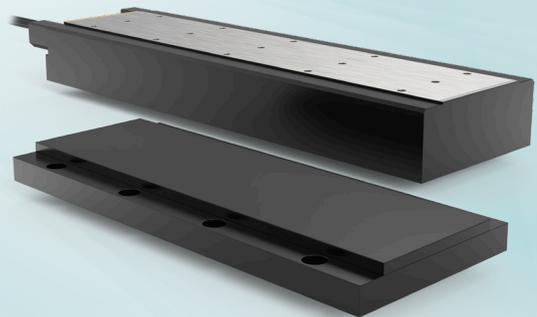
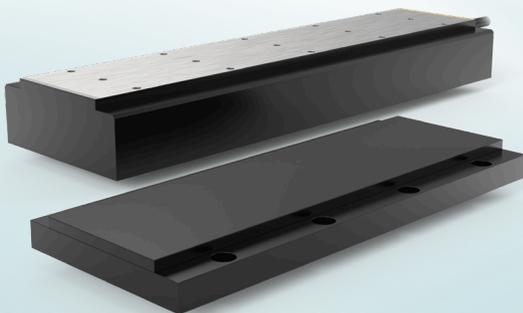


highly dynamic
high force density
easily modified

cyber[®] linear motor L3S & L3SK
air- & liquid-cooled brushless servo motors



cyber[®] linear motor L3S & L3SK

Air-cooled (L3S) and liquid-cooled (L3SK) flat linear motors

The WITTENSTEIN air cooled cyber[®] linear motors L3S and liquid-cooled linear motors L3SK are designed for highly dynamic applications. cyber[®] linear motors L3S and L3SK are three-phase, synchronous, linear iron core motors, which are supplied in the form of active parts (built-in motors). Their primary part is formed by a ferromagnetic stack, composed of laminations and a three-phase winding inserted into its slots. This primary part is excited by permanent magnets in the secondary part, which are placed in a standard, static arrangement and used as a magnet way.

Both the cyber[®] linear motor L3S and its liquid-cooled variant, the cyber[®] linear motor L3SK, offer some of the largest power ranges in the industry, with standard models delivering continuous rated force values ranging from 150 to 7,500 N for the cyber[®] linear motor L3S and 300 to 12,000 N for the cyber[®] linear motor L3SK, when using water as a cooling agent. Additionally, the air-cooled cyber[®] linear motor L3S series can be loaded with forces and currents substantially higher than those produced at nominal speeds. In comparison, the liquid-cooled cyber[®] linear motor L3SK has almost double the force and output power of its air-cooled counterpart (cyber[®] linear motor L3S), although the dimensions remain the same. Yet another advantage of the cyber[®] linear motor L3S is its ability to operate at higher ambient temperatures.

The modular design of both linear motor series supports a variety of options. In addition, WITTENSTEIN cyber motor can provide completely customized solutions. We offer custom winding systems designed for different force constants (from about 40 to 1,000 N/A) and high speed applications. WITTENSTEIN cyber motor can also provide winding systems and special insulation options for different intermediate circuit voltages (140 V, 330 V, 560 V, 700 V_{DC}). Our air cooled and liquid cooled linear motors can be engineered with increased IP rating. The position of outlet cables can be modified to fit specific application requirements as well*.

*Note: changing position of outlet cables may cause outer dimensions of motors to differ from those in the catalog.

Specifications

	Measuring Unit	cyber [®] linear motor L3S	cyber [®] linear motor L3SK
Peak Force F_{max}	N	400–15,750	400–15,750
Rated Speed v_{NC}	m/s	0–8	0–8
Continuous Force F_{NC} (IC410)	N	150–7,500	–
Continuous Force F_{WC} (ICW37)	N	–	300–12,000
Temperature Monitoring	–	PTC, PT1000, Thermoswitch	PTC, PT1000, Thermoswitch
Rated Bus Voltage V_{DC}	V	140, 330, 560, 700	140, 330, 560, 700
Certificate / Marks	–	CE	CE
Cooling	–	Air	Water**

**The standard cooling agent for WITTENSTEIN cyber[®] linear motor L3SK is water. However, different types of coolants (e.g. oils, antifreeze mixtures, etc.) with varying temperature ranges are available upon request.

Features

- Designed for highly dynamic applications
- High force overload capacity (L3S)
- High values of continuous force (L3SK)
- High quality production
- High precision assembly
- Long life and high operational reliability

Benefits

- Great positioning precision
- Highly customizable
- High force density
- Different winding options available

Typical applications

- Industrial automation
- CNC machines
- Production and assembly lines
- Test and simulation
- Optical devices
- Packaging



cyber[®] linear motor L3S



cyber[®] linear motor L3SK