



MAXON[®]
BATTERIES

MXEG12-20

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 @ 1.0A,10.8V)	20Ah	
Capacity @ 25°C	10 hour rate (1.8A,10.8V)	18Ah
	5 hour rate (3.2A,10.5V)	16Ah
	1 hour rate (11.1A,9.6V)	11.1Ah
Internal Resistance	Full Charged Battery @ 25°C	≤12.0mΩ
Ambient Temperature	Discharge	-25°C~60°C
	Charge	-25°C~60°C
	Storage	-25°C~60°C
Max.Discharge Current @ 25°C	120A (5s)	
Capacity affected by Temperature (10 hour rate)	40°C	105%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-Discharge @ 25°C per Month	3%	
Charge (Constant Voltage) @ 25°C	Standby Use	Initial Charging Current Less than 5.0A(0.25C) Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 5.0A(0.25C) Voltage 14.4-14.9V



12V Voltage	20Ah Capacity	Gel Technology	Deep Cycle
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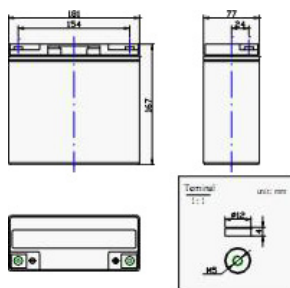
The Maxon Endurance Series is a Gel AGM Hybrid battery. It uses a thick plate design with advanced AGM separators and a newly developed silicone gel electrolyte imported from Germany. This makes them an ultra-high-performance battery.

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 (-15°C to 45°C degrees). They are highly suited to Mobility, 4WD, Solar, Marine and standby applications.

GENERAL FEATURES **DIMENSIONS & WEIGHT**

- 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

Length (mm)	181±1
Width (mm)	77±1
Height (mm)	167±1
Total Height (mm)	167±1
Weight (kg)	6±3%



APPLICATIONS

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

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	25.7	16.4	12.1	11.1	7.0	5.0	3.4	2.2	2.0	1.1	25.7
1.65V	25.3	16.1	11.9	10.9	6.9	4.9	3.3	2.2	1.9	1.08	25.3
1.70V	24.8	15.8	11.6	10.7	6.8	4.8	3.2	2.1	1.9	1.06	24.8
1.75V	24.3	15.5	11.4	10.5	6.7	4.7	3.2	2.1	1.9	1.04	24.3
1.80V	23.4	14.9	11.0	10.1	6.4	4.5	3.1	2.0	1.8	1.00	23.4

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	74.7	45.5	30.5	28.2	16.3	11.4	7.8	5.1	4.6	2.5	0.55
1.65V	73.3	44.7	29.9	27.7	16.0	11.2	7.6	5.0	4.5	2.4	0.54
1.70V	72.0	43.8	29.4	27.2	15.7	11.0	7.5	4.9	4.4	2.4	0.53
1.75V	70.6	43.0	28.8	26.7	15.4	10.8	7.4	4.9	4.3	2.4	0.52
1.80V	67.9	41.3	27.7	25.6	14.8	10.4	7.1	4.7	4.2	2.3	0.51

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.

