



MAXON[®]
BATTERIES

MXEG12-35

The Endurance Series

SPECIFICATIONS

Nominal Voltage		12V (6 cells per unit)
Design Floating Life @ 25°C		10 Years
Nominal Capacity @ 25°C (20 hour rate @ 1.75A, 10.8V)		35Ah
Capacity @ 25°C	10 hour rate (3.2A, 10.8V)	32Ah
	5 hour rate (5.6A, 10.5V)	28Ah
	1 hour rate (21.4A, 9.6V)	21.4Ah
Internal Resistance		Full Charged Battery @ 25°C ≤12mΩ
Ambient Temperature	Discharge	-25°C~60°C
	Charge	-25°C~60°C
	Storage	-25°C~60°C
Max.Discharge Current @ 25°C		210A (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 8.5A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 8.5A Voltage 14.4-14.9V



12V
Voltage

35Ah
Capacity

Gel
Technology

Deep
Cycle

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.

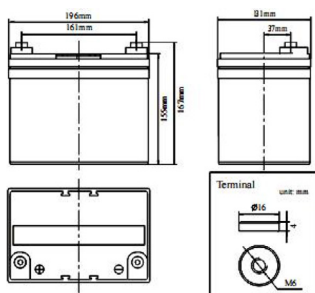
They have the ability to be discharged deeper with twice the cycle life of standard AGM batteries, giving them a more reliable performance under an extreme temperature range (-25°C to 60°C degrees). They are highly suited to Mobility, 4WD, Solar, Marine and standby applications.

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

DIMENSIONS & WEIGHT

Length (mm)	196±1
Width (mm)	130±1
Height (mm)	155±1
Total Height (mm)	155±1
Weight (kg)	10.6±3%



APPLICATIONS

- Caravan, Camper Vans and 4WD
- Mobility & Wheel Chairs
- Marine
- Golf Trolleys
- Solar Systems
- Standby 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	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	56.6	34.5	23.1	21.4	12.3	8.7	5.9	3.9	3.5	1.89	0.42
1.65V	55.6	33.8	22.7	21.0	12.1	8.5	5.8	3.8	3.4	1.86	0.41
1.70V	54.5	33.2	22.3	20.6	11.9	8.3	5.7	3.7	3.3	1.82	0.40
1.75V	53.5	32.6	21.8	20.2	11.7	8.2	5.6	3.7	3.3	1.79	0.40
1.80V	51.5	31.3	21.0	19.4	11.2	7.9	5.4	3.5	3.2	1.75	0.39

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	108.9	66.3	44.5	41.1	23.8	16.7	11.3	7.5	6.7	3.6	0.81
1.65V	107.0	65.1	44.7	40.4	23.3	16.4	11.1	7.3	6.5	3.6	0.79
1.70V	105.0	63.9	44.9	39.6	22.9	16.1	10.9	7.2	6.4	3.5	0.78
1.75V	103.0	62.7	44.0	38.9	22.5	15.8	10.7	7.1	6.3	3.4	0.76
1.80V	99.0	60.3	44.4	37.4	22.6	15.2	10.3	6.8	6.1	3.4	0.75

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.

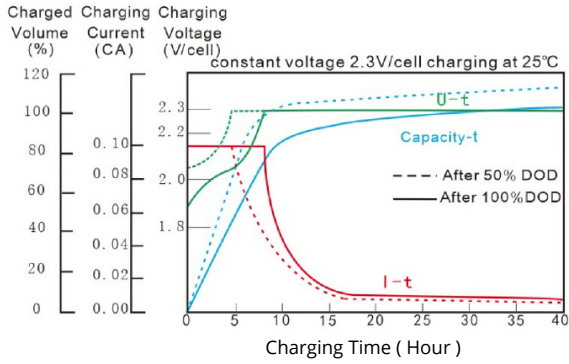
BENEFITS

- ✓ 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 2 years replacement warranty
- ✓ Resistant to heavy vibrations
- ✓ Low self discharge
- ✓ Relief Valve with flame integrated arrestors
- ✓ Japanese Technology

