

SIMOTION Motion Control System

SIMOTION D – Drive-based

SIMOTION D4x5-2 Control Units

Accessories

Description	Article No.
Accessories for SIMOTION D4x5-2	
Double fan/battery module incl. battery Spare part for SIMOTION D4x5-2	6FC5348-0AA02-0AA0
Battery Spare part for fan/ battery module	6FC5247-0AA18-0AA0
Seal for external heat dissipation (1 pack = 10 units) With external air cooling, the cooling fins of the Control Unit are outside of the control cabinet. A seal is required so that the D445-2/D455-2 can be hermetically mounted in the rear cabinet panel.	6FC5348-0AA07-0AA0
Accessories for PROFIBUS	
PROFIBUS RS485 bus connector with angular cable outlet (35°) and screw-type terminals Max. transmission rate 12 Mbit/s • Without PG interface • With PG interface	6ES7972-0BA42-0XA0 6ES7972-0BB42-0XA0
PROFIBUS FastConnect RS485 bus connector with angular cable outlet (35°) and insulation displacement terminals Max. transmission rate 12 Mbit/s • Without PG interface • With PG interface	6ES7972-0BA61-0XA0 6ES7972-0BB61-0XA0
PROFIBUS adapter plug for raising the PROFIBUS connector to create more wiring space	6FX2003-0BB00

Description	Article No.
Accessories for PROFINET (interface X150)	
RJ45 FastConnect connector for Industrial Ethernet/PROFINET 145° cable outlet (10/100 Mbit/s) • 1 pack = 1 unit • 1 pack = 10 units • 1 pack = 50 units	6GK1901-1BB30-0AA0 6GK1901-1BB30-0AB0 6GK1901-1BB30-0AE0
FastConnect cables for Industrial Ethernet/PROFINET ¹⁾ • IE FC Standard Cable GP 2x2 • IE FC Flexible Cable GP 2x2 • IE FC Trailing Cable GP 2x2 • IE FC Trailing Cable 2x2 • IE FC Marine Cable 2x2	6XV1840-2AH10 6XV1870-2B 6XV1870-2D 6XV1840-3AH10 6XV1840-4AH10
Stripping tool for Industrial Ethernet/PROFINET FastConnect cables • IE FC Stripping Tool	6GK1901-1GA00
Accessories for Industrial Ethernet (X120, X127, X130 interfaces)	
RJ45 FastConnect connector for Industrial Ethernet/PROFINET 180° cable outlet (10/100/1000 Mbit/s) • 1 pack = 1 unit • 1 pack = 10 units • 1 pack = 50 units	6GK1901-1BB11-2AA0 6GK1901-1BB11-2AB0 6GK1901-1BB11-2AE0
FastConnect cables for Industrial Ethernet/PROFINET ¹⁾ • IE FC Standard Cable GP 4x2 • IE FC Flexible Cable GP 4x2	6XV1878-2A 6XV1878-2B
Stripping tool for Industrial Ethernet/PROFINET FastConnect cables • IE FC Stripping Tool	6GK1901-1GA00
Miscellaneous accessories	
Dust protection blanking plugs (50 units) for sealing unused DRIVE-CLiQ, Ethernet and PROFINET ports	6SL3066-4CA00-0AA0

¹⁾ Sold by the meter; max. length (depending on cable type) 1000 m (3281 ft) or 2000 m (6562 ft); minimum order 20 m (65.6 ft).

More information

More information

- about SINAMICS S120 drive components such as Line Modules, Motor Modules etc. can be found in Catalog D 21.4 – chapter SINAMICS S120 Drive System, and the Industry Mall under Drive Technology/Converters/AC Low-voltage converters/High performance converters SINAMICS S/....
- about signal and power cables for SINAMICS S120 can be found in Catalog D 21.4 – chapter MOTION-CONNECT connection systems, and the Industry Mall under Drive Technology/Further Components/MOTION-CONNECT connection systems.
- about PROFINET, Industrial Ethernet and PROFIBUS can be found in Catalog IK PI, and the Industry Mall under Automation Technology/Industrial Communication.

Integrated drive control

The drive control functions integrated in SIMOTION D4x5-2 Control Units are based on the drive control of a SINAMICS S120 CU320-2 Control Unit (firmware version V4.x), although there is a slight difference in functionality. For example, the integrated drive control does not have a basic positioner function (EPOS), as this is already covered by SIMOTION technology functions.

For more information, refer to the documentation for SIMOTION and SINAMICS.

SIZER for Siemens Drives engineering tool

With the SIZER for Siemens Drives engineering tool, you can easily configure, for example, the SINAMICS S110 and S120 drive families including SIMOTION. This tool supports you with the engineering of components for a Motion Control task. You can also determine the possible number of axes and the resulting utilization with SIZER for Siemens Drives in accordance with your performance requirements.

For more information about SIZER for Siemens Drives, refer to section Lifecycle Services.

Connectors and cables

The adapter plug (Article No. 6FX2003-0BB00) is required for D4x5-2 when the bus cable has to be looped through the left-hand PROFIBUS interface (X126) (2 PROFIBUS cables wired to the plug) and also

- Ethernet interface X120, in the case of D4x5-2 DP or
- Port 3 of the PROFINET interface X150 in the case of D4x5-2 DP/PN

has to be wired to a FastConnect plug. When using the adapter plug, the PROFIBUS connector is higher, which creates extra wiring space.

Ethernet interfaces X120, X127 and X130 support 10, 100 and 1000 Mbit/s. For 1000 Mbit/s, 8-core cables (4x2) must be used as well as the 1000 Mbit version of the 180° FastConnect plug.

The 145° FastConnect plugs cannot be used for Ethernet interface X130 (cable outlet downwards). They also only support a maximum of 100 Mbit/s.