

## C-Series Brushless Servo Motor

- 20-50% More Torque
- Smaller Package
- Affordable Solutions for Your Motion Requirements
- Broadest Line of Standard and Custom Designs
- Worldwide Acceptable Mountings -- IEC, NEMA and Custom
- Proven Quality, Reliability and Durability
- UL / CSA / CE approved



Baldor's Brushless Servo Motors provide excellent performance, and fast positioning. They represent the industry's most durable, rugged, and compact design in a cost effective package.

Baldor has a wide variety of servo motors, controls, motion controllers, and cabling ready for instant delivery. Or have a custom servo motor designed specifically for your needs.

The BSM series will enhance an application's reliability – these motors have been time proven for superior quality, high durability and long maintenance-free life. Team this up with unmatched worldwide customer support, and you get the best winning package available.

### Brushless Servo Motor Features

- Time proven quality rotor design
- High voltage insulation
- Proven reliable bearings
- Dust and moisture resistant
- High continuous rated operating temperature
- Environmentally rugged industrial construction
- Stock and custom shafts and mountings
- Over temperature protection thermal switch

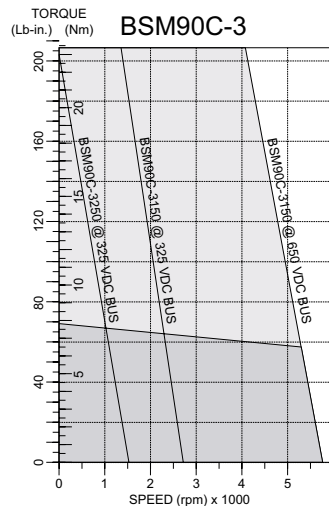
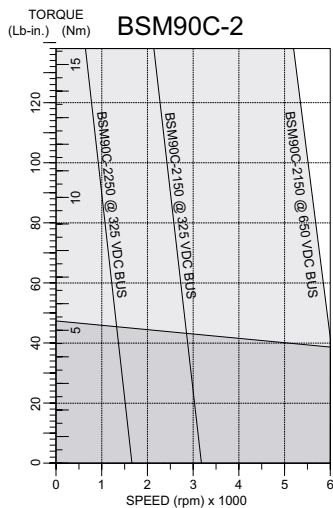
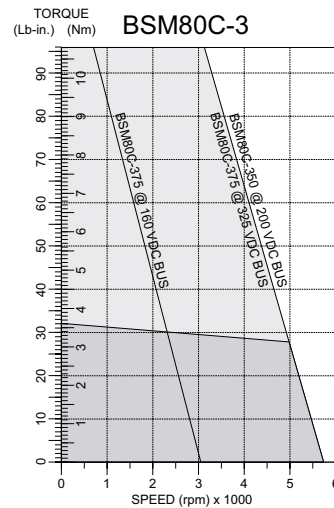
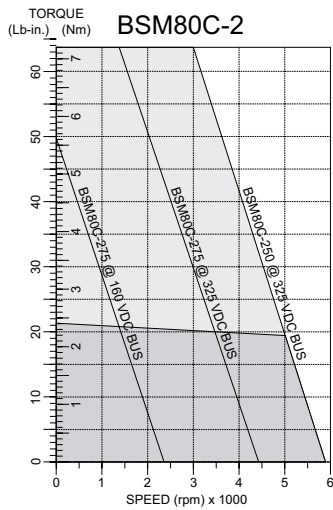


**More performance, smaller package, lower cost.** Lower your cost per torque, by using Baldor's C-series brushless servo motors. Over the years, Baldor has provided brushless servos for demanding applications. They handle harsh industrial environments with ease. "Performance Match" these BSM motors with Baldor controls to improve your applications speed and accuracy.

### 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.

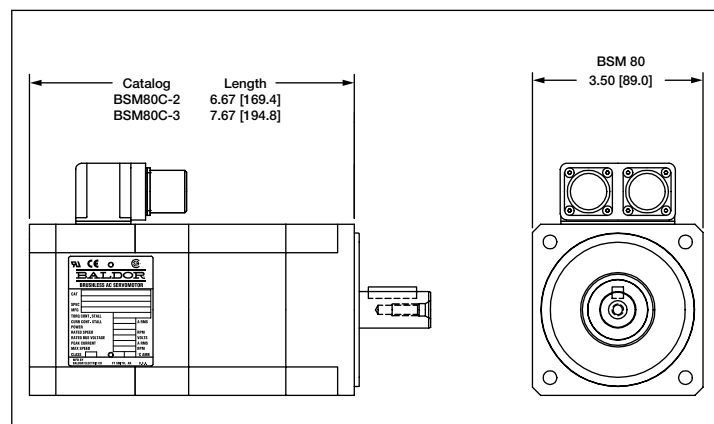
You get to choose from a wide selection of products. Get instant delivery from stock. Or have a custom product designed to your exact requirements.

