

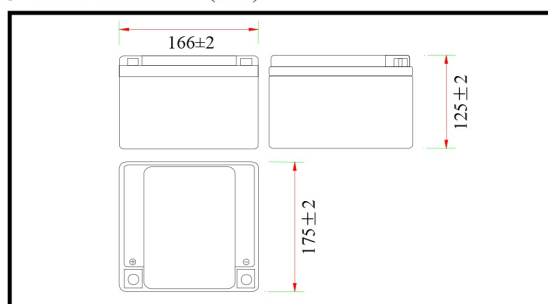
SAM 12-24AH 12V 24AH



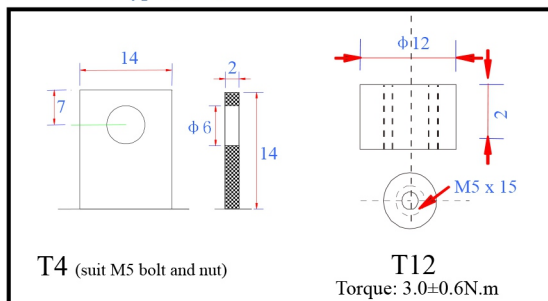
Specifications

Nominal voltage		12V (6 cells per unit)
Rated capacity (20HR)		24AH/10.5V
Dimensions	Length	166±2mm (6.54inch)
	Width	175±2mm (6.89inch)
	Height	125±2mm (4.92inch)
	Total height	125±2mm (4.92inch)
Approx. weight		7.40kg (19.40lbs)±4%

Outer dimensions (mm)



Terminal type (mm)



Characteristics

Capacity (25°C)	20HR (10.5V)	24AH
	10HR (10.5V)	22AH
	1HR (9.60V)	16Ah
Terminal type		T4/T12
Internal resistance (Fully charged, 25°C)		Approx. 11mΩ
Capacity affected by temperature (10HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 months	Remaining capacity: 91%
	6 months	Remaining capacity: 82%
	12 months	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)		13.50 to 13.80V Temperature compensation: -18mV/°C/Block
Cyclic charging voltage (25°C)		14.40 to 14.70V Temperature compensation: -30mV/°C/Block
Maximum charging current		5.2A
Maximum discharge current		360A (5 sec.)
Short circuit current		1232A
Design life	10 years for floating (25°C)	
	Eurobat (20°C): 10-12 years, long life.	

Construction

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

Constant current discharge characteristics unit: Ampere/Block (at 25°C, 77°F)

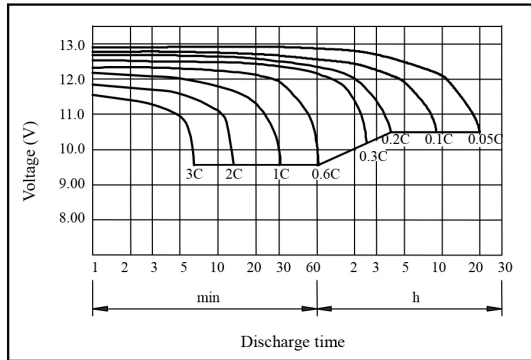
F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	81.6	55.7	46.4	27.0	16.4	9.28	6.54	5.30	4.46	2.46	1.34
9.90V	79.2	54.0	45.3	26.5	16.2	9.22	6.50	5.27	4.43	2.45	1.34
10.2V	75.9	51.8	43.6	25.7	15.8	9.14	6.46	5.23	4.40	2.44	1.33
10.5V	72.6	49.5	42.1	25.1	15.5	9.01	6.41	5.19	4.37	2.42	1.33
10.8V	68.6	46.7	39.9	24.1	15.0	8.78	6.22	5.04	4.24	2.38	1.30

Constant power discharge characteristics unit: Watt/Block (at 25°C, 77°F)

