



**MAXON**<sup>®</sup>  
BATTERIES

**MX12-9.0HD**

**Sealed Lead Acid Battery**

### SPECIFICATIONS

Nominal Voltage	12V (6 cells per unit)	
Design Floating Life @ 25°C	5 Years	
Nominal Capacity @ 25°C (20 hour rate (0.45A))	9.0Ah	
Capacity @ 25°C	10 hour rate (0.90A)	8.30Ah
	5 hour rate (1.53A)	7.45Ah
	7 minute rate (27.0A)	3.60Ah
Internal Resistance	Full Charged Battery @ 25°C	≈13.5 mΩ
Ambient Temperature	Discharge	-15°C~45°C
	Charge	-15°C~45°C
	Storage	-15°C~45°C
Max.Discharge Current @ 25°C	42A (5s)	
Capacity affected by Temperature (10 hour rate )	40°C	103%
	25°C	100%
	0°C	86%
	-15°C	65%
Self-Discharge @ 25°C per Month	3%	
Charge (Constant Voltage) @ 25°C	Standby Use	Initial Charging Current Less than 2.1A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 2.1A Voltage 14.4 -14.9V



**12V**  
Voltage

**9.0Ah**  
Capacity

**AGM**  
Technology

**Deep**  
Cycle

MAXON MX Series sealed maintenance free lead batteries are designed with AGM technology, high performance pure lead plates and sulfuric acid electrolyte to gain extra power output for common power backup system applications widely used in the fields of UPS, Security and Emergency lighting system.

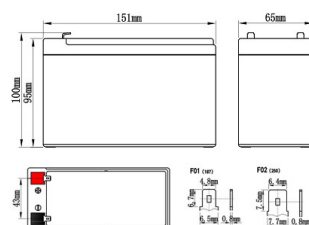
They are sealed and free maintenance whole life, valve regulated type standby AGM battery, also named by VRLA battery, SLA battery, and SMF battery.

### GENERAL FEATURES

- Non-spillable construction design
- Long life span 5-8 years in floating condition
- High quality AGM separator: Extend cycle life and prevents micro short circuit
- 99.99% pure lead plates ensure high quality and high reliability.
- Flame-resistance ABS material: Increases the strength of battery container.

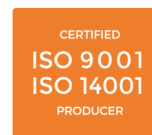
### DIMENSIONS & WEIGHT

Length (mm)	151
Width (mm)	65
Height (mm)	95
Total Height (mm)	100
Weight (kg)	2.55



### APPLICATIONS

- Fire & Security
- UPS systems & Inverter
- Alarm & Portable lights
- Power tools & Toys
- Emergency Power Systems



### COMPLIED STANDARDS

IEC 60896-21/22	JIS C8704
IEC61427	BS6290 part4
GB/T 19638	CE/ISO

## BATTERY DISCHARGE TABLE

### Discharge Constant Current per Cell (Amperes at 25°C)

F.V/Time	5min	10min	15min	30min	45min	1h	1.5h	2h	3h	5h	8h	10h	20h
10.20	33.3	21.7	17.0	8.72	6.29	5.40	4.31	3.21	2.42	1.55	1.04	0.853	0.45
10.50	33.0	21.5	16.8	8.59	6.22	5.37	4.23	3.08	2.34	1.51	1.03	0.844	0.455
10.80	32.6	21.3	16.7	8.51	6.15	5.32	4.14	2.96	2.25	1.49	1.02	0.836	0.450

### Discharge Constant Power per Cell (Watts at 25°C)

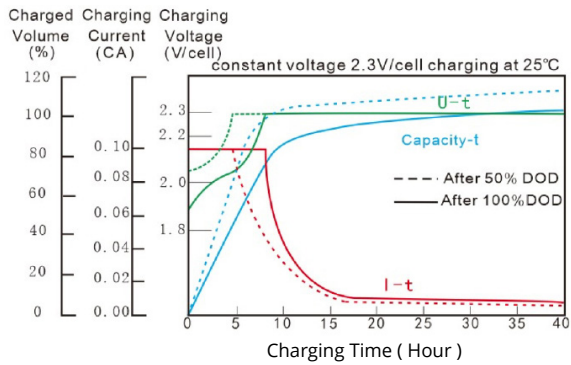
F.V/Time	5min	10min	15min	30min	45min	1h	1.5h	2h	3h	5h	8h	10h	20h
10.20	362	261	211	119.3	86.98	66.17	50.75	38.18	27.25	17.96	12.65	10.24	5.51
10.50	347	252	205	116.8	84.98	65.12	50.01	37.64	26.63	17.75	12.55	10.08	5.43
10.80	329	243	198	113.5	82.82	64.04	49.26	37.10	26.17	17.55	12.42	9.91	5.36

