



Mobile E-Power

For sustainable
transport



Summary & more information

No matter where you are on your journey to increase E-mobility in construction vehicles, ABB can help make it a smoother ride.

To learn more about how we can support you, get in touch with us at . . .

SCAN HERE
for more information
for E-mobility



ABB products

For sustainable transport

Inverters – HES880



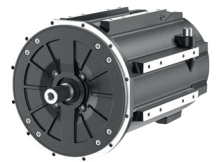
Mobile controllers X90



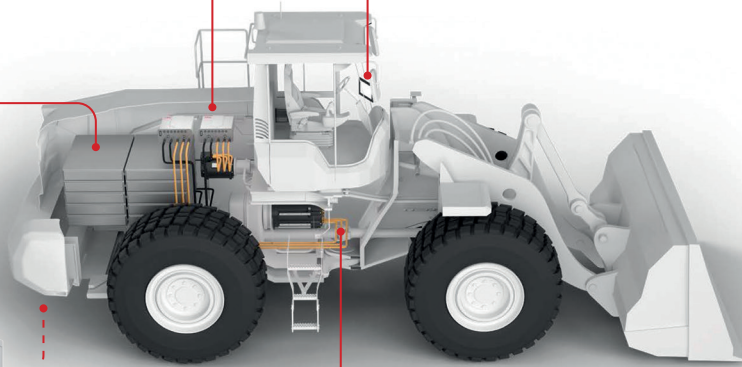
Energy storage systems - BORDLINE



Electrical machines



Charging – E-mobility



Standard Building Blocks

To build flexible electrification topologies in LV applications

Inverter+Motor
HES880+AMXE



DC/DC converter
HES880+HDCL



Onboard Charger/ Grid former
HES880+HLCL



Engery Storage System
BORDLINE ESS



Drivetrain:
Propulsion and Aux



Connection of Fuel Cell or
Battery (different voltage level
than DC-Link)

HDCL



HLCL

AC-grid | Uac

AC Charging/
AC Grid forming

High Cycle, safe
Power Batteries

AMXE

Motors

Compact, permanent magnet synchronous motors for high efficiency propulsion and auxiliary usage. Configure your motor with specific lengths, windings and voltages to get your needed performance.

- Power levels from 20 to 520 kW
- Speed range up to 8000 rpm
- Four different frame sizes

—
AMXE132
up to 600 Nm

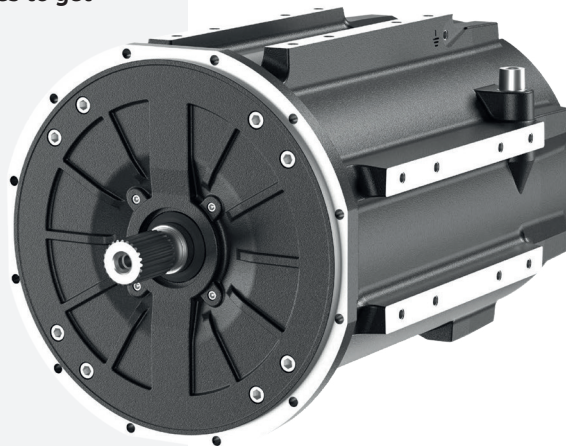
—
AMXE200
up to 1900 Nm

—
AMXE160
up to 1000 Nm

—
AMXE250
up to 3300 Nm

Shaft and flange dimensions in wide range available.

As a further advantage, the motor shaft and the flange can be selected to fit already existing interfaces.



SCAN HERE
for more detailed information

HES880

Mobile drive

Compact and rugged, the HES880 drive has been designed specifically to work in electric powertrains in applications like construction equipment vehicles.

Features and benefits include:

- Inverter for traction motor and generator up to 510 kW continuous and up to 760 kW peak electrical power
- Three different frame sizes with voltage from 320 to 750 VDC – 350, 600 and 900 A as maximum currents
- Bi-directional line converter for grid connectivity
- DC/DC converter for battery, super capacitor or fuel cell, up to 620 kW
- The same module can be used as a line converter, motor inverter or DC/DC converter
- Easy to install, only plug connectors
- Safe torque off (STO) as standard, integrated braking chopper as option



SCAN HERE
for more detailed information

BORDLINE® ESS

Product features



Low-temperature operation
Excellent performance



Battery management system
Integrated supervision



Compact and light-weight
Designed for all applications



Safe
HIGHEST SAFETY
By design and
cell selection



Flexible
**MULTI-PACK
PARALLELING**
Flexible capacity



80%
RAPID CHARGING
Charging in less
than 10 min



>20.000
LONG LIFE
Over 20.000
cycles



Plug & play
**EASY
CONNECTIVITY**
Simple installation

Go electric

It makes good environmental and financial sense

Purchase cost

- Initial cost can vary widely, since it mainly depends on the battery capacity. Best cost efficiency is achieved by correctly configuring the motor and drive to meet vehicle needs, and not oversizing the battery

Cost of installation

- Easy to install and commission

Cost of running

- Much more efficient than diesel with substantially reduced maintenance costs
- No diesel logistics and much lower fuel/power costs

Cost of not running

- Higher reliability and uptime, and reduced maintenance breaks, for big cost advantages

=

Total Cost of Ownership



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Traction

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