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# SINAMICS Low Voltage Converters

Efficient. Versatile. Fit for the future.  
Simply my drive.

[siemens.com/sinamics](https://www.siemens.com/sinamics)

# The SINAMICS family for all power & performance classes

Always the optimum version – for every application, power rating and requirement: The wide range of SINAMICS converters has precisely the solution you require for your application.

Standard performance converters				Industry specific converters		Low voltage
						
V2G	G120C	G120	G130 / G150	G120X	G180	S120
0.12 – 30 kW	0.55 – 132 kW	0.55 – 250 kW	75 – 2.700 kW	0.75 – 630 kW	2.2 – 6.600 kW	0.55 – 6.840 kW

## SINAMICS – versatility for maximum efficiency



### Extensive portfolio

Customized power, performance and functionality: SINAMICS converters have a huge degree of flexibility – and also provide future-proof solutions for your applications.



### Digitalization

SINAMICS converters are ready & prepared for the digital era: Operating data can be directly transferred to Cloud platforms via MindConnect. The information collected there can help to make your plant or system more productive in the future and reduce downtimes to a minimum.











### Efficient engineering

Powerful tools support you over the complete lifecycle when configuring, engineering, commissioning and troubleshooting your SINAMICS drive solution. Further, these tools also help you optimize your processes.



Experience more:  
[siemens.com/medium-voltage-converter](https://www.siemens.com/medium-voltage-converter)

High performance converters			Servo converters		Distributed converters		Medium voltage
For demanding applications with high power ratings			For demanding applications with high power ratings		For demanding applications with high power ratings		For demanding applications with high power ratings
							
	S150	DCM (DC)	V90	S210	S120M	G110D / G120D / G110M	GL150 / SL150
	75 – 1.200 kW	6 kW – 30 MW	0.05 – 7 kW	0.05 – 7 kW*	0.25 – 1.1 kW	0.37 – 7.5 kW	SM120 CM / SM150 / GM150
							GH150 / GH180
							2.8 – 85 MW
							0.8 – 58 MW
							0.15 – 28.5 MW

\* Being prepared



### Safety Integrated

Maximum safety for operating and maintenance personnel: Safety functions are already integrated in our SINAMICS drives. You benefit from shorter response times, a higher degree of cost-effectiveness and lower wiring costs.



### Drive-system solution

Profit from our modular automation concept that can be scaled as required: SINAMICS converters operate perfectly with SIMOTICS motors, SIMOGEAR geared motors – as well as SIMATIC, SINUMERIK and SIMOTION control systems. All of the components communicate seamlessly via PROFINET.



### Services across the complete lifecycle

From spare parts management up to optimized maintenance concepts: Based on customized service quotations for your SINAMICS converters, you can sustainably secure maximum availability and productivity of your plants and systems.

# The optimum converter for each and every application

Depending on the actual power rating and functionality, the following converters are available, for example:

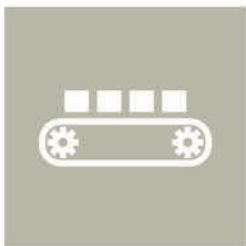
## Pumping/ventilating/compressing



- SINAMICS V20
- SINAMICS G120X
- SINAMICS G130 / G150
- SINAMICS G180

SINAMICS supports the continuous and energy-efficient operation of pumps, fans and compressors – either running continuously or requiring a high dynamic performance. The advantages include especially precise flow control, short response times – and the avoidance of damaging vibration levels and cavitation.

## Moving

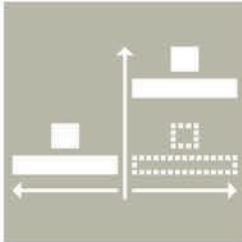


- SINAMICS G120C

Energy-efficient and rugged solutions for basic conveyor technology with roller or chain conveyors, for hoisting gear and elevators – as well as for storage and retrieval machines that demand a high dynamic performance – and always with Safety Integrated onboard.

- Standard performance converters
- Converters for specific industries
- High performance converters
- Servo converters
- Distributed converters

## Positioning



- SINAMICS G120
- SINAMICS S210
- SINAMICS S120

When high dynamic performance and precision are demanded: SINAMICS ensures precise positioning of individual axes, allows several axes to be interpolated in a coordinated fashion – for example as required in complex robotic applications.

