

Manufacturer's Declaration

Nr. / No. SINAMICS_S_Block_Size_668.DCOBG1116.40.020

Manufacturer: SIEMENS Aktiengesellschaft

Address: SIEMENS Aktiengesellschaft, DF MC
Frauenauracher Straße 80
D-91056 Erlangen
Germany

Product description: **SINAMICS S120 and SINAMICS S110, frame size:
Blocksize**
(for included hardware and software releases see annex)

The functional safety functions "Basic Functions" (STO, SBC, SS1) and "Extended Functions" (STO, SBC, SS1, SS2, SLS, SOS, SSM, safe I/Os, SDI, SLP, SP) of the above mentioned product fulfil the requirements of SIL2 according to [1] and [4], PLd according to [2] and category 3 according to [2]. The functions STO, SS1 and SS2 correspond to stop category 0, stop category 1 and stop category 2 according to [3], respectively.

The safe break test (SBT) is suitable for safety functions up to category 2 according to [2].

Reference number

- | | |
|-----|-------------------------------|
| [1] | IEC 61508, part 1 to 3 (2010) |
| [2] | ISO13849 part 1 (2015) |
| [3] | IEC 60204 (2005) |
| [4] | IEC 61800-5-2 (2016) |

Erlangen, 16-11-17

G. Bock

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1 Software

1.1 Basic Functions

1.1.1 SINAMICS S110 Control Units (CU305)

CU305 DP 6SL3040-0JA00-0AA0 CU305 CAN 6SL3040-0JA02-0AA0	CU305 PN 6SL3040-0JA01-0AA0	Safety-Firmware-Version
V 4.1	---	04.10.14.00
V 4.3	V 4.3	04.30.14.00
V 4.4	V 4.4	04.40.23.03 04.40.43.00

1.1.2 SINAMICS S120 Control Units (CU310)

CU310DP 6SL3040-0LA00-0AA0 6SL3040-0LA00-0AA1 CU310 PN 6SL3040-0LA01-0AA1	CU310-2 DP 6SL3040-1LA00-0AA0 CU310-2 PN 6SL3040-1LA01-0AA0	Safety-Firmware-Version
Control Unit Processor		
V 2.4 SP1	---	02.40.33.00
V 2.5	---	02.50.28.00 02.50.32.14
V 2.6	---	02.60.30.00 02.60.40.00
---	V 4.4	04.40.22.00
---	V 4.5	04.50.30.00 04.50.30.05 04.50.30.29 04.50.30.34 04.50.30.46
---	V 4.6	04.60.19.00 04.60.21.06
---	V 4.7	04.70.35.07 04.70.35.18 04.70.35.35 04.70.35.42 04.70.35.51 04.70.36.02 04.74.35.02
---	V 4.8	04.80.60.00
Power Module Control Processor		
V 2.4 SP1	---	02.40.35.06
V 2.5	---	02.50.32.00
V 2.6	---	02.60.30.00 02.60.40.00

CU310DP 6SL3040-0LA00-0AA0 6SL3040-0LA00-0AA1 CU310 PN 6SL3040-0LA01-0AA1	CU310-2 DP 6SL3040-1LA00-0AA0 CU310-2 PN 6SL3040-1LA01-0AA0	Safety-Firmware-Version
---	V 4.4	04.40.23.04 04.40.23.22
---	V 4.5	04.50.28.00 04.50.30.05
---	V 4.6	04.60.16.00 04.60.21.05
---	V 4.7	04.70.35.00 04.70.35.18 04.70.36.02
---	V 4.8	04.80.60.00

1.1.3 SINAMICS S120 Control Units (CU320)

CU320 6SL3040-0MA00-0AA1	CU320-2 DP 6SL3040-1MA00-0AA0	CU320-2 PN 6SL3040-1MA01-0AA0	Safety-Firmware-Version
V 2.4 SP1	---	---	02.40.33.00
V 2.5	---	---	02.50.28.00 02.50.32.14
V 2.6	---	---	02.60.30.00 02.60.40.00
---	V 4.3	---	04.30.14.00
---	V 4.4	V 4.4	04.40.22.00
---	V 4.5	V 4.5	04.50.30.00 04.50.30.05 04.50.30.29 04.50.30.34 04.50.30.46
---	V 4.6	V 4.6	04.60.19.00 04.60.21.06
---	V 4.7	V 4.7	04.70.35.07 04.70.35.18 04.70.35.35 04.70.35.42 04.70.35.51 04.70.36.02 04.74.35.02
---	V 4.8	V 4.8	04.80.60.00

