

LEAD ACID (DEEP CYCLE) BATTERY

MD200-12

Marvel MD series is specially designed for frequent discharge deep cycle applications. By using the specially designed active material, strong grids and thick plate construction, the series battery offers reliable performance in high load situations and could provide competitive cycle performance.

Suitable for electric vehicles and golf carts; industrial equipment, floor machines, forklifts, aerial lifts, and robotics; marine, RV, and no-idle solutions; mobility and medical equipment; and most outdoor application.



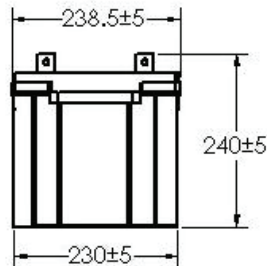
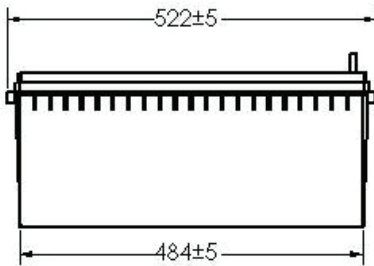
OHSAS 18001



ISO 14001



ISO 9001



CONSTRUCTION:

- Positive and negative plates in lead-tin Calcium alloy.
- Separator – low resistance micro porous Absorbent Glass Mat.
- The electrolyte is absorbed within this material, preventing acid leakage in case of accidental damage.
- Terminals with copper provide maximum conductivity.
- Self regulating pressure relief valve.
- 100% online High rate discharge testing during manufacturing.
- Good packaging material.
- Specially suited for UPS & Power Application

FEATURES :

- Sealed Maintenance Free.
- Eco Friendly. Minimal Voltage drop.
- Easy Handling-Easy Installation.
- Ready to Use.
- Good Service Life.
- Low Self discharge.
- Charge Retention & Recovery.
- Good High Rate Discharge.
- High Reliability.

Performance Characteristics conforming to JISC:8702

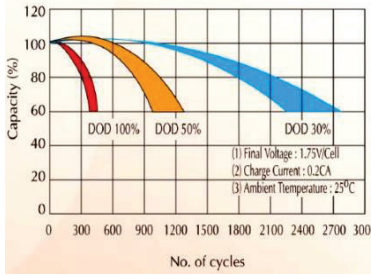
SPECIFICATION CHART:

Battery Type	Nominal Voltage(V)	Rated Capacity(Ah) at 25 °C				Dimensions (mm)			Weight (Kg) (±5%)
		20hr 1.75V/Cell	10hr 1.75V/Cell	5hr 1.75 V/Cell	1hr 1.75 V/Cell	Overall Height ±5	Length ±5mm	Width ±5mm	
MD-200	12	200	186	170	118	240.0	522.0	238.5	61.0

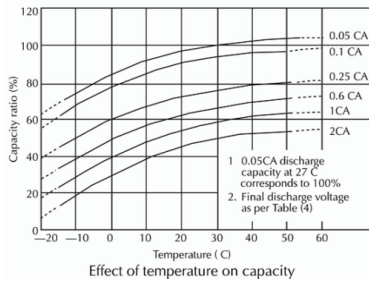
NOTES OF OPERATION :

Mode of operation	Voltage setting per 12V Unit for ambient Temp. 20 -30°C	Current Setting
FLOAT	13.7±0.1V	Maximum:0.3CA Minimum:0.1CA
CYCLE	14.7±0.1V	