**Note:** The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice.

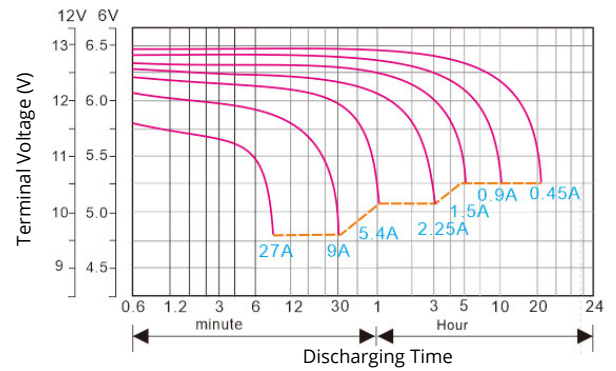


## PERFORMANCE CHARACTERISTICS

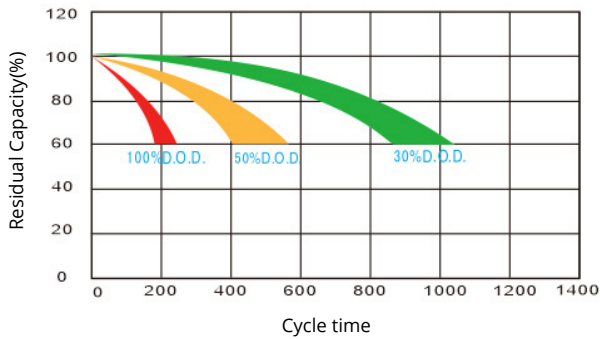
### Charge Characteristics (25°C/77°F)



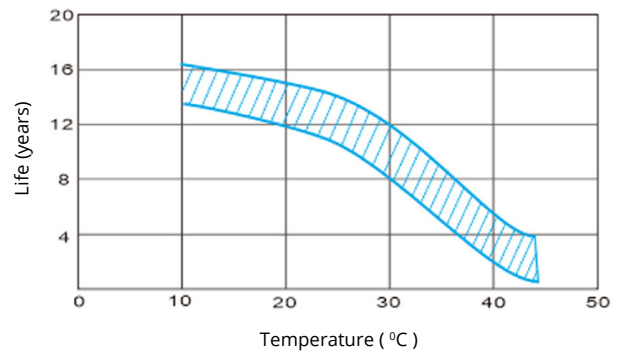
### Discharge Characteristic (25°C/77°F)



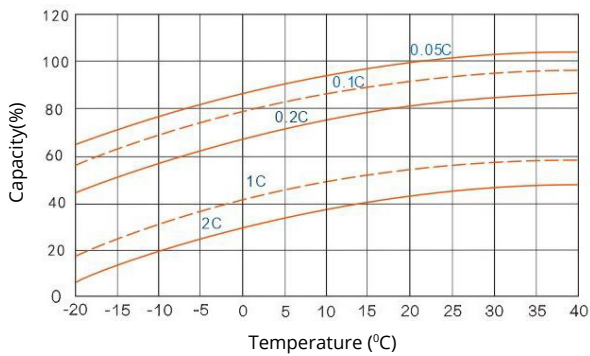
### Cycle Life in Relation to Depth of Discharge



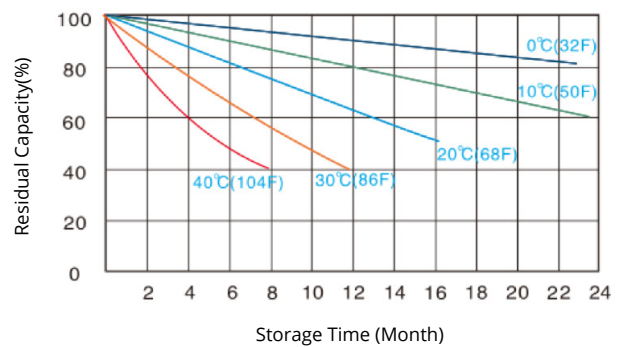
### Temperature vs Float Life



### Capacity Curve At Different Temperature



### Self Discharge Characteristics



## BATTERY CONSTRUCTION

Component	Positive plate	Negative plate	Container & Cover	Safety valve	Terminal	Separator	Electrolyte	Pillar seal
Features	Thick high Sn low Ca grid with special paste	Balanced Pb-Ca grid for improved recombination efficiency	ABS (UL94-V0)	Flame Si-Rubber and aging resistance	F1/F2	Advanced AGM separator for high pressure cell design	Dilute high purity sulfuric acid	Two layers epoxy resin seal