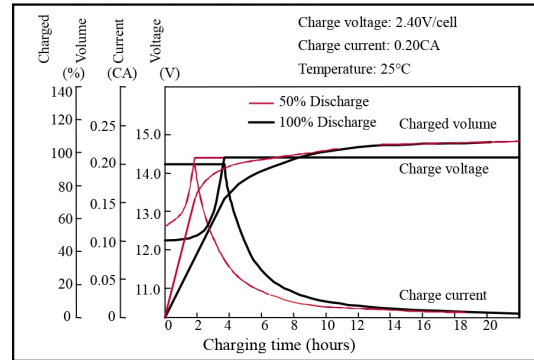
F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	911	628	529	310	190	109	77.7	63.1	53.3	29.5	16.1
9.90V	884	609	516	304	187	108	77.3	62.7	52.9	29.4	16.1
10.2V	847	584	497	294	183	107	76.7	62.3	52.6	29.3	16.0
10.5V	811	559	480	287	179	105	76.2	61.9	52.2	29.1	15.9
10.8V	765	527	455	277	174	103	73.9	60.0	50.6	28.5	15.6

Note 1: Above characteristics data can be obtained within three charge and discharge cycles.

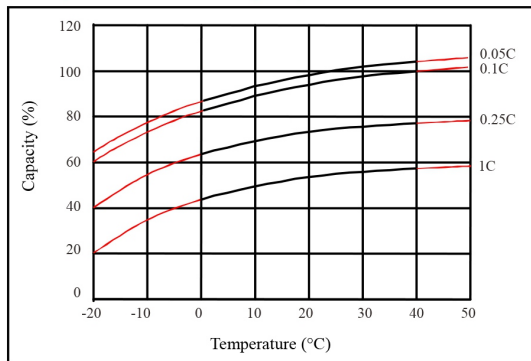
● Discharge characteristics (25°C)



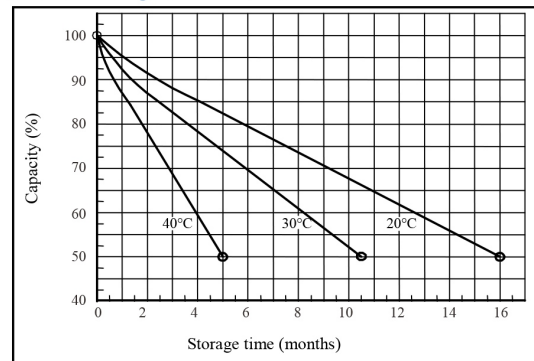
● Charging characteristics (25°C)



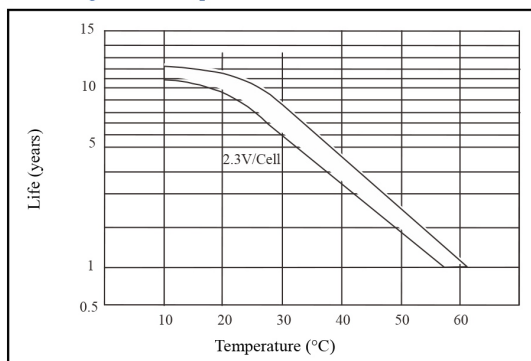
● Temperature effects on capacity



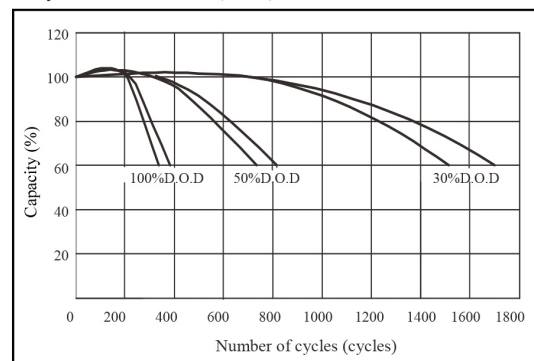
● Self-discharge characteristics



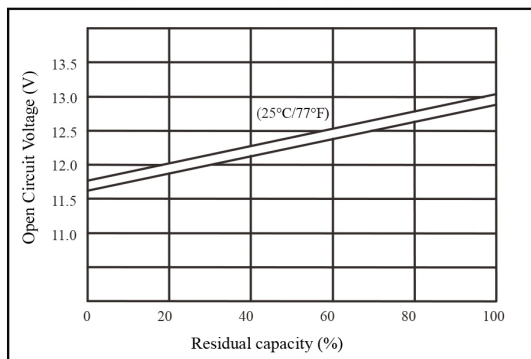
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

