

ET12-4 (12V 4Ah)

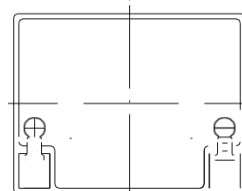
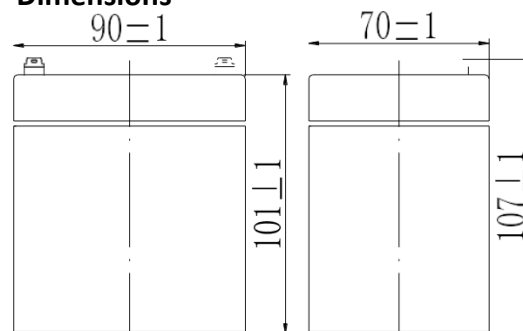


Specifications

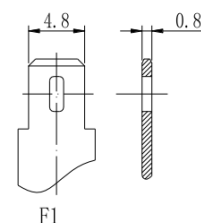
Nominal Voltage		12 V
Capacity (25°C)	10HR(10.8V)	4 Ah
	5HR(10.5V)	3.7 Ah
	1HR(9.60V)	2.6 Ah
Dimension	Length	90±1 mm (3.54 inch)
	Width	70±2 mm (2.76 inch)
	Height	101±2 mm (3.98 inch)
	Total Height	107±2 mm (4.21 inch)
Approx. Weight		1.36 kg (3.0 lbs)±4%
Terminal type		F1
Internal resistance (Fully charged, 25°C)		Approx. 55 mΩ
Capacity affected by temperature (10HR)	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		1.2A
Maximum discharge current		60A (5 sec.)
Designed floating life(20°C)		5 years



Dimensions



Terminals



Constant Current Discharge Characteristics (Ampere @ 25°C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	15.3	9.68	7.56	4.26	2.62	1.43	0.99	0.82	0.70	0.38	0.20
9.90V	14.8	9.39	7.38	4.17	2.58	1.42	0.99	0.82	0.69	0.38	0.20
10.2V	14.2	9.00	7.11	4.05	2.52	1.41	0.98	0.81	0.69	0.38	0.20
10.5V	13.6	8.62	6.86	3.95	2.47	1.39	0.97	0.80	0.68	0.37	0.20
10.8V	12.8	8.13	6.50	3.80	2.39	1.36	0.94	0.78	0.66	0.37	0.20

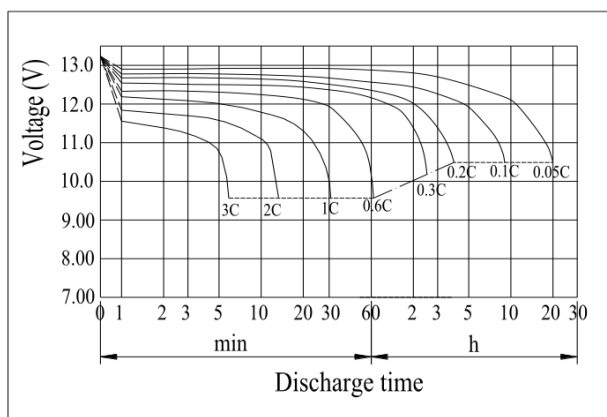
Constant Power Discharge Characteristics (Watt @ 25°C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	171	109	86.2	48.8	30.3	16.8	11.8	9.77	8.33	4.55	2.44
9.90V	165	106	84.1	47.8	29.9	16.7	11.7	9.71	8.28	4.53	2.43
10.2V	159	102	81.0	46.4	29.1	16.5	11.6	9.64	8.22	4.51	2.41
10.5V	152	97.2	78.3	45.3	28.5	16.3	11.5	9.58	8.17	4.48	2.40
10.8V	143	91.7	74.1	43.6	27.7	15.9	11.2	9.29	7.92	4.39	2.35

