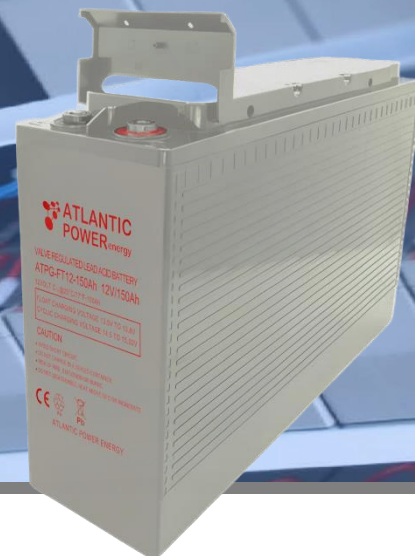


ATPG-FT12-150Ah

12V/150Ah VRLA Gel
Front Terminal Battery

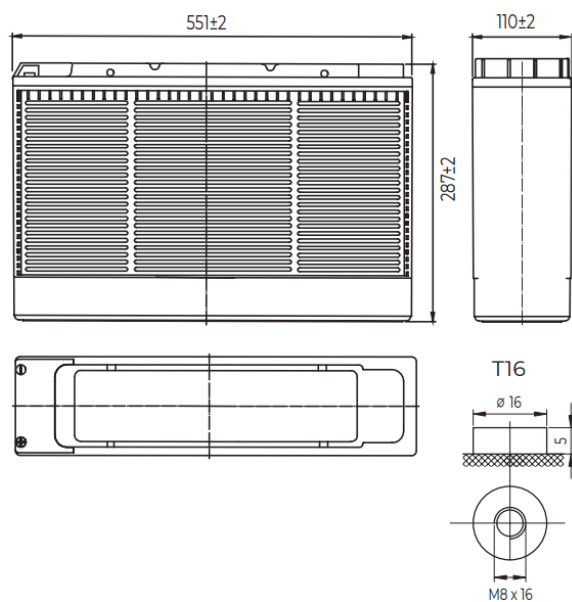


Atlantic Power ATPG-FT Front Terminal Series batteries are mainly used in the area of communication. Manufactured following the highest demands in the deep cycle and renewable energy applications. The batteries use colloidal or foamed silica gel to immobilize the electrolyte, which further enhances the cycling stability.

General characteristics

Nominal Voltage		12V (6 cells per unit)
Rated capacity at 10 hours rate/10.8V (25°C)		150Ah
Dimensions	Length	551 ±3mm(21.69inch)
	Width	110±1mm(4.33inch)
	Height	287±2mm(11.30inch)
	Total Height	287±2mm(11.30inch)
Approx. Weight		48kg(105.81bs) ±3%

Dimensions & Terminal Type (mm)



Specifications

Capacity (25°C)	10 Hours rate/10.8V	150Ah
	20 Hours rate/10.8V	159Ah
	5 Hours rate/10.8V	123.5Ah
Terminal type		T16
Torque		12.3±2.5N.m
Approx. internal resistance (25°C)		4.5 mΩ
Nominal operating temperature		25°C±3 (77±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 at 25°C		13.5V~13.8V
Cyclic charging voltage at 25°C		14.4V~14.7V
Temperature compensation	Float charge	-18mV/°C/Block
	Cycle charge	-30mV/°C/Block
Max. charging current (A)		30A
Max. discharge current for 5 seconds		1050A
Battery container ABS UL94-HB		V-0 optional
Designed life, stand-by at 25°C		12 years
Minimum Life Cycles at 25°C		1100-1200 cycles at 30% DoD 1200-1400 cycles at 20% DoD
Efficiency value		≥ 85%
Humidity range		Operating range ≤95% Storage range ≤85%
Operating altitude		> 4000 meters above sea level
Self-Discharge Rate (25°C)		≤3%/ Month
Self-discharge time in storage at 25 °C		24 Months
Optional accessories		Terminal protectors
Battery container ABS UL94-HB		ABS UL94-HB (optional)
Certification		CE

