

HR12330W (12V330 Watts/cell)

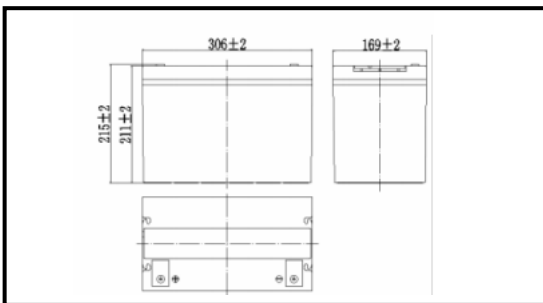
Valve Regulated Lead Acid Battery



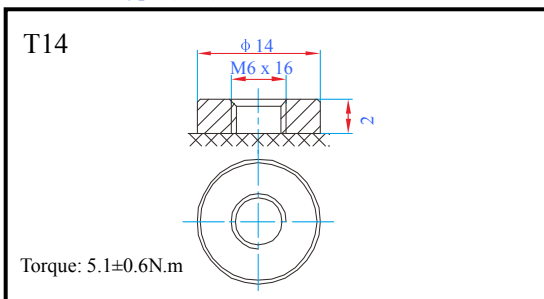
Specifications

Nominal voltage	12V (6 cells per unit)	
Rated capacity (15min. rate)	330 Watts/cell /1.67V	
Dimensions	Length	306±2mm (12.05inch)
	Width	169±2mm (6.65inch)
	Height	211±2mm (8.31inch)
	Total height	215±2mm (8.46inch)
Approx. weight	28.50kg (62.80lbs)±3%	

Outer dimensions (mm)



Terminal type (mm)



Characteristics

Capacity (25°C)	15min. rate	330 Watts/cell /1.67V
	10HR	90Ah/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		26.4A
Maximum discharge current		800A (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	234.74	190.36	152.51	114.22	80.47	60.70	34.70	24.90	20.10	17.40	14.90
1.67V/cell	224.91	184.95	146.02	110.56	77.88	59.20	34.40	24.70	19.90	17.30	14.80
1.70V/cell	218.36	179.55	142.77	108.50	76.36	58.20	34.20	24.60	19.80	17.20	14.70
1.75V/cell	209.63	173.06	138.44	105.87	74.52	57.10	33.70	24.40	19.70	17.10	14.60
1.80V/cell	197.62	163.32	130.87	101.97	71.82	55.30	32.80	23.70	19.10	16.60	14.20

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

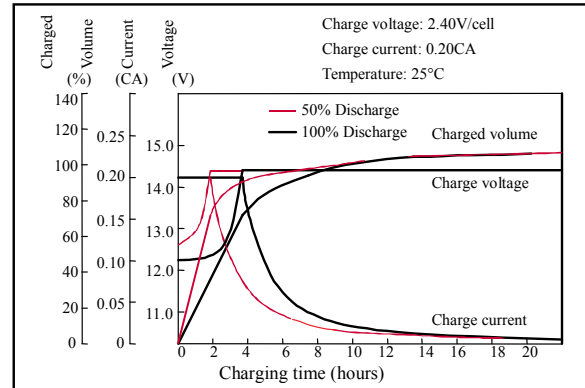
F.V/Time	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h	6h
1.60V/cell	446.35	343.40	288.56	216.84	158.76	117.00	67.70	49.10	39.50	34.50	29.50
1.67V/cell	425.41	330.00	276.89	208.97	153.25	114.00	67.10	48.60	39.20	34.20	29.30
1.70V/cell	414.39	323.20	271.59	205.60	149.94	112.00	66.70	48.40	39.00	34.10	29.20
1.75V/cell	396.76	312.09	262.04	201.11	146.63	110.00	65.70	48.10	38.70	33.90	29.00
1.80V/cell	374.71	294.92	248.25	193.24	141.12	107.00	64.00	46.70	37.60	32.80	28.10

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

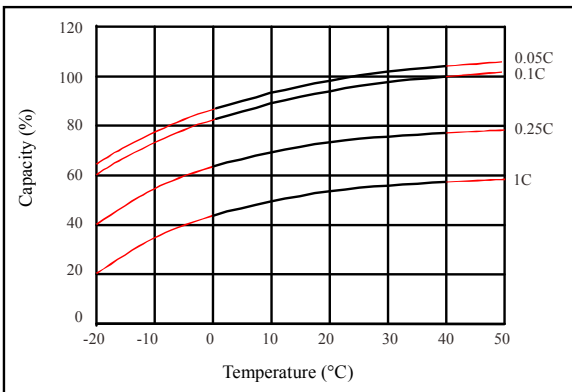
● Discharge characteristics (25°C)



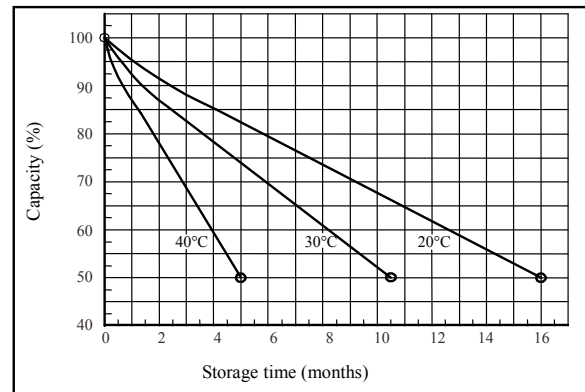
● Charging characteristics (25°C)



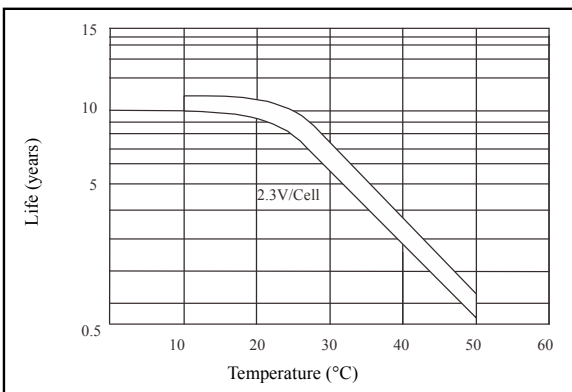
● Temperature effects on capacity



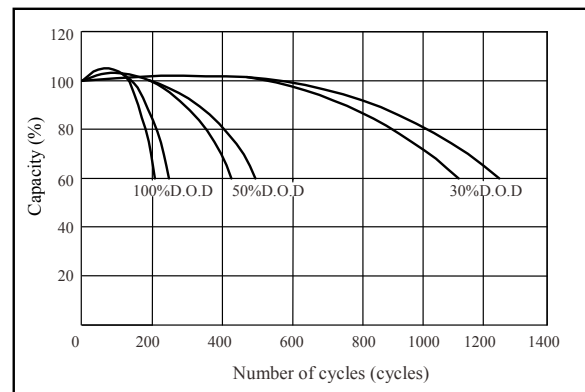
● Self-discharge characteristics



● 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

