

NPP Power Co., Ltd.

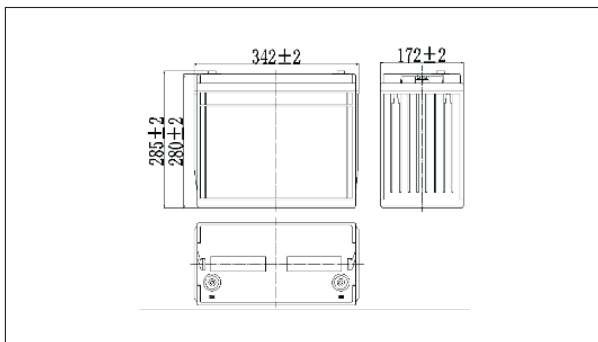
HR12540W-FR (12V540 Watts/cell)

● Specifications

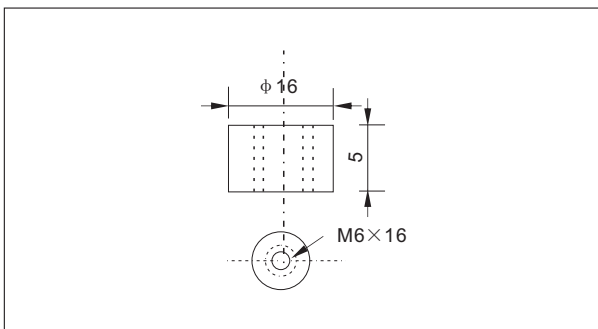
Nominal Voltage		12V
Number of cell		6 cells
Rated capacity(15min.rat)		540 Watts/cell
Dimensions	Length	342±2mm(13.46inch)
	Width	172±2mm(6.77inch)
	Height	280±2mm(11.02inch)
	Total Height	285±2mm(11.2inch)
Approx. Weight		46.5kg(102.3lbs)±3%



● Outer dimensions (mm)



● Terminal Type (mm)



● Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Leaddioxide	Lead	ABS	ABS	AGM	Sulfuric acid	Rubber	Copper

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

F.V/Time	5min	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V/cell	533.19	387.66	319.62	199.5	114.98	64.79	45.36	29.4	20.06	16.7	8.78
1.67V/cell	490.25	358.37	302.93	189.84	110.88	63.11	44.52	28.67	19.64	16.28	8.61
1.70V/cell	447.2	325.19	278.25	181.97	107.1	61.11	43.26	28.04	19.22	16.07	8.46
1.75V/cell	400.37	295.89	253.26	169.89	102.17	59.12	42.11	27.41	18.8	15.75	8.33
1.80V/cell	343.77	264.6	228.48	158.24	96.71	56.7	40.74	26.78	18.48	15.44	8.14

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

F.V/Time	5min	10min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V/cell	954.35	700.88	586.53	372.12	217.88	123.59	87.05	57.02	39.38	32.87	17.43
1.67V/cell	894.6	661.61	565.95	361.62	213.99	122.64	86.94	56.6	39.06	32.76	17.43
1.70V/cell	824.67	606.8	524.16	348.71	207.8	119.28	84.84	55.65	38.54	32.45	17.22
1.75V/cell	745.61	557.24	481.85	327.81	199.71	116.24	83.16	54.6	37.91	31.92	17.01
1.80V/cell	646.17	504.84	438.69	307.65	190.37	112.14	80.96	53.66	37.38	31.5	16.7

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

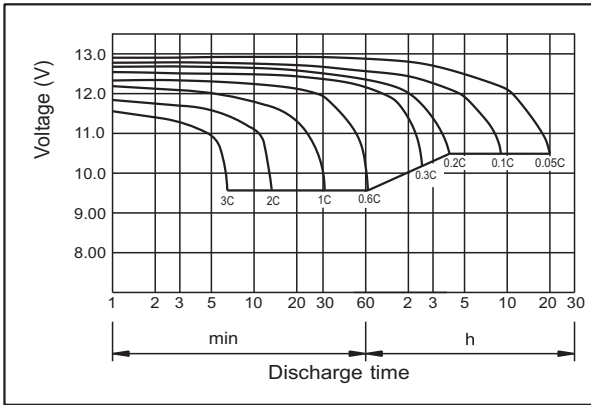
● Characteristics

Capacity(10HR,25°C)		145Ah
Capacity(15min.rate,25°C)		540 Watts/cell
Terminal type		T16A
Internal resistance (Fully charged,25°C)		Approx.3.2m Ω
Capacity affected by temperature (10HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3month	Remaining Capacity:91%
	6month	Remaining Capacity:82%
	12month	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	43.5A	
Terminal material	Copper	
Maximum discharge current	2015A(5 sec.)	
Designed floating life(20°C)	10years	

