

VRLA AGM battery

ATP 12-70AH

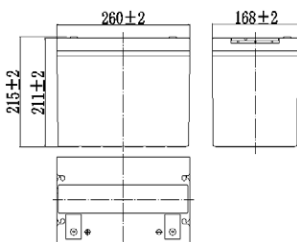


ATP series is a general Purpose battery. It meets with heavy duty grids, thicker plates, special additives and advanced AGM valve regulated technology, the ATP series battery provides consistent performance and long service life. The new grid design effectively reduces the internal resistance, which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

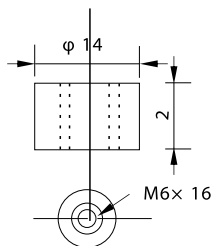
Specifications

Nominal Voltage	12V	
Rated capacity (20 hour rate)	70Ah	
Dimensions	Length	260±2mm(10.24inch)
	Width	168±2mm(6.61inch)
	Height	211±2mm(8.31inch)
	Total Height	215±2mm(8.46inch)
Approx. Weight	22.5kg(49.6lbs)±3%	

Outer dimensions (mm)



Terminal Type (mm)



Characteristics

Capacity (25°C)	10HR(10.8V)	70Ah
	3HR(10.8V)	52.5Ah
	1HR(10.5V)	39Ah
Terminal type		T14
Internal resistance (Fully charged, 25°C)		Approx. 6m 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	21A	
Maximum discharge current	700A(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)

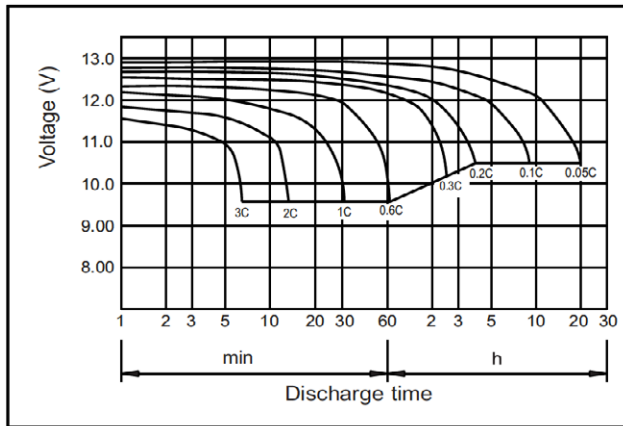
F.V/Time	10min	15min	30min	60min	2h	3h	4h	Sh	Bh	10h	20h
9.60V	153	118	70.4	43.3	25.6	18.4	14.7	12.6	8.64	7.13	3.78
9.90V	148	115	68.9	42.6	25.4	18.3	14.6	12.5	8.59	7.11	3.77
10.2V	142	111	66.8	41.5	25.2	18.2	14.5	12.4	5.53	7.09	3.76
10.5V	136	107	65.2	40.2	24.8	18.1	14.4	12.3	8.47	7.05	3.74
10.8V	128	101	62.8	38.9	24.2	17.5	14.0	12.0	8.22	7.00	3.71

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

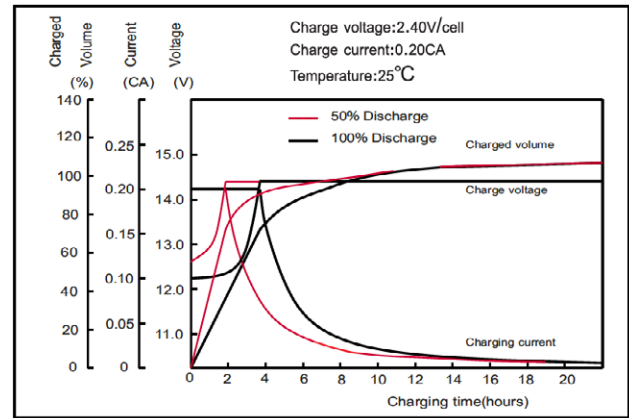
F.V/Time	10min	15min	30min	60min	2h	3h	4h	Sh	Bh	10h	20h
9.60V	1648	1291	789	493	296	217	173	149	103	85.1	45.3
9.90V	1599	1260	774	486	294	215	172	148	102	84.9	45.2
10.2V	1533	1214	750	473	292	214	171	147	101	84.7	45.1
10.5V	1467	1172	732	459	287	212	170	146	101	84.2	44.8
10.8V	1384	1110	705	444	280	206	164	141	97.6	83.6	44.5

