



The **WISE** Choice



**SEALED MAINTENANCE FREE
VALVE REGULATED LEAD ACID BATTERY
EM100 VB - 12V 100AH**

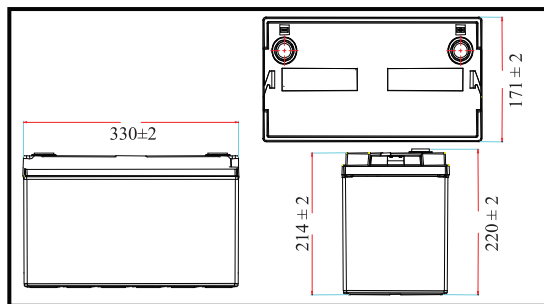
● **Characteristics**

Capacity (25°C)	10HR (10.8V)	100Ah
	3HR (10.8V)	75Ah
	1HR (10.5V)	55Ah
Terminal type		T16
Internal resistance (Fully charged, 25°C)		Approx. 4.5mΩ
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		30A
Maximum discharge current		800A (5 sec.)
Design life	10 years for floating (25°C)	
	Eurobat (20°C): 10-12 years, long life.	

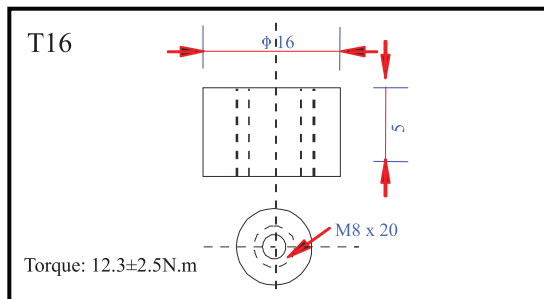
● **Specifications**

Nominal voltage		12V (6 cells per unit)
Rated capacity (10HR)		100Ah/10.8V
Dimensions	Length	330±2mm (12.99inch)
	Width	171±2mm (6.73inch)
	Height	214±2mm (8.43inch)
	Total height	220±2mm (8.66inch)
Approx. weight		29.50kg (65.04lbs)±3%

● **Outer dimensions (mm)**



● **Terminal type (mm)**



EM 100VB - 12V100Ah

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/Block (at 25°C, 77°F)

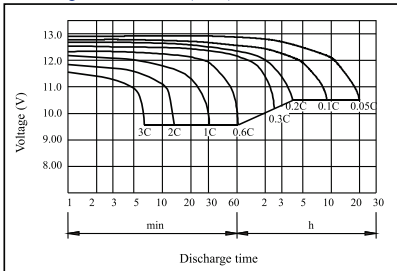
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	218	168	101	61.8	36.5	26.3	21.0	18.0	12.3	10.2	5.40
9.90V	211	164	98.5	60.9	36.3	26.2	20.9	17.8	12.3	10.2	5.38
10.2V	203	158	95.5	59.3	36.0	26.0	20.7	17.7	12.2	10.1	5.37
10.5V	194	153	93.2	57.5	35.5	25.8	20.6	17.6	12.1	10.1	5.34
10.8V	183	144	89.7	55.6	34.6	25.0	20.0	17.1	11.7	10.0	5.30

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

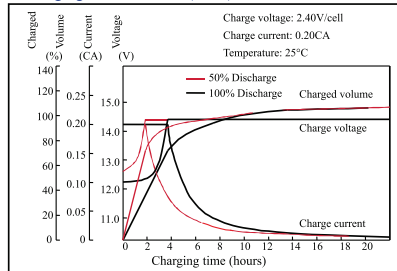
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2354	1845	1128	705	423	309	247	212	147	122	64.7
9.90V	2284	1800	1105	694	421	308	246	211	146	121	64.6
10.2V	2190	1734	1071	676	417	306	244	209	145	121	64.4
10.5V	2095	1675	1045	655	411	303	242	208	144	120	64.0
10.8V	1978	1586	1007	634	400	294	235	202	139	119	63.6

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

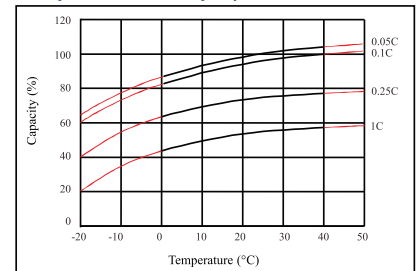
Discharge characteristics (25°C)



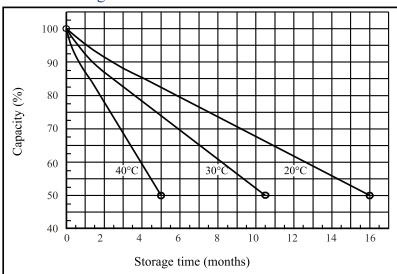
Charging characteristics (25°C)



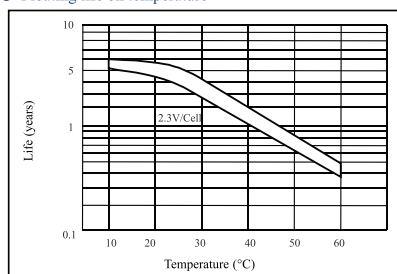
Temperature effects on capacity



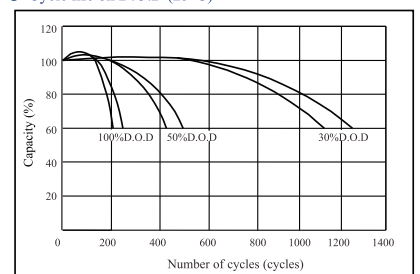
Self-discharge characteristics



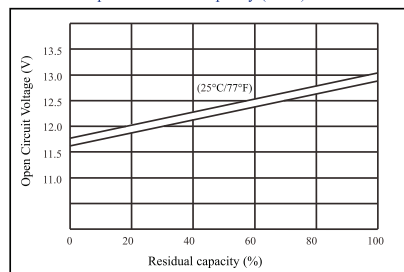
Floating life on temperature



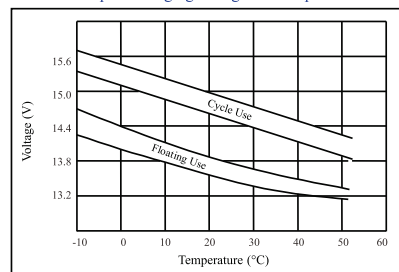
Cycle life on D.O.D (25°C)



Relationship for OCV and capacity (25°C)



Relationship for charging voltage and temperature



Certification

