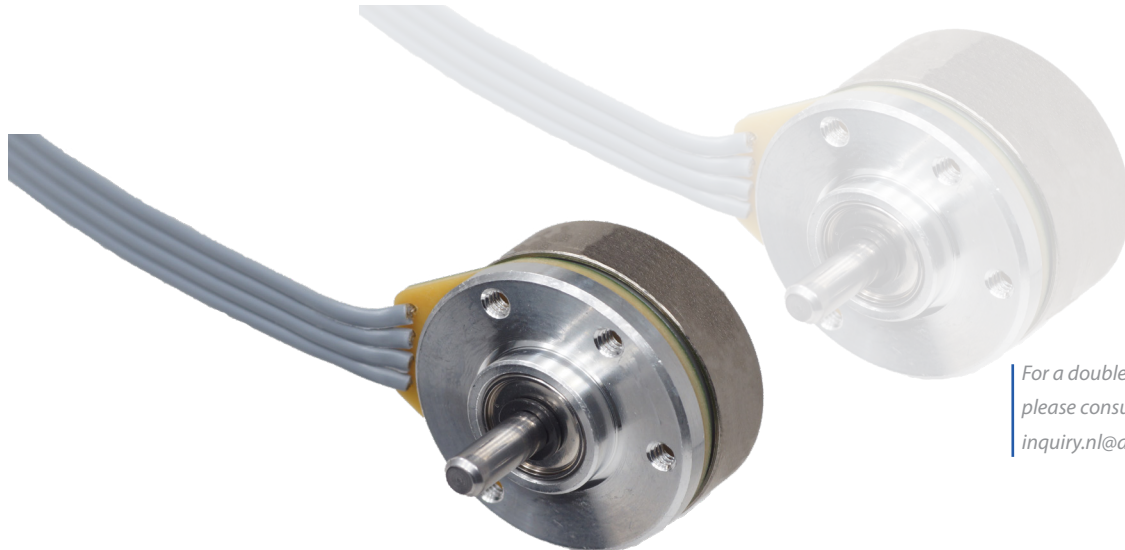


Brushless DC Motors

KinetiMax 21 EE Series

21 mm diameter, up to 2.2 mNm continuous torque, 2.1 Watts output power



For a double power version,
please consult us at
inquiry.nl@alliedmotion.com

The KinetiMax 21EE is an extremely compact brushless DC motor based on outer rotor technology.

This 3 phase brushless sensorless DC motor, comes with preloaded ball-bearings for precise and reliable rotation realizing a minimum operating life of 20,000 hours.

The KinetiMax 21EE is a spindle motor designed for applications where continuous speed is required in a small and compact size, such as: laser scanners, shutter-wheels, mixing devices, among others.

Features & Benefits

- 3 phase brushless sensorless DC motor
- Preloaded precision ball-bearings
- Outer rotor design with 6 pole-pair magnetizations
- Stator with 9 coils, 3-phase Y-configuration
- Flat cable connection (4 conductors) with TE Micro-MaTch connector

Options & Accessories

- Custom shaft
- Customized connections
- Customized winding
- Hall sensors
- Flex PCB

Typical Applications

- Barcode scanners
- Shutter wheels
- Mixing devices
- Pumps

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ÉLECTRONIQUE
Tel : +33 (0) 1 34 94 77 00
<https://alcyonelectronique.fr/>
commercial@alcyonelectronique.fr

