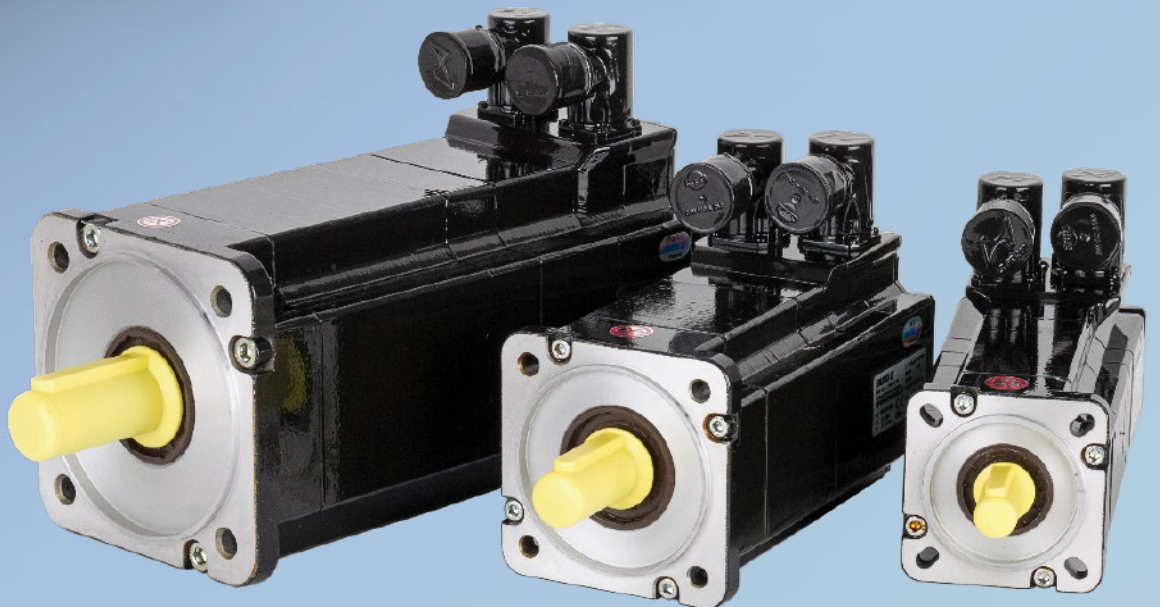




nummotors

NUM Group
A Trusted Partner for
Brand Label & OEM Motors



NUM [®]
CNC HighEnd Applications

Servomotor Highlights

Wide Standard Range in Different Series

Customized and Customer Specific Motors

Architecture

- Permanent magnet three-phase synchronous motor
- Neodymium-iron-boron (NdFeB) magnets

Strength

- Torque range from 0,5 up to 160 Nm (S1 continuous torque)
- Speed range from 1.500 to 6.000 rpm
- High degree of protection: up to IP67 as option
- Low cogging and ripple torque
- High overload capability
- H Class Insulation (180 °C) / F Class rated (155 °C)
- Temperature sensor KTY84-130
- Connectors rotatable for a full 270°
- (Right-angled M23 connector).

bhx

- Designed for cost sensitive applications
- Extremely compact
- High overload capability
- Impregnated, paint-free finish
- Protection degree: IP54 (shaft extension) / IP64 (frame)

bpx

- Designed for very demanding applications
- Even higher power density than the BHX; higher continuous torque for the same size motor
- High overload capability
- Optional increase of inertia for smoother operation
- High corrosion resistance coating
- Protection degree: IP67 (shaft extension) / IP67 (frame)

shx spx

Single cable motor technology

- Same motor range as BHX / BPX
- Encoder wiring becomes very easy
- Encoder cable completely eliminated
- Power cable simply has 2 extra shielded wires, connected using screw terminals on the drive
- Multiple savings include smaller cable chain dimensions, lower moving masses, reduced component costs and wiring, better reliability and improved EM immunity, ...

Customizing

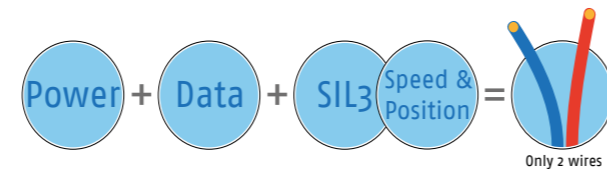
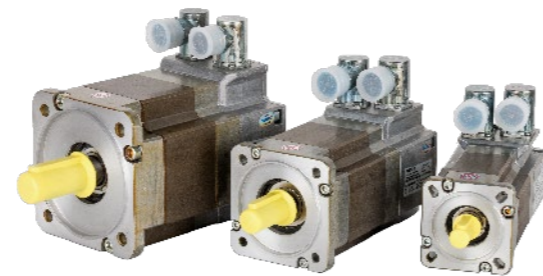
- Modifications of winding, flange, mechanics, etc.
- Customized and custom specific motors

Options

- Various range of encoder systems: High and medium resolution as single- and multi-turn encoders, resolvers, single cable solution
- Holding brake, permanent magnet brake
- Protection class up to IP 67
- Different inertia for optimal machine kinematics
- Shaft with and without key

