



Powerful solutions for industrial applications



General Specifications

Genesis® NP Battery Series

| Battery Types | FR Type* | Volts | Nominal Capacity (20hr rate-Ah) | Length mm | Width mm | Overall Height (inc. terminals) mm | Weight kgs. | Layout (including terminals) | ^Terminal Illustration |
|---------------|------------|-------|---------------------------------|-----------|----------|------------------------------------|-------------|------------------------------|------------------------|
| NP1.2-6 | NP1.2-6FR | 6 | 1.2 | 97 | 25 | 56 | 0.30 | 1 | A |
| NP2.8-6 | NP2.8-6FR | 6 | 2.8 | 67 | 33 | 105 | 0.59 | 2 | A |
| NP3-6 | NP3-6FR | 6 | 3.0 | 134 | 33 | 67 | 0.69 | 1 | A |
| NP4-6 | NP4-6FR | 6 | 4.0 | 70 | 47 | 105 | 0.80 | 5 | A |
| NP7-6 | NP7-6FR | 6 | 7.0 | 151 | 33 | 100 | 1.28 | 1 | A |
| NP10-6 | NP10-6FR | 6 | 10.0 | 151 | 50 | 101 | 1.99 | 1 | A |
| NP12-6 | NP12-6FR | 6 | 12.0 | 151 | 50 | 101 | 2.03 | 1 | C |
| NP0.8-12 | NP0.8-12FR | 12 | 0.8 | 96 | 25 | 61 | 0.37 | 7 | H/I |
| NP1.2-12 | NP1.2-12FR | 12 | 1.2 | 97 | 48 | 56 | 0.57 | 3 | A |
| NP2-12 | NP2-12FR | 12 | 2.0 | 150 | 20 | 89 | 0.70 | 8 | B |
| NP2-12C | NP2-12CFR | 12 | 2.0 | 182 | 24 | 61 | 0.73 | 6 | D |
| NP2.3-12 | NP2.3-12FR | 12 | 2.3 | 178 | 35 | 67 | 0.98 | 1 | A |
| NP2.9-12 | NP2.9-12FR | 12 | 2.9 | 79 | 56 | 105 | 1.24 | 1 | A |
| NP3.4-12 | NP3.4-12FR | 12 | 3.4 | 134 | 67 | 67 | 1.39 | 3 | A |
| NP5-12 | NP5-12FR | 12 | 5.0 | 90 | 70 | 107 | 1.81 | 1 | A/C |
| NP7-12 | NP7-12FR | 12 | 7.0 | 151 | 65 | 100 | 2.59 | 4 | A/C |
| NP10-12 | NP10-12FR | 12 | 9.5 | 151 | 65 | 118 | 3.27 | 4 | A |
| NP12-12 | NP12-12FR | 12 | 12.0 | 151 | 98 | 100 | 4.06 | 4 | C |
| NP18-12 | NP18-12FR | 12 | 17.2 | 181 | 76 | 167 | 6.17 | 2 | E/G |
| NP24-12 | NP24-12FR | 12 | 24.0 | 166 | 175 | 125 | 9.07 | 2 | E/G |
| NP33-12 | NP33-12FR | 12 | 33.0 | 197 | 131 | 158+ | 11.79 | 1 | E/G |
| NP38-12 | NP38-12FR | 12 | 38.0 | 197 | 165 | 172 | 14.59 | 2 | G |
| NP55-12 | NP55-12FR | 12 | 55.0 | 229 | 138 | 207+ | 18.01 | 1 | G |
| NP65-12 | NP65-12FR | 12 | 65.0 | 350 | 166 | 174 | 23.63 | 2 | G |
| NP75-12 | NP75-12FR | 12 | 75.0 | 259 | 169 | 208+ | 26.50 | 1 | G |
| NP90-12 | NP90-12FR | 12 | 90.0 | 304 | 168 | 229 | 31.18 | 1 | G |
| NP100-12 | NP100-12FR | 12 | 100.0 | 329 | 174 | 214+ | 32.50 | 1 | G |
| NP120-12 | NP120-12FR | 12 | 120.0 | 407 | 173 | 235 | 38.41 | 1 | G |
| NP150-12 | NP150-12FR | 12 | 150.0 | 483 | 170 | 241 | 44.50 | 1 | G |
| NP200-12 | NP200-12FR | 12 | 200.0 | 522 | 240 | 218+ | 64.50 | 3 | G |

