



RANGE SUMMARY



Introduction to . . . Rechargeable Valve-Regulated GEL Batteries



The **Genesis** NP-GEL series of valve regulated GEL batteries has been designed to offer competitive solutions for the expanding general standby market.

Its design and specification also make the **Genesis** NP-GEL series suitable for other sectors such as emergency lighting. **Genesis** NP-GEL series incorporates selected design features for the cost-conscious user, while still offering superior performance by weight and volume compared to traditional GEL batteries.

Genesis NP-GEL batteries are designed using proven gas recombination technology which removes the need for regular water addition by controlling the evolution of hydrogen and oxygen during charging. Gas recombination provides the user with the freedom to use lead acid batteries in a wide range of applications.

The minimal level of gas evolution allows battery installation in cabinets or on stands, in offices or near main equipment, maximizing space utilization and reducing storage and maintenance costs. Care must be taken to ensure that there is sufficient ventilation in accordance with national regulations.

Features:

- Proven gel electrolyte technology delivers maximum cycle life and prolongs life in elevated ambient temperatures
- Valve regulated, spill-proof construction provides safety and reliability
- Unique grid alloy enhances deep cycle performance
- Multiple terminal options to meet varying application requirements
- Complies with 49 CRF requirements for non-spillable battery

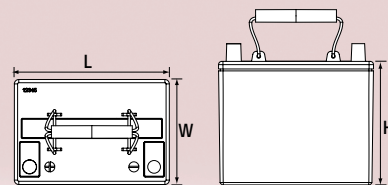
General Specifications

Type	Nominal Voltage	Nominal Capacity 20hr rate - Ah	Nominal Dimensions				Height (1)		Typical Weight kgs	Typical Weight lbs	BCI Group Size	Reserve Capacity 25 Amps to 1.75Vpc
			Length mm	Length in	Width mm	Width in	Without Terminal mm	Without Terminal in				
NP-GEL30-12	12	26.0	195.3	7.69	132.6	5.22	155.2	6.11	10.6	23.4	U1	41 min
NP-GEL50-12	12	50.0	250.4	9.86	139.1	5.48	207.0	8.15	17.7	38.9	22NF	85 min
NP-GEL70-12	12	71.0	281.6	11.09	169.2	6.66	207.0	8.15	23.5	51.7	24	135 min
NP-GEL90-12	12	87.0	330.9	13.03	169.2	6.66	207.0	8.15	27.7	60.9	27	160 min

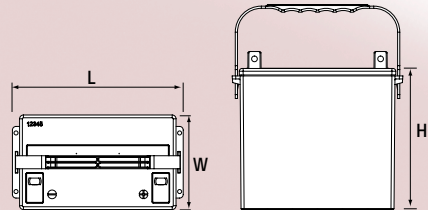
(1) Height is to top of cover. Overall height, including terminal is dependent on terminal configuration.

Battery Layout

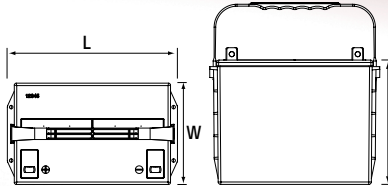
NP-GEL30-12 (GP size U1)



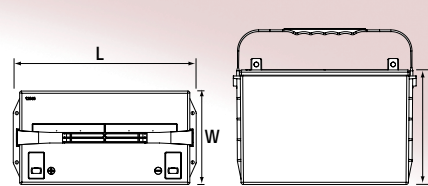
NP-GEL50-12 (GP size 22NF)



NP-GEL70-12 (GP size 24)



NP-GEL90-12 (GP size 27)



