VNS6-4.5

6V 4.5Ah / 20h

BATTERY Samson

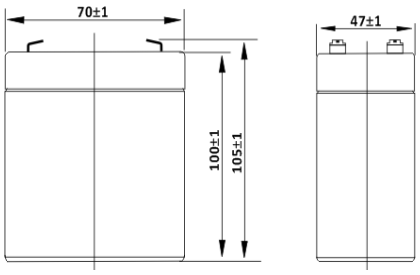
Introduction

Samson NS 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.

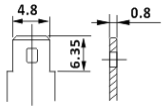
Battery Features

- 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



Terminal Type: F1



Electrical Specification

Design floating Life @ 25°C (77°F)		5 years
Design Life Cycles @ 50% D.O.D. (25°C)		600 Cycles
Nominal Capacity @ 25°C /77°F		
20 hour rate	0.225A to 1.75Vpc	4.5 Ah
10 hour rate	0.42A to 1.75Vpc	4.2 Ah
Internal Resistance		
(Fully charged battery @ 25°C /77°F)		20 mΩ
Max. Discharge Current @ 25°C /77°F		42 A (5S)
Short Circuit Current		75 A
Charge Methods: Constant voltage charge @ 25°C /77°F		
Cycle Use		7. 25~ 7.45V
Max. Current		1.35 A
Max. Current for best battery life		0.9 A
Standby Use		6.8 - 6.9V
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 (± 2%)
Length	Width	Height	Total Height	
70 mm	47 mm	100 mm	105 mm	0,74 kg
2,8 inch	1,9 inch	3,9 inch	4,1 inch	1,6 lbs

Certificates

Other relevant information

Contry of origin:	***China***	HS Code (harmonized system code):	***85 07 20 00***
UN-Transport declaration:	***UN2800***	Customs tariff number	***8507 10 20 80***

Typical Applications

○ UPS & EPS ○ Security Power Supply ○ Power Utility ○ 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	10,23	7,81	6,67	5,54	4,70	4,07	3,74	3,41	3,13	2,90	2,72	1,41	1,09	0,94	0,81	0,44	0,231
1,65	9,80	7,48	6,40	5,32	4,53	3,92	3,61	3,30	3,04	2,82	2,66	1,37	1,06	0,91	0,79	0,44	0,231
1,70	9,36	7,15	6,12	5,09	4,36	3,77	3,48	3,18	2,94	2,75	2,61	1,34	1,04	0,90	0,78	0,43	0,225
1,75	8,93	6,82	5,85	4,88	4,20	3,63	3,35	3,08	2,85	2,67	2,55	1,31	1,01	0,87	0,77	0,42	0,225
1,80	8,50	6,49	5,58	4,67	4,06	3,50	3,23	2,97	2,76	2,60	2,49	1,27	0,97	0,85	0,76	0,42	0,218

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	19,59	14,96	12,72	10,48	8,75	7,70	7,15	6,60	6,25	5,80	5,45	2,88	2,14	1,88	1,47	0,90	0,49
1,65	18,80	14,35	12,21	10,06	8,42	7,39	6,85	6,32	5,99	5,56	5,22	2,75	2,08	1,84	1,45	0,89	0,48
1,70	18,01	13,75	11,71	9,68	8,14	7,12	6,60	6,07	5,75	5,32	5,00	2,62	2,03	1,79	1,42	0,88	0,47
1,75	17,36	13,25	11,27	9,29	7,81	6,81	6,30	5,79	5,49	5,08	4,77	2,48	1,96	1,75	1,40	0,87	0,47
1,80	16,57	12,65	10,78	8,91	7,54	6,55	6,06	5,57	5,29	4,90	4,61	2,39	1,89	1,70	1,36	0,86	0,44

Above discharge data (Amps/watts) is average values after batteries are fully charged.

Subject to revision without notice. Please contact our sales representatives for latest version.

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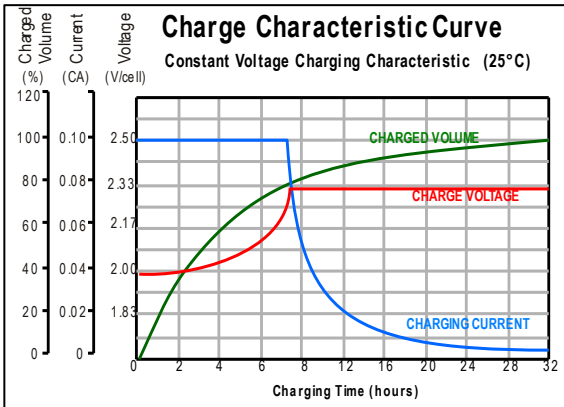
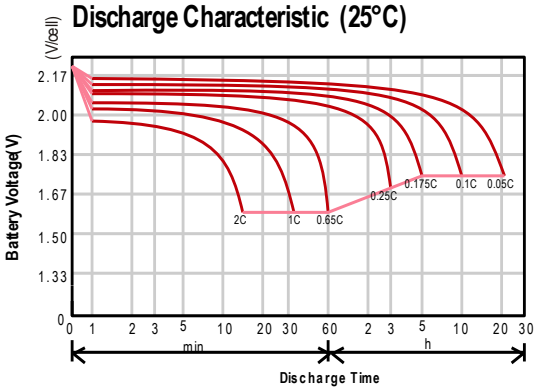
Graphs

