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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MPE12-200 (12V200Ah)

Specifications

Nominal Voltage			12V
Rated capacity (10 hour rate)			200 Ah
Dimensions (±2mm)	Total Height	T19	221 mm (8.69 inches)
		T12	237 mm (9.29 inches)
	Height		216 mm (8.50 inches)
	Length		522 mm (20.6 inches)
	Width		240 mm (9.45 inches)
Weight Approx (±3%)			60.5 Kg (133.4lbs)

Battery picture and construction

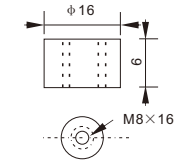
Battery Construction

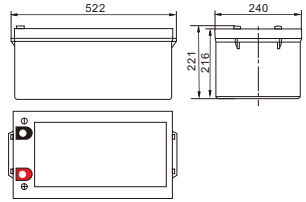
Component	Positive plate	Negative plate	Container	Cover
Raw material	Lead dioxide	Lead	ABS	ABS
Component	Electrolyte	Separator	Safety valve	Terminal
Raw material	Dilute sulfuric acid	Fiberglass	Rubber	Copper

Outer dimension and terminal

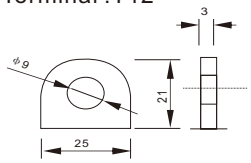
Outer dimensions(±2mm) Unit:mm

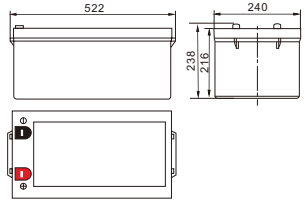
Terminal :T19





Terminal :T12





Characteristics

Capacity 25℃(77℉)	10 hour rate(20 A,10.8V) 5 hour rate(32A,10.5V) 1 hour rate(120 A,9.6V)	200Ah 160Ah 120Ah
Internal Resistance	Full charged battery at 25℃(77℉)	Approx 2.5mΩ
Capacity affected by Temperature (10hour rate)	40℃ (104℉) 25℃ (77℉) 0℃ (32℉) -15℃ (5℉)	102% 100% 85% 65%
Remaining capaicty Self-Discharge At 25℃(77℉)	Capacity after 3 month storage Capacity after 6 month storage Capacity after 12 month storage	91% 82% 64%
Terminal type		T19 (Option T12)
Max. Discharge current 25℃/(77℉)		1600A (5Seconds)
Nominal operating temperature		25℃ ±5℃(77℉ ±9℉)
Operating Temperature Range	Discharge Charge Storage	-15℃ ~50℃ (5℉ ~122℉) -10℃ ~50℃ (14℉ ~122℉) -20℃ ~50℃ (-4℉ ~122℉)
Charge methods (constant Voltage) At 25℃(77℉)	Cycle use	Initial Charging Current less than 50A Voltage 14.5-15.0V Temperature compensation:-30mV/℃
	Standby use	Voltage 13.5-13.8V Temperature compensation:-18mV/℃

Constant current discharge (25℃ , 77 ℉)

Unit:A

Constant power discharge (25℃ , 77 ℉)

Unit:watts

Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25℃(77℉)

Time		5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
9.60V	A	641	422	340	228.0	120.0	70.0	51.4	40.0	33.0	23.40	21.00	11.34
	W	6611	4507	3648	2451	1296	769	572	450	375	268	243	131.9
10.20V	A	620	381	320	218.0	112.8	66.8	50.0	39.0	32.4	22.80	20.60	11.00
	W	6626	4252	3585	2447	1276	770	579	453	378	267	242	129.0
10.50V	A	600	341	280	204.0	109.2	65.2	48.8	38.4	32.0	22.60	20.20	11.00
	W	6554	3875	3198	2348	1265	756	569	449	375	266	239	130.0
10.80V	A	578	321	260	188.0	105.6	63.6	47.6	37.8	31.2	22.00	20.00	10.80
	W	6490	3702	3000	2178	1229	745	561	446	369	261	238	128.6
11.10V	A	559	301	240	168.0	102.0	62.0	46.0	36.8	30.4	21.40	19.00	10.20
	W	6339	3483	2798	1966	1200	733	546	438	363	256	229.4	123.6

(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 Rechageable Battery

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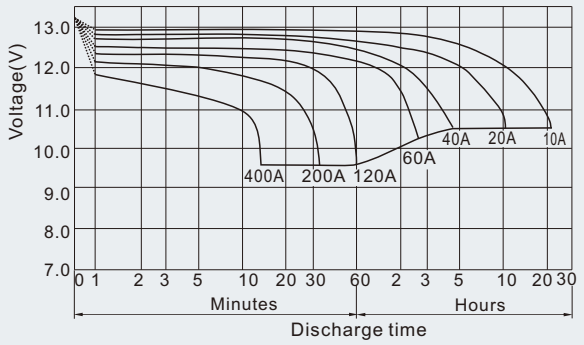
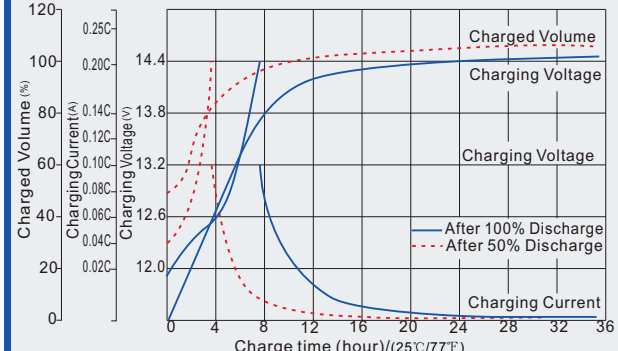
MPE12-200 (12V200Ah)

