

HA12-250 HEY

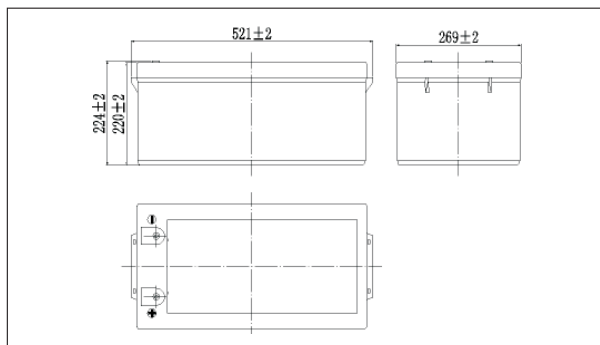
Specifications

Nominal Voltage		12V
Rated capacity (10 hour rate)		230Ah
Dimensions	Length	521 ± 2mm(20.51inch)
	Width	269 ± 2mm(10.59inch)
	Height	220 ± 2mm(8.66inch)
	Total Height	224 ± 2mm(8.82inch)
Approx. Weight		69.1kg(152.3lbs) ± 3%

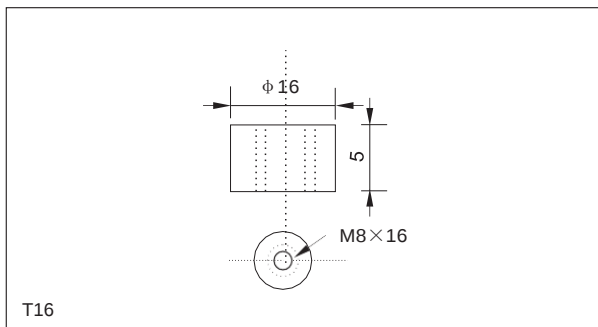


NOTE: image not real of HA12-250 HEY

Outer dimensions (mm)



Terminal Type (mm)



Characteristics

Capacity (25°C)	10HR(10.8V)	230Ah
	3HR(10.8V)	172.5Ah
	1HR(10.5V)	126.5Ah
Terminal type		T16
Internal resistance (Fully charged, 25°C)		Approx. 3mΩ
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 15.00V Temperature compensation: -30mV/°C
Maximum charging current		69A
Maximum discharge current		1500A (5 sec.)
Designed floating life (20°C)		10 years

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	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
9.60V	420	251	155	91.4	65.8	52.5	44.9	39.0	30.9	25.5	13.5
9.90V	410	246	152	90.8	65.4	52.2	44.6	38.8	30.7	25.4	13.5
10.2V	395	239	148	90.0	65.0	51.9	44.3	38.5	30.5	25.3	13.4
10.5V	381	233	144	88.7	64.5	51.5	44.0	38.3	30.3	25.2	13.3
10.8V	361	224	139	86.4	62.6	50.0	42.7	37.1	29.3	25.0	13.3

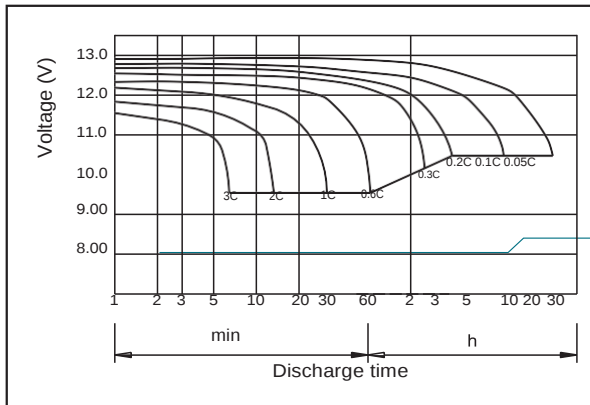
Constant Power Discharge Characteristics Unit: W(25°C, 77°F)

F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
9.60V	4612	2819	1761	1058	774	618	530	461	367	304	162
9.90V	4501	2763	1735	1052	769	614	527	458	364	303	162
10.2V	4335	2678	1691	1042	764	610	524	455	362	302	161
10.5V	4187	2613	1638	1027	759	606	520	452	359	301	160
10.8V	3966	2517	1585	1001	736	587	504	439	349	299	159

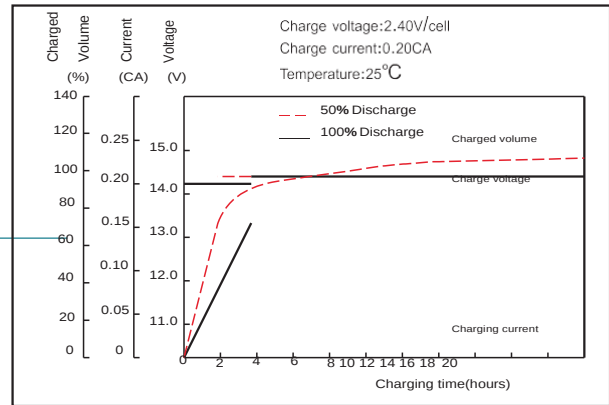
Note: The above characteristics data can be obtained within three charge or discharge cycles.

