**ENERGY STORAGE SYSTEMS**

**BORDLINE® Max 800-HP**  
High power battery for transportation

BORDLINE® ESS is an energy storage system designed for transportation applications and meets demanding requirements of rail, electric bus, and off-road vehicles.

<table>
<thead>
<tr>
<th>Key characteristics</th>
<th>80%</th>
<th>&gt;20,000</th>
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<tbody>
<tr>
<td><strong>Safe</strong></td>
<td>HIGHEST SAFETY</td>
<td>LONG LIFE</td>
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<tr>
<td>By design and cell selection</td>
<td>Over 20,000 cycles</td>
<td>80%</td>
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<tr>
<td><strong>Rapid Charging</strong></td>
<td>Charging in less than 10 min</td>
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<td><strong>Flexible</strong></td>
<td>MULTI-STRING PARALLELING</td>
<td>LOW-TEMPERATURE OPERATION</td>
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<td>To adapt capacity</td>
<td>Excellent performance</td>
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<td><strong>Plug &amp; play</strong></td>
<td>EASY CONNECTIVITY</td>
<td>BATTERY MANAGEMENT SYSTEM</td>
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<td>Simple installation</td>
<td>Integrated supervision</td>
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<td><strong>Easy Connectivity</strong></td>
<td>COMPACT AND LIGHT-WEIGHT</td>
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<td>Designed for all applications</td>
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Technical data

Rating
Nominal energy 30.5 kWh
Nominal voltage 662 V
Charge cut-off voltage 778 V
Discharge cut-off voltage 432 V
Peak power charge / discharge up to 300 kW / 260 kW
Continuous power charge / discharge typical 130 kW

Cooling
Coolant water-glycol

Mechanical data
Dimensions L1870 x H510 x W500 mm
Weight 510 ± 10 kg
Mounting location roof/underslung
Degree of protection (EN 60529) IP66/IP69

Ambient conditions
Ambient temperature -40 °C to + 45 °C

Lifetime
Lifetime up to 15 years
Cycle life at 35 °C, 10-90 % SoC, 2C/2C >20,000

Tested and certified
IEC 62928, ECE R100, UN 38.3, EN 45545, IEC 62619, IEC 62620

Charge/discharge characteristics

Voltage, V

SOC, 1

1C Charge/Discharge
2C Charge/Discharge
4C Charge/Discharge