

# NG12-80F

12V80Ah / 20hr rate



### Introduction

**Genergy NG Front Terminal series** is designed for solar and other renewable energy system applications with a 15 years design life. The series battery is a genuine Gelled electrolyte valve regulated product. Featured of its performance is an enhanced cycle life in comparison to traditional AGM products.

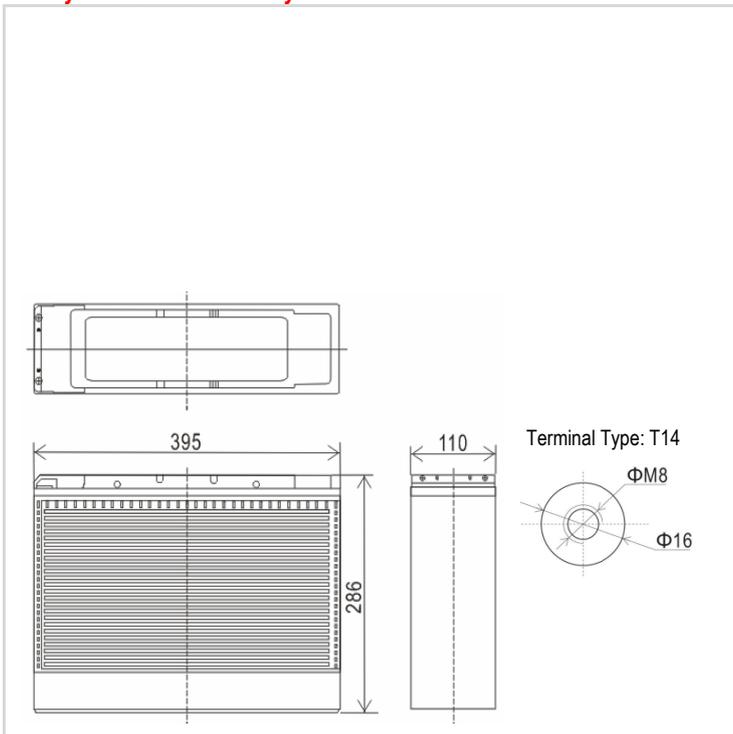
### Battery Features

- Completed maintenance free
- Electrolyte will not stratify, no equalization charge required.
- Enhanced cycle life
- Genuine Gelled thixotropic electrolyte (Silicon Gel)
- Increase durability and deep cycle ability for heavy demand applications
- Low self-discharge
- Fully tank formed plates
- Low impurity electrolyte
- Spill proof / leak proof

### Electrical Specification

Design floating Life @ 25°C (77°F)	15 years
Nominal Capacity @ 25°C /77°F	
20 hour rate 4.1A to 1.75Vpc	82Ah
10 hour rate 7.82A to 1.75Vpc	78.2Ah
Internal Resistance	
(Fully charged battery @ 25°C /77°F )	5mΩ
Max. Discharge Current @ 25°C /77°	640 A (5S)
Charge Methods: Constant voltage charge @ 25°C /77°F	
Cycle Use	14.7 ~ 14.9V
Max. Curren	20 A
Standby Use	13.6 - 13.8V
Operating Temperature Range	-15 ~ 50°C
<i>Notes: battery voltage must be adjusted according to temperature. Please refer to our recommendation.</i>	
Self-Discharge	
3% of capacity declined per month @ 25°C (77°F).	

