

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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MPE12-75 (12V75Ah)

Specifications

Nominal Voltage		12V	
Rated capacity (10 hour rate)		75 Ah	
Dimensions (±2mm)	Total Height	T16	216 mm (8.50 inches)
		T33	228 mm (8.98 inches)
	Height	208 mm (8.19 inches)	
	Length	260 mm (10.2 inches)	
	Width	169 mm (6.65 inches)	
Weight Approx (±3%)		22.2 Kg (48.9 lbs)	

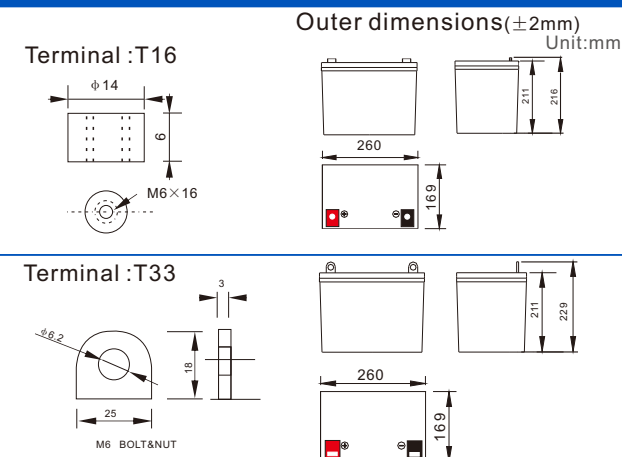
Battery picture and construction



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



Characteristics

Capacity 25°C(77°F)	10 hour rate(7.5 A,10.8V) 5 hour rate(12A,10.5V) 1 hour rate(45A,9.6V)	75Ah 60Ah 45Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 7.5mΩ
Capacity affected by Temperature (10hour rate)	40°C (104°F) 25°C (77°F) 0°C (32°F) -15°C (5°F)	102% 100% 85% 65%
Remaining capacity Self-Discharge At 25°C(77°F)	Capacity after 3 month storage Capacity after 6 month storage Capacity after 12 month storage	91% 82% 64%
Terminal type	T16 (Option T33)	
Max. Discharge current 25°C/(77°F)	750A (5Seconds)	
Nominal operating temperature	25°C ±5°C(77°F ±9°F)	
Operating Temperature Range	Discharge Charge Storage	-15°C ~50°C (5°F ~122°F) -10°C ~50°C (14°F ~122°F) -20°C ~50°C (-4°F ~122°F)
Charge methods (constant Voltage) At 25°C(77°F)	Cycle use Standby use	Initial Charging Current less than 18.8 A Voltage 14.5-14.9V Temperature compensation:-30mV/°C Voltage 13.5-13.8V Temperature compensation:-18mV/°C

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

Unit:A

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

Unit:watts

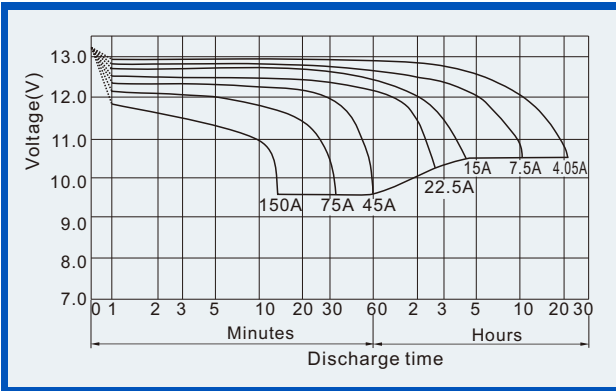
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
9.60V	A 240	158	128	85.5	45.0	26.3	19.3	15.0	12.4	8.78	7.88	4.25
	W 2479	1690	1368	919	486	288	215	169	141	101	91	49.4
10.20V	A 233	143	120	81.8	42.3	25.1	18.8	14.6	12.2	8.55	7.73	4.13
	W 2485	1595	1344	918	478	289	217	170	142	100	91	48.4
10.50V	A 225	128	105	76.5	41.0	24.5	18.3	14.4	12.0	8.48	7.58	4.13
	W 2458	1453	1199	880	474	284	213	168	141	100	90	48.8
10.80V	A 217	120	98	70.5	39.6	23.9	17.9	14.2	11.7	8.25	7.50	4.05
	W 2434	1388	1125	817	461	279	210	167	138	98	89	48.2
11.10V	A 210	113	90	63.0	38.3	23.3	17.3	13.8	11.4	8.03	7.13	3.83
	W 2377	1306	1049	737	450	275	205	164	136	96	86.0	46.4

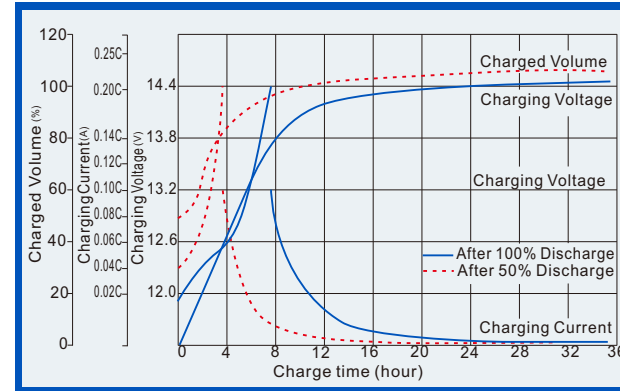
(Above characteristics data are average values obtained within three charge/discharge cycles,not the minimum values.)

