VRLA AGM battery

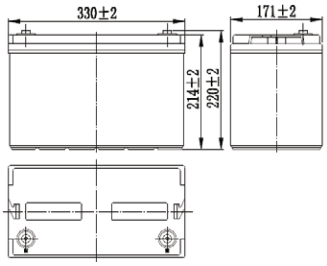
ATP 12-100AH

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.

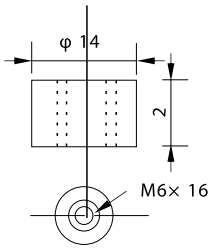
Specifications

Nominal Voltage		12V
Rated capacity (20 hour rate)		100Ah
Dimensions	Length	306±2mm(12.05inch)
	Width	169±2mm(6.65inch)
	Height	211±2mm(8.31inch)
	Total Height	215±2mm(8.46inch)
Approx. Weight		29kg(63.8lbs)±3%

Outer dimensions (mm)



Terminal Type (mm)



Characteristics

Capacity (25°C)	10HR(10.8V)	100Ah
	3HR(10.8V)	75Ah
	1HR(10.5V)	55Ah
Terminal type		T14
Interna! resistance (Fully charged,25°C)		Approx.4.5m Ω
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		30A
Maximum discharge current		800A(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)

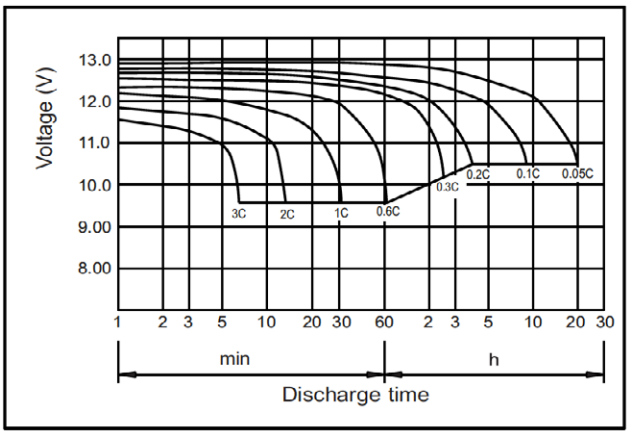
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	218	168	101	61.8	36.5	26.3	21.0	18.0	12.3	10.2	5.40
9.90V	211	164	98.5	60.9	36.3	26.2	20.9	17.8	12.3	10.2	5.38
10.2V	203	158	95.5	59.3	36.0	26.0	20.7	17.7	12.2	10.1	5.37
10.5V	194	153	93.2	57.5	35.5	25.8	20.6	17.6	12.1	10.1	5.34
10.8V	183	144	89.7	55.6	34.6	25.0	20.0	17.1	11.7	10.0	5.30

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

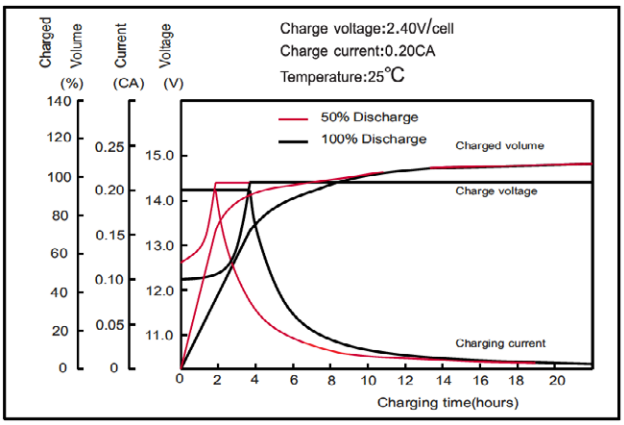
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2354	1845	1128	705	423	309	247	212	147	122	64.7
9.90V	2284	1800	1105	694	421	308	246	211	146	121	64.6
10.2V	2190	1734	1071	676	417	306	244	209	145	121	64.4
10.5V	2095	1675	1045	655	411	303	242	208	144	120	64.0
10.8V	1978	1586	1007	634	400	294	235	202	139	119	63.6

