

# HR12130W (12V130 Watts/cell)

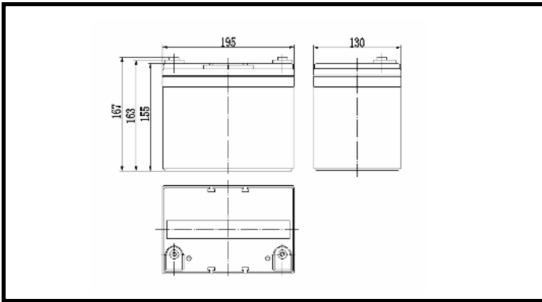
## Valve Regulated Lead Acid Battery



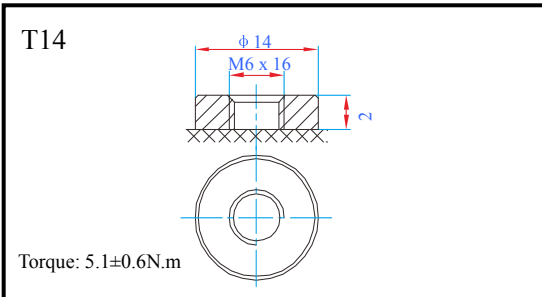
### Specifications

Nominal voltage	12V (6 cells per unit)	
Rated capacity (15min. rate)	130 Watts/cell /1.67V	
Dimensions	Length	195±2mm (7.68inch)
	Width	130±2mm (5.12inch)
	Height	155±2mm (6.10inch)
	Total height	167±2mm (6.57inch)
Approx. weight	11.50kg (25.40lbs)±3%	

### Outer dimensions (mm)



### Terminal type (mm)



### Characteristics

Capacity (25°C)	15min. rate	130 Watts/cell /1.67V
	10HR	33Ah/10.8V
Terminal type		T14
Internal resistance (Fully charged, 25°C)		Approx. 8mΩ
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		10.4A
Maximum discharge current		330A (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)

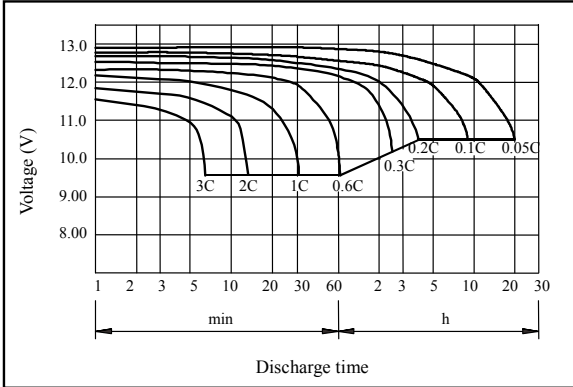
F.V/Time	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h	6h
1.60V/cell	90.93	74.43	56.16	39.79	29.30	23.90	12.10	8.65	6.97	6.06	5.18
1.67V/cell	86.86	72.19	53.93	38.48	28.40	23.30	12.00	8.57	6.91	6.01	5.14
1.70V/cell	84.61	69.94	52.82	37.77	27.90	23.00	11.90	8.54	6.88	5.98	5.12
1.75V/cell	80.97	67.58	51.01	36.87	27.20	22.50	11.70	8.48	6.83	5.94	5.08
1.80V/cell	76.47	64.05	48.28	35.55	26.20	21.80	11.40	8.23	6.63	5.76	4.93

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

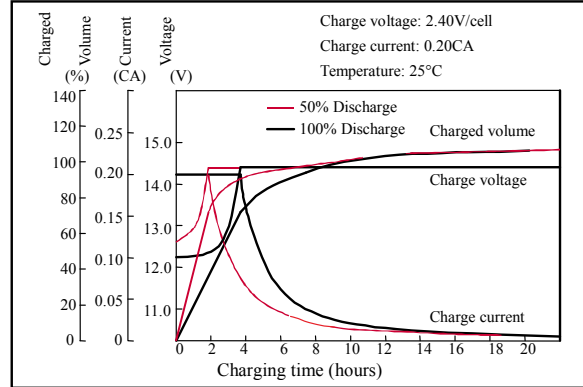
F.V/Time	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h	6h
1.60V/cell	166.46	135.34	108.07	76.76	56.60	46.20	23.50	17.00	13.70	12.00	10.30
1.67V/cell	159.18	130.00	104.03	74.34	54.80	45.00	23.30	16.90	13.60	11.90	10.20
1.70V/cell	155.02	127.26	102.01	72.92	53.80	44.40	23.20	16.80	13.60	11.80	10.10
1.75V/cell	147.73	123.22	98.37	71.21	52.50	43.50	22.80	16.70	13.50	11.80	10.10
1.80V/cell	139.41	116.15	93.22	68.58	50.60	42.10	22.20	16.20	13.10	11.40	9.76