Charge Characteristic Curve

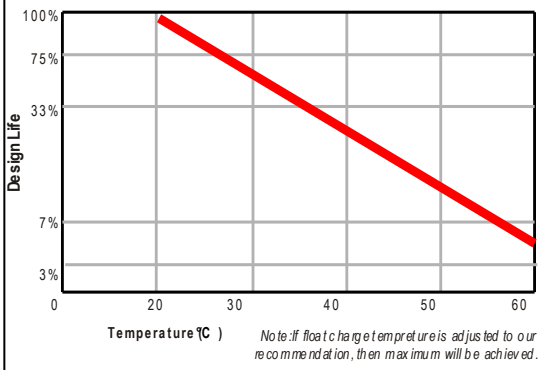
Constant Voltage Charging Characteristic (25°C)



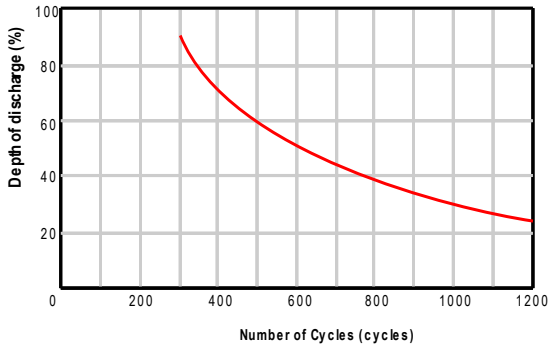
Discharge Characteristic (25°C)



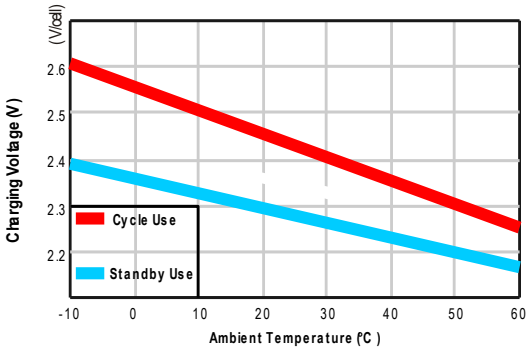
Temperature Effects On Float Life



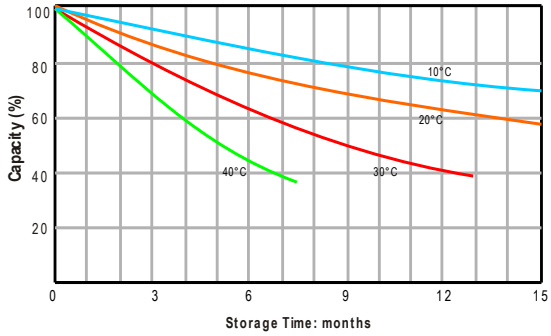
Cycle Service Life V.S. Depth Of Discharge



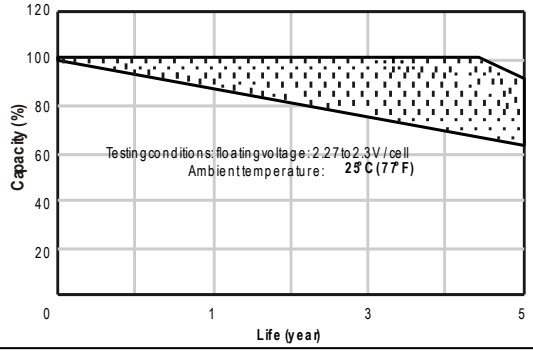
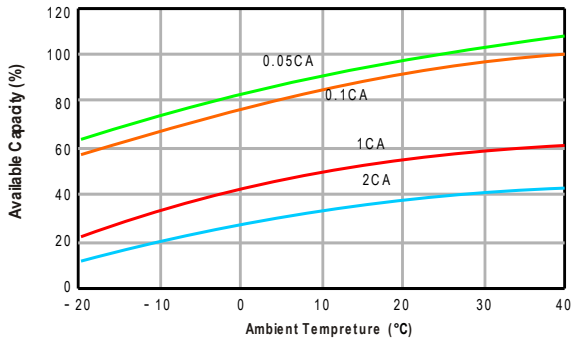
Charging Voltage V.S. Temperature



Self-Discharge Characteristic



Life Characteristics Of Standby Use



Temperature Effects On Capacity