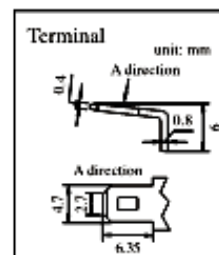
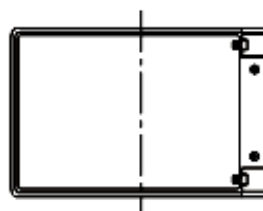
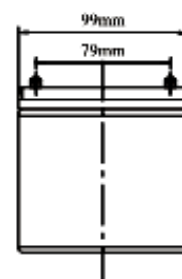
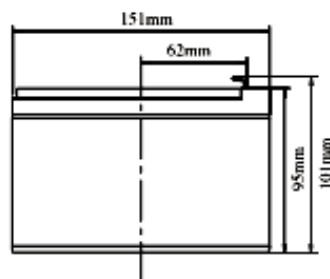


NP12-12 (12V12Ah)

Koyosonic Electronics Co., Ltd



Characteristics

Nominal Voltage		12V
Nominal Capacity (20 hour rate)		12Ah
Capacity 25°C (77°F)	10 hour rate (1.14A)	11.4Ah
	5 hour rate (2.14A)	10.7Ah
	1 hour rate (7.92A)	7.92Ah
Internal Resistance	Full Charged Battery 25°C	≤14mΩ
Capacity affected by Temperature (10 hour)	40°C (104°F)	102%
	25°C (77°F)	100%
	0°C (32°F)	85%
	-15°C (5°F)	65%
Self-Discharge 25°C (77°F) Capacity	after 3 month storage	90%
	after 6 month storage	80%
	after 12 month storage	62%
Charge (Constant Voltage) 25°C (77°F)	Float	Initial Charging Current Less than 3.6A Voltage 13.6-13.8V
	Cycle	Initial Charging Current Less than 3.6A Voltage 14.4-15.0V

Packaging

Battery Dimensions	Length	151mm
	Width	99mm
	Height	95mm
	Total Height	101mm
Box Dimensions	Length	325mm
	Width	218mm
	Height	141mm
Quantity Per Box		4 pcs per box
Net weight Per Cell		3.15kg±150g
Net weight Per Box		12.6kg
Gross Weight		13.10 kg

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

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	39.60	26.40	19.86	13.20	9.24	7.92	4.95	3.39	2.26	1.52	1.26	0.66
1.65V	38.88	25.92	19.50	12.96	9.07	7.78	4.86	3.33	2.22	1.49	1.23	0.65
1.70V	38.16	25.44	19.14	12.72	8.90	7.63	4.77	3.27	2.18	1.46	1.21	0.64
1.75V	37.44	24.96	18.78	12.48	8.74	7.49	4.68	3.21	2.14	1.44	1.19	0.62
1.80V	36.00	24.00	18.06	12.00	8.40	7.20	4.50	3.08	2.06	1.38	1.14	0.60

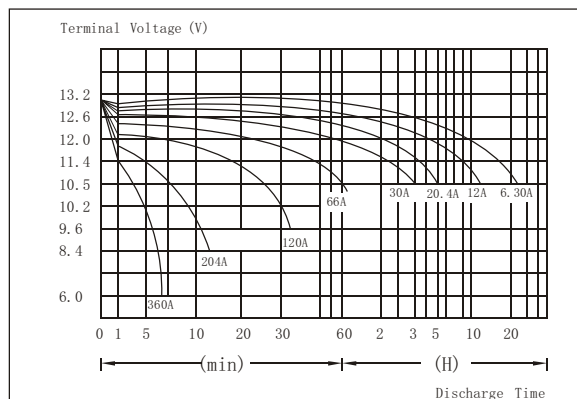
Discharge Constant Power per Cell (Watts at 77°F 25°C)

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	76.23	50.82	38.24	25.41	17.79	15.25	9.53	6.53	4.35	2.93	2.42	1.27
1.65V	74.84	49.90	37.54	24.95	17.46	14.97	9.36	6.41	4.27	2.87	2.37	1.25
1.70V	73.46	48.97	36.85	24.49	17.14	14.69	9.18	6.29	4.20	2.82	2.33	1.22
1.75V	72.07	48.05	36.15	24.02	16.82	14.41	9.01	6.17	4.12	2.77	2.29	1.20
1.80V	69.30	46.20	34.76	23.10	16.17	13.86	8.66	5.94	3.96	2.66	2.20	1.16

