

GNB Flooded  
**Classic**



# SPECIFICATIONS

## **Nuclear Class 1E**

### Flooded Batteries

NAN\* — LEAD ANTIMONY  
NCN\* — LEAD CALCIUM

\*NAN and NCN are the Nuclear Variant  
of GNB's Commercial NAX/NCX line.

**GNB**  
INDUSTRIAL POWER

**NUCLEAR CLASS 1E BATTERIES**  
**TYPE NAN\* — LEAD ANTIMONY**  
**TYPE NCN\* — LEAD CALCIUM**  
**CAPACITIES — 550 A.H. to 2550 A.H.**  
**8 HOUR RATE TO 1.75 V.P.C. @ 77°F (25°C)**  
**20 YEAR LIFE EXPECTANCY**

**SPECIFICATIONS**

- Jar** — Styrene-Acrylonitrile (SAN) Plastic
- Cover** — Acrylonitrile Butadiene Styrene (ABS) Plastic
- Separators** — Microporous Material
- Retainers** — Fiberglass Mats
- Posts** — NAN/NCN 7-17 two-1.5" (38.1 mm) square; NAN/NCN 19-27 four-1.0" (25.4 mm) square; NAN/NCN 29-35 four-1.5" (38.1 mm) square
- Post Seals** — Floating "O" Ring - Seal Nut
- Vents** — GNB "Pre-Vent" Flame Arrester
- Level Lines** — High and Low - All Jar Faces
- Electrolyte** — Height above plates - 2.75" (69.9 mm)
- Electrolyte Withdrawal Tubes** — 2 per cell
- Sediment Space** — 1.06" (26.9 mm)
- Specific Gravity** — 1.215 @ 77°F (25°C)
- Inter-Cell Connectors** — Lead Plated Copper
- Qualified according to IEEE 535**
- Tested according to IEEE 450**