DataSafe® NPX Battery Series

| Battery Types | FR Type* | Volts | 15 minute watts per cell to 1.67Vpc | Nominal Capacity (20hr rate-Ah) | Length mm | Width (inc. terminals) mm | Overall Height (inc. terminals) mm | Weight kgs. | Layout (including terminals) | ^Terminal Illustration |
|---------------|-------------|-------|-------------------------------------|---------------------------------|-----------|---------------------------|------------------------------------|-------------|------------------------------|------------------------|
| NPX50-6 | NPX50-6FR | 6 | 50W/Cell | 13 | 151 | 50 | 100 | 2.09 | 1 | C |
| NPX24-12 | NPX24-12FR | 12 | 24W/Cell | 6 | 151 | 51 | 100 | 2.28 | 4 | neg A pos C |
| NPX25-12 | NPX25-12FR | 12 | 23W/Cell | 5 | 90 | 70 | 107 | 1.95 | 1 | C |
| NPX35-12 | NPX35-12FR | 12 | 35W/Cell | 8 | 151 | 65 | 100 | 2.75 | 4 | A/C |
| NPX80-12 | NPX80-12FR | 12 | 80W/Cell | 20 | 181 | 76 | 167 | 6.35 | 2 | E |
| NPX100-12 | NPX100-12FR | 12 | 95W/Cell | 28 | 166 | 125 | 175 | 9.70 | 2 | E |
| NPX135-12 | NPX135-12FR | 12 | 135W/Cell | 33 | 197 | 130 | 158+ | 11.94 | 1 | E |
| NPX150-12 | NPX150-12FR | 12 | 150W/Cell | 40 | 197 | 165 | 172 | 14.29 | 2 | G |

FOOTNOTES:

* FR: UL94-VO, Flame Retardant Case and Cover (Oxygen index 28)

+ Height is to the top of the cover. Overall Height, including terminal is dependent on the terminal configuration

^ Terminal availability is subjected to confirmation at point of order

Recognized by UL File No. MH16464

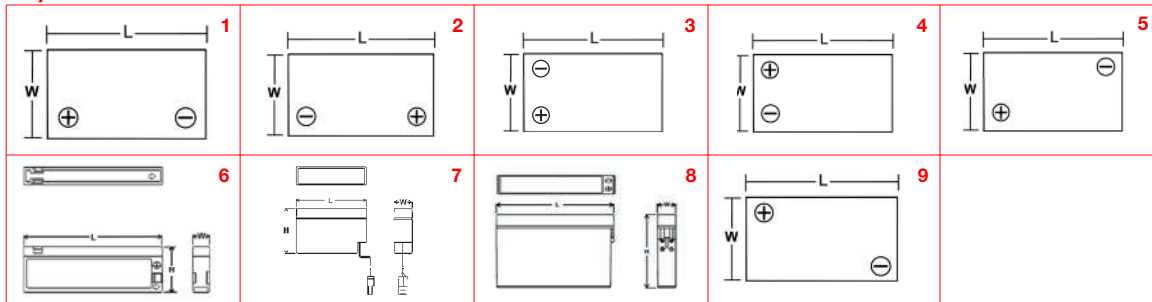
NOTE: All dimensions +/- 1mm; Weights are +/- 5%

Torque Specifications:

