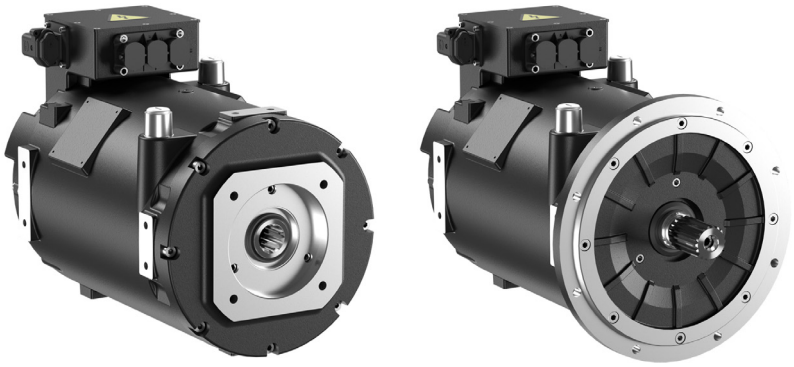
DATA SHEET

Motors for heavy electrical vehicles

AMXE132



Designed to meet your targets and your customers' demands

Partnering with ABB you will gain a trusted partner that offers proven e-powertrain products. This allows you to efficiently meet all the most important market demands, such as improved productivity, reduced TCO, increased uptime and improved operator environment.

Your electric vehicle partner
Efficient motors require a deep insight into design, manufacturing and integration. Motors are very different from internal combustions engines, and it is easy to underestimate the development challenges. In ABB, you have an experienced partner that will assist you from early simulations to aftermarket support. 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 motor'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 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 20 kW up to 250 kW
- Torque levels up to 600 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
AMXE132S	3GLX134183-*FA	360	57	100	2520	153	24	40	1500
	3GLX134184-*FA	360	75	129	3270	148	31	50	2000
	3GLX134185-*FA	360	94	160	4100	141	37	60	2500
	3GLX134186-*FA	360	113	198	5000	121	38	63	3000
	3GLX134187-*FA	360	151	258	5000	107	45	73	4000
AMXE132L	3GLX134583-*FA	600	94	161	2466	267	42	68	1500
	3GLX134584-*FA	600	126	215	3290	256	54	86	2000
	3GLX134585-*FA	600	157	258	3850	245	64	99	2500
	3GLX134586-*FA	600	188	321	4930	210	66	107	3000
	3GLX134587-*FA	600	251	432	5000	186	78	126	4000

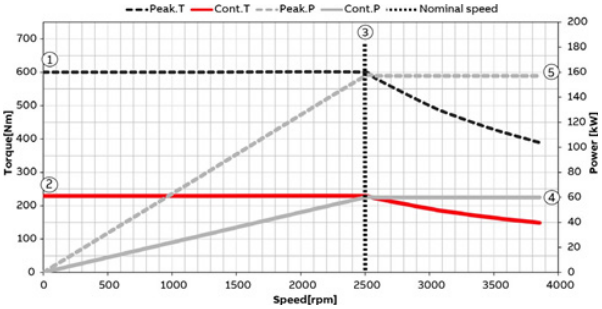
Specifications are valid with 500 Vac, coolant at 65˚C (inlet) and 50%/50% water and glycol mixture, 15 lpm and in 40˚C ambient temperature unless stated otherwise. Actual performance will vary with drive cycle, cooling and installation details. *B5 flange - 3GLX134x8x-BFA, B14 flange – 3GLX134x8x-CFA.

Motor specification

	Specification	AMXE132S	AMX132L
Operating conditions	Coolant mixture	Water with glycol (40-60%)	
	Coolant temperature	≤ 65 °C	
	Volume flow rate	5-25 lpm (nominal 15 lpm)	
	Pressure drop	80 mbar[1]	115 mbar[1]
	Operating ambient temperature	-20 °C to +40 °C	
	Max coolant pressure	3 bar	
Electrical and physical properties	Machine type	3-phase Permanent Magnet Synchronous Motor	
	Weight	~71 kg	~97 kg
	Inertia	0.0454 kg·m2	0.0730 kg·m2
	Max speed	5000 rpm	
	IP class	Up to IP6K9K	
	Shock loads	Up to 50 g (ISO 16750-3 .2.2)	
	Color	RAL 9005	
Interfaces	HV connection LV connection	Amphenol PowerLok 3POS X-coded Harting HAN Q 21 pins	
	Flange	SAE 6 (SAE J617) for B5 (IM 3001) SAE C (SAE J744) for B14 (IM 3601) (Or according to customer specification)	
	Shaft	W40 x 2 x 18 x 9g (DIN 5480) for B5 SAE C 14T 12/24 DP (ANSI B92.1b) for B14 (or acc. to customer specification)	
	Cooling connection	2 x G1/2" internal thread ports ISO 1179-1	
Options	Non-standard voltage or frequency	Variant code 209	
	Sea freight packing	Variant code 531	
	Shaft grounding	Variant code 588	
	Insulated bearing at N-end	Variant code 701	
	Insulated bearings at both ends	Variant code 702	
	PowerLok connector with HVIL	Variant code 847	
	Heavy duty resolver	Variant code 848	

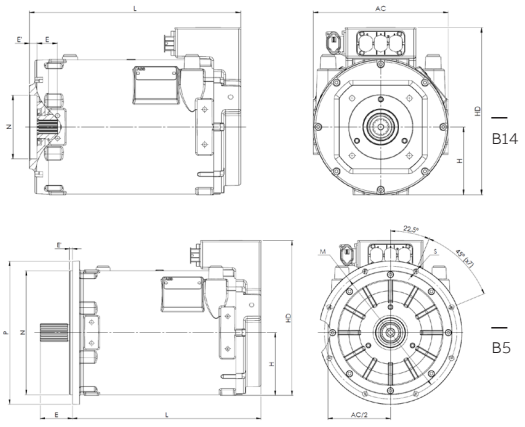
1) At 15 lpm, 65˚C (inlet) and 50%/50% water and glycol mixture.

Performance



1. Peak torque during 15s 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	AC	E	E'	H	HD	L	M	N	P
AMXE132S/B5	270	70	6.4	135	333	319	285.75	266.7 h6	309
AMXE132L/B5	270	70	6.4	135	333	407	285.75	266.7 h6	309
AMXE132S/B14	270	41	15	135	333	334	127 H7		
AMXE132L/B14	270	41	15	135	333	422	127 H7		

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