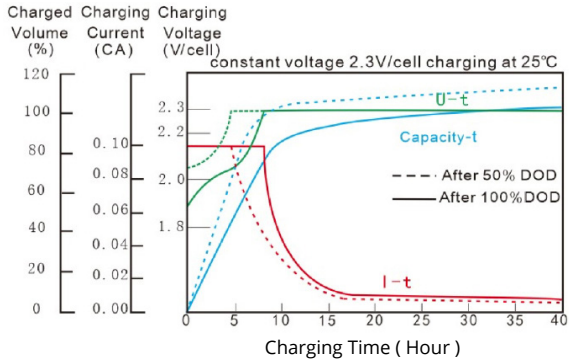
BENEFITS

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

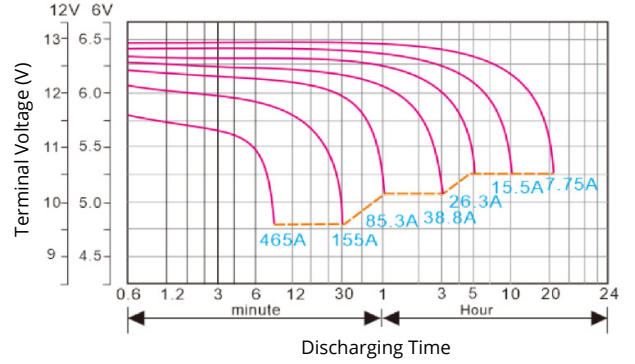


PERFORMANCE CHARACTERISTICS

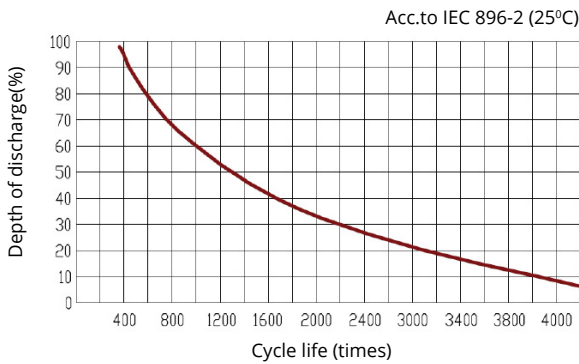
Charge Characteristics (25°C/77°F)



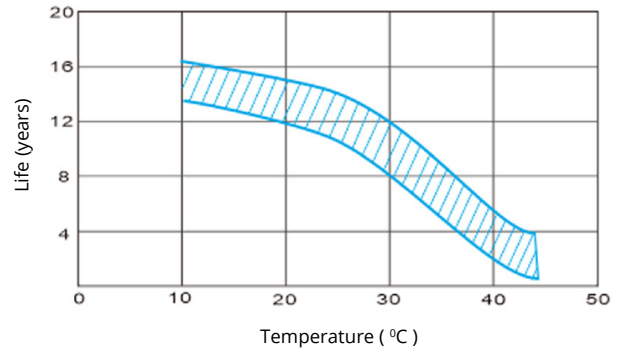
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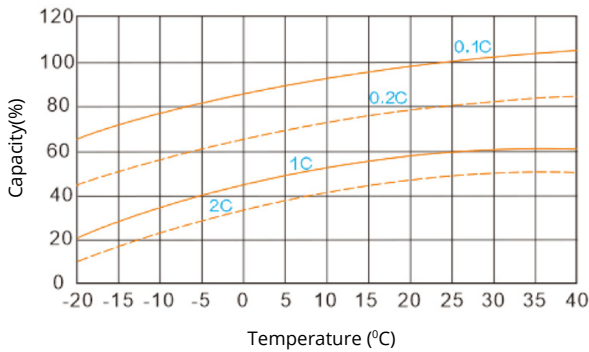
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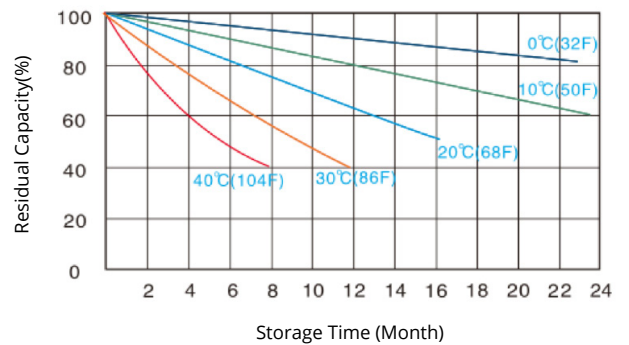
Temperature vs Float Life



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 (torque :3~4N.m)	Advanced PVC /AGM separator for high pressure cell design	Dilute high purity sulphuric acid	Two layers epoxy resin seal