

SINAMICS S120 drive system

Booksize format

Double Motor Modules in booksize format

Selection and ordering data

Rated output current	Type rating ⁴⁾	Double Motor Module in booksize format	
A	kW (hp)	C type Article No.	D type Article No.
DC link voltage 510 ... 720 V DC			
2 × 3	2 × 1.6 (2 × 1.5)	—	6SL3120-2TE13-0AD0
2 × 5	2 × 2.7 (2 × 3)	—	6SL3120-2TE15-0AD0
2 × 9	2 × 4.8 (2 × 5)	—	6SL3120-2TE21-0AD0
2 × 18	2 × 9.7 (2 × 10)	6SL3120-2TE21-8AC0	6SL3120-2TE21-8AD0

Description	Article No.
Accessories	
Power connector (X1/X2) with screw-type terminal At Motor Module end, with screw-type terminals 1.5 ... 6 mm ² For Motor Modules in booksize format C/D type with rated output current of 3 ... 30 A	6SL3162-2MA00-0AC0
Power connector (X1/X2) with push-in connection At Motor Module end, with spring-loaded terminals 1.5 ... 6 mm ² For Motor Modules in booksize format C/D type with rated output current of 3 ... 30 A	6SL3162-2MB00-0AC0
DC link rectifier adapter For direct infeed of DC link voltage Screw-type terminals 0.5 ... 10 mm ² for Line Modules and Motor Modules in booksize format with a width of 50 mm (1.97 in) or 100 mm (3.94 in)	6SL3162-2BD00-0AA0
DC link adapter (2 units) For multi-tier configuration Screw-type terminals 35 ... 95 mm ² For all Line Modules and Motor Modules in booksize format	6SL3162-2BM01-0AA0
24 V terminal adapter For all Line Modules and Motor Modules in booksize format	6SL3162-2AA00-0AA0
Reinforced DC link busbar set For replacement of DC link busbars for 5 modules in booksize format with a width of • 50 mm (1.97 in) • 100 mm (3.94 in)	6SL3162-2DB00-0AA0 6SL3162-2DD00-0AA0

Description	Article No.
Accessories for re-ordering	
24 V jumper For connection of the 24 V busbars (for booksize format)	6SL3162-2AA01-0AA0
Terminal Kit (plug-in terminals, DRIVE-CLiQ jumper (length = module width + 60 mm (2.36 in)), dust protection blanking plugs) For DRIVE-CLiQ port For Motor Modules with a width of • 50 mm (1.97 in), C/D type • 100 mm (3.94 in), C/D type	6SL3162-8AD00-0AA0 6SL3162-8BF00-0AA0
Warning labels in 30 languages This label set can be glued over the standard German or English labels to provide warnings in other languages. One set of labels is supplied with the devices. One sign in each of the following languages is provided in each set: BG, CN, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, JP, KR, LT, LV, MT, NL, NO, PL, PT, RO, RU, SE, SI, SK, TR	6SL3166-3AB00-0AA0
Dust protection blanking plugs (50 units) For DRIVE-CLiQ port	6SL3066-4CA00-0AA0
Replacement fan For Motor Modules with a width of • 50 mm (1.97 in), C/D type • 100 mm (3.94 in), C/D type	6SL3162-0AN00-0AA0 6SL3162-0AP00-0AA0

Technical specifications

	Double Motor Module in booksize format 6SL3120-2TE...
DC link voltage (up to 2000 m (6562 ft) above sea level)	510 ... 720 V DC (line voltage 380 ... 480 V 3 AC)
Output frequency • Control mode Servo • Control mode Vector • Control mode V/f	0 ... 650 Hz ^{1) 2) 3)} 0 ... 300 Hz ²⁾ 0 ... 600 Hz ^{2) 3)}
Electronics power supply	24 V DC -15 %/+20 %
Type of cooling	Internal air cooling (power units with increased air cooling by 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
Declarations of conformity	CE (Low Voltage and EMC Directives)
Certificate of suitability	cULus
Safety Integrated	Safety Integrity Level 2 (SIL 2) according to IEC 61508, Performance Level d (PL d) and Category 3 according to EN ISO 13849-1 For further information, see section Safety Integrated.

¹⁾ At rated output current (max. output frequency 1300 Hz for 62.5 μs current control cycle, 8 kHz pulse frequency, 60 % permissible output current).

²⁾ Note the correlation between max. output frequency, pulse frequency and current derating. [For further information, see section configuration notes.](#)

³⁾ The output frequency is currently limited to 550 Hz. The specified values apply to systems with license for high output frequency.
[For further information, see section Control Units and https://support.industry.siemens.com/cs/document/104020669](#)

⁴⁾ Nominal hp ratings based on asynchronous (induction) motors. Match the motor nameplate current for specific sizing.

Overview


Motor reactors reduce the voltage loading on the motor windings. At the same time, the capacitive charge/discharge currents that place an additional load on the power unit when long motor cables are used are reduced. The maximum permissible output frequency when a motor reactor is used is 120 Hz.

The motor reactors are designed for a pulse frequency of 4 kHz. Higher pulse frequencies are not permissible.

The motor reactor must be installed as close as possible to the Motor Module.

Selection and ordering data

Rated output current of Motor Module	Suitable for Motor Module in booksize format	Motor reactor Article No.
3 A and 2 × 3 A	6SL3120-1TE13-0AD0 6SL3120-2TE13-0AD0	6SE7021-0ES87-1FE0
5 A and 2 × 5 A	6SL3120-1TE15-0AD0 6SL3120-2TE15-0AD0	6SE7021-0ES87-1FE0
9 A and 2 × 9 A	6SL3120-1TE21-0AD0 6SL3120-2TE21-0AD0	6SL3000-2BE21-0AA0
18 A and 2 × 18 A	6SL3120-1TE21-8AC0 6SL3120-1TE21-8AD0 6SL3120-2TE21-8AC0 6SL3120-2TE21-8AD0	6SE7022-6ES87-1FE0
30 A	6SL3120-1TE23-0AC0 6SL3120-1TE23-0AD0	6SE7024-7ES87-1FE0
45 A	6SL3120-1TE24-5AA3	6SE7027-2ES87-1FE0
60 A	6SL3120-1TE26-0AA3	6SL3000-2BE26-0AA0
85 A	6SL3120-1TE28-5AA3	6SE7031-5ES87-1FE0
132 A	6SL3120-1TE31-3AA3	6SE7031-8ES87-1FE0
200 A	6SL3120-1TE32-0AA4	6SE7032-6ES87-1FE0