1.1.4 SINAMICS S120 Control Extensions

CUA31 6SL3040-0PA00-0AA1 CUA32 6SL3040-0PA01-0AA0	Safety-Firmware-Version
V 2.4 SP1	02.40.35.06
V 2.5	02.50.32.00
V 2.6	02.60.30.00 02.60.40.00

CUA31 6SL3040-0PA00-0AA1 CUA32 6SL3040-0PA01-0AA0	Safety-Firmware-Version
V 4.3	04.30.14.00
V 4.4	04.40.23.04 04.40.23.22
V 4.5	04.50.28.00 04.50.30.05
V 4.6	04.60.16.00 04.60.21.05
V 4.7	04.70.35.00 04.70.35.18 04.70.36.02
V 4.8	04.80.60.00

1.2 Extended Functions

1.2.1 SINAMICS S110 Control Units (CU305)

CU305 DP 6SL3040-0JA00-0AA0 CU305 CAN 6SL3040-0JA02-0AA0	CU305 PN 6SL3040-0JA01-0AA0	Safety-Firmware-Version
V 4.1	---	04.10.15.00
V 4.3	---	04.30.17.00
V 4.4	V 4.4	04.40.23.04 04.40.39.00

1.2.2 SINAMICS S120 Control Units (CU310)

CU310DP 6SL3040-0LA00-0AA0 6SL3040-0LA00-0AA1 CU310 PN 6SL3040-0LA01-0AA1	CU310-2 DP 6SL3040-1LA00-0AA0 CU310-2 PN 6SL3040-1LA01-0AA0	Safety-Firmware-Version
Control Unit Processor		
V 2.5	---	02.50.30.00 02.50.32.29
V 2.6	---	02.60.31.00 02.60.40.00 02.60.45.03 02.60.45.13 02.60.45.31
---	V 4.4	04.40.23.04 04.40.23.35
---	V 4.5	04.50.24.00 04.50.30.05 04.50.30.14 04.50.30.23 04.50.30.24 04.50.30.30 04.50.30.34 04.50.30.41

CU310DP 6SL3040-0LA00-0AA0 6SL3040-0LA00-0AA1 CU310 PN 6SL3040-0LA01-0AA1	CU310-2 DP 6SL3040-1LA00-0AA0 CU310-2 PN 6SL3040-1LA01-0AA0	Safety-Firmware-Version
---	V 4.6	04.60.20.00 04.60.21.13
---	V 4.7	04.70.29.00 ¹ 04.70.35.21 ¹ 04.70.35.37 ¹ 04.70.35.44 ¹ 04.70.35.62 04.70.36.01 ¹ 04.70.36.04 04.74.35.02
---	V 4.8	04.80.65.01 04.80.65.05
Power Module Control Processor		
V 2.5	---	02.50.31.00 02.50.32.29
V 2.6	---	02.60.30.00 02.60.39.00 02.60.45.03 02.60.45.31
---	V 4.4	04.40.23.04 04.40.23.35
---	V 4.5	04.50.24.00 04.50.30.05 04.50.30.14 04.50.30.23 04.50.30.24 04.50.30.30
---	V 4.6	04.60.20.00 04.60.21.13
---	V 4.7	04.70.28.00 ² 04.70.35.18 ² 04.70.35.35 ² 04.70.35.62 04.70.36.01 ² 04.70.36.04
---	V4.8	04.80.65.01

1.2.3 SINAMICS S120 Control Units (CU320)

CU320 6SL3040-0MA00-0AA1	CU320-2 DP 6SL3040-1MA00-0AA0	CU320-2 PN 6SL3040-1MA01-0AA0	Safety-Firmware-Version
V 2.5	---	---	02.50.30.00 02.50.32.29
V 2.6	---	---	02.60.31.00 02.60.40.00 02.60.45.03 02.60.45.13 02.60.45.31

¹ The use of SOS in combination with SS2 may lead to behaviour not described in the manual. For details see 3.1.