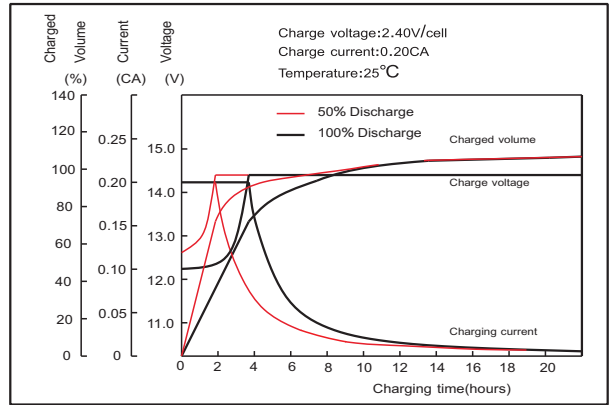


HR12540W-FR (12V540Watts/cell)

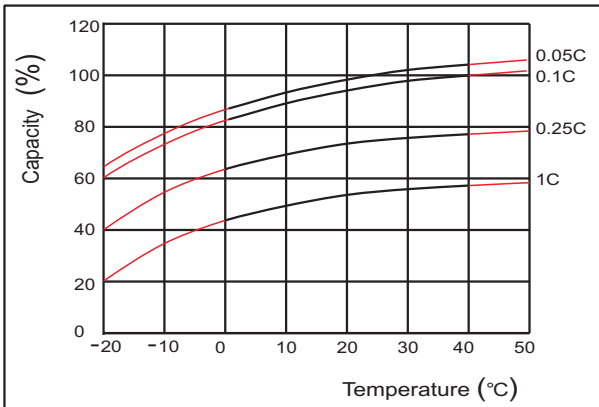
Discharge characteristics(25°C)



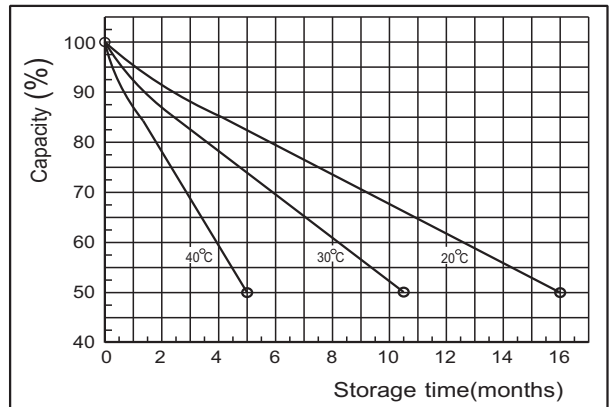
Charging characteristics (25°C)



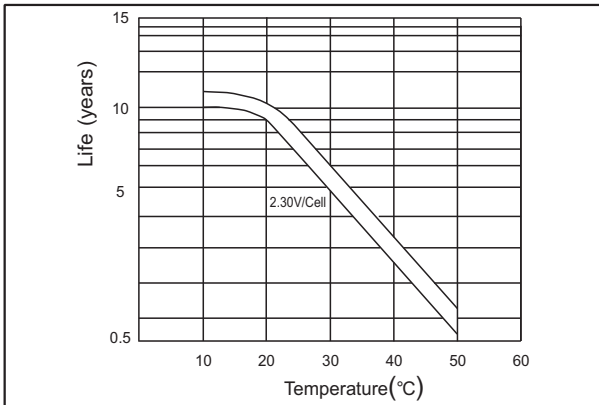
Effect of Temperature on Capacity



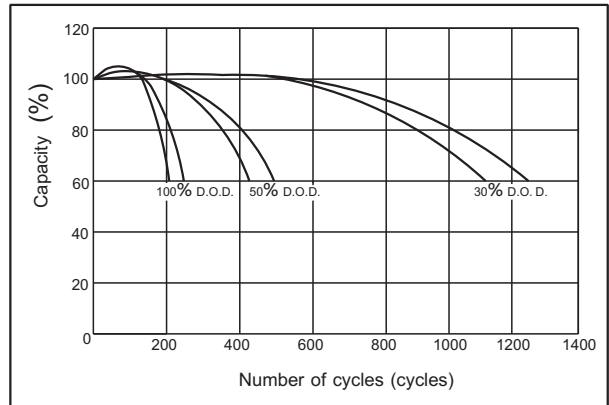
Self-discharge characteristics



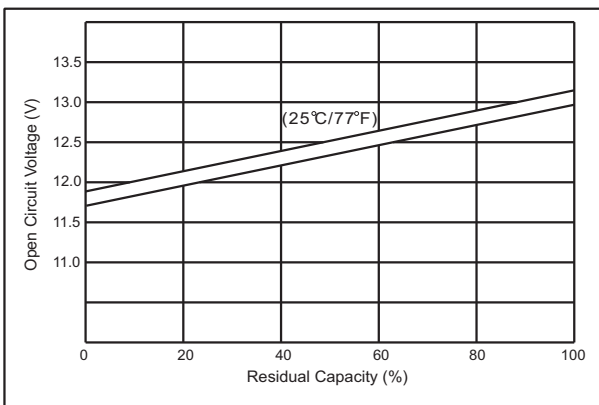
Floating Life on Temperature



Cycle service Life on D.O.D (25°C)



The relationship for OCV and Capacity (25°C)



The relationship for Charging voltage and Temperature