Construction

Component	Positive plate	Negative plate	Container	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS (V-0 opt.)	AGM	Sulfuric acid Gel	Rubber	Copper

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

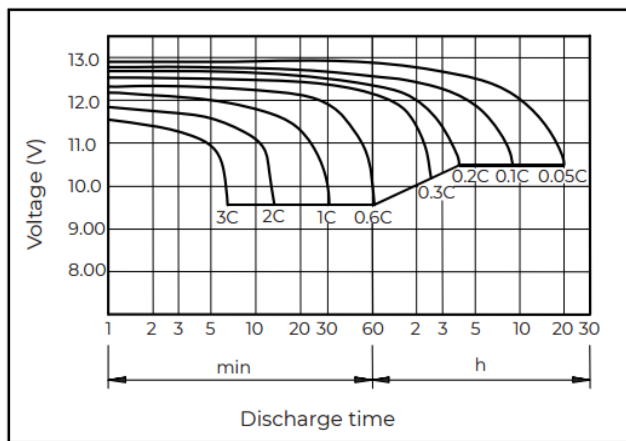
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
9.60V	247	148	90.8	54.8	39.5	31.5	26.9	23.4	18.5	15.3	8.09
9.90V	241	145	89.5	54.5	39.2	31.3	26.8	23.3	18.4	15.2	8.08
10.2V	232	140	87.2	54.0	39.0	31.1	26.6	23.1	18.3	15.2	8.05
10.5V	224	137	84.5	53.2	38.7	30.9	26.4	23.0	18.2	15.1	8.01
10.8V	212	132	81.8	51.8	37.5	30.0	25.6	22.3	17.6	15.0	7.95

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

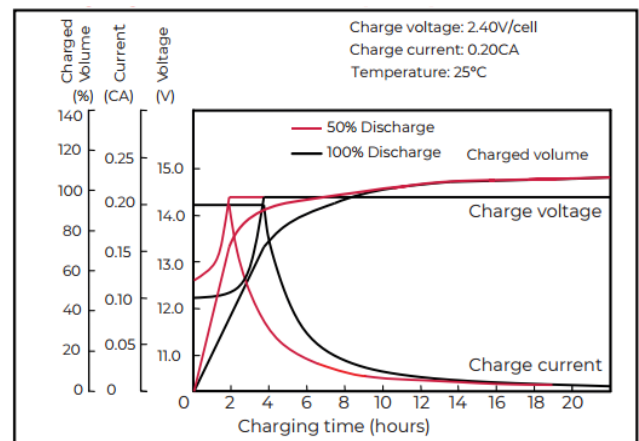
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
9.60V	2712	1658	1036	635	464	371	318	277	220	182	97.1
9.90V	2647	1624	1020	631	461	368	316	275	219	182	96.9
10.2V	2549	1575	994	625	458	366	314	273	217	181	96.6
10.5V	2462	1537	963	616	455	363	312	271	216	180	96.1
10.8V	2332	1480	932	600	441	352	303	263	209	179	95.4

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

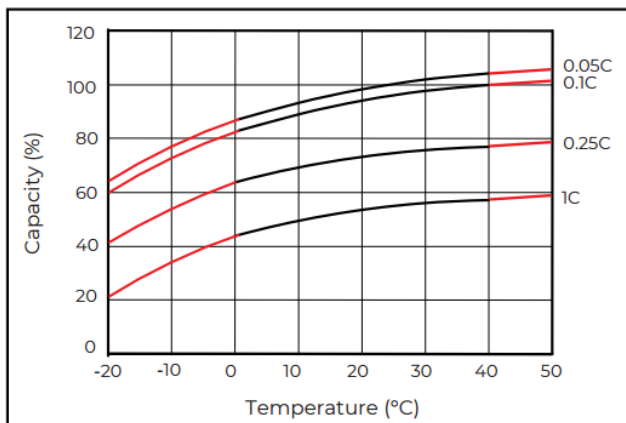
Discharge characteristics (25°C)