² The use of SOS in combination with SS2 may lead to behaviour not described in the manual. For details see 3.1.

CU320 6SL3040-0MA00-0AA1	CU320-2 DP 6SL3040-1MA00-0AA0	CU320-2 PN 6SL3040-1MA01-0AA0	Safety-Firmware-Version
---	V 4.3	---	04.30.17.00
---	V 4.4	V 4.4	04.40.23.04 04.40.23.35
---	V 4.5	V 4.5	04.50.24.00 04.50.30.05 04.50.30.14 04.50.30.23 04.50.30.24 04.50.30.30 04.50.30.34 04.50.30.41
---	V 4.6	V 4.6	04.60.20.00 04.60.21.13
---	V 4.7	V 4.7	04.70.29.00 ³ 04.70.35.21 ³ 04.70.35.37 ³ 04.70.35.44 ³ 04.70.35.62 04.70.36.01 ³ 04.70.36.04 04.74.35.02
---	V 4.8	V 4.8	04.80.65.01 04.80.65.05

1.2.4 SINAMICS S120 Control Extensions

CUA31 6SL3040-0PA00-0AA1 CUA32 6SL3040-0PA01-0AA0	Safety-Firmware-Version
V 2.5	02.50.31.00 02.50.32.29
V 2.6	02.60.30.00 02.60.39.00 02.60.45.03 02.60.45.31
V 4.3	04.30.15.00
V 4.4	04.40.23.04 04.40.23.35
V 4.5	04.50.24.00 04.50.30.05 04.50.30.14 04.50.30.23 04.50.30.24 04.50.30.30
V 4.6	04.60.20.00 04.60.21.13
V 4.7	04.70.28.00 ⁴ 04.70.35.18 ⁴ 04.70.35.35 ⁴ 04.70.35.62 04.70.36.01 ⁴

³ The use of SOS in combination with SS2 may lead to behaviour not described in the manual. For details see 3.1.

⁴ The use of SOS in combination with SS2 may lead to behaviour not described in the manual. For details see 3.1.

CUA31 6SL3040-0PA00-0AA1 CUA32 6SL3040-0PA01-0AA0	Safety-Firmware-Version
	04.70.36.04
V 4.8	04.80.65.01

1.2.5 Sensor Modules

SMI20 6SL3055-0AA00-5MA0 SME20 6SL3055-0AA00-5EA0 SME25 6SL3055-0AA00-5HA0 SME120 6SL3055-0AA00-5JA0 SME125 6SL3055-0AA00-5KA0 SMC20 6SL3055-0AA00-5BA1 6SL3055-0AA00-5BA2	SMI20 (2. Generation) 6SL3055-0AA00-5MA3 SMI24 ⁵ 6SL3055-0AA00-5SA3	SMC20 (2. Generation) 6SL3055-0AA00-5BA3 SME20 (2. Generation) 6SL3055-0AA00-5EA3 SME25 (2. Generation) 6SL3055-0AA00-5HA3 SME120 (2. Generation) 6SL3055-0AA00-5JA3 SME125 (2. Generation) 6SL3055-0AA00-5KA3	Safety-Firmware-Version
V 2.4 SP1 V 2.5 V 2.6 V 4.1 V 4.3 V 4.4 V 4.5 V 4.6 V 4.7	---	---	02.40.06.00
---	V 2.5 V 2.6	---	02.60.29.00 02.60.34.00
---	V 2.4 HF12 V 4.3	V 2.4 HF12 V 4.3	04.30.13.00
---	V 4.4	V 4.4	04.40.18.00
---	V 4.5	V 4.5	04.50.19.00
---	V 4.6	V 4.6	04.60.09.00
---	V 4.7	V 4.7	04.70.02.00
---	V 4.8	V 4.8	04.80.40.00

SMC40 6SL3055-0AA00-5DA0	Safety-Firmware-Version
--- ⁶	804239-06 ⁷

1.2.6 Terminal Module

TM54F 6SL3055-0AA00-3BA0	Safety-Firmware-Version
V 2.5	02.50.30.00
V 2.6	02.60.30.00
V 4.3	04.30.14.00
V 4.4	04.40.21.00

⁵ SMI24 only released for V4.4 and higher

⁶ SMC40 firmware is implemented and controlled by Heidenhain GmbH and therefore, independent of SINAMICS FW.

