

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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MPE12-65 (12V65Ah)

Specifications

Nominal Voltage		12V	
Rated capacity (10 hour rate)		65 Ah	
Dimensions (±2mm)	Total Height	T16	179mm (7.05 inches)
		T9	179 mm (7.05 inches)
	Height	179 mm (7.05 inches)	
	Length	350 mm (130.8 inches)	
Weight Approx (±3%)		21.0 Kg (46.4 lbs)	

Battery picture and construction



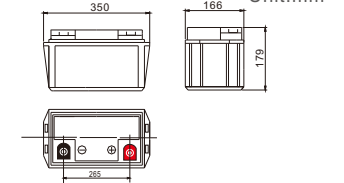
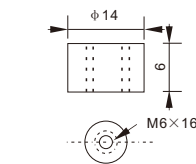
Battery Construction

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

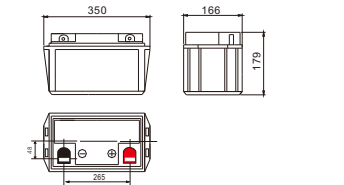
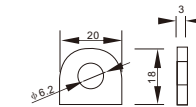
Outer dimension and terminal

Outer dimensions(±2mm)
Unit:mm

Terminal : T16



Terminal : T9



Characteristics

Capacity 25°C(77°F)	10 hour rate(6.5 A, 10.8V) 5 hour rate(10.4A, 10.5V) 1 hour rate(39 A, 9.6V)	65Ah 52Ah 39Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 5.6mΩ
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%
Charge methods (constant Voltage) At 25°C(77°F)	Cycle use	Initial Charging Current less than 16.3A Voltage 14.5-15.0V Temperature compensation:-30mV/°C
	Standby use	Voltage 13.6-13.8V Temperature compensation:-18mV/°C

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

Unit:A

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

Unit:watts

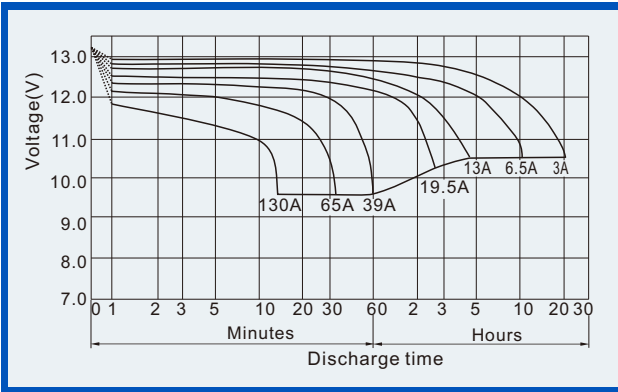
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
9.60V	A	208	137	111	74.1	39.0	22.8	16.7	13.0	10.7	7.61	3.69
	W	2149	1465	1185	797	421	250	186	146	122	87	42.9
10.20V	A	202	124	104	70.9	36.7	21.7	16.3	12.7	10.5	7.41	3.58
	W	2153	1382	1165	795	415	250	188	147	123	87	41.9
10.50V	A	195	111	91	66.3	35.5	21.2	15.9	12.5	10.4	7.35	3.58
	W	2130	1259	1039	763	411	246	185	146	122	86	42.3
10.80V	A	188	104	85	61.1	34.3	20.7	15.5	12.3	10.1	7.15	3.51
	W	2109	1203	975	708	399	242	182	145	120	85	41.8
11.10V	A	182	98	78	54.6	33.2	20.2	15.0	12.0	9.9	6.96	3.32
	W	2060	1132	909	639	390	238	178	142	118	83	40.2

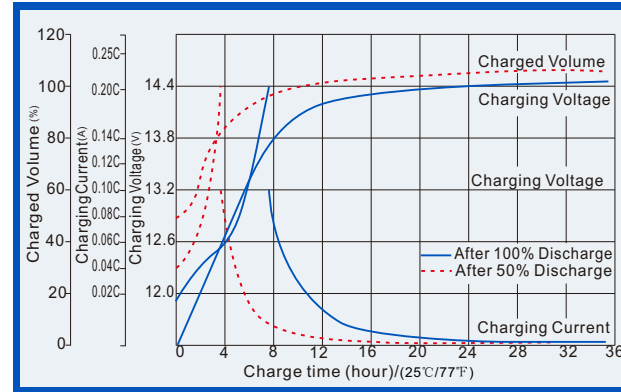
(Above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.)

