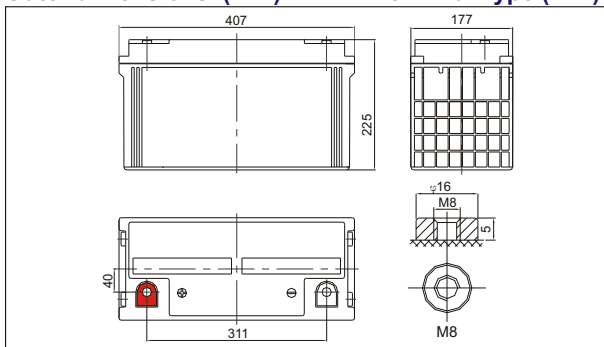


MRW-12/100G is long cycle life and stable performance at high and low temperature surrounding. The acid stratification is highly reduced by adding Gel. GEL series is suited for all kinds of ranges especially for renewable energy systems, such as solar power and wind power system.



Outer dimensions (mm)



Terminal Type (mm)

Characteristics

Capacity (25°C)	20HR(10.5V)	100Ah
	10HR(10.5V)	88.0Ah
	5HR(9.60V)	77.0Ah
Terminal type		M8
Internal resistance (Fully charged, 25°C)		Approx. 7.5 mΩ
Capacity affected by temperature	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)
Maximum charging current		20A
Maximum discharge current		1000A (5 sec.)
Design floating life		10-12 years

Specifications

Nominal Voltage		12V
Rated capacity (20 hr to 1.75V per cell @ 25°C)		100Ah
Dimensions	Length	407±2mm (16.0 inch)
	Width	177±2mm (6.97 inch)
	Height	225±2mm (8.86 inch)
	Total Height	225±2mm (8.86 inch)
Weight Approx.		31.0 kg (68.34 lbs) ± 3%

Construction

Component	Positive plate	Negative plate	Container & Cover	Separator	Electrolyte	Safety value	Terminal
Raw material	Lead dioxide	Lead	ABS UL94-HB, UL94-V0 Optional.	AGM	Sulfuric acid	Rubber	Copper/lead

Constant Current Discharge (Amperes/cell) at 25°C (77°F)

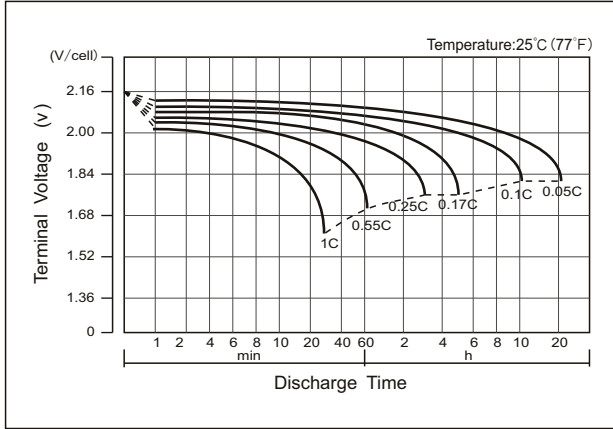
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	163.7	132.8	87.1	54.3	33.2	24.9	19.8	16.7	11.3	9.3	5.2
1.65V	154.7	126.9	83.6	52.4	32.1	24.1	19.3	16.2	11.1	9.2	5.1
1.70V	142.4	118.9	79.9	50.7	31.1	23.5	18.8	15.8	11.0	9.0	5.1
1.75V	130.4	110.6	76.4	48.9	30.0	22.8	18.3	15.4	10.8	8.9	5.0
1.80V	118.0	102.2	73.0	47.0	28.9	22.0	17.8	15.0	10.6	8.8	5.0
1.85V	96.4	84.8	62.9	42.2	26.5	20.4	16.5	14.0	10.0	8.3	4.7

Constant Power Discharge (watts/cell) at 25°C (77°F)

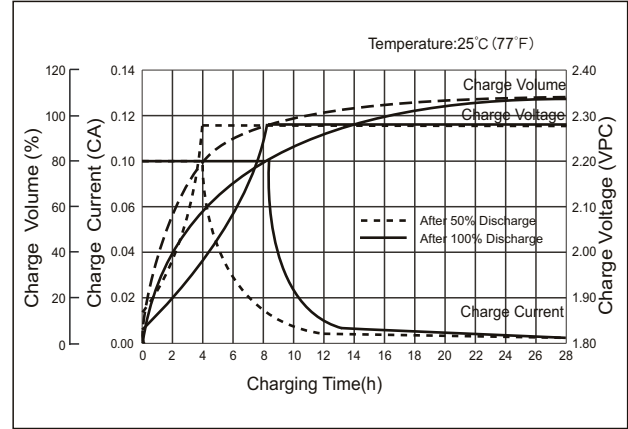
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	316.2	263.8	179.8	116.0	71.5	54.0	43.3	36.5	25.0	20.7	11.6
1.65V	300.9	253.5	174.1	112.8	69.5	52.7	42.3	35.7	24.7	20.5	11.5
1.70V	285.6	243.3	168.4	109.6	67.6	51.3	41.3	34.9	24.4	20.2	11.4
1.75V	266.1	229.7	162.6	106.3	65.5	50.0	40.4	34.1	24.1	20.0	11.2
1.80V	245.1	215.1	157.0	102.8	63.5	48.7	39.4	33.3	23.8	19.8	11.1
1.85V	203.9	181.0	136.6	92.8	58.5	45.2	36.7	31.2	22.4	18.6	10.6

The above characteristics represent average values and can be obtained within three charge and discharge cycles. The batteries must be fully charged before testing. The data in this document is subject to change without notice. Please contact Mervesan for the latest available version.

