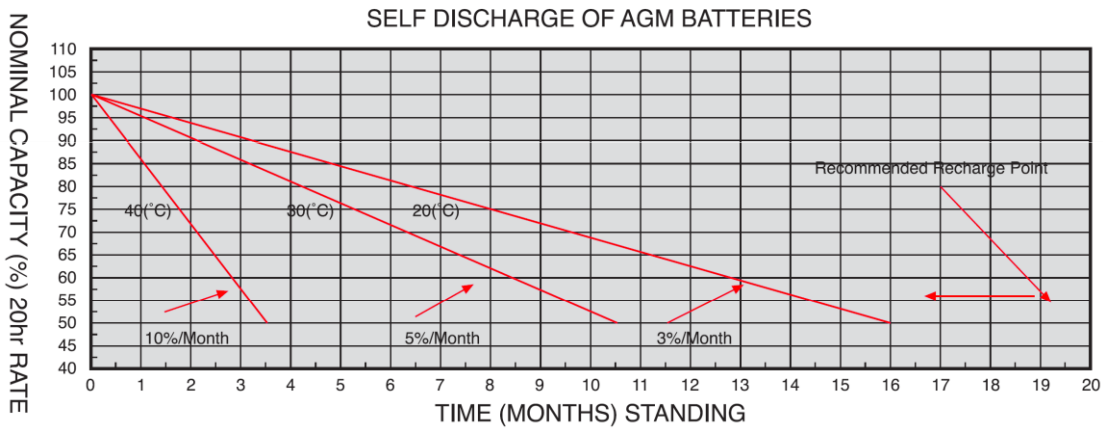


# RM 12 – 4.5 REMCO 12V 4.5Ah – standby

Remco Limited,  
9/Floor, Cheung Tak Ind Bldg.,  
30 Wong Chuk Hang Rd., Aberdeen, Hong Kong.

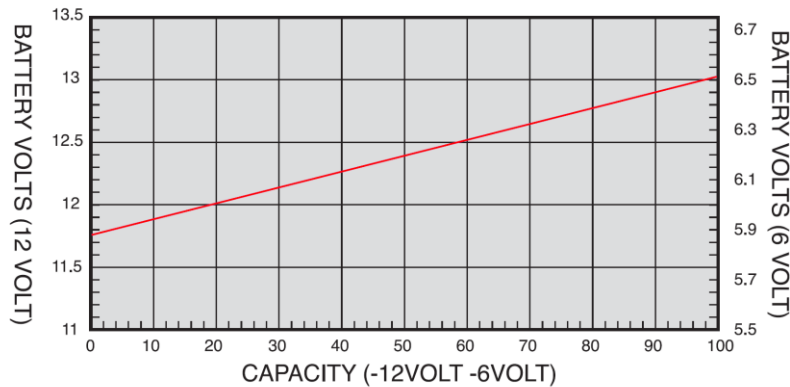


## Self-Discharge Characteristics



## Open Circuit Voltage

OPEN CIRCUIT VOLTAGE REDUCTION FROM SELF DISCHARGE vs REMAINING CAPACITY  
VALUES SHOWN AT 20°C FOR NORMAL ELECTROLYTE S.G. RANGE

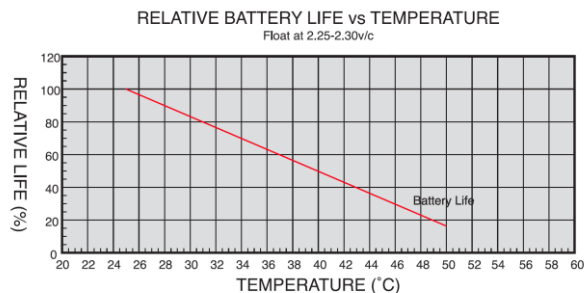
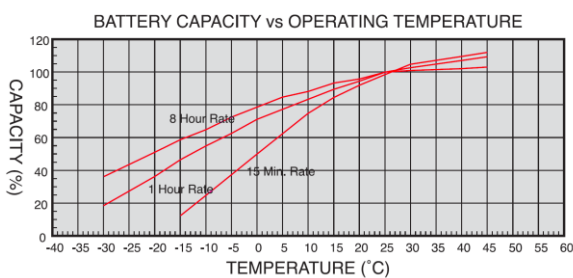


## Temperature

### Effect of Temperature on Battery Capacity

The nominal battery capacity is based on the temperature of 25°C. Above this temperature the capacity increases marginally but it must be noted that the working battery should be kept within the temperature design limitations of the product.

