

VRLA AGM battery

ATP HR12-280W-FR

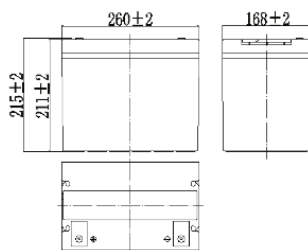


Atlantic Power High Rate series batteries are specially designed for applications that require high power output. With their high-power density and low internal resistance, the HR series are the right choice for your most demanding applications.

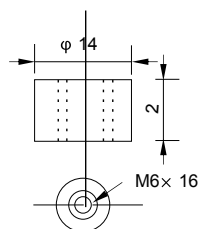
Specifications

Nominal Voltage		12V
Number of cell		6 cells
Rated capacity(15min.rat)		280 Watts/cell
Dimensions	Length	260±2mm(10.24inch)
	Width	168±2mm(6.61inch)
	Height	211±2mm(8.31inch)
	Total Height	215±2mm(8.46inch)
Approx. Weight		25.3kg(55.8lbs)±3%

Outer dimensions (mm)



Terminal Type (mm)



Characteristics

Capacity(20H R,25°C)		80Ah
Capacity(15min.rate,25°C)		280 Watts/cell
Terminal type		T14
Internal resistance (Fully charged,25°C)		Approx.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		24A
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)

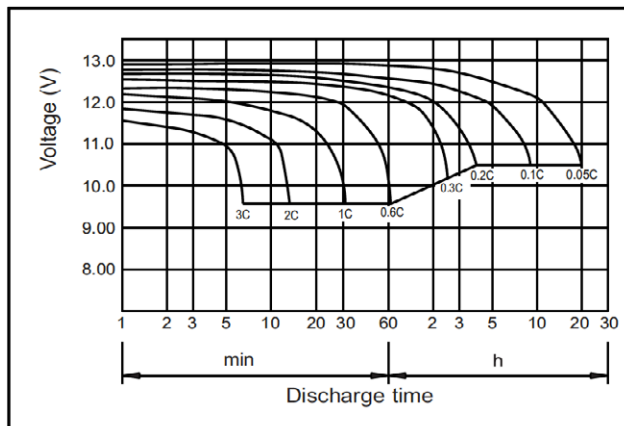
F.V/Time	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h	6h
1.60V/cell	183	150	120	84.9	63.3	51.6	27.4	19.7	15.8	13.8	11.8
1.67V/cell	175	145	115	82.2	61.2	50.3	27.2	19.5	15.7	13.6	11.7
1.70V/cell	170	141	113	80.7	60.1	49.6	27.0	19.4	15.6	13.6	11.6
1.75V/cell	163	136	109	78.7	58.7	48.6	26.6	19.3	15.5	13.5	11.6
1.80V/cell	154	129	103	75.8	56.5	47.1	25.9	18.7	15.1	13.1	11.2

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

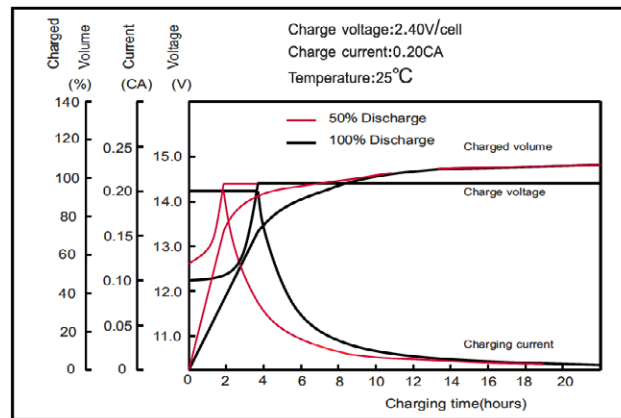
F.V/Time	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h	6h
1.60V/cell	344	289	231	164	122	99.6	53.4	38.7	31.2	27.3	23.3
1.67V/cell	329	281	222	159	118	97.1	53.0	38.4	30.9	27.0	23.1
1.70V/cell	320	272	217	159	116	95.6	52.7	38.2	30.8	26.9	23.0
1.75V/cell	306	263	210	152	113	93.7	51.9	38.0	30.6	26.7	22.9
1.80V/cell	289	249	199	146	109	90.9	50.5	36.8	29.7	25.9	22.2