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

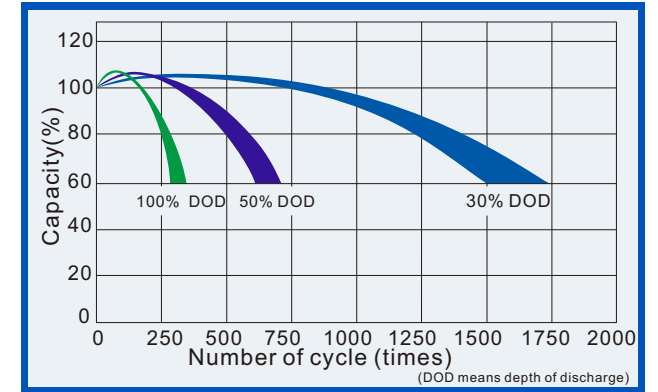
Discharge characteristics (25°C, 77°F)



Charge characteristics (25°C, 77°F)



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



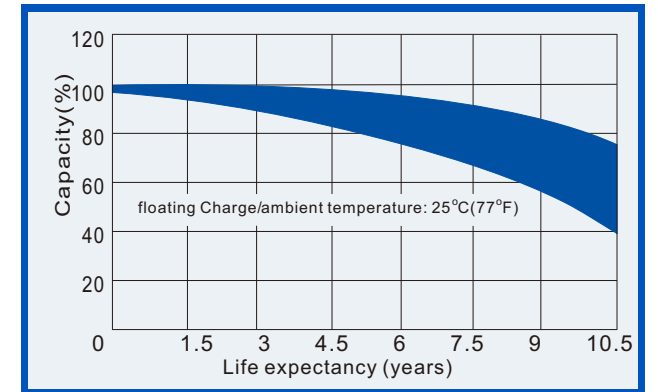
Effect of Temperature on capacity



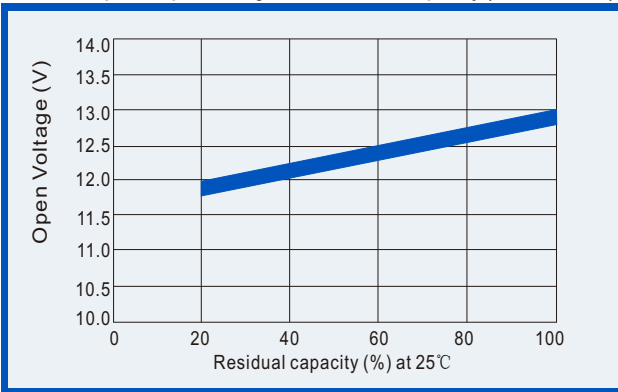
Self-discharge characteristics



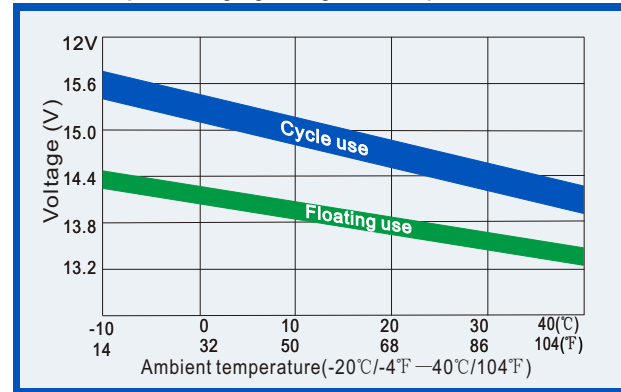
Life Characteristics of standby use (25°C, 77°F)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life