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

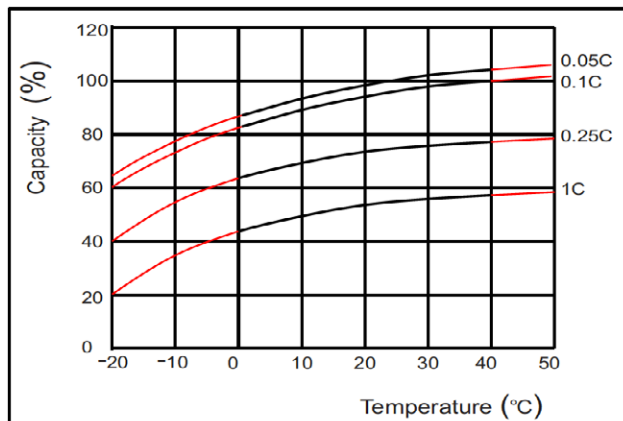
Discharge characteristics(25°C)



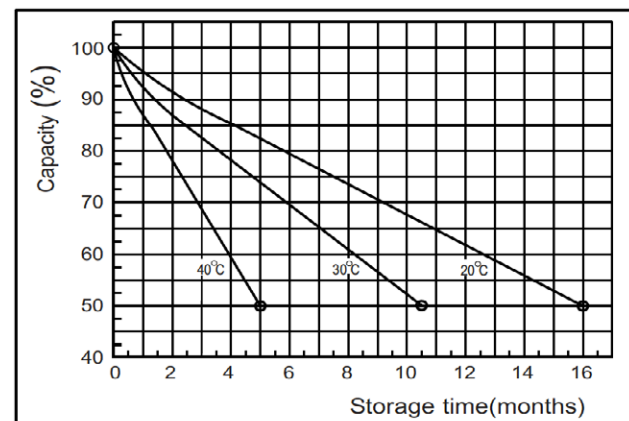
Charging characteristics



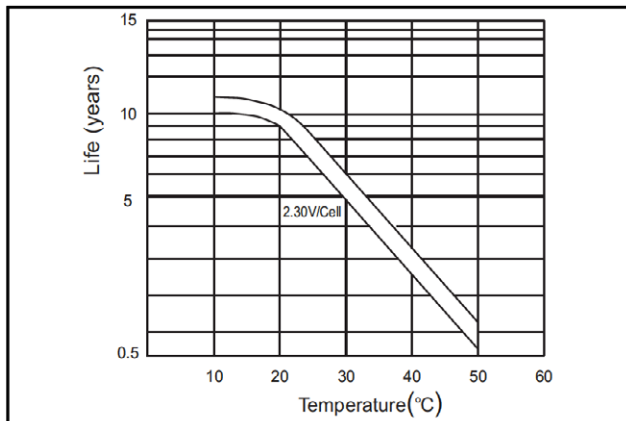
Effect of Temperature on Capacity



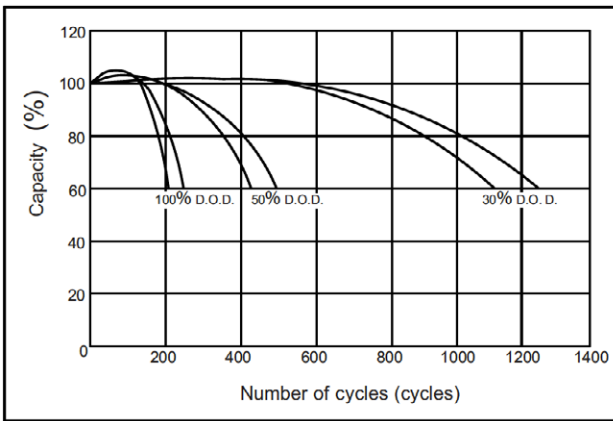
Self-discharge characteristics



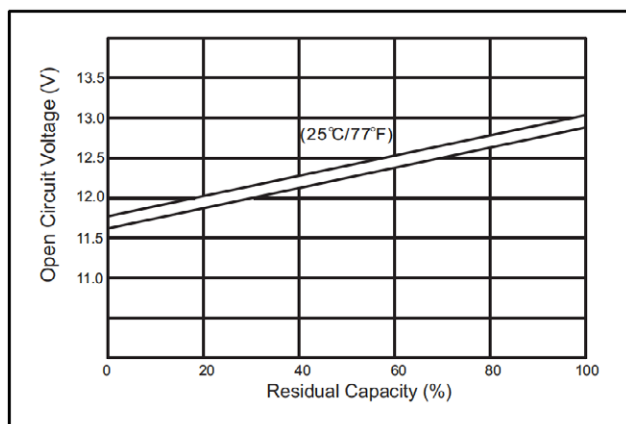
Temperature effects on float life



Cycle service life in relation to depth of discharge



The relationship for OCV and Capacity (25't)



The relationship for Charging voltage and Temperature

