

# NX645 (6V4.5Ah)

## Specifications

|                                                  |              |                                                        |
|--------------------------------------------------|--------------|--------------------------------------------------------|
| Nominal Voltage                                  |              | 6V                                                     |
| Capacity<br>[25°C]                               | 20HR [5.25V] | 4.5Ah                                                  |
|                                                  | 10HR [5.25V] | 4.2Ah                                                  |
|                                                  | 1HR [4.80V]  | 2.93Ah                                                 |
| Dimension                                        | Length       | 70±1mm [2.76inch]                                      |
|                                                  | Width        | 47±1mm [1.85inch]                                      |
|                                                  | Height       | 101±1mm [3.98inch]                                     |
|                                                  | Total Height | 107±1mm [4.21inch]                                     |
| Approx. Weight                                   |              | 0.72kg [1.58lbs]±5%                                    |
| Terminal type                                    |              | T1                                                     |
| Internal resistance<br>(Fully charged, 25°C)     |              | Approx. 25mΩ                                           |
| Capacity<br>affected by<br>temperature<br>(10HR) | 40°C         | 102%                                                   |
|                                                  | 25°C         | 100%                                                   |
|                                                  | 0°C          | 85%                                                    |
|                                                  | -15°C        | 65%                                                    |
| Self-discharge<br>[25°C]                         | 3 months     | Remaining Capacity: 91%                                |
|                                                  | 6 months     | Remaining Capacity: 82%                                |
|                                                  | 12 months    | Remaining Capacity: 65%                                |
| Nominal<br>operating<br>temperature              |              | 25°C±3°C(77°F±5°F)                                     |
| Operating<br>temperature<br>range                | Discharge    | -15°C~50°C(5°F~122°F)                                  |
|                                                  | Charge       | -10°C~50°C(14°F~122°F)                                 |
|                                                  | Storage      | -20°C~50°C(-4°F~122°F)                                 |
| Float charging voltage(25°C)                     |              | 6.75 to 6.90V<br>Temperature compensation:<br>-9mV/°C  |
| Cyclic charging voltage(25°C)                    |              | 7.25 to 7.45V<br>Temperature compensation:<br>-15mV/°C |
| Maximum charging current                         |              | 1.35A                                                  |
| Terminal material                                |              | Copper                                                 |
| Maximum discharge current                        |              | 67.5A [5 sec.]                                         |

◆ Absorbent glass mat technology;

◆ Recognized by IEC & CE;

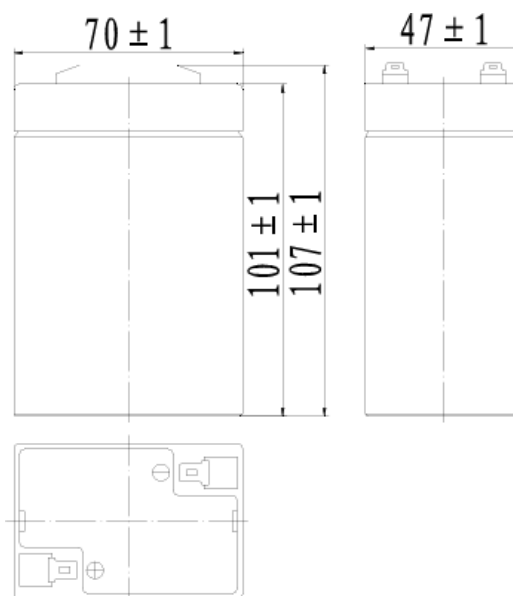
◆ ABS container.



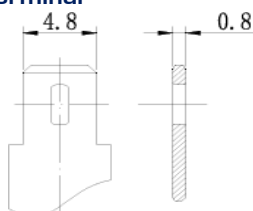
[www.nergix.co](http://www.nergix.co)

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## Dimensions



## Terminal



Terminal T1

## Constant Current Discharge Characteristics (A, 25°C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 10h  | 20h   |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|-------|
| 4.80V    | 17.1 | 10.8  | 8.55  | 4.77  | 2.93  | 1.60 | 1.15 | 0.92 | 0.78 | 0.42 | 0.227 |
| 4.95V    | 16.6 | 10.4  | 8.34  | 4.67  | 2.88  | 1.59 | 1.14 | 0.91 | 0.77 | 0.42 | 0.227 |
| 5.10V    | 15.9 | 10.1  | 8.04  | 4.54  | 2.81  | 1.58 | 1.13 | 0.91 | 0.77 | 0.42 | 0.226 |
| 5.25V    | 15.2 | 9.61  | 7.77  | 4.42  | 2.75  | 1.55 | 1.13 | 0.90 | 0.77 | 0.42 | 0.225 |
| 5.40V    | 14.4 | 9.07  | 7.35  | 4.26  | 2.66  | 1.51 | 1.09 | 0.87 | 0.74 | 0.41 | 0.221 |