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

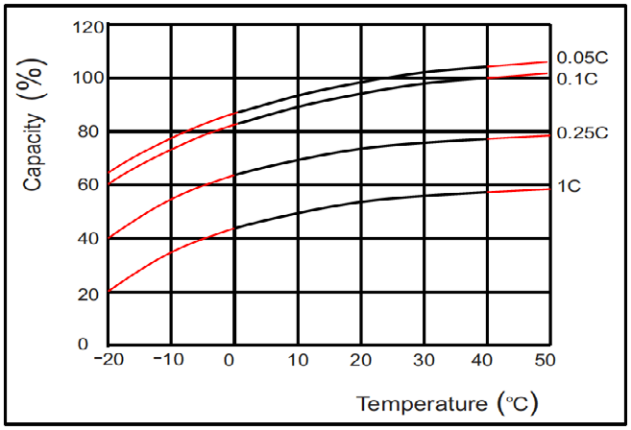
Discharge characteristics(25°C)



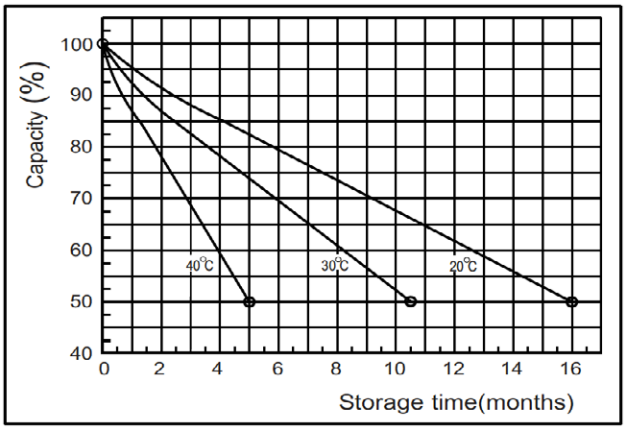
Charging characteristics



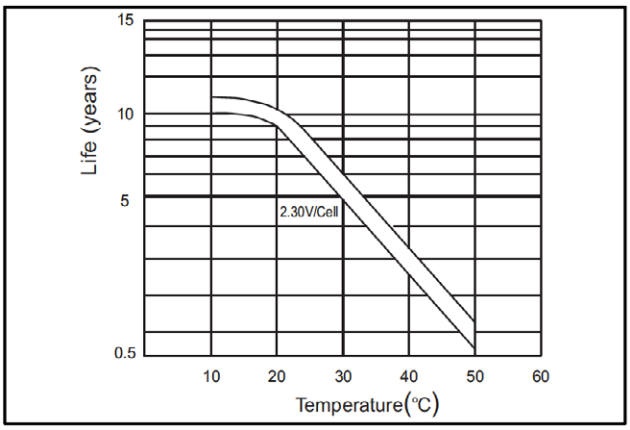
Effect of Temperature on Capacity



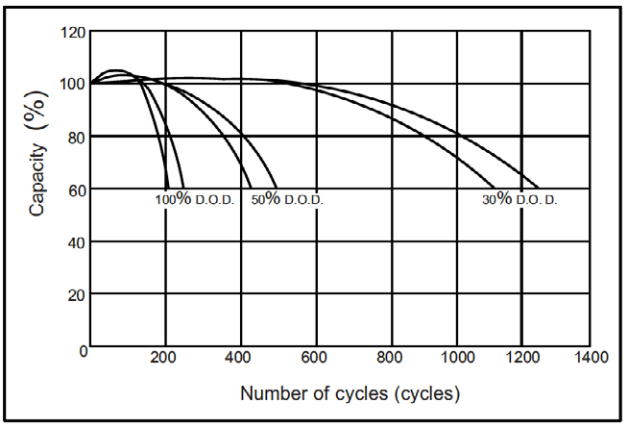
Self-discharge characteristics



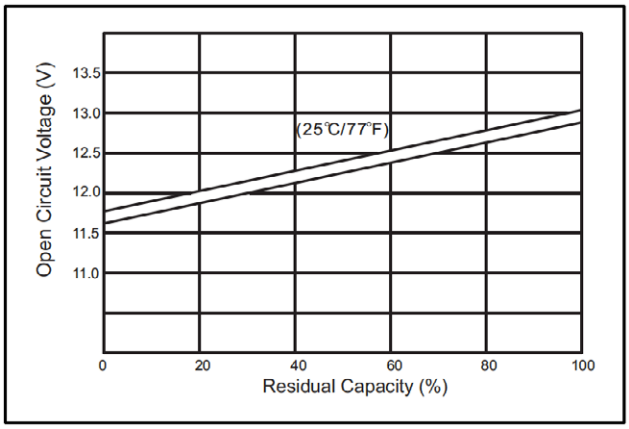
Temperature effects on float life



Cycle service life in relation to depth of discharge



The relationship for OCV and Capacity (25't)



The relationship for Charging voltage and Temperature