Specifications

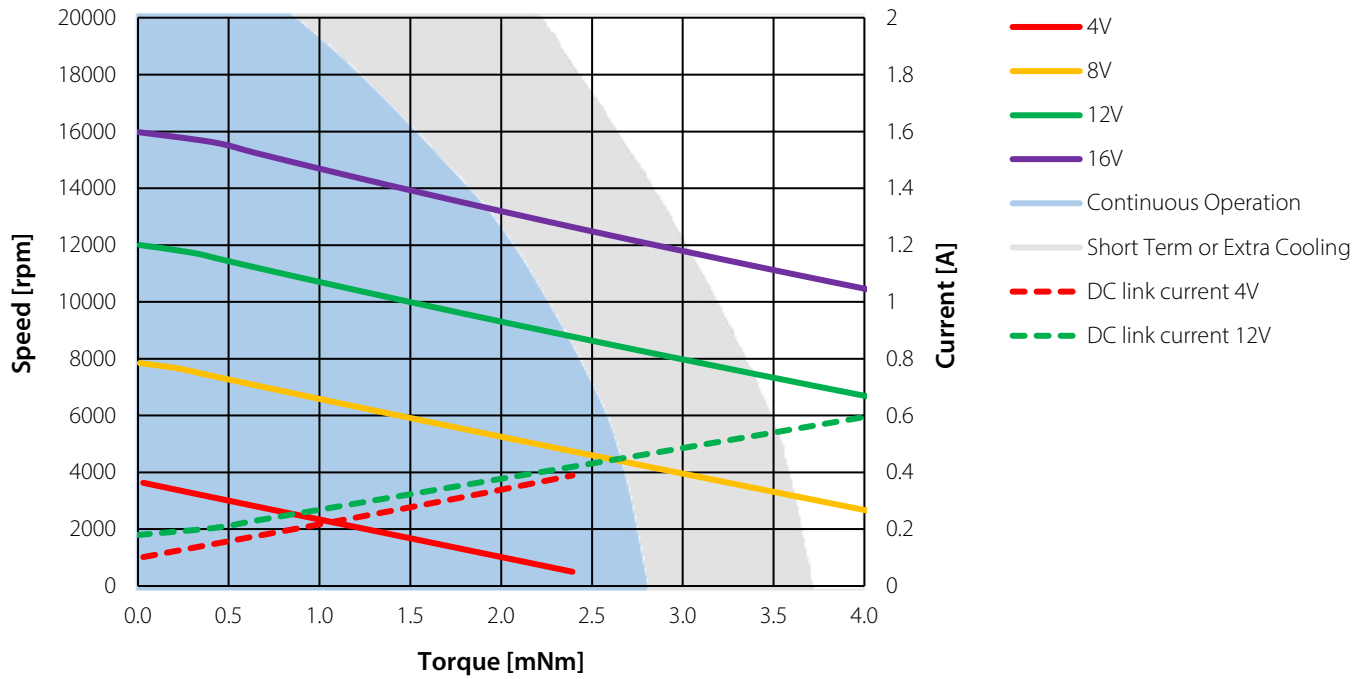
		4322 016 21001	4322 016 21011
Operating Voltage - Rated ¹	Volt	12	16
Output Power – Rated	Watt	2.1	1.1
Torque – Rated	mNm	2.2	
Speed – Rated	RPM	9000	4650
DC bus rated current	mA	380	175
Speed – No-load (@ operating voltage)	RPM	12000	7300
Current (no load) - Motor speed 3000/6000 [rpm]	mA	135	60
Rotor Inertia (x10 ⁻⁶)	kgm ²	0.53	
Max Winding Temperature	°C	130	
Thermal resistance from winding to ambient in free air @ standstill	K/W	56	
Thermal resistance from winding to ambient. with extra cooling ²	K/W	28	
Number of pole pairs		6	
Weight	g	16.7	
Max Continuous load torque (Tamb=22 [°C]) no heatsink	mNm	2.5	
Max Continuous load torque (Tamb=22 [°C]) with extra cooling ²	mNm	3.4	3.6
Back EMF (@3000 RPM terminal-to-terminal)	Volt RMS	1.9	4.3
Torque - Constant	mNm/A	9	19
Resistance (terminal-to-terminal)	mOhm	9.5	42
Inductance (terminal-to-terminal)	uH	0.9	4.4
Mechanical time constant	ms	65	
Max. axial force @ 6000 [rpm] on shaft towards flange	N	2	
Max. axial force @ 6000 [rpm] on shaft from flange	N	1	

⁽¹⁾ Motor performance without additional cooling, no heatsink

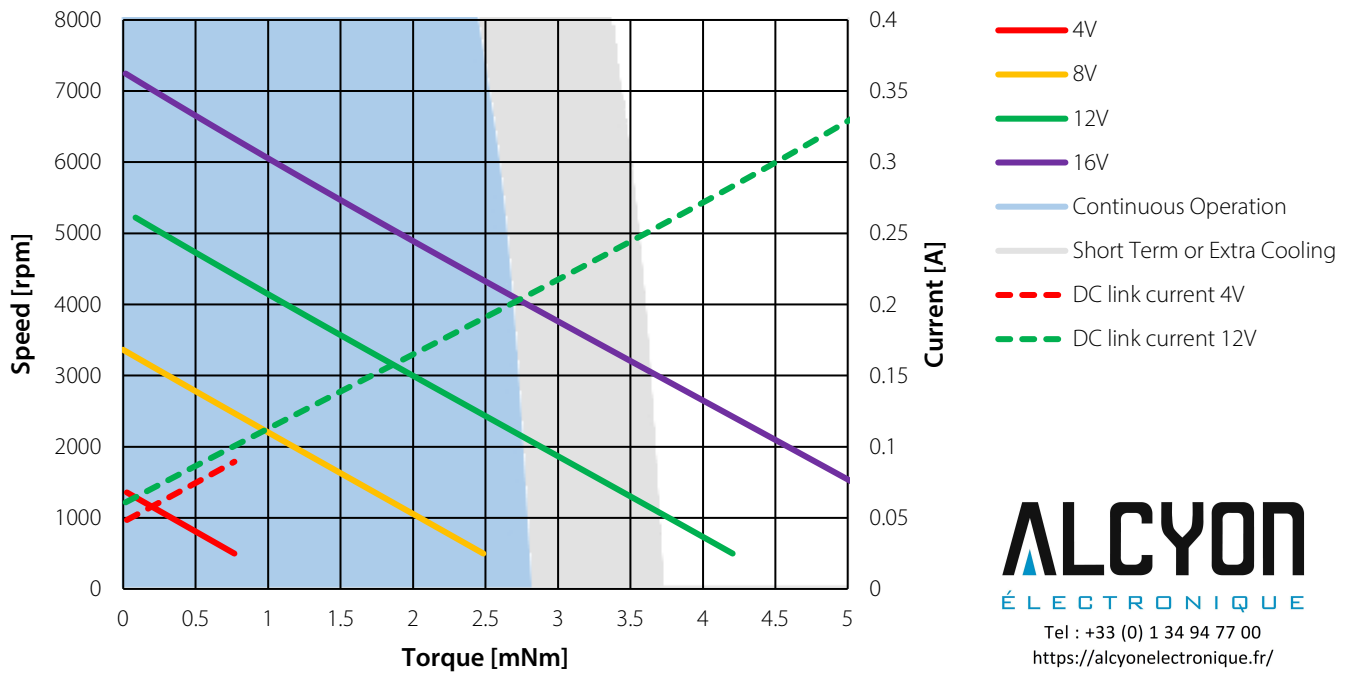
⁽²⁾ Extra cooling by mounting on heatsink or rotor rotating in free air