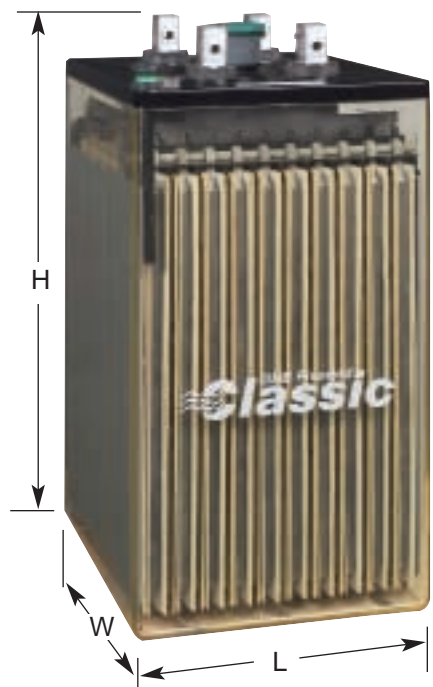


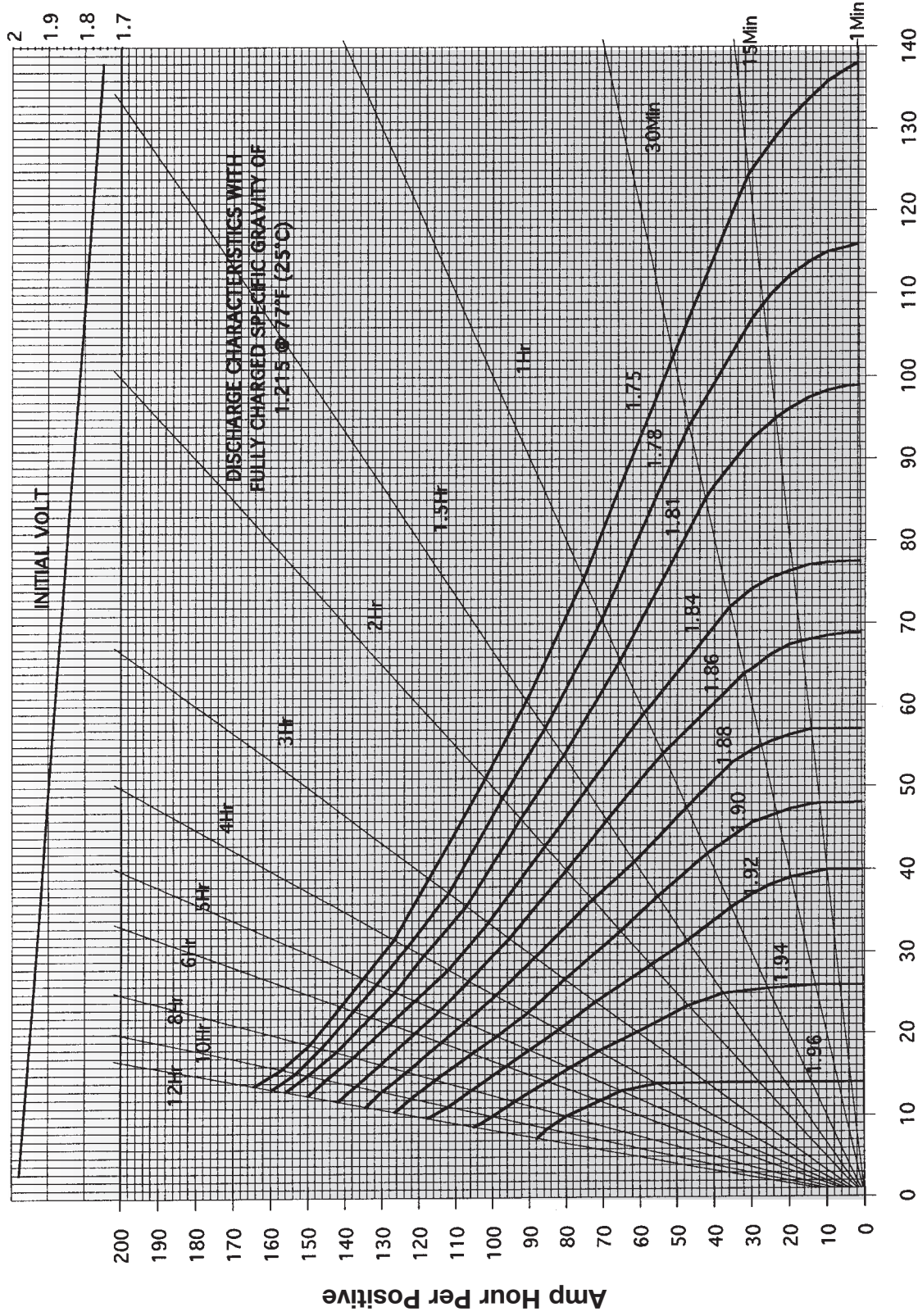
Plate Dimensions	Height	Width	Thickness
<b>Positive Plate</b>	15.0 in. 381.0 mm	12.5 in. 317.5 mm	.325 in. 8.26 mm
<b>Negative Plate</b>	15.0 in. 381.0 mm	12.5 in. 317.5 mm	.220 in. 5.59 mm

\*NAN/NCN are the nuclear variant of GNB's commercial NAX/NCX line.

Cell Type	Amp-Hour Capacity <sup>1</sup>	Overall Dimensions			Approximate Weight		Electrolyte Per Cell
		Length	Width	Height	Net	Packed	
NCN/NAN-7	552	7.38 in 187 mm	14.55 in 368 mm	22.13 in 562 mm	160 lbs 72 kg	168 lbs 76 kg	6.4 gal 24.2 liter
NCN/NAN-9	688	7.38 in 187 mm	14.55 in 368 mm	22.13 in 562 mm	177 lbs 80 kg	189 lbs 86 kg	6.0 gal 22.7 liter
NCN/NAN-11	824	7.38 in 187 mm	14.55 in 368 mm	22.13 in 562 mm	195 lbs 89 kg	207 lbs 94 kg	5.6 gal 21.2 liter
NCN/NAN-13	952	7.38 in 187 mm	14.55 in 368 mm	22.13 in 562 mm	213 lbs 97 kg	225 lbs 102 kg	5.1 gal 19.3 liter
NCN/NAN-15	1072	7.38 in 187 mm	14.55 in 368 mm	22.13 in 562 mm	231 lbs 105 kg	243 lbs 110 kg	5.0 gal 18.9 liter
NCN/NAN-17	1200	7.38 in 187 mm	14.55 in 368 mm	22.13 in 562 mm	269 lbs 112 kg	281 lbs 128 kg	4.9 gal 18.5 liter
NCN/NAN-19	1368	9.25 in 235 mm	14.55 in 368 mm	22.5 in 572 mm	282 lbs 128 kg	294 lbs 134 kg	6.3 gal 23.8 liter
NCN/NAN-21	1496	9.25 in 235 mm	14.55 in 368 mm	22.5 in 572 mm	301 lbs 137 kg	313 lbs 142 kg	6.0 gal 22.7 liter
NCN/NAN-23	1672	11.38 in 289 mm	14.55 in 368 mm	22.5 in 572 mm	348 lbs 158 kg	366 lbs 166 kg	8.0 gal 30.3 liter
NCN/NAN-25	1808	11.38 in 289 mm	14.55 in 368 mm	22.5 in 572 mm	364 lbs 165 kg	382 lbs 174 kg	7.6 gal 28.8 liter
NCN/NAN-27	1944	11.38 in 289 mm	14.55 in 368 mm	22.5 in 572 mm	380 lbs 173 kg	398 lbs 181 kg	7.3 gal 27.6 liter
NCN/NAN-29	2152	14.56 in 370 mm	14.55 in 368 mm	22.5 in 572 mm	446 lbs 203 kg	464 lbs 211 kg	11.5 gal 43.5 liter
NCN/NAN-31	2280	14.56 in 370 mm	14.55 in 368 mm	22.5 in 572 mm	462 lbs 210 kg	480 lbs 218 kg	10.9 gal 41.3 liter
NCN/NAN-33	2416	14.56 in 370 mm	14.55 in 368 mm	22.5 in 572 mm	479 lbs 218 kg	497 lbs 226 kg	10.3 gal 39.0 liter
NCN/NAN-35	2552	14.56 in 370 mm	14.55 in 368 mm	22.5 in 572 mm	496 lbs 225 kg	514 lbs 234 kg	9.7 gal 36.7 liter

