

E-BUS

# BORDLINE® CC200 drivetrain platform

For 18 and 24 meter electric buses

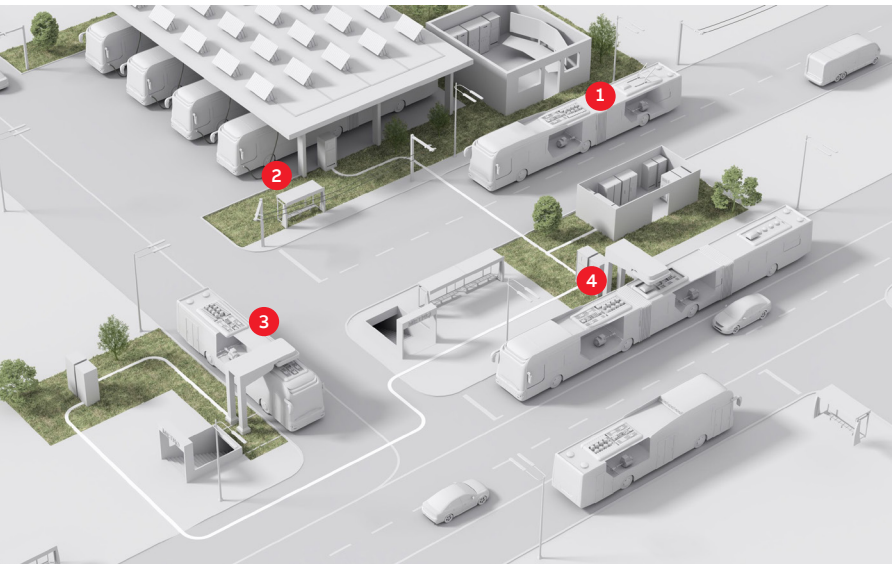


ABB offers for high capacity electric buses a modular drivetrain platform which allows easy customization for specific application needs. The smart one-box approach of the BORDLINE® CC200 platform solution includes motor and auxiliary converters, enabling together with the permanent magnet traction motors an economical and highly efficient solution.

## Applications

- 1 Trolleybus with catenary-free operation
- 2 Overnight charging
- 3 Opportunity charging
- 4 Flash charging

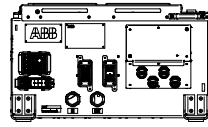
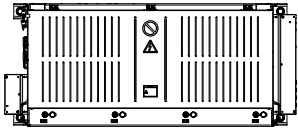
## Benefits

- + Modular platform approach (all in one box) covering all e-bus applications
- + Highly integrated solution (including motor converter, auxiliary converter, battery charger, traction chain control)
- + Compact and lightweight component design
- + Very energy-efficient

	Frontend/Interface	Traction and Auxiliary Converter	Traction Motor	Energy Storage System
Trolleybus with catenary-free operation	Trolley Frontend DC/DC	BORDLINE® CC200	Permanent Magnet Motor	Customization based on standard string concept
Overnight/Opportunity charging	Vehicle Charging Control Unit (VCCU)*			
Flash charging	Coupling Unit			

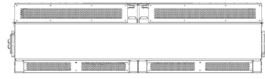
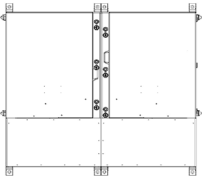
\*not included in ABB's scope of supply

### Compact Converter BORDLINE® CC200



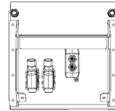
Dimensions (L x W x H)	800 x 1800 x 479 mm
Weight	220 kg
Motor converter	2 x 190 kW peak
Auxiliary converters	28 Vdc 12.6 kW
	400 Vac 35 kVA
Braking chopper	up to 100 % motor converter
Heating chopper	40 kW
Protection level	IP65
Cooling	water-glycol mix

### Trolley Frontend DC/DC



Dimensions (L x W x H)	1600 x 1600 x 452 mm
Weight	400 kg
Input voltage	600 / 750 Vdc
Output voltage	750 Vdc
Power	200 kW
Protection level	IP65
Cooling	air

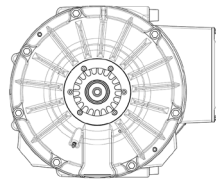
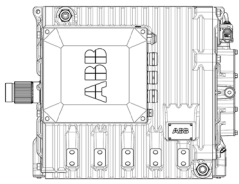
### Battery String 30.5 kWh



Configuration	12s1p
Capacity	30.5 kWh
Charge/discharge continuous	3-4C
Charge/discharge maximum 30 sec	8-9C
Voltage (nominal)	660 V
Cycle life	>20'000 cycles*
Dimension (H x W x L)	473 x 480 x 1723 mm
Weight	500 kg ± 5% kg

\*100% DoD cycles at 1C rate and 25°C

### Permanent Magnet Traction Motor



Dimensions (L x D)	510 x 465 mm
Weight	350 kg
Power	190 kW
S1 Power	106 kW
Peak torque	2500 Nm
S1 torque	1070 Nm
Protection level	IP65
Cooling	water-glycol mix
Peak efficiency	95.5 %

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