

## General features for MPE Series (Deep-cycle) battery

- \* Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- \* Computer designed lead, calcium tin alloy grid for high power density.
- \* UL-recognized component.
- \* Long service life, float or cyclic applications.
- \* Maintenance-free operation.
- \* Low self discharge.
- \* Case and cover are available in both standard and flame retardant ABS (Standard :UL94V0).



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**MPE12-134 (12V134Ah)**

## Specifications

Nominal Voltage		12V
Rated capacity (10 hour rate)		134 Ah
Dimensions (±2mm)	Total Height	288 mm (11.33 inches)
	Height	283 mm (11.14 inches)
	Length	341 mm (13.42 inches)
	Width	173mm (6.81 inches)
Weight Approx (±3%)		39.0Kg (86 lbs)

## Battery picture and construction

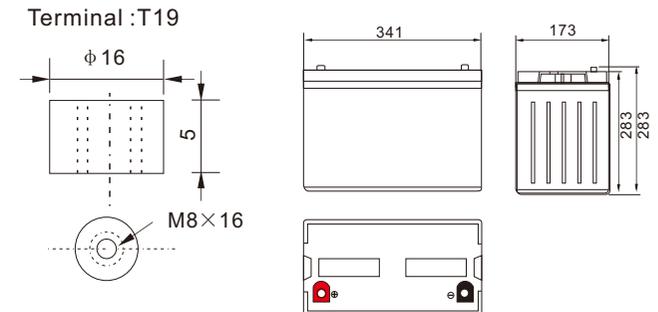


### Battery Construction

Component	Positive plate	Negative plate	Container	Cover
Raw material	Lead dioxide	Lead	ABS	ABS
Component	Electrolyte	Separator	Safety valve	Terminal
Raw material	Dilute sulfuric acid	Fiberglass	Rubber	Copper

## Outer dimension and terminal

Outer dimensions(±2mm)  
Unit:mm



## Characteristics

Capacity 25°C(77°F)	10 hour rate(13.4 A,10.8V) 5 hour rate(21.4A,10.5V) 1 hour rate(80.4 A,9.6V)	134 Ah 107Ah 80.4 Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 5.5mΩ
Capacity affected by Temperature (10hour rate)	40°C (104°F)	102%
	25°C (77°F)	100%
Remaining capacity Self-Discharge At 25°C(77°F)	0°C (32°F)	85%
	-15°C (5°F)	65%
	Capacity after 3 month storage	91%
Terminal type	Capacity after 6 month storage	82%
	Capacity after 12 month storage	64%
Max. Discharge current 25°C/(77°F)	T19	950A (5Seconds)
Nominal operating temperature		25°C ±5°C(77°F ±9°F)
Operating Temperature Range	Discharge	-15°C ~50°C (5°F ~122°F)
	Charge	-10°C ~50°C (14°F ~122°F)
	Storage	-20°C ~50°C (-4°F ~122°F)
Charge methods (constant Voltage) At 25°C(77°F)	Cycle use	Initial Charging Current less than 33.5 A Voltage 14.5-15.0V Temperature compensation:-30mV/°C
	Standby use	Voltage 13.8-13.8V Temperature compensation:-18mV/°C

## Constant current discharge (25°C , 77 °F)

## Constant power discharge (25°C , 77 °F)

Unit:A

Unit:watts

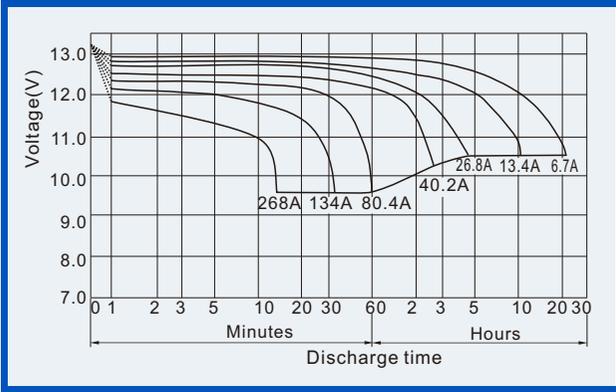
### Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
9.60V	A	429	283	228	152.8	80.4	46.9	34.4	26.8	22.1	15.68	7.60
	W	4429	3020	2444	1642	868	515	383	302	251	180	88.3
10.20V	A	416	255	215	146.1	75.6	44.8	33.5	26.1	21.7	15.28	7.37
	W	4439	2849	2402	1640	855	516	388	304	253	179	86.5
10.50V	A	402	228	188	136.7	73.2	43.7	32.7	25.7	21.4	15.14	7.37
	W	4391	2596	2142	1573	847	507	381	301	251	178	87.1
10.80V	A	388	215	174	126.0	70.8	42.6	31.9	25.3	20.9	14.74	7.24
	W	4348	2480	2010	1459	824	499	376	299	247	175	86.2
11.10V	A	375	202	161	112.6	68.3	41.5	30.8	24.7	20.4	14.34	6.83
	W	4247	2334	1875	1317	804	491	366	294	243	172	82.8

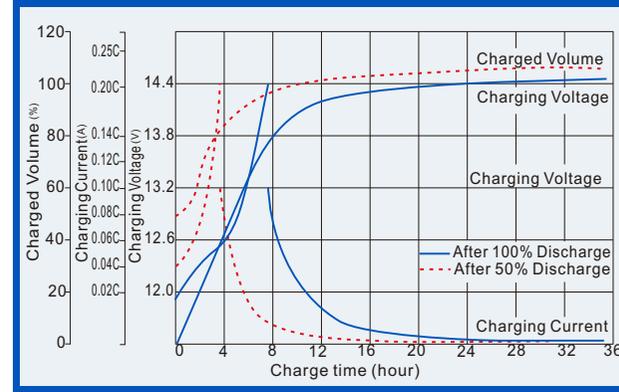
(Above characteristics data are average values obtained within three charge/discharge cycles,not the minimum values.)

