

MP 174565 ise

Rechargeable Li-ion cell

3.65 V high energy Li-ion cell with high performance and intrinsic safety

The MP 174565 ise cell is compatible with conventional vented alkaline cells, for applications requiring excellent performance and long service life under high temperature conditions and operating voltages ranging from 3.0 V to 3.6 V.

Benefits

- Excellent operating lifetime in calendar and cycling with a very stable internal resistance
- Equivalent of alkaline, compatible with widely distributed equipment
- Same size as the widely distributed alkaline cell technology
- Easy connection and assembly into batteries
- High energy density for long service life and high capacity

Key features

- Equivalent capacity to 2x alkaline cell capacity
- Cycle life of 2300 cycles at 100% DoD at C/2 discharge, C charge
- Standard voltage
- Inherent vented
- Complies with international standards
- Long service life
- High energy density
- Manufactured in the EU

Its quality meets all the original quality criteria and environmental standards

- Energy Efficient Design (EU RoHS)
- REACH compliant (EU RoHS)
- ATEX⁽¹⁾ IEC 60079-11 (10.5.2, 10.5.3 (b)) compatible component
- Quality ISO 9001
- Green World Class program
- ISO 14001 certified
- ISO 45001 certified

Typical applications

- Sensor feeding and equipment
- Control systems
- Lighting
- Oil & Gas applications
- Remote monitoring
- Wireless Sensor Networks
- Industrial equipment
- Agriculture

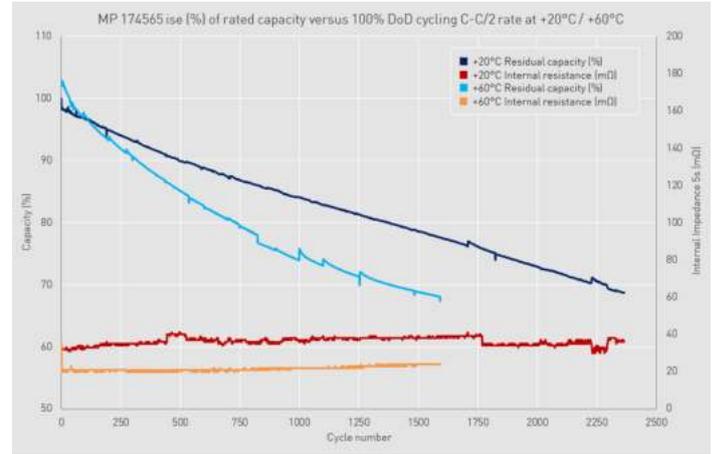
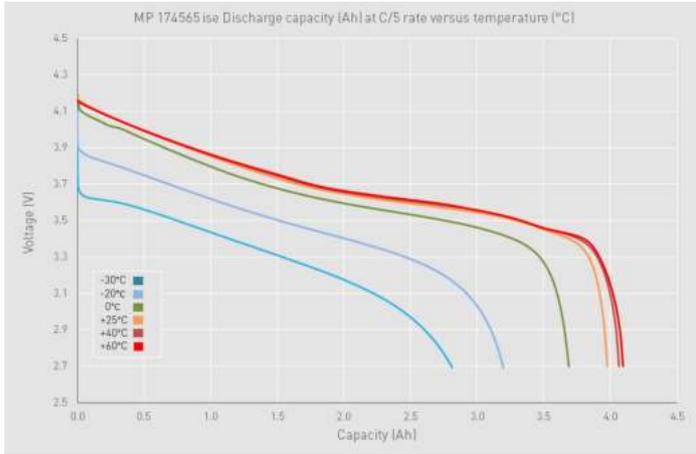


