

# MARINE / RV BATTERY



**Magnacharge Battery** designed to provide ultimate performance for a wide range of premium vehicles that require higher power support.

### Key Benefits:

- Absorbent Glass Mat separator
- X-Frame Technology
- Reinforced case design
- High density active material
- Meets OE quality, performance & specification
- Calcium + High Tin Alloy
- Special Tissue & Micro Fibre
- Flexible design for semi-traction (deep cycling) and starting

### SPECIFICATIONS:

PART #	MCA	RES @ 25A	A.H. @ 20 HR	Approx Dimension - Inches(mm)			WARRANTY MONTHS		TERMINAL CONFG.	BATTERY HOLD DOWN	
				Length	Width	Height	FREE REGULAR	FREE COMMERCIAL			
<b>MAGNACHARGE 12V MARINE STARTING/DUAL PURPOSE</b>											
24M-650	MS24M-650	600	70	N/A	10.25 (260)	6.77 (172)	8.66 (220)	18	6	M	B1
24M-800	MS24M-800	750	105	N/A	10.25 (260)	6.77 (172)	8.66 (220)	24	6	M	B1
24M-1000	MS24M-1000	950	140	N/A	10.25 (260)	6.77 (172)	8.66 (220)	30	6	M	B1
27M-1000	MS27M-1000	1000	160	N/A	11.89 (302)	6.77 (172)	8.66 (220)	30	6	M	B1
<b>MAGNACHARGE 12 VOLT AGM DEEP CYCLE</b>											
24DC-140AGM	MS24DC-140AGM	900	140	75	10.23 (260)	6.85 (174)	8.66 (220)	20	12	M	B1
27DC-180AGM	MS27DC-180AGM	900	175	90	11.89 (302)	6.85 (174)	8.66 (220)	20	12	M	B1
31DC-205AGM	MS31DC-205AGM	1140	200	100	13.07 (332)	6.77 (172)	9.09 (231)	20	12	M	N/A
<b>MAGNACHARGE 12V DEEP CYCLE</b>											
24DC-130	MS24DC-130	700	120	80	10.12 (257)	6.77 (172)	8.66 (220)	18	6	M	B1
24DC-140	MS24DC-140	850	140	85	10.12 (257)	6.77 (172)	8.66 (220)	18	6	M	B1
27DC-180	MS27DC-180	925	175	105	11.89 (302)	6.77 (172)	8.66 (220)	18	6	M	B1
31DC-205	MS31DC-205	1000	195	120	12.99 (330)	6.77 (172)	9.53 (242)	18	6	M	B0
<b>MAGNACHARGE 6V, 8V, 12V DEEP CYCLE</b>											
GC-225	MSGC-225	N/A	440	220	10.30 (262)	7.11 (181)	11.07 (281)	18	12	LPT	N/A
GC8-875	MSGC8-875	N/A	300	156	10.21 (259)	7.06 (179)	11.14 (283)	18	12	LPT	N/A
GC-12V	MSGC-12V	N/A	260	140	12.96 (329)	7.13 (181)	10.71 (272)	18	12	LPT	N/A

# BATTERIES FOR MARINE & RV

Features	Benefits
<p><b>Dual Purpose Plate(Starting &amp; Deep Cycling)</b></p> <ul style="list-style-type: none"> <li>- X-Frame (Pos. / Neg.)</li> <li>- Special (Thicker) Plate with high density active material</li> <li>- Calcium + High Tin Alloy</li> <li>- Special tissue &amp; Micro Fibre</li> </ul> <p><b>Vibration Resistant Design</b></p> <ul style="list-style-type: none"> <li>- Low resistance enveloped separator with Glass Mat</li> <li>- Hot melt glue</li> <li>- Reinforced container</li> </ul>	<p><b>Longer Life &amp; High Cycle Stability</b></p> <ul style="list-style-type: none"> <li>- High endurance in deep cycle service</li> <li>- Flexible design for semi-traction (deep cycling) and starting</li> <li>- Prevents internal short circuits</li> <li>- More power to terminal posts</li> <li>- Reserves more electrolyte volume over the plate</li> </ul> <p><b>Built to withstand vibration of marine, 4WD and heavy vehicle use</b></p>

## X-Frame (Pos. / Neg.)



### Full Framed Grid (Round edge design)

- Full Framed Grid design restrains grid growth and short-circuits
- Benefit : Upgraded quality, and longer life span

### Unique designed grid for electric flow

- Mechanically punched grids, ensures high electric conductance and strong adhesion of active materials
- Benefit : Providing higher starting power, stable structure, and less corrosion



### Upgraded Active Material

- Provides high endurance in deep cycle service



### Low Resistance Enveloped Separator with Fleece

- Prevents internal short circuits between positive and negative plates

## Common Structure & Advantage (Marine & RV)

### Convenience and stability

#### Ergonomically Designed Handle

- Provides easy transportation and installation



#### Special Sealed Cover

- Protects the battery from acid leakage and minimizes gassing
- Flame arrestor prevents an inflow of outside spark



### Excellent Performance

#### Hot Melt Glue to resist vibration

- Ensures resistance to outside impact and vibration, and minimizes loss of active materials



#### Special Tissue

- Provides a mechanical support for adhesion of active material during service



#### Magic Eye Indicator

- Easy to check Charging-State

#### Marine Twin (Dual=SAE/Wing-Nut) Terminal

- Quick connection
- Compatibility with TOP POST and STUD



5/16" -18 THREADS



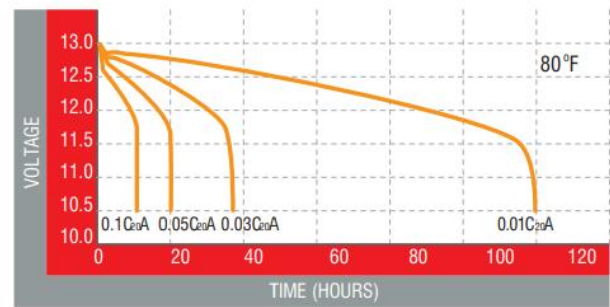
# BATTERIES FOR MARINE & RV

## Charge and Discharge Characteristics

Charge characteristics from 20% DOD, 31DC-205



Discharge characteristics



## Charging Method

- Batteries should be recharged immediately after use
- Charging times vary and rate can be determined by the SOC(State Of Charge)

Method 1 ; Constant Voltage Charge  
(Recommended Method)

Type	Voltage Setting
Daily Cycle Service	14.4~14.8
Floating Service	13.2~13.7
Equalizing	15.5

\* Unit Average at 77 °F (25 °C)

- Every 30 to 90 days, perform an equalizing charge.  
Daily cycle use and deep discharge requires more frequent equalizing

### End of charge

- Current : below 1.0A during charge
- Stabilized open circuit voltage : 12.75V or higher

Method 2 ; Constant Current charge

Battery		24DC140	27DC180	31D205
SOC	OCV	4.0A	4.5A	5.0A
100%	12.75V	-		
75%	12.40V	6 Hrs		
50%	12.20V	12 Hrs		
25%	12.00V	18 Hrs		
0%	11.90V	24 Hrs		

### End of charge

- Maximum voltage output across the battery terminals is maintained at constant level for 2 hours during the charge
- Stabilized open circuit voltage : 12.75V or higher

### Hours of Usable Power(H.U.P)

Amp.Draw	5A	15A	25A
24DC140	15.4Hrs.	4.3Hrs.	2.4Hrs.
27DC180	17.8Hrs.	4.9Hrs.	2.7Hrs.
31DC205	20.0Hrs.	5.6Hrs.	3.1Hrs.