## Processing



- SINAMICS G120
- SINAMICS S210
- SINAMICS S120

SINAMICS is the ideal solution for continuously running processes demanding high speed and torque precision, for instance, for extruders, centrifuges, agitators and all types of production machines – motion control, isochronous communication and Safety Integrated.

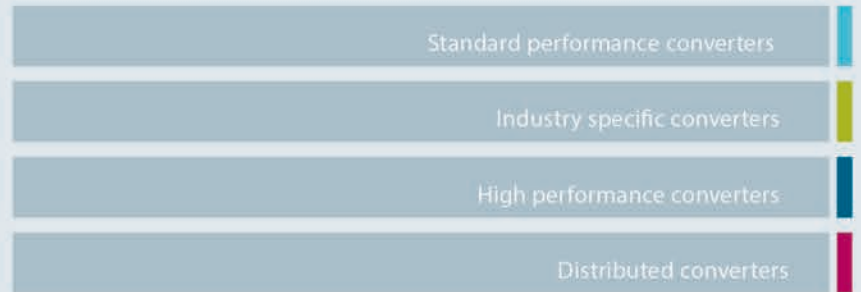
## Machining



- SINAMICS S120

Whether high-speed spindles or feed and auxiliary axes for turning, milling, drilling and sawing: SINAMICS is the perfect drive for all applications in material processing. Fast adaptability and minimum equipping times play a decisive role when it comes to achieving high productivity.

## SINAMICS low voltage converters



# Powerful and flexible





## SINAMICS V20

### Simple. Rugged. Efficient.

#### Highlights

- The perfect solution for basic applications
- Easy to install
- Easy to use

#### Applications



Pumping/  
Ventilating/  
Compress-  
ing



Moving



Processing

<b>Format</b>	Built-in unit (compact)
<b>Drive concept</b>	AC/AC
<b>Degree of protection</b>	IP20/UL open type
<b>Supply voltage/power kW (hp)</b>	
1AC 200 ... 240 V	0.12 ... 3 kW (0.16 ... 4 hp)
3AC 380 ... 480 V	0.37 ... 30 kW (0.5 ... 40 hp)
<b>Energy recovery</b>	No
<b>Control modes</b>	V/f (linear, square law, FCC, ECO)
<b>Ambient temperature</b>	–10 °C to 40 °C without derating/to 60 °C with derating
<b>Line filter</b>	With integrated line filter for environments according to EN 61800-3 Category C3/C2/C1 Without integrated line filter for environments according to EN 61800-3 Category C4
<b>Braking chopper</b>	External braking chopper
<b>Safety functions</b>	No
<b>Communication</b>	USS/Modbus RTU
<b>TIA Portal connected</b>	No
<b>Commissioning tools</b>	BOP-2, V20 Smart Access Module
<b>Controller</b>	SIMATIC S7-1200
<b>Recommended motors</b>	SIMOTICS GP/SD (standard induction motors, aluminum/cast iron)



[siemens.com/sinamics-v20](https://www.siemens.com/sinamics-v20)



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# SINAMICS G120C

## Versatile. User-friendly. Compact.



<b>Format</b>	Built-in unit (compact)
<b>Drive concept</b>	AC/AC
<b>Degree of protection</b>	IP20/UL open type
<b>Supply voltage/power kW (hp)</b>	
3AC 380 ... 480 V	0.55 ... 132 kW (0.75 ... 150 hp)
<b>Energy recovery</b>	No
<b>Control modes</b>	V/f (linear, square law, FCC, ECO), sensorless vector control (SLVC)
<b>Ambient temperature</b>	-10 °C to 40 °C without derating/to 60 °C with derating
<b>Line filter</b>	With integrated line filter for environments according to EN 61800-3 Category C3/C2  Without integrated line filter for environments according to EN 61800-3 Category C4
<b>Braking chopper</b>	Integrated braking chopper
<b>Safety functions</b>	STO
<b>Communication</b>	Frame size FSAA 0.55 kW to FSC 18.5 kW available with PROFINET, PROFIBUS DP, EtherNet/IP, USS/Modbus RTU  Frame size FSD 22 kW to FSF 132 kW available with PROFINET
<b>TIA Portal connected</b>	Yes
<b>Commissioning tools</b>	BOP-2, IOP-2, G120 Smart Access Module, SINAMICS Startdrive
<b>Controller</b>	SIMATIC S7-1200, SIMATIC ET200
<b>Recommended motors</b>	SIMOTICS GP/SD (standard induction motors, aluminum/cast iron)  SIMOGEAR (geared motors)