⁷ Heidenhain firmware version.

V 4.5	04.50.22.00
V 4.6	04.60.15.00
V 4.7	04.70.32.00
V 4.8	04.80.43.00

2 Hardware

2.1 SINAMICS Control Units and Extensions

Description	Order Purchase No. (MLFB)	Hardware Version
CU305 DP	6SL3040-0JA00-0AA0	A, B, C, D, E
CU305 PN	6SL3040-0JA01-0AA0	A, B, C, D, E
CU305 CAN	6SL3040-0JA02-0AA0	A, B, C, D, E
CU310 DP	6SL3040-0LA00-0AA0 6SL3040-0LA00-0AA1	A, B, C, D A, B
CU310-2 DP	6SL3040-1LA00-0AA0	A, B, C, D, E
CU310 PN	6SL3040-0LA01-0AA1	A, B
CU310-2 PN	6SL3040-1LA01-0AA0	A, B, C, D, E
CU320	6SL3040-0MA00-0AA1	A, B, C, D, E, F, G
CU320-2 DP	6SL3040-1MA00-0AA0	A, B, C, D, E, F, G, H
CU320-2 PN	6SL3040-1MA01-0AA0	A, B, C, D, E
CUA31 (control unit adapter)	6SL3040-0PA00-0AA1	A, B, C, D, E, F, G
CUA32 (control unit adapter)	6SL3040-0PA01-0AA0	A, B, C, D, E, F, G

2.2 SINAMICS Power Modules (blocksize)

Power Modules, 230V, IP20, internal air cooling, single phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM340 (1AC, 230V, 0.9A, UF)	FSA	6SL3210-1SB11-0UA0	A01, A02, A03, B01
PM340 (1AC, 230V, 2.3A, UF)	FSA	6SL3210-1SB12-3UA0	A01, A02, A03, B01
PM340 (1AC, 230V, 3.9A, UF)	FSA	6SL3210-1SB14-0UA0	A01, A02, A03, B01
PM340 (1AC, 230V, 0.9A, AF)	FSA	6SL3210-1SB11-0AA0	A01, A02, A03, B01
PM340 (1AC, 230V, 2.3A, AF)	FSA	6SL3210-1SB12-3AA0	A01, A02, A03, B01
PM340 (1AC, 230V, 3.9A, AF)	FSA	6SL3210-1SB14-0AA0	A01, A02, A03, B01

Power Modules, 400V, IP20, internal air cooling, three phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM340 (3AC, 400V, 1.3A, UF)	FSA	6SL3210-1SE11-3UA0	A01, A02, B01, C01, C02, D02
PM340 (3AC, 400V, 1.7A, UF)	FSA	6SL3210-1SE11-7UA0	A01, A02, B01, C01, C02, D02
PM340 (3AC, 400V, 2.2A, UF)	FSA	6SL3210-1SE12-2UA0	A01, A02, B01, C01, C02, D02