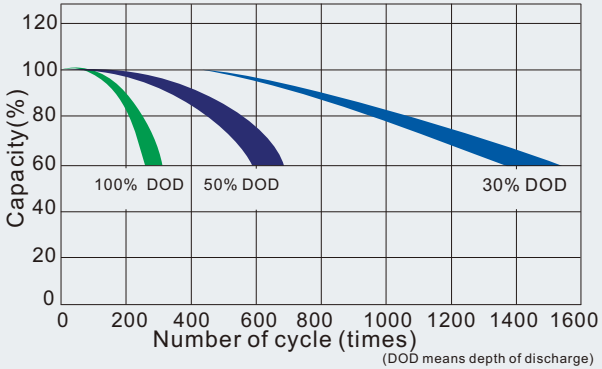
Discharge characteristics (25℃,77°F)



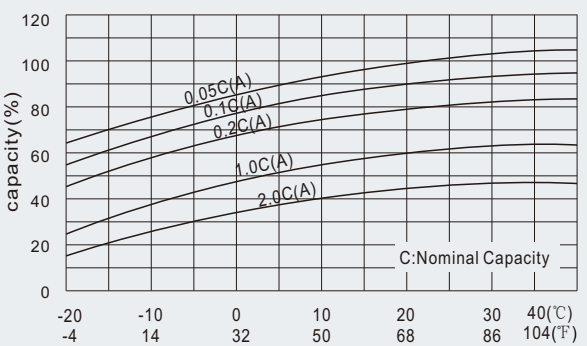
Charge characteristics (25℃,77°F)



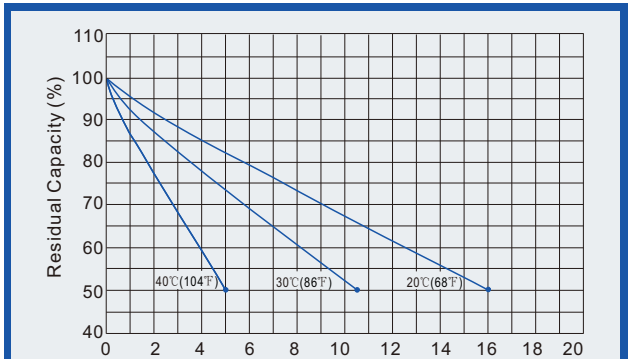
Life characteristics of Cyclic Use (25℃,77°F)



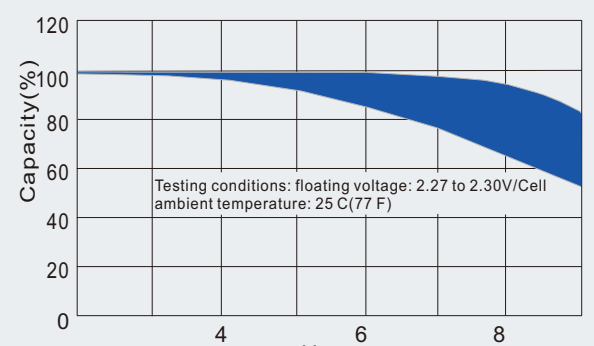
Effect of Temperature on capacity



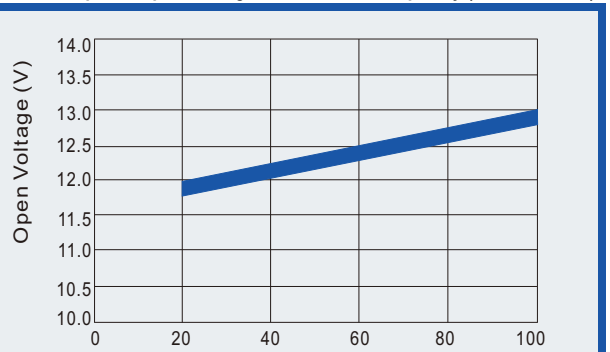
Self-discharge characteristics



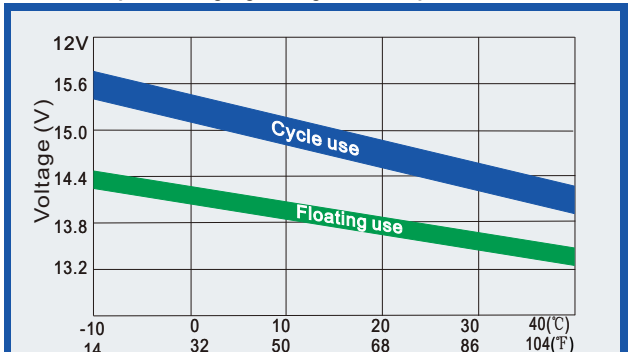
Life Characteristics of standby use (25℃,77°F)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life