

#### MHB MNG Series-- Storage-type Gelled Battery

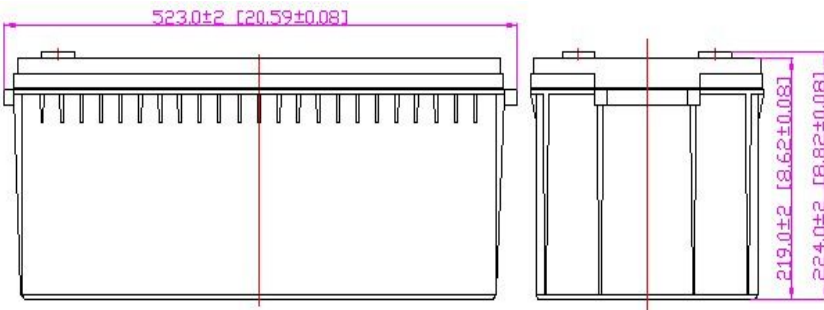
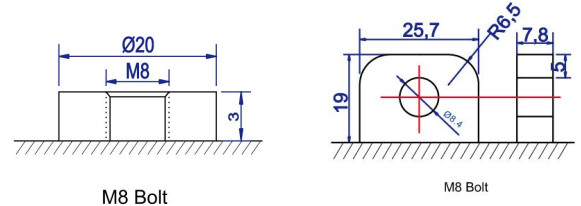
- completely sealed and maintenance-free, low self-discharge
- 100% precise quality testing, stable quality and high reliable performance
- Unique grid alloy formula, Gelled electrolyte formula and updated manufacturing technique
- Floating & standby use: up to 12 years
- Cycle use 1: More than 350 cycles at 100% DOD
- Cycle use2: More than 1800cycles at 30% DOD

#### Application:

- Telecommunications
- UPS/EPS
- DC PowerSupply
- Solar system
- Wind Power System
- Auto Control Sytem

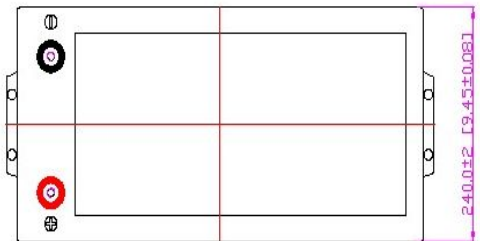
#### Construction:

- Component .....Raw material
- Positive .....Lead dioxide
- Negative .....Lead
- Container .....ABS
- Cover .....ABS
- Sealant .....Epoxy
- Safety valve .... Rubber
- Terminal .....Copper/Pb
- Separator .....Fiber glass
- Electrolyte ..... Gelled acid



B5 Terminal

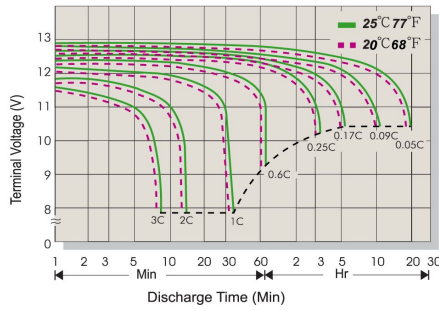
T19 Terminal



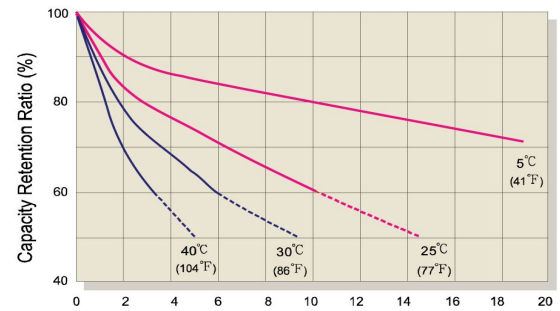
#### Speification:

