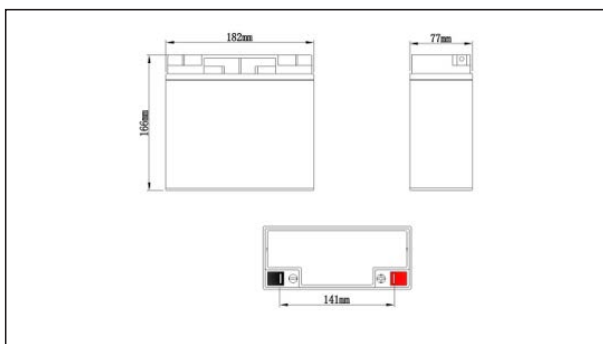


SP21-12 [12V21Ah]

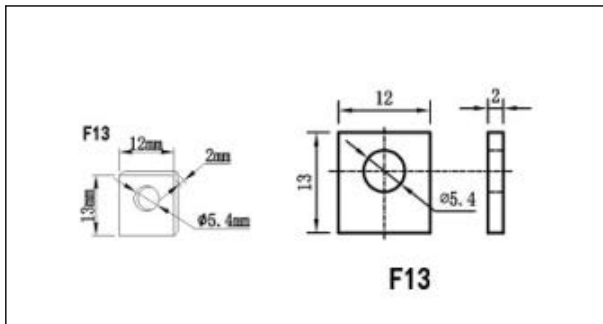
Specifications

Nominal Voltage		12V
Rated capacity (20 hour rate)		21Ah
Dimensions	Length	182±2mm(5.28inch)
	Width	77±2mm(2.64inch)
	Height	166±2mm(2.40inch)
	Total Height	166±2mm(2.64inch)
Approx. Weight		5.88kg(12.96lbs)

Outer dimensions (mm)



Terminal Type (mm)



Construction

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

Constant Power Discharge Characteristics Unit:A(25°C,77°F)

F.V/Time	10min	15min	30min	45min	1h	1.5h	2h	3h	5h	8h	10h	20h
9.6V	57.5	45.0	23.0	16.2	13.7	10.8	8.08	6.09	3.90	2.59	2.15	1.14
9.9V	54.7	42.9	21.9	15.6	13.3	10.6	7.88	5.95	3.81	2.54	2.12	1.13
10.2V	52.2	40.8	20.9	15.1	13.0	10.3	7.69	5.80	3.71	2.48	2.11	1.12
10.5V	51.7	40.5	20.7	15.0	12.9	10.1	7.40	5.62	3.65	2.47	2.09	1.10
10.8V	51.1	40.0	20.5	14.7	12.8	10.0	7.11	5.42	3.58	2.44	2.05	1.08

Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	10min	15min	30min	45min	1h	1.5h	2h	3h	5h	8h	10h	20h
9.6V	669	542	306	217	162	124	93.7	66.6	43.9	30.6	24.3	13.1
9.9V	637	516	291	209	158	121	91.1	65.0	42.8	30.0	24.1	13.0
10.2V	607	492	278	202	154	118	88.5	63.3	41.8	29.4	23.8	12.8
10.5V	587	477	272	198	151	116	87.7	62.0	41.3	29.2	23.5	12.6
10.8V	565	461	264	193	149	114	85.9	60.8	40.8	28.9	23.0	12.5

