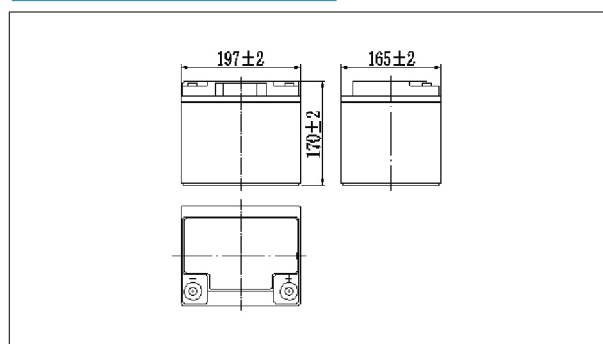


SAM 12-42AH 12V 42AH

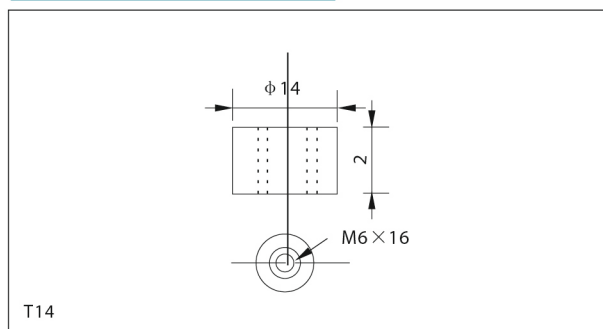
Specifications

Nominal Voltage		12V
Rated capacity (10 hour rate)		42Ah
Dimensions	Length	197 ±2mm(7.76inch)
	Width	165 ±2mm(6.50inch)
	Height	170 ±2mm(6.69inch)
	Total Height	170 ±2mm(6.69inch)
Approx. Weight		11.8kg(29.8lbs) ±3%

Outer dimensions (mm)



Terminal Type (mm)



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:A(25 °C,77 °F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	78.0	64.0	38.8	24.0	14.6	10.4	8.16	6.94	4.90	4.07	2.16
9.90V	75.7	62.5	38.0	23.6	14.5	10.3	8.11	6.90	4.87	4.06	2.15
10.2V	72.5	60.2	36.9	23.0	14.4	10.3	8.06	6.85	4.83	4.05	2.15
10.5V	69.4	58.1	36.0	22.3	14.2	10.2	8.00	6.80	4.80	4.03	2.13
10.8V	65.5	55.0	34.6	21.6	13.8	10.0	7.76	6.60	4.66	4.00	2.12

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

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	842	703	435	274	169	122	96.0	82.0	58.2	48.6	25.9
9.90V	817	686	427	269	168	122	95.4	81.5	57.8	48.5	25.8
10.2V	783	661	414	263	167	121	94.7	80.9	57.4	48.4	25.8
10.5V	750	638	404	254	164	120	94.1	80.4	57.0	48.1	25.6
10.8V	708	604	389	246	160	118	91.3	78.0	55.3	47.8	25.4

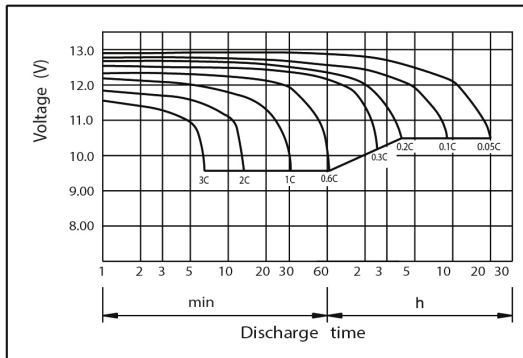
Note: The above characteristics data can be obtained within three charge or discharge cycles.