Battery Model	MNG 180-12 12V180AH			
Designed Floating Life	Up to 10 Years			
Capacity (25°C)	20HR(9.560 A,10.8V)	10HR(18.000A,10.8V)	5HR(32.030A,10.5V)	1HR(99.020A,10.5V)
	191.20 AH	180.00 AH	160.15 AH	99.02 AH
Dimensions	Length	Width	Height	Total Height
	523 mm	240 mm	219 mm	223 mm
Approx. Weight	61.00 KG±3%			
Internal Resistance	Full charged at 25°C: ≤5.00 mΩ			
Self Discharge	2% of capacity declined per month at (25°C)			
Capacity Affected by Temp.(20HR)	40°C	25°C	0°C	-15°C
	102%	100%	85%	65%
Charge Voltage(25oC)	Cycle use		Float use	
	14.4-15.0V(-30mV/°C), max. Current: 50.00A		13.5-13.8V (-20mV/°C)	

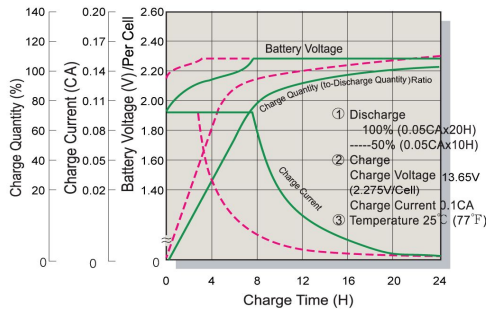
### Terminal Voltage (V) and Discharge Time



### Capacity Retention Characteristic



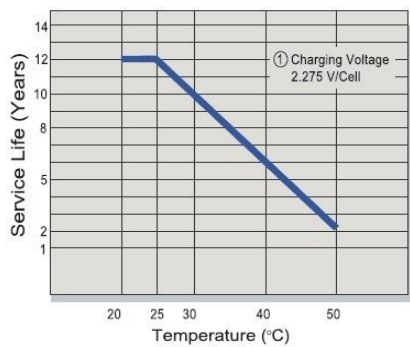
### Battery Voltage and Charge Time for Standby Use



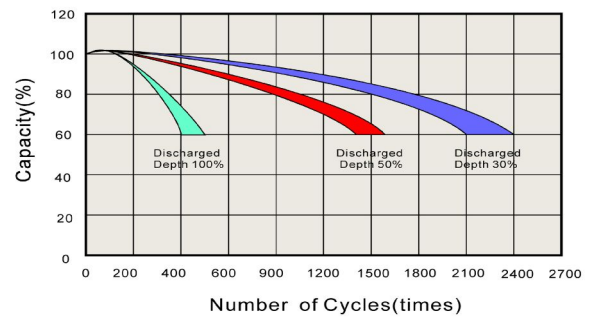
### Battery Voltage and Charge Time for Cycle Use



### Tickle(or Float) Service Life



### Cycle Service Life



### Constant Current Discharge (CC, Unit: A) at 25°C (77°F)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.80V/Cell	565.7	384.9	263.5	160.25	98.19	61.28	47.64	37.47	31.76	21.22	18.00	9.56
1.75V/Cell	570.5	388.1	265.7	161.61	99.02	61.80	48.04	37.79	32.03	21.40	18.23	9.71
1.70V/Cell	584.8	397.8	272.4	165.65	101.49	63.34	49.24	38.73	32.83	21.93	18.50	9.85
1.67V/Cell	599.0	407.5	279.0	169.69	103.97	64.89	50.45	39.68	33.63	22.47	18.72	9.99
1.60V/Cell	625.7	425.7	291.5	177.24	108.60	67.78	52.69	41.44	35.13	23.47	18.99	10.14

### Constant Power Discharge (CP, Unit: W) at 25°C (77°F)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.80V/Cell	1103	750.5	513.8	312.5	191.5	119.49	92.90	73.06	61.93	41.38	35.10	18.65
1.75V/Cell	1112	756.8	518.2	315.1	193.1	120.50	93.69	73.68	62.46	41.73	35.56	18.93
1.70V/Cell	1140	775.7	531.1	323.0	197.9	123.52	96.03	75.53	64.02	42.77	36.08	19.21
1.67V/Cell	1168	794.7	544.1	330.9	202.7	126.53	98.37	77.37	65.58	43.81	36.50	19.49
1.60V/Cell	1220	830.0	568.3	345.6	211.8	132.16	102.75	80.81	68.50	45.76	37.03	19.77