

# Brushless Servo Motor

BSM 100C-Series

- Up to 40% more torque per unit size than convention brushless motors
- High-energy magnets — for faster acceleration
- Premium multi-coated copper wire — for greater insulation protection
- Superior grease — provides up to 4 times longer life
- Double insulation system — including winding encapsulation for increased thermal efficiency
- UL / CSA / CE approved
- Stock and custom



Baldor's Brushless Servo Motors represent the industry's most durable, rugged design in a cost effective package. The BSM series will enhance your applications performance - they have quality built in - and they deliver reliability. Just look at the many design features built in.

Baldor's goal is to produce the best products - everything manufactured meets or exceeds the highest industry standards. Testing for performance is an integral part of the everyday process. Every motor receives a comprehensive test to ensure compliance.

Quality and reliability... excellence beyond industry standards... time proven product experience and superb service... technological improvements and innovations... these are just some examples of Baldor's commitment to provide you with reliable performance, while exceeding your expectations.

Team this up with unmatched worldwide customer support and service, and you get the best winning package available.

### Applications:

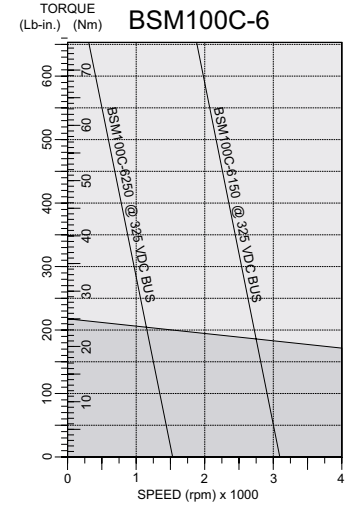
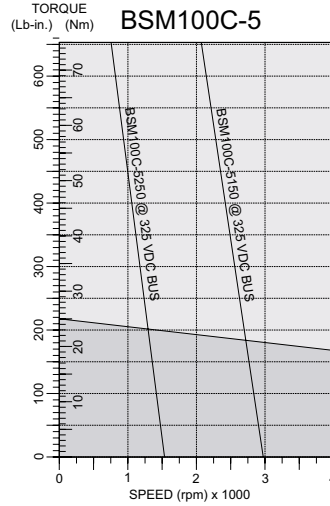
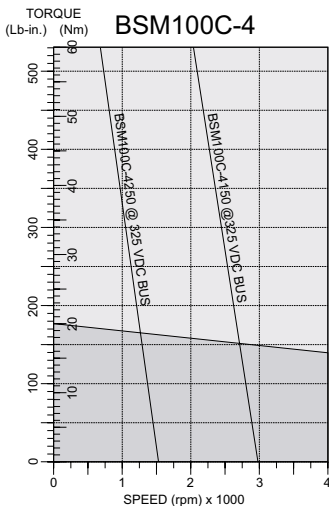
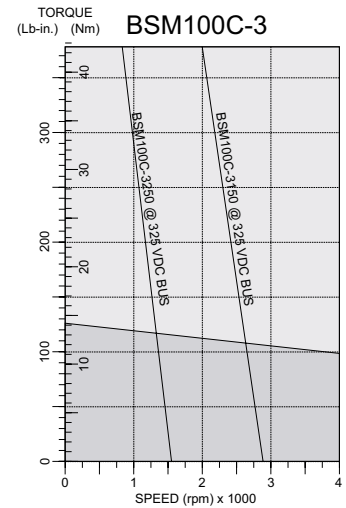
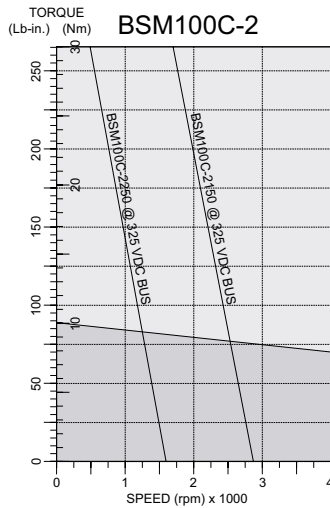
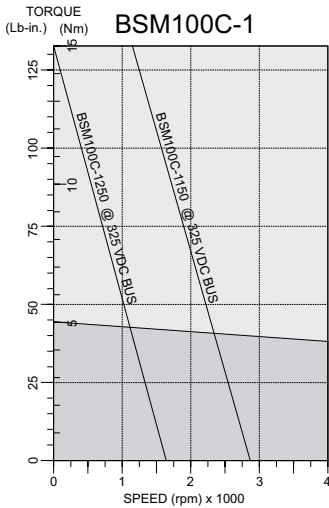
- Packaging
- Assembly
- Automation
- Labeling
- Cut-to-Length
- Food Packaging
- Converting
- Material Handling
- Moving Webs
- Indexers
- Laser Trimming

