

Battery Range Summary

Genesis® NP batteries feature heavy duty thick lead-calcium grids for years of dependable performance. The high energy density design, factory sealed case and leak-proof construction ensures that these rechargeable sealed lead acid batteries are extremely reliable and virtually maintenance-free.

The batteries are completely sealed by the factory, meaning zero watering requirements. The Genesis NP battery design includes a low pressure relief valve to release any build-up of pressure within the case. This vent is completely self-resealing ensuring the highest possible rate of internal recombination is reached within each battery.

With an expected life span of three to five years in float applications at 77°F (25°C) ambient temperature, more than 1,000 discharge/recharge cycles can be realized depending on the DOD for each cycle. The internal grid design has been perfected over 10 decades of battery experience to yield a battery that can recover even after repeated deep discharges.

Features and Benefits

- Capacity range 1- 200Ah
- Lead calcium alloy
- Sealed design, no watering required
- 1,000+ cycles can be realized depending on Depth of Discharge (DOD)
- Heavy duty grids maximize life
- Three to five year life expectancy in float applications at 77°F (25°C) ambient temperature

Construction

- Heavy duty thick lead-calcium grids
- Sealed case for leak-proof operation
- Designed to promote internal recombination for longer life
- Integral pressure relief valve operates at 2-3 PSI and is self-resealing
- Flame retardant UL94-V0 case and cover available

Installation and Operation

- Space efficient footprint
- Compact, quick and simple installation process
- Three to five year life expectancy in float applications at 77°F (25°C) ambient temperature
- Low maintenance - no watering required
- Operating temperature: -5°F (-15°C) to 122°F (50°C); Recommended temperature: 68°F (20°C) to 86°F (30°C)

Standards

- Approved for air transportation (IATA A67)
- Recognized by UL File no. MH16464 and MH15740
- Non-spillable classification (UN2800)
- IEC 61056-1, IEC 60896-21 and IEC60896-22 compliant

General Specifications

Genesis® NP Battery Series

Battery Type	FR Battery Type*	Volts	Nominal Capacity 20hr rate-Ah ¹	Nominal Dimensions			Typical Weight	Layout	Terminal Illustration	Electrolyte (1.300 SG)				Internal Resistance (mΩ)	Short Circuit (A)				
				Length	Width	Height ‡				Volume	Volume	Volume	Volume						
				in	mm	in	mm	in	mm	lbs	kg	gal	L	lbs	kg				
NP1.2-6	n/a	6	1.2	3.82	97	0.98	25	2.20	56	0.67	0.30	1	A	0.014	0.053	0.152	0.069	-	-
NP4-6	n/a	6	4.0	2.76	70	1.85	47	4.15	105	1.76	0.80	5	A	0.038	0.144	0.412	0.187	20	315
NP4.5-6	n/a	6	4.5	2.76	70	1.85	47	4.15	105	1.80	0.82	5	A	0.040	0.151	0.433	0.196	19	330
NP5-6	n/a	6	5.0	2.76	70	1.85	47	4.15	105	1.83	0.83	5	A	0.046	0.172	0.493	0.223	18	350
NP7-6	n/a	6	7.0	5.95	151	1.30	33	3.94	100	2.76	1.25	1	A	0.065	0.246	0.704	0.319	15	415
NP7-6T	n/a	6	7.0	5.95	151	1.30	33	3.94	100	2.76	1.25	1	C	0.065	0.246	0.704	0.319	15	415
NP10-6	n/a	6	10.0	5.95	151	1.97	50	3.98	101	3.81	1.73	1	A	0.100	0.379	1.08	0.491	10	625
NP12-6	n/a	6	12.0	5.95	151	1.97	50	3.98	101	4.23	1.92	1	A	0.100	0.379	1.08	0.491	8	780
NP0.8-12	n/a	12	0.8	3.78	96	0.98	25	2.42	61	0.82	0.37	6	H	0.013	0.049	0.14	0.064	180	70
NP1.2-12	n/a	12	1.2	3.82	97	1.89	48	2.20	56	1.25	0.57	3	A	0.025	0.095	0.27	0.123	120	105
NP2-12	n/a	12	2.0	5.91	150	0.79	20	3.50	89	1.54	0.70	7	B	0.034	0.129	0.37	0.167	80	155
n/a	NP2.3-12FR	12	2.3	7.01	178	1.38	35	2.64	67	2.23	1.01	1	A	0.036	0.136	0.39	0.177	65	190
n/a	NP2.6-12FR	12	2.6	5.28	134	2.64	67	2.60	66	2.79	1.27	3	A	0.045	0.170	0.49	0.221	60	210
NP2.9-12	n/a	12	2.9	3.11	79	2.20	56	4.13	105	2.73	1.24	1	A	0.053	0.201	0.57	0.260	57	220
NP3.4-12	n/a	12	3.4	5.28	134	2.64	67	2.64	67	3.06	1.39	3	A	0.059	0.223	0.64	0.290	45	280
NP4-12	n/a	12	4.0	3.54	90	2.76	70	4.21	107	3.74	1.70	1	A	0.075	0.284	0.81	0.368	38	330
NP5-12	n/a	12	5.0	3.54	90	2.76	70	4.21	107	3.88	1.76	1	A	0.085	0.322	0.92	0.417	35	355
NP5-12T	n/a	12	5.0	3.54	90	2.76	70	4.21	107	3.88	1.76	1	C	0.085	0.322	0.92	0.417	35	355
NP7-12	NP7-12FR	12	7.0	5.95	151	2.56	65	3.94	100	5.29	2.40	4	A	0.120	0.454	1.30	0.589	30	415
NP7-12T	NP7-12TFR	12	7.0	5.95	151	2.56	65	3.94	100	5.29	2.40	4	C	0.120	0.454	1.30	0.589	30	415
NP9-12T	NP9-12TFR	12	9.0**	5.95	151	2.56	65	3.94	100	5.94	2.69	4	C	0.148	0.560	1.60	0.726	14	650
NP12-12T	NP12-12TFR	12	12.0	5.95	151	3.86	98	3.94	100	8.26	3.75	4	C	0.180	0.681	1.95	0.884	16	780
NP18-12B	NP18-12BFR	12	17.2	7.13	181	3.00	76	6.57	167	13.6	6.17	2	D	0.280	1.06	3.03	1.38	13	960
n/a	NP24-12BFR	12	24.0	6.54	166	6.89	175	4.92	125	20.0	9.07	2	D	0.430	1.63	4.66	2.11	10	1250
n/a	NP24-12TFR	12	24.0	6.54	166	6.89	175	4.92	125	20.0	9.07	2	C	0.430	1.63	4.66	2.11	10	1250
n/a	NP33-12BFR	12	33.0	7.76	197	5.16	131	6.22 [‡]	158 [‡]	25.1	11.39	1	F	0.480	1.82	5.20	2.36	9	1440
n/a	NP38-12BFR	12	38.0	7.76	197	6.50	165	6.77	172	29.8	143.5	2	F	0.680	2.57	7.36	3.34	8	1565
n/a	NP55-12BFR	12	55.0	9.02	229	5.43	138	8.15 [‡]	207 [‡]	40.8	18.50	1	J	0.850	3.22	9.21	4.17	8	1605