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

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

Layout Illustration



Terminal Illustration

| <p>Faston Tab: 187</p> <table border="1"> <thead> <tr> <th>INCH</th> <th>MM</th> </tr> </thead> <tbody> <tr><td>0.250</td><td>6.35</td></tr> <tr><td>0.187</td><td>4.75</td></tr> <tr><td>0.124</td><td>3.15</td></tr> <tr><td>0.098</td><td>2.49</td></tr> <tr><td>0.059</td><td>1.50</td></tr> <tr><td>0.031</td><td>0.79</td></tr> <tr><td>0.020</td><td>0.51</td></tr> <tr><td>0.004</td><td>0.10</td></tr> </tbody> </table> | INCH | 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>Faston Tab: 187</p> <table border="1"> <thead> <tr> <th>INCH</th> <th>MM</th> </tr> </thead> <tbody> <tr><td>0.472</td><td>11.99</td></tr> <tr><td>0.250</td><td>6.35</td></tr> <tr><td>0.236</td><td>5.99</td></tr> <tr><td>0.187</td><td>4.75</td></tr> <tr><td>0.130</td><td>3.30</td></tr> <tr><td>0.079</td><td>2.01</td></tr> <tr><td>0.020</td><td>0.51</td></tr> </tbody> </table> | INCH | 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>Faston Tab: 250</p> <table border="1"> <thead> <tr> <th>INCH</th> <th>MM</th> </tr> </thead> <tbody> <tr><td>0.250</td><td>6.35</td></tr> <tr><td>0.124</td><td>3.15</td></tr> <tr><td>0.098</td><td>2.49</td></tr> <tr><td>0.059</td><td>1.50</td></tr> <tr><td>0.031</td><td>0.79</td></tr> <tr><td>0.020</td><td>0.51</td></tr> <tr><td>0.004</td><td>0.10</td></tr> </tbody> </table> | INCH | MM | 0.250 | 6.35 | 0.124 | 3.15 | 0.098 | 2.49 | 0.059 | 1.50 | 0.031 | 0.79 | 0.020 | 0.51 | 0.004 | 0.10 |
|--|--------------------------------------|--|-------|-------|-------|-------|-------|-------|-------|------|---|------|-------|-------|-------|-------|-------|-------|--|-------|------|---|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|---|------|----|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| INCH | MM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.250 | 6.35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 0.098 | 2.49 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.059 | 1.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.031 | 0.79 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.020 | 0.51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.004 | 0.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| INCH | MM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.472 | 11.99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 0.236 | 5.99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| INCH | MM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 0.124 | 3.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 0.031 | 0.79 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.020 | 0.51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.004 | 0.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>M5 Threaded Receptacle</p> | <p>M6 Threaded Receptacle</p> | <p>JST No. VHR-2N F</p> <table border="1"> <thead> <tr> <th>INCH</th> <th>MM</th> </tr> </thead> <tbody> <tr><td>0.530</td><td>13.46</td></tr> <tr><td>0.420</td><td>10.67</td></tr> <tr><td>0.310</td><td>7.87</td></tr> <tr><td>0.230</td><td>5.84</td></tr> <tr><td>0.160</td><td>4.06</td></tr> </tbody> </table> | INCH | MM | 0.530 | 13.46 | 0.420 | 10.67 | 0.310 | 7.87 | 0.230 | 5.84 | 0.160 | 4.06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 0.420 | 10.67 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.310 | 7.87 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.230 | 5.84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.160 | 4.06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Tyco. 1-480318-0</p> <table border="1"> <thead> <tr> <th>INCH</th> <th>MM</th> </tr> </thead> <tbody> <tr><td>0.860</td><td>21.84</td></tr> <tr><td>0.530</td><td>13.46</td></tr> <tr><td>0.430</td><td>10.92</td></tr> <tr><td>0.295</td><td>7.49</td></tr> </tbody> </table> | INCH | MM | 0.860 | 21.84 | 0.530 | 13.46 | 0.430 | 10.92 | 0.295 | 7.49 | <p>Camcorder Terminal</p> <table border="1"> <thead> <tr> <th>INCH</th> <th>MM</th> </tr> </thead> <tbody> <tr><td>0.870</td><td>22</td></tr> <tr><td>0.550</td><td>14</td></tr> <tr><td>0.430</td><td>0.25</td></tr> <tr><td>0.230</td><td>6.35</td></tr> </tbody> </table> | INCH | MM | 0.870 | 22 | 0.550 | 14 | 0.430 | 0.25 | 0.230 | 6.35 | <p>Note: Dimensions are in millimeters (mm) Tolerances are: ± 0.5 mm for dimensions < 5mm ± 1.0 mm for dimensions ≥ 5mm</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| INCH | MM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.860 | 21.84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.530 | 13.46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.430 | 10.92 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.295 | 7.49 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| INCH | MM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.870 | 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.550 | 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.430 | 0.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.230 | 6.35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Charging

- Refresh charge: Product in storage (ambient temperature 25°C) requires a top charge every six months. Apply constant voltage at 2.40 volts per cell, initial charging current should be set at less than 0.1C for 15 to 20 hours.

