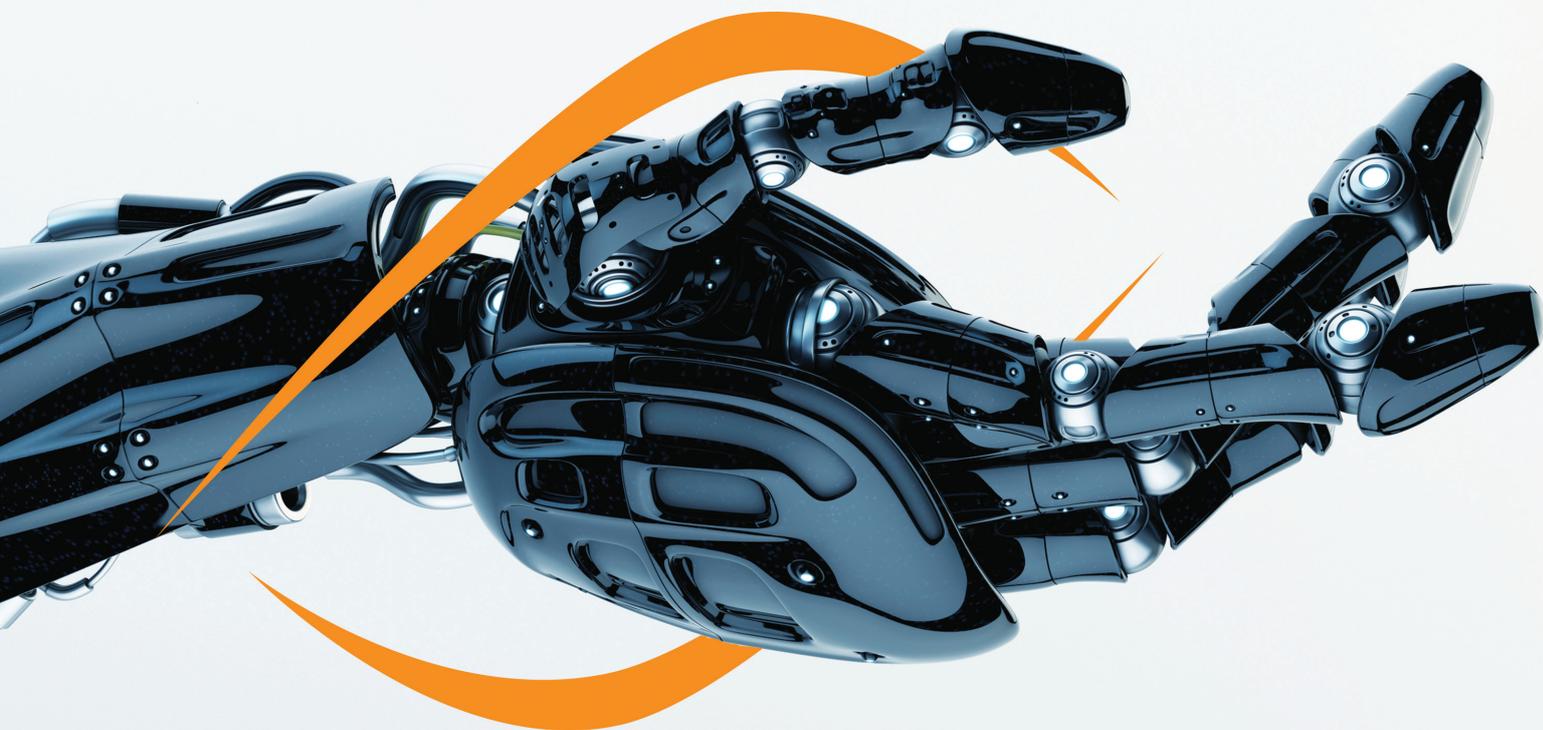
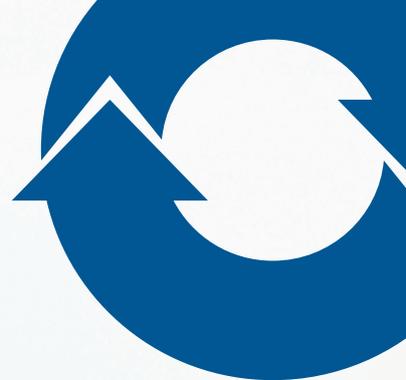


