

VRLA AGM cells

ATP2-500AH

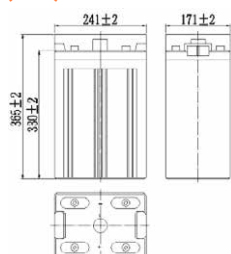


ATP VRLA AGM cells are designed with state-of-the-art AGM (Absorbent Glass Mat) technology, high-performance plates and electrolyte. With high performance features, this range is suitable for all general purpose applications offering stable quality and high reliability, long life, maintenance free operation and heavy duty gratings.

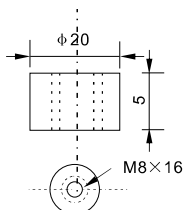
Specifications

Nominal Voltage		2V
Rated capacity (20 hour rate)		500Ah
Dimensions	Length	241±2mm(9.49inch)
	Width	171±2mm(6.73inch)
	Height	330±2mm(12.99inch)
	Total Height	365±2mm(14.37inch)
Approx. Weight		30kg(66.1lbs)±3%

Outer dimensions (mm)



Terminal Type (mm)



Characteristics

Capacity (25°C)	10HR(10.8V)	500Ah
	3HR(10.8V)	375Ah
	1HR(10.5V)	275Ah
Terminal type		T20
Internal resistance (Fully charged, 25°C)		Approx. 0.5mΩ
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		100A
Maximum discharge current		3000A(5 sec.)
Designed floating life(20°C)		15 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)

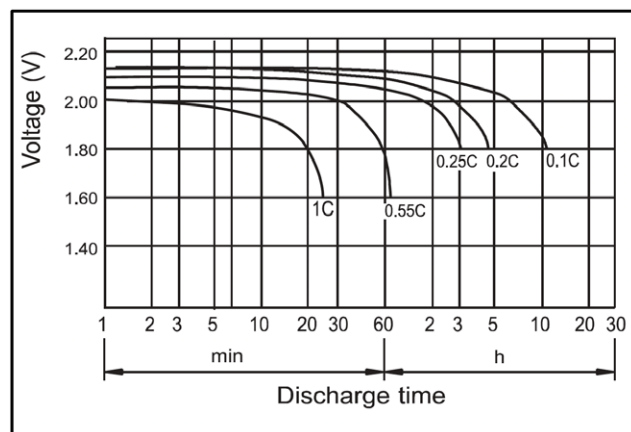
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	695	455	315	184	133	106	91.3	78.5	62.0	51.2	27.0
1.65V	678	446	306	183	132	105	90.8	78.1	61.6	51.1	26.9
1.70V	653	432	296	182	131	105	90.1	77.5	61.2	50.9	26.8
1.75V	631	422	287	179	130	104	89.5	77.0	60.8	50.6	26.7
1.80V	598	406	277	174	126	101	86.8	74.7	58.9	50.3	26.5

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

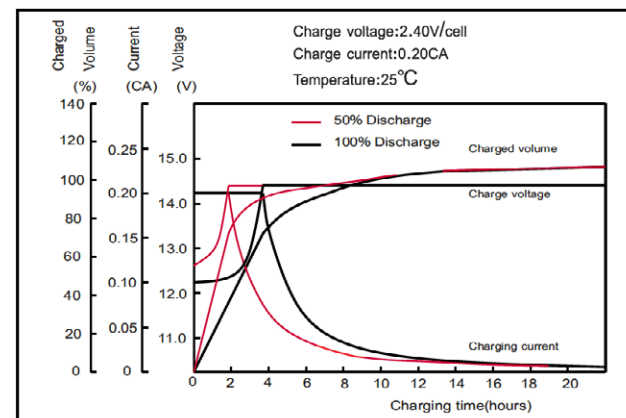
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
1.60V	1272	851	599	356	260	208	180	155	123	102	54.0
1.65V	1241	834	581	353	258	207	179	154	123	102	53.8
1.70V	1196	808	563	350	257	205	178	153	122	101	53.7
1.75V	1155	789	545	345	255	204	176	152	121	101	53.4
1.80V	1094	760	527	336	247	198	171	147	117	100	53.0

