

Valve Regulated Deep Cycle Battery

GPD110-12 12V 110AH

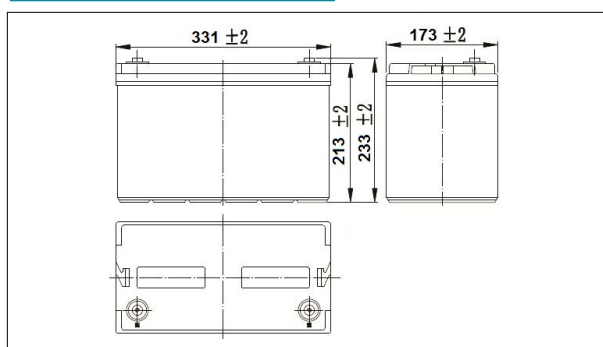


Specifications

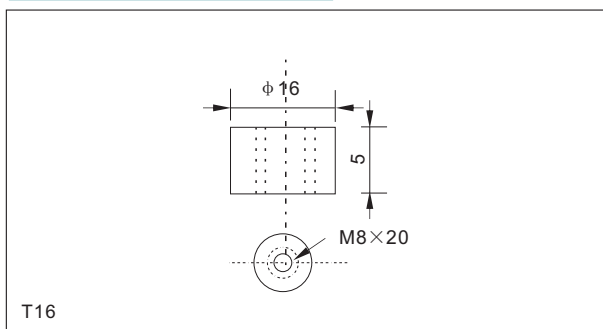
Nominal Voltage		12V
Rated capacity (10 hour rate)		110Ah
Dimensions	Length	331 ± 2mm(13.03inch)
	Width	173 ± 2mm(6.81inch)
	Height	213 ± 2mm(8.39inch)
	Total Height	233 ± 2mm(9.17inch)
Approx. Weight		30kg(66.1lbs) ± 3%



Outer dimensions (mm)



Terminal Type (mm)



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

Construction

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

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

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	210.6	172.8	104.8	64.8	39.4	28.1	22	18.7	13.2	11.4	6.1
9.90V	204.1	168.5	102.7	63.8	39.2	28	21.9	18.6	13.2	11.3	6
10.2V	195.5	162	99.6	62.2	38.9	27.8	21.7	18.5	13.1	11.2	5.9
10.5V	187.9	156.6	97.1	60.3	38.3	27.5	21.6	18.4	13	11.1	5.8
10.8V	177.1	149	93.5	58.3	37.4	27	21	17.8	12.5	11	5.7

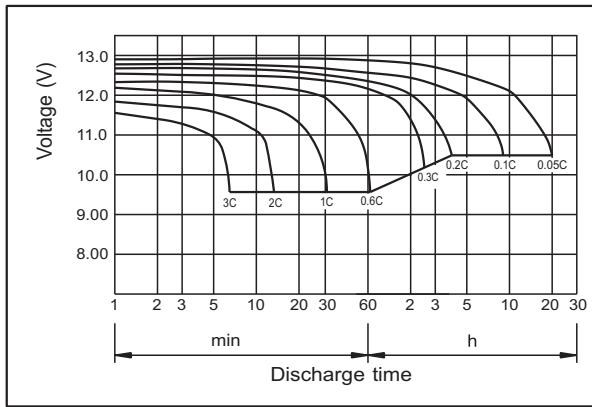
Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2274.5	1897.6	1175	738.7	456.8	330.5	259.2	221.4	156.6	131.8	69.9
9.90V	2206.4	1852.2	1152.4	727.9	454.7	328.3	257	220.3	156.6	130.7	69.8
10.2V	2115.7	1783.1	1116.7	709.6	450.4	326.2	256	218.2	155.5	130.7	69.6
10.5V	2023.9	1722.6	1089.7	686.9	443.9	324	253.8	217.1	154.4	129.6	69.1
10.8V	1910.5	1631.9	1049.8	665.3	432	317.5	246.2	210.6	149	128.5	68.7

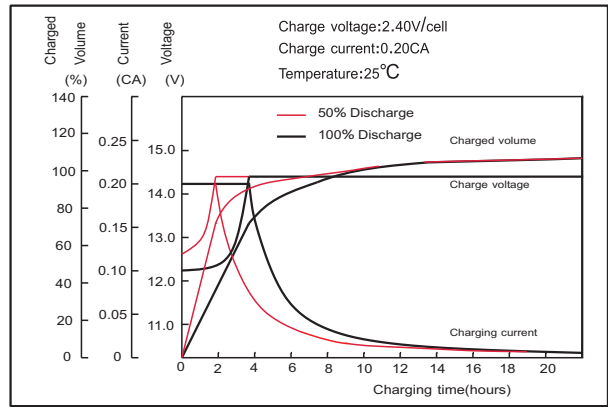
Characteristics

Capacity (25°C)	10HR(10.8V)	110Ah
	3HR(10.8V)	81Ah
	1HR(10.5V)	60.3Ah
Terminal type		T16
Internal resistance (Fully charged, 25°C)		Approx. 4.5m Ω
Capacity affected by temperature (20HR)	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		30A
Maximum discharge current		800A(5 sec.)
Designed floating life(20°C)		10years

