

## MAXON ENDURANCE BATTERIES

The Maxon® Endurance Hybrid Gel series batteries with its high purity, heavy thicker full-frame lead plate construction is a true deep cycle battery. The Endurance Hybrid technology uses incorporates the use of advanced AGM separators with the additive of the German-made Envonik Sio2 Gel electrolyte, this gives them the ability to be discharged higher and deeper with increased cycle life over their AGM counterparts. This makes them an ultra-high-performance battery. They are highly suited to Mobility, 4WD, Solar, Marine Dual Purpose 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
- ✓ High cycle life

### APPLICATIONS

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



### COMPLIED STANDARDS

CE	ISO9001
IEC	ISO14001
UL	ISO45001

## MAXON ENDURANCE SPECIFICATIONS

Model	Voltage	Rated Capacity @ 25°(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>Endurance Batteries</b>														
MXEG12-75	12	n/a	75Ah	68Ah	59.5	52.8Ah	260	168	211	216	M6	+ -	25.0	≈6.5mΩ
MXEG12-100	12	n/a	100Ah	90Ah	80Ah	70Ah	307	176	211	216	M8	+ -	30.0	≈5.3mΩ
MXEG12-135	12	n/a	135Ah	121Ah	107Ah	94Ah	331	176	215	220	M8	+ -	33.0	≈5.0mΩ
MXEG12-240	12	245Ah	209Ah	202Ah	172Ah	150Ah	523	239	215	220	M8	+ -	64.0	≈2.7mΩ
MXEG12-300	12	305Ah	268Ah	253Ah	217Ah	188Ah	520	268	215	220	M8	+ -	77.0	≈2.1mΩ

Design Floating Life @ 25°	12 Years	
Ambient Tempeture: 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)						
MXEG12-75	F.V/Time	1h	3h	5h	10h	20h
	10.2	44.10	17.90	12.20	7.20	3.90
	10.5	43.30	17.60	11.90	7.00	3.83
	10.8	41.60	16.90	11.50	6.80	3.75

MXEG12-100	F.V/Time	1h	3h	5h	10h	20h
	10.2	53.50	23.90	16.20	9.50	5.20
	10.5	52.50	23.40	15.90	9.40	5.10
	10.8	50.50	22.50	15.30	9.00	5.00

MXEG12-135	F.V/Time	1h	3h	5h	10h	20h
	10.2	78.93	31.96	21.72	12.81	6.98
	10.5	77.47	31.35	21.35	12.57	6.84
	10.8	74.54	30.26	20.50	12.08	6.75

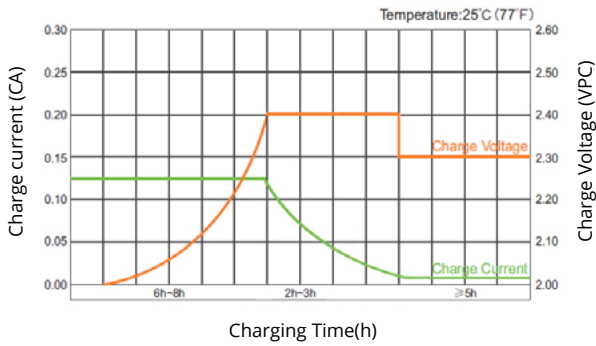
MXEG12-240	F.V/Time	3h	5h	10h	20h	100h
	10.2	51.80	36.00	20.90	10.70	2.49
	10.5	50.10	34.30	20.60	10.60	2.47
	10.8	48.30	32.80	20.18	10.46	2.45

MXEG12-300	F.V/Time	3h	5h	10h	20h	100h
	10.2	64.70	45.00	26.13	13.58	3.12
	10.5	62.70	43.40	25.75	13.50	3.09
	10.8	60.50	41.80	25.25	13.38	3.05

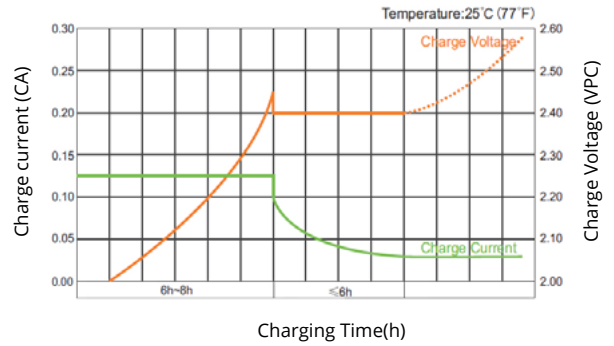
**Note:** The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice.

