Our Products... Your Advantage

Innovative Solutions From Lenze - AC Tech

- AC Variable Frequency Drives
- Electro Mechanical Drives
- Servo Drives & Motors
- Machine Automation
- Clutches & Brakes
Commitment to Value
Price leadership is serious business. It takes continuous life cycle management to make price leadership a sustainable strategy. We are always investigating techniques to improve efficiency and take advantage of the latest microprocessor and power module technology. When we achieve efficiency gains or material cost reductions, we pass those savings on to our customers. This simple philosophy has permitted us to build and maintain a very loyal customer base.

Commitment to Quality
At Lenze – AC Tech we believe so strongly in the quality of our products, that every Lenze-AC Tech product is backed with a two-year warranty. From the use of superior materials to process improvements through automation, each drive is built to out perform our own strict quality standards. And we support our products with expert training, knowledgeable sales representatives and experienced repair personnel.

Commitment to Innovation
We pride ourselves on delivering products to the market that are designed to meet specific customer needs. Our broad portfolio of innovative products covers very simple variable speed applications through complex motion control. Each product is positioned so that our customers pay only for the level of technology necessary for their particular application.

Commitment to Simplicity
One of the cornerstones of our design philosophy is to make our products simple to use. Technology only benefits the user if it can be easily understood and applied. Each product is designed to dramatically simplify installation, commissioning and operation for our customers.

Commitment to Performance
Each Lenze - AC Tech product is in a class by itself when it comes to performance. We are not satisfied with average performance. Our products do not reach the marketplace unless they outperform our competitors and exceed our strict performance requirements. By using the most innovative components, we are able to provide that performance for a great value.

Our Promise
At Lenze - AC Tech it is not good enough to deliver part of a promise. Our products deliver the entire package: Price Leadership, Quality, Innovation, Simplicity and Performance.
**Lenze – AC Tech** develops, manufactures, sells and supports a complete range of motion management products. Our portfolio includes general purpose variable frequency drives, an innovative servo amplifier line, sophisticated servo automation systems and robustly engineered gear motors and mechanical components.

**Lenze – AC Tech** is part of the Lenze AG group that has over 60 years of motion management history and employs over 3000 people worldwide. Combining forces has positioned us as leaders in global automation allowing us to influence and direct motion management on a grand scale.

24-Hour Worldwide Support

Our 800-217-9100 technical support line connects you with someone who can answer your questions; any day of the week; any time of the day.

Two Year Warranty

Every Lenze-AC Tech product is backed with a 2-year warranty.

Custom Products

Getting something custom built is just as easy as ordering off-the-shelf product, and you won’t pay an arm and a leg for it.

Inventory

Our large inventory of most models allows you to get the product you need, same day.

**www.Lenze-ACTech.com**

All the information you desire is available on our website. Easily navigate through the site and find training classes, product manuals, software downloads, catalogs and more.

We provide solutions that **improve machine performance**. Whether you desire a best-in-class component or a complete bundled solution, we specialize in servicing many industries including:

- Packaging
- Material Handling
- Conveyers
- Pumps and Fans
- HVAC
- Robotics
- Printing
- Electronics Manufacturing
- Lab Automation
- Automotive Processes
The most comprehensive line of VFDs.

From price to performance, Lenze – AC Tech offers you the broadest range of products for the best value.

- Universal Power Input
- V/Hz to Vector Performance
- Industrial Grade Enclosures
- Mainstream Protocols

Innovative servo drives and motors.

- Universal Power Input
- Torque, Velocity and Position Control
- Multiple Communication Options
- MotionView OnBoard

SMV Bundled Solution
VFD with Asynchronous Motor

Take the headache out of putting your components together. Ensure optimum performance when you combine Lenze – AC Tech drives with Lenze – AC Tech motors.

A true automation system. As applications become more complex, L-force is the solution that manages all drive and automation functions from one central location.
## Solution Overview

### Gearmotors

- Highest quality of geared motors.

### Clutch Brakes

- Electromagnetic and spring applied clutches and brakes.