¹ Amp Hour rate is subject to change without notice.
 * FR: UL94-V0, Flame Retardant Case and Cover (Oxygen index 28)
 ** Nominal capacity 10hr rate-Ah
 ‡ Height is top cover. Overall height, including terminal is dependent on the terminal configuration.
 Note: All dimensions are +/- 0.08 inches (2mm); Weights are +/- 5%

Torque Specifications:
 M5 Bolt: 26.6 lbf.in (3Nm) +/- 5%
 M6 Bolt: 44.31 lbf.in (5Nm) +/- 5%
 M5 Receptacle: 35.4 lbf.in (4Nm) +/- 5%
 M6 Receptacle: 65 lbf.in (6.8Nm) +/- 5%

General Specifications Continued

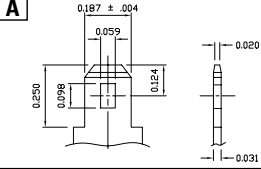
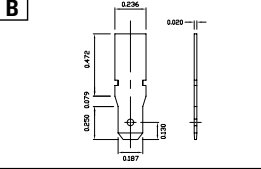
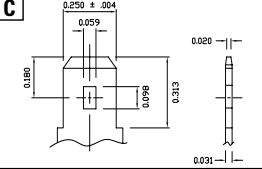
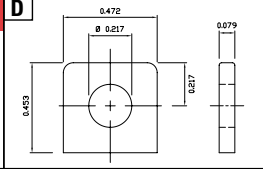
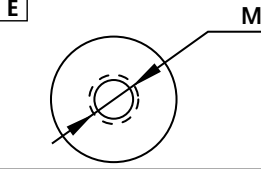
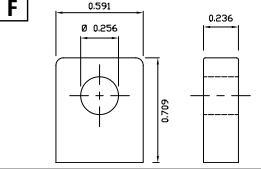
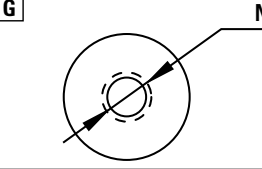
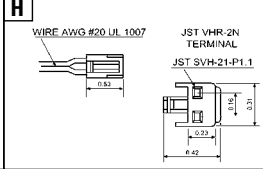
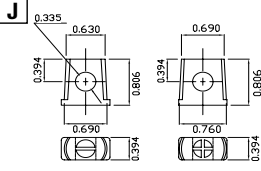
DataSafe® NPX Battery Series

