



*Specialty*

## 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 buildup of pressure within the case. This vent is completely self-sealing 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 depth of discharge for each cycle. The internal grid design has been perfected over ten 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



Visit us at [www.enersys.com](http://www.enersys.com)



Publication No: US-NP-RS-AA December 2016

### 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
- 3-5 year life expectancy in float applications @ 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® NPH Battery Series

Battery Type	FR* Battery Type	Volts	Nominal Capacity 10hr rate-Ah	Nominal Dimensions						Typical Weight		Layout	Terminal Illustration
				Length		Width		Height		lbs	kg		
				in	mm	in	mm	in	mm				
NPH3.2-12	NPH3.2-12FR	12	3.2	5.28	134	2.64	67	2.52	64	3.05	1.38	3	A/C

#### Genesis® NP Battery Series

Battery Type	FR* Battery Type	Volts	Nominal Capacity 20hr rate-Ah	Nominal Dimensions						Typical Weight		Layout	Terminal Illustration
				Length		Width		Height		lbs	kg		
				in	mm	in	mm	in	mm				
NP1-6	NP1-6FR	6	1.0	2.01	51	1.65	42	2.24	57	0.61	0.28	5	A
NP1.2-6	NP1.2-6FR	6	1.2	3.82	97	0.98	25	2.20	56	0.67	0.30	1	A
NP2.8-6	NP2.8-6FR	6	2.8	2.64	67	1.30	33	4.13	105	1.30	0.59	5	A/C
NP3-6	NP3-6FR	6	3.0	5.28	134	1.30	33	2.64	67	1.53	0.69	1	A
NP3.2-6	NP3.2-6FR	6	3.2	2.60	66	1.30	33	4.09	104	1.30	0.59	5	A
NP3.8-6	NP3.8-6FR	6	3.8	2.60	66	1.30	33	4.92	125	1.65	0.75	1	A
NP4-6	NP4-6FR	6	4.0	2.76	70	1.85	47	4.15	105	1.76	0.80	5	A/C
NP4.5-6	NP4.5-6FR	6	4.5	2.76	70	1.85	47	4.15	105	1.80	0.82	5	A/C
NP5-6	NP5-6FR	6	5.0	2.76	70	1.85	47	4.15	105	1.83	0.83	5	A/C
NP7-6	NP7-6FR	6	7.0	5.95	151	1.30	33	3.94	100	2.76	1.25	1	A/C
NP8.5-6	NP8.5-6FR	6	8.5	3.86	98	2.20	56	4.65	118	3.53	1.60	9	A/C
NP10-6	NP10-6FR	6	10.0	5.95	151	1.97	50	3.98	101	3.81	1.73	1	A/C
NP12-6	NP12-6FR	6	12.0	5.95	151	1.97	50	3.98	101	4.23	1.92	1	A/C
NP0.8-12	NP0.8-12FR	12	0.8	3.78	96	0.98	25	2.42	61	0.82	0.37	7	H/I
NP1.2-12	NP1.2-12FR	12	1.2	3.82	97	1.89	48	2.20	56	1.25	0.57	3	A
NP2-12	NP2-12FR	12	2.0	5.91	150	0.79	20	3.50	89	1.54	0.70	8	B
NP2-12-C	NP2-12CFR	12	2.0	7.17	182	0.93	24	2.40	61	1.61	0.73	6	L
NP2.3-12	NP2.3-12FR	12	2.3	7.01	178	1.38	35	2.64	67	2.23	1.01	1	A
NP2.6-12	NP2.6-12FR	12	2.6	5.28	134	2.64	67	2.60	66	2.79	1.27	3	A
NP2.9-12	NP2.9-12FR	12	2.9	3.11	79	2.20	56	4.13	105	2.73	1.24	1	A/C
NP3-12	NP3-12FR	12	3.0	5.20	132	1.30	33	4.13	105	2.60	1.18	1	A
NP3.4-12	NP3.4-12FR	12	3.4	5.28	134	2.64	67	2.64	67	3.06	1.39	3	A/C
NP4-12	NP4-12FR	12	4.0	3.54	90	2.76	70	4.21	107	3.74	1.70	1	A/C
NP4.5-12	NP4.5-12FR	12	4.5	3.54	90	2.76	70	4.21	107	3.75	1.70	1	A/C
NP5-12	NP5-12FR	12	5.0	3.54	90	2.76	70	4.21	107	3.88	1.76	1	A/C
NP7-12	NP7-12FR	12	7.0	5.95	151	2.56	65	3.94	100	5.29	2.40	4	A/C
NP9-12	NP9-12FR	12	9.0**	5.95	151	2.56	65	3.94	100	5.94	2.69	4	C/N
NP12-12	NP12-12FR	12	12.0	5.95	151	3.86	98	3.94	100	8.26	3.75	4	C
NP18-12	NP18-12FR	12	17.2	7.13	181	3.00	76	6.57	167	13.6	6.17	2	D/E
NP22-12	n/a	12	20.9	7.13	181	3.00	76	6.57	167	15.1	6.90	2	G
NP24-12	NP24-12FR	12	24.0	6.54	166	6.89	175	4.92	125	20.0	9.07	2	C/D/E
NP33-12	NP33-12FR	12	33.0	7.76	197	5.16	131	6.22 <sup>‡</sup>	158 <sup>‡</sup>	25.1	11.39	1	E/F
NP35-12	NP35-12FR	12	35.0	7.90	198	5.20	132	6.69	170	27.8	12.61	1	F
NP38-12	NP38-12FR	12	38.0	7.76	197	6.50	165	6.77	172	29.8	143.5	2	F/G
NP55-12	NP55-12FR	12	55.0	9.02	229	5.43	138	8.15 <sup>‡</sup>	207 <sup>‡</sup>	40.8	18.50	1	M/E

