ENERGY STORAGE SYSTEMS

BORDLINE® Max 850-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.

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Key characteristics

**Safe**
- HIGHEST SAFETY
- By design and cell selection

**>20,000**
- LONG LIFE
- Over 20,000 cycles

**80%**
- RAPID CHARGING
- Charging in less than 10 min

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Plug & play

**EASY CONNECTIVITY**
- Simple installation

**Flexible**
- MULTI-STRING PARALLELING
- To adapt capacity

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**LOW-TEMPERATURE OPERATION**
- Excellent performance

**BATTERY MANAGEMENT SYSTEM**
- Integrated supervision

**COMPACT AND LIGHT-WEIGHT**
- Designed for all applications

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BORDLINE® Max battery pack
Technical data

Rating
Nominal energy 33 kWh
Nominal voltage 718 V
Charge cut-off voltage 842 V
Discharge cut-off voltage 468 V
Peak power charge / discharge up to 325 kW / 285 kW
Continuous power charge / discharge typical 140 kW

Cooling
Coolant water-glycol

Mechanical data
Dimensions L1990 x H500 x W510 mm
Weight 550 ± 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

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