

**SIEMENS**



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# SINAMICS and SIMOTICS

Low-voltage drives and motors line card

Answers for industry.

# SINAMICS low-voltage — general purpose drives

Common applications such as pumps, fans, compressors and conveyors

General purpose AC drives — open	General purpose AC drives — enclosed
<p><b>MICROMASTER 420</b></p> <ul style="list-style-type: none"> <li>Family of single- and three-phase drives for industrial motor control</li> <li>200–240V 1-phase, 0.16–4 hp</li> <li>200–240V 3-phase, 0.16–7.5 hp</li> <li>380–480V 3-phase, 0.5–15 hp</li> </ul>	<p><b>SINAMICS G110D</b></p> <ul style="list-style-type: none"> <li>Distributed drive</li> <li>380–500V 3-phase, 1 to 10 hp</li> <li>IP65 watertight enclosure</li> <li>Disconnect and local remote switch</li> <li>V/Hz</li> </ul>
<p><b>MICROMASTER 430 / 440</b></p> <ul style="list-style-type: none"> <li>Family of single- and three-phase drives for industrial motor control</li> <li>200–240V 1-phase, 0.16–4 hp</li> <li>200–240V 3-phase, 7.5–75 hp</li> <li>380–480V 3-phase, 0.5–350 hp</li> <li>500–600V 3-phase, 2–120 hp</li> <li>V/Hz, vector (with and without encoder)</li> </ul>	<p><b>SINAMICS G120D</b></p> <ul style="list-style-type: none"> <li>Distributed drive</li> <li>380–500V 3-phase, 1 to 10 hp</li> <li>IP65 watertight enclosure</li> <li>Disconnect and local remote switch</li> <li>V/Hz, vector</li> <li>Safety Integrated — STO, SS1, SLS</li> </ul>
<p><b>SINAMICS V20</b></p> <ul style="list-style-type: none"> <li>The perfect drive solution for basic applications (pumps, fans, compressors, conveyors)</li> <li>480V 3-phase, 0.5–20 hp</li> <li>230V 1-phase, 0.16–4 hp</li> <li>V/f, V2/f, FCC, V/f multi-point</li> <li>Optional parameter loader</li> <li>Through-the-wall and side-by-side mounting</li> </ul>	<p><b>SINAMICS G120P</b></p> <ul style="list-style-type: none"> <li>Pump and fan drive</li> <li>Optimized power efficiency</li> <li>380–480V 3-phase, 0.5–125 hp</li> <li>V/Hz and sensorless vector</li> <li>IP55 / UL Type 12</li> </ul>
<p><b>SINAMICS G120C</b></p> <ul style="list-style-type: none"> <li>For three-phase applications such as conveyor belts, material transport, pumps, fans and machine tools</li> <li>380–480V 3-phase, 0.75–25 hp</li> <li>V/Hz and sensorless vector</li> <li>Safety Integrated — STO</li> </ul>	<p><b>SINAMICS G120E</b></p> <ul style="list-style-type: none"> <li>NEMA 1 and 12 Enclosures</li> <li>460–480V 3-phase, 1–200 hp</li> <li>6- or 18-pulse, or efficient infeed</li> <li>UL listing — standard</li> <li>G120 modular power modules</li> <li>Standard input circuit breaker, control power transformer and IOP operator interface</li> <li>Safety Integrated — basic and extended</li> </ul>
<p><b>SINAMICS G120 Modular</b></p> <ul style="list-style-type: none"> <li>Modular design concept</li> <li>Regenerative power module option</li> <li>380–480V 3-phase, 0.5–400 hp</li> <li>500–690V 3-phase, 15–75 hp (non UL)</li> <li>V/Hz, vector and sensorless vector</li> <li>Safety Integrated - STO, SS1, SLS, SMS, SD1, Safe Break</li> </ul>	<p><b>SINAMICS G150-C</b></p> <ul style="list-style-type: none"> <li>NEMA 1 and 12 Enclosures</li> <li>380–480V 3-phase, 150–800 hp</li> <li>500–600V 3-phase, 150–800 hp</li> <li>AOP30 operator interface standard</li> <li>CU320-2 with Profibus standard</li> <li>CE mark; optional UL listing</li> <li>IEC design available</li> </ul>
<p><b>SINAMICS G130</b></p> <ul style="list-style-type: none"> <li>Modular design concept</li> <li>Regenerative power module option</li> <li>380–480V 3-phase, 0.5–400 hp</li> <li>500–690V 3-phase, 15–75 hp (non UL)</li> <li>V/Hz, vector and sensorless vector</li> <li>Safety Integrated — STO, SS1, SLS, SMS, SD1, Safe Break</li> </ul>	<p><b>SINAMICS G150-A</b></p> <ul style="list-style-type: none"> <li>NEMA 1 and 12 enclosures</li> <li>380–480V 3-phase, 150–800 hp</li> <li>500–600V 3-phase, 150–800 hp</li> <li>Input circuit breaker standard</li> <li>Input reactor standard</li> <li>AOP30 operator interface standard</li> <li>CU320-2 with Profibus standard</li> <li>Safety Integrated — basic and extended</li> <li>CE mark; optional UL listing</li> <li>IEC design available</li> </ul>