<sup>1</sup>8 hour rate to 1.75 VPC @ 77°F (25°C)

**N\*N Nuclear Class 1E Stationary Battery Rates**



Qualified in accordance with IEEE Std 535  
Tested in accordance with IEEE Std 450

**Amp Per Positive**

Note: This information represents the average performance of the line. Refer to the tables for actual discharge data.

**AMP DATA @ 77°F (25°C)  
NAN/NCN CELLS**

CELL TYPE	HOURS							MINUTES		
	8	5	4	3	2	1.5	1	30	15	1
<b>End Voltage — 1.75</b>										
NAN/NCN-7	69	96	112	134	170	207	245	300	340	436
NAN/NCN-9	86	124	138	165	204	240	300	454	515	582
NAN/NCN-11	103	149	167	200	252	300	375	561	686	727
NAN/NCN-13	119	171	198	238	292	345	450	666	814	873
NAN/NCN-15	134	194	227	277	350	412	525	768	939	1018
NAN/NCN-17	150	216	254	312	405	465	600	867	1060	1165
NAN/NCN-19	171	246	290	357	460	535	675	953	1165	1260
NAN/NCN-21	187	270	317	390	515	590	750	1033	1263	1400
NAN/NCN-23	209	301	354	436	560	660	825	1136	1389	1540
NAN/NCN-25	226	326	384	472	615	725	900	1232	1506	1680
NAN/NCN-27	243	351	412	507	670	785	975	1327	1622	1840
NAN/NCN-29	269	389	455	555	715	857	1050	1429	1747	1932
NAN/NCN-31	285	411	483	595	770	925	1125	1531	1872	2070
NAN/NCN-33	302	435	512	629	820	995	1200	1633	1966	2220
NAN/NCN-35	319	459	539	663	868	1053	1275	1735	2121	2350
<b>End Voltage — 1.78</b>										
NAN/NCN-7	67	93	108	129	165	197	228	282	324	383
NAN/NCN-9	83	120	132	156	196	228	279	376	432	510
NAN/NCN-11	100	144	162	193	242	285	349	470	540	637
NAN/NCN-13	115	166	190	228	280	328	419	564	648	765
NAN/NCN-15	130	187	220	261	336	391	488	658	756	892
NAN/NCN-17	146	209	244	293	389	442	558	752	864	1020
NAN/NCN-19	165	239	279	333	442	508	628	846	972	1107
NAN/NCN-21	182	262	305	366	494	561	698	940	1080	1230
NAN/NCN-23	202	292	341	407	538	627	767	1034	1188	1287
NAN/NCN-25	219	316	369	440	590	689	837	1128	1296	1404
NAN/NCN-27	237	340	396	476	643	746	907	1222	1404	1521
NAN/NCN-29	260	375	441	522	694	814	977	1316	1512	1624
NAN/NCN-31	275	399	465	555	747	879	1046	1410	1620	1740
NAN/NCN-33	292	422	492	586	795	945	1116	1504	1728	1850
NAN/NCN-35	310	445	518	623	842	1000	1186	1598	1836	1970
<b>End Voltage — 1.81</b>										
NAN/NCN-7	65	90	104	124	153	182	208	255	285	330
NAN/NCN-9	81	117	127	152	184	211	255	340	380	440
NAN/NCN-11	97	140	156	185	227	264	319	425	475	550
NAN/NCN-13	112	162	183	218	263	304	383	510	570	660
NAN/NCN-15	127	182	211	252	315	363	446	595	665	770
NAN/NCN-17	141	203	236	285	365	409	510	680	760	880
NAN/NCN-19	161	232	267	324	414	471	574	765	855	954
NAN/NCN-21	176	254	295	357	464	519	638	850	950	1060
NAN/NCN-23	197	284	327	396	505	581	701	935	1045	1100
NAN/NCN-25	213	307	357	428	554	638	765	1020	1140	1200
NAN/NCN-27	229	330	383	464	603	691	829	1105	1235	1306
NAN/NCN-29	254	364	423	509	643	754	893	1190	1330	1386
NAN/NCN-31	268	387	446	540	693	814	956	1275	1425	1485
NAN/NCN-33	284	410	476	571	738	875	1020	1360	1520	1600
NAN/NCN-35	300	432	505	606	781	926	1084	1445	1615	1700

