

## MAXON AGM BATTERIES

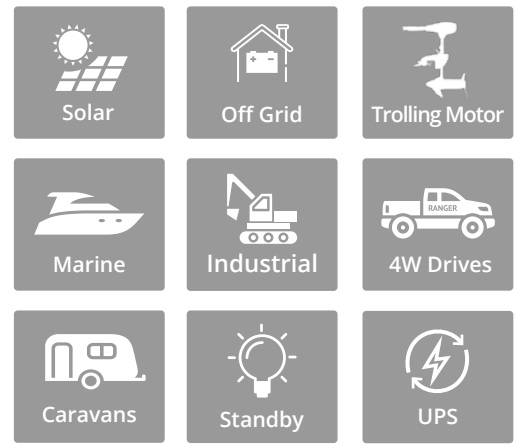
The Maxon AGM Heavy Duty Series batteries with its thick plate design and advanced AGM separators is a true deep cycle battery designed for frequent discharging while providing high capacity and long cycle life. They have the ability to be discharged deeper with a higher current than that of standard AGM batteries. Suitable for all industrial, UPS, solar energy, marine, 4WD, and standby applications.

### FEATURES

- ✓ High performance deep cycle battery
- ✓ High vibration resistant
- ✓ Fully sealed and maintenance free operation
- ✓ Safety valve installation for explosion proof
- ✓ Thick plate design with AGM separators
- ✓ Good cycle life

### APPLICATIONS

- ✓ Caravan, camper vans
- ✓ Marine
- ✓ Trolling motors
- ✓ 4WD & RV's
- ✓ Solar systems
- ✓ Standby back up systems



### COMPLIED STANDARDS

CE	ISO9001
IEC	ISO14001
UL	ISO45001

## MAXON AGM SPECIFICATIONS

Model	Voltage	Rated Capacity @ 25°C(Ah)					Dimensions (mm)				Terminal Type	Weight Kg	Internal Resistance Full Charge @25°		
		C100 1.8Vpc@ 25°C	C20 1.8Vpc@ 25°C	C10 1.8Vpc@ 25°C	C5 1.75Vpc@ 25°C	C3 1.75Vpc@ 25°C	Length	Width	Height	Terminal Height					
<b>AGM Batteries</b>															
MX12-1.3HD	12	n/a	1.3Ah	1.2Ah	1.1Ah	1.1Ah	98	43	52	57	F1	+ -	0.54	≈96.0mΩ	
MX12-2.9HD	12	n/a	3.0Ah	2.8Ah	2.6Ah	2.4Ah	80	56	99	104	F1	- +	1.3	≈30.0mΩ	
MX12-7.0	12	n/a	7.2Ah	6.6Ah	6.0Ah	5.5Ah	151	65	94	100	F1	- +	2.1	≈22.0mΩ	
MX12-9.0HD	12	n/a	9.1Ah	8.4Ah	7.5Ah	7.0Ah	151	65	94	100	F2	+ -	2.6	≈13.5mΩ	
MX12-14HD	12	n/a	14Ah	13Ah	12Ah	11Ah	152	99	95	100	F2	- +	3.9	≈13.4mΩ	
MX12-20HD	12	n/a	22Ah	21Ah	19Ah	17Ah	181	77	167	167	M5	- +	5.6	≈10.2mΩ	
MX12-105XHD	12	n/a	108Ah	100Ah	83Ah	73Ah	307	169	211	215	M8	+ -	30.5	≈4.40mΩ	
MX12-135XHD	12	n/a	131Ah	123Ah	105Ah	92Ah	331	176	214	220	M8	+ -	33.0	≈3.83mΩ	
MX12-120FT	12	n/a	118Ah	105Ah	86Ah	75Ah	410	110	287	287	M6	+ -	31.0	≈5.90mΩ	

Design Floating Life @ 25°		8 Years
Ambient Temperature: Discharge / Charge / Storage		-20° - 55°
Capacity Affected by Temperature C10 Rating	40°C	103%
	25°C	100%
	0°C	86%
	-15°C	67%
Self Discharge @ 25° per Month		3%

Charging Constant @ 25%	
Standby Charge Voltage	13.6V - 13.8V
Standby Charge Current	C0.1 - C0.25 of Ah Rating
Cycle Charge Voltage	14.4V - 14.9V
Cycle Charge Current	C0.1 - C0.25 of Ah Rating

