VRLA AGM Gel battery Type

ATP-G12-33AH

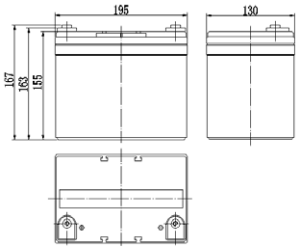
ATLANTIC POWERenergy

ATP-G Series are manufactured following the highest demands in the deep cycle and renewable energy applications. The batteries use colloidal or foamed silica gel to immobilize the electrolyte, which further enhances the cycling stability. Available in top and front terminal types.

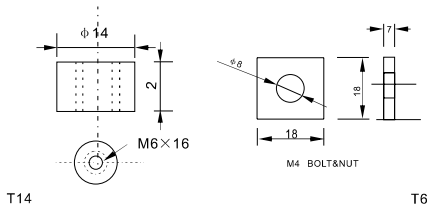
Specifications

Nominal Voltage		12V
Rated capacity (20 hour rate)		33Ah
Dimensions	Length	195±2mm(7.68inch)
	Width	130±2mm(5.12inch)
	Height	155±2mm6.10inch)
	Total Height	T14:167±2mm(6.57inch) T6:180±2mm(7.09inch)
Approx. Weight		11kg(24.2lbs)±4%

Outer dimensions (mm)



Terminal Type (mm)



Characteristics

Capacity (25°C)	10HR(10.8V)	33Ah
	3HR(10.8V)	24Ah
	1HR(10.5V)	18Ah
Terminal type		T14/T6
Interna! resistance (Fully charged,25°C)		Approx.9.5m 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		6.6A
Maximum discharge current		330A(5 sec.)
Designed floating life(20°C)		12years

For front terminal version, consult dimensions with the manufacturer.

Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS	ABS	AGM	Gel	Rubber	Copper/lead

Constant Current Discharge Characteristics Unit:A(25°C,77°F)

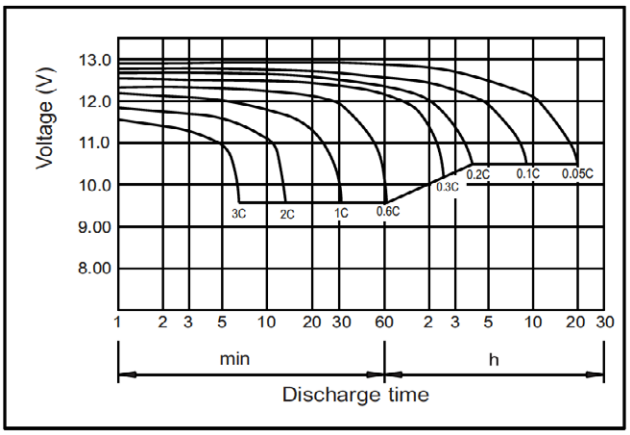
F.V/Time	10min	15min	30min	60min	2h	3h	4h	Sh	Bh	10h	20h
9.60V	64.4	52.8	32.0	19.8	12.1	8.58	6.73	5.72	4.04	3.36	1.78
9.90V	62.4	51.5	31.4	19.5	12.0	8.53	6.69	5.69	4.02	3.35	1.78
10.2V	59.8	49.6	30.4	19.0	11.9	8.47	6.65	5.65	3.99	3.34	1.77
10.5V	57.3	47.9	29.7	18.4	11.7	8.42	6.60	5.61	3.96	3.32	1.76
10.8V	54.1	45.4	28.6	17.8	11.4	8.25	6.40	5.44	3.84	3.30	1.75

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

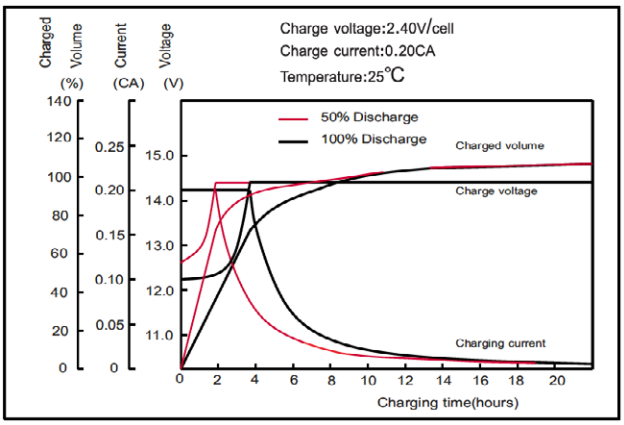
F.V/Time	10min	15min	30min	60min	2h	3h	4h	Sh	Bh	10h	20h
9.60V	695	580	359	226	140	101	79.2	67.6	48.0	40.1	21.4
9.90V	674	566	352	222	139	100	78.7	67.2	47.7	40.0	21.3
10.2V	646	545	341	217	138	100	78.2	66.8	47.4	39.9	21.3
10.5V	619	526	333	210	136	99	77.6	66.3	47.0	39.7	21.1
10.8V	584	499	321	203	132	97.0	75.3	64.3	45.6	39.4	21.0