Power Modules, 400V, IP20, internal air cooling, three phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM340 (3AC, 400V, 3.1A, UF)	FSA	6SL3210-1SE13-1UA0	A01, A02, B01, C01, C02, D02
PM340 (3AC, 400V, 4.1A, UF)	FSA	6SL3210-1SE14-1UA0	A01, A02, B01, C01, C02, D02
PM340 (3AC, 400V, 5.9A, UF)	FSB	6SL3210-1SE16-0UA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 7.7A, UF)	FSB	6SL3210-1SE17-7UA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 10A, UF)	FSB	6SL3210-1SE21-0UA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 18A, UF)	FSC	6SL3210-1SE21-8UA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 25A, UF)	FSC	6SL3210-1SE22-5UA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 32A, UF)	FSC	6SL3210-1SE23-2UA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 38A, UF)	FSD	6SL3210-1SE23-8UA0	A, B, C, D, E, F, G, H, J
PM340 (3AC, 400V, 45A, UF)	FSD	6SL3210-1SE24-5UA0	A, B, C, D, E, F, G, H, J, K
PM340 (3AC, 400V, 60A, UF)	FSD	6SL3210-1SE26-0UA0	A, B, C, D, E, F, G, H, J
PM340 (3AC, 400V, 75A, UF)	FSE	6SL3210-1SE27-5UA0	A, B, C, D, E, F, G, H, J, K
PM340 (3AC, 400V, 90A, UF)	FSE	6SL3210-1SE31-0UA0	A, B, C, D, E, F, G, H, J, K
PM340 (3AC, 400V, 110A, UF)	FSF	6SL3210-1SE31-1UA0	A, B, C, D, E, F, G, H, J, K
PM340 (3AC, 400V, 145A, UF)	FSF	6SL3210-1SE31-5UA0	A, B, C, D, E, F, G, H, J, K
PM340 (3AC, 400V, 178A, UF)	FSF	6SL3210-1SE31-8UA0	A, B, C, D, E, F, G, H, J, K
PM340 (3AC, 400V, 5.9A, AF)	FSB	6SL3210-1SE16-0AA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 7.7A, AF)	FSB	6SL3210-1SE17-7AA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 10A, AF)	FSB	6SL3210-1SE21-0AA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 18A, AF)	FSC	6SL3210-1SE21-8AA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 25A, AF)	FSC	6SL3210-1SE22-5AA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 32A, AF)	FSC	6SL3210-1SE23-2AA0	A01, B01, B02, C01 ,D01, D02, E02
PM340 (3AC, 400V, 38A, AF)	FSD	6SL3210-1SE23-8AA0	A, B, C, D, E, F, G, H, J
PM340 (3AC, 400V, 45A, AF)	FSD	6SL3210-1SE24-5AA0	A, B, C, D, E, F, G, H, J, K
PM340 (3AC, 400V, 60A, AF)	FSD	6SL3210-1SE26-0AA0	A, B, C, D, E, F, G, H, J
PM340 (3AC, 400V, 75A, AF)	FSE	6SL3210-1SE27-5AA0	A, B, C, D, E, F, G, H, J, K
PM340 (3AC, 400V, 90A, AF)	FSE	6SL3210-1SE31-0AA0	A, B, C, D, E, F, G, H, J, K
PM340 (3AC, 400V, 110A, AF)	FSF	6SL3210-1SE31-1AA0	A, B, C, D, E, F, G, H, J, K, M
PM340 (3AC, 400V, 145A, AF)	FSF	6SL3210-1SE31-5AA0	A, B, C, D, E, F, G, H, J, K, M

Power Modules, 400V, IP20, internal air cooling, three phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM340 (3AC, 400V, 178A, AF)	FSF	6SL3210-1SE31-8AA0	A, B, C, D, E, F, G, H, J, K, M

Power Modules, 400V, IP20, liquid cooled, three phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM340 (3AC, 400V, 38A, UF)	FSD	6SL3215-1SE23-8UA0	B, C, D, E
PM340 (3AC, 400V, 60A, UF)	FSD	6SL3215-1SE26-0UA0	B, C, D, E
PM340 (3AC, 400V, 75A, UF)	FSE	6SL3215-1SE27-5UA0	B, C, D, E
PM340 (3AC, 400V, 90A, UF)	FSE	6SL3215-1SE31-0UA0	B, C, D, E
PM340 (3AC, 400V, 110A, UF)	FSF	6SL3215-1SE31-1UA0	B, C, D, E
PM340 (3AC, 400V, 178A, UF)	FSF	6SL3215-1SE31-8UA0	B, C, D, E

