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**RANGE SUMMARY**

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# Sealed Rechargeable, Valve Regulated Lead-Acid Batteries

## GENERAL SPECIFICATIONS

### GENESIS NP SERIES

Type	FR Type*	Volts	Nominal Capacity (20 hr rate - Ah)	Length		Width		Overall Height Incl. Terminals		Approx Weight		Layout	Terminals
				mm.	(in.)	mm	(in.)	mm.	(in.)	kgs.	(lbs.)		
NP1.2-6	NP1.2-6FR	6	1.2	97.0	3.82	24.0	0.95	54.5	2.14	0.30	0.66	1	A
NP2.8-6	NP2.8-6FR		2.8	66.0	2.60	33.0	1.30	104.0	4.09	0.59	1.30	2	A
NP3-6	NP3-6FR		3.4	134.0	5.28	34.0	1.34	64.0	2.52	0.69	1.52	1	A
NP4-6	NP4-6FR		4.0	70.0	2.76	47.0	1.85	106.0	4.17	0.80	1.76	5	A/C
NP4.5-6	NP4.5-6FR		4.5	70.0	2.76	47.0	1.85	106.0	4.17	0.85	1.87	5	A/C
NP7-6	NP7-6FR		7.0	151.0	5.95	34.0	1.34	97.5	3.84	1.34	2.95	1	A/C
NP8.5-6	NP8.5-6FR		8.5	98.5	3.88	56.2	2.21	117.7	4.63	1.60	3.53	6	A/C
NP10-6	NP10-6FR		10.0	151.0	5.95	50.0	1.97	97.5	3.84	2.05	4.52	1	A/C
NP12-6	NP12-6FR		12.0	151.0	5.95	50.0	1.97	97.5	3.84	2.15	4.74	1	A/C
NP0.8-12	NP0.8-12FR**	12	0.8	96.0	3.78	25.0	0.98	62.4	2.46	0.37	0.82	7	I/J
NP1.2-12	NP1.2-12FR		1.2	97.0	3.82	47.0	1.85	55.5	2.18	0.56	1.23	3	A
NP2-12	NP2-12FR		2.0	150.0	5.91	20.0	0.79	89.5	3.52	0.68	1.50	8	B
NP2-12C	NP2-12CFR		2.0	182.0	7.17	23.7	0.93	61.3	2.41	0.78	1.76	9	D
NP2.3-12	NP2.3-12FR		2.3	178.0	7.01	35.0	1.38	64.0	2.52	0.96	2.12	1	A
NP3-12	NP3-12FR		3.0	132.0	5.20	33.0	1.30	104.5	4.11	1.20	2.65	1	A
NP3.4-12	NP3.4-12FR		3.4	134.0	5.28	67.0	2.64	64.0	2.52	1.37	3.02	3	A
NP4-12	NP4-12FR		4.0	90.0	3.54	70.0	2.76	107.0	4.21	1.60	3.53	1	A/C
NP5-12	NP5-12FR		5.0	89.6	3.53	69.6	2.74	107.0	4.21	1.76	3.83	1	A/C
NP7-12	NP7-12FR		7.0	151.0	5.95	65.0	2.56	97.5	3.84	2.59	5.71	4	A/C
NP12-12	NP12-12FR		12.0	151.0	5.95	98.0	3.86	97.5	3.84	4.06	8.95	4	A/C
NP18-12	NP18-12FR		17.2	181.0	7.13	76.2	3.00	167.0	6.58	6.06	13.36	2	E/H
NP24-12	NP24-12FR		25.0	166.0	6.54	175.0	6.89	125.0	4.92	8.80	19.40	2	E/H
NP33-12	NP33-12FR		33.0	195.5	7.70	130.0	5.12	179.0	7.05	12.30	27.12	1	F/H
U1-33-12	U1-33-12FR		35.0	198.0	7.80	132.0	5.20	170.0	6.69	12.60	27.78	1	H
NP38-12	NP38-12FR		40.0	197.0	7.76	165.0	6.50	170.0	6.99	15.03	33.14	2	G/H
NP55-12	NP55-12FR		55.0	229.0	9.02	138.0	5.43	228.0	8.98	18.20	40.12	1	K/M
NP65-12	NP65-12FR		65.0	349.8	13.78	166.0	6.54	174.0	6.85	22.00	48.50	2	F/M
NP75-12	NP75-12FR		75.0	259.0	10.20	168.0	6.61	227.0	8.94	26.50	58.42	1	L
NP90-12	NP90-12FR		90.0	304.0	11.97	168.0	6.50	229.0	9.02	30.50	67.24	1	L/M
NP100-12	NP100-12FR	100.0	329.0	12.95	172.0	6.77	221.0	8.70	34.10	75.18	1	M	
NP120-12	NP120-12FR	120.0	407.0	16.02	173.0	6.81	234.5	9.23	41.3	91.05	1	O	
NP150-12	NP150-12FR	150.0	483.0	19.02	170.0	6.69	241.0	9.49	46.8	103.17	1	O	
NP200-12	NP200-12FR	200.0	520.0	20.47	260.0	10.24	240.0	9.45	73.00	160.93	3	N	