### Highlights

- Compact for simple installation in the smallest space
- Simple commissioning and operator control
- Perfect integration in the automation environment
- Integrated safety technology

### Applications



Pumping/  
Ventilating/  
Compress-  
ing



Moving



Processing

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# SINAMICS G120

## Multifunctional. Combinable. Safety Integrated.

### Highlights

- High degree of flexibility and combinability
- Higher-level, standard safety concept
- Wide range of power ratings

### Applications



Pumping/  
Ventilating/  
Compress-  
ing



Moving



Processing



Positioning

### Modular design



<b>Format</b>	Built-in unit (modular) Power Module, Control Unit, commissioning options
<b>Drive concept</b>	AC/AC
<b>Degree of protection</b>	IP20/UL open type
<b>Supply voltage/power kW (hp)</b>	
1AC/3AC 200 ... 240 V	0.55 ... 4 kW (0.75 ... 5 hp), Power Module PM240-2
3AC 200 ... 240 V	5.5 ... 55 kW (7.5 ... 60 hp), Power Module PM240-2
3AC 380 ... 480 V	0.55 ... 250 kW (0.75 ... 400 hp), Power Module PM240-2
3AC 380 ... 480 V	7.5 ... 90 kW (10 ... 125 hp), Power Module PM250
3AC 500 ... 690 V	11 ... 250 kW (10 ... 400 hp bei 600 V), PM240-2
<b>Control unit</b>	Control Unit CU230P-2, CU240E-2, CU240E-2 F, CU250S-2
<b>Energy recovery</b>	In conjunction with PM250 Power Modules
<b>Control modes</b>	V/f (linear, square law, FCC, ECO), vector control with and without encoder (VC, SLVC)
<b>Ambient temperature</b>	–10 °C to 40 °C without derating/to 60 °C with derating
<b>Line filter</b>	With integrated line filter for environments according to EN 61800-3 Category C3/C2  Without integrated line filter for environments according to EN 61800-3 Category C4
<b>Braking chopper</b>	Integrated braking chopper for PM240-2 Power Modules
<b>Safety functions</b>	STO, SS1, SBC, SLS, SDI, SSM
<b>Communication</b>	PROFINET, PROFIBUS DP, EtherNet/IP, USS/Modbus RTU, CANopen, PROFIsafe
<b>TIA Portal connected</b>	Yes
<b>Commissioning tools</b>	BOP-2, IOP-2, G120 Smart Access Module, SINAMICS Startdrive
<b>Controller</b>	SIMATIC ET200, SIMATIC S7-1500, SIMATIC PCS 7

### Recommended motors

SIMOTICS GP/SD (standard induction motors, synchronous-reluctance motors aluminum/cast iron)  
SIMOGEAR (geared motors)  
SIMOTICS TN (trans-standard motors)  
SIMOTICS M-1PH8 (compact induction motors)  
SIMOTICS XP (explosion-protected motors)