| Typical performance | | |
|--------------------------------------------------|--------------------------------------|----------------------------------------------|
| Discharge rate (at 20°C) (10h) | 0.1C to 10C | 2.0 Ah |
| Standard voltage | | 3.6 V |
| Standard voltage | | 3.2 V (20°C) |
| Working temperature range (no discharge current) | Operating temperature | 0°C to 50°C (typical) -40°C to 60°C (max) |
| Other characteristics (at 20°C) (typical) | | |
| Internal resistance | | 15 mΩ |
| Weight | | 2.0 g (typical) |
| Internal height (to terminal) | | 27 mm |
| Terminal width | | 7 mm |
| Volume (to discharge) | | 0.07 l |
| 100% discharge | | 1000 cycles |
| Self-discharge (at 20°C) | | 10% (typical) |
| Self-discharge (at 40°C) | | 20% (typical) |
| Self-discharge (at 50°C) | | 30% (typical) |
| Operating conditions | | |
| Discharge (at 20°C) (10h) | | 10h |
| Operating method | Constant current (20°C) (no current) | |
| Operating voltage | | 2.7 V to 3.6 V |
| Operating current (typical) (no current) | | 20 mA (typical) |
| Operating temperature (typical) | Discharge | 0°C to 50°C |
| | Lighting | 0°C to 50°C |
| Storage & transport (at 20°C) (typical) | Working temperature | 0°C to 50°C |
| | Allowable | 0°C to 50°C |

(1) ATEX is a European standard for explosive atmospheres.
 (2) IEC 60079-11 is a European standard for explosive atmospheres.
 (3) REACH is a European regulation for the restriction of hazardous substances.

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Optimal assembly

- make sure that the cells are connected by high quality and electrically non-inductive cables in the system to ensure proper distribution of current in the electrical distribution system, thereby providing a more uniform distribution of current
- design and install the system to provide a uniform distribution of current

Cell surface temperature and spark protection

- The cell surface temperature with the temperature class location is an ambient temperature of 50°C
- The temperature distribution on the cell surface with the temperature class location is 50°C plus or minus 10°C
- The spark protection shall be verified during the assembly process using a spark protection test method as defined in the standard

Storage

- The storage temperature shall be according to the manufacturer's instructions and shall not exceed the maximum storage temperature as defined in the manufacturer's instructions

Warning

- Do not touch the main cell electrolyte, electrolyte is corrosive and can cause severe injury
- Do not touch the main cell electrolyte

High temperature

- High temperature protection
- Cell time of charge
- Charge efficiency

High temperature

- Normal current
- Normal temperature

High current

- Energy efficiency $\eta_{eff} \leq 90\%$
- Voltage drop $\Delta V_{drop} \geq 10\%$
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- Cell internal resistance

High temperature

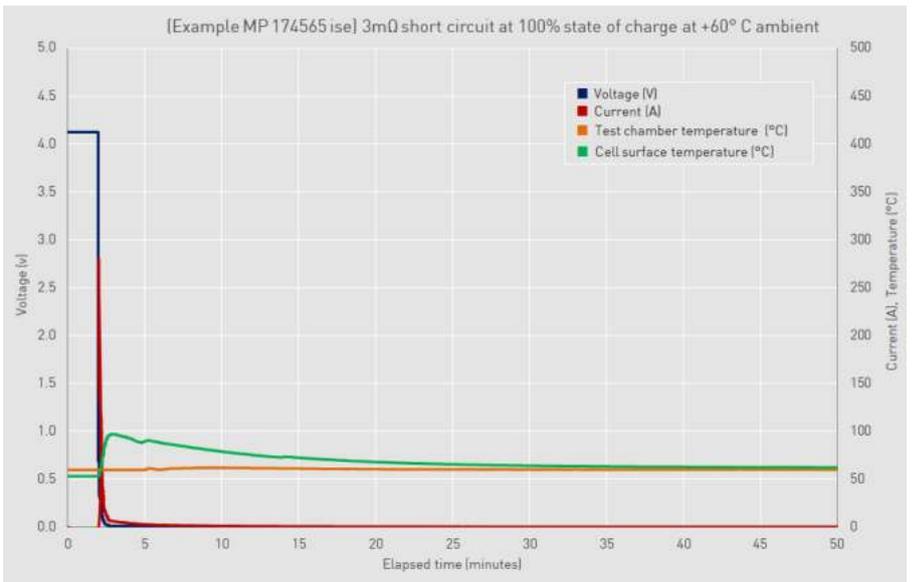
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