



**MAXON**<sup>®</sup>  
BATTERIES

**MXEG12-100**

**The Endurance Series**

**SPECIFICATIONS**

Nominal Voltage	12V (6 cells per unit)	
Design Floating Life @ 25°C	12 Years	
Nominal Capacity @ 25° (20 hour rate @ 5.0A, 10.8V)	100Ah	
Capacity @ 25°C	10hour rate (9.0A, 10.8V)	90Ah
	5 hour rate (15.9A, 10.5V)	79.5Ah
	1 hour rate (55.6A, 9.6V)	55.6Ah
Internal Resistance	Full Charged Battery @ 25°C	≤5.3mΩ
Ambient Temperature	Discharge	-25°C~60°C
	Charge	-25°C~60°C
	Storage	-25°C~60°C
Max.Discharge Current @ 25°C	540A (5s)	
Capacity affected by Temperature (10 hour rate )	40°C	108%
	25°C	100%
	0°C	90%
	-15°C	70%
Self-Discharge @ 25°C per Month	3%	
Charge (Constant Voltage) @ 25°C	Standby Use	Initial Charging Current Less than 22.5A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 22.5A Voltage 14.4-14.9V



<b>12V</b> Voltage	<b>100Ah</b> Capacity	<b>Gel</b> Technology	<b>Deep</b> Cycle
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The Maxon Endurance Series is a Gel AGM Hybrid battery. It uses a thick plate design with advanced AGM separators and a newly developed silicone gel electrolyte imported from Germany. This makes them an ultra-high-performance battery.

They have the ability to be discharged deeper with twice the cycle life of standard AGM batteries, giving them a more reliable performance under an extreme temperature range (-25°C to 60°C degrees). They are highly suited to Mobility, 4WD, Solar, Marine and standby applications.

**GENERAL FEATURES**

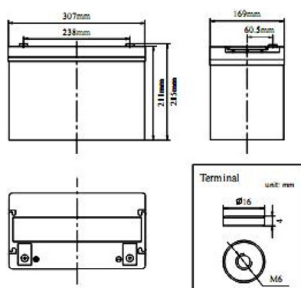
- Long life and higher stability under high temperature
- High cycle ability 2,200 cycles @ 30% DOD
- Integrated design to ensure the best in uniformity and reliability
- Operates in high temperature range -25°C~60°C
- Extreme Vibration Resistant
- Advanced AGM Separators

**APPLICATIONS**

- Caravan, Camper Vans and 4WD
- Mobility & Wheel Chairs
- Marine
- Golf Trolleys
- Solar Systems
- Standby Systems

**DIMENSIONS & WEIGHT**

Length (mm)	307±1
Width (mm)	169±1
Height (mm)	211±1
Total Height (mm)	216±1
Weight (kg)	30.5±3%



Marine	Solar	4W Drives
Caravans	Mobility	UPS
Standby	CE	CERTIFIED ISO 9001 ISO 14001 PRODUCER

**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	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	128.7	82.0	60.5	55.6	35.3	24.8	16.8	11.1	9.9	5.4	1.20
1.65V	126.4	80.5	59.4	54.5	34.6	24.3	16.5	10.9	9.7	5.3	1.18
1.70V	124.0	79.0	58.3	53.5	34.0	23.9	16.2	10.7	9.5	5.2	1.15
1.75V	121.7	77.5	57.2	52.5	33.3	23.4	15.9	10.5	9.4	5.1	1.13
1.80V	117.0	74.5	55.0	50.5	32.1	22.5	15.3	10.1	9.0	5.0	1.11

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

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	247.7	157.8	116.5	106.9	67.9	47.6	32.4	21.4	19.1	10.4	2.31
1.65V	243.2	154.9	114.3	105.0	66.6	46.8	31.8	21.0	18.7	10.2	2.26
1.70V	238.7	152.0	112.2	103.0	65.4	45.9	31.2	20.6	18.4	10.0	2.22
1.75V	234.2	149.1	110.1	101.1	64.2	45.0	30.6	20.2	18.0	9.8	2.18
1.80V	225.2	143.4	105.9	97.2	61.7	43.3	29.5	19.4	17.3	9.6	2.14