### Software

- Innovative embedded software for PositionServo drive
- No need for software CDs or revision control
- The software is always there when you need it

### Servo Bundled Solutions

#### Servo with Asynchronous Motor
- G-motion Gear Motor
- PositionServo Servo Amplifier or Drive/controller

#### Servo with Synchronous Motor
- MCS Servo Motor with Planetary Gearbox
- PositionServo Servo Amplifier or Drive/controller

When looking for a true system solution, our engineers will partner with you every step of the way. Contact Lenze-AC Tech today to start your next project.
**AC Variable Frequency Drives**

Variable frequency inverters are used for electronic speed control of AC induction motors. Today frequency inverters are being used in applications ranging from replacing DC motor controls and soft starts to applications requiring sophisticated auto-tuning, fast dynamic torque response and low speed performance.

We offer a broad range of standard products for everything from simple to complex speed control; each being reliable, easy to commission and meeting the highest standards of quality.

<table>
<thead>
<tr>
<th>SMVector Series</th>
<th>Sub Micro Series</th>
<th>MC (Micro) Series</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operation Modes</strong></td>
<td>V/Hz (constant or variable)</td>
<td>V/Hz (constant or variable)</td>
</tr>
<tr>
<td></td>
<td>Enhanced V/Hz w/auto tuning</td>
<td>Enhanced V/Hz w/auto tuning</td>
</tr>
<tr>
<td></td>
<td>Open loop flux vector (speed or torque)</td>
<td></td>
</tr>
<tr>
<td><strong>Communication Options</strong></td>
<td>RS-485 (Modbus, Lecom) CANopen DeviceNet PROFIBUS</td>
<td>RS-485 (Modbus) DeviceNet</td>
</tr>
<tr>
<td><strong>Enclosures</strong></td>
<td>NEMA1 (IP31) NEMA 4X (IP65)</td>
<td>IP20</td>
</tr>
<tr>
<td><strong>Stainless Steel Option</strong></td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td><strong>Additional I/O Options</strong></td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>1000 Hz Output Option</strong></td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>PLC Functionality</strong></td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Keypad Commissioning and Maintenance</strong></td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>Removable Keypad</strong></td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>FREE PC Software for Setup and Maintenance</strong></td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>EPM</strong></td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

**EPM & EPM Programmer - OEM Magic**

All SMV, Sub Micro and PositionServo Series products offer OEMs the benefits of the EPM, a unique rugged memory chip that plugs directly into the drive, cutting programming time to minutes. An EPM programmer allows drive parameters to be instantly copied onto the chip. Once plugged into the drive, the EPM ensures the drive is ready to run with virtually no margin of error.
### Flexible Power Ranges

#### SMVector Series - Enclosed Vector Drives

<table>
<thead>
<tr>
<th>HP</th>
<th>SMVector NEMA 1</th>
<th>SMVector NEMA 4X</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 0.33 0.5 1 2 3 5 10 15 20 25 30 50 100 150 250</td>
<td>120V</td>
<td>120V</td>
</tr>
<tr>
<td></td>
<td>208/240V</td>
<td>208/240V</td>
</tr>
<tr>
<td></td>
<td>400/480V</td>
<td>400/480V</td>
</tr>
<tr>
<td></td>
<td>600V</td>
<td>600V</td>
</tr>
</tbody>
</table>

#### Sub Micro Series - IP 20 Inverter Drives

<table>
<thead>
<tr>
<th>HP</th>
<th>SCM</th>
<th>SCF/SCD</th>
<th>TCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 0.33 0.5 1 2 3 5 10 15 20 25 30 50 100 150 250</td>
<td>120V</td>
<td>208/240V</td>
<td>208/240V</td>
</tr>
<tr>
<td></td>
<td>208/240V</td>
<td>400/600V</td>
<td>400/480V</td>
</tr>
<tr>
<td></td>
<td>400/480V</td>
<td>600V</td>
<td>600V</td>
</tr>
</tbody>
</table>

#### MC (Micro) Series - Enclosed Inverter Drives

<table>
<thead>
<tr>
<th>HP</th>
<th>MC/MCH NEMA 1</th>
<th>MC/MCH NEMA 4/12</th>
<th>MC/MCH NEMA 4X</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 0.33 0.5 1 2 3 5 10 15 20 25 30 50 100 150 250</td>
<td>208/240V</td>
<td>208/240V</td>
<td>208/240V</td>
</tr>
<tr>
<td></td>
<td>400/480V</td>
<td>400/480V</td>
<td>400/480V</td>
</tr>
<tr>
<td></td>
<td>600V</td>
<td>600V</td>
<td>600V</td>
</tr>
</tbody>
</table>

### Choosing the Right VFD!

**SMVector**

Vector performance at a V/Hz price. SMVector is the right choice when looking for unparalleled performance with an intuitive user interface.

