NS12-5

12V5Ah / 20hr rate

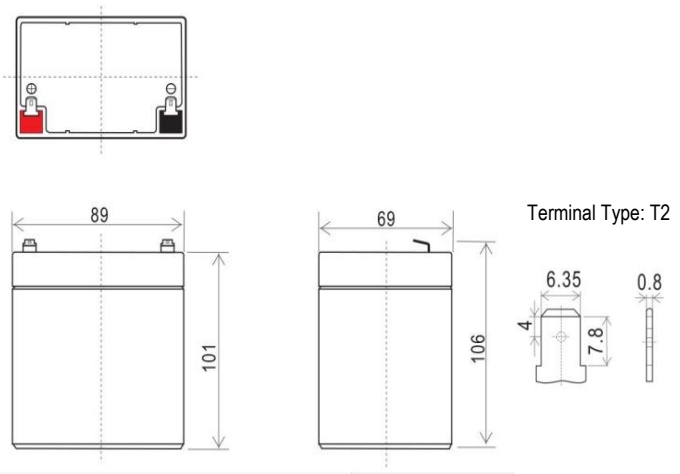
Introduction

Genergy NS UPS (4.5Ah-28Ah) series is designed for standby use with 5-year design life in float service. The series battery is featured of high consistency, excellent performance and reliable standby service life. It is widely applied in UPS/EPS, medical equipment, emergency light and security system.

Battery Features

- ○ Low self-discharge
- ○ Fully tank formed plates
- ○ Low impurity electrolyte
- ○ Spill proof / leak proof
- ○ Multi-position usage
- ○ ABS case and cover VO upon request
- ○ Very high purity lead

Battery Picture & Terminal Layout



Electrical Specification

Design floating Life @ 25°C (77°F)	5 years
Nominal Capacity @ 25°C /77°F	
20 hour rate 0.25A to 1.75Vpc	5 Ah
10 hour rate 0.47A to 1.75Vpc	4.7 Ah
Internal Resistance	
(Fully charged battery @ 25°C /77°F)	20 mΩ
Max. Discharge Current @ 25°C /77°F	75 A (5S)
Charge Methods: Constant voltage charge @ 25°C /77°F	
Cycle Use	14.7 ~ 14.9V
Max. Current	1.21 A
Standby Use	13.6 - 13.8V
Operating Temperature Range	-30 ~ 50°C
Notes: battery voltage must be adjusted according to temperature. Please refer to our recommendation.	
Self-Discharge	
3% of capacity declined per month @ 25°C (77°F).	

Dimension & Weight

Dimension (± 2mm)				Weight
Length	Width	Height	Total Height	(± 2%)
89 mm	69 mm	101 mm	106 mm	1.59 kg
3.5 inch	2.7 inch	4.0 inch	4.2 inch	3.5 lbs

Typical Applications

- ○ UPS & EPS
- ○ Power Utility
- ○ Security Power Supply
- ○ Electrical Toys

Constant Current Discharge (Amperes @ 25°C /77°F)

V/cell	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	1hr	2hr	3hr	4hr	5hr	10hr	20hr
1.60	11.36	8.68	7.41	6.15	5.19	4.52	4.15	3.79	3.47	3.20	2.99	1.56	1.23	1.04	0.90	0.49	0.26
1.65	10.88	8.31	7.11	5.91	5.00	4.36	4.01	3.66	3.37	3.12	2.92	1.53	1.20	1.02	0.88	0.48	0.26
1.70	10.40	7.94	6.80	5.66	4.81	4.19	3.86	3.54	3.26	3.04	2.86	1.49	1.17	1.00	0.87	0.48	0.25
1.75	9.92	7.58	6.50	5.42	4.64	4.03	3.72	3.42	3.16	2.96	2.80	1.45	1.14	0.97	0.85	0.47	0.25
1.80	9.44	7.21	6.20	5.18	4.47	3.88	3.59	3.30	3.07	2.88	2.74	1.42	1.10	0.94	0.84	0.46	0.24

Constant Power Discharge (Watts/cell @ 25°C /77°F)

V/cell	10min	15min	20min	25min	30min	35min	40min	45min	50min	55min	1hr	2hr	3hr	4hr	5hr	10hr	20hr
1.60	21.77	16.62	14.13	11.65	9.79	8.55	7.94	7.33	6.92	6.41	6.00	3.20	2.40	2.09	1.64	1.00	0.54
1.65	20.89	15.95	13.56	11.18	9.43	8.21	7.61	7.02	6.63	6.14	5.75	3.05	2.33	2.04	1.61	0.99	0.53
1.70	20.01	15.27	13.01	10.75	9.12	7.91	7.33	6.74	6.36	5.88	5.50	2.91	2.27	1.99	1.58	0.98	0.52
1.75	19.29	14.72	12.52	10.32	8.76	7.56	7.00	6.44	6.07	5.61	5.25	2.76	2.20	1.94	1.55	0.97	0.52
1.80	18.41	14.05	11.97	9.90	8.45	7.28	6.74	6.19	5.85	5.41	5.07	2.65	2.12	1.88	1.51	0.95	0.49

