.540	0.450	0.236
1.60V/cell	14.7	10.25	7.81	6.53	4.82	3.41	2.72	1.59	1.24	1.00	0.820	0.700	0.544	0.454	0.237

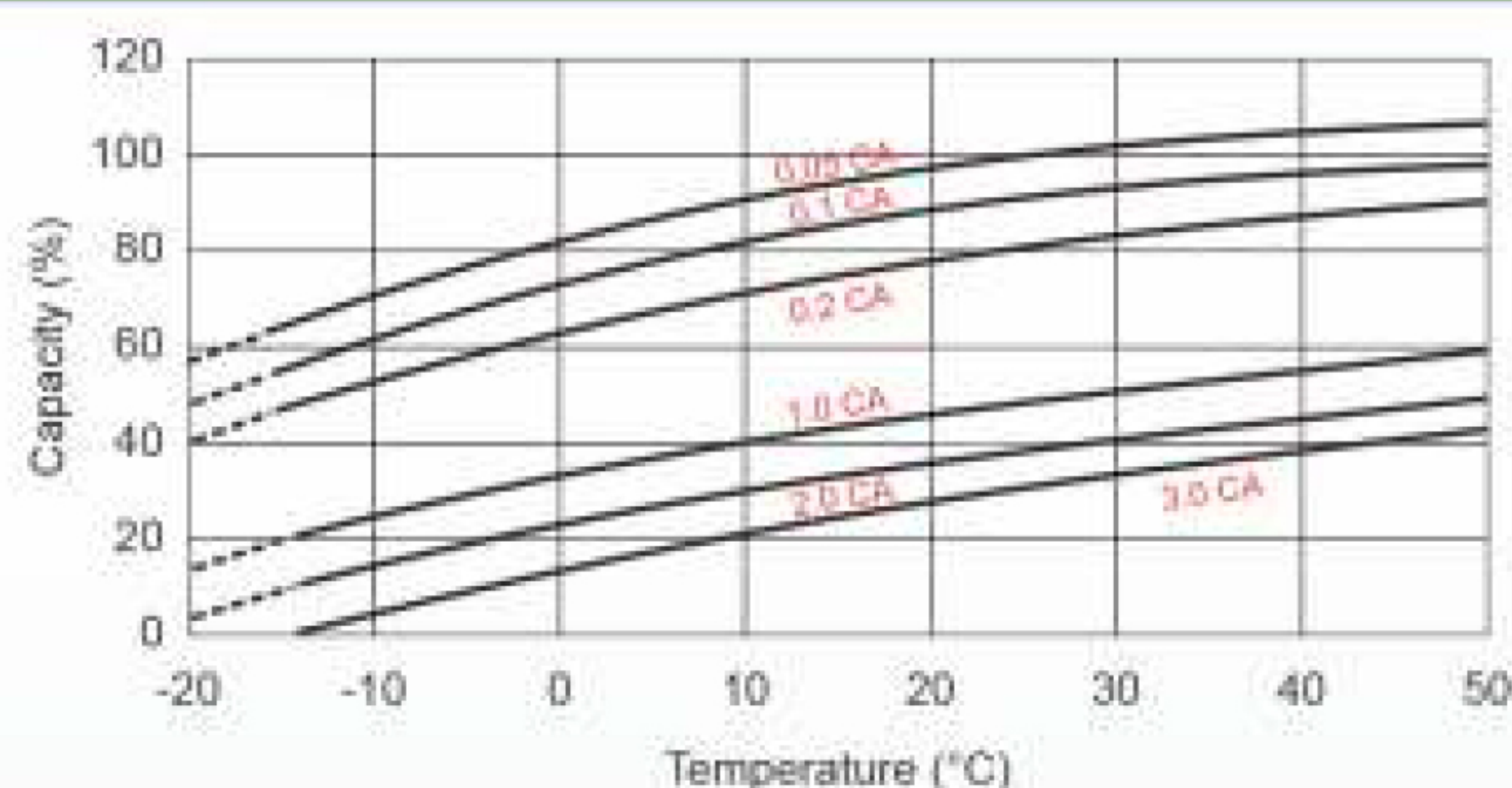
Discharge Characteristics



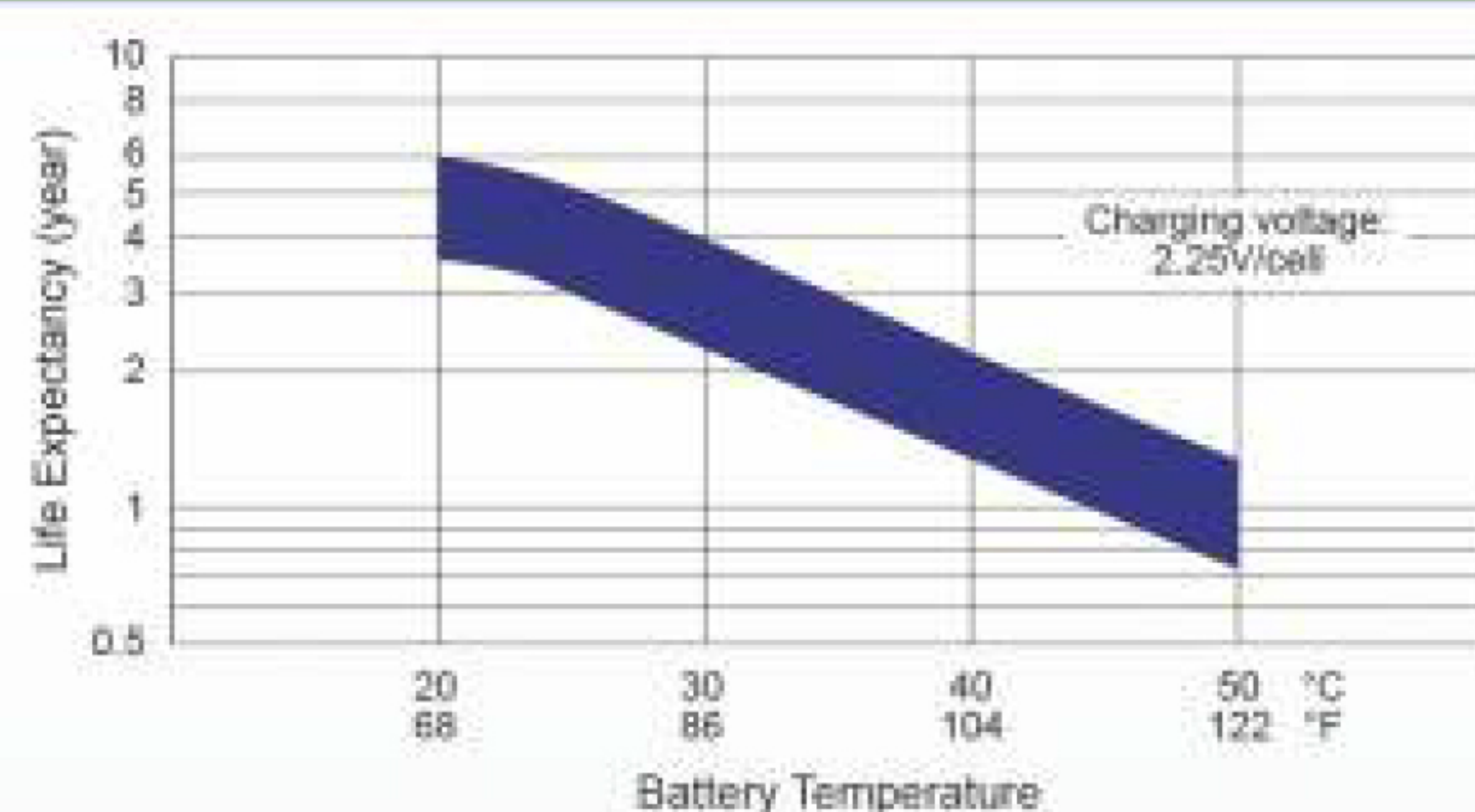