### Battery Picture & Terminal Layout



### Dimension & Weight

Length	Dimension (± 2mm)			Total Height	Weight (± 2%)
	Width	Height	Total Height		
395 mm	110 mm	286 mm	286 mm	32 kg	
15.6 inch	4.3 inch	11.3 inch	11.3 inch	70.5 lbs	

### Typical Applications

- Solar Energy System
- Wind Energy System
- Power Utility
- UPS/EPS
- BTS system
- Data Center

### 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	205.8	157.1	136.7	116.3	98.7	89.0	82.3	75.5	69.7	64.4	59.5	31.60	22.89	18.63	15.33	7.97	4.18
1.65	195.8	149.5	130.8	112.2	96.4	86.9	80.4	73.8	68.2	63.0	58.4	30.93	22.50	18.28	15.03	7.97	4.18
1.70	183.8	140.3	123.7	107.1	93.4	84.2	77.9	71.7	66.4	61.6	57.3	30.27	22.04	17.90	14.72	7.90	4.14
1.75	171.7	131.1	116.5	101.9	90.3	81.4	75.5	69.6	64.6	60.1	56.1	29.60	21.58	17.51	14.41	7.82	4.10
1.80	158.7	121.1	108.6	96.1	86.5	78.0	72.5	67.0	62.4	58.4	54.8	28.84	21.12	17.09	14.03	7.67	4.02

### 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	344.5	263.0	231.8	200.6	176.2	158.8	148.2	137.6	127.7	118.4	112.6	61.40	44.37	36.06	29.60	15.26	8.07
1.65	335.1	255.8	224.9	194.1	170.1	153.2	143.1	133.0	123.6	114.8	109.5	59.62	43.99	35.76	29.37	15.13	8.01
1.70	322.8	246.4	216.7	186.9	163.9	147.7	138.2	128.8	120.0	111.9	107.2	58.28	43.60	35.45	29.14	15.01	7.94
1.75	309.6	236.3	207.9	179.4	157.8	142.1	133.1	124.2	115.9	108.3	104.1	56.50	43.14	35.11	28.91	14.89	7.88
1.80	294.5	224.8	197.6	170.5	150.1	135.2	127.0	118.8	111.3	104.5	101.1	54.72	42.76	34.80	28.68	14.76	7.81

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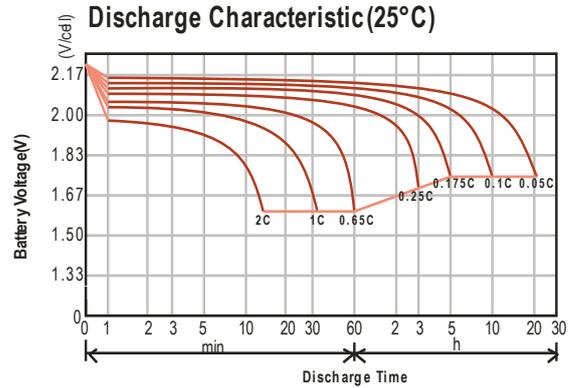
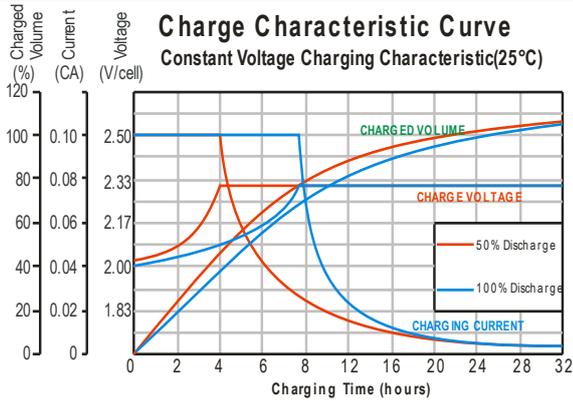
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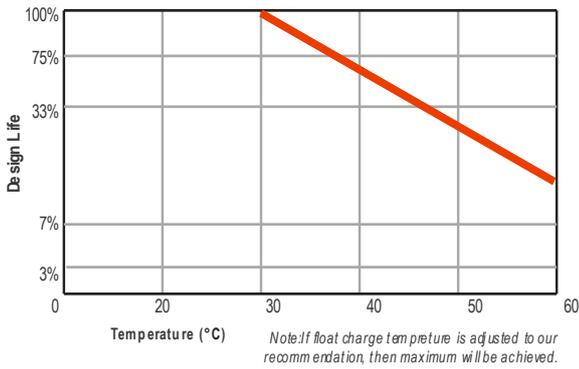
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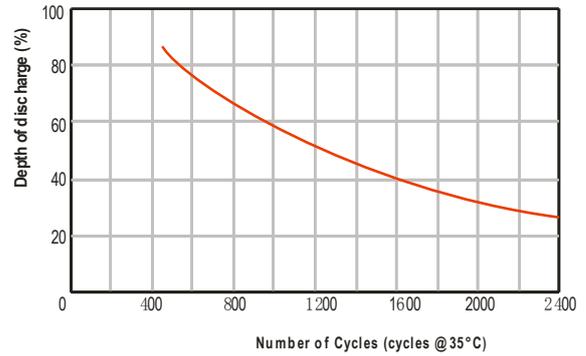
## Graphs



