



MAXON[®]
BATTERIES

MXEG12-85

The Endurance Series



SPECIFICATIONS

Nominal Voltage	12V (6 cells per unit)	
Design Floating Life @ 25°C	10 Years	
Nominal Capacity @ 25° (20 hour rate @ 4.25A, 10.8V)	85Ah	
Capacity @ 25°C	10 hour rate (7.7A, 10.8V)	77Ah
	5 hour rate (13.5A, 10.5V)	67.5Ah
	1 hour rate (51.9A, 9.6V)	51.9Ah
Internal Resistance	Full Charged Battery @ 25°C	≤6.0mΩ
Ambient Temperature	Discharge	-25°C~60°C
	Charge	-25°C~60°C
	Storage	-25°C~60°C
Max.Discharge Current @ 25°C	510A (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 19A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 19A Voltage 14.4-14.9V



12V
Voltage

85Ah
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

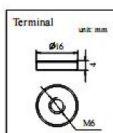
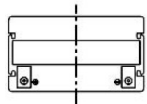
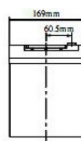
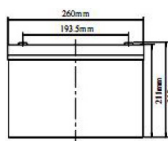
- Long life and higher stability under high temperature
- High cycle ability 2,200 cycles @ 30% DOD
- Integrated design to ensure the best in uniformity and reliability
- Operates in high temperature range -25°C~60°C
- Extreme Vibration Resistant
- Advanced AGM Separators

APPLICATIONS

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

DIMENSIONS & WEIGHT

Length (mm)	260±1
Width (mm)	169±1
Height (mm)	211±1
Total Height (mm)	215±1
Weight (kg)	26.2±3%



Marine



Solar



4W Drives



Caravans



Mobility



UPS



Standby



CE



CERTIFIED
ISO 9001
ISO 14001
PRODUCER

COMPLIED STANDARDS

IEC 60896-21/22
IEC61427
GB/T 19638

JIS C8704
BS6290 part4
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	137.4	83.7	56.1	51.9	30.0	21.0	14.3	9.4	8.4	4.59	1.02
1.65V	134.9	82.2	55.1	50.9	29.4	20.7	14.0	9.3	8.3	4.51	1.00
1.70V	132.4	80.6	54.1	50.0	28.9	20.3	13.8	9.1	8.1	4.42	0.98
1.75V	129.9	79.1	53.0	49.1	28.3	19.9	13.5	8.9	8.0	4.34	0.96
1.80V	125.0	76.1	51.0	47.2	27.2	19.1	13.0	8.6	7.7	4.25	0.94

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	264.6	161.1	108.0	99.9	57.7	40.5	27.5	18.2	16.2	8.8	1.96
1.65V	259.8	158.2	106.0	98.1	56.6	39.8	27.0	17.8	15.9	8.7	1.93
1.70V	255.0	155.2	104.1	96.3	55.6	39.0	26.5	17.5	15.6	8.5	1.89
1.75V	250.1	152.3	102.1	94.4	54.5	38.3	26.0	17.2	15.3	8.3	1.85
1.80V	240.5	146.4	98.2	90.8	52.4	36.8	25.0	16.5	14.7	8.2	1.82

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.