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# SINAMICS G130/G150

## Multifunctional. User-friendly. Rugged.

<b>Format</b>	G130: Built-in unit (modular) G150: Cabinet unit
<b>Drive concept</b>	AC/AC
<b>Degree of protection</b>	G130: IP00 / IP20 G150: IP20 Optional: IP21, IP23, IP43, IP54
<b>Supply voltage/power kW (hp)</b>	
3AC 380 ... 480 V	110 ... 560 kW (150 ... 800 hp) (G130) 110 ... 900 kW (150 ... 800 hp) (G150)
3AC 500 ... 600 V	110 ... 560 kW (150 ... 800 hp) (G130) 110 ... 1000 kW (150 ... 800 hp) (G150)
3AC 660 ... 690 V	75 ... 800 kW (85 ... 810 hp) (G130) 75 ... 2700 kW (85 ... 810 hp) (G150)
<b>Energy recovery</b>	No
<b>Control modes</b>	Sensorless vector control or V/f control
<b>Ambient temperature</b>	0 °C to 40 °C without derating/to 55 °C with derating
<b>Line filter</b>	With integrated line filter for environments according to EN 61800-3 Category C3/C2 (optional)
<b>Braking chopper</b>	G130: System component Braking Module G150: Braking Module optional
<b>Safety functions</b>	STO, SS1, SBC, SLS, SDI, SSM, SBT
<b>Communication</b>	PROFINET, PROFIBUS DP, EtherNet/IP, USS, CANopen, PROFIsafe
<b>TIA Portal connected</b>	Yes
<b>Commissioning tools</b>	BOP20, AOP30, SINAMICS Startdrive
<b>Controller</b>	SIMATIC ET200, SIMATIC S7-1500, SIMATIC PCS 7

<b>Recommended motors</b>	SIMOTICS GP/SD (standard induction motors aluminum/cast iron)  SIMOTICS TN (trans-standard motors)  SIMOTICS FD (compact induction motor with different cooling concepts)  SIMOTICS HT (low-speed permanent magnet synchronous motors)
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### Highlights

- **Applications:** Pumps, fans, compressors, extruders, mixers, mills etc.
- **Service-friendly** thanks to device modules that are easy to access
- **100% line supply voltage** at the motor without any secondary effects
- **When required, with integrated line harmonics filter and du/dt filter**

### Applications



Pumping/  
Ventilating/  
Compress-  
ing



Moving



Processing

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# SINAMICS G180

## Multifunctional. Industry specific. Seamless across the system.

### Highlights

- Industry specific features such as du/dt filter and PTC evaluation
- Applications: Pumps, fans, extruders, compressors – also in hazardous zones
- Voltage levels: 400 V/500 V/690 V
- Line side: 6 to 24 pulse or LHF (Line Filter)
- From 200 kW, air or liquid cooled
- ATEX-certified for motors in hazardous zones

### Applications



Pumping/  
Ventilating/  
Compress-  
ing



Moving



Processing

<b>Format</b>	Built-in unit (compact) Cabinet unit
<b>Drive concept</b>	AC/AC
<b>Degree of protection</b>	Compact devices: IP20 (optional IP21)  Cabinet units/systems: IP21 (higher degrees of protection up to IP54 optional)/with water cooling, IP54
<b>Supply voltage/power kW (hp)</b>	
3AC 380 ... 480 V	2.2 ... 200 kW, compact device 250 ... 630 kW, cabinet unit
3AC 480 ... 500 V	2.2 ... 160 kW, compact device 250 ... 800 kW, cabinet unit
3AC 500 ... 690 V	7.5 ... 200 kW, compact device 250 ... 6000 kW, cabinet unit
<b>Energy recovery</b>	No
<b>Control modes</b>	V/f (linear, square law) Vector control with and without encoder (SLVC) Field-oriented control (FOC) with encoder and certification for explosion protection
<b>Ambient temperature</b>	–10 °C to 40 °C
<b>Line filter</b>	Compact devices: with integrated line filter for environments according to EN 61800-3 Category C2/C1 (optional)  Cabinet units: with integrated line filter for environments according to EN 61800-3 Category C3  Compact devices, cabinet units for IT line systems: with integrated line filter for environments according to EN 61800-3 Category C4
<b>Braking chopper</b>	Yes
<b>Safety functions</b>	STO, ATEX-certified PTC thermistor input for explosion-protected motors
<b>Communication</b>	PROFIBUS DP, EtherNet/IP, Modbus TCP/IP, Modbus RTU, CANopen, on request: PROFINET
<b>TIA Portal connected</b>	No
<b>Controller</b>	SIMATIC ET200, SIMATIC S7-1500, SIMATIC PCS 7

### Recommended motors

SIMOTICS GP/SD (standard induction motors aluminum/cast iron)

SIMOTICS TN (trans-standard motors)

SIMOTICS FD (compact induction motors with different cooling concepts)

SIMOTICS XP (explosion-protected motors)