**Get the full value** — you get choices from Baldor, so the best technology possible is provided for your application; you get local knowledgeable technical support from Baldor, so you get solutions; you get instant delivery from Baldor’s wide selection of stocked products; and you get a time proven, reliable, quality designed product — with all of Baldor’s dependability backing it up!

**Brushless Servo Motor Design Characteristics**

| Component       | Feature - Benefit  |
|-----------------|--|
| Wire            | Premium 200°C moisture resistant, multi-coated copper wire —to improve your reliability            |
| Insulation      | UL rated for 130°C rise, and potted — to provide you with extra high insulation/safety protection. |
| Internal Switch | Thermal protection — to supply you with safeguards against overheating and overload conditions.    |
| Bearings        | Quality grade ball bearings — to provide you with dependability and long trouble free life.        |
| Grease          | Exxon Polyrex EX Polyurea — proven to give four times life, and greater shear force durability.    |
| Armature        | Time proven quality design — to supply superior performance for your application.                  |
| Magnets         | High energy — provides very high resistance to demagnetization, so the motor always performs.      |
| Feedback        | Resolver, encoder, absolute encoder — choices for your application.                                |
| UL/CSA/CE       | Agency approvals — proven design, proven quality, proven reliability.                              |

Continuous Operating Area
  Intermittent Operating Area



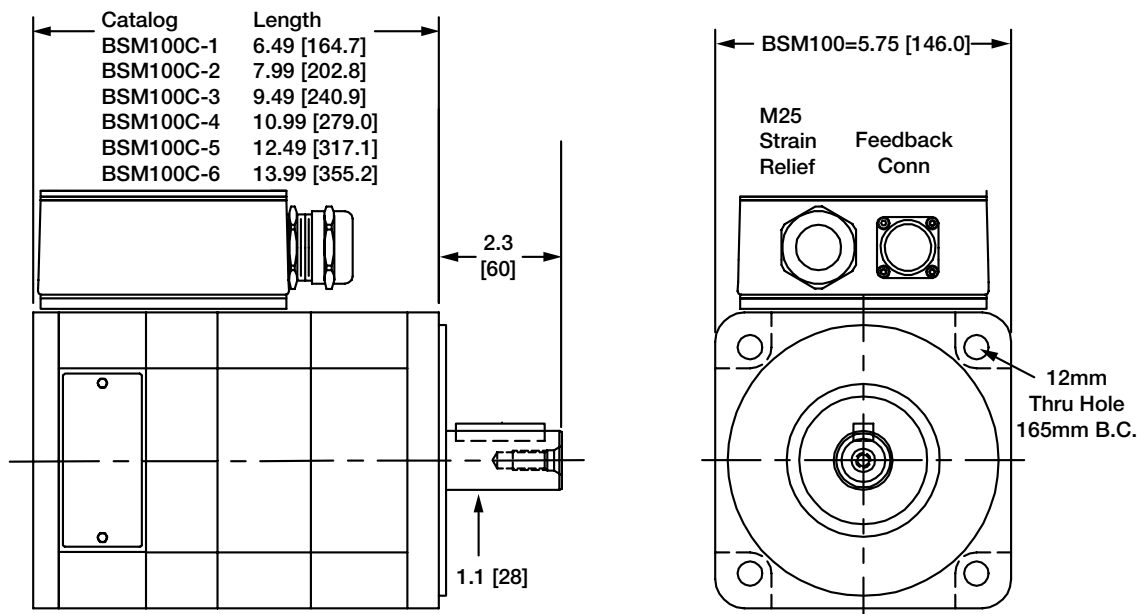
Note: Other windings, voltages, and speeds available. Contact your local distributor or Baldor office.