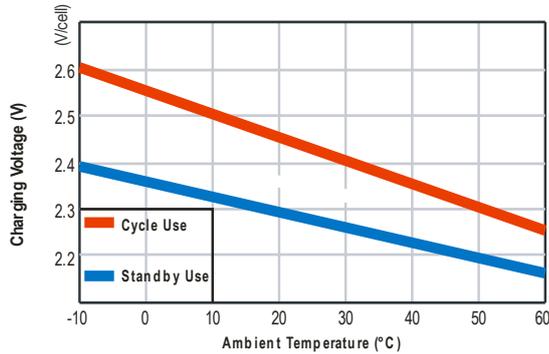
### Temperature Effects On Float Life



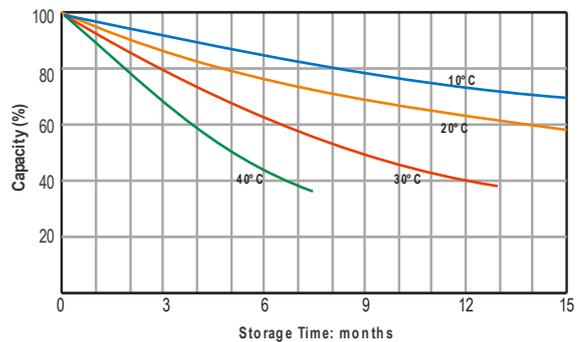
### Cycle Service Life V.S. Depth Of Discharge



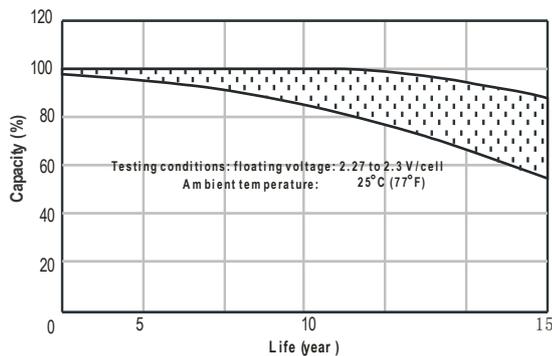
### Charging Voltage V.S. Temperature



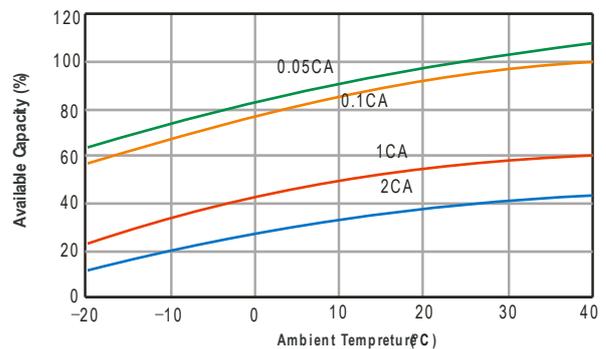
### Self-Discharge Characteristic



### Life Characteristics Of Standby Use



### Temperature Effects On Capacity



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