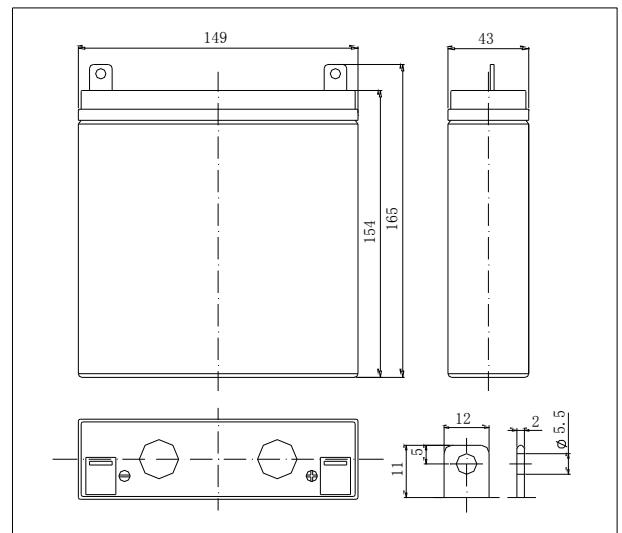


**Specifications**

Nominal Voltage		4 V
Capacity (25°C)	20HR(3.50V)	20 Ah
	10HR(3.50V)	18.7Ah
	1HR(3.20V)	13Ah
Dimension	Length	149 ± 2mm (5.87inch)
	Width	43 ± 1mm (1.69inch)
	Height	154 ± 2mm (6.06inch)
	Total Height	165 ± 2mm (6.50inch)
Approx. Weight		2.2kg (4.85lbs) ± 5%
Terminal type		F17
Internal resistance (Fully charged, 25°C)		Approx. 6mΩ
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)		4.54 to 4.60V Temperature compensation: -6mV/°C
Cyclic charging voltage(25°C)		4.84 to 5.00V Temperature compensation: -10mV/°C
Maximum charging current		6A
Maximum discharge current		300A(5 sec.)
Designed floating life(20°C)		5 years

**Dimensions**

**Constant Current Discharge Characteristics (A, 25°C)**

F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
3.20V	48.4	37.8	21.3	13.1	7.17	4.96	4.10	3.49	2.26	1.89	1.02
3.30V	46.9	36.9	20.9	12.9	7.12	4.93	4.08	3.47	2.25	1.89	1.01
3.40V	45.0	35.5	20.2	12.6	7.06	4.89	4.05	3.44	2.24	1.88	1.01
3.50V	43.1	34.3	19.7	12.3	6.95	4.86	4.02	3.42	2.22	1.87	1.00
3.60V	40.7	32.5	19.0	11.9	6.78	4.71	3.90	3.32	2.15	1.83	0.98

**Constant Power Discharge Characteristics (Watt, 25°C)**

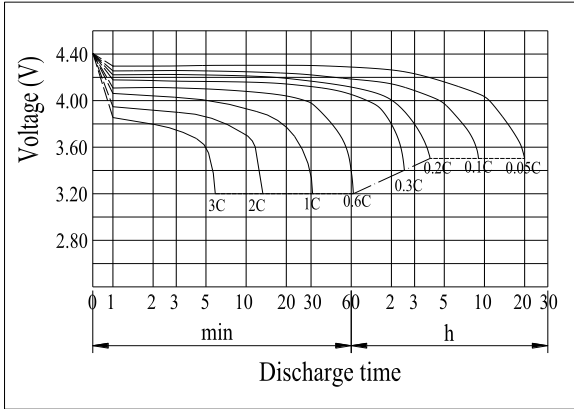
F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
3.20V	182	144	81.4	50.6	27.9	19.6	16.3	13.9	9.06	7.58	4.06
3.30V	177	140	79.7	49.8	27.8	19.5	16.2	13.8	9.00	7.55	4.04
3.40V	169	135	77.3	48.5	27.5	19.4	16.1	13.7	8.94	7.51	4.02
3.50V	162	130	75.4	47.6	27.1	19.2	16.0	13.6	8.88	7.46	4.00
3.60V	153	124	72.7	46.1	26.4	18.7	15.5	13.2	8.61	7.31	3.92