# KINETIMAX BRUSHLESS



## Brushless DC Motors with Integrated Drives

24 to 69 mm Diameter, 5 to 355 mNm Continuous Torque, 3 to 110 Watts Output



**Allied Motion**  
An **Allient** Company



450 Engineers Globally



Technology Know How Company



Innovate to Change the Game



Collaboration Enables Unique Solutions



Leverage Expertise to Solve Customers' Critical Problems



**Connecting What Matters.**

Allient (Allied Nexus Technologies) is a natural evolution of Allied Motion Technologies, building on the success of our well-defined growth strategy. We are a global company specializing in precision and customized products in the Motion, Controls, and Power Quality Industries.

Allient serves both end users and original equipment manufacturers (OEMs) across various industries, including Aerospace & Defense, Medical, Agriculture, Industrial, Vehicles, Electronics, and more.



Develops advanced motion control products and systems, both custom and standard, primarily for aerospace and defense, automation and robotics, medical, and vehicle markets.



For the complicated processes and services our clients utilize to be effective, they need to be easily guided. That's where Allient Controls comes in. Our team designs and manufactures innovative solutions that maximize industrial automation to make operating sophisticated systems simple and straightforward.



Power Quality is all about efficiently converting electrical power into useful work with minimal waste or loss. Allient Power is responsible for all that's connected, ensuring power's performance and efficiency are maximized to meet the needs of our customers' products and systems.



*Our focus is providing cutting-edge solutions and world-class technology that improve the lives of our customers and the industries they serve. Learn more about our commitment to serving you.*

# KINETIMAX BRUSHLESS DC

Motors with Integrated Drive



Allied Motion's KinetiMax series of brushless DC motors, along with the BL70, are brushless DC motors featuring integrated drive electronics. Available in six diameters with rated output power up to 110 W, these motors can be supplied with or without the electronics being integrated directly into the motor.

Featuring greater inertia and higher torque, which is inherent in outer-rotor designs, minimize cogging torque and maximize smoothness. High quality components ensure a reliable operating life of at least 20,000 hours.

## KEY FEATURES & BENEFITS

### Integrated Design:

Brushless DC motors with integrated drive electronics. Built with high-quality components, the KinetiMax 24 EB guarantees a minimum operating life of 20,000 hours.

### Tachometer Output:

Two-wire version is as simple to control as a DC motor. Four-wire version for speed monitoring with tachometer output (18 pulses per rev). Five-wire version (18 pulses per rev) adds direction input.

### Protection/Voltage Reversal:

IP-Rating level protection sealing. Motors includes reverse supply voltage protection, and thermal overload protection with automatic recovery.

### Low EMI Compliance:

Meets EN 55014-1/2, 61000-6-1/3 (KinetiMax) / EN 55011, EN 55022, EN 50082-1 (BL70) standards.

### Voltage Options:

6, 12, 24 or 42 VDC windings.

## OPTIONS & ACCESSORIES

### Customized Shaft/Mounting Flange:

Tailored to meet specific application requirements, including double shaft versions with front and back shafts.

### Custom Leads and Connector Configurations:

Adaptable to various electrical connections.

### Special Winding Configurations:

Optimized for specific performance characteristics.

### Encoder and/or Gearbox Integration:

Provides additional torque and speed options, precise position and speed feedback.