#### FOOTNOTES

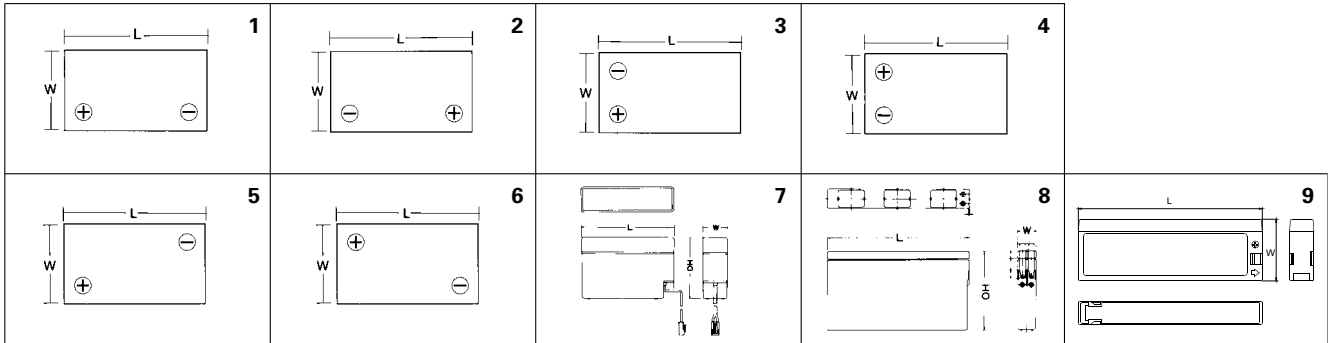
All products are recognised by UL File No. MH16464

\* FR: UL94-V0, Flame Retardant Container and Lid (Oxygen index: 30)

\*\* FR: UL94-V2, Flame Retardant Container and Lid (Oxygen index: 30)

Dimension tolerance ± 1mm (0.04 in)