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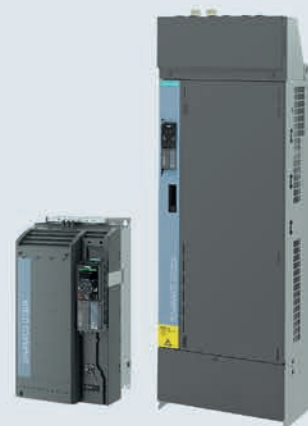
# SINAMICS G120X

## Flexible. Combinable. Application-specific.

<b>Format</b>	Built-in unit (compact)
<b>Drive concept</b>	AC/AC
<b>Degree of protection</b>	IP20, UL open type, IP21 (roof top kit)
<b>Supply voltage/power kW (hp)</b>	
3AC 380 ... 480 V	0.75 ... 560 kW / 1 ... 700 hp
3AC 500 ... 690 V	3 ... 630 kW / 4 ... 700 hp
<b>Energy recovery</b>	No
<b>Control modes</b>	V/f (linear, square law, FCC, ECO), sensorless vector control (SLVC)
<b>Ambient temperature</b>	–20 °C to 45 °C (60 °C with derating <sup>1</sup> )
<b>Line filter</b>	According to EN 61800-3, with integrated line filter for environments Category C3/C2; optional C1 with external filter B
<b>Braking chopper</b>	No
<b>Safety functions</b>	STO
<b>Communication</b>	PROFINET, PROFIBUS, EtherNet/IP, Modbus RTU, USS, BACnet MS/TP2, Wi-Fi über SINAMICS G120 Smart Access Module
<b>TIA Portal connected</b>	No, only via GSD file
<b>Commissioning tools</b>	BOP-2, IOP-2, G120 Smart Access Module
<b>Controller</b>	SIMATIC S7-1500/1200/400, Desigo PX

<b>Recommended motors</b>	SIMOTICS GP/SD (synchronous reluctance motors with aluminum/cast iron enclosures)
	SIMOTICS GP/SD (standard induction motors with aluminum/cast iron enclosures)
	SIMOTICS FD (compact induction motors with different cooling concepts)
	SIMOTICS DP (smoke extraction motors)

<sup>1</sup> The max temperature is 55 °C for PN version drives



### Highlights

- The infrastructure drive for pump/fan applications in water/waste-water industries and building technology
- Seamless range of power ratings available in 9 frame sizes extending from 0.75 – 630 kW
- Simple selection and ordering using just one order number – and immediately ready to run
- Impressively efficient with specific industry and energy efficiency functions

### Application



Pumping/  
Ventilating/  
Compress-  
ing

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# SINAMICS S150

Multifunctional. Precise. Capable of energy recovery.

## Highlights

- Modular system for high performance
- High degree of scalability, flexibility, combinability

## Applications



Processing

<b>Format</b>	Cabinet unit
<b>Drive concept</b>	AC/AC
<b>Degree of protection</b>	IP20, optional: IP21, IP23, IP43, IP54
<b>Supply voltage/power kW (hp)</b>	
3AC 380 ... 480 V	110 ... 800 kW (150 ... 1150 hp)
3AC 500 ... 690 V	75 ... 1200 kW (75 ... 1250 hp)
<b>Energy recovery</b>	Yes
<b>Control modes</b>	V/f control Vector control with and without encoder Servo control with and without encoder
<b>Ambient temperature</b>	0 °C to 40 °C
<b>Line filter</b>	With integrated line filter for environments according to EN 61800-3 Category C3/C2  Without line filter for environments according to EN 61800-3 Category C4
<b>Braking chopper</b>	Yes (optional)
<b>Safety functions</b>	STO, SS1, SBC, SOS, SS2, SLS, SSM, SDI, SLP, SP, SBT, SLA, SCA
<b>Communication</b>	PROFINET, PROFIBUS DP, EtherNet/IP, USS (no CU310), CANopen (CU320-2), Modbus TCP, PROFIsafe
<b>TIA Portal connected</b>	Yes
<b>Commissioning tools</b>	SINAMICS Startdrive, SCOUT, web server
<b>Controller</b>	SIMATIC, SIMOTION
<b>Recommended motors</b>	SIMOTICS SD, XP, DP, FD, TN, HT, M


