

VRLA AGM battery

ATP 12-50AH

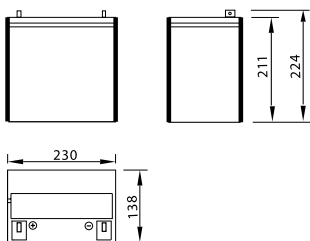


ATP series is a general Purpose battery. It meets with heavy duty grids, thicker plates, special additives and advanced AGM valve regulated technology, the ATP series battery provides consistent performance and long service life. The new grid design effectively reduces the internal resistance, which provides higher specific energy density and excellent high rate discharge characteristics. It is suitable for telecommunications back-up power and EPS/UPS applications.

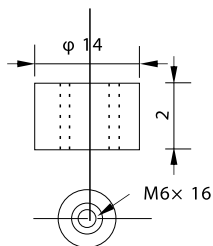
Specifications

Nominal Voltage	12V	
Rated capacity (20 hour rate)	50Ah	
Dimensions	Length	230±2mm(9.06inch)
	Width	138±2mm(5.43inch)
	Height	211±2mm(8.31inch)
	Total Height	215±2mm(8.46inch)
Approx. Weight	15.9kg(35.05lbs)±3%	

Outer dimensions (mm)



Terminal Type (mm)



Characteristics

Capacity (25°C)	10HR(10.8V)	50Ah
	3HR(10.8V)	37.5Ah
	1HR(10.5V)	27.5Ah
Terminal type		T14
Internal resistance (Fully charged, 25°C)		Approx. 7.5mΩ
Capacity affected by temperature (10HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 months	Remaining Capacity: 91%
	6 months	Remaining Capacity: 82%
	12 months	Remaining Capacity: 65%
Nominal operating temperature		25°C ±3°C (77°F ±5°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)
Float charging voltage(25°C)		13.50 to 13.80V Temperature compensation: -18mV/°C
Cyclic charging voltage(25°C)		14.50 to 15.00V Temperature compensation: -30mV/°C
Maximum charging current		15A
Maximum discharge current		500A(5 sec.)
Designed floating life(20°C)		10 years

Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS	ABS	AGM	Sulfuric acid	Rubber	Copper

Constant Current Discharge Characteristics Unit:A(25°C,77°F)

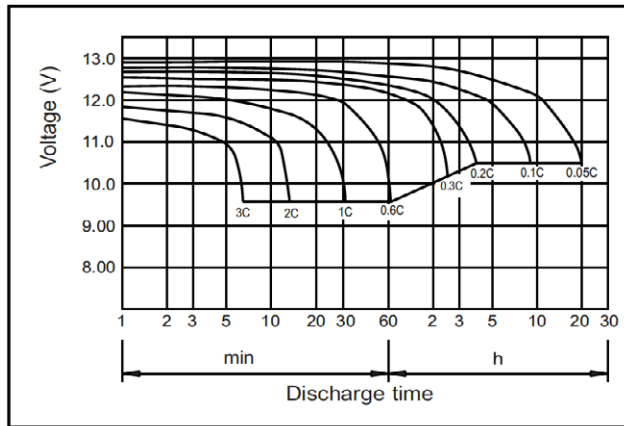
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	109	84.0	50.3	30.9	18.3	13.2	10.5	8.98	6.17	5.09	2.70
9.90V	106	82.0	49.2	30.4	18.2	13.1	10.4	8.92	6.13	5.08	2.69
10.2V	101	79.0	47.7	29.7	18.0	13.0	10.4	8.86	6.09	5.07	2.68
10.5V	97.0	76.3	46.6	28.7	17.7	12.9	10.3	8.80	6.05	5.04	2.67
10.8V	91.6	72.2	44.9	27.8	17.3	12.5	9.99	8.54	5.87	5.00	2.65

Constant Power Discharge Characteristics Unit:W(25°C,77°F)

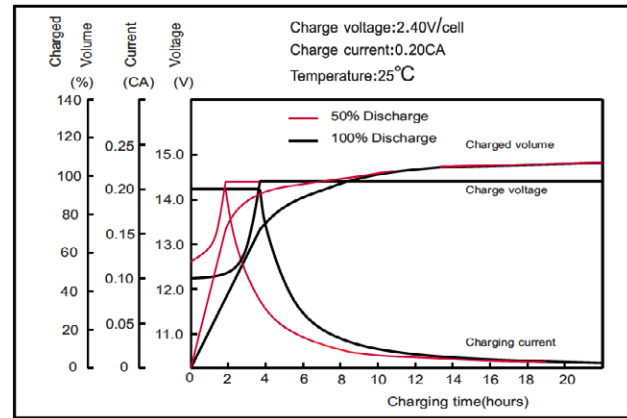
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	1177	922	564	352	212	155	124	106	73.3	60.8	32.4
9.90V	1142	900	553	347	210	154	123	105	72.9	60.7	32.3
10.2V	1095	867	536	338	208	153	122	105	72.4	60.5	32.2
10.5V	1048	837	523	328	205	152	121	104	71.9	60.1	32.0
10.8V	989	793	503	317	200	147	117	101	69.7	59.7	31.8

Note: The above characteristics data can be obtained within three charge or discharge cycles.