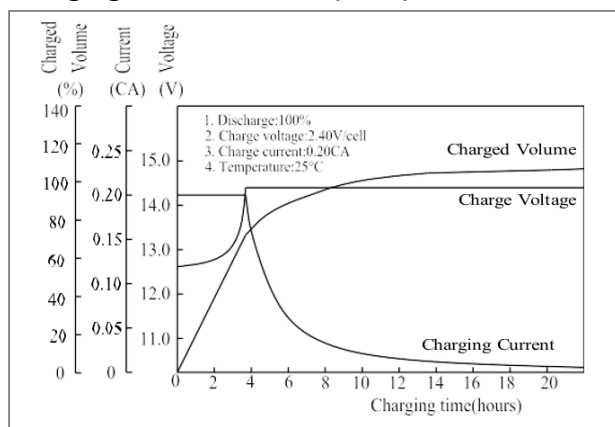
Construction

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

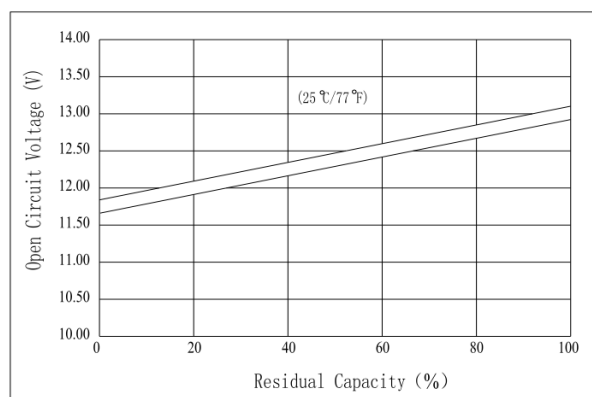
Discharge Characteristics (25°C)



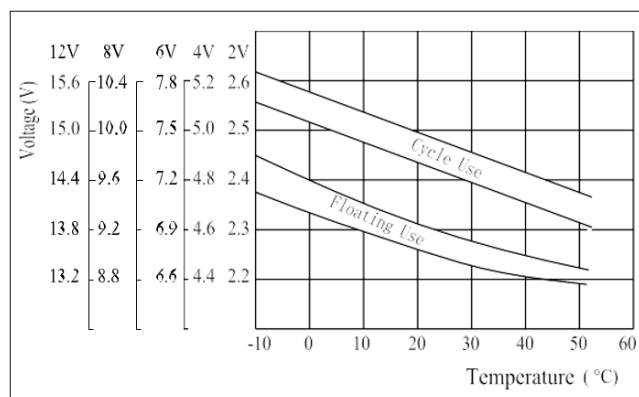
Charging Characteristics (25°C)



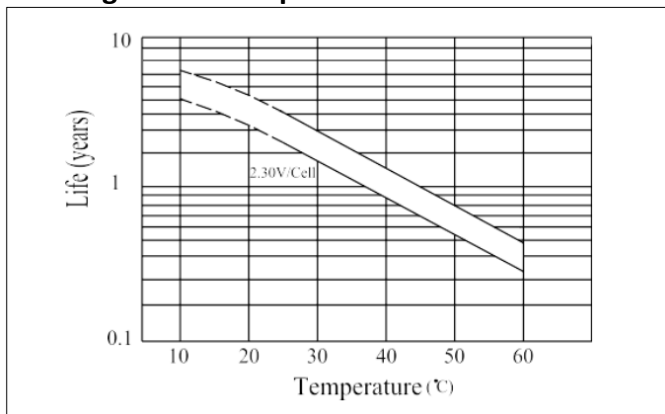
The Relationship for Open Circuit Voltage



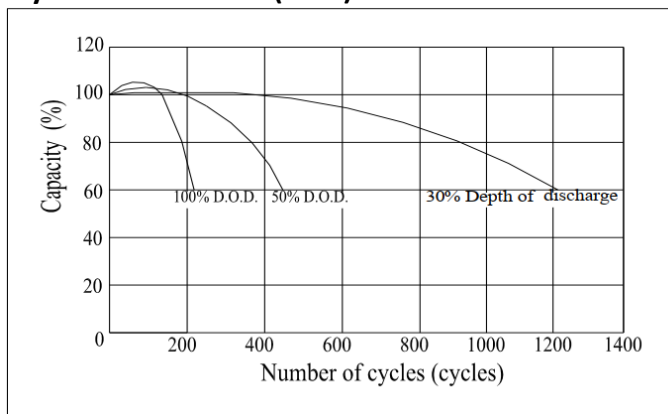
The Relationship for Charging Voltage and



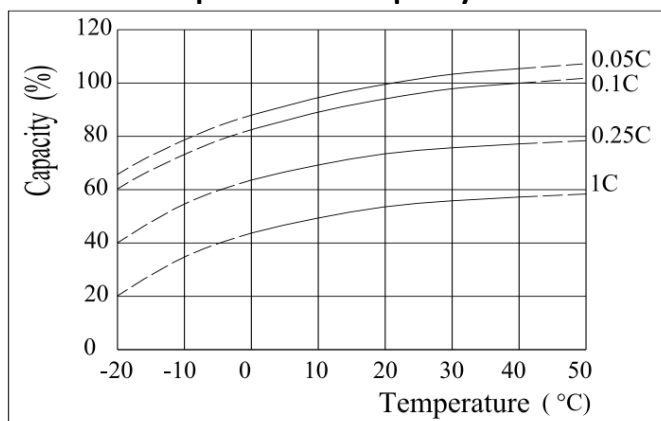
Floating Life on Temperature



Cycle Life on D.O.D (25°C)



Effect of Temperature on Capacity



Self-discharge Characteristics