Battery Type	FR Battery Type*	Volts	Watts/Cell to 1.67 End Voltage	Nominal Capacity 20hr rate-Ah ¹	Nominal Dimensions			Typical Weight	Layout	Terminal Illustration	Electrolyte (1.300 SG)				Internal Resistance (mΩ)	Short Circuit (A)				
					Length	Width	Height ‡				Volume	Volume	Volume	Volume						
					in	mm	in	mm	in	mm	lbs	kg	gal	L	lbs	kg				
n/a	NPX-50TFR	6	50W/Cell	13	5.95	151	1.97	50	3.94	100	4.60	2.09	1	C	0.070	0.265	0.758	0.344	12200	720
n/a	NPX-25TFR	12	23W/Cell	5	3.54	90	2.75	70	4.21	107	4.30	1.95	1	C	0.065	0.246	0.704	0.319	16500	300
n/a	NPX-35FR	12	35W/Cell	8	5.95	151	2.56	65	3.94	100	6.06	2.75	4	A	0.102	0.386	1.10	0.501	13200	500
n/a	NPX-35TFR	12	35W/Cell	8	5.95	151	2.56	65	3.94	100	6.06	2.75	4	C	0.102	0.386	1.10	0.501	13200	500
n/a	NPX-80BFR	12	80W/Cell	20	7.13	181	2.39	76	6.57	167	13.87	6.29	2	D	0.250	0.946	2.71	1.23	8500	1000
n/a	NPX-80RFR	12	80W/Cell	20	7.13	181	2.39	76	6.57	167	13.87	6.29	2	E	0.250	0.946	2.71	1.23	8500	1000
n/a	NPX-100RFR	12	95W/Cell	28	6.54	166	4.92	125	6.89	175	21.38	9.70	2	E	0.375	1.42	4.06	1.84	7100	1500
n/a	NPX-150RFR	12	150W/Cell	40	7.76	197	6.50	165	6.77	172	31.50	14.29	2	G	0.570	2.16	6.17	2.80	5000	2400

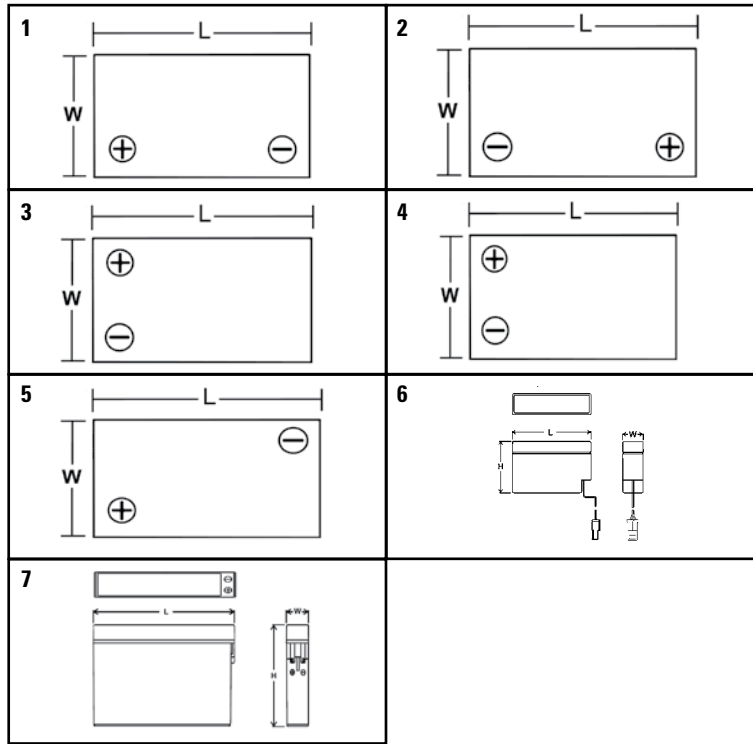
¹ Amp Hour rate is subject to change without notice.* FR: UL94-V0, Flame Retardant Case and Cover (Oxygen index 28)
 ‡ Height is top cover. Overall height, including terminal is dependent on the terminal configuration.
 Note: All dimensions are +/- 0.08 inches (2mm); Weights are +/- 5%