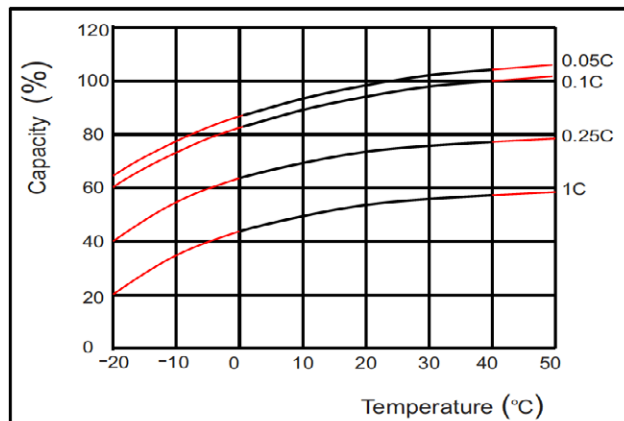
Discharge characteristics(25°C)



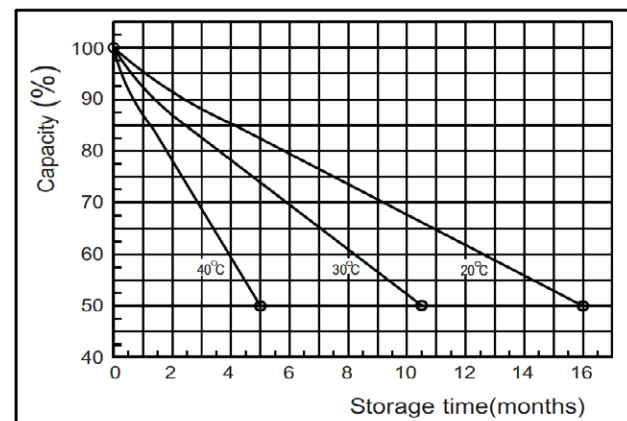
Charging characteristics



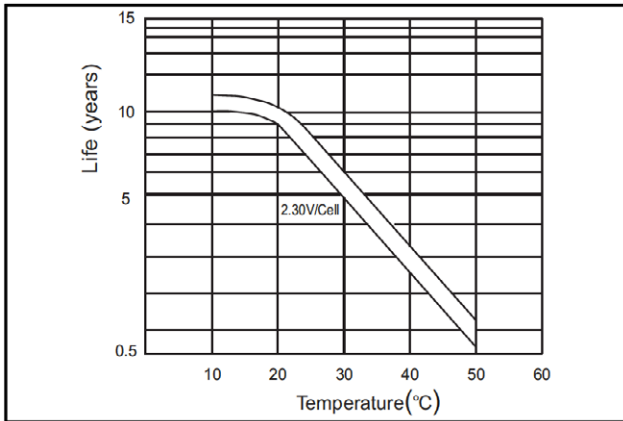
Effect of Temperature on Capacity



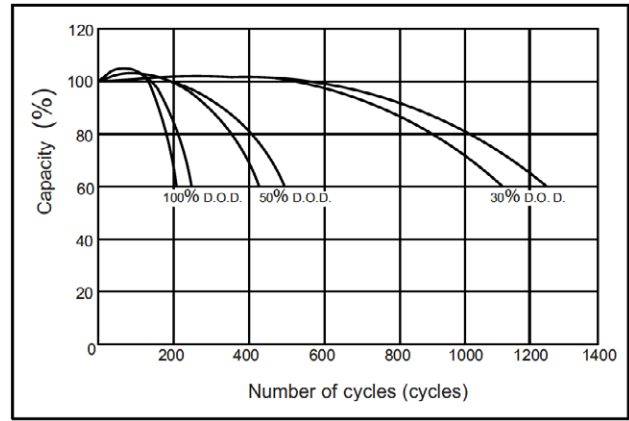
Self-discharge characteristics



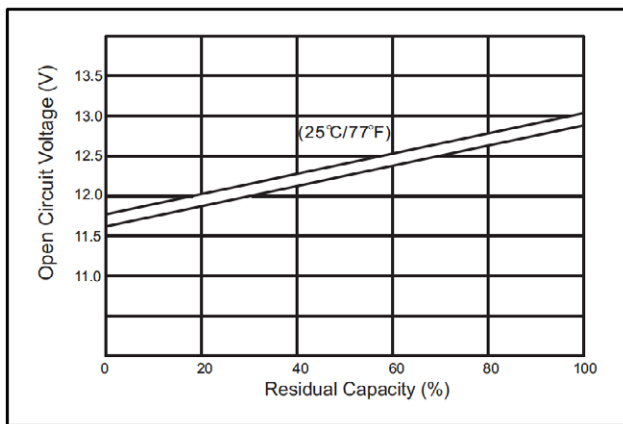
Temperature effects on float life



Cycle service life in relation to depth of discharge



The relationship for OCV and Capacity (25't)



The relationship for Charging voltage and Temperature