Below 25°C the capacity decreases. This decrease in capacity becomes large at temperatures below 0°C and in heavy discharge rates. The graph below illustrates the situation and the decrease in capacity with the decrease in operating temperature must be taken into capacity design calculations in applications where the operating temperature of the system is below 20°C.



## RM 12 – 4.5 REMCO 12V 4.5Ah – standby

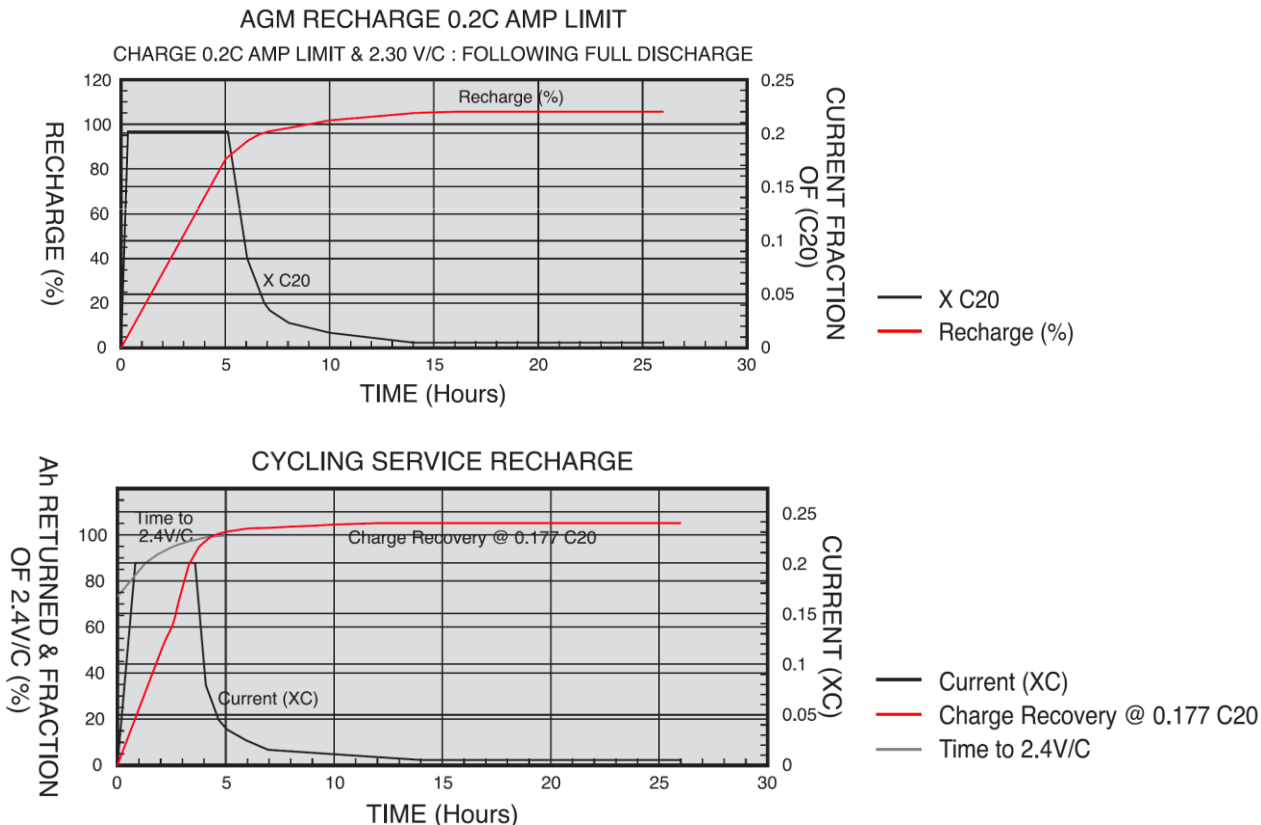
Remco Limited,  
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30 Wong Chuk Hang Rd., Aberdeen, Hong Kong.