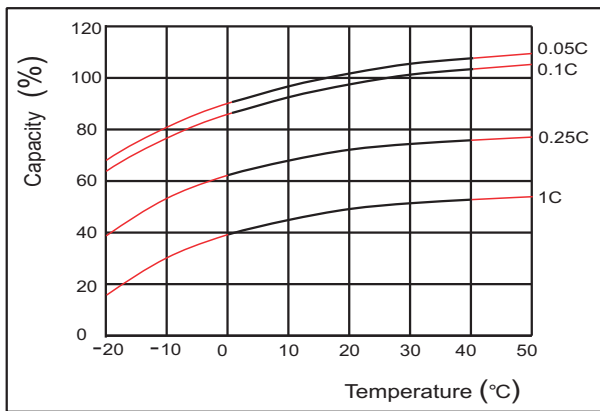
Discharge characteristics(25°C)



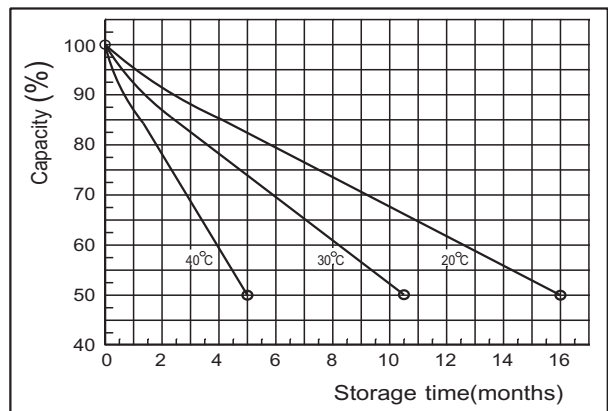
Charging characteristics (25°C)



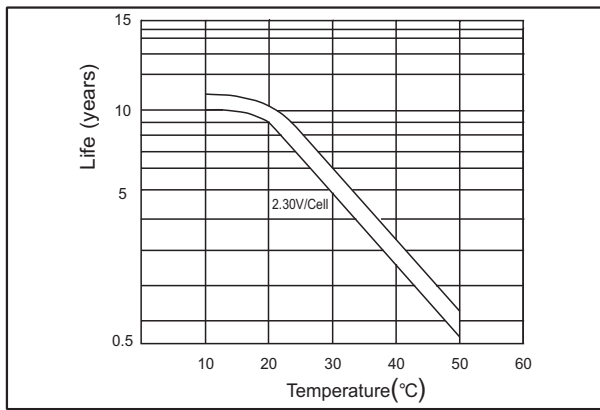
Temperature effects on Capacity



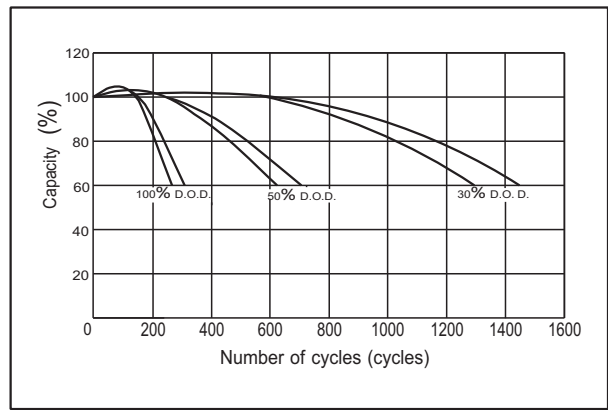
Self-discharge characteristics



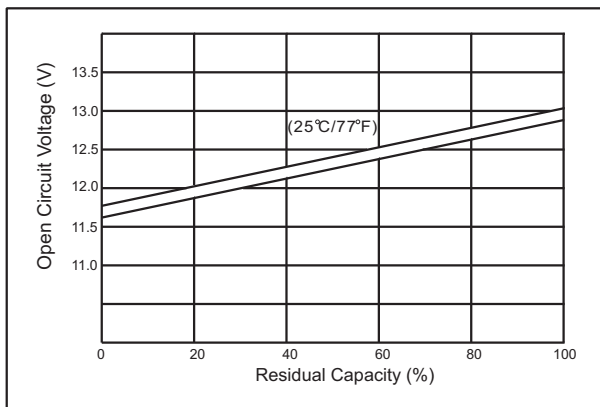
Floating life on Temperature



Cycle life on D.O.D (25°C)



The relationship for OCV and Capacity (25°C)



The relationship for Charging voltage and Temperature