## PERFORMANCE CHARACTERISTICS

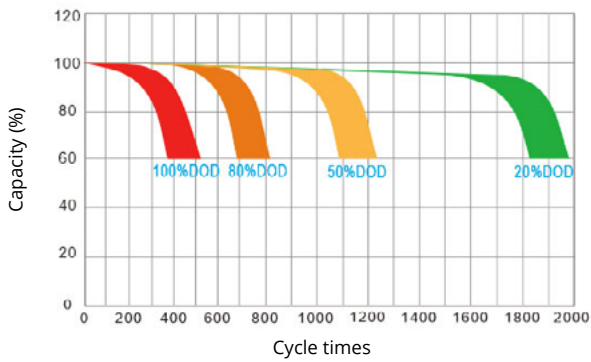
### Voltage Regulated Charger – IUU



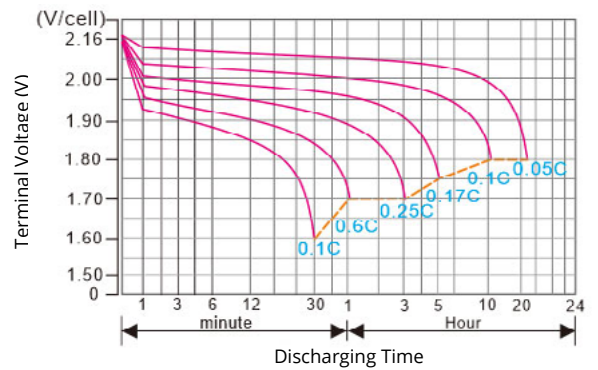
### Constant Current Charger – IUI



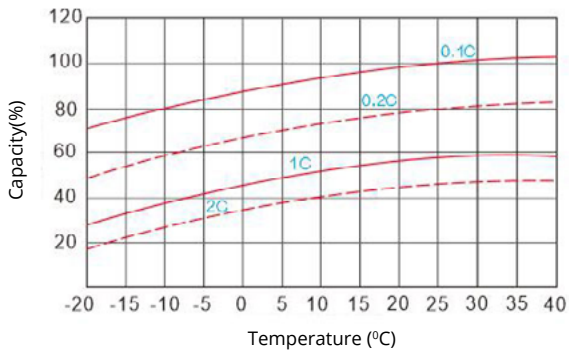
### Cycle Life in Relation to Depth of Discharge



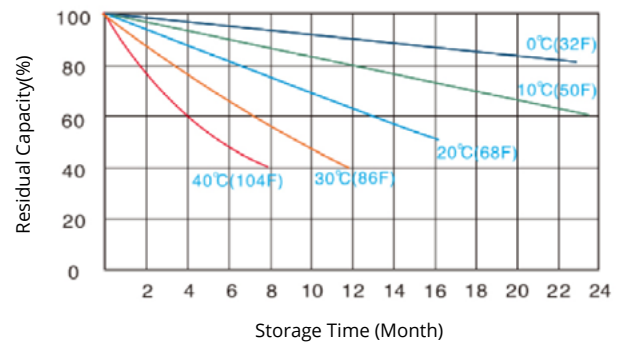
### Discharge Characteristic (25°C/77°F)



### Capacity Curve At Different Temperature



### Self Discharge Characteristics



## BATTERY CONSTRUCTION

Component	Positive plate	Negative	Container & Cover	Safety valve	Separator	Electrolyte	Pillar seal
Features	Thick high Sn low Ca grid with special paste	Balanced Pb-Ca grid with Carbon Additive Paste	ABS	Flame Si-Rubber	Advanced AGM separators	Envonik Sio2 Gel additive imported from Germany	Two layers epoxy resin seal