**Sub Micro**

The perfect IP20 solution to replace your mechanical variable speed, DC control or eddy-current drives.

**Micro**

An intelligent, versatile choice for harsh environments. Specify your next HVAC system (fan and blowers, centrifugal pumps, cooling towers) with confidence.
Bridging the gap between ease-of-use and high performance, our servo solutions can provide basic servo control in an easy-to-use package for the novice right on up to sophisticated machine control. We’re here to help you every step of the way from sizing and selection to start-up and programming assistance.

**PositionServo**

<table>
<thead>
<tr>
<th>Control</th>
<th>Velocity</th>
<th>Torque</th>
<th>Position Control</th>
<th>Electronic Gearing</th>
</tr>
</thead>
</table>

| Power                    | 120-480 VAC Input, Up to 7.5 kW Output |

**ECS Servo**

<table>
<thead>
<tr>
<th>Control</th>
<th>Velocity</th>
<th>Torque</th>
<th>Position Control</th>
<th>Electronic Gearing</th>
</tr>
</thead>
</table>

| Power                    | 0-770 VDC Input, Up to 14 kW Output |

**9400 L-Force Automation**

<table>
<thead>
<tr>
<th>Control</th>
<th>Velocity</th>
<th>Torque</th>
<th>Position Control</th>
<th>Electronic Gearing</th>
</tr>
</thead>
</table>

| Power                    | 200-480 VAC Input, Up to 350 kW Output |

<table>
<thead>
<tr>
<th>Communication Options</th>
<th>Ethernet TCP/IP Modbus</th>
<th>DeviceNet</th>
<th>Ethernet TCP/IP</th>
<th>DeviceNet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ethernet IP</td>
<td>CANopen</td>
<td>EtherCAT</td>
<td>CANopen</td>
</tr>
<tr>
<td></td>
<td>RS-485 Modbus</td>
<td>PROFIBUS DP</td>
<td>PROFIBUS</td>
<td>PROFIBUS DP</td>
</tr>
<tr>
<td></td>
<td>DeviceNet</td>
<td>Lcom - A/B (RS232)</td>
<td>Powerlink</td>
<td>L-force</td>
</tr>
<tr>
<td></td>
<td>CANopen</td>
<td>Interbus</td>
<td>Lenze Systembus (CAN)</td>
<td>Lenze Systembus (CAN)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inputs/Outputs Onboard</th>
<th>12 Digital Inputs</th>
<th>4 Digital Inputs</th>
<th>Stateline/Highline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 Digital Outputs</td>
<td>1 Digital Output</td>
<td>4/8 Digital Inputs</td>
</tr>
<tr>
<td></td>
<td>2 Analog Inputs</td>
<td>1 Analog Input</td>
<td>1/4 Digital Inputs</td>
</tr>
<tr>
<td></td>
<td>1 Analog Output</td>
<td></td>
<td>0/2 Analog Outputs</td>
</tr>
</tbody>
</table>

**EN954-1 Safety Compliance**

| YES Category 3 | YES Category 3 | YES Category 3 and 4 |

**Removable Keypad**

| NO | YES | YES |

**EPM**

| YES | NO | YES |

**FREE PC Setup and Programming Software**

| YES MotionView OnBoard | Basic Functionality GDC | Basic Functionality L-Force |

**Application Specific Optimal Software Solutions**

| NO | YES | YES |

**FREE Sizing Software**

| YES MotionMatch | NO | NO |
Flexible Power Ranges

<table>
<thead>
<tr>
<th>Servo Drives</th>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>50</th>
<th>100</th>
<th>200</th>
<th>400 kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>PositionServo 120/200/240V</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>PositionServo 240/480V</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>ECS 0-770VDC</td>
<td></td>
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<td></td>
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<tr>
<td>L-force 9400 Single Drive 200/240/480V</td>
<td></td>
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<tr>
<td>L-force 9400 Multi Drive 200/240/480V</td>
<td></td>
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<tr>
<td>L-force 9400 Single Drive 400/480V</td>
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</tbody>
</table>

Bundled Servo Solutions
Asynchronous (Inverter) and Synchronous (Servo)

Take the headache out of putting it all together:
All of Lenze - AC Tech servos can be easily paired with Lenze - AC Tech servo motors.