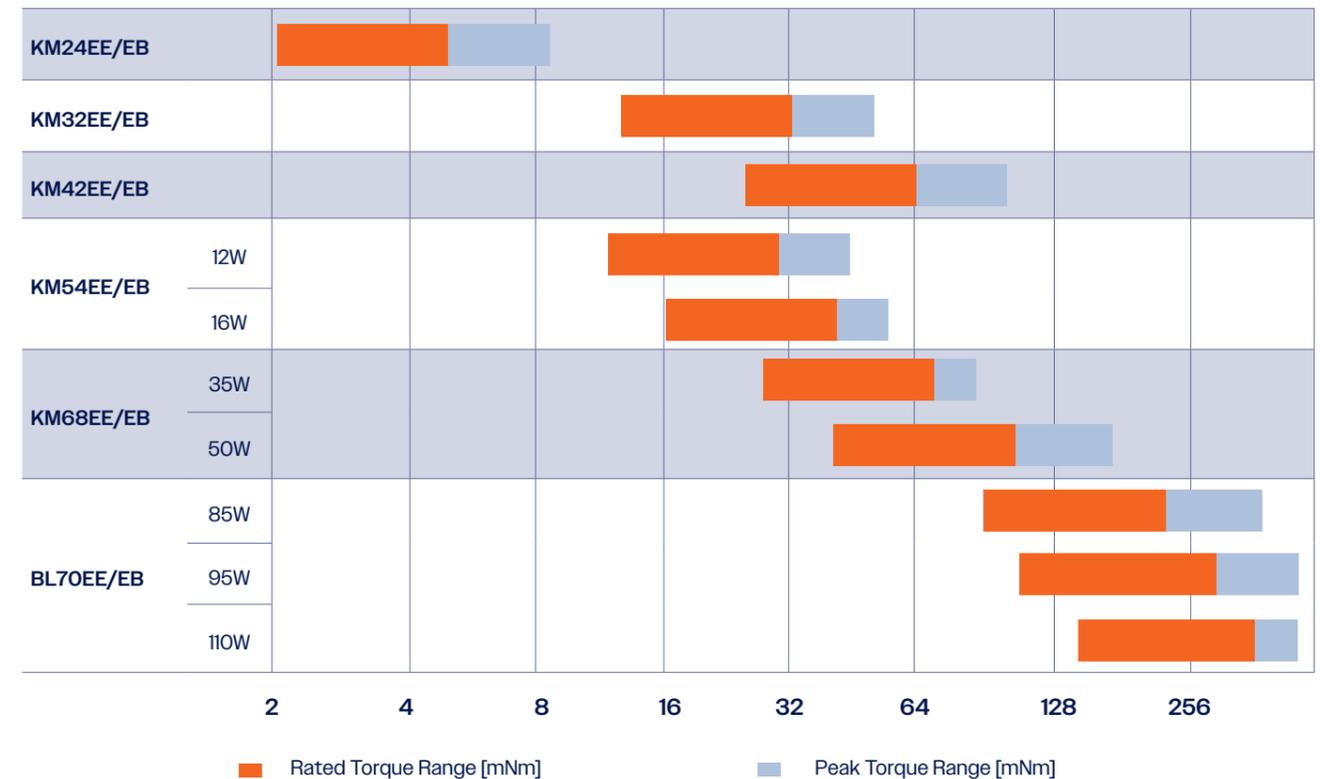
## APPLICATIONS

The KinetiMax Series motors are well-suited for a variety of high-performance applications:

### Including

- Agriculture Automated Guided Vehicles (AGVs)
- Actuators
- Conveyor Belt
- Document and Package Handling
- Small Pumps (membrane, gear, and peristaltic)
- Medical Equipment
- Small High-Performance Fans