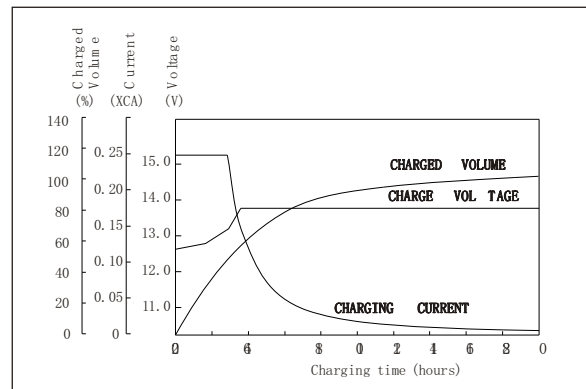
The data is generally descriptive only for reference.

AGM Battery

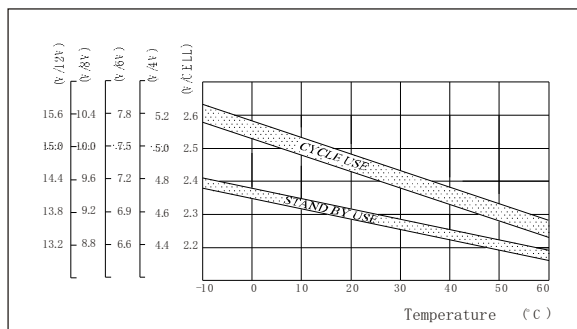
Discharge Characteristics



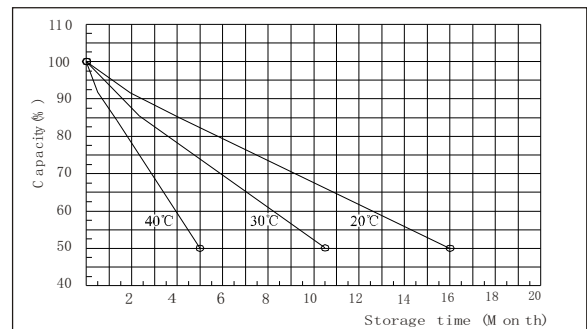
Constant Voltage Charging Characteristics (0.25C @ 25 °C)



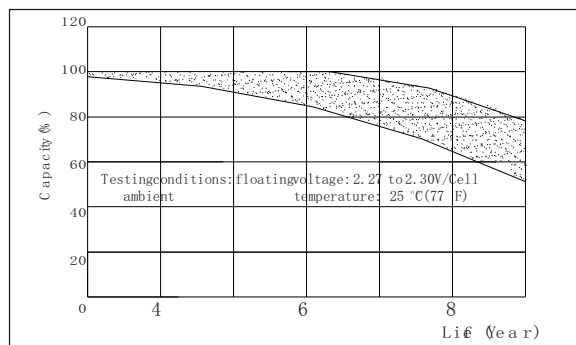
Relationship between Charging voltage and Temperature



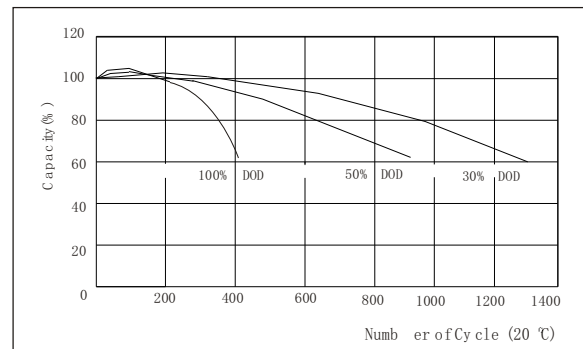
Self-discharge Characteristics



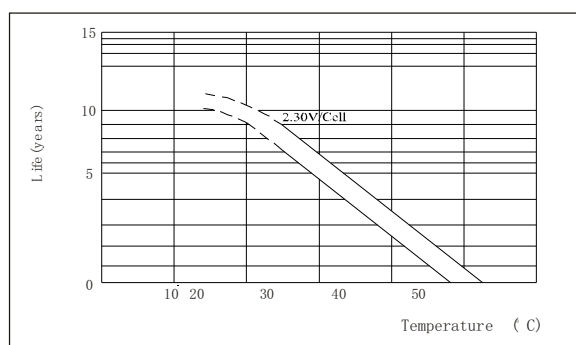
Float service life



Cycle service life @ different DOD



Temperature Effects on Float Life



Temperature Effects on Capacity