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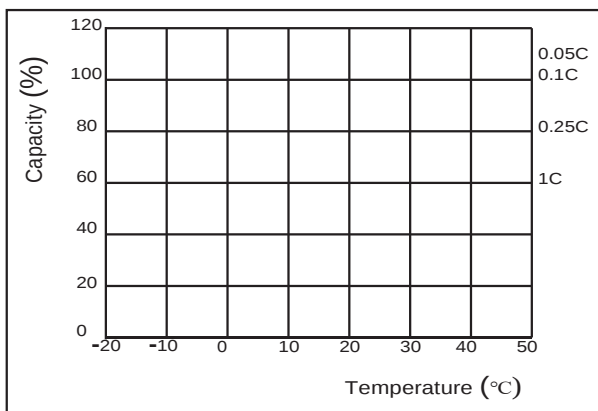
Discharge characteristics(25°C)



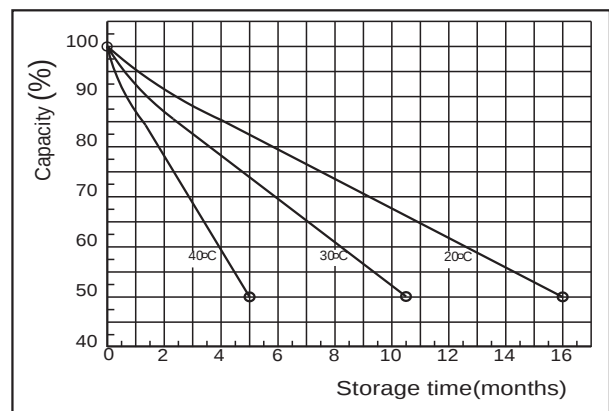
Charging characteristics(25°C)



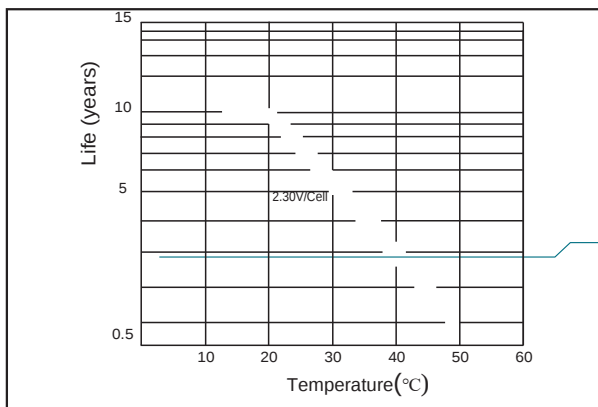
Temperature effects on Capacity



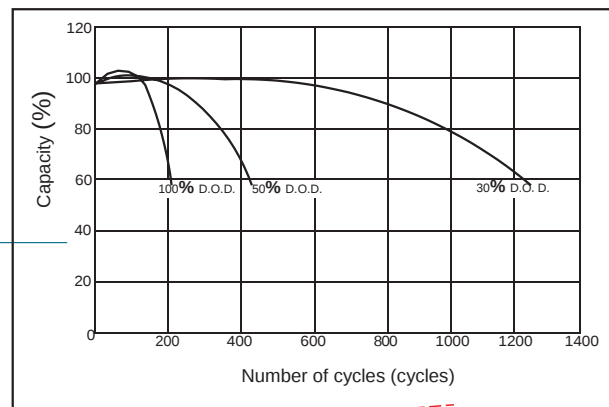
Self-discharge characteristics



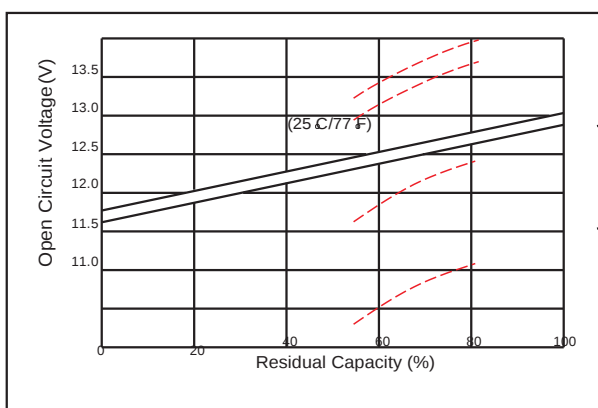
Floating life on Temperature



Cycle life on D.O.D(25°C)



The relationship for OCV and Capacity (25°C)



The relationship for Charging voltage and Temperature

