

HA12-3.2 HEY

Specifications

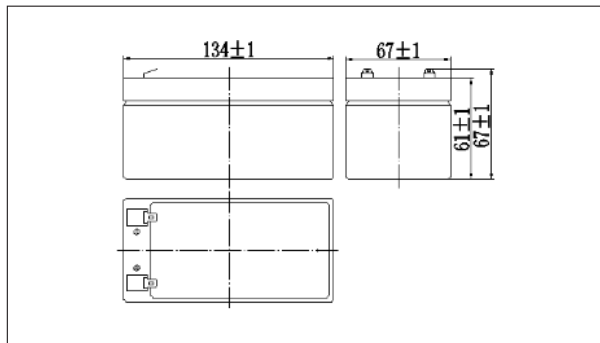
Nominal Voltage		12V
Rated capacity (20 hour rate)		3.2Ah
Dimensions	Length	134 ± 1mm(5.28inch)
	Width	67 ± 1mm(2.64inch)
	Height	61 ± 1mm(2.40inch)
	Total Height	67 ± 1mm(2.64inch)
Approx. Weight		1.2kg(2.65lbs) ± 5%



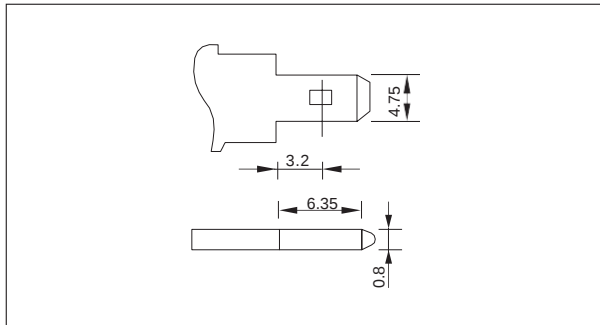
Characteristics

Capacity (25°C)	20HR(10.5V)	3.2Ah
	10HR(10.5V)	3.0Ah
	1HR(9.60V)	2.0Ah
Terminal type		T1
Internal resistance (Fully charged, 25°C)		Approx. 50mΩ
Capacity affected by temperature (20HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
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)		13.50 to 13.80V Temperature compensation: -18mV/°C
Cyclic charging voltage (25°C)		14.50 to 15.00V Temperature compensation: -30mV/°C
Maximum charging current		0.96A
Maximum discharge current		48A (5 sec.)
Designed floating life (20°C)		5 years

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	Sulfuric acid	Rubber	Copper

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

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	12.2	7.74	6.05	3.41	2.10	1.15	0.79	0.66	0.56	0.30	0.16
9.90V	11.9	7.51	5.90	3.34	2.06	1.14	0.79	0.65	0.55	0.30	0.16
10.2V	11.4	7.20	5.69	3.24	2.01	1.13	0.78	0.65	0.55	0.30	0.16
10.5V	10.9	6.89	5.49	3.16	1.97	1.11	0.78	0.64	0.55	0.30	0.16
10.8V	10.3	6.50	5.20	3.04	1.91	1.08	0.75	0.62	0.53	0.29	0.16

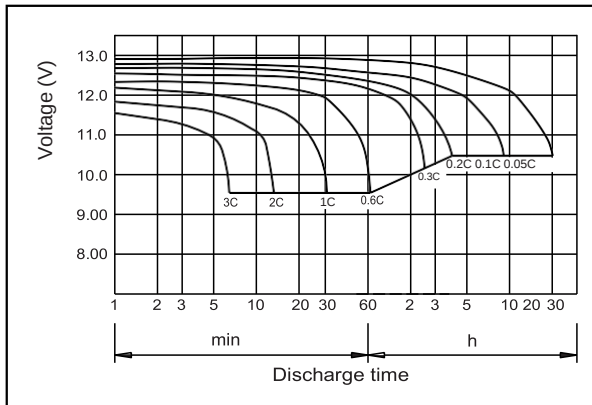
Constant Power Discharge Characteristics Unit: W(25°C, 77°F)

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	136	87.4	68.9	39.1	24.3	13.4	9.42	7.81	6.66	3.64	1.95
9.90V	132	84.7	67.3	38.3	23.9	13.3	9.37	7.77	6.63	3.62	1.94
10.2V	127	81.2	64.8	37.1	23.3	13.2	9.30	7.71	6.58	3.60	1.93
10.5V	121	77.7	62.6	36.2	22.8	13.0	9.24	7.66	6.53	3.58	1.92
10.8V	115	73.4	59.3	34.9	22.1	12.7	8.96	7.43	6.34	3.51	1.88

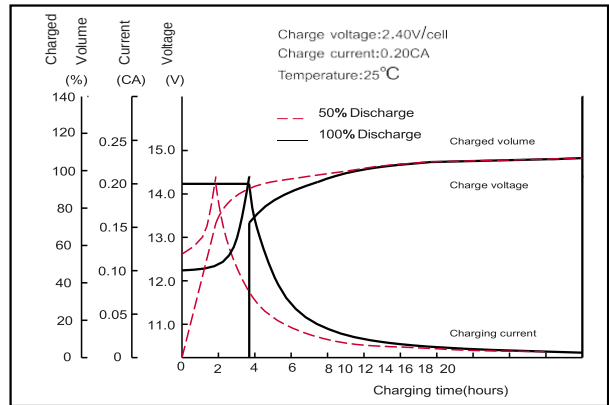
Note: The above characteristics data can be obtained within three charge or discharge cycles.