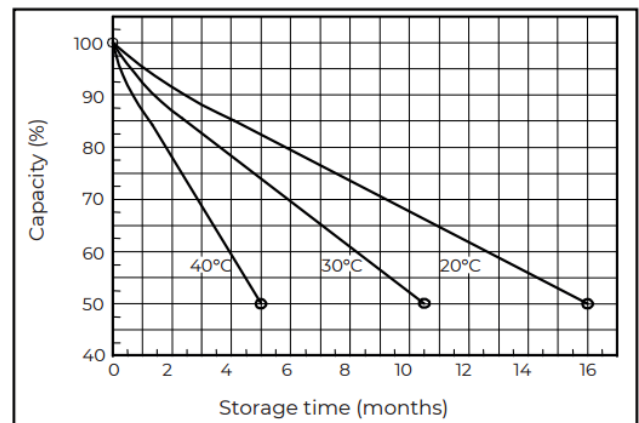
Charging characteristics (25°C)



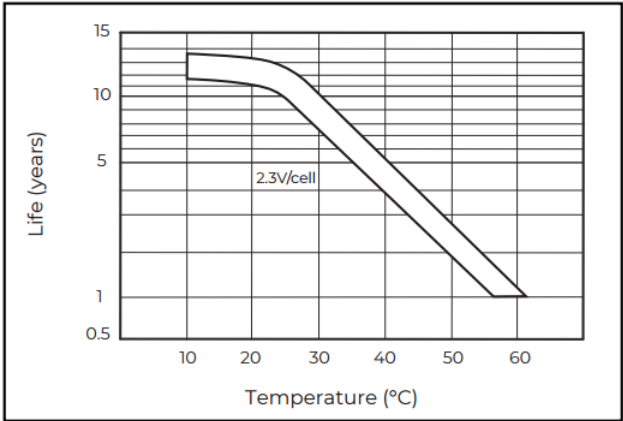
Temperature effects on capacity



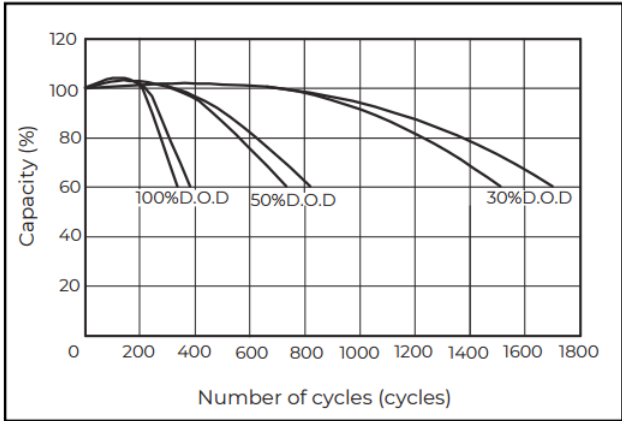
Self-discharge characteristics



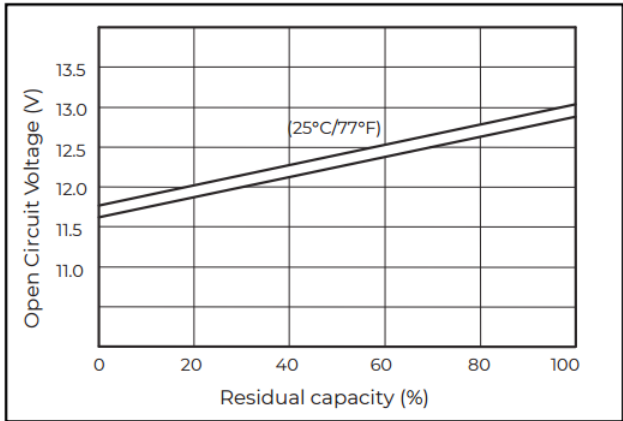
Floating life on temperature



Cycle life on D.O.D (25°C)



Relationship for OCV and capacity (25°C)



Charging voltage VS temperature