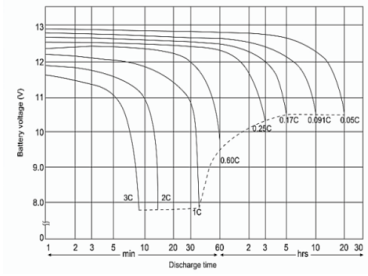
Number of Cycle CYCLE SERVICE LIFE



Effect of Temp on Capacity

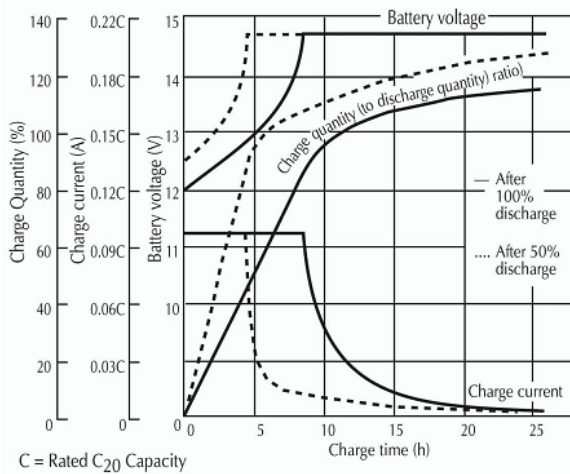


Discharge Characteristics



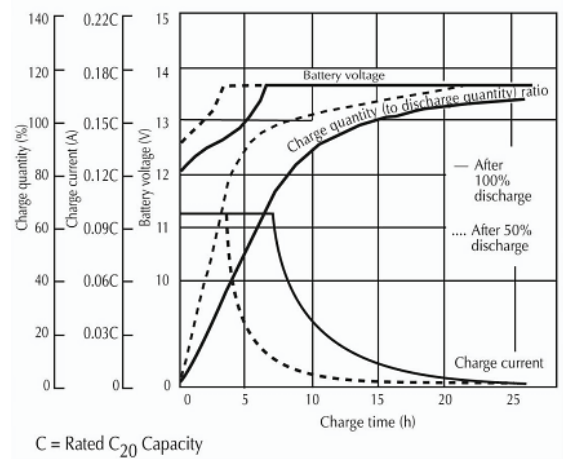
CYCLIC use

(Recharge at 2.45 V/cell)

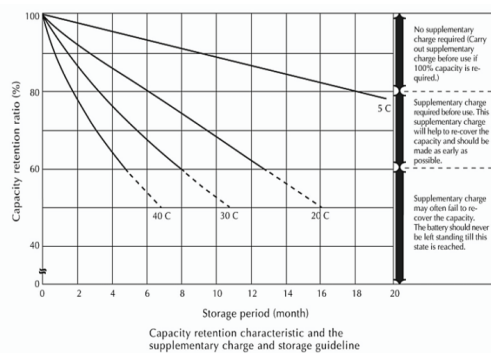
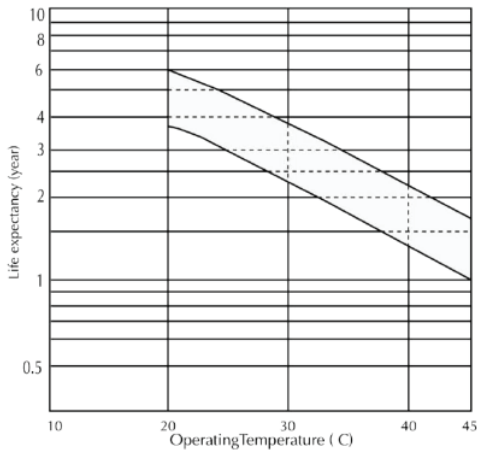


STANDBY use

(Recharge at 2.275 V/cell)



STANDBY use



Product Details	
AH Efficiency	>95%
WH Efficiency	>84%
Operating Temperature Range	(-)5°C to 40°C
Self Discharge/Month @27°C	5% of Rated Capacity
Recommended storage period	3 Months at 27°C
Container Material	ABS
Type of Positive & Negative Plate	Flat Pasted
Recommended Terminal Torque	12N-m

MAXIMUM DISCHARGE CURRENT FOR VARIOUS DURATION & CUT OFF VOLTAGE AT 25°C

End Voltage/Cell	DISCHARGE TIME							
	10min	15min	30min	1hr	3hr	5hr	10hr	20hr
1.70	398.0	318.0	197.0	123.0	50.0	34.1	19.0	10.2
1.75	370.0	300.0	190.0	118.0	48.7	34.0	18.6	10.0
1.80	360.0	288.0	180.0	112.0	47.8	33.5	18.3	9.9