

SINAMICS S120 drive system

Power Modules and line-side components

**Air-cooled Power Modules
in blocksize format**

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Technical specifications

Air-cooled PM340 Power Module in blocksize format 6SL3210-1S...	
Line connection voltage (up to 2000 m (6562 ft) above sea level)	200 ... 240 V 1 AC $\pm 10\%$ (in operation $-15\% < 1$ min) or 380 ... 480 V 3 AC $\pm 10\%$ (in operation $-15\% < 1$ min)
Line	
• Power Modules without integrated line filter	Grounded TN/TT systems and non-grounded IT systems
• Power Modules with integrated line filter	TN systems with grounded star point
Line frequency	47 ... 63 Hz
Line power factor at rated power	
• Fundamental power factor ($\cos \varphi_1$)	> 0.96
• Total (λ)	
- 200 ... 240 V 1 AC	0.45 ... 0.7
- 380 ... 480 V 3 AC	0.65 ... 0.95
Overvoltage category to EN 60664-1	Class III
Precharging frequency of the DC link, max.	1x every 30 s
DC link voltage, approx.	$1.35 \times$ line voltage
Output frequency	
• Control type Servo	0 ... 650 Hz ¹⁾
• Control type Vector	0 ... 300 Hz ¹⁾
• Control type V/f	0 ... 600 Hz ¹⁾
Electronics power supply	24 V DC $-15\%/+20\%$
Radio interference suppression	
• Standard	No radio interference suppression
• With line filter	Category C2 to EN 61800-3
Type of cooling	Forced air cooling by means of built-in fan
Permissible ambient and coolant temperature (air) during operation for line-side components, Line Modules and Motor Modules	0 ... 40 °C (32 ... 104 °F) without derating, > 40 ... 55 °C (104 ... 131 °F) see derating characteristics
Installation altitude	Up to 1000 m (3281 ft) above sea level without derating, > 1000 ... 4000 m (3281 ... 13124 ft) above sea level, see derating characteristics
Conformity	CE (Low Voltage and EMC Directives)
Approvals, according to	cULus
Safety Integrated	Safety Integrity Level 2 (SIL 2) acc. to IEC 61508, Performance Level d (PLd) acc. to ISO 13849-1 and Control Category 3 acc. to ISO 12849-1 or EN 954-1. For further information, see chapter Safety Integrated.

¹⁾ Note the correlation between max. output frequency, pulse frequency and current derating
[For further information see chapter System description – Dimensioning.](#)