



The lithium ion battery cell HE46900 NMC is ideally suited for applications requiring high energy density.

## Features and Benefits

- ▲ High energy density
- ▲ Ni-rich NMC chemistry
- ▲ Continuously tabbed design
- ▲ Low resistance
- ▲ Made in Germany
- ▲ UN38.3 certified

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# HE46900 NMC

28Ah NMC Li-ion Battery Cell

High Energy Cell

3.64 V, 102 Wh

## Mechanical Characteristics

|             |             |    |
|-------------|-------------|----|
| Cell design | cylindrical |    |
| Diameter    | 46          | mm |
| Length      | 90          | mm |
| Weight      | 410         | g  |
| Volume      | 150         | ml |

## Chemical Characteristics

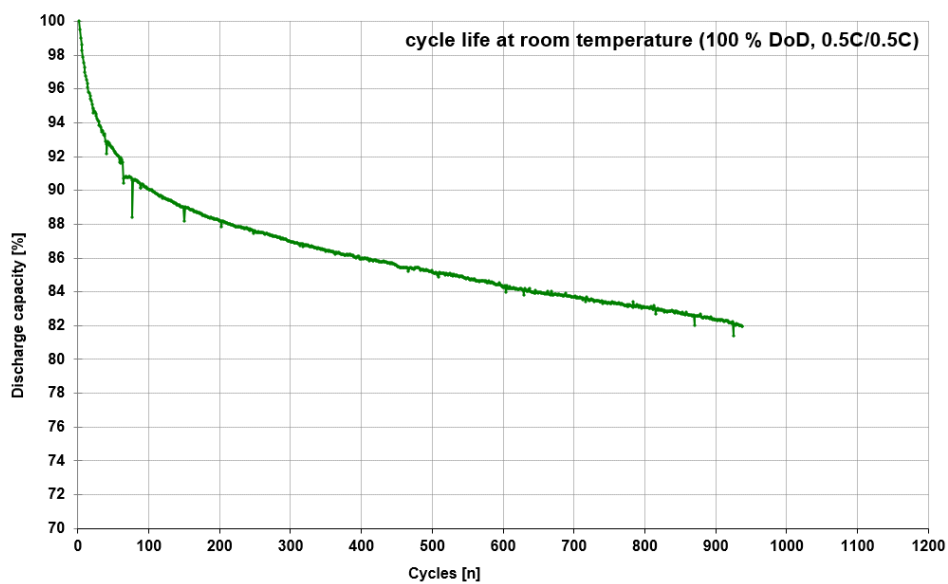
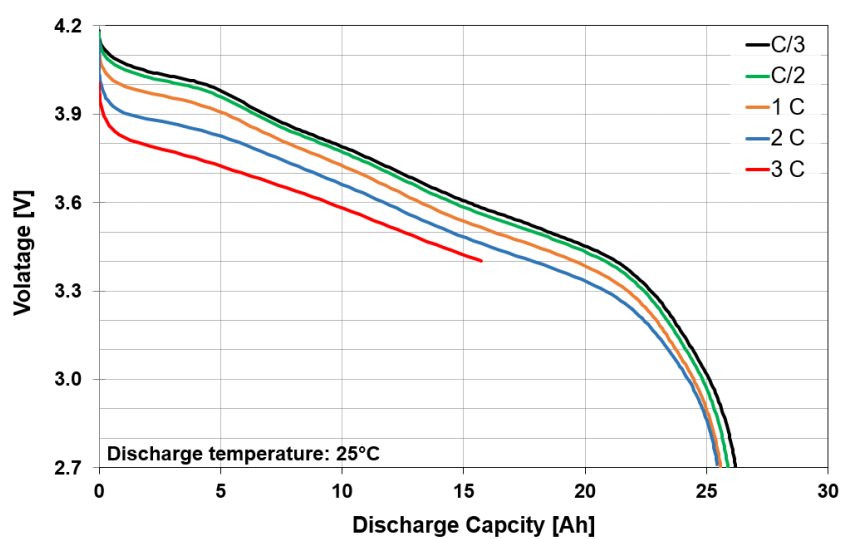
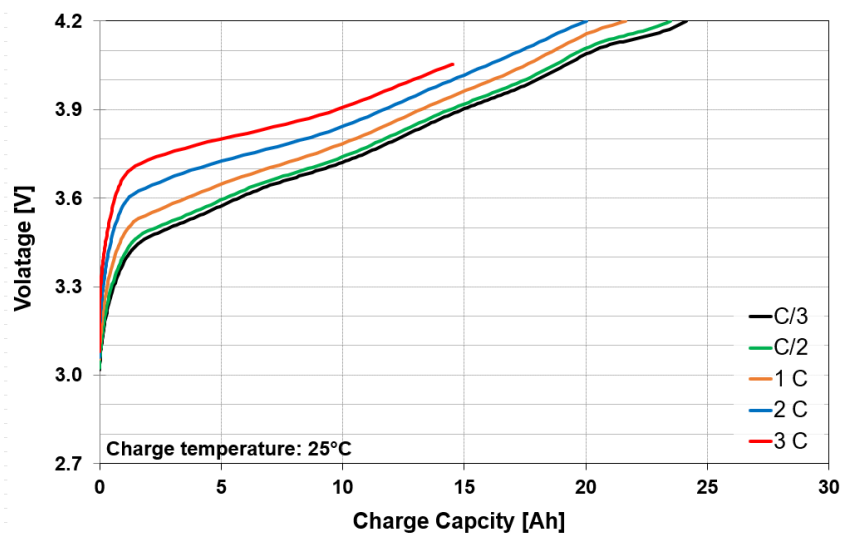
|         |                                             |
|---------|---------------------------------------------|
| Cathode | Lithium nickel manganese cobalt oxide (NMC) |
| Anode   | Silicon graphite composite (SiC)            |

## Electrical Characteristics

|                                            |      |       |
|--------------------------------------------|------|-------|
| Nominal capacity                           | 28   | Ah    |
| Charging voltage                           | 3.64 | V     |
| Specific energy                            | 255  | Wh/kg |
| Energy density                             | 680  | Wh/l  |
| AC impedance (1 kHz)                       | 1.3  | mΩ    |
| DC resistance (30 s pulse @ 1C / 50 % SoC) | 4.8  | mΩ    |

## Operating Conditions

|                                                     |                  |
|-----------------------------------------------------|------------------|
| Discharge current @ 25 °C                           |                  |
| Recommended                                         | 14 A (0.5C)      |
| Maximum continuous                                  | 70 A (2.5C)      |
| Maximum pulse (2 s)                                 | 140 A (5C)       |
| Recommended continuous charging current             | 14 A (0.5C)      |
| Maximum continuous charging current                 | 70 A (2.5C)      |
| Operating temperature                               |                  |
| Discharge                                           | - 30 °C to 60 °C |
| Charge (recommended)                                | - 10 °C to 40 °C |
| Cycle life @ 20 °C (EoL @ 80 % of nominal capacity) |                  |
| 100 % DoD, 0.5 C                                    | > 1,000 cycles   |
| 80 % DoD, 0.5 C                                     | > 1,500 cycles   |



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