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

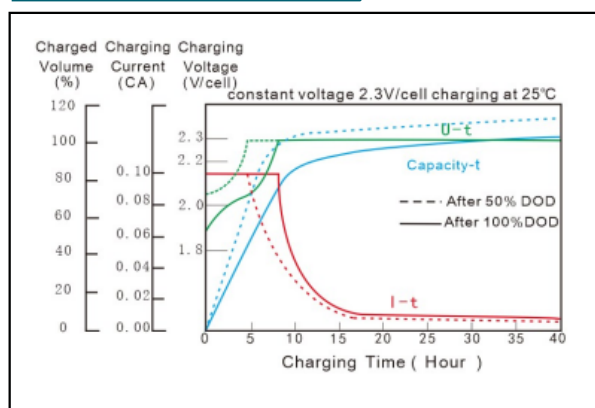


Characteristics

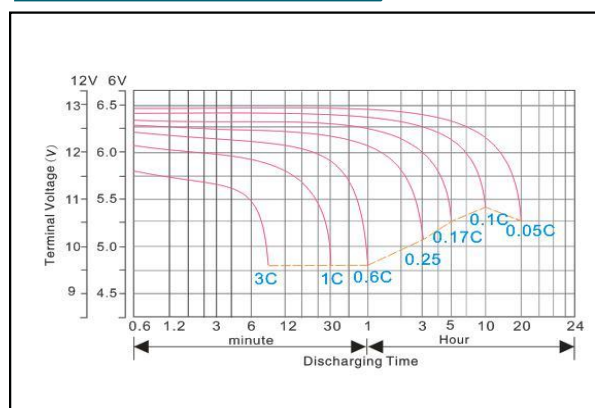
Capacity (25°C)	20HR(10.5V)	21.0Ah
	10HR(10.5V)	19.6Ah
	5HR(9.60V)	17.5Ah
Terminal type		F13
Internal resistance (Fully charged, 25°C)		Approx.11.8mΩ
Capacity affected by temperature (20HR)	40°C	103%
	25°C	100%
	0°C	86%
Self-discharge (25°C)	3month	Remaining Capacity:91%
	6month	Remaining Capacity:82%
	12month	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)		14.10 to 14.40V Temperature compensation: -30mV/°C
Maximum charging current		6.3A
Maximum discharge current		63A(5 sec.)
Designed floating life(20°C)		8 years



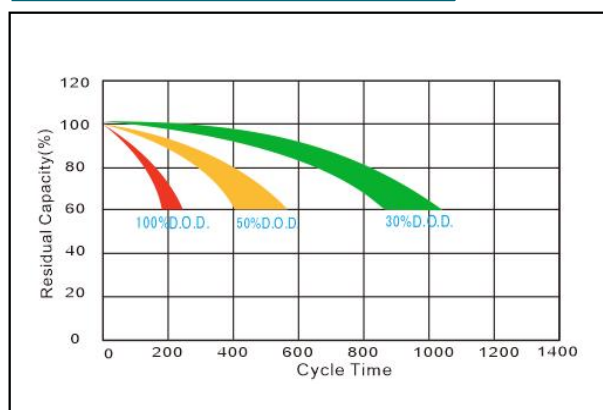
● **Charge Characteristics (25°C/77°F)**



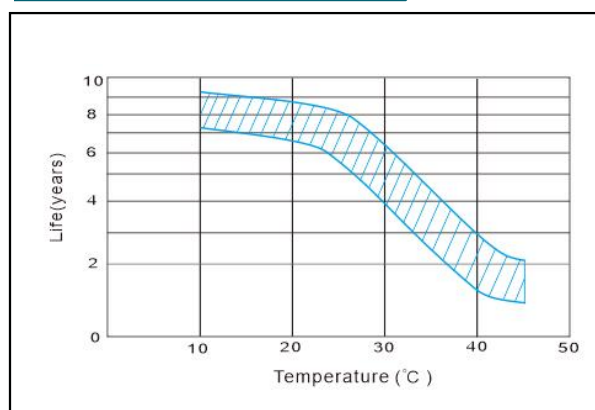
● **Discharge Characteristic (25°C/77°F)**



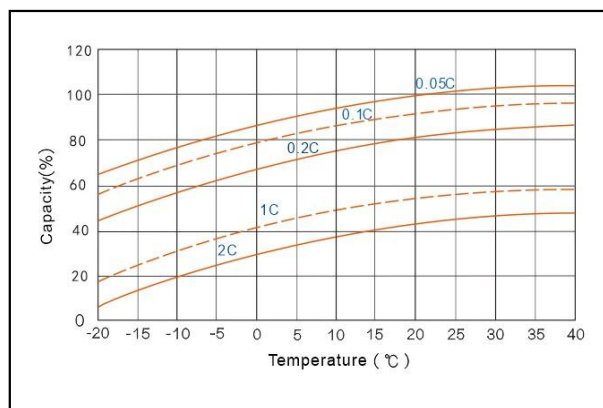
● **Cycle Life in Relation to Depth of Discharge**



● **Temperature vs Float Life**



● **Capacity Curve At Different Temperature**



● **Self Discharge Characteristics**