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

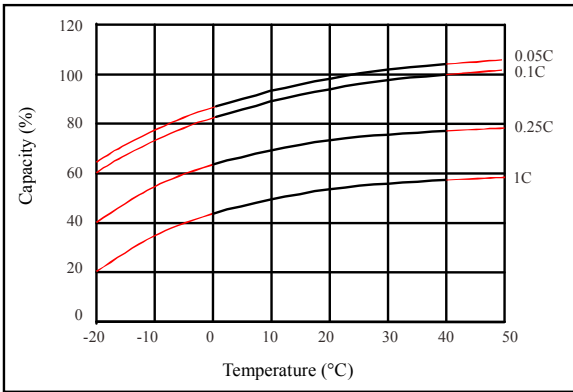
● Discharge characteristics (25°C)



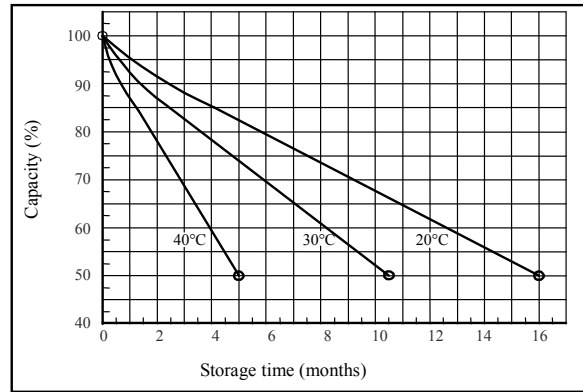
● Charging characteristics (25°C)



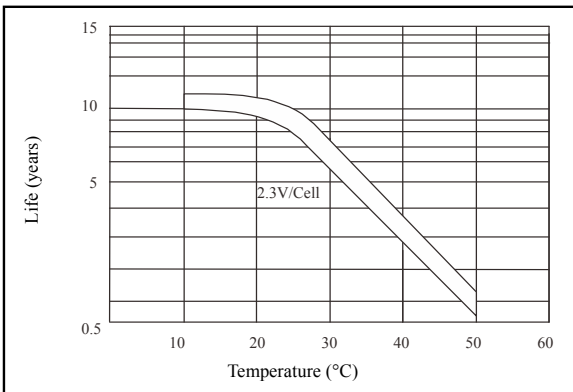
● Temperature effects on capacity



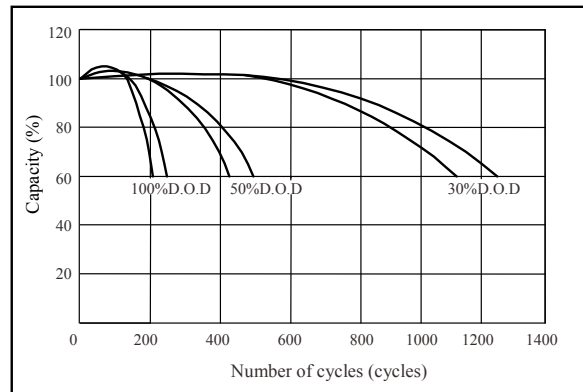
● Self-discharge characteristics



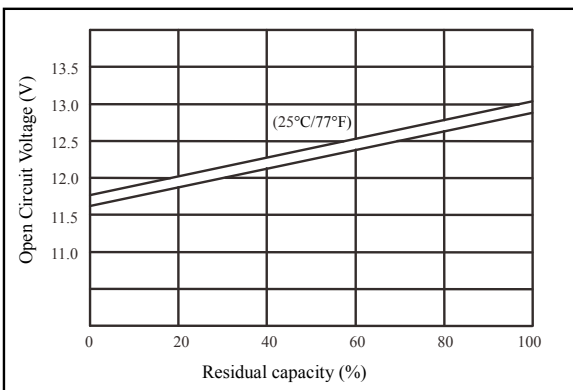
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