# Deep Cycle Battery (VRLA Battery, AGM technology) Maintenance-free Sealed Lead Acid Rechargeable Battery

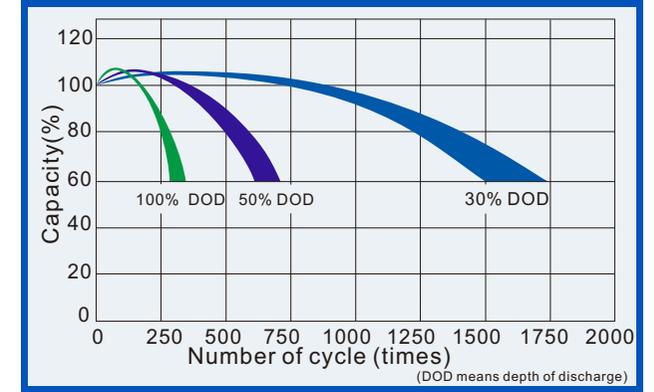
**Discharge characteristics (25°C, 77°F)**



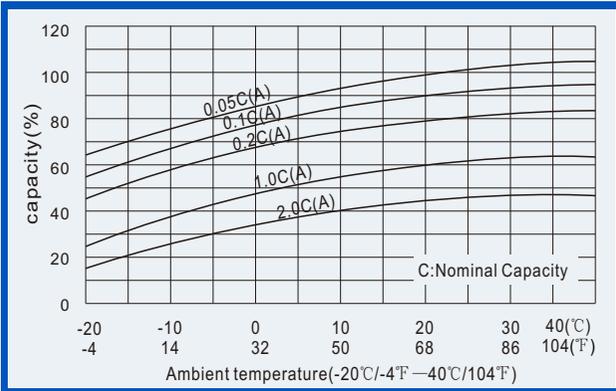
**Charge characteristics (25°C, 77°F)**



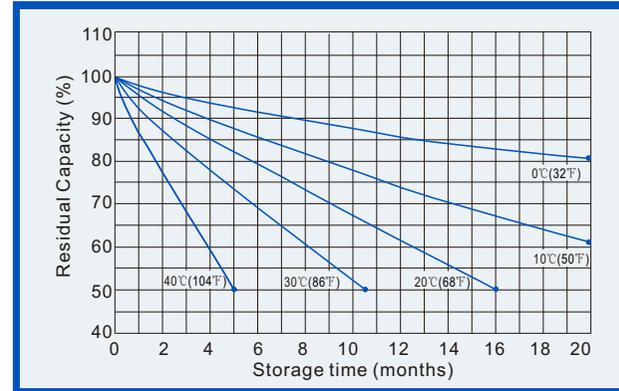
**Life characteristics of Cyclic Use (25°C, 77°F)**



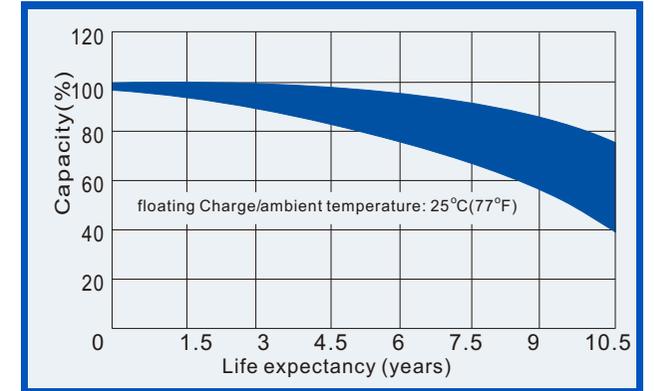
**Effect of Temperature on capacity**



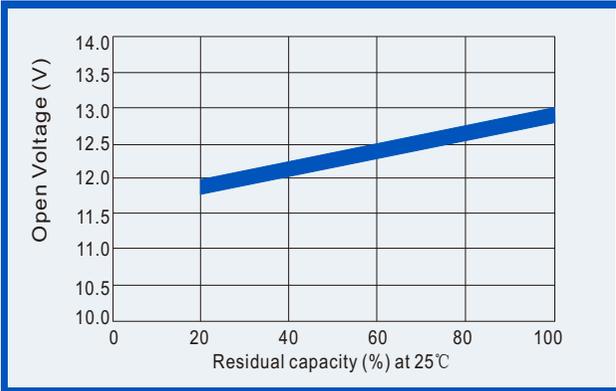
**Self-discharge characteristics**



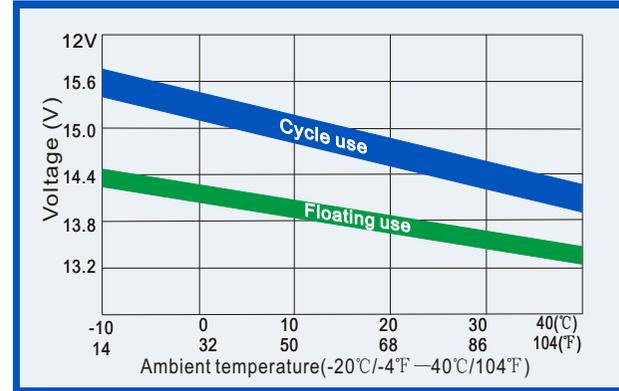
**Life Characteristics of standby use (25°C, 77°F)**



**Relationships for open voltage and remained capacity (for reference)**



**Relationship for charging voltage and temperature**



**Temperature effects on floating life**