Terminals

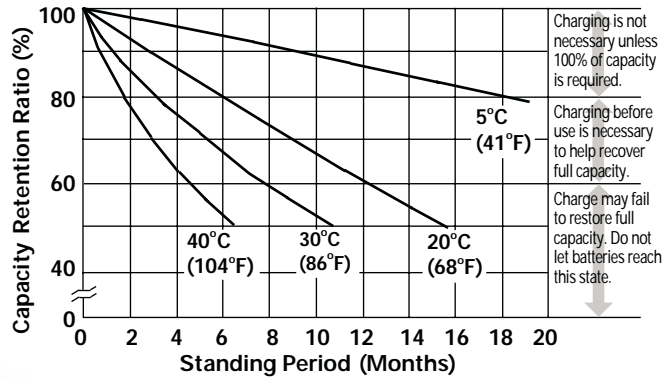
All NP-GEL batteries can be fitted with a range of terminals.

Terminal height above cover

Terminal Type	NP-GEL30 mm	NP-GEL30 ins	NP-GEL50/70/90 mm	NP-GEL50/70/90 ins
B	5.1	0.20	3.3	0.13
NB	22.8	0.90	21.1	0.83
MJ	28.4	1.12	26.9	1.06
AP	22.8	0.90	21.1	0.83
MG	38.1	1.50	36.3	1.43
U	22.8	0.90	21.1	0.83

Dimensions are in inches (mm)
Tolerances are ± 0.04 in. (±1mm) and ± 0.08 in. (±2mm) for height dimensions.

Shelf life and Storage



Performance Specifications

NP-GEL30-12

Nominal Voltage	12 volts (6 cells in series)
Nominal Capacity	
20 hour rate (1.3A to 10.50 volts)	26.0 A.H.
10 hour rate (2.4A to 10.50 volts)	24.0 A.H.
5 hour rate (4.7A to 10.20 volts)	23.5 A.H.
1 hour rate (20.0A to 09.00 volts)	20.0 A.H.
Float Charge Voltage	13.5 Volts @ 77°F (25°C)
Cyclic Recharge Voltage	14.1-14.4 Volts @ 77°F (25°C)
Internal Resistance (Fully Charged Battery)	9.4 milliohms (approx)
Maximum Discharge Current	150A
Operating Temperatures Range	
Charge	-4°F (-20°C) to 122°F (50°C)
Discharge	-4°F (-20°C) to 140°F (60°C)

NP-GEL70-12

Nominal Voltage	12 volts (6 cells in series)
Nominal Capacity	
20 hour rate (3.55A to 10.50 volts)	71.0 A.H.
10 hour rate (6.80A to 10.50 volts)	68.0 A.H.
5 hour rate (12.70A to 10.20 volts)	63.5 A.H.
1 hour rate (53.00A to 09.00 volts)	53.0 A.H.
Float Charge Voltage	13.5 Volts @ 77°F (25°C)
Cyclic Recharge Voltage	14.1-14.4 Volts @ 77°F (25°C)
Internal Resistance (Fully Charged Battery)	10 milliohms (approx)
Maximum Discharge Current	150A
Operating Temperatures Range	
Charge	-4°F (-20°C) to 122°F (50°C)
Discharge	-4°F (-20°C) to 140°F (60°C)

NP-GEL50-12

Nominal Voltage	12 volts (6 cells in series)
Nominal Capacity	
20 hour rate (2.50A to 10.50 volts)	50.9 A.H.
10 hour rate (4.60A to 10.50 volts)	46.0 A.H.
5 hour rate (8.80A to 10.20 volts)	44.0 A.H.
1 hour rate (37.00A to 09.00 volts)	37.0 A.H.
Float Charge Voltage	13.5 Volts @ 77°F (25°C)
Cyclic Recharge Voltage	14.1-14.4 Volts @ 77°F (25°C)
Internal Resistance (Fully Charged Battery)	10 milliohms (approx)
Maximum Discharge Current	150A
Operating Temperatures Range	
Charge	-4°F (-20°C) to 122°F (50°C)
Discharge	-4°F (-20°C) to 140°F (60°C)