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SINAMICS servo converters

Servo drive converter

Precise and  
with a high  
dynamic  
performance





## SINAMICS V90

### Simple. Precise. System-based.

#### Highlights

- Optimized servo performance thanks to One-Button-Tuning and Auto-Tuning
- Simple to operate complete solution for motion control applications
- Together with a SIMATIC controller, a strong team in the TIA Portal

#### Applications

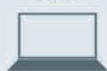


Processing   Positioning   Machining

<b>Format</b>	Built-in unit (compact)
<b>Drive concept</b>	AC/AC
<b>Degree of protection</b>	Converters: IP20 Motor: IP65
<b>Supply voltage/power kW (hp)</b>	
1AC / 3AC 200 ... 240 V	0.10 ... 0.75 kW (0.07 ... 1.02 hp)
3AC 200 ... 240 V	1.0 ... 2 kW (0.7 ... 2.7 hp)
3AC 380 ... 480 V	0.40 ... 7 kW (0.54 ... 10 hp)
<b>Energy recovery</b>	–
<b>Control modes</b>	Servo control with encoder
<b>Ambient temperature</b>	0 °C to 45 °C without derating/to 55 °C with derating
<b>Line filter</b>	With integrated line filter for environments according to EN 61800-3 Category C3
<b>Braking chopper</b>	Yes
<b>Safety functions</b>	STO via terminal
<b>Communication</b>	Pulse/direction interface, USS/Modbus RTU, PROFINET
<b>TIA Portal connected</b>	Yes, via the Hardware Support Package
<b>Commissioning tools</b>	SINAMICS V-ASSISTANT
<b>Controller</b>	SIMATIC S7-1200, SIMATIC S7-1500
<b>Recommended motors</b>	SIMOTICS S-1FL6 (servomotors)



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# SINAMICS S120

## Universal. Precise. Safety Integrated.

### Highlights

- Modular system for high performance
- High degree of scalability, flexibility, combinability

### Applications S120



Pumping/  
Ventilating/  
Compress-  
ing



Processing



Positioning



Machining



Moving

	S120	S120
	High-performance application	High-performance application
<b>Format</b>	Built-in unit Blocksize (modular)	Built-in unit Booksize (modular)
<b>Structure</b>	Control Unit + Power Module	Control Unit + infeed + Motor Module
<b>Drive concept</b>	AC/AC	DC/AC
<b>Degree of protection</b>	IP20	IP00 / IP20
<b>Supply voltage/power kW (hp)</b>		
1/3AC 200 ... 240 V	0.55 ... 4 kW (0.75 ... 5 hp at 240 V)	–
3AC 200 ... 240 V	5.5 ... 55 kW (7.5 ... 60 hp at 240 V)	–
3AC 380 ... 480 V	0.55 ... 250 kW (0.75 ... 400 hp at 480 V)	1.6 ... 107 kW (1.5 ... 150 hp at 400 V)
3AC 500 ... 690 V	11 ... 250 kW (10 ... 400 hp at 600 V)	–
<b>Energy recovery</b>	No	Yes, depending on the infeed
<b>Control modes</b>	V/f control, vector control with/without encoder Servo control with encoder	
<b>Ambient temperature</b>	0 °C to 40 °C	
<b>Line filter</b>	With integrated line filter for environments according to EN 61800-3 Category C3/C2  Without line filter for environments according to EN 61800-3 Category C4	With integrated line filter for environments according to EN 61800-3 Category C3/C2 (optional)  Without line filter for environments according to EN 61800-3 Category C4
<b>Braking chopper</b>	Integrated braking chopper for PM240-2 Power Modules	Yes (optional)
<b>Safety functions</b>	STO, SS1, SBC, SOS, SS2, SLS, SSM, SDI, SLP, SP, SBT, SLA, SCA	
<b>Communication</b>	PROFINET, PROFIBUS DP, EtherNet/IP, USS (kein CU310), CANopen (CU320-2), Modbus TCP	
<b>TIA Portal connected</b>	Yes, PROFIsafe	
<b>Commissioning tools</b>	SINAMICS Startdrive, SCOUT, web server	
<b>Control systems</b>	SIMATIC, SINUMERIK, SIMOTION	
<b>Recommended motors</b>	SIMOTICS GP, SD, XP, DP, M, S, L, T	SIMOTICS GP, SD, XP, DP, M, S, L, T