## PERFORMANCE COMPARISON



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# KINETIMAX BRUSHLESS DC

Motors with Integrated Drives



## SPECIFICATIONS

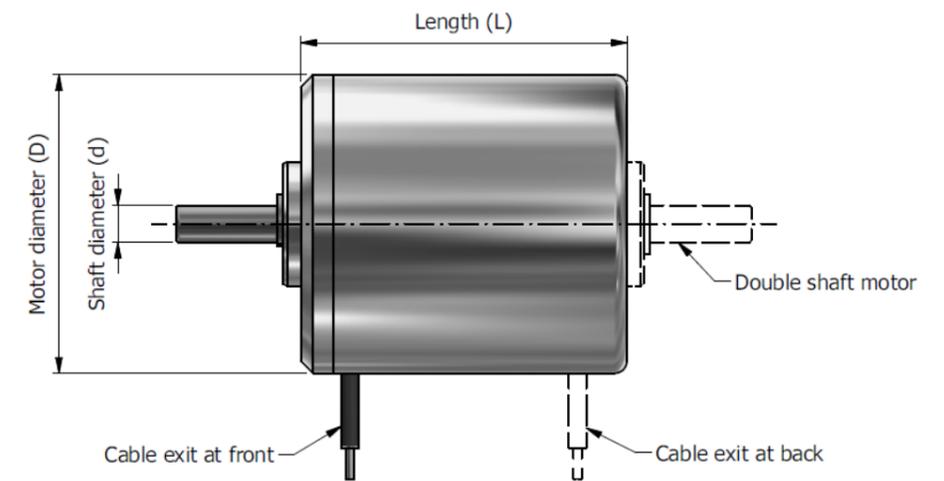
| Parameter                                | Symbol           | KM24EE/EB         | KM32EE/EB   |
|--|------------------|-------------------|-------------|
| Motor Voltage                            | Volt             | 6 - 24            | 12 - 24     |
| Rated Output Power                       | Watt             | 2.2 - 2.7         | 12-16       |
| Rated Speed                              | RPM              | 4300              | 4750        |
| Rated Torque                             | mNm              | 5 - 6             | 32          |
| Peak Torque                              | mNm              | 7 - 9             | 40 - 50     |
| Rated Current                            | A                | 0.23 - 0.75       | 0.92 - 1.42 |
| No load Speed (@ nominal supply voltage) | RPM              | 7150              | 6000        |
| Rotor Inertia                            | kgm <sup>2</sup> | 0.77              | 4.7         |
| Operating Temperature Range              | °C (°F)          | 0 - 90 (32 - 194) |             |
| Weight                                   | g                | 30                | 125         |
| Motor diameter (D)                       | mm               | 24                | 32          |
| Motor length (L)                         | mm               | 26.3              | 42.3        |
| IP-Rating                                | mm               | IP30              | IP54        |

| KM42EE/EB         |  | KM54EE/EB  |            | KM68EE/EB         |           | BL70EE/EB         |           |           |
|-------------------|--|------------|------------|-------------------|-----------|-------------------|-----------|-----------|
| 12 - 24           |  | 12 - 24    |            | 24                |           | 24 - 42           |           |           |
| 29 - 30           |  | 12         | 16         | 35                | 50        | 85                | 95        | 110       |
| 4300              |  | 3800       | 3900       | 3650              | 3750      | 3800              | 3200      | 3000      |
| 65 - 70           |  | 30         | 40         | 70                | 110 - 170 | 215               | 285       | 355       |
| 72 - 100          |  | 45         | 55         | 90                | 120 - 180 | 300 - 400         | 350 - 480 | 380 - 480 |
| 1.75 - 3.50       |  | 0.8 - 1.45 | 1.05 - 1.6 | 2                 | 3         | 2.7 - 4.3         | 3.2 - 5.0 | 3.6 - 5.5 |
| 5300              |  | 6200       | 6100       | 6000              |           | 4900              | 3950      | 3700      |
| 17.5              |  | 22         | 31         | 75                | 120       | 30                | 40        | 50        |
| 0 - 90 (32 - 194) |  |            |            | 0 - 70 (32 - 158) |           | 0 - 90 (32 - 194) |           |           |
| 225               |  | 200        | 250        | 450               | 550       | 1000              | 1300      | 1600      |
| 42                |  | 54         |            | 68                |           | 69                |           |           |
| 53.0              |  | 30.4       | 37.3       | 49.1              | 62.1      | 95                | 109       | 123       |
| IP54              |  |            |            | IP55              |           | IP67              |           |           |