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

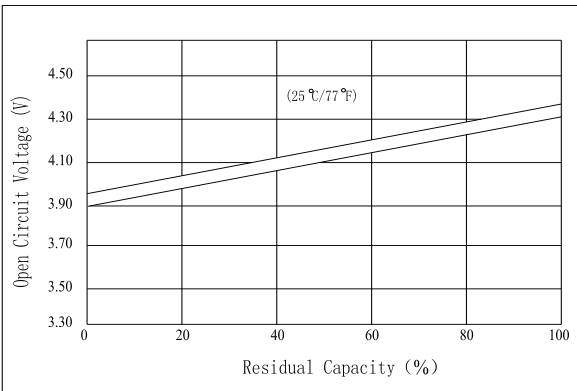
**Construction**

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

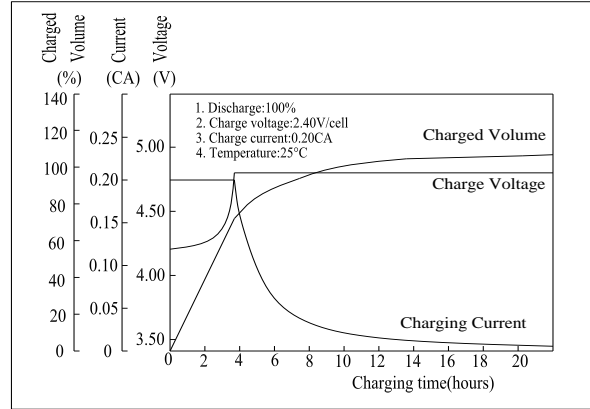
**Discharge Characteristics(25°C)**



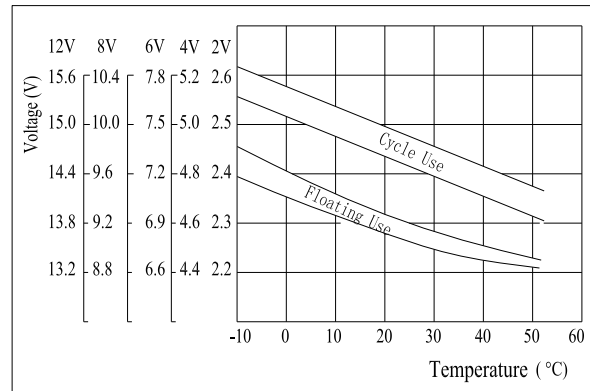
**The Relationship for Open Circuit Voltage and Residual Capacity (25°C)**



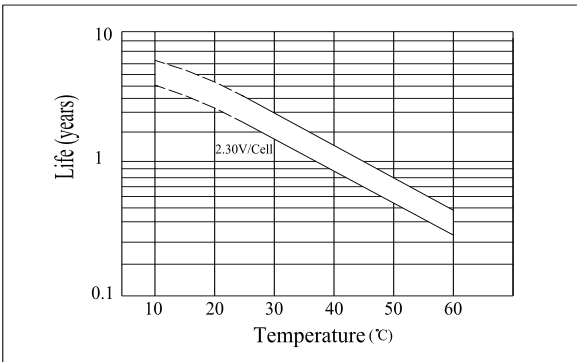
**Charging Characteristics(25°C)**



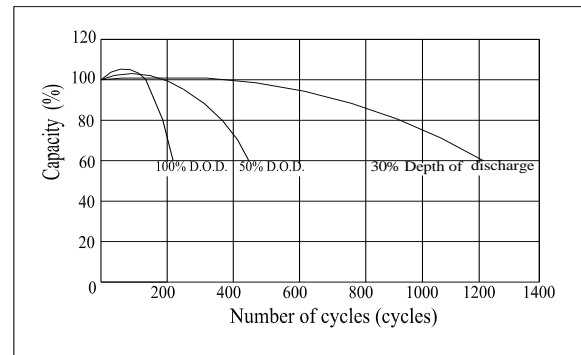
**The Relationship for Charging Voltage and Temperature**



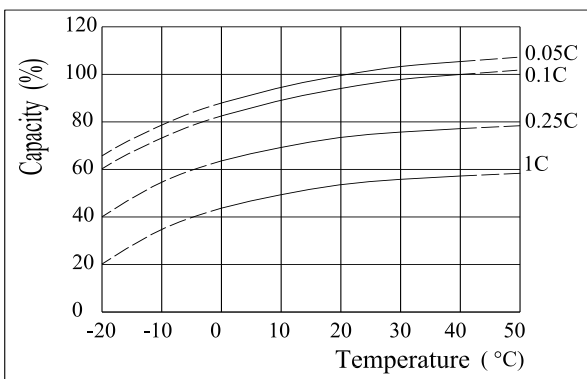
**Floating Life on Temperature**



**Cycle Life on D.O.D(25°C)**



**Effect of Temperature on Capacity**



**Self-discharge Characteristics**