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

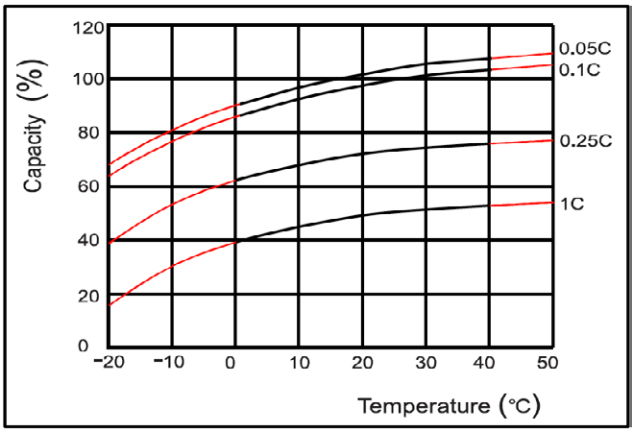
Discharge characteristics(25°C)



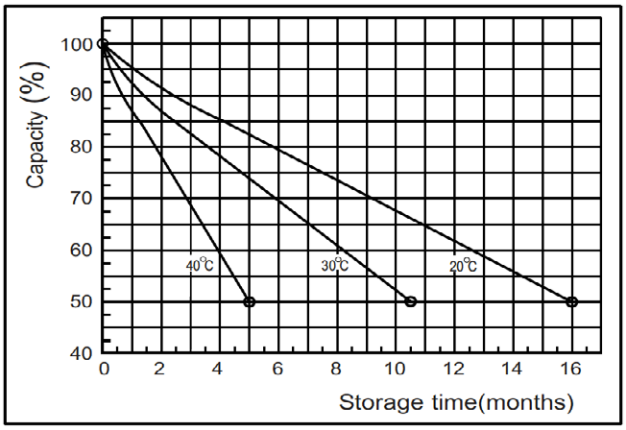
Charging characteristics



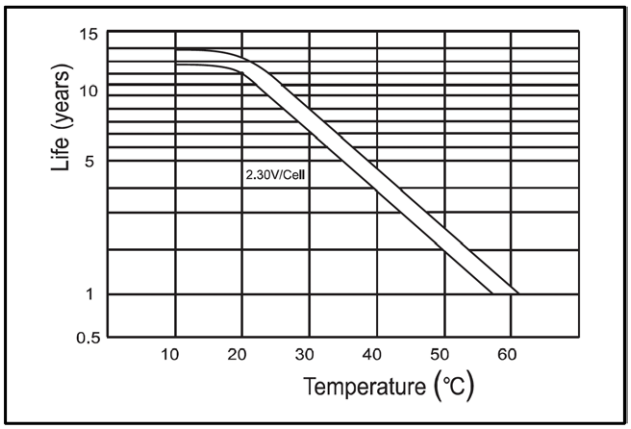
Effect of Temperature on Capacity



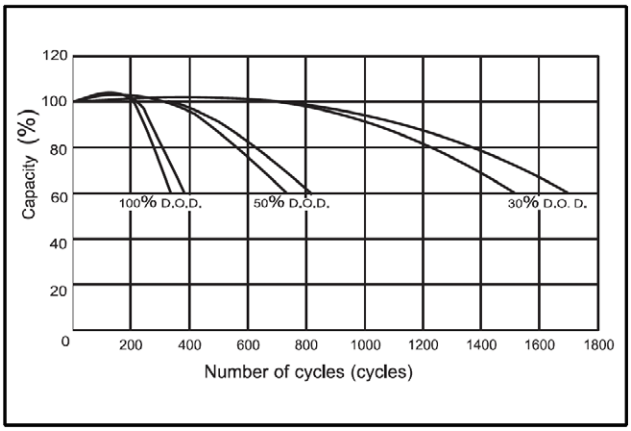
Self-discharge characteristics



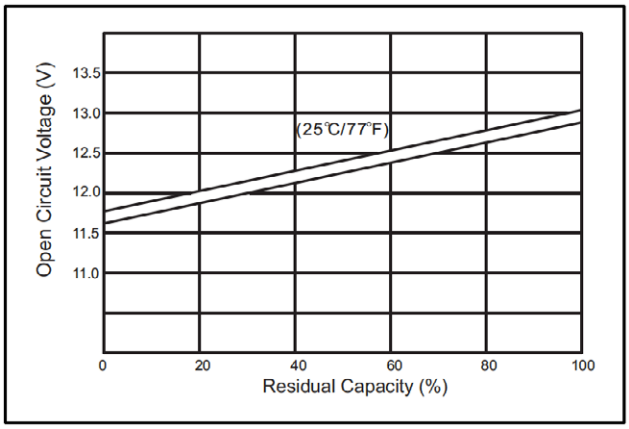
Temperature effects on float life



Cycle service life in relation to depth of discharge



The relationship for OCV and Capacity (25°C)



The relationship for Charging voltage and Temperature