**AMP DATA @ 77°F (25°C)  
NAN/NCN CELLS**

CELL TYPE	HOURS							MINUTES		
	8	5	4	3	2	1.5	1	30	15	1
<b>End Voltage — 1.84</b>										
NAN/NCN-7	62	87	98	118	139	163	183	210	255	255
NAN/NCN-9	78	110	124	144	167	190	225	280	340	340
NAN/NCN-11	94	132	150	176	207	237	281	350	425	425
NAN/NCN-13	108	152	177	210	239	273	338	420	510	510
NAN/NCN-15	123	172	201	240	287	325	394	490	595	595
NAN/NCN-17	137	192	224	269	332	367	450	560	680	680
NAN/NCN-19	156	219	254	306	377	423	506	630	738	738
NAN/NCN-21	171	240	280	336	422	466	563	700	820	820
NAN/NCN-23	191	268	310	374	459	521	619	770	869	869
NAN/NCN-25	207	290	339	404	504	573	675	840	948	948
NAN/NCN-27	222	312	364	437	549	620	731	910	1027	1027
NAN/NCN-29	246	344	402	480	586	677	787	980	1085	1085
NAN/NCN-31	260	366	423	510	631	730	843	1050	1162	1162
NAN/NCN-33	276	387	452	538	672	786	900	1120	1240	1240
NAN/NCN-35	291	408	476	572	711	832	956	1190	1317	1317
<b>End Voltage — 1.86</b>										
NAN/NCN-7	60	83	94	112	129	151	169	186	217	217
NAN/NCN-9	74	104	115	137	155	175	207	248	290	290
NAN/NCN-11	89	124	140	168	192	219	259	310	362	362
NAN/NCN-13	103	144	165	198	222	252	311	372	435	435
NAN/NCN-15	116	162	189	226	266	301	362	434	507	507
NAN/NCN-17	130	180	210	253	308	339	414	496	580	580
NAN/NCN-19	148	205	238	288	350	391	466	558	652	652
NAN/NCN-21	162	226	262	316	391	431	518	620	725	725
NAN/NCN-23	181	250	291	352	426	482	569	682	770	770
NAN/NCN-25	196	273	318	380	467	529	621	744	840	840
NAN/NCN-27	211	293	341	411	509	573	673	806	910	910
NAN/NCN-29	232	324	378	452	543	625	724	868	962	962
NAN/NCN-31	247	342	397	480	585	675	776	930	1031	1031
NAN/NCN-33	262	364	424	506	623	726	828	992	1100	1100
NAN/NCN-35	276	384	446	538	659	768	879	1054	1168	1168

#### GLOBAL OPERATIONS

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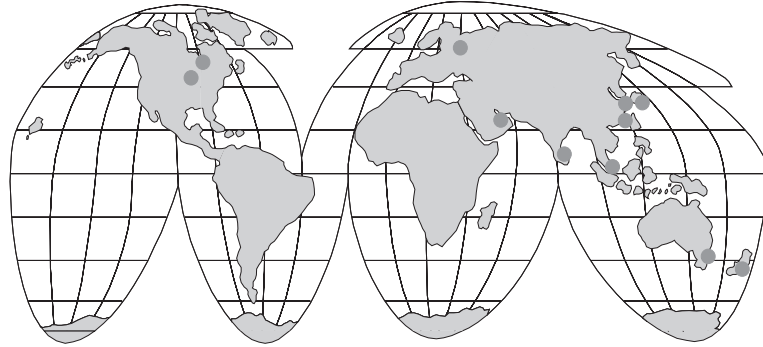
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[www.gnb.com](http://www.gnb.com)

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## INDUSTRIAL POWER

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