### Brushless Servo Motors — BSM C-Series

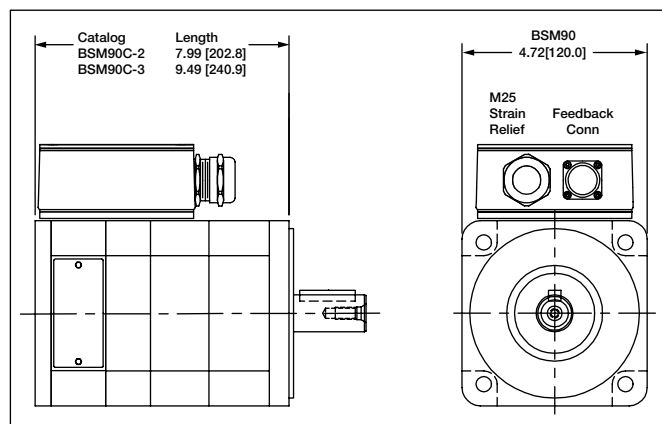
Cont. Stall Lb-In	Torque Nm	Cont. Stall Amps	Nom. Speed RPM	Nom. DC Bus Voltage	Motor Inertia		Motor Catalog (1)
					Lb-In-S <sup>2</sup>	Kg-cm <sup>2</sup>	
21.2	2.4	3.2	4000	300	0.0033	3.72	BSM80C-275A*
		5.2	6000	300			BSM80C-250A*
31.8	3.6	6.3	4000	300	0.0049	5.53	BSM80C-375A*
		7.8	4000	200			BSM80C-350A*
46	5.2	2.5	1200	300	0.0189	21.34	BSM90C-2250A*
		4.4	2000	300			BSM90C-2150A*
69	7.8	3.5	1200	300	0.0116	13.1	BSM90C-3250A*
		6	2000	300			BSM90C-3150A*

### Dimensions

#### BSM80 C-Series



#### BSM90 C-Series



#### IEC Mounting (mm/inch)

Motor Code	Shaft Dia.	Shaft Length	Mounting Holes and B.C.
BSM80	19/0.74	40/1.6	7mm thru holes on 100mm B.C.
BSM90	24/0.94	50/2.0	10mm thru holes on 130mm B.C.

#### NEMA Mounting (inch/mm)

Motor Code	Shaft Dia.	Shaft Length	Mounting Holes and B.C.
42	0.625/15	2.06/52	0.28" thru holes on 4.95" B.C.
56	0.625/15	2.06/52	0.28" thru holes on 5.875" B.C.

Notes:

- 1) \*Indicates that customer must indicate type of feedback. Insert "A" for resolver, "F" for 2500ppr encoder.
- 2) The standrd BSM series includes IEC mounting flange.
- 3) For NEMA mounting specify "8N" or "9N" (instead of 80 or 90) in catalog number, ie BSM8NC-275AA, BSM9NC-2150AA.
- 4) The BSM80 includes two threaded connectors for feedback and motor termination; the BSM90 includes one threaded connector for feedback with termination of motor lead wires on terminal block.
- 5) Order feedback and power cables separately.
- 6) Contact Baldor for mechanical, electrical, windings, feedback, connections, other custom modifications/designs, and for detailed engineering drawings.

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

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, such as:

- |                        |                          |                            |                           |
|------------------------|--------------------------|----------------------------|---------------------------|
| <b>moving webs</b>     | <b>labeling machines</b> | <b>textile equipment</b>   | <b>factory automation</b> |
| <b>software clutch</b> | <b>flying shear</b>      | <b>packaging</b>           | <b>X-Y tables</b>         |
| <b>cut-to-length</b>   | <b>indexers</b>          | <b>weaving</b>             | <b>laser trimming</b>     |
| <b>machine tool</b>    | <b>cut to length</b>     | <b>printing/converting</b> | <b>food packaging</b>     |
| <b>insertion</b>       | <b>flying probes</b>     | <b>capping machines</b>    | <b>marking/labeling</b>   |
| <b>registration</b>    | <b>robotics</b>          | <b>form/fill/seal</b>      | <b>electronic gearing</b> |
| <b>assembly</b>        | <b>material handling</b> | <b>specialty machinery</b> | <b>winding equipment</b>  |

Plus many, many other demanding applications.

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

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