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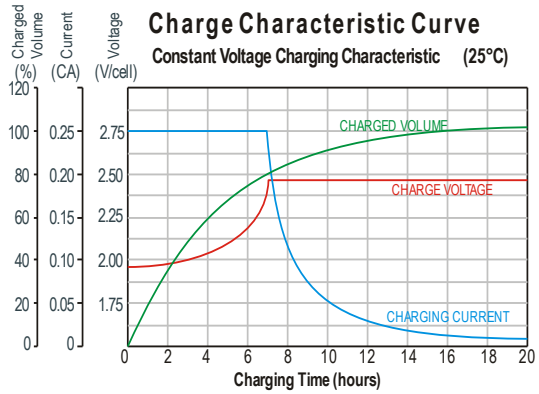
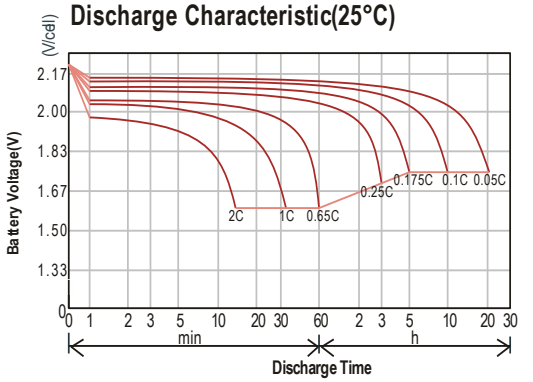
Graphs

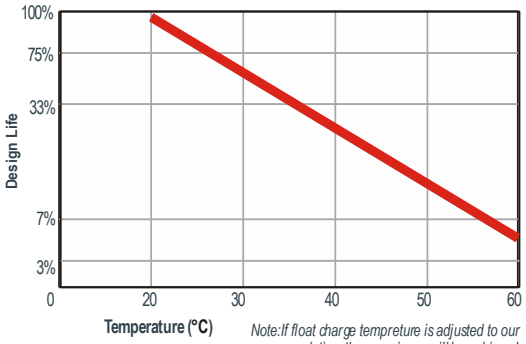
Charge Characteristic Curve



Discharge Characteristic(25°C)

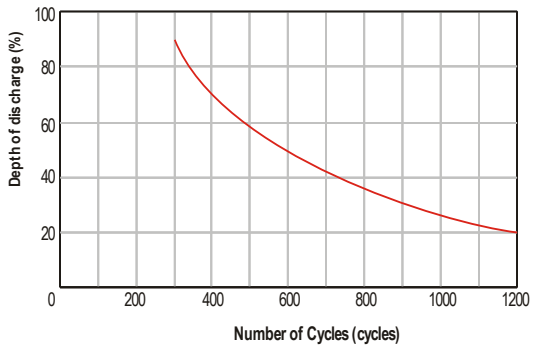


Temperature Effects On Float Life

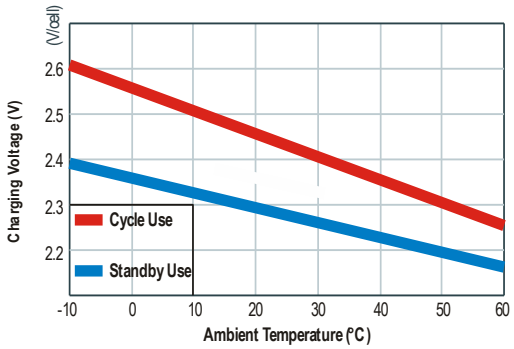


Note:If float charge tempreture is adjusted to our recommendation, then maximum will be achieved.

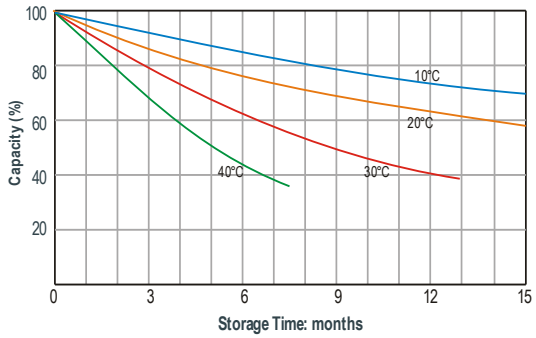
Cycle Service Life V.S. Depth Of Discharge



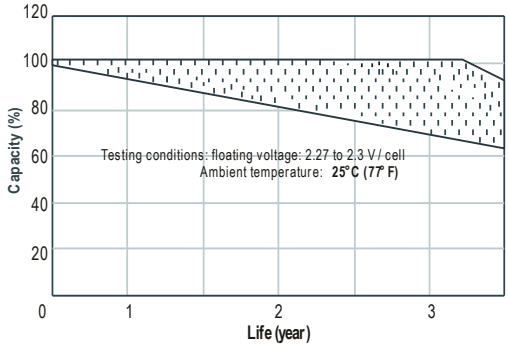
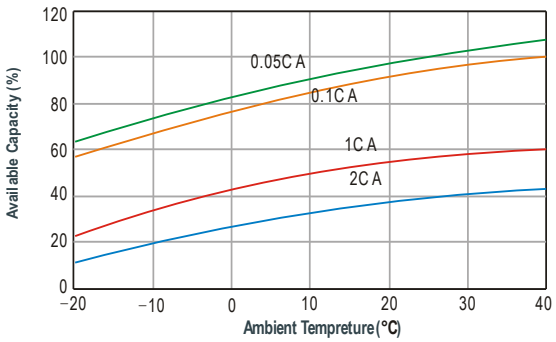
Charging Voltage V.S. Temperature



Self-Discharge Characteristic



Life Characteristics Of Standby Use



Temperature Effects On Capacity