### Battery Charging Characteristics

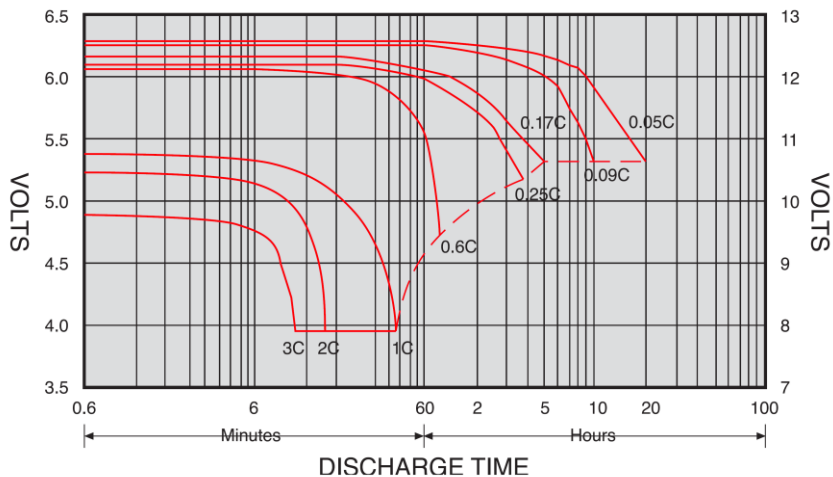
Correct battery charging is very important to assure the maximum possible working life for Remco battery. There are four major method of charging.

- + Constant Voltage Charging
- + Constant Current Charging
- + Two Stage Constant Voltages Charging
- + Taper Current Charging



The discharge capacity of a lead acid battery varies and is dependent on the discharge current. Remco valve regulated batteries used to rate at the 20-hour rate. i.e.: The capacity of the battery at 20 hours discharged to an end voltage of 1.75 vpc at a temperature of 25°C .

### Characteristic Discharge Curves for Remco Batteries



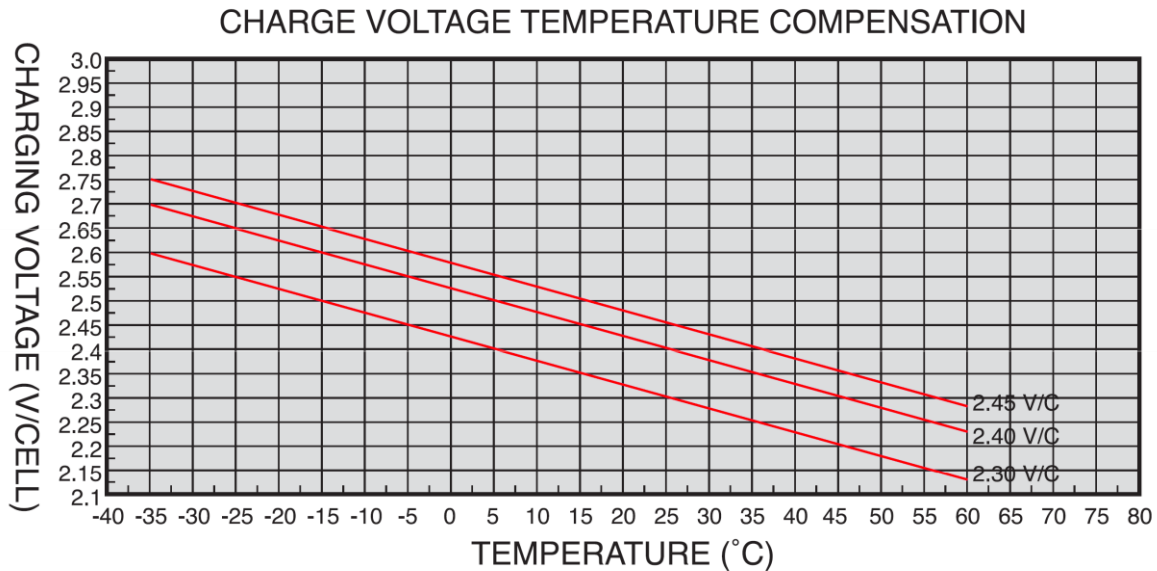
## RM 12 – 4.5 REMCO 12V 4.5Ah – standby