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<https://alcyonelectronique.fr/>
commercial@alcyonelectronique.fr

KinetiMax 21 EE 001 – Performance

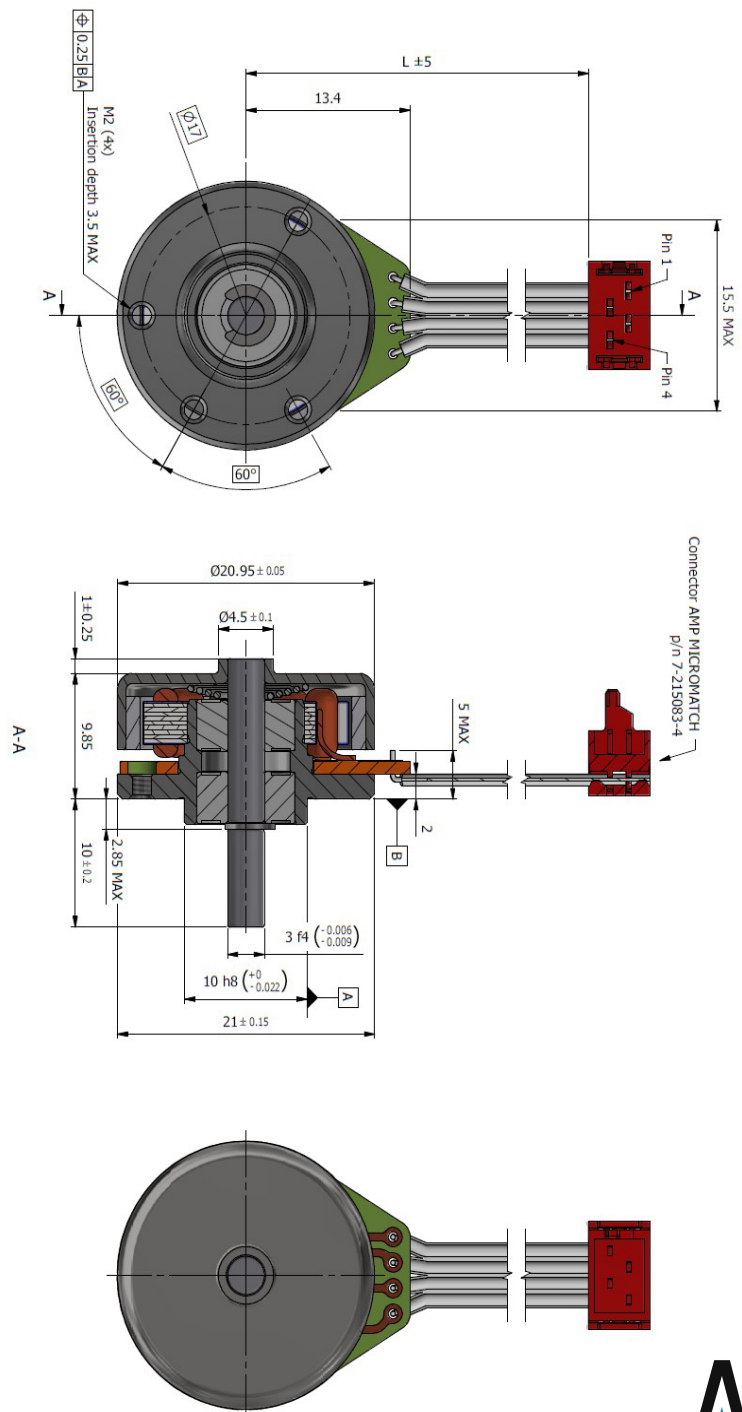


KinetiMax 21 EE 011 – Performance



ALCYON
 ÉLECTRONIQUE
 Tel : +33 (0) 1 34 94 77 00
<https://alcyonelectronique.fr/>
commercial@alcyonelectronique.fr

Dimensions (mm)



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 ÉLECTRONIQUE
 Tel : +33 (0) 1 34 94 77 00
<https://alcyonelectronique.fr/>
commercial@alcyonelectronique.fr