VRLA AGM battery

ATP HR12-150W-FR

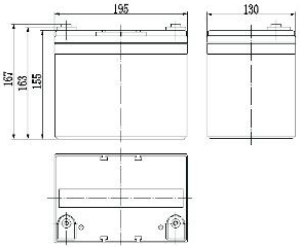
ATLANTIC POWER energy

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.

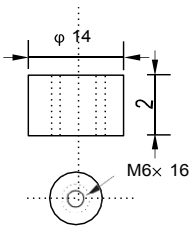
Specifications

Nominal Voltage		12V
Number of cell		6 cells
Rated capacity(15min.rat)		150 Watts/cell
Dimensions	Length	195±2mm(7.68inch)
	Width	130±2mm(5.12inch)
	Height	155±2mm(6.10inch)
	Total Height	167±2mm(6.57inch)
Approx. Weight		11.5kg(25.4lbs)±3%

Outer dimensions (mm)



Terminal Type (mm)



Characteristics

Capacity(20H R,25°C)		36Ah
Capacity(15min.rate,25°C)		150 Watts/cell
Terminal type		T14
Internal resistance (Fully charged,25°C)		Approx.8m 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		10.8A
Maximum discharge current		330A(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)

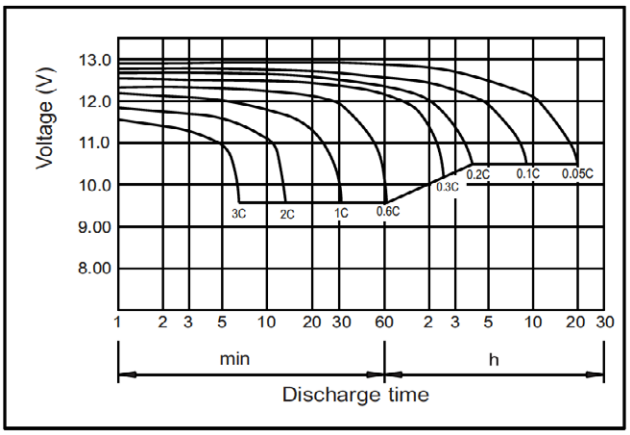
F.V/Tim	5min	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h
1.60V/cel	162.35	97.95	80.13	64.17	45.42	33.78	27.60	14.01	9.98	8.04	6.99
1.67V/cel	146.13	93.52	77.77	61.59	43.98	32.75	26.88	13.80	9.89	7.97	6.93
1.70V/cel	138.64	91.16	75.29	60.36	43.16	32.14	26.57	13.70	9.85	7.94	6.90
1.75V/cel	126.41	87.24	72.82	58.30	42.13	31.42	25.96	13.49	9.79	7.88	6.85
1.80V/cel	113.92	82.4	69.01	55.11	40.58	30.18	25.13	13.18	9.50	7.65	6.64

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

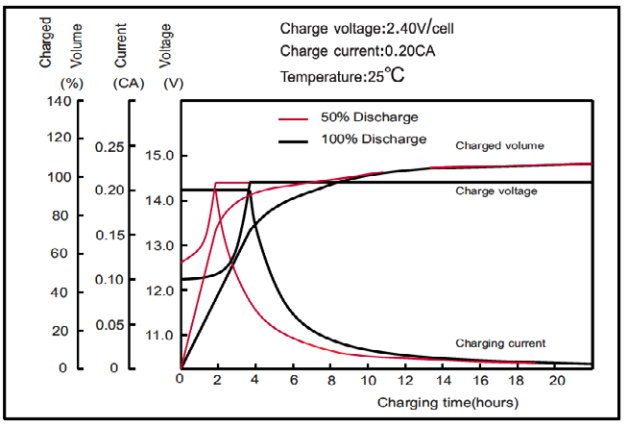
F.V/Time	5min	10min	15min	20min	30min	45min	60min	2h	3h	4h	5h
1.60V/cell	345.05	184.37	154.60	123.70	87.65	65.30	53.25	27.09	19.61	15.80	13.80
1.67V/cell	313.12	176.13	150.59	106.40	84.87	63.24	51.91	26.88	19.50	15.69	13.70
1.70V/cell	297.67	172.01	145.44	118.76	83.33	62.11	51.19	26.78	19.38	15.69	13.60
1.75V/cell	272.95	163.77	141.73	112.48	81.37	60.56	50.16	26.27	19.26	15.57	13.60
1.80V/cell	250.29	154.5	133.28	106.30	78.28	58.40	48.62	25.65	18.68	15.11	13.18