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### General Comments

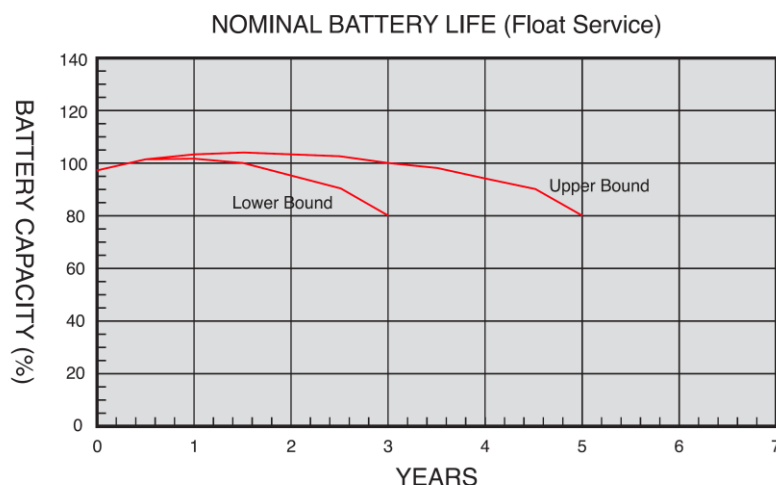
The discharge curves show the minimum design parameters for each fully charged Remco battery size after installation. Full capacity is reached after some initial service.



### Battery Life

- + Battery life depends on a number of key factors. These include:
- + Operating temperature of the battery
- + Method of charging utilized
- + Actual use of the product i.e.: float or cycle service.
- + Correct sizing
- + Etc.

### Float Service



The estimated life under float service is 3 - 5 years. The float service is affected by the factors listed above and the number and depth of discharges the battery suffers during its lifetime. Basically the

more discharges suffered and the deeper the discharges, the shorter the battery life

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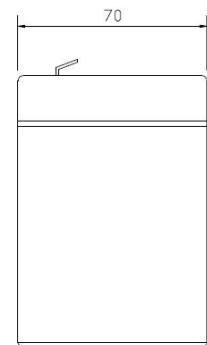
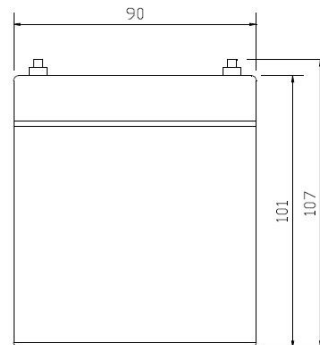
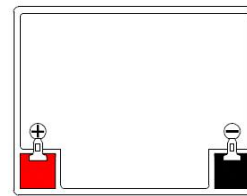


### RM12-4.5

Unit:mm(±0.50)

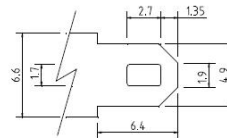
#### Technical Specifications

Nominal Voltage	12V
Nominal Capacity	4.5AH(20HR)
Dimension	
Length	3.54inch(90mm)
Width	2.76inch(70mm)
Height	3.98inch(101mm)
Total Height /w Terminal	4.21inch(107mm)
Weight	Approx 3.39lb(1.54kg)
Standard terminal	Type A



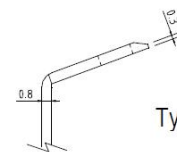
#### Capacity Specifications

Cut Off Voltage	20Hr Rate(0.225A)	4.5AH
1.75v/c@25°C	10Hr Rate(0.41A)	4.1AH
1.75v/c	5Hr Rate(0.72A)	3.6AH
1.67v/c	1Hr Rate(2.7A)	2.7AH
1.67v/c	15Min Rate(9A)	2.25AH



#### Charging Specifications

		Bloc
Charge Voltage(constant)	Float	13.5~13.8
	Cycle	14.4~15.0
Internal Resistance (Fully Charged Battery)	< 40mΩ	
Discharge Current Amps (5 seconds maximum)	68	
Max. Charge Current	1.35A	
Self Discharge	6 Months@25°C	



Type A Terminal



#### Actual Wattage Capacity at Various Discharges (Voltage @25°C)

Cut Off Voltage	Time	5min	10min	15min	30min	45min	60min
		9.6V	W	216.0	140.4	108.0	62.1
9.9V	W	209.1	137.6	105.8	61.5	45.6	34.7
10.2V	W	200.1	134.5	103.5	60.7	44.7	34.3
10.5V	W	188.3	129.8	100.4	59.3	43.8	33.7
10.8V	W	162.7	119.8	95.9	57.2	41.6	32.8

Ovlašteni uvoznik i distributer za Srbiju:

**BORIK d.o.o. Beograd,**

Mirgorodska 10, tel.: 011-3321-402, 3321-981 [www.baterijezaups.com](http://www.baterijezaups.com)