• LAYOUT



• TERMINAL

<p><b>Faston tab : 187 A</b></p> <table border="1"> <thead> <tr> <th colspan="2">INCH = MM</th> </tr> </thead> <tbody> <tr><td>.185 ± .004</td><td>.250 6.35</td></tr> <tr><td>.059</td><td>.185 4.70</td></tr> <tr><td>.124</td><td>.124 3.15</td></tr> <tr><td>.098</td><td>.098 2.50</td></tr> <tr><td>.059</td><td>.059 1.50</td></tr> <tr><td>.031</td><td>.031 0.80</td></tr> <tr><td>.020</td><td>.020 0.50</td></tr> <tr><td>.004</td><td>.004 0.10</td></tr> </tbody> </table>	INCH = MM		.185 ± .004	.250 6.35	.059	.185 4.70	.124	.124 3.15	.098	.098 2.50	.059	.059 1.50	.031	.031 0.80	.020	.020 0.50	.004	.004 0.10	<p><b>Faston tab : 187 B</b></p> <table border="1"> <thead> <tr> <th colspan="2">INCH = MM</th> </tr> </thead> <tbody> <tr><td>0.236</td><td>.472 12.0</td></tr> <tr><td>.250</td><td>.250 6.35</td></tr> <tr><td>.236</td><td>.236 6.00</td></tr> <tr><td>.185</td><td>.185 4.70</td></tr> <tr><td>.079</td><td>.079 2.00</td></tr> <tr><td>.020</td><td>.020 0.50</td></tr> </tbody> </table>	INCH = MM		0.236	.472 12.0	.250	.250 6.35	.236	.236 6.00	.185	.185 4.70	.079	.079 2.00	.020	.020 0.50	<p><b>Faston tab : 250 C</b></p> <table border="1"> <thead> <tr> <th colspan="2">INCH = MM</th> </tr> </thead> <tbody> <tr><td>.250 ± .004</td><td>.250 6.35</td></tr> <tr><td>.059</td><td>.124 3.15</td></tr> <tr><td>.020</td><td>.068 2.50</td></tr> <tr><td>.059</td><td>.059 1.50</td></tr> <tr><td>.031</td><td>.031 0.80</td></tr> <tr><td>.020</td><td>.020 0.50</td></tr> </tbody> </table>	INCH = MM		.250 ± .004	.250 6.35	.059	.124 3.15	.020	.068 2.50	.059	.059 1.50	.031	.031 0.80	.020	.020 0.50	<p><b>Camcorder Type D</b></p> <table border="1"> <thead> <tr> <th colspan="2">INCH = MM</th> </tr> </thead> <tbody> <tr><td>0.67</td><td>0.67 22.0</td></tr> <tr><td>0.55</td><td>0.55 14.0</td></tr> <tr><td>0.43</td><td>0.43 11.0</td></tr> <tr><td>0.25</td><td>0.25 6.35</td></tr> </tbody> </table>	INCH = MM		0.67	0.67 22.0	0.55	0.55 14.0	0.43	0.43 11.0	0.25	0.25 6.35
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<p><b>Tyco 1-480318-0 I</b></p> <table border="1"> <tbody> <tr><td>0.860</td><td>0.530</td></tr> <tr><td>0.430</td><td>0.295</td></tr> </tbody> </table>	0.860	0.530	0.430	0.295	<p><b>JST No. VHR-2N J</b></p> <p>WIRE AWG: #20 UL 1007</p> <p>JST VHR-2N (TERMINAL)</p> <p>JST SVH-21T-P11</p> <table border="1"> <tbody> <tr><td>0.53</td><td>0.16</td><td>0.31</td></tr> <tr><td>0.42</td><td>0.23</td><td>0.11</td></tr> </tbody> </table>	0.53	0.16	0.31	0.42	0.23	0.11	<p><b>U terminal K</b></p> <table border="1"> <thead> <tr> <th colspan="2">INCH = MM</th> </tr> </thead> <tbody> <tr><td>0.63</td><td>0.76 19.4</td></tr> <tr><td>0.33</td><td>0.71 18.0</td></tr> <tr><td>0.69</td><td>0.69 17.4</td></tr> <tr><td>0.63</td><td>0.63 15.9</td></tr> <tr><td>0.39</td><td>0.39 10.0</td></tr> <tr><td>0.33</td><td>0.33 8.50</td></tr> </tbody> </table>	INCH = MM		0.63	0.76 19.4	0.33	0.71 18.0	0.69	0.69 17.4	0.63	0.63 15.9	0.39	0.39 10.0	0.33	0.33 8.50	<p><b>U terminal L</b></p> <table border="1"> <thead> <tr> <th colspan="2">INCH = MM</th> </tr> </thead> <tbody> <tr><td>0.63</td><td>0.76 19.4</td></tr> <tr><td>0.33</td><td>0.71 18.0</td></tr> <tr><td>0.69</td><td>0.69 17.4</td></tr> <tr><td>0.63</td><td>0.63 15.9</td></tr> <tr><td>0.39</td><td>0.39 10.0</td></tr> <tr><td>0.33</td><td>0.33 8.50</td></tr> </tbody> </table>	INCH = MM		0.63	0.76 19.4	0.33	0.71 18.0	0.69	0.69 17.4	0.63	0.63 15.9	0.39	0.39 10.0	0.33	0.33 8.50																		
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Charging

- Standby use: Apply constant voltage charging at 2.275Vpc (or 2.25–2.30Vpc).
- Cyclic use: Apply constant voltage charging at 2.40–2.45Vpc. Initial charging current should be set at less than 0.25CA.
- Top charge: Product in storage (ambient temperature 25°C/77°F) requires a top charge every six months. Apply constant voltage at 2.40Vpc, initial charging current should be set at less than 0.1CA for 15 to 20 hours.

Discharge

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

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.