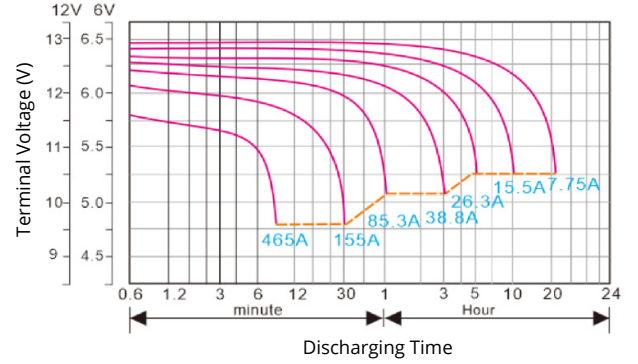


PERFORMANCE CHARACTERISTICS

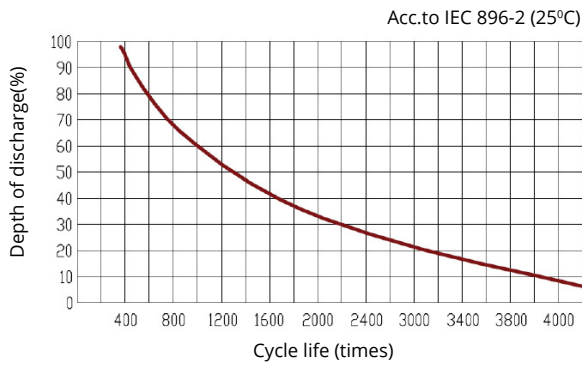
Charge Characteristics (25°C/77°F)



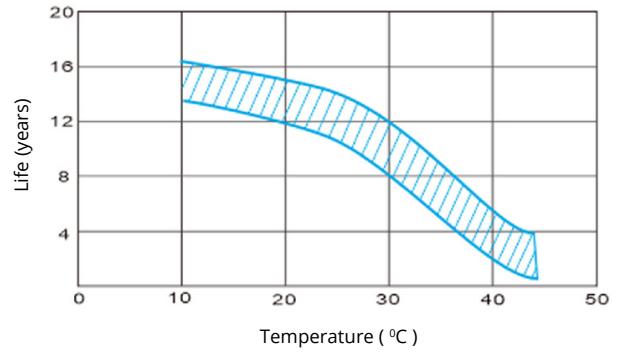
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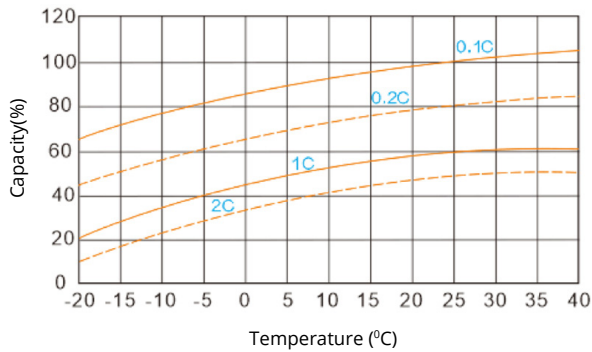
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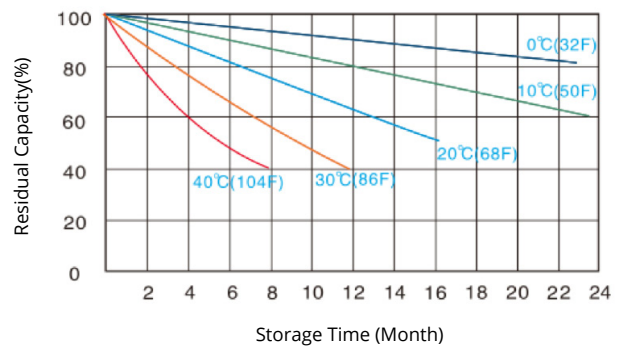
Temperature vs Float Life



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