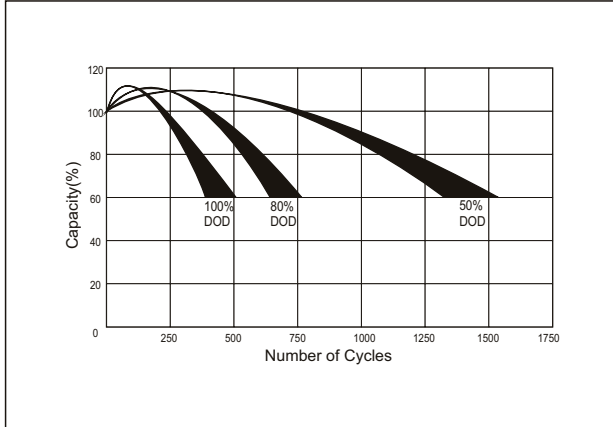
Discharge Characteristics Curve



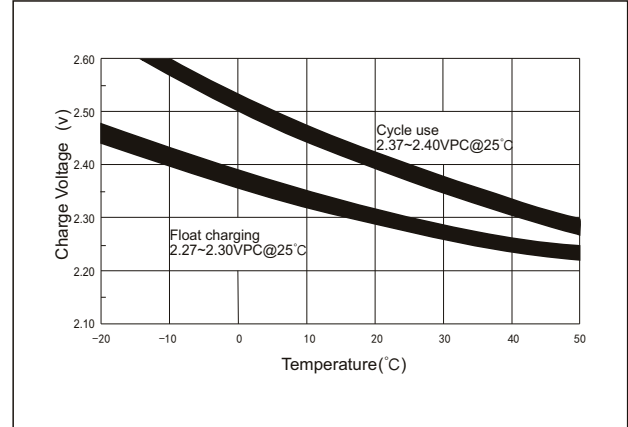
Charge Characteristic Curve for Standby Use



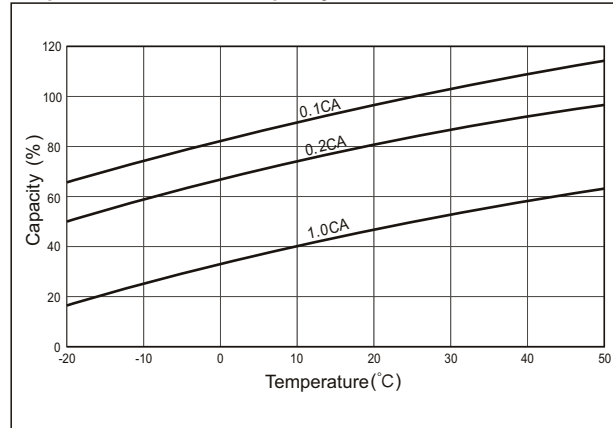
Cycle Life in Relation to Depth of Discharge



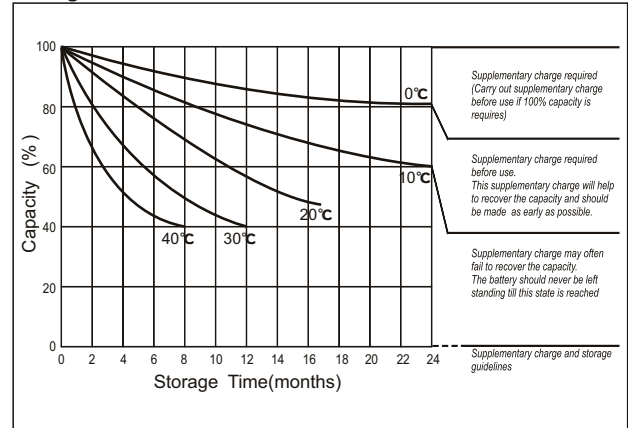
Relationship Between Charging Voltage and Temperature



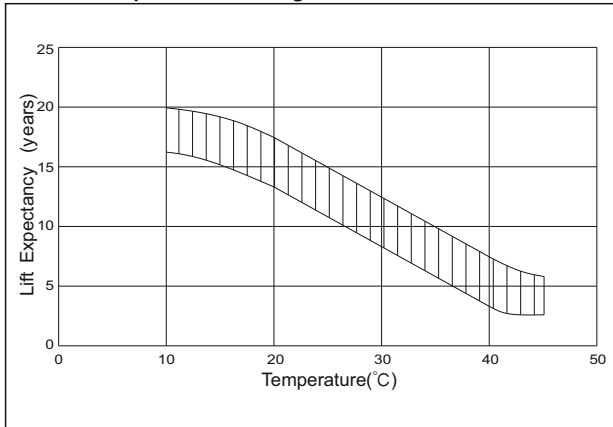
Temperature Effects on Capacity



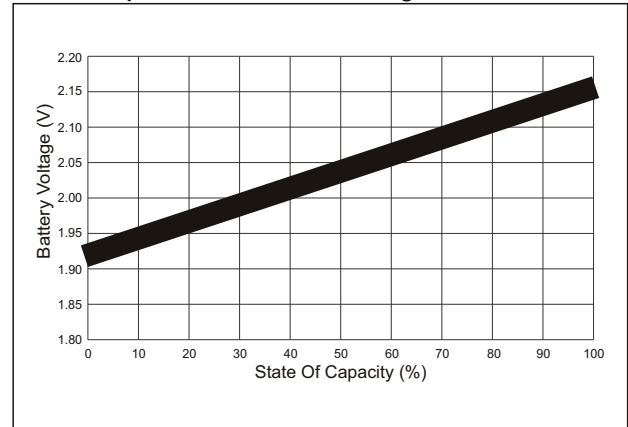
Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV and State of Charge



Please note that all information above is subject to change without prior notice. Mervesan reserve the right to explain and update latest information.