NP-GEL90-12

Nominal Voltage	12 volts (6 cells in series)
Nominal Capacity	
20 hour rate (4.35A to 10.50 volts)	87.0 A.H.
10 hour rate (8.20A to 10.50 volts)	82.0 A.H.
5 hour rate (15.40A to 10.20 volts)	77.0 A.H.
1 hour rate (63.00A to 09.00 volts)	63.0 A.H.
Float Charge Voltage	13.5 Volts @ 77°F (25°C)
Cyclic Recharge Voltage	14.1-14.4 Volts @ 77°F (25°C)
Internal Resistance (Fully Charged Battery)	10 milliohms (approx)
Maximum Discharge Current	150A
Operating Temperatures Range	
Charge	-4°F (-20°C) to 122°F (50°C)
Discharge	-4°F (-20°C) to 140°F (60°C)

NP-GEL30-12 Discharge Current (amps 77°F (25°C))

Volts	Minutes					Hours						
	15	20	30	45	60	2	3	4	5	8	10	20
1.85	40.6	35.0	27.6	21.1	17.1	9.9	7.0	5.5	4.5	2.9	2.4	1.3
1.80	44.4	37.9	29.4	22.2	17.9	10.2	7.2	5.6	4.6	3.0	2.4	1.3
1.75	48.1	40.6	31.1	23.2	18.6	10.5	7.4	5.7	4.6	3.0	2.5	1.3
1.70	51.3	42.9	32.5	24.0	19.1	10.7	7.5	5.8	4.7	3.1	2.5	1.3
1.67	53.0	44.0	33.2	24.4	19.4	10.8	7.5	5.8	4.7	3.1	2.5	1.3
1.65	54.1	44.7	33.5	24.6	19.5	10.8	7.5	5.8	4.7	3.1	2.5	1.3
1.63	55.0	45.4	33.9	24.8	19.6	10.9	7.6	5.8	4.8	3.1	2.5	1.3
1.60	56.3	46.1	34.2	24.9	19.7	10.9	7.6	5.9	4.8	3.1	2.5	1.3
1.55	57.7	47.0	34.6	25.0	19.8	10.9	7.6	5.9	4.8	3.1	2.5	1.4
1.50	58.5	47.2	34.9	25.3	20.0	11.0	7.7	5.9	4.8	3.1	2.5	1.4

NP-GEL50-12 Discharge Current (amps 77°F (25°C))

Volts	Minutes					Hours						
	15	20	30	45	60	2	3	4	5	8	10	20
1.85	69.2	60.1	47.8	36.9	30.2	17.8	12.8	10.0	8.3	5.5	4.5	2.4
1.80	77.1	66.2	52.0	39.6	32.2	18.6	13.2	10.3	8.5	5.6	4.6	2.5
1.75	84.4	71.8	55.6	41.9	33.8	19.3	13.6	10.6	8.7	5.7	4.7	2.5
1.70	90.9	76.7	58.7	43.7	35.0	19.7	13.9	10.8	8.8	5.8	4.7	2.6
1.67	94.3	79.1	60.2	44.6	35.6	19.9	14.0	10.8	8.9	5.8	4.8	2.6
1.65	96.3	80.5	61.0	45.1	35.9	20.0	14.0	10.9	8.9	5.8	4.8	2.6
1.63	98.1	81.7	61.7	45.4	36.1	20.1	14.1	10.9	8.9	5.8	4.8	2.6
1.60	100.3	83.2	62.5	45.8	36.3	20.1	14.1	10.9	8.9	5.9	4.8	2.7
1.55	102.7	84.6	63.0	45.9	36.7	20.3	14.2	11.0	9.0	5.9	4.8	2.7
1.50	103.5	84.7	63.7	46.4	37.1	20.6	14.4	11.1	9.1	6.0	4.9	2.7

NP-GEL70-12 Discharge Current (amps 77°F (25°C))