**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.

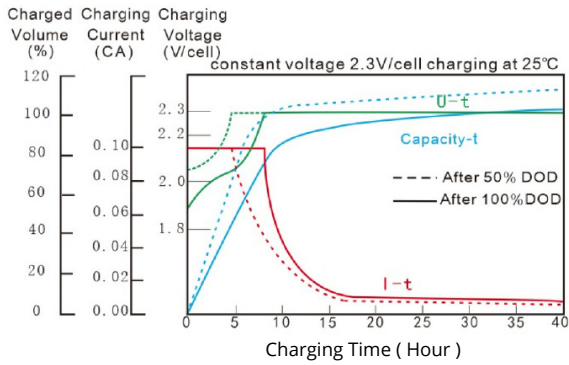
## BENEFITS

- ✓ Ultra high performance Gel Hybrid
- ✓ Designed for deeper discharge
- ✓ High Cycling up to 2,200 cycles @ 30% DOD
- ✓ Operates in high temperature range -25°C~60°C
- ✓ Excellent for energy storage
- ✓ Fully sealed, allows for safe operation in any position
- ✓ Impact & fire resistant ABS case
- ✓ Up to 3 years replacement warranty
- ✓ Resistant to heavy vibrations
- ✓ Low self discharge
- ✓ Relief Valve with flame integrated arrestors
- ✓ Japanese Technology

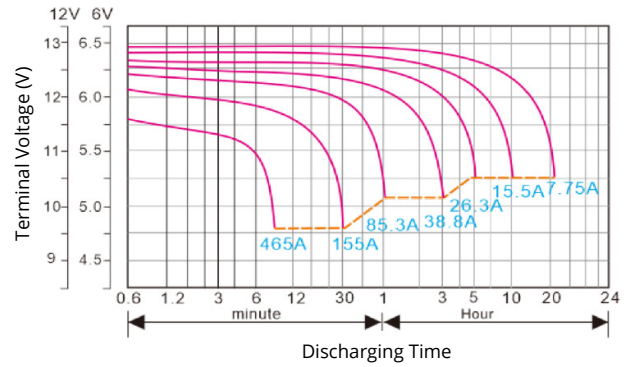


## PERFORMANCE CHARACTERISTICS

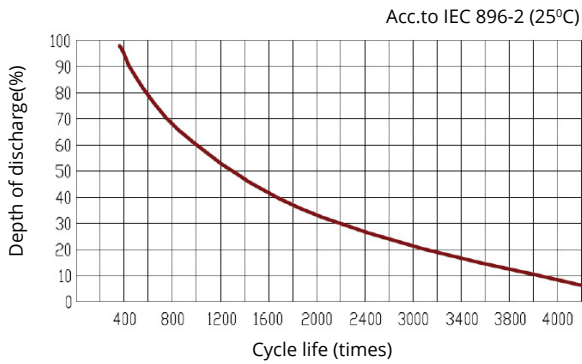
### Charge Characteristics (25°C/77°F)



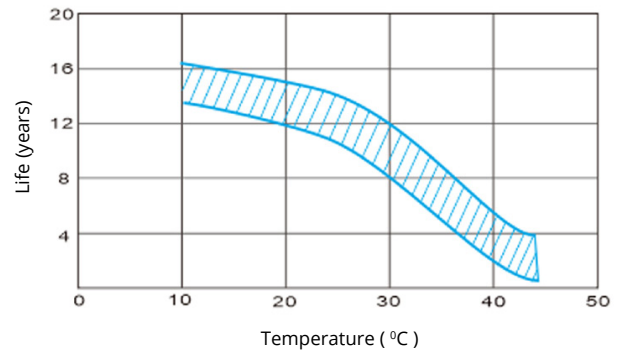
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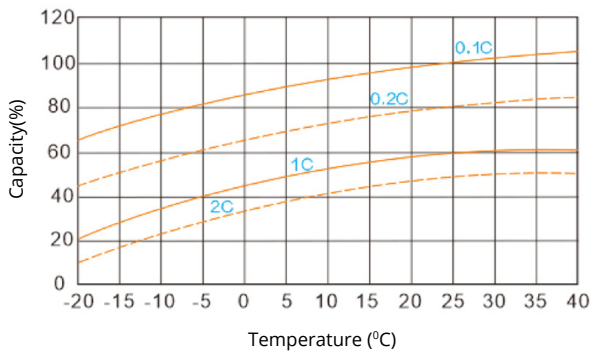
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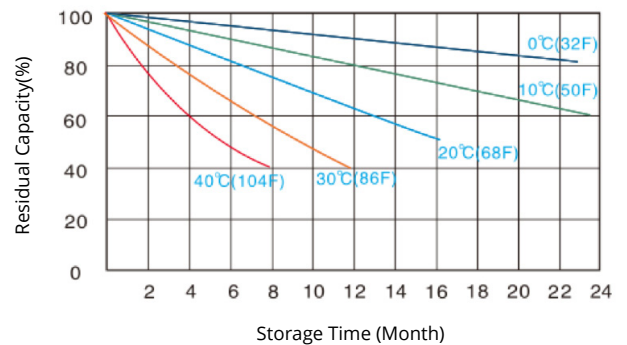
### Temperature vs Float Life



### 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	Fire resistance ABS (UL94-V0 optional)	Flame Si-Rubber and aging resistance	Female Copper Insert M6	Advanced PVC /AGM separator for high pressure cell design	Silicon Gel	Two layers epoxy resin seal