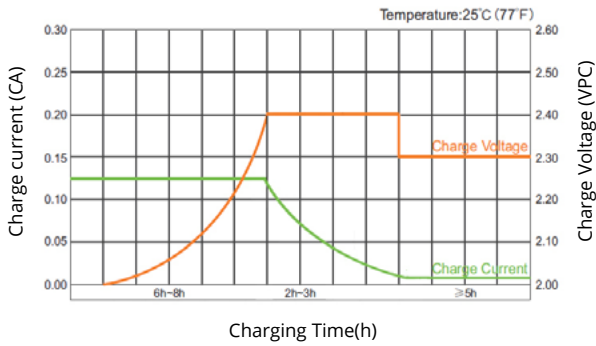
## BATTERY DISCHARGE TABLE

Discharge Constant Current per Cell (Amperes at 25°C)						
MODEL	F.V/Time	1h	3h	5h	10h	20h
MX12-1.3HD	10.2	0.751	0.351	0.226	0.124	0.068
	10.5	0.751	0.342	0.223	0.123	0.067
	10.8	0.740	0.332	0.219	0.122	0.066
MX12-2.9HD	10.2	1.820	0.814	0.520	0.288	0.154
	10.5	1.811	0.789	0.511	0.285	0.153
	10.8	1.730	0.760	0.502	0.280	0.151
MX12-7.0	10.2	4.240	1.900	1.220	0.672	0.360
	10.5	4.210	1.840	1.190	0.666	0.356
	10.8	4.180	1.780	1.170	0.659	0.351
MX12-9.0HD	10.2	5.410	2.420	1.550	0.853	0.450
	10.5	5.370	2.340	1.510	0.844	0.455
	10.8	5.320	2.250	1.490	0.836	0.450
MX12-14HD	10.2	8.32	3.74	2.38	1.35	0.71
	10.5	8.26	3.62	2.34	1.34	0.71
	10.8	8.20	3.50	2.29	1.32	0.70
MX12-20HD	10.2	13.20	5.89	3.77	2.14	1.14
	10.5	13.10	5.71	3.70	2.12	1.12
	10.8	13.00	5.51	3.63	2.09	1.10
MX12-105XHD	10.2	60.20	24.90	17.30	11.20	5.60
	10.5	57.80	24.20	16.50	10.60	5.50
	10.8	55.40	23.30	15.80	10.00	5.40
MX12-135XHD	10.2	76.00	31.50	21.90	12.80	6.87
	10.5	73.00	30.50	20.90	12.55	6.80
	10.8	69.90	29.40	19.90	12.34	6.54
MX12-120FT	10.2	62.50	25.90	18.00	11.10	6.10
	10.5	60.00	25.10	17.20	10.80	6.00
	10.8	57.50	24.20	16.44	10.50	5.90

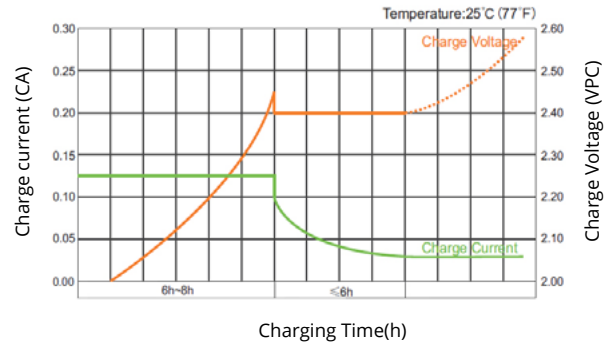
**Note:** The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice.

## PERFORMANCE CHARACTERISTICS

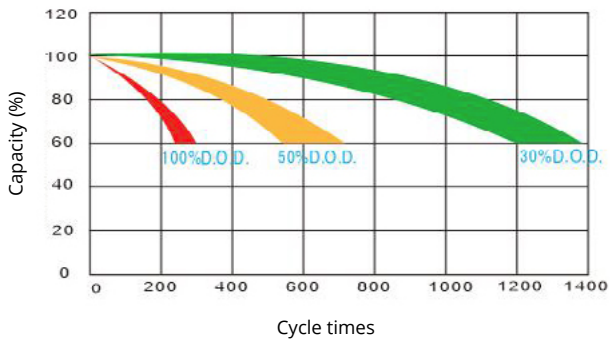
### Voltage Regulated Charger – IUU



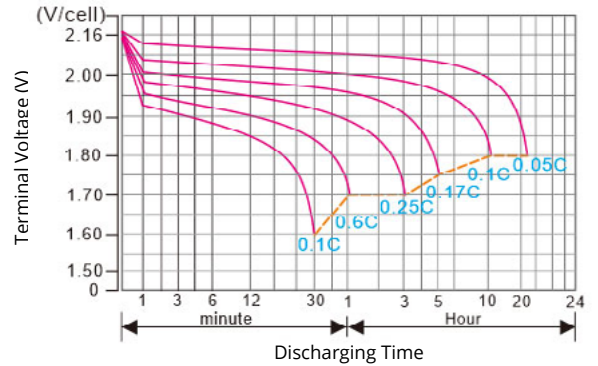
### Constant Current Charger – IUI



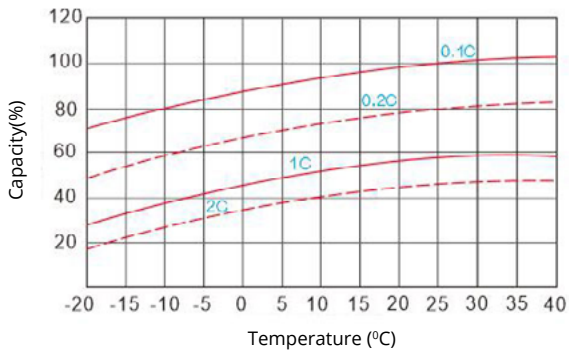
### Cycle Life in Relation to Depth of Discharge



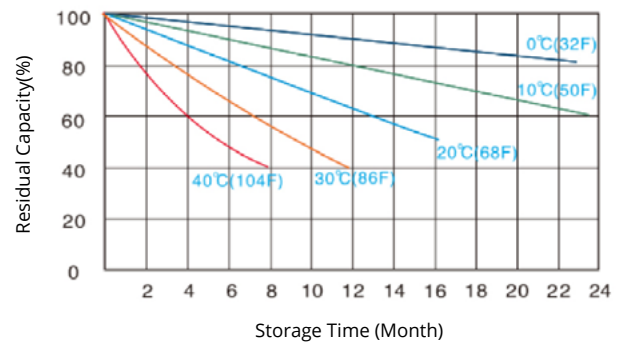
### Discharge Characteristic (25°C/77°F)



### 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	ABS	Flame Si-Rubber	Female Copper Insert M8	Advanced AGM Separators	Dilute high purity sulfuric acid	Two layers epoxy resin seal