Torque Specifications:
 M5 Bolt: 26.6 lbf.in (3Nm) +/- 5%
 M6 Bolt: 44.31 lbf.in (5Nm) +/- 5%
 M5 Receptacle: 35.4 lbf.in (4Nm) +/- 5%
 M6 Receptacle: 65 lbf.in (6.8Nm) +/- 5%

Terminal Illustrations

 <p>A</p> <p>0.187 ± .004 0.059 0.020 0.020 0.031</p> <p>in. (mm) 0.250 (6.35) 0.187 (4.75) 0.124 (3.15) 0.098 (2.49) 0.059 (1.50) 0.031 (0.79) 0.020 (0.51) 0.004 (0.10)</p> <p>Faston Tab 187</p>	 <p>B</p> <p>0.236 0.020 0.020 0.020 0.020</p> <p>in. (mm) 0.472 (11.99) 0.250 (6.35) 0.236 (5.99) 0.187 (4.75) 0.130 (3.30) 0.079 (2.01) 0.020 (0.51)</p> <p>Faston Tab: 187 (F1)</p>	 <p>C</p> <p>0.250 ± .004 0.059 0.020 0.020 0.031</p> <p>in. (mm) 0.313 (7.95) 0.250 (6.35) 0.180 (4.57) 0.098 (2.49) 0.059 (1.50) 0.031 (0.79) 0.020 (0.51) 0.004 (0.10)</p> <p>T Faston Tab: 250 (F2)</p>	 <p>D</p> <p>0.472 0.021 0.079 0.021</p> <p>in. (mm) 0.472 (11.99) 0.453 (11.51) 0.217 (5.51) 0.079 (2.01)</p> <p>B M5 Bolt Fastened Terminal</p>
 <p>E</p> <p>M5</p> <p>R M5 Threaded Receptacle</p>	 <p>F</p> <p>0.591 0.256 0.236 0.375</p> <p>in. (mm) 0.709 (18.01) 0.551 (14.00) 0.256 (6.50) 0.236 (5.99)</p> <p>B M6 Bolt Fastened Terminal</p>	 <p>G</p> <p>M6</p> <p>R M6 Threaded Receptacle</p>	 <p>H</p> <p>WIRE AWG #20 UL 1007 JST VHR-2N TERMINAL JST SVH-21-P1.1</p> <p>in. (mm) 0.530 (13.46) 0.420 (10.67) 0.310 (7.87) 0.230 (5.84) 0.160 (4.06)</p> <p>JST No. VHR-2N</p>
 <p>J</p> <p>0.335 0.630 0.394 0.690 0.394 0.690 0.394 0.394</p> <p>in. (mm) 0.806 (20.47) 0.760 (19.30) 0.690 (17.53) 0.630 (16.00) 0.394 (10.01) 0.335 (8.50)</p> <p>B M8 Universal Bolt Fastened Terminal</p>	<p>Part Number Reference: T = 0.250 in wide (reference C) R = Receptacle (reference E and G) B = Bolt-On (reference D, F and J) W = Wide (reference I)</p> <p>Terminal Tolerances are: ±0.02 in. for dimensions < 5mm ±0.04 in. for dimensions ≥ 5mm ±0.08 in. for all height dimensions unless otherwise specified</p>		

Layout Illustrations



Charging

- Standby use: Apply constant voltage charging at 2.28 volts per cell (or 2.25-2.30Vpc)
- Cyclic use: Apply constant voltage charging at 2.40-2.50 Vpc. Initial charging current should be set at less than 0.25CA
- Top charge: Product in storage (ambient temperature 77°F (25°C)) requires a top charge every six months. Apply constant voltage at 2.40 Vpc, initial charging should be set at less than 0.1CA for 15-20 hours

Temperature

- Keep within ambient temperatures of 5°F (-15°C) to 122°F (50°C) for both charging and discharging

Discharge

- Stop operation when voltage has reached the minimum permissible voltage per cell*. Recharge immediately
- Do not operate at 6CA or more current continuously

*Reference EnerSys Publication No. US-NP-AM

Incorporating Battery into Equipment

- Encase battery in a well ventilated compartment
- Avoid installing battery near heated units such as transformer
- House the battery in the lowest section of the equipment enclosure or rack to prevent unnecessary battery temperature rise

Storage

- Always store battery in a fully charged condition
- If battery is to be stored for a long period, apply a recovery top-charge every 6 months
- Store batteries in a dry and cool location

Others

- Avoid terminal short circuit
- DO NOT expose to open flame
- **WARNING:** Avoid exposure of the battery to any type of oil, solvent, detergent, petroleum-based solvent or ammonia solutions. These materials could potentially cause permanent damage to the battery jar and cover and will void the warranty



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