

**genesis**<sup>®</sup>  
NP

**data safe**<sup>®</sup>  
NPX



*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

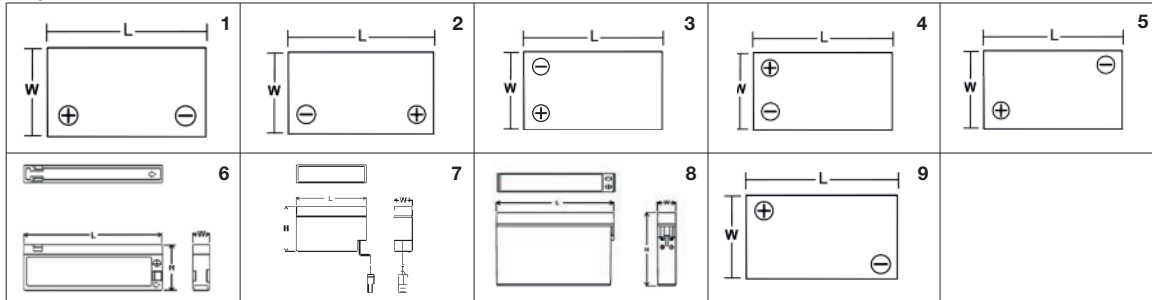
**NOTE:** All dimensions +/- 1mm; Weights are +/- 5%

#### Torque Specifications:

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

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

### Layout Illustration



### Terminal Illustration

|                                        |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                       |                                                                                                                                                                                                                        |       |       |       |       |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                               |       |       |       |      |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                              |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| <p><b>Faston Tab: 187 A</b></p>        | <p>INCH = MM</p> <table><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></table> | 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><b>Faston Tab: 187 B</b></p> | <p>INCH = MM</p> <table><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></table> | 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><b>Faston Tab: 250 C</b></p> | <p>INCH = MM</p> <table><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></table> | 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 |
| 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                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                       |                                                                                                                                                                                                                        |       |       |       |       |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                               |       |       |       |      |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                              |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
| 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                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                       |                                                                                                                                                                                                                        |       |       |       |       |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                               |       |       |       |      |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                              |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
| 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                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                       |                                                                                                                                                                                                                        |       |       |       |       |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                               |       |       |       |      |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                              |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
| <p><b>M5 Threaded Receptacle E</b></p> | <p><b>M6 Threaded Receptacle G</b></p>                                                                                                                                                                                                                                                                                           | <p><b>JST No. VHR-2N F H</b></p>                                                                                                                      | <p>INCH = MM</p> <table><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></table> | 0.530 | 13.46 | 0.420 | 10.67 | 0.310 | 7.87 | 0.230 | 5.84 | 0.160 | 4.06 |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                               |       |       |       |      |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                              |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
| 0.530                                  | 13.46                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                       |                                                                                                                                                                                                                        |       |       |       |       |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                               |       |       |       |      |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                              |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
| 0.420                                  | 10.67                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                       |                                                                                                                                                                                                                        |       |       |       |       |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                               |       |       |       |      |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                              |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
| 0.310                                  | 7.87                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                       |                                                                                                                                                                                                                        |       |       |       |       |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                               |       |       |       |      |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                              |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
| 0.230                                  | 5.84                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                       |                                                                                                                                                                                                                        |       |       |       |       |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                               |       |       |       |      |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                              |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
| 0.160                                  | 4.06                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                       |                                                                                                                                                                                                                        |       |       |       |       |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                               |       |       |       |      |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                              |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
| <p><b>Tyco. 1-480318-0 I</b></p>       | <p><b>Camcorder Terminal D</b></p>                                                                                                                                                                                                                                                                                               | <p><b>Note:</b><br/>Dimensions are in millimeters (mm)<br/>Tolerances are:<br/>± 0.5 mm for dimensions &lt; 5mm<br/>± 1.0 mm for dimensions ≥ 5mm</p> |                                                                                                                                                                                                                        |       |       |       |       |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                               |       |       |       |      |       |      |       |      |       |      |       |      |       |      |                                 |                                                                                                                                                                                                                                                                                              |       |      |       |      |       |      |       |      |       |      |       |      |       |      |

### 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.

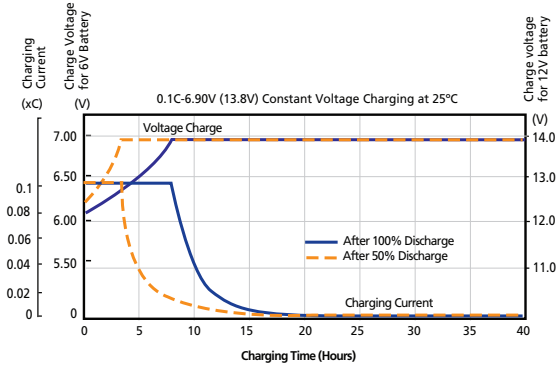
### Incorporating battery into equipment

- 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

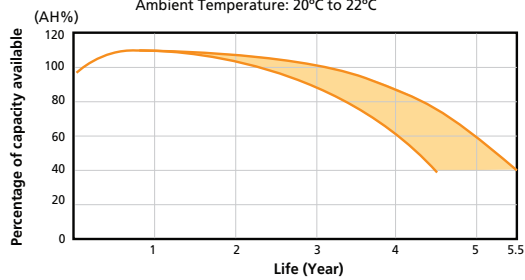
- Avoid terminal short circuit.
- DO NOT expose to open flame.
- **WARNING** - Avoid exposure of the battery to any type of oil, solvent, detergent, petroleum-based solvent or ammonia solution. These materials could potentially cause permanent damage to the battery box and lid and will void the warranty.

## Charging Characteristics



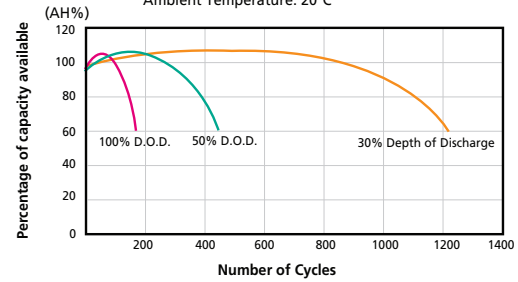
## Float service life NP series

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

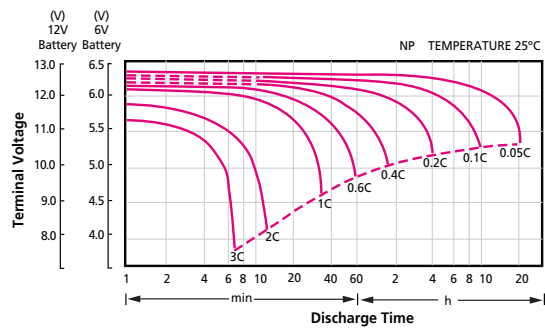


## Cycle service life in relation to depth of discharge NP series

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



## 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*<br>Float voltage<br>range per cell | Cyclic use**<br>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%  $C_{20}$  no max current limit

\*\* Max current limit 25%  $C_{20}$



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