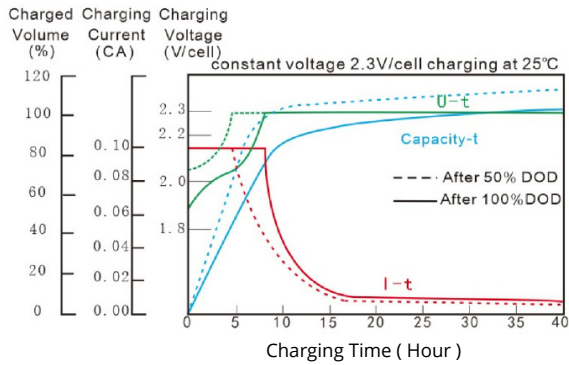
BENEFITS

- ✓ 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

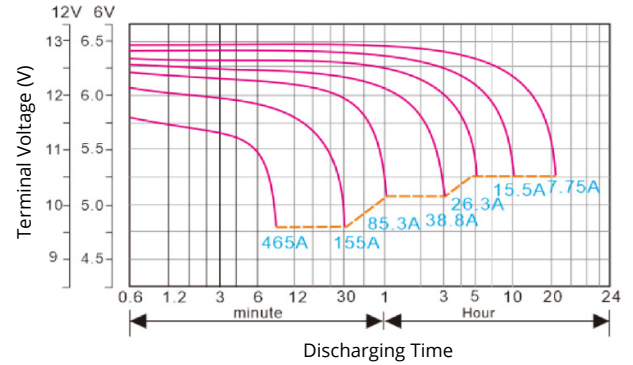


PERFORMANCE CHARACTERISTICS

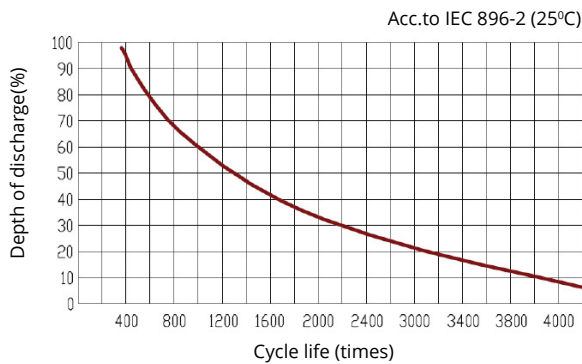
Charge Characteristics (25°C/77°F)



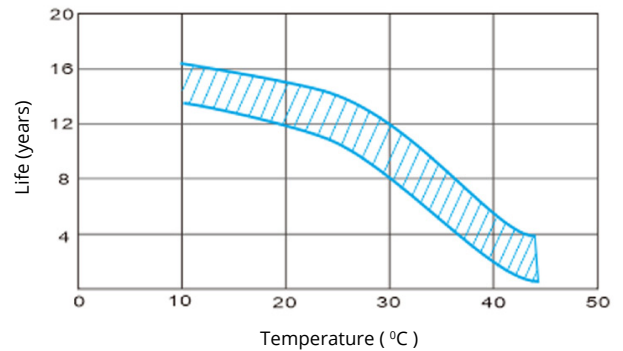
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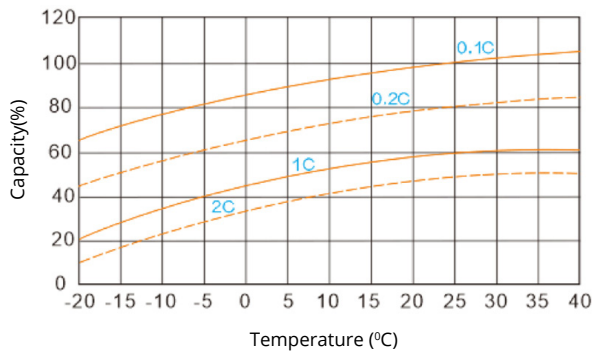
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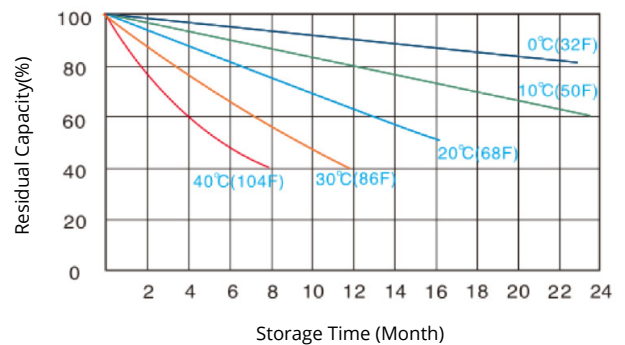
Temperature vs Float Life



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