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

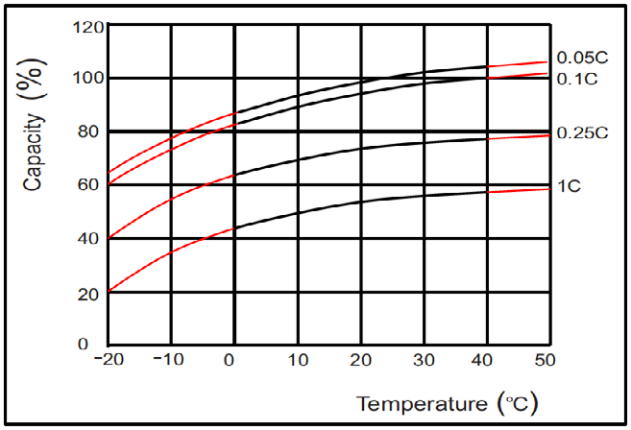
Discharge characteristics(25°C)



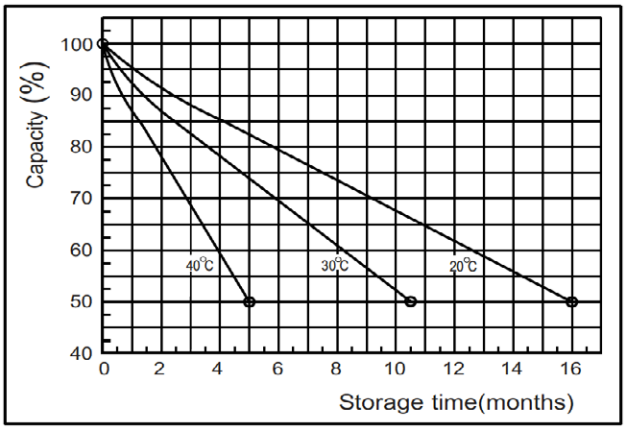
Charging characteristics



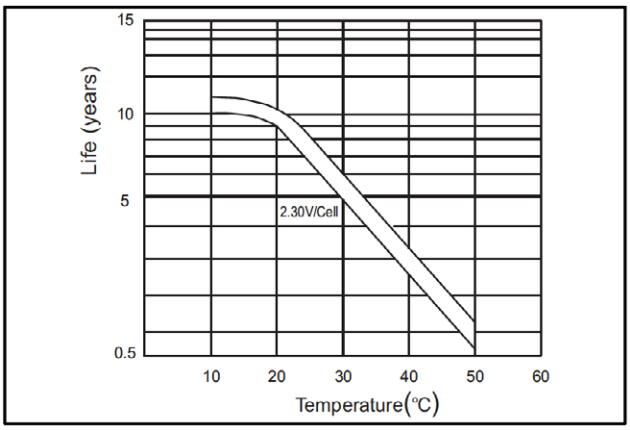
Effect of Temperature on Capacity



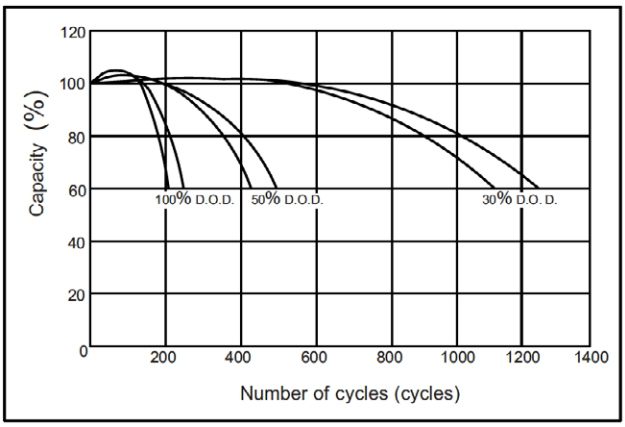
Self-discharge characteristics



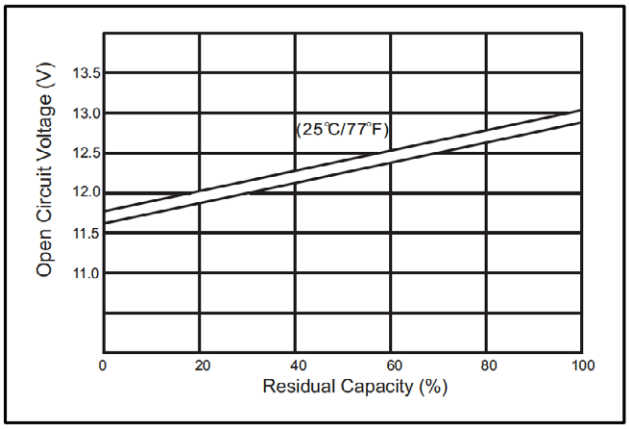
Temperature effects on float life



Cycle service life in relation to depth of discharge



The relationship for OCV and Capacity (25't)



The relationship for Charging voltage and Temperature