Power Modules, 400V, IP20, internal air cooling, three phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM250 (3AC, 400V, unfiltered, 15.0kW)	FSD	6SL3225-0BE31-5UA0	A, B, C, D
PM250 (3AC, 400V, unfiltered, 18.5kW)	FSD	6SL3225-0BE31-8UA0	A, B, C, D
PM250 (3AC, 400V, unfiltered, 22.0kW)	FSD	6SL3225-0BE32-2UA0	A, B, C, D
PM250 (3AC, 400V, unfiltered, 30.0kW)	FSE	6SL3225-0BE33-0UA0	A, B, C, D
PM250 (3AC, 400V, unfiltered, 37.0kW)	FSE	6SL3225-0BE33-7UA0	A, B, C, D
PM250 (3AC, 400V, unfiltered, 45.0kW)	FSF	6SL3225-0BE34-5UA0	A, B, C, D
PM250 (3AC, 400V, unfiltered, 55.0kW)	FSF	6SL3225-0BE35-5UA0	A, B, C, D
PM250 (3AC, 400V, unfiltered, 75.0kW)	FSF	6SL3225-0BE37-5UA0	A, B, C, D
PM250 (3AC, 400V, filtered, 5.50kW)	FSC	6SL3225-0BE25-5AA0 6SL3225-0BE25-5AA1	A05, B01 A01, A02, B01, D01, D02, E01
PM250 (3AC, 400V, filtered, 7.50kW)	FSC	6SL3225-0BE27-5AA0 6SL3225-0BE27-5AA1	A05, B01 A01, A02, B01, C01, C02, E01
PM250 (3AC, 400V, filtered, 11.0kW)	FSC	6SL3225-0BE31-1AA0 6SL3225-0BE31-1AA1	A05, B01 A01, A02, B01, C01, D02, E01
PM250 (3AC, 400V, filtered, 15.0kW)	FSD	6SL3225-0BE31-5AA0	A, B, C, D, E, F, G, H, J
PM250 (3AC, 400V, filtered, 18,5kW)	FSD	6SL3225-0BE31-8AA0	A, B, C, D, E, F, G, H, J
PM250 (3AC, 400V, filtered, 22.0kW)	FSD	6SL3225-0BE32-2AA0	A, B, C, D, E, F, G, H, J
PM250 (3AC, 400V, filtered, 30.0kW)	FSE	6SL3225-0BE33-0AA0	A, B, C, D, E, F, G
PM250 (3AC, 400V, filtered, 37.0kW)	FSE	6SL3225-0BE33-7AA0	A, B, C, D, E, F, G

Power Modules, 400V, IP20, internal air cooling, three phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM250 (3AC, 400V, filtered, 45.0kW)	FSF	6SL3225-0BE34-5AA0	A, B, C, D, E, F, G
PM250 (3AC, 400V, filtered, 55.0kW)	FSF	6SL3225-0BE35-5AA0	A, B, C, D, E, F, G
PM250 (3AC, 400V, filtered, 75.0kW)	FSF	6SL3225-0BE37-5AA0	A, B, C, D, E, F, G

Power Modules, 230V, IP21, internal air cooling, three phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM240-2 (3AC, 230V, unfiltered, 11.0kW)	FSD	6SL3210-1PC24-2UL0	04, 05, 10
PM240-2 (3AC, 230V, unfiltered, 15.0kW)	FSD	6SL3210-1PC25-4UL0	04, 05, 10
PM240-2 (3AC, 230V, unfiltered, 18.5kW)	FSD	6SL3210-1PC26-8UL0	04, 05, 10
PM240-2 (3AC, 230V, unfiltered, 22.0kW)	FSE	6SL3210-1PC28-0UL0	04, 05, 10
PM240-2 (3AC, 230V, unfiltered, 30.0kW)	FSE	6SL3210-1PC31-1UL0	04, 05, 10
PM240-2 (3AC, 230V, unfiltered, 37.0kW)	FSF	6SL3210-1PC31-3UL0	04
PM240-2 (3AC, 230V, unfiltered, 45.0kW)	FSF	6SL3210-1PC31-6UL0	04
PM240-2 (3AC, 230V, unfiltered, 55.0kW)	FSF	6SL3210-1PC31-8UL0	04

