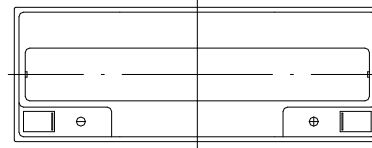
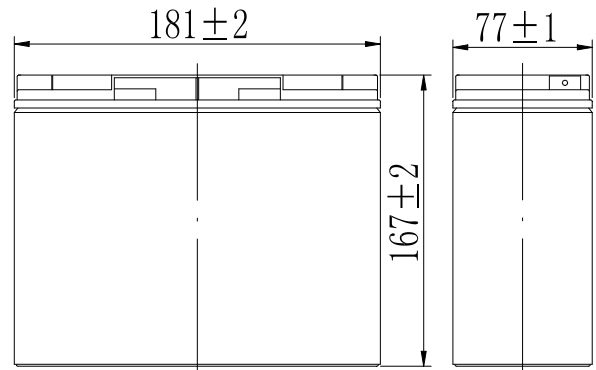
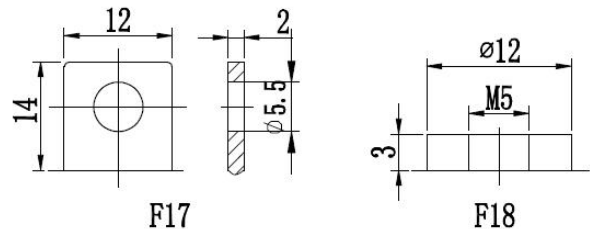


Specifications

Nominal Voltage		12 V
Capacity (25°C)	20HR(10.5V)	18 Ah
	10HR(10.5V)	16.8Ah
	1HR(9.60V)	11.8Ah
Dimension	Length	181 ± 2mm (7.13inch)
	Width	77 ± 1mm (3.03inch)
	Height	167 ± 2mm (6.57inch)
	Total Height	167 ± 2mm (6.57inch)
Approx. Weight		5.25kg (11.57lbs) ± 5%
Terminal type		F17/F18
Internal resistance (Fully charged, 25°C)		Approx. 16mΩ
Capacity affected by temperature (20HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 month	Remaining Capacity: 91%
	6 month	Remaining Capacity: 82%
	12 month	Remaining Capacity: 65%
Nominal operating temperature		25°C ± 3°C (77°F ± 5°F)
Operating temperature range	Discharge	-15°C ~ 50°C (5°F ~ 122°F)
	Charge	-10°C ~ 50°C (14°F ~ 122°F)
	Storage	-20°C ~ 50°C (-4°F ~ 122°F)
Float charging voltage(25°C)		13.60 to 13.80V Temperature compensation: -18mV/°C
Cyclic charging voltage(25°C)		14.50 to 15.00V Temperature compensation: -30mV/°C
Maximum charging current		5.4A
Maximum discharge current		270A(5 sec.)
Designed floating life(20°C)		5 years


Dimensions

Terminal

Constant Current Discharge Characteristics (A, 25°C)

F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	43.6	34.0	19.2	11.8	6.45	4.46	3.69	3.14	2.04	1.70	0.91
9.90V	42.3	33.2	18.8	11.6	6.41	4.44	3.67	3.12	2.03	1.70	0.91
10.2V	40.5	32.0	18.2	11.3	6.35	4.40	3.64	3.10	2.01	1.69	0.91
10.5V	38.8	30.9	17.8	11.1	6.26	4.37	3.62	3.08	2.00	1.68	0.90
10.8V	36.6	29.3	17.1	10.8	6.10	4.24	3.51	2.99	1.94	1.65	0.88

Constant Power Discharge Characteristics (Watt, 25°C)

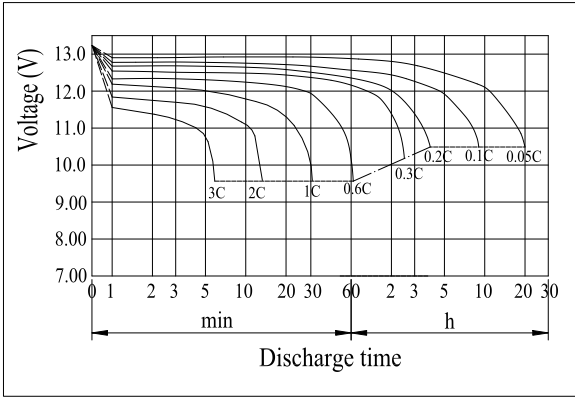
F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	491	388	220	137	75.5	53.0	44.0	37.5	24.5	20.5	11.0
9.90V	477	379	215	134	75.0	52.7	43.7	37.3	24.3	20.4	10.9
10.2V	457	365	209	131	74.3	52.3	43.4	37.0	24.1	20.3	10.9
10.5V	437	352	204	128	73.2	52.0	43.1	36.8	24.0	20.2	10.8
10.8V	413	334	196	125	71.4	50.4	41.8	35.6	23.3	19.7	10.6

Note: The above characteristics data can be obtained within three charge/discharge cycles.

