

HR1235W (12V35 Watts/cell)

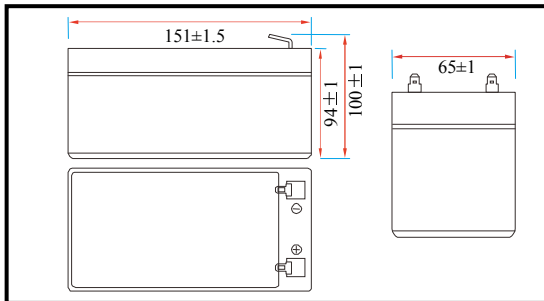
Valve Regulated Lead Acid Battery



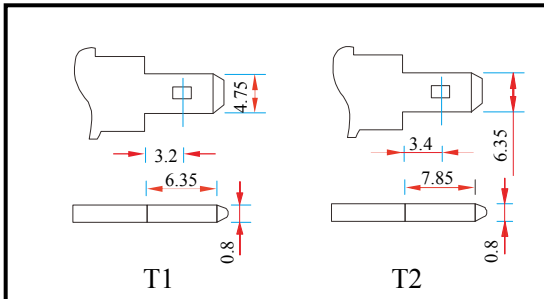
Specifications

Nominal voltage	12V (6 cells per unit)	
Rated capacity (15min. rate)	35 Watts/cell /1.67V	
Dimensions	Length	151±1.5mm (5.94inch)
	Width	65±1mm (2.56inch)
	Height	94±1mm (3.70inch)
	Total height	100±1mm (3.90inch)
Approx. weight	2.73kg (6.02lbs)±4%	

Outer dimensions (mm)



Terminal type (mm)



Characteristics

Capacity (25°C)	15min. rate	35 Watts/cell /1.67V
	20HR	9Ah/10.5V
Terminal type		T2/T1
Internal resistance (Fully charged, 25°C)		Approx. 17mΩ
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)		13.60 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		2.8A
Maximum discharge current		135A (5 sec.)
Short circuit current		375A
Design life	8 years for floating (25°C)	
	Eurobat (20°C): 6-9 years, General Purpose.	

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	5min	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h
1.60V/cell	42.5	25.7	18.69	14.80	12.22	7.49	5.92	3.31	2.35	1.89	1.62
1.67V/cell	38.8	24.6	18.06	14.17	11.82	7.25	5.78	3.28	2.33	1.87	1.61
1.70V/cell	35.9	23.9	17.53	13.86	11.60	7.12	5.68	3.26	2.32	1.87	1.60
1.75V/cell	32.7	22.9	17.01	13.44	11.32	6.94	5.57	3.21	2.30	1.85	1.59
1.80V/cell	30.8	21.5	16.06	12.94	10.91	6.68	5.40	3.13	2.23	1.80	1.55

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

F.V/Time	5min	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h
1.60V/cell	76.8	47.9	36.8	28.4	20.4	14.5	11.5	6.58	4.72	3.80	3.27
1.67V/cell	72.6	45.7	35.5	27.3	19.7	14.2	11.2	6.52	4.68	3.77	3.24
1.70V/cell	70.0	44.5	34.5	26.7	19.4	14.0	11.0	6.48	4.66	3.75	3.22
1.75V/cell	66.4	42.6	33.4	25.8	18.9	13.7	10.8	6.39	4.63	3.73	3.20
1.80V/cell	60.8	40.3	31.6	24.4	18.2	13.5	10.5	6.22	4.49	3.61	3.11

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

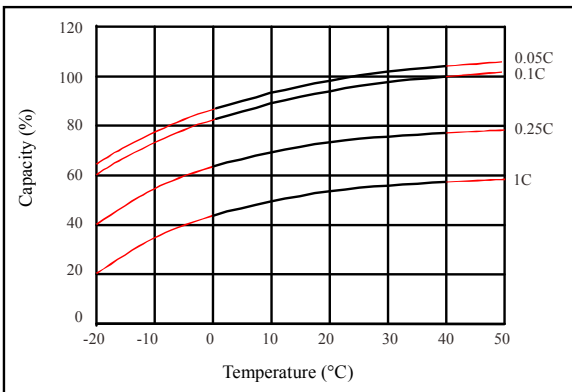
● Discharge characteristics (25°C)



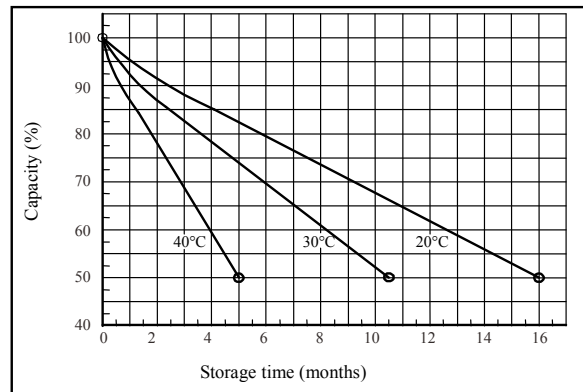
● Charging characteristics (25°C)



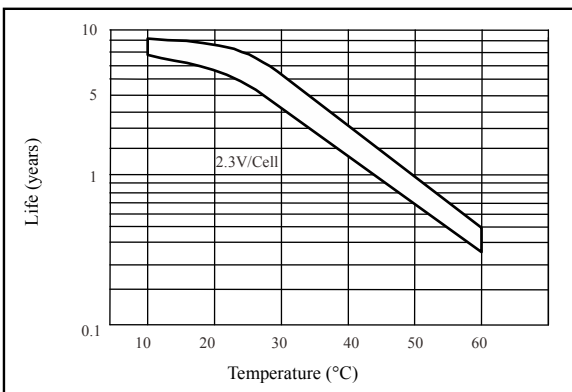
● Temperature effects on capacity



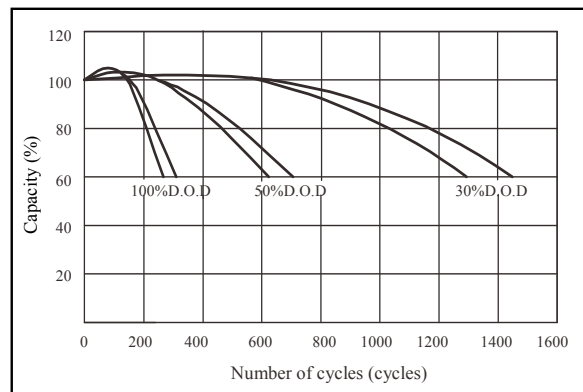
● Self-discharge characteristics



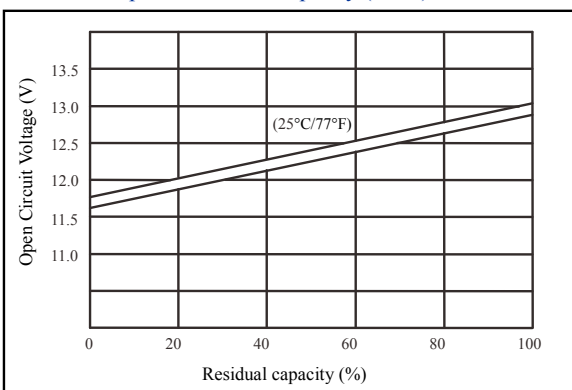
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