Temperature

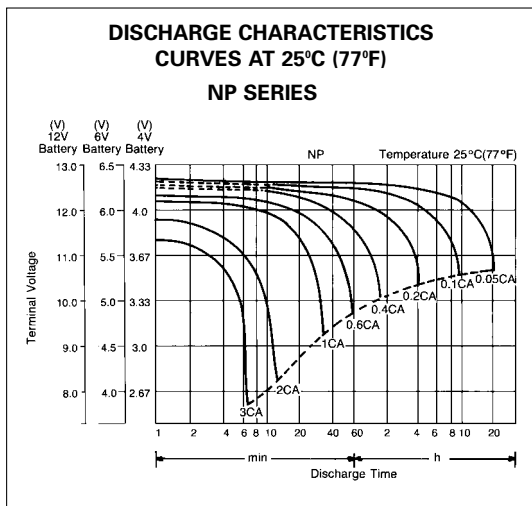
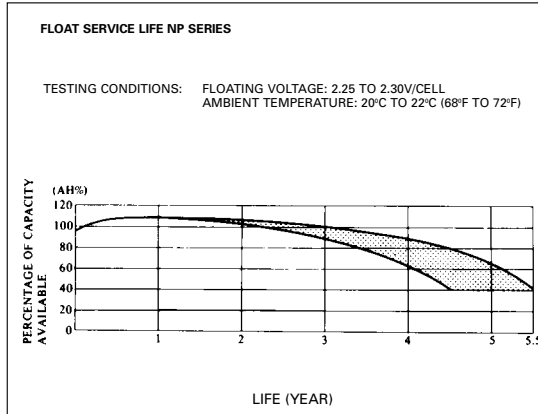
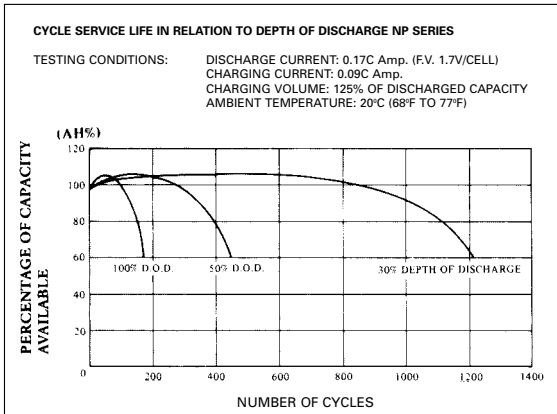
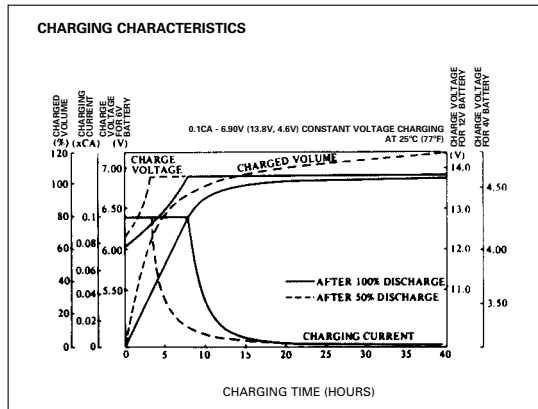
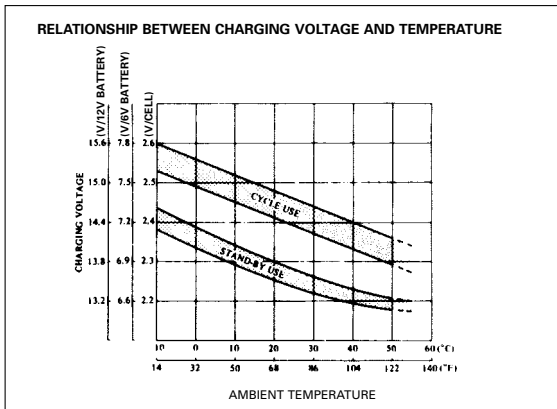
- Keep within ambient temperatures of -15°C to 50°C for both charging and discharging.

Incorporating battery into equipment

- Encase battery in a well ventilated compartment.
- Avoid installing battery near heated units such as a 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.
- Avoid setting batteries in environments which can cause direct contact to petrol, paint thinner, organic solvents, synthetic resins, oil, etc.



• If discharge currents in excess of 3C are required, consult an EnerSys engineer prior to use.



www.enersys.com

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