Approbation

- CE, UL and cUL recognised



Technical specifications



BHX SHX	S1 standstill torque	S1 standstill current	S1 torque @ 3.000 rpm	max. DC bus voltage	rated speed	peak torque	peak current	max. mechanical speed	rotor inertia
	T ₀	I ₀	M	U	n	T _{pk}	I _{pk}	n _{max}	J
	[Nm]	[A]	[Nm]	[V _{dc}]	[rpm]	[Nm]	[A _{rms}]	[rpm]	[gm ²]
0751V5...	1.2	1.7	1.1	700	6000	4.3	7.8	6000	0.07
0752V5...	2.1	3.1	1.7	700	6000	7.8	12.4	6000	0.13
0951V5...	2.4	3.0	2.0	700	6000	7.5	12.4	6000	0.20
0952N5...	4.3	2.8	3.4	700	3000	14.5	11.2	6000	0.37
0952V5...	4.3	5.6	3.4	700	6000	14.5	22.4	6000	0.37
1261N5...	4.5	3.2	3.5	700	3000	13.0	12.8	6000	0.55
1261V5...	4.5	6.4	3.5	700	6000	13.0	25.6	6000	0.55
1262N5...	8.4	6.0	5.7	700	3000	27.0	24.0	6000	1.07
1262V5...	8.4	12.0	5.7	700	6000	27.0	48.0	6000	1.07
1263R5...	11.0	10.0	6.5	700	4500	37.0	40.0	4500	1.58
1552N5...	12.0	7.5	8.0	700	3000	39.0	30.0	4500	2.45
1552R5...	12.0	10.2	8.0	700	4500	39.0	48.0	4500	2.45
1554N5...	20.0	12.4	9.0	700	3000	69.0	49.6	4500	4.76



BPX SPX	S1 standstill torque	S1 standstill current	S1 torque @ 3.000 rpm	max. DC bus voltage	rated speed	peak torque	peak current	max. mechanical speed	rotor inertia
	T ₀	I ₀	M	U	n	T _{pk}	I _{pk}	n _{max}	J
	[Nm]	[A]	[Nm]	[V _{dc}]	[rpm]	[Nm]	[A _{rms}]	[rpm]	[gm ²]
0551V5...	0.5	0.7	0.48	700	6000	1.5	2.9	8000	0.006
0751V5...	1.4	2.0	1.2	700	6000	4.3	6.8	6000	0.07
0752V5...	2.3	3.4	1.8	700	6000	7.8	12.4	6000	0.13
0951V5...	2.7	3.4	2.1	700	6000	7.5	12.4	6000	0.2
0952N5...	5.0	3.3	3.4	700	3000	14.5	11.2	6000	0.37
0952V5...	5.0	6.6	3.4	700	6000	14.5	22.4	6000	0.37
1261N5...	5.2	3.7	3.5	700	3000	13.0	12.8	6000	0.55
1261V5...	5.2	7.4	3.5	700	6000	13.0	25.6	6000	0.55
1262N5...	9.8	7.0	5.7	700	3000	27.0	24.0	6000	1.07
1262V5...	9.8	14.0	5.7	700	6000	27.0	48.0	6000	1.07
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1552N5...	13.8	8.7	8.0	700	3000	39.0	30.0	4500	2.45
1552R5...	13.8	11.7	8.0	700	4500	39.0	48.0	4500	2.45
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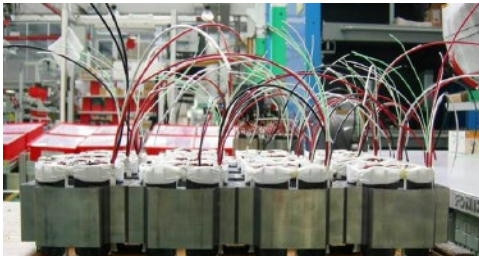
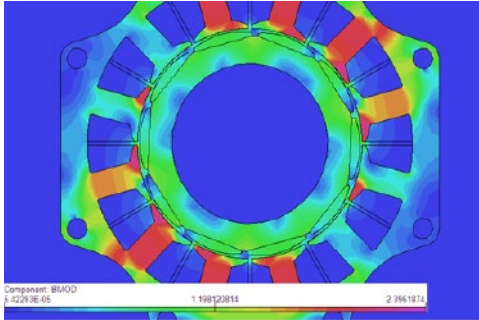
Customer specific motors

- Motor development and manufacturing is a core competency of the company NUM
- Development and production at one site
- Very fast engineering capability on customer request
- Minor customization of existing designs within 2 weeks
- Major customization of existing designs within 12 to 14 weeks
- Modification of mechanics, connection technology, winding
- Modifications already for small and medium volume 100% OEM Development
- The portfolio of customized motors includes servo and spindle motors, torque motors, design-in servo motors, high-speed motors (up to 25,000 rpm)



Motor Production Facility

Over 30 Years of Motor Engineering and Manufacturing Experience



Innovative engineering is key to the production of quality motors at NUM Group

- Long track record in servo and spindle motors
- Production and engineering know-how on mechanics as well as winding/magnet design
- Strong and wide standard product range, with thousands of specifications on hand
- Innovative motor design: conventional and concentrated winding technology
- State-of-the-art development tools for Finite Element Analysis and 3D mechanical design
- Specific know-how for high speed flux-weakened synchronous motors (for example: 250 Nm rated torque and max speed 10,000 rpm)



- Over 30 years of manufacturing experience
- Manufacturing site for all motors and drives for NUM Group, as well as for renowned OEM and private label customers
- XX.000 motor and drive axes produced per year
- More than 5000 different servo motor variants
- More than 2000 different spindle motor variants
- Custom made built-in synchronous and asynchronous spindles
- World-class service and on-time delivery
- Outstanding Quality record and full traceability of all products & parts
- Standard repair time of 2 working days (ex. works)
- Detailed report with each repair

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