Float Charging Characteristics



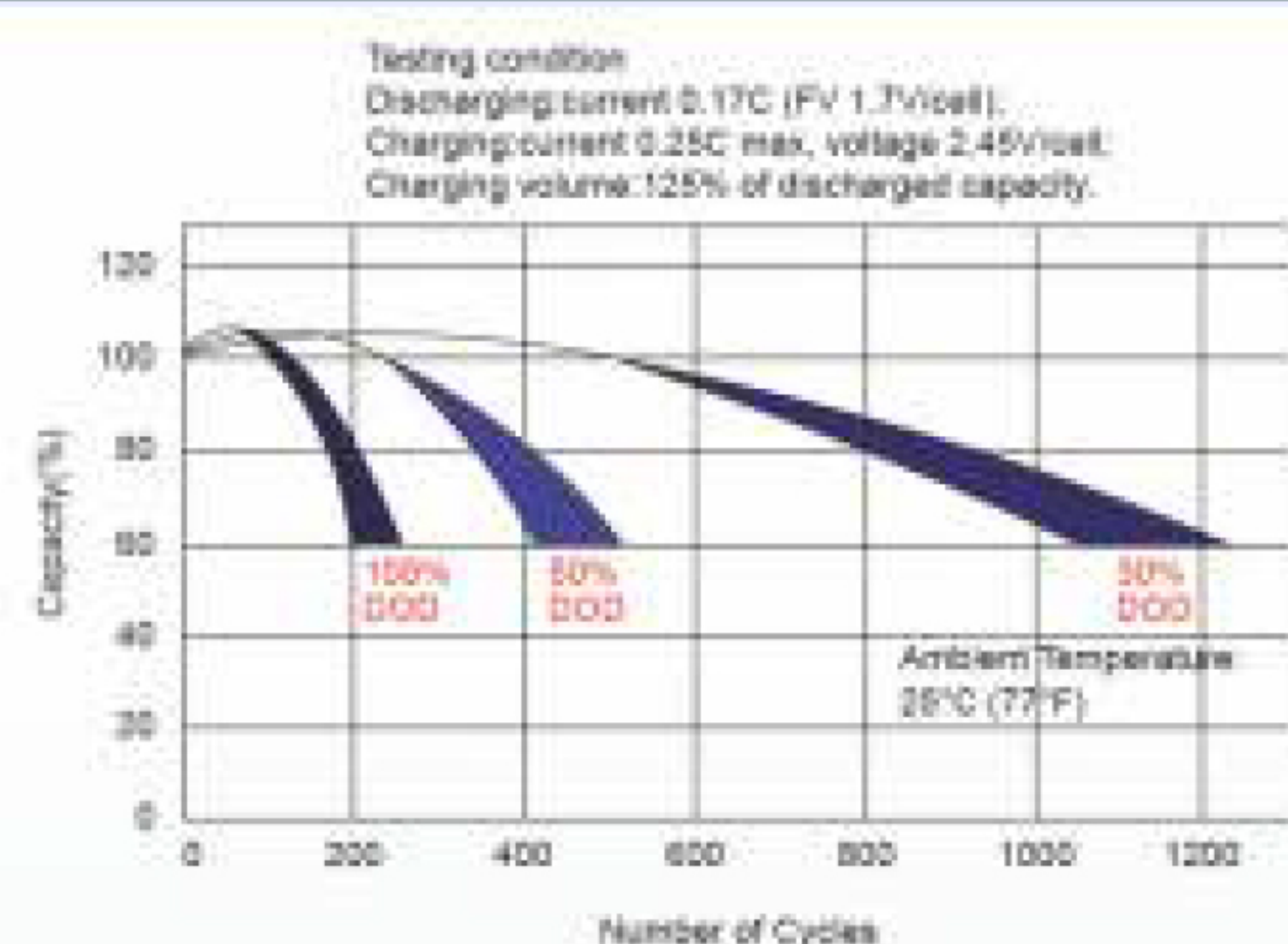
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics