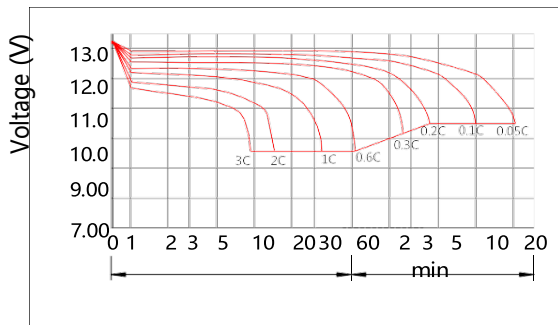
## Constant Power Discharge Characteristics (Watt, 25°C)

| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 4.80V    | 95.4 | 60.8  | 48.6  | 27.3  | 16.9  | 9.36 | 6.80 | 5.45 | 4.68 | 2.55 | 1.37 |
| 4.95V    | 92.7 | 59.0  | 47.7  | 26.8  | 16.7  | 9.32 | 6.80 | 5.45 | 4.64 | 2.54 | 1.36 |
| 5.10V    | 88.7 | 56.7  | 45.9  | 26.0  | 16.2  | 9.23 | 6.75 | 5.40 | 4.59 | 2.52 | 1.36 |
| 5.25V    | 85.1 | 54.0  | 44.2  | 25.3  | 15.9  | 9.09 | 6.71 | 5.36 | 4.55 | 2.51 | 1.35 |
| 5.40V    | 80.1 | 51.3  | 41.9  | 24.4  | 15.4  | 8.87 | 6.48 | 5.22 | 4.43 | 2.46 | 1.32 |

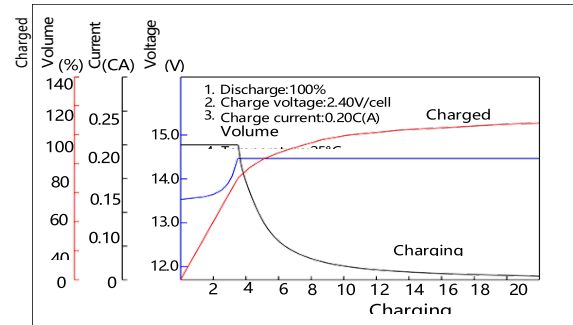
Note: The above characteristics data can be obtained within three charge/discharge cycles.

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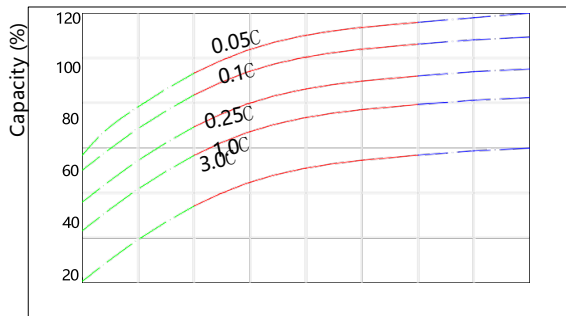
## Discharge Characteristics(25°C)



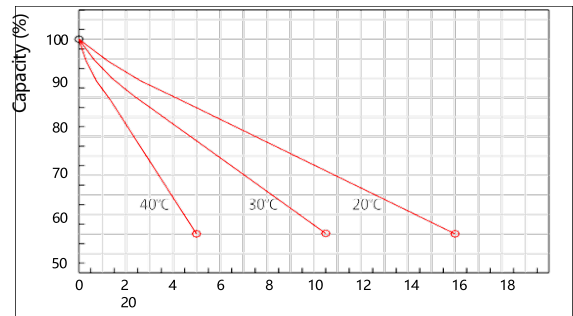
## Charging Characteristics(25°C)



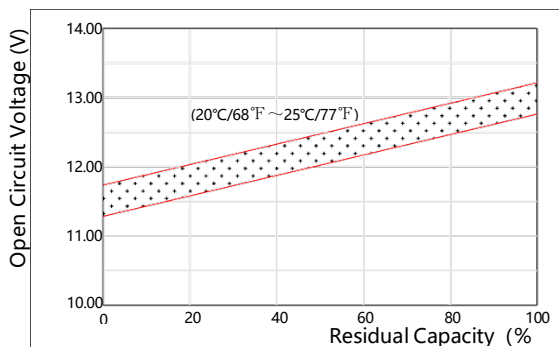
## Effect of Temperature on Capacity



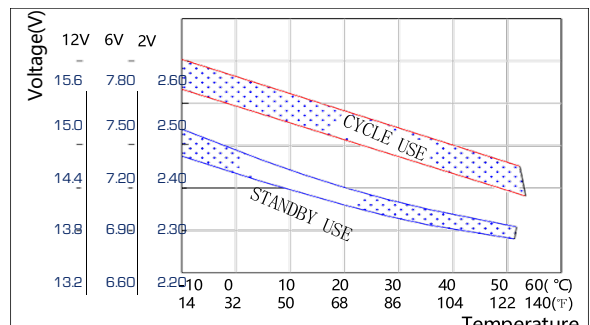
## Self-discharge Characteristics



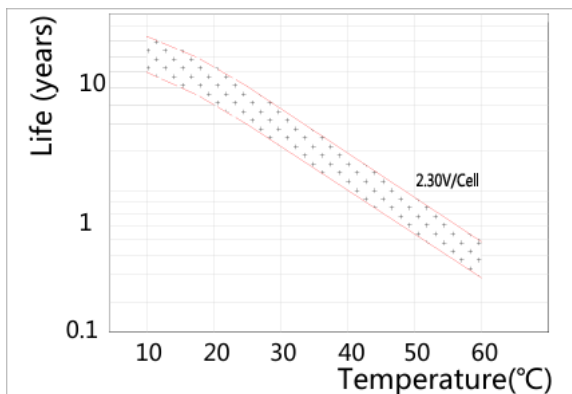
## The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



## The Relationship for Charging Voltage and Temperature



## Floating Life on Temperature



## Cycle Life on D.O.D(25°C)