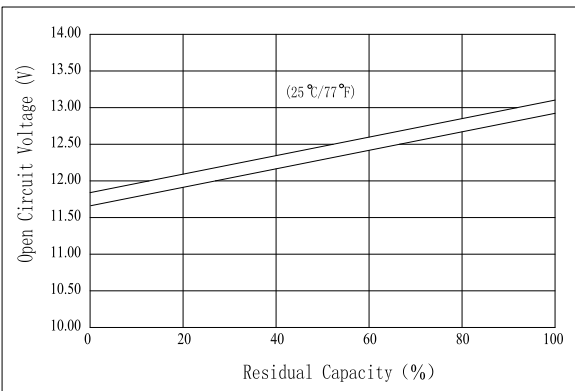
Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS	ABS	AGM	Sulfuric acid	Rubber	Copper

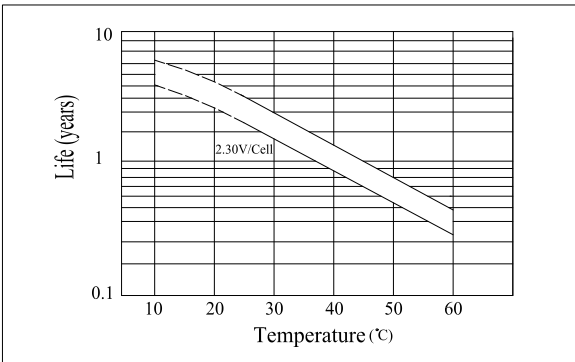
Discharge Characteristics(25°C)



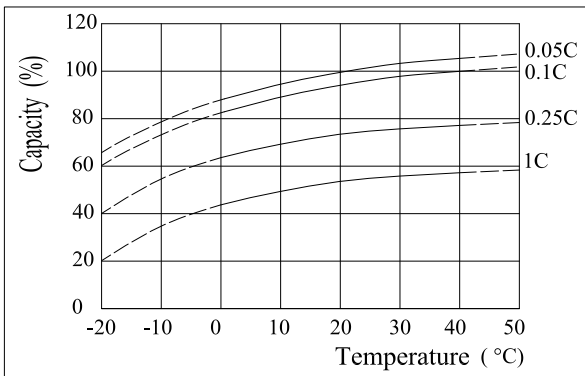
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



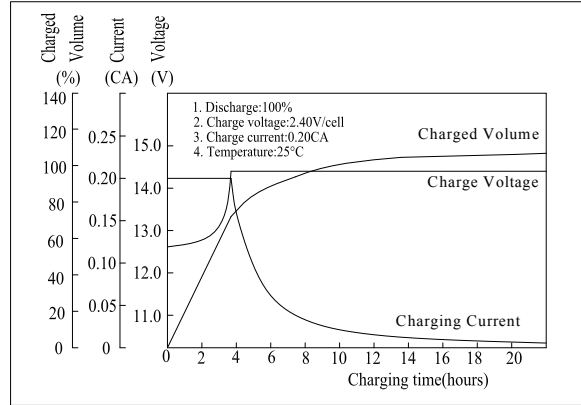
Floating Life on Temperature



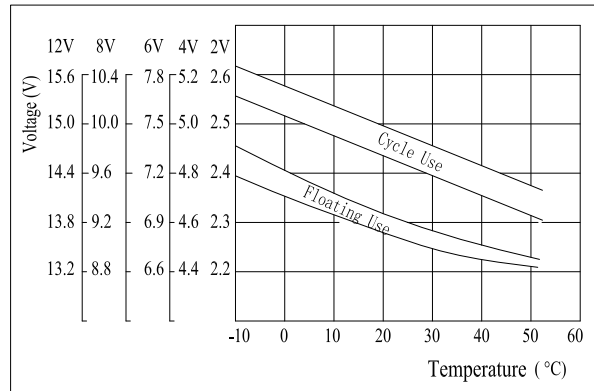
Effect of Temperature on Capacity



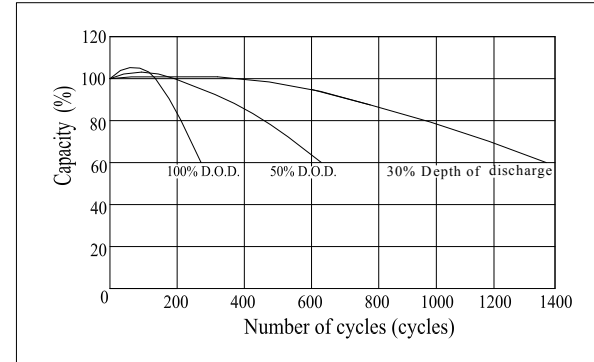
Charging Characteristics(25°C)



The Relationship for Charging Voltage and Temperature



Cycle Life on D.O.D(25°C)



Self-discharge Characteristics

