

SINAMICS G150

Drive converter cabinet units

75 kW to 1500 kW

Technical specifications

Electrical data	Single circuit	Parallel circuit	
Line voltages and power ranges	<ul style="list-style-type: none"> • 380 ... 480 V 3 AC, ±10 % (-15 % < 1 min) 110 ... 560 kW • 500 ... 600 V 3 AC, ±10 % (-15 % < 1 min) 110 ... 560 kW • 660 ... 690 V 3 AC, ±10 % (-15 % < 1 min) 75 ... 800 kW 	630 ... 900 kW	630 ... 1000 kW
Types of supplies	TN/TT systems or isolated systems (IT systems)		
Line frequency	47 ... 63 Hz		
Output frequency	0 ... 300 Hz		
Power factor			
- Fundamental mode	> 0.98		
- Total	0.93 ... 0.96		
Converter efficiency	> 98 %		
Control method	Vector Control with and without sensor or V/f control		
Fixed speeds	15 fixed speeds plus 1 minimum speed, parameterizable (in the default setting, 3 fixed setpoints plus 1 minimum speed are selectable using terminal block/PROFIBUS)		
Skipped speed ranges	4, parameterizable		
Setpoint resolution	0.001 rpm digital 12 bit analog		
Braking operation	Optional via braking unit		
Mechanical data			
Degree of protection	IP20 (higher degrees of protection up to IP54 optional)		
Protection class I	In accordance with EN 50178 Part 1 ¹⁾		
Cooling method	Forced air cooling AF in accordance with EN 60146		
Sound pressure level L_{pA} (1 m)	≤ 72 dB at 50 Hz line frequency		≤ 75 dB
Shock protection	BGV A3		
Cabinet system	Rittal TS 8, doors with double-barb lock, three-section base plates for cable entry		
Paint finish	RAL 7035 (indoor requirements)		
Compliance with standards			
Standards	EN 50178 ¹⁾ EN 60146-1, EN 61800-2, EN 61800-3, EN 60204-1, EN 60529 ²⁾		
CE marking	In accordance with EMC directive No. 2004/108/EC and low-voltage directive No. 2006/95/EC		
EMC conformance	The SINAMICS G150 converter systems are not designed for connection to the public power network ("First environment"). EMC conformance is compliant with the EMC product standard for variable-speed drives EN 61800-3, "Second environment" (industrial networks). The equipment can cause electromagnetic interference when it is connected to the public network. If supplementary measures are taken, (e.g. line filters, → option L00), it can also be operated in the "First environment".		
Ambient conditions	Storage	Transport	Operation
Ambient temperature	-25 ... +55 °C	-25 ... +70 °C from -40 °C for 24 hours	<u>0</u> ... +40 °C up to +50 °C see derating data
Relative humidity ²⁾ (non-condensing)	<u>5 ... 95 %</u>	5 ... 95 % at 40 °C	5 ... <u>95 %</u>
Environmental class/harmful chemical substances ²⁾	Class 1K4 to EN 60721-3-1	Class 2K3 to EN 60721-3-2	Class 3K3 to EN 60721-3-3
Organic/biological influences ²⁾	Class 1B1 to EN 60721-3-1	Class 2B1 to EN 60721-3-2	Class 3B1 to EN 60721-3-3
Installation altitude	Up to 2000 m above sea level without derating, > 2000 m see derating data		
Strain resistance	Storage	Transport	Operation
Vibratory load ²⁾			
- Deflection	1.5 mm at <u>5 ... 9 Hz</u>	<u>3.1 mm</u> at 5 ... 9 Hz	0.075 mm at 10 ... 58 Hz
- Acceleration	5 m/s ² at > 9 ... 200 Hz	10 m/s ² at > 9 ... 200 Hz	10 m/s ² at > 58 ... 200 Hz
	Class 1M2 to EN 60721-3-1	Class 2M2 to EN 60721-3-2	-
Shock load ²⁾			
- Acceleration	40 m/s ² at 22 ms	100 m/s ² at 11 ms	100 m/s ² at 11 ms
	Class 1M2 to EN 60721-3-1	Class 2M2 to EN 60721-3-2	Class 3M4 to EN 60721-3-3

Deviations from the defined classes are identified by underlining.

¹⁾ The EN standard specified is the European edition of international standard IEC 62103.

²⁾ The EN standards specified are the European editions of the international IEC standards with the same designations.