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

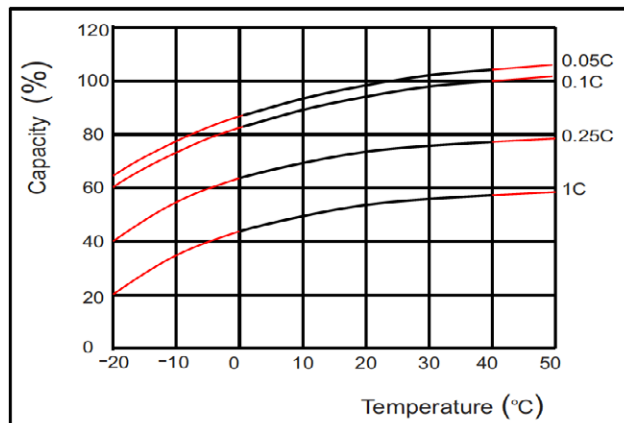
Discharge characteristics(25°C)



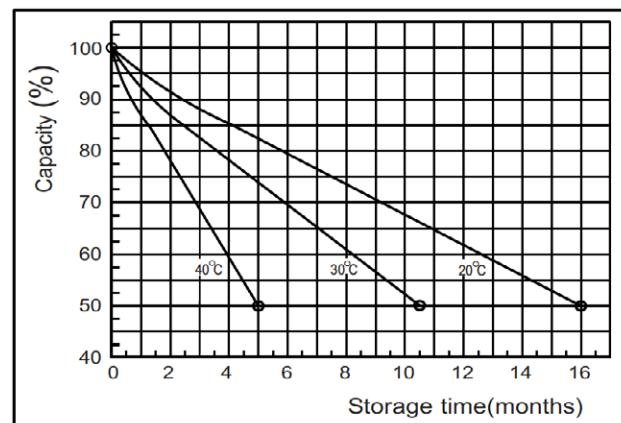
Charging characteristics



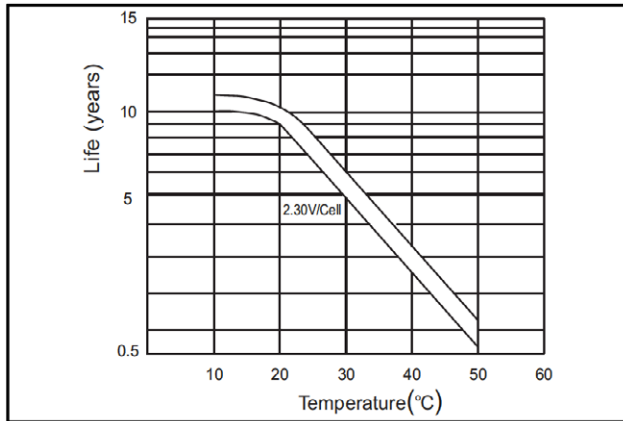
Effect of Temperature on Capacity



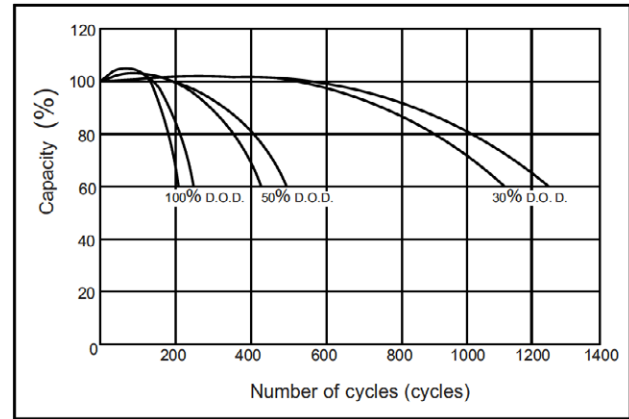
Self-discharge characteristics



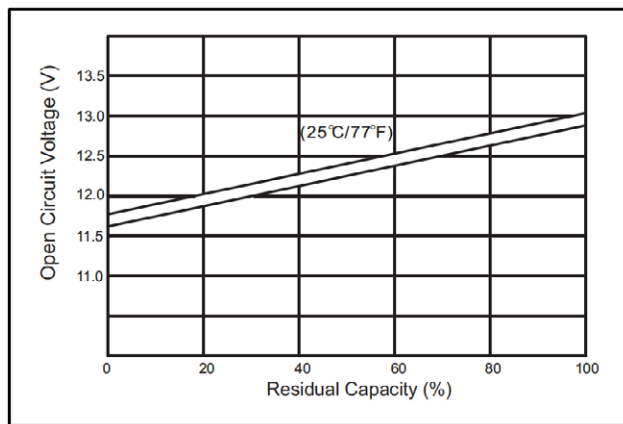
Temperature effects on float life



Cycle service life in relation to depth of discharge



The relationship for OCV and Capacity (25't)



The relationship for Charging voltage and Temperature