# SINAMICS S210

## Versatile. Precise. Safety Integrated.



Format	Built-in unit (compact)
Drive concept	AC/AC
Degree of protection	IP20
Supply voltage/power kW (hp)	
1AC 200 ... 240 V	0.1 ... 0.75 kW (0.14 ... 1.02 hp)
3AC 200 ... 480 V	0.4 ... 7 kW* (0.54 ... 9.5 hp)
Energy recovery	No
Control modes	Servo control with encoder
Ambient temperature	0 °C to 50 °C (32 °F to 122 °F)
Line filter	1AC devices with integrated line filter for environments according to EN 61800-3 Category C2
Braking chopper	Integrated braking resistor, motor holding brake control
Safety functions	STO, SS1, SBC, SOS, SS2, SLS, SSM, SDI, SBT, SLA
Communication	PROFINET, PROFIenergy, PROFIsafe, PROFIdrive
TIA Portal connected	Full integration
Commissioning tools	Web server, SINAMICS Startdrive
Controller	SIMATIC S7-1500
Recommended motors	SIMOTICS S-1FK2 (servomotors)

### Highlights

- Easy commissioning using a web server and One Button Tuning
- Optimized connection system using OCC (one cable connection)
- SIMOTICS S-1FK2 motors for increased performance

### Applications



Processing



Positioning



Moving

\*Being prepared

[siemens.com/sinamics-s210](https://www.siemens.com/sinamics-s210)
[siemens.com/dt-configurator](https://www.siemens.com/dt-configurator)




# SINAMICS family – an overview

	Supply voltage	Power (kW)	Powerg (hp)
Low voltage AC			
SINAMICS V20	1AC 200 ... 240 V 3AC 380 ... 480 V	0.12 ... 3 kW 0.37 ... 30 kW	0.16 ... 4 hp 0.5 ... 40 hp
SINAMICS G120C	3AC 380 ... 480 V	0.55 ... 132 kW	0.75 ... 150 hp
SINAMICS G120	1AC / 3AC 200 ... 240 V 3AC 200 ... 240 V 3AC 380 ... 480 V 3AC 380 ... 480 V 3AC 500 ... 690 V	0.55 ... 4 kW 5.5 ... 55 kW 0.55 ... 250 kW 7.5 ... 90 kW 11 ... 250 kW	0.75 ... 5 hp, PM240-2 7.5 ... 60 hp, PM240-2 0.75 ... 400 hp, PM240-2 10 ... 125 hp, PM250 10 ... 400 hp at 600 V, PM240-2
SINAMICS G130/G150	3AC 380 ... 480 V 3AC 500 ... 600 V 3AC 660 ... 690 V	110 ... 560 kW 110 ... 560 kW 75 ... 800 kW	150 ... 800 hp 150 ... 800 hp 85 ... 810 hp
SINAMICS G120X	3AC 380 ... 480 V 3AC 500 ... 690 V	0.37 ... 560 kW 3 kW ... 630 kW	0.75 ... 700 hp 1 ... 700 hp
SINAMICS G180	3AC 380 ... 500 V	400 V: 2.2 kW ... 630 kW 500 V: 2.2 kW ... 800 kW 690 V: 7.5 kW ... 6700 kW	3 ... 857 hp 3 ... 1088 hp 8 ... 9110 hp
SINAMICS S120	AC 380 ... 480 V  AC 500 ... 690 V	400 V: 1.6 ... 107 kW 460 V: 110 ... 250 kW 460 V: 110 ... 3040 kW 480 V: 0.55 ... 250 kW  600 V: 11 ... 250 kW 575 V: 75 ... 6840 kW	1.5 ... 150 hp 150 ... 400 hp 150 ... 4370 hp 0.75 ... 400 hp  10 ... 400 hp 75 ... 1250 hp
SINAMICS S150	3AC 380 ... 480 V 3AC 500 ... 690 V	110 ... 800 kW 75 ... 1200 kW	150 ... 1150 hp 75 ... 1250 hp
SINAMICS V90	1AC / 3AC 200 ... 240 V 3AC 200 ... 240 V 3AC 380 ... 480 V	0.1 ... 0.75 kW 1 ... 2 kW 0.4 ... 7 kW	0.07 ... 1.02 hp 0.7 ... 2.7 hp 0.54 ... 10 hp
SINAMICS S210	1AC 200 ... 240 V 3AC 200 ... 480 V	0.1 – 0.75 kW 0.4 – 7 kW*	0.14 ... 1.02 hp 0.54 ... 9.5 hp
SINAMICS S120	AC 380 ... 480 V  AC 500 ... 690 V	0.37 ... 90 kW 110 ... 250 kW 1.6 ... 107 kW 110 ... 3040 kW 1.6 ... 3000 kW  75 ... 5700 kW	0.5 ... 120 hp 150 ... 340 hp 2 ... 145 hp 150 ... 4133 hp 2 ... 4079 hp  100 ... 7750 hp
SINAMICS S120M	3AC 380 ... 480 V	0.25 ... 1.55 kW	0.3 ... 2 hp