Improve your machine reliability and dependability with Baldor BSM servo motors. Over the years, and all over the world, Baldor BSM motors have been proven to handle harsh demanding industrial applications with ease. "Performance Match" these BSM servos with Baldor controls to improve your application speed and accuracy.

### Brushless Servo Motors — BSM100C-Series

| Cont. Stall Lb-In | Torque Nm | Cont. Stall Amps | Nom. Speed RPM | Nom. DC Bus Voltage | Motor Inertia        |                    | Motor Catalog (1) |
|-------------------|-----------|------------------|----------------|---------------------|----------------------|--------------------|-------------------|
|                   |           |                  |                |                     | Lb-In-S <sup>2</sup> | Kg-cm <sup>2</sup> |                   |
| 44.3              | 5         | 4                | 2400           | 300                 | 0.0063               | 7.1                | BSM100C-1150A*    |
|                   |           | 2.3              | 2400           | 600                 |                      |                    | BSM100C-1250A*    |
| 88.5              | 10        | 8                | 2400           | 300                 | 0.0126               | 14.23              | BSM100C-2150A*    |
|                   |           | 5                | 2400           | 600                 |                      |                    | BSM100C-2250A*    |
| 125.7             | 14.2      | 11.4             | 2400           | 300                 | 0.0189               | 21.34              | BSM100C-3150A*    |
|                   |           | 7                | 2400           | 600                 |                      |                    | BSM100C-3250A*    |
| 177               | 20        | 16.8             | 2400           | 300                 | 0.0252               | 28.45              | BSM100C-4150A*    |
|                   |           | 10.6             | 2400           | 600                 |                      |                    | BSM100C-4250A*    |
| 221               | 25        | 21               | 2400           | 300                 | 0.0315               | 35.56              | BSM100C-5150A*    |
|                   |           | 13               | 2400           | 600                 |                      |                    | BSM100C-5250A*    |
| 265               | 30        | 24               | 2400           | 300                 | 0.0378               | 42.68              | BSM100C-6150A*    |
|                   |           | 14               | 2400           | 600                 |                      |                    | BSM100C-6250A*    |

### Dimensions



**Notes:**

- 1) \*Indicates that customer must indicate type of feedback. Insert "A" for resolver, "F" for 2500ppr encoder. ie BSM100C-1150AA for resolver.
- 2) The standrd BSM series includes IEC mounting flange.
- 3) The BSM100 includes one threaded connector for feedback with termination of motor lead wires on terminal block.
- 4) Order feedback and power cables separately.
- 5) Contact Baldor for mechanical, electrical, windings, feedback, connections, other custom modifications/designs, and for detailed engineering drawings.

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Baldor's motors are hard at work, increasing productivity, quality, precision, while improving reliability and reducing cost in many applications—since 1983. They are used in the world's fastest machines, in world-wide industrial motion control applications and precision equipment.



Servo motors from Baldor are available from stock, for immediate delivery. Or have a custom motor designed to meet your exact requirements. Whether your application calls for custom mounting or special windings, Baldor can provide it. Baldor provides world wide acceptable NEMA & IEC mountings and electrical windings operating over a wide voltage range - 115, 230, 400/460. A wide variety of feedback devices and accessories are also available for your application.

### Other Baldor Products

#### Servo Controls -

- 23H, MicroFlex & FlexDrive<sup>II</sup>™ - Velocity/Torque Control
- Flex+Drive<sup>II</sup>® - 16 Preset Positions (expandable to 256)

#### Motion Controllers -

- MintDrive<sup>II</sup>® - Single Axis Programmable Drive
- NextMove - Multi-Axis Controllers
- All Motion Controllers are programmable with Baldor's easy to use multi-tasking Mint<sup>®</sup> language

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Local Distributor