## SERIES OPTIONS

|                       | KM24EE/EB | KM32EE/EB | KM42EE/2EB | KM54EE/EB | KM68EE/EB | BL70EE/EB |
|-----------------------|-----------|-----------|------------|-----------|-----------|-----------|
| Custom Shaft          | X         | X         | X          | X         | X         | X         |
| Custom Mounting Plate | X         | X         | X          | X         | X         | X         |
| Rear Shaft            | --        | X         | X          | --        | X         | --        |
| Encoder               | --        | X         | X          | --        | X         | --        |
| Gearbox               | --        | X         | X          | X         | X         | X         |

## DIMENSIONS

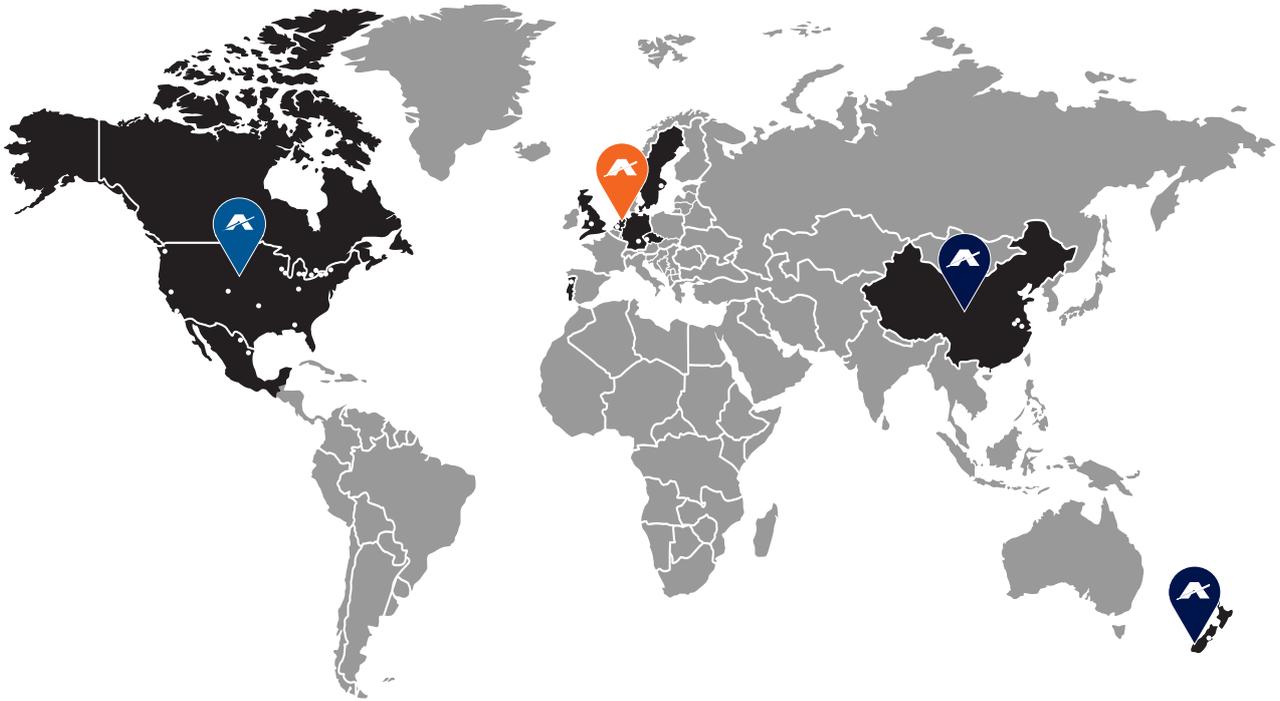


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## Global Presence & International Support



**Allient, Dordrecht NL is part of Allied Motion, An Allient Company.  
Headquartered in Buffalo, NY, USA.**

*With 17 locations worldwide, including 6 in Europe, Allied Motion designs, manufactures, and sells precision motion control components and systems.*

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