SERVO + CABLE + MOTOR = COMPLETE SOLUTION

MCS and MAS Servo Motors

MCS
- Up to 5 kW
- 240/480 VAC Input
- Resolver or Encoder Feedback
- Up to 8500 RPM
- Intercontec Connectors
- Optional Gearing Available

MAS
- Up to 1 kW
- 120/240 VAC Input
- Encoder Feedback
- Up to 4500 RPM
- Economical, Flying Leads

Choose the Right Servo!

PositionServo
Simple, yet sophisticated, the PositionServo can tackle most applications with ease. With multiple communication options and the latest Ethernet technology, the PositionServo should solve most applications.

ECS
When you need to operate with DC voltage or coordinate multiple axes the ECS is the drive for you. It is optimized for highly dynamic multi-axis applications, such as those required in handling devices or packaging machines.

L-force
Known for innovative modularity and extremely high power, the 9400 can tackle the most difficult machine operations. Many safety standards are built-in to offer total machine control.
G-Motion Innovative Geared Motors

Rugged and versatile, G-Motion geared motors cover all standard gearbox designs and provide multiple input and output options for maximum user flexibility. The wide range of gearbox ratios makes it possible to obtain even the most exacting of machine specifications.

G-Motion
- 0.06 – 45kW (0.08 - 60HP) power
- Space-saving designs
- Wide range of speed ratios
- Multiple input and output options
- 2-year warranty

Gearbox Types:
- Helical gearboxes
- Shaft-mounted helical gearboxes
- Bevel gearboxes
- Helical-bevel gearboxes
- Helical-worm gearboxes
- Servo planetary gearboxes

A System Solution
Pair your G-Motion geared motor with any of the Lenze-AC Tech Servo or VFD drives for the ultimate in system dynamic performance, positioning accuracy and robustness.
**G-Motion Mechanical Products**

### G-motion Geared Motor

**Helical geared motor GST**
- 0.06 - 45 kW (0.08 - 60 Hp)
- Up to 6000 Nm (4428 Ft-lbs)

**Shaft-mounted helical geared motors GFL**
- 0.12 - 45 kW (0.16 - 60 Hp)
- Up to 11300 Nm (8340 Ft-lbs)

**Bevel geared motors GKR**
- 0.06 - 7.5 kW (0.08 - 10.0 Hp)
- Up to 450 Nm (332 Ft-lbs)

**Helical-bevel geared motor GKS**
- 0.12 - 45 kW (0.16 - 60 Hp)
- Up to 11800 Nm (8708 Ft-lbs)

**Helical-worm geared motors GSS**
- 0.12 - 15 kW (0.16 - 20 Hp)
- Up to 1250 Nm (923 Ft-lbs)

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**G-Motion Construction**

**MODULAR:** You will scarcely notice a G-Motion gear motor in operation. Whether in a construction crane or home elevator system – the unparalleled ability of our gears to adapt to the machine parameters produces impressively little noise output. This is made possible by a modular gearbox system.

**SPACE SAVING:** Virtually everything you could want in a gearbox system, G-Motion’s space-saving designs offer optimized profiles of the gear teeth and ground gears providing low noise operation and low backlash.

**EFFICIENT:** Standard G-motion motors are designed to conform to IP55 and satisfy the requirements for efficiency class EFF 2. Insulation to thermal class F (usage in accordance with class B) and the integral temperature sensors mean the motors are ideally suited to frequency inverter operation.

**SUPERIOR:** G-motion geared motors renowned for their high quality standards, benefit your machines and systems throughout their entire life cycle.
Positioning our Customers for Success. We take our Customer’s requirements seriously. A new application is an opportunity to test, prove and expand our drive’s capabilities while solving our Customer’s motion control needs.”

Customer Service has always been and will always be our number one commitment. Our success depends on it.

Driving design technology forward means we never stop thinking about process improvements. Did we deliver a quality product to market that meets the Customer’s needs? That is the key.

Innovation takes art and skill to combine what’s new and what’s proven to produce a product with exceptional form, fit and function.

Industrial Drives and Controls... That’s All We Do!

A Global Drives Company

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