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

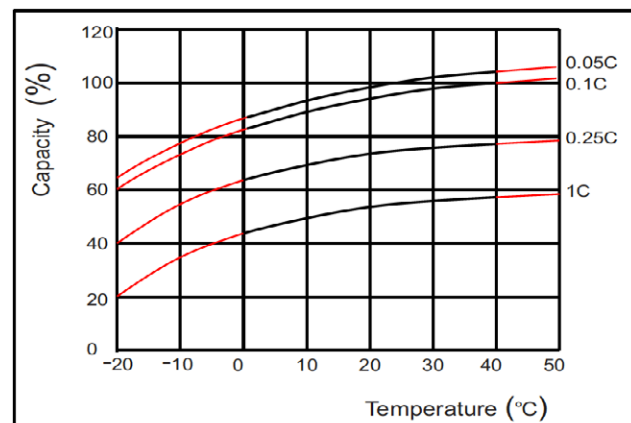
Discharge characteristics(25°C)



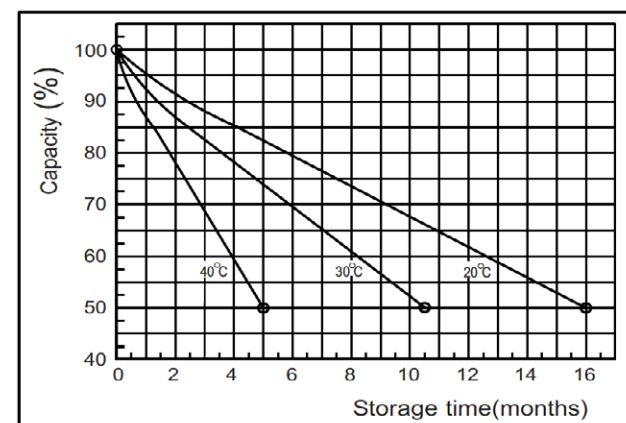
Charging characteristics



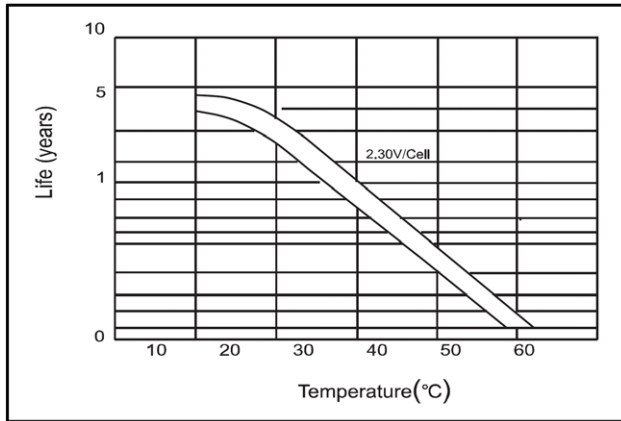
Effect of Temperature on Capacity



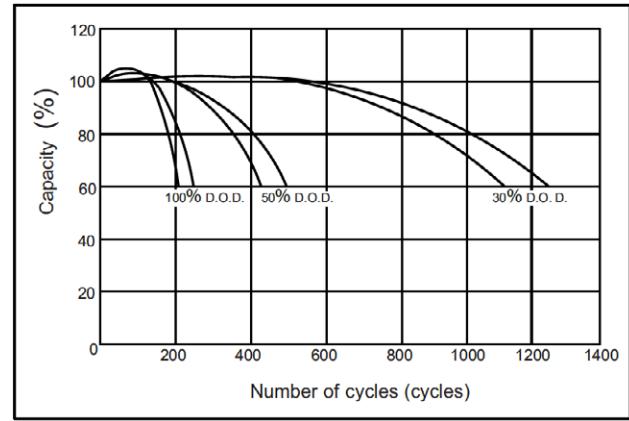
Self-discharge characteristics



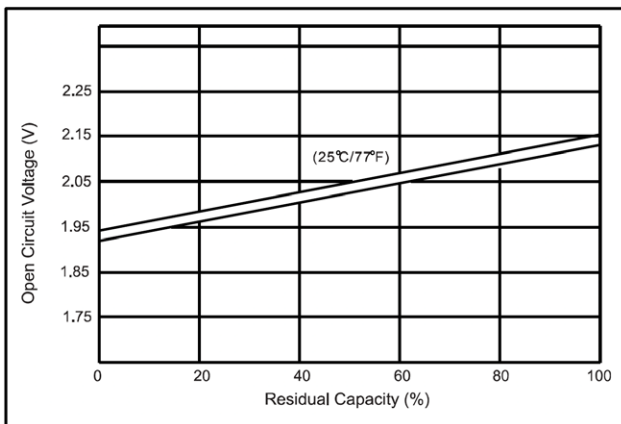
Temperature effects on float life



Cycle service life in relation to depth of discharge



The relationship for OCV and Capacity (25't)



The relationship for Charging voltage and Temperature

