

HR12280W (12V280 Watts/cell)

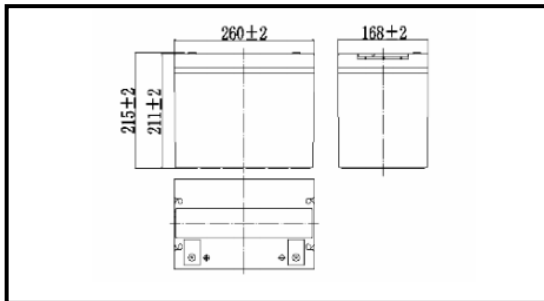
Valve Regulated Lead Acid Battery

Specifications

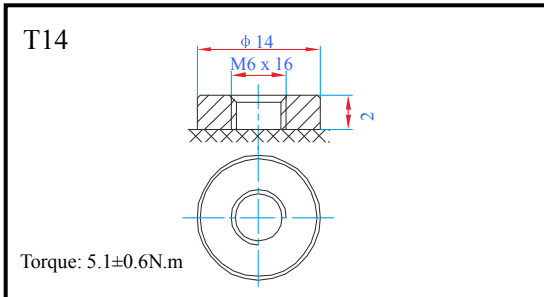
Nominal voltage	12V (6 cells per unit)	
Rated Power (15min. rate)	280 Watts/cell /1.67V	
Dimensions	Length	260±2mm (10.24inch)
	Width	168±2mm (6.61inch)
	Height	211±2mm (8.31inch)
	Total height	215±2mm (8.46inch)
Approx. weight	25.30kg (55.76lbs)±3%	



Outer dimensions (mm)



Terminal type (mm)



Characteristics

Capacity (25°C)	15min. rate	280Watts/cell /1.67V
	10HR	70Ah/10.8V
Terminal type		T14
Internal resistance (Fully charged, 25°C)		Approx. 5mΩ
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/Block
Cyclic charging voltage (25°C)		14.50 to 15.00V Temperature compensation: -30mV/°C/Block
Maximum charging current		22.4A
Maximum discharge current		700A (5 sec.)
Design life	10 years for floating (25°C)	
	Eurobat (20°C): 10-12 years, long life.	

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: Ampere/cell (at 25°C, 77°F)

F.V/Time	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h	6h
1.60V/cell	210.45	163.50	124.80	92.54	65.83	51.60	27.40	19.70	15.80	13.80	11.80
1.67V/cell	201.25	158.05	119.60	89.60	63.65	50.30	27.20	19.50	15.70	13.60	11.70
1.70V/cell	195.50	153.69	117.52	87.96	62.50	49.60	27.00	19.40	15.60	13.60	11.60
1.75V/cell	187.45	148.24	113.36	85.78	61.05	48.60	26.60	19.30	15.50	13.50	11.60
1.80V/cell	177.10	140.61	107.12	82.62	58.76	47.10	25.90	18.70	15.10	13.10	11.20

Constant power discharge characteristics unit: Watt/cell (at 25°C, 77°F)

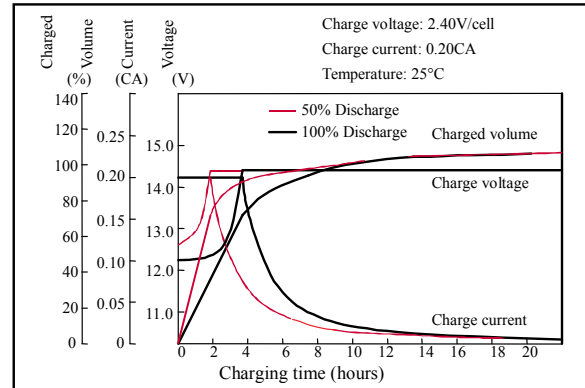
F.V/Time	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h	6h
1.60V/cell	378.40	289.00	237.93	175.48	128.10	99.60	53.40	38.70	31.20	27.30	23.30
1.67V/cell	361.90	281.00	228.66	170.13	123.90	97.10	53.00	38.40	30.90	27.00	23.10
1.70V/cell	352.00	272.00	223.51	170.13	121.80	95.60	52.70	38.20	30.80	26.90	23.00
1.75V/cell	336.60	263.00	216.30	162.64	118.65	93.70	51.90	38.00	30.60	26.70	22.90
1.80V/cell	317.90	249.00	204.97	156.22	114.45	90.90	50.50	36.80	29.70	25.90	22.20

Note 1: Above characteristics data can be obtained within three charge and discharge cycles.

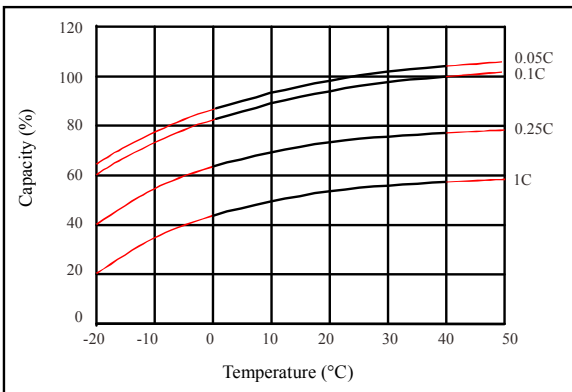
● Discharge characteristics (25°C)



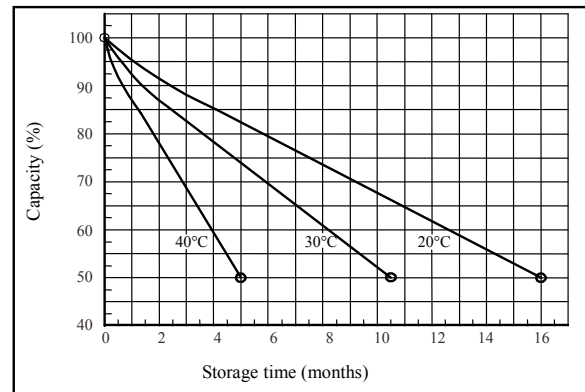
● Charging characteristics (25°C)



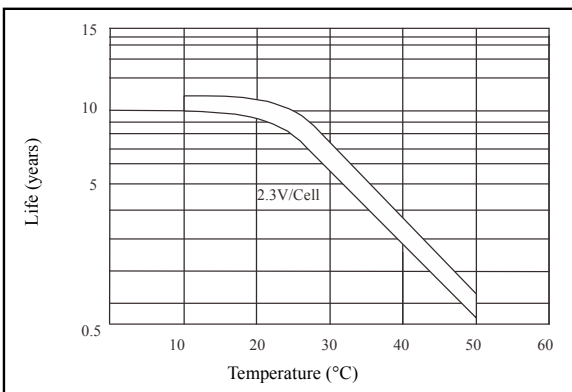
● Temperature effects on capacity



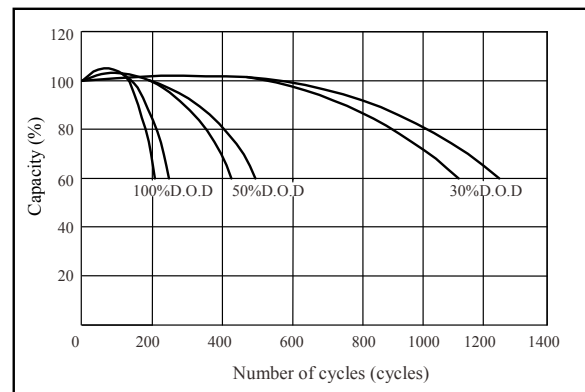
● Self-discharge characteristics



● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