# SINAMICS low-voltage — high performance drives

Demanding applications such as centrifuges, extruders, metal processing and forming, motion control and test stands

High-performance drives — open		High-performance drives — enclosed	
<p><b>SINAMICS S110 AC / AC</b></p> <ul style="list-style-type: none"> <li>Single-axis positioning drive</li> <li>200–240V 1-phase, 0.16–0.75 hp</li> <li>380–480V 3-phase, 0.5–100 hp</li> <li>Basic positioning tasks</li> <li>Servo control</li> <li>Safety Integrated — STO, SS1, SBC, SS1, SS2, SOS, SLS, SSM, SDI</li> </ul>		<p><b>SINAMICS S150 AC / AC</b></p> <ul style="list-style-type: none"> <li>Single drives for test bays, cutters, centrifuges, conveyor belts and presses</li> <li>380–480V 3-phase, 150–1000 hp</li> <li>500–690V 3-phase, 75–1250 hp</li> <li>Active line module (standard)</li> <li>Four quadrant operation (standard)</li> <li>Safety Integrated — STO, SS1, basic and extended</li> </ul>	
<p><b>SINAMICS S120 AC / AC</b></p> <ul style="list-style-type: none"> <li>Single-axis performance drive</li> <li>200–240V 1-phase, 0.16–0.75 hp</li> <li>380–480V 3-phase, 0.5–400 hp</li> <li>Motion control and positioning tasks</li> <li>Vector, servo, V/Hz control</li> <li>Safety Integrated — STO, SS1, SBC, SS1, SS2, SOS, SLS, SSM, SDI</li> </ul>			
<p><b>SINAMICS S120 DC / AC</b></p> <ul style="list-style-type: none"> <li>Common DC bus drive system</li> <li>Air-cooled, external air-cooled, liquid cooled</li> <li>380–480V 3-phase, 1.0–1150 hp</li> <li>500–690V 3-phase, 75–1250 hp</li> <li>Regenerative and active infeeds</li> <li>Motion control and positioning tasks</li> <li>Vector, servo, V/Hz control</li> <li>Safety Integrated — STO, SS1, SBC, SS1, SS2, SOS, SLS, SSM, SDI</li> </ul>		<p><b>SINAMICS S120CM DC / AC</b></p> <ul style="list-style-type: none"> <li>Modular cabinet system for multi-motor drives with a common DC bus bar.</li> <li>Typical applications include paper machines, rolling mills, test stands and hoisting gear.</li> <li>380–480V 3-phase, 150–4000 hp</li> <li>500–690V 3-phase, 75–5000 hp</li> <li>Line-ups consist of line connection module, line modules and motor modules.</li> <li>Basic, regenerative and active infeeds</li> <li>CE mark; optional UL listing</li> <li>Safety Integrated — basic and extended</li> </ul>	
High-performance DC drive solutions			
<p><b>SINAMICS DCM</b></p> <ul style="list-style-type: none"> <li>Combines the strength of the SIMOREG 6RA70 with that of the SINAMICS drives</li> <li>Supply of both the armature and the field</li> <li>Two-quadrant, non-regen 400–950V AC (485–1140V DC) 60–3000A IEC</li> <li>Four-quadrant, regen 400–950V AC (485–1000V DC) 15–3000A (IEC)</li> </ul>		<p><b>SINAMICS DCM base drive (DCII-rated)</b></p> <ul style="list-style-type: none"> <li>Consists of the converter mounted on a base panel with the addition of line fuses, AC line contactor (DC contactor 1200A unit only), DC output fuses (regen units), field fuses and control power transformer</li> <li>Two-quadrant, non-regen 240V AC (240V DC), 3–250 hp 480V AC (500V DC), 3–500 hp</li> <li>Four-quadrant, regen 240V AC (240V DC), 3–250 hp 480V AC (500V DC), 3–500 hp</li> <li>Custom designed above 500 hp are available upon request</li> </ul>	
<p><b>SINAMICS DCM Cabinet</b></p> <ul style="list-style-type: none"> <li>Ready-to-connect and ready-to-switch-on</li> <li>Fast and straightforward installation, parameterization and commissioning</li> <li>Compact — individual components and interfaces are easily accessed</li> <li>Wide range of options for maximum flexibility</li> <li>Integrated power supply for the external fan of the DC motor</li> <li>Menu-prompted commissioning using the advanced operator panel or PC-based tool</li> </ul>			