\* 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

### Genesis® NP Battery Series

Battery Type	FR* Battery Type	Volts	Nominal Capacity 20hr rate-Ah	Nominal Dimensions						Typical Weight		Layout	Terminal Illustration
				Length		Width		Height		lbs	kg		
NP65-12	NP65-12FR	12	65.0	13.78	350	6.54	166	6.85	174	50.1	22.72	2	F/G
NP75-12	NP75-12FR	12	75.0	10.20	259	6.65	169	8.19 <sup>‡</sup>	208 <sup>‡</sup>	57.0	25.85	1	M/G
NP90-12	NP90-12FR	12	90.0	11.97	304	6.61	168	9.02 <sup>‡</sup>	229 <sup>‡</sup>	66.51	30.17	1	M/G
NP100-12	NP100-12FR	12	100.0	12.95	329	6.85	174	8.43 <sup>‡</sup>	214 <sup>‡</sup>	72.62	32.94	1	J/G
NP120-12	NP120-12FR	12	120.0	16.02	407	6.81	173	9.25	235	84.68	38.41	1	J/G
NP150-12	NP150-12FR	12	150.0	19.02	483	6.69	170	9.49	241 <sup>‡</sup>	103.90	47.13	1	J/G
NP200-12	NP200-12FR	12	200.0	20.47	520	10.24	260	8.19	208 <sup>‡</sup>	160.93	73.00	3	K/O

### DataSafe® NPX Battery Series

Battery Type	FR* Battery Type	Volts	Watts/Cell to 1.67 End Voltage	Nominal Capacity 20hr rate-Ah	Nominal Dimensions						Typical Weight		Layout	Terminal Illustration
					Length		Width		Height <sup>‡</sup>		lbs	kg		
NPX-35-6	NP-35-6FR	6	35W/Cell	8	5.95	151	1.30	33	3.94	100	3.15	1.43	1	A/C
NPX-50	NPX-50FR	6	50W/Cell	13	5.95	151	1.97	50	3.94	100	4.60	2.09	1	A/C
NPX-25	NPX-25FR	12	23W/Cell	5	3.54	90	2.75	70	4.21	107	4.30	1.95	1	A/C
NPX-35	NPX-35FR	12	35W/Cell	8.5	5.95	151	2.56	65	3.94	100	6.06	2.75	4	A/C
NPX-80	NPX-80FR	12	80W/Cell	20	7.13	181	2.39	76	6.57	167	13.87	6.29	2	D/E
NPX-100	NPX-100FR	12	95W/Cell	28	6.54	166	4.92	125	6.89	175	21.38	9.70	2	D/E
NPX-135	NPX-135FR	12	135W/Cell	33	7.76	197	5.16	131	6.22 <sup>‡</sup>	158 <sup>‡</sup>	26.32	11.94	1	E/F
NPX-150	NPX-150FR	12	150W/Cell	40	7.76	197	6.50	165	6.77	172	31.50	14.29	2	F/G