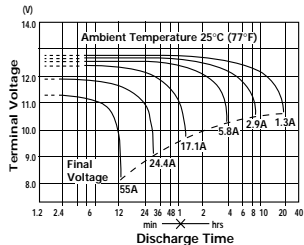
Volts	Minutes					Hours						
	15	20	30	45	60	2	3	4	5	8	10	20
1.85	90.1	78.5	63.6	50.4	42.1	26.2	19.2	15.2	12.6	8.3	6.7	3.3
1.80	104.6	89.7	70.8	54.7	45.0	27.0	19.5	15.3	12.7	8.3	6.7	3.4
1.75	118.2	99.9	77.4	58.6	47.5	27.7	19.8	15.4	12.7	8.3	6.8	3.6
1.70	129.8	108.7	82.9	61.8	49.6	28.3	20.0	15.5	12.7	8.4	6.8	3.7
1.67	135.6	113.0	85.5	63.4	50.6	28.5	20.1	15.6	12.8	8.4	6.8	3.7
1.65	138.8	115.3	87.0	64.2	51.2	28.7	20.2	15.6	12.8	8.4	6.9	3.7
1.63	141.4	117.3	88.2	64.9	51.6	28.8	20.2	15.6	12.8	8.4	6.9	3.7
1.60	144.3	119.5	89.6	65.7	52.1	29.0	20.3	15.7	12.8	8.4	6.9	3.7
1.55	146.0	120.7	90.4	66.2	52.5	29.1	20.4	15.7	12.9	8.4	6.9	3.8
1.50	147.4	121.9	91.3	66.9	53.0	29.4	20.4	15.8	12.9	8.4	6.9	3.8

NP-GEL90-12 Discharge Current (amps 77°F (25°C))

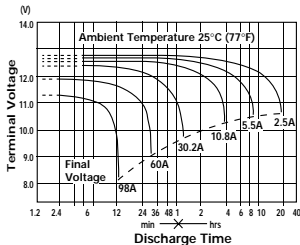
Volts	Minutes					Hours						
	15	20	30	45	60	2	3	4	5	8	10	20
1.85	116.0	101.6	81.8	63.8	52.6	31.4	22.6	17.7	14.6	9.6	7.8	4.1
1.80	129.5	111.7	88.4	67.9	55.4	32.5	23.2	18.2	14.9	9.8	8.0	4.3
1.75	142.0	121.0	94.2	71.4	57.9	33.5	23.8	18.5	15.2	10.0	8.2	4.3
1.70	150.0	129.1	99.2	74.4	59.8	34.2	24.2	18.8	15.4	10.1	8.3	4.4
1.67	150.0	133.2	101.6	75.8	60.8	34.5	24.3	18.9	15.5	10.2	8.3	4.5
1.65	150.0	135.6	103.1	76.6	61.3	34.7	24.4	18.9	15.5	10.2	8.3	4.5
1.63	150.0	137.7	104.3	77.2	61.7	34.8	24.5	19.0	15.5	10.2	8.3	4.5
1.60	150.0	140.3	105.7	78.0	62.1	34.9	24.5	19.0	15.5	10.2	8.3	4.5
1.55	150.0	142.9	107.1	78.6	62.4	35.2	24.7	19.2	15.7	10.3	8.4	4.5
1.50	150.0	143.4	107.1	79.4	63.0	35.6	25.0	19.4	15.9	10.4	8.5	4.5

Discharge Characteristics

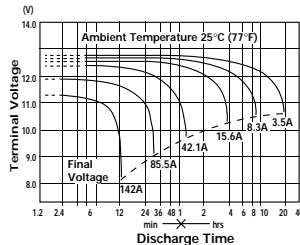
NP-GEL30-12



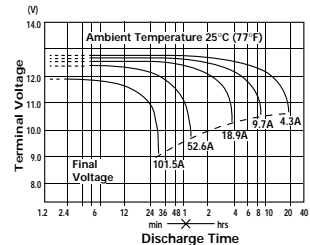
NP-GEL50-12



NP-GEL70-12



NP-GEL90-12



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