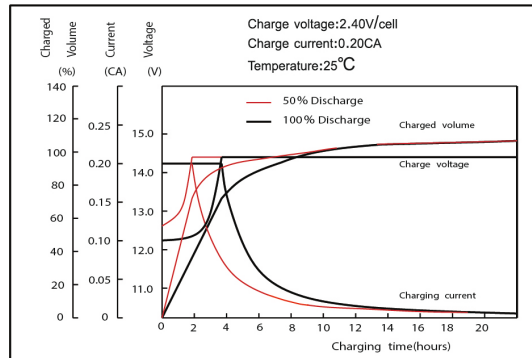
Characteristics

Capacity (25 °C)	10HR(10.8V)	42Ah
	3HR(10.8V)	30Ah
	1HR(10.5V)	22Ah
Terminal type		T14
Internal resistance (Fully charged, 25 °C)		Approx.8.5m Ω
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
Cyclic charging voltage(25 °C)		14.50 to 14.70V Temperature compensation: -30mV/ °C
Maximum charging current		8A
Maximum discharge current		400A(5 sec.)
Designed floating life(20 °C)		12years

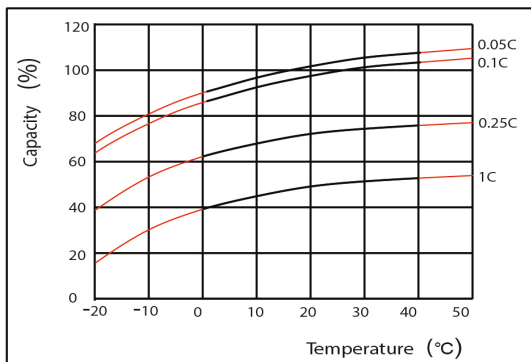
● Discharge characteristics(25°C)



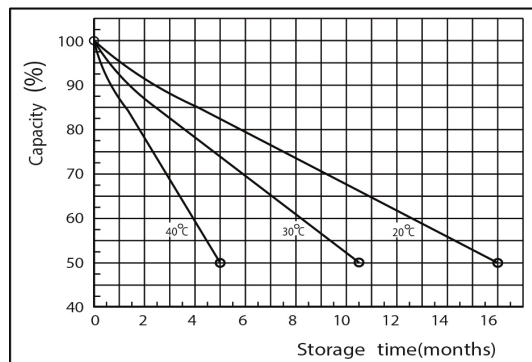
● Charging characteristics (25°C)



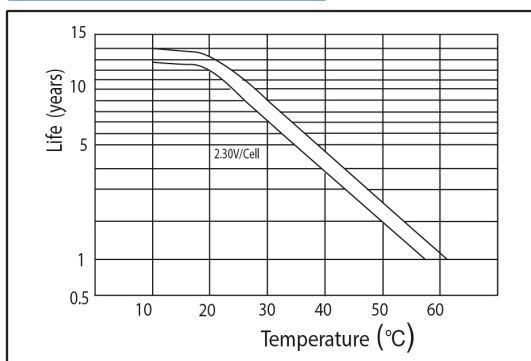
● Temperature effects on Capacity



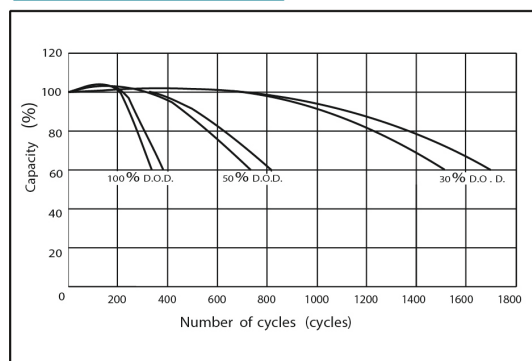
● Self-discharge characteristics



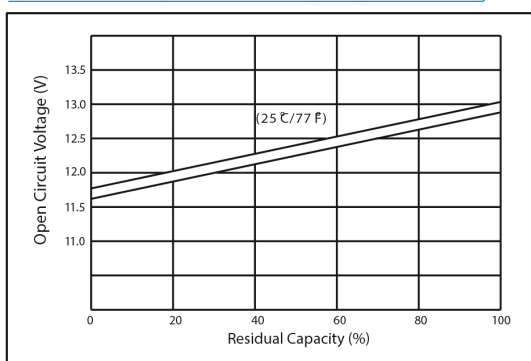
● Floating life on Temperature



● Cycle life on D.O.D (25 °C)



● The relationship for OCV and Capacity (25 °C)



● The relationship for Charging voltage and Temperature