\*Being prepared

Communication	Commissioning tools	Safety functions
USS/Modbus RTU	BOP-2, V20 Smart Access Module	No
PROFINET, PROFIBUS DP, EtherNet/IP, USS/Modbus RTU, PROFIsafe	BOP-2, IOP-2, G120 Smart Access Module, SINAMICS Startdrive	STO
PROFINET, PROFIBUS DP, EtherNet/IP, USS/Modbus RTU, CANopen, PROFIsafe	BOP-2, IOP-2, G120 Smart Access Module, SINAMICS Startdrive	STO, SS1, SBC, SLS, SDI, SSM
PROFINET, PROFIBUS DP, EtherNet/IP, USS, CANopen, PROFIsafe	Yes	STO, SS1, SBC, SLS, SDI, SSM, SBT
PROFINET, PROFIBUS DP, EtherNet/IP, USS/Modbus RTU/BACnet/FLN1	BOP-2, IOP-2, G120 Smart Access Module	STO
PROFIBUS DP, EtherNet/IP, Modbus TCP/IP, Modbus RTU, CANopen, on request: PROFINET	IMS (Inverter Management Software)	STO, ATEX-certified PTC thermistor input for explosion-protected motors
PROFINET, PROFIBUS DP, EtherNet/IP2, USS, CANopen, pulse/direction interface, PROFlenergy, PROFIsafe, PROFIdrive, PROFIsafe	SINAMICS Startdrive	STO, SS1, SBC, SOS, SS2, SLS, SSM, SDI, SLP, SP, SCA, SLA, SBT
PROFINET, PROFIBUS DP, EtherNet/IP, USS, CANopen, PROFIsafe	SINAMICS Startdrive	STO, SS1, SBC, SOS, SS2, SLS, SSM, SDI, SLP, SP, SCA, SLA, SBT
Pulse/direction interface, USS/Modbus RTU, PROFINET	SINAMICS V-ASSISTANT, TIA Portal HSP	STO
OCC (One Cable Connection) PROFINET, EtherNet/IP2, USS, CANopen, pulse/direction interface, PROFlenergy, PROFIsafe, PROFIdrive	Web server, SINAMICS Startdrive	STO, SS1, SBC, SOS, SS2, SLS, SSM, SDI, SBT
PROFINET, PROFIBUS DP, EtherNet/IP2, USS, CANopen, Puls-/Richtungsschnittstelle, PROFlenergy, PROFIsafe, PROFIdrive	Web server, SINAMICS Startdrive	STO, SS1, SBC, SOS, SS2, SLS, SSM, SDI, SLP, SP, SCA, SLA, SBT
PROFINET, PROFIBUS DP, EtherNet/IP2, USS, CANopen	SINAMICS Startdrive	STO, SS1, SBC, SOS, SS2, SLS, SSM, SDI, SLP, SP, SCA, SLA, SBT

Published by Siemens AG  
Digital Industries  
Motion Control  
P.O. Box 31 80  
91050 Erlangen, Germany

For the U.S. published by  
Siemens Industry Inc.  
100 Technology Drive  
Alpharetta, GA 30005  
United States

Article No. DFMC-810032-02-7600  
Printed in Germany  
Dispo 21500  
S&R/1000014988 WS 08194.0  
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