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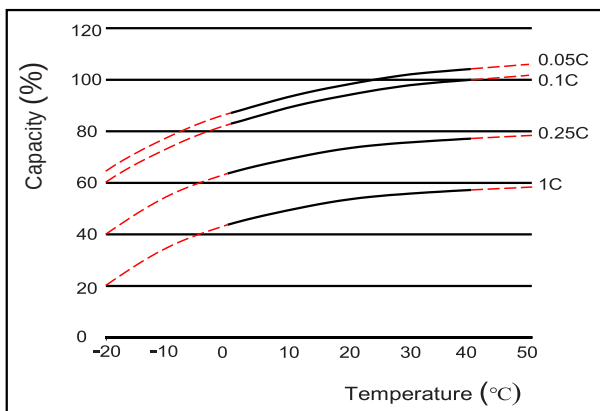
Discharge characteristics(25°C)



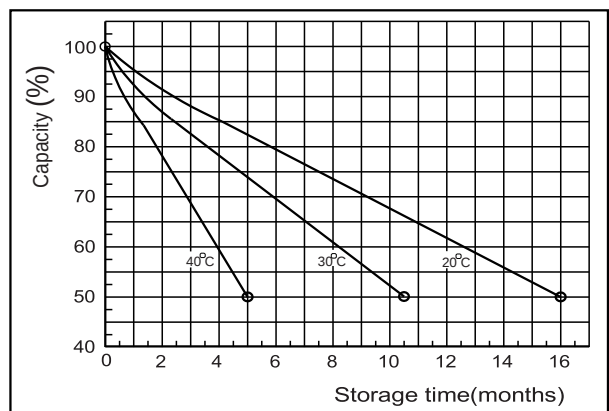
Charging characteristics (25°C)



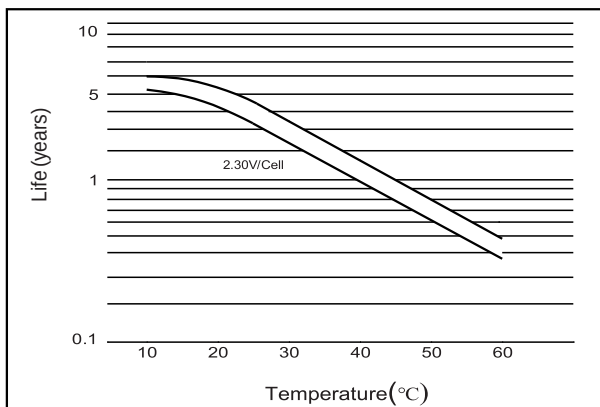
Effect of temperature on capacity



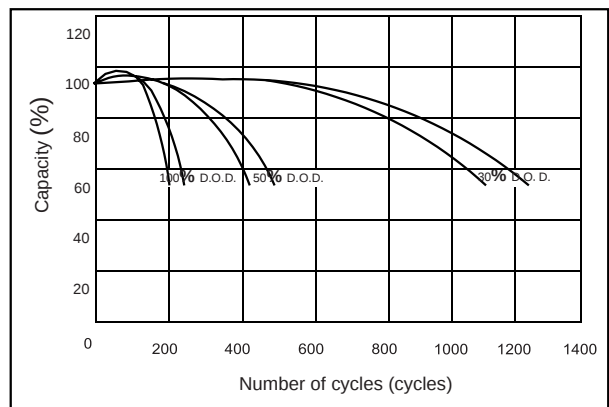
Self-discharge characteristics



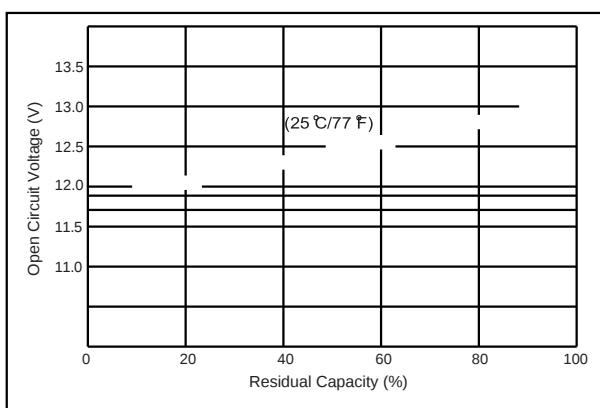
Floating life on temperature



Cycle life on D.O.D(25°C)



The relationship for OCV and Capacity (25°C)



The relationship for Charging voltage and Temperature