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

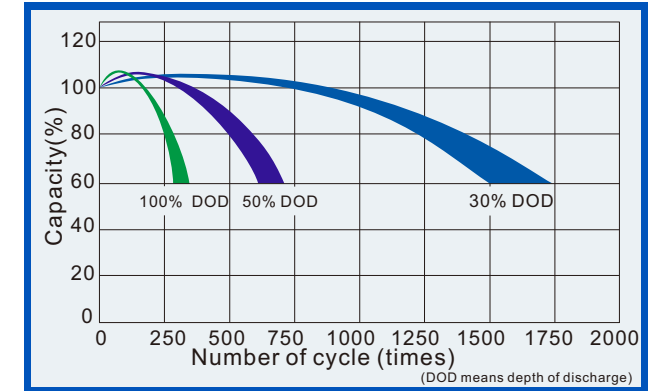
Discharge characteristics (25°C, 77°F)



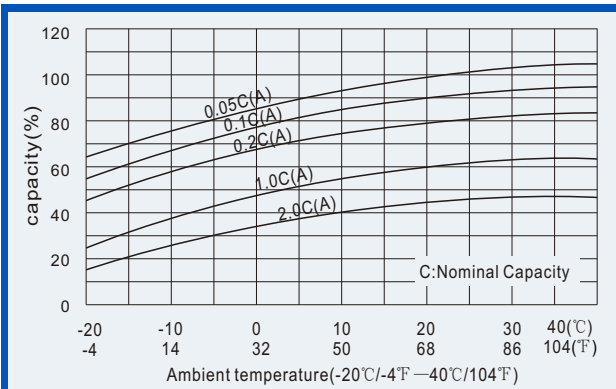
Charge characteristics (25°C, 77°F)



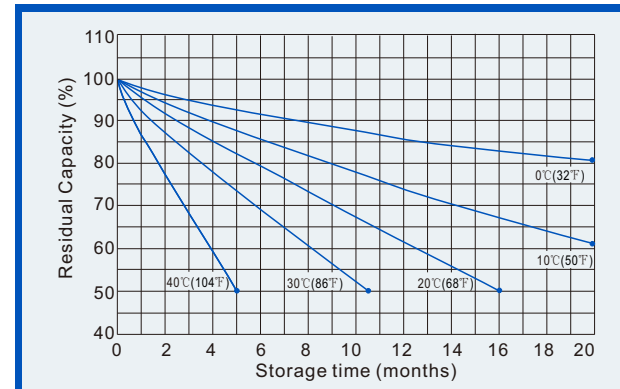
Life characteristics of Cyclic Use (25°C, 77°F)



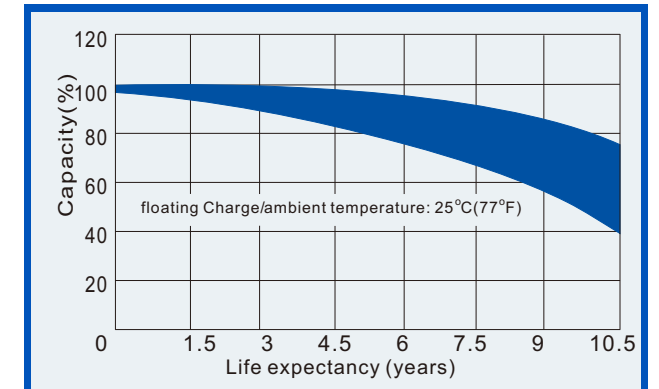
Effect of Temperature on capacity



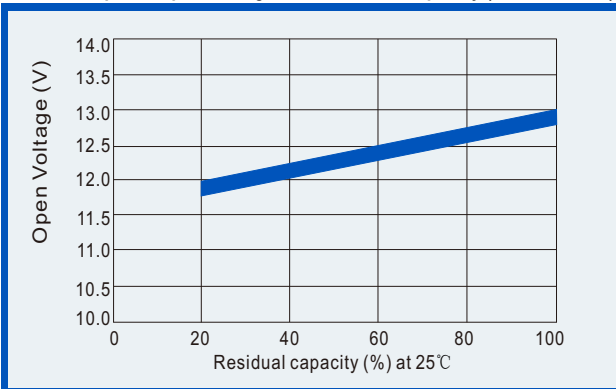
Self-discharge characteristics



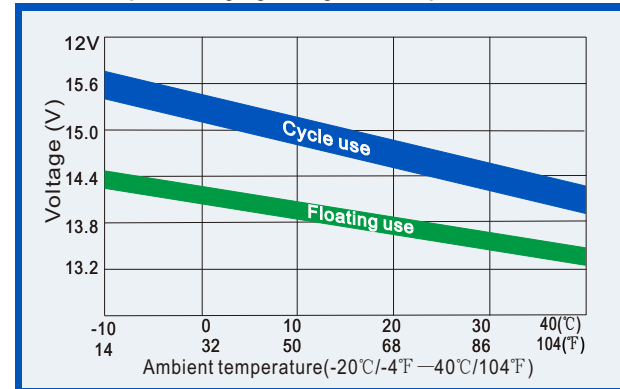
Life Characteristics of standby use (25°C, 77°F)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life

