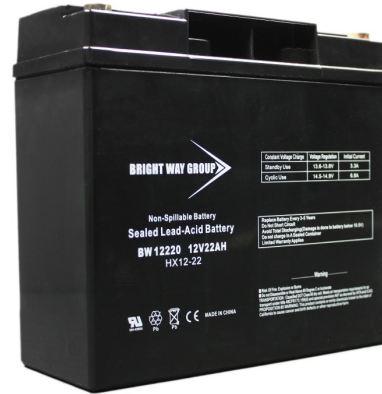


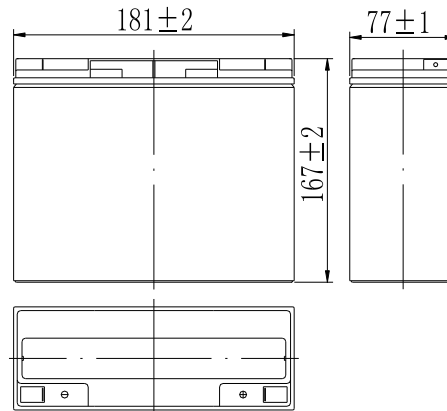
BW 12220 (12V22Ah)

SPECIFICATIONS

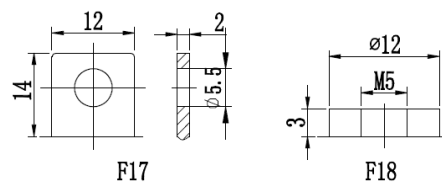
Nominal Voltage		12 V
Capacity (25C°)	20HR	22 Ah
	10HR	18.7 Ah
	1HR	13 Ah
Dimension	Length	181±2mm (7.13inch)
	Width	77±1mm (3.03inch)
	Height	167±2mm (6.57inch)
	Total Height	167±2mm (6.57inch)
Approx. Weight		5.7kg (12.6lbs)±5%
Terminal type		M5 or NB(F17)
Internal resistance (Fully charged, 25C°)		Approx. 14mΩ
Capacity affected by temperature (20HR)	40C°	102%
	25C°	100%
	0C°	85%
	-15C°	65%
Self-discharge (25C°)	3 month	Remaining Capacity: 91%
	6 month	Remaining Capacity: 82%
	12 month	Remaining Capacity: 65%
Nominal operating temperature		25C°±3C°(77F°±5F°)
Operating temperature range	Discharge	-15C° ~ 50C°(5F° ~ 122F°)
	Charge	-10C° ~ 50C°(14F° ~ 122F°)
	Storage	-20C° ~ 50C°(-4F° ~ 122F°)
Float charging voltage(25C°)	13.60 to 13.80V Temperature compensation: -18mV/C°	
Cyclic charging voltage(25C°)	14.50 to 15.00V Temperature compensation: -30mV/C°	
Maximum charging current	6A	
Maximum discharge current	300 A(5 sec.)	
Designed floating life(20C°)	5 years	



DIMENSIONS



TERMINAL



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 (A, 25C°)

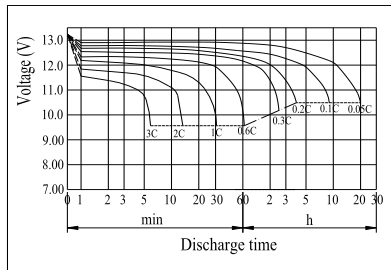
F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	48.4	37.8	21.3	13.1	7.17	4.96	4.10	3.49	2.26	1.89	1.02
9.90V	46.9	36.9	20.9	12.9	7.12	4.93	4.08	3.47	2.25	1.89	1.01
10.2V	45.0	35.5	20.2	12.6	7.06	4.89	4.05	3.44	2.24	1.88	1.01
10.5V	43.1	34.3	19.7	12.3	6.95	4.86	4.02	3.42	2.22	1.87	1.00
10.8V	40.7	32.5	19.0	11.9	6.78	4.71	3.90	3.32	2.15	1.83	0.98

CONSTANT POWER DISCHARGE CHARACTERISTICS (WATT, 25°C)

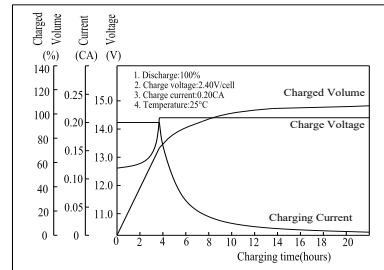
F.V/TIME	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	546	431	244	152	83.8	58.9	48.8	41.7	27.2	22.7	12.2
9.90V	530	421	239	149	83.3	58.5	48.5	41.4	27.0	22.6	12.1
10.2V	508	405	232	146	82.6	58.1	48.2	41.1	26.8	22.5	12.1
10.5V	486	391	226	143	81.4	57.7	47.9	40.8	26.6	22.4	12.0
10.8V	459	371	218	138	79.3	56.0	46.4	39.61	25.8	21.9	11.8

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

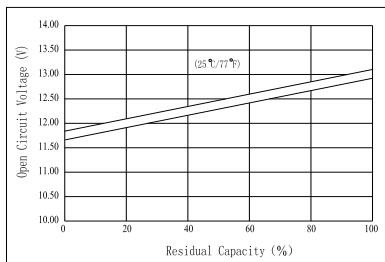
Discharge Characteristics (25°C)



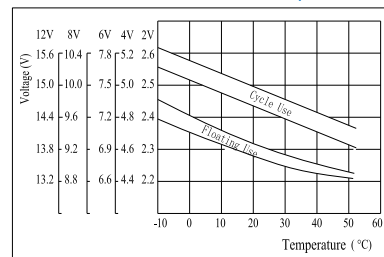
Charging Characteristics (25°C)



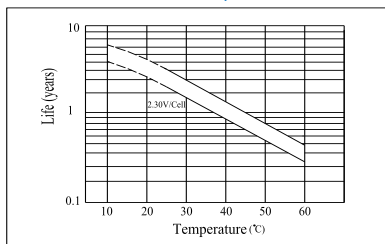
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



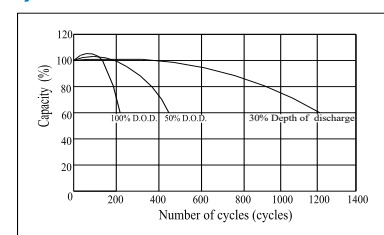
The Relationship for Charging Voltage and Temperature



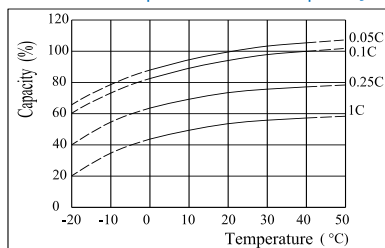
Floating Life on Temperature



Cycle Life on D.O.D (25°C)



Effect of Temperature on Capacity



Self-discharge Characteristics

