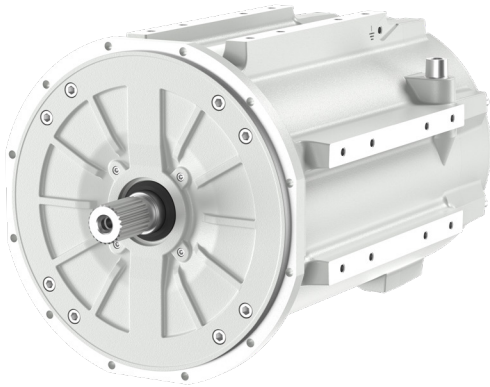


Motors for off-highway machines

AMXE200



Your electric vehicle partner

Efficient motors require a deep insight into design, manufacturing and integration. Motors are very different from internal combustion engines, and it is easy to underestimate the development challenges. In ABB, you have an experienced partner that will assist you from drawing board to aftermarket. Manufacturing, service and support is always close at hand thanks to ABB's global presence.

Optimized for your application

Each motor must be adapted to the actual drive cycle. ABB's platform is based on proven parts that are combined into task-specific solutions. This ensures fast delivery and customization to your needs. Common to all motors are low energy losses throughout the drive cycle.

Motor expertise at play

We know what it takes to make e-mobility work optimally. Torque and speed are adapted to the vehicle type and its duty cycle. Low inertia motors ensure fast control. Compact design and torque density reduce the vehicle's outer dimensions. Different IP classes and surface treatments enable reliable use in aggressive atmospheres. All these factors are considered, configurable and customized in ABB's motors.

Safe and easy to install and operate

ABB simplicity gives you a competitive edge. Our motors' flanges and shafts are standard or customized on your request. All motors are compact and easy to install. When it comes to vehicle reliability, our century-long experience of combining

Electrify your vehicle together with ABB

Partnering with ABB as motor solution provider gives vehicle manufacturers the smoothest possible e-mobility development path – from drawing board to dedicated aftermarket support.

motor and inverter into packaged solutions is solid proof of our capabilities.

Why ABB?

- Customer centric culture
- Technology pioneer
- Life-cycle support with extensive manufacturing and service footprint
- System design expertise and development support

Features

- Compact and robust design for harsh environments
- Power levels from 90 kW up to 500 kW
- Torque levels up to 1900 Nm
- Liquid cooling with up to 65°C coolant temperature
- Up to IP6K9K and 50 g shock loads

Technical data

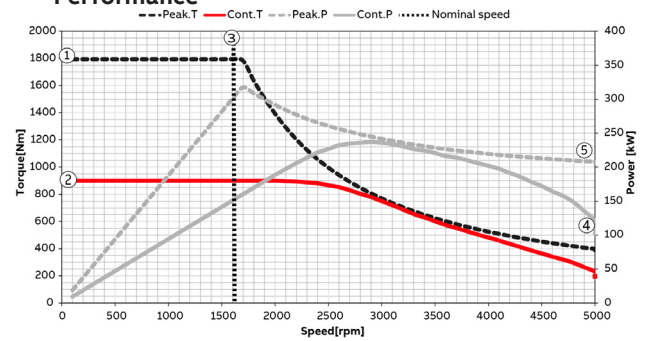
Motor type		Peak torque Nm	Peak power kW	Peak current A	Max speed rpm	Continuous torque Nm	Continuous power kW	Continuous current A	Nominal speed rpm
AMXE200S	AMXE200S-L1	1211	233	397	4400	600	94	183	1500
	AMXE200S-L2	1195	266	420	4760	600	126	199	2000
	AMXE200S-L3	1166	305	441	5000	600	157	227	2500
	AMXE200S-L4	1129	314	464	5000	600	173	250	2750
AMXE200L	AMXE200L-L1	1877	295	595	4223	900	145	271	1500
	AMXE200L-L2	1822	382	636	4750	900	189	310	2000
	AMXE200L-L3	1758	460	691	5000	900	236	360	2500
	AMXE200L-L4	1641	516	741	5000	900	283	418	3000

*Specifications are valid with coolant at 65 °C (inlet), 15 l/min and in a 40 °C ambient unless stated otherwise. Actual performance will vary with drive cycle, cooling and installation details.

Motor specification

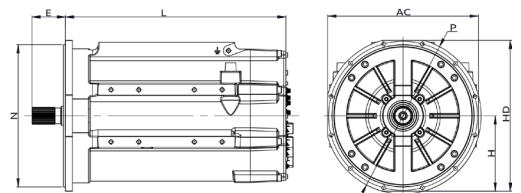
	Specification	AMXE200S	AMXE200L
Operating conditions	Operating voltage (battery)	450-800 VDC	
	Coolant type	Water glykol	
	Coolant temperature	≤ 65 °C	
	Coolant flow	5 - 25 lpm	
	Pressure drop	< 1 bar	
	Ambient temperature	-40 °C to +55 °C	
	Electrical and physical properties	Machine type	Permanent Magnet Synchronous Motor (PMSM)
Weight		229 kg	287 kg
Inertia		0,283 kg·m ²	0,417 kg·m ²
Max speed		5000 rpm	
IP class		Up to IP69K	
Shock loads (ISO 16750)		Up to 50 g	
Interfaces		Electrical connection	PowerLok with HVIL
	Flange	SAE 3 housing flange (or acc. to customer specification)	
	Shaft	DIN5480 - W50 x 2 x 24 x 9g (or acc. to customer specification)	
	Cooling connection	2 x G1/2" internal thread ISO 1179-1 ports	
Options	Resolver	X	
	Hybrid bearings	X	
	Relubricated bearings	X	
	Shaft grounding	X	

Performance



1. Peak torque during 30s at 65° coolant temperature, can be achieved up to nominal speed 3.
2. Continuous torque (S1 duty) at 65° coolant temperature, can be achieved up to nominal speed 3.
3. Nominal speed
4. Continuous power (S1 duty) at 65° coolant temperature, can be achieved from speed 3 to max speed.
5. Peak power during 30s at 65° coolant temperature, can be achieved from nominal speed 3.

Main dimensions



Motor type	A	E	H	HD	L	N	P
AMXE200S	434	96	217	434	530	410 H6	450
AMXE200L	434	96	217	434	635	410 H6	450