# SIMOTICS motors for motion control applications

Quality, performance and efficiency

## High-performance inverter duty motors

### SIMOTICS-S — 1FK servomotors

- Compact synchronous motors for standard motion control applications
- Torque: 0.18–48 Nm
- Power: 0.05–8.17 kW
- Rated speeds: 2000, 3000, 4500, 6000 rpm
- Dynamic performance versions: high inertia, compact and high-dynamic
- Overload capability up to 400%
- Either incremental or absolute encoder with DRIVE-CLiQ
- Natural cooling



### SIMOTICS-M — 1PH8 main spindle motors

- Flexible, dynamic power for precision rotary axes applications
- Torque: 13–12,475 Nm
- Power: 2.8–1340 kW
- Rated Speeds: 600, 100, 1350, 2000, 3400, 3600 rpm
- Maximum speeds up to 20,000 rpm
- Induction and synchronous versions
- Water cooling, forced-cooling, open-circuit cooling
- Either incremental or absolute encoder with DRIVE-CLiQ; sensorless also available



### SIMOTICS-S — 1FT servomotors

- Compact synchronous motors for high-performance motion control applications
- Torque: 2–25 Nm
- Power: 0.88–34.2 kW
- Rated speeds: 1500, 2000, 3000, 4500 and 6000 rpm
- Dynamic performance versions: high inertia, compact and high-dynamic
- Overload capability up to 400%
- Either incremental or absolute encoder with DRIVE-CLiQ
- Natural cooling, water-cooling, forced-cooling



### SIMOTICS-T — 1FW torque motors

- Complete series of torque motors for up to 7000 Nm
- Torque: 100–20,000 Nm
- Power: 3.1–380 kW
- Rated Speeds: 170, 300, 360, 480, 600, 730, 890, 950 and 1450 rpm
- Versions with solid / hollow / slip-on shaft
- Compact, rugged and low-maintenance
- Space-saving alternative to motor / gearbox combinations, e.g. to drive rolls and rotary indexing tables
- Water cooling, forced cooling, open-circuit cooling
- Either incremental or absolute encoder with DRIVE-CLiQ



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