Discharge

- Stop operation when voltage has reached the minimum permissible voltage (1.6Vpc). Recharge immediately.
- Do not operate at 3C 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 recharge 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.

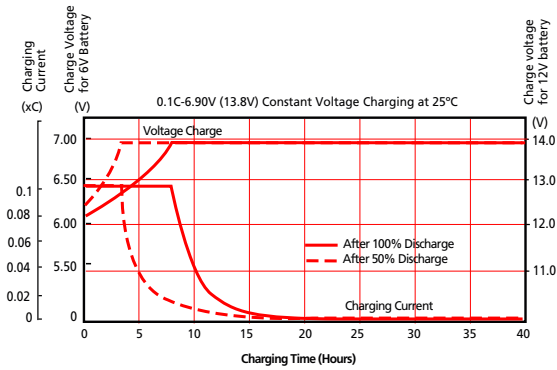
Incorporating battery into equipment

- 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.
- It is not recommended to install/operate the battery in the inverted position.

Others

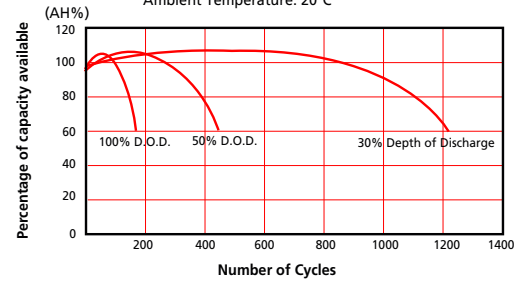
- Avoid terminal short circuit.
- DO NOT expose to open flame.
- WARNING** - Avoid exposure of the battery to any type of oil, solvent, detergent, petroleum-based solvent or ammonia solution. These materials could potentially cause permanent damage to the battery box and lid and will void the warranty.

Charging Characteristics



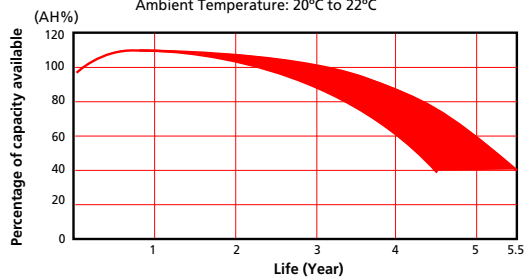
Cycle service life in relation to depth of discharge NP series

Testing conditions: Discharge Current: 0.17C Amp.
 Charging Current: 0.09C Amp.
 Charging Volume: 125% of Discharged Capacity
 Ambient Temperature: 20°C

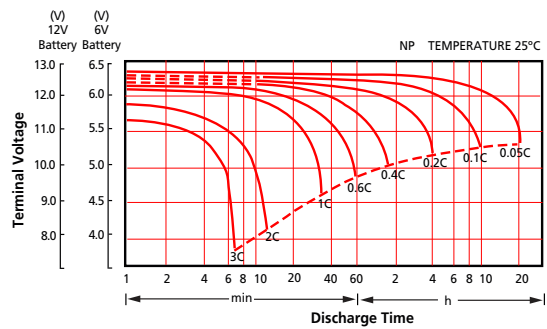


Float service life NP series

Testing conditions: Floating Voltage: 2.25 to 2.30V/Cell
 Ambient Temperature: 20°C to 22°C



Discharge characteristics curves at 25°C NP series



If discharge currents in excess of 3C are required, consult the EnerSys Technical Department prior to use.

Charging Voltage

| Temperature °C | Standby use* Float voltage range per cell | Cyclic use** Volts per cell |
|----------------|---|--------------------------------|
| 0 | 2.340 | 2.510 |
| 10 | 2.310 | 2.480 |
| 20 | 2.280 | 2.450 |
| 25 | 2.265 | 2.435 |
| 30 | 2.250 | 2.420 |
| 35 | 2.235 | 2.405 |
| 40 | 2.220 | 2.390 |

* Minimum current 5% C₂₀ no max current limit
 ** Max current limit 25% C₂₀



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