\* FR: UL94-VO, 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%

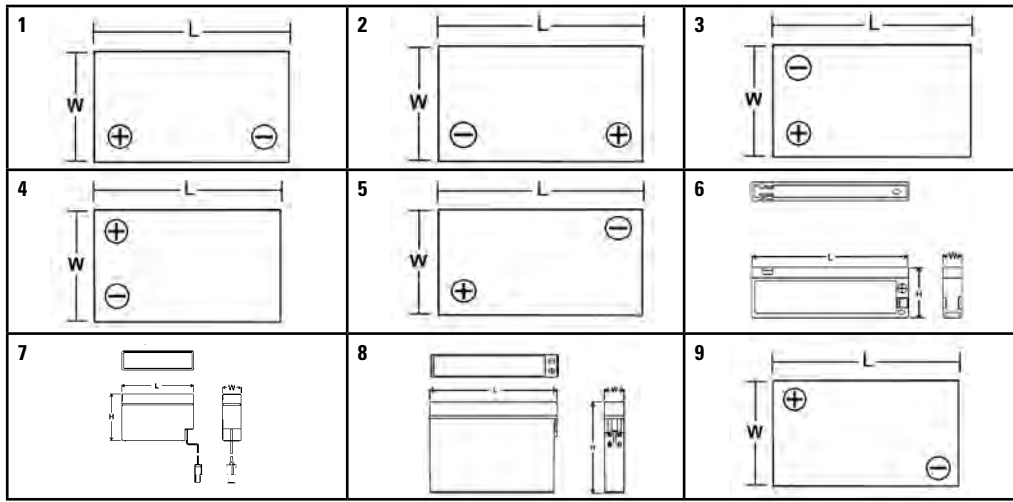
M5 Receptacle: 35.4 lbf.in (4Nm) +/- 5%

M6 Receptacle: 65 lbf.in (6.8Nm) +/- 5%

## Terminal Illustrations

<b>A</b>  0.187 ± .004 0.059 0.230 0.095 0.124 0.098 0.059 0.031 0.020 0.004 0.020 0.031	<b>in. (mm)</b> 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)	<b>B</b>  0.236 0.472 0.020 0.079 0.136 0.137	<b>in. (mm)</b> 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)	<b>C</b>  0.250 ± .004 0.059 0.180 0.098 0.313 0.020 0.031	<b>in. (mm)</b> 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)	<b>D</b>  0.472 0.0217 0.079 0.027 0.453	<b>in. (mm)</b> 0.472 (11.99) 0.453 (11.51) 0.217 (5.51) 0.079 (2.01)
<b>Faston Tab 187</b>		<b>Faston Tab: 187 (F1)</b>		<b>"T" Faston Tab: 250 (F2)</b>		<b>M5 Bolt Fastened Terminal</b>	
<b>E</b>  M5		<b>F</b>  0.591 0.256 0.236 0.709	<b>in. (mm)</b> 0.709 (18.01) 0.551 (14.00) 0.256 (6.50) 0.236 (5.99)	<b>G</b>  M6		<b>H</b>  WIRE AWG #20 UL 1007 JST VHR-2N TERMINAL JST SVH-21-P1.1 0.53 0.11 0.25 0.42	<b>in. (mm)</b> 0.530 (13.46) 0.420 (10.67) 0.310 (7.87) 0.230 (5.84) 0.160 (4.06)
<b>"R" M5 Threaded Receptacle</b>		<b>"B" M6 Bolt Fastened Terminal</b>		<b>"R" M6 Threaded Receptacle</b>		<b>JST No. VHR-2N</b>	
<b>I</b>  360 2 330 295	<b>in. (mm)</b> 0.880 (21.84) 0.530 (13.46) 0.430 (10.92) 0.295 (7.49)	<b>J</b>  1.024 0.335 0.315 0.430 0.910	<b>in. (mm)</b> 1.024 (26.01) 0.910 (23.11) 0.430 (10.92) 0.335 (8.51) 0.315 (8.00)	<b>K</b>  M8 Φ16		<b>L</b>  0.43 0.87 0.23	<b>in. (mm)</b> 0.870 (22.01) 0.550 (13.97) 0.430 (10.92) 0.230 (5.84)
<b>(W) Tyco. 1-480318-0</b>		<b>"B" M8 Bolt Fastened Terminal</b>		<b>"R" M8 Threaded Receptacle</b>		<b>"Camcorder" Terminal</b>	
<b>M</b>  0.335 0.630 0.394 0.690 0.895 0.394 0.760 0.394	<b>in. (mm)</b> 0.806 (20.47) 0.760 (19.30) 0.690 (17.53) 0.630 (16.00) 0.394 (10.01) 0.335 (8.50)	<b>N</b>  0.53 10 1.5 F3 (M5 Bolts)	<b>in. (mm)</b> 0.209 (5.30) 0.394 (10.0) 0.059 (1.50) 0.472 (12.0) 0.197 (5.00)	<b>O</b>  0.85 27.5	<b>in. (mm)</b> 1.083 (27.5) 0.484 (12.3) 0.335 (8.5) 0.315 (8.0)	<b>Part Number Reference:</b> "T" = 0.250 in wide ( reference C) "R" = Receptacle ( ref. E and G) "B" = Bolt-On ( ref. D, F, J, K and N) "W" = Wide (ref. I)	
<b>M8 "Universal" Bolt Fastened Terminal</b>		<b>M5 Bolt</b>		<b>"B" M8 Bolt Fastened Terminal</b>		<b>Terminal Tolerances are:</b> ±0.02 in. for dimensions < 5mm ±0.04 in. for dimensions ≥ 5mm ±0.08 in. for all height dimensions unless otherwise specified	

## Layout Illustrations



### Charging

- Standby use: Apply constant voltage charging at 2.275 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

### 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

### 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

### 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