Power Modules, 400V, IP21, internal air cooling, three phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM240-2 (3AC, 400V, unfiltered, 18.5kW)	FSD	6SL3210-1PE23-8UL0	04, 05, 10
PM240-2 (3AC, 400V, unfiltered, 22.0kW)	FSD	6SL3210-1PE24-5UL0	04, 05, 10
PM240-2 (3AC, 400V, unfiltered, 30.0kW)	FSD	6SL3210-1PE26-0UL0	04, 05, 10
PM240-2 (3AC, 400V, unfiltered, 37.0kW)	FSD	6SL3210-1PE27-5UL0	04, 05, 10
PM240-2 (3AC, 400V, unfiltered, 45.0kW)	FSE	6SL3210-1PE28-8UL0	04, 05, 10
PM240-2 (3AC, 400V, unfiltered, 55.0kW)	FSE	6SL3210-1PE31-1UL0	04, 05, 10
PM240-2 (3AC, 400V, unfiltered, 75.0kW)	FSF	6SL3210-1PE31-5UL0	04, 07
PM240-2 (3AC, 400V, unfiltered, 90.0kW)	FSF	6SL3210-1PE31-8UL0	04, 07
PM240-2 (3AC, 400V, unfiltered, 110kW)	FSF	6SL3210-1PE32-1UL0	04
PM240-2 (3AC, 400V, unfiltered, 132kW)	FSF	6SL3210-1PE32-5UL0	04
PM240-2 (3AC, 400V, filtered, 18.5kW)	FSD	6SL3210-1PE23-8AL0	04, 05, 10
PM240-2 (3AC, 400V, filtered, 22.0kW)	FSD	6SL3210-1PE24-5AL0	04, 05, 10

Power Modules, 400V, IP21, internal air cooling, three phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM240-2 (3AC, 400V, filtered, 30.0kW)	FSD	6SL3210-1PE26-0AL0	04, 05, 10
PM240-2 (3AC, 400V, filtered, 37.0kW)	FSD	6SL3210-1PE27-5AL0	04, 05, 10
PM240-2 (3AC, 400V, filtered, 45.0kW)	FSE	6SL3210-1PE28-8AL0	04, 05, 10
PM240-2 (3AC, 400V, filtered, 55.0kW)	FSE	6SL3210-1PE31-1AL0	04, 05, 10
PM240-2 (3AC, 400V, filtered, 75.0kW)	FSF	6SL3210-1PE31-5AL0	04, 07
PM240-2 (3AC, 400V, filtered, 90.0kW)	FSF	6SL3210-1PE31-8AL0	04, 07
PM240-2 (3AC, 400V, filtered, 110kW)	FSF	6SL3210-1PE32-1AL0	04
PM240-2 (3AC, 400V, filtered, 132kW)	FSF	6SL3210-1PE32-5AL0	04

Power Modules, 600V, IP21, internal air cooling, three phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM240-2 (3AC, 600V, unfiltered, 11.0kW)	FSD	6SL3210-1PH21-4UL0	04, 05, 10
PM240-2 (3AC, 600V, unfiltered, 15.0kW)	FSD	6SL3210-1PH22-0UL0	04, 05, 10
PM240-2 (3AC, 600V, unfiltered, 18.5kW)	FSD	6SL3210-1PH22-3UL0	04, 05, 10
PM240-2 (3AC, 600V, unfiltered, 22.0kW)	FSD	6SL3210-1PH22-7UL0	04, 05, 10
PM240-2 (3AC, 600V, unfiltered, 30.0kW)	FSD	6SL3210-1PH23-5UL0	04, 05, 10
PM240-2 (3AC, 600V, unfiltered, 37.0kW)	FSD	6SL3210-1PH24-2UL0	04, 05, 10
PM240-2 (3AC, 600V, unfiltered, 45.0kW)	FSD	6SL3210-1PH25-2UL0	04, 05, 10
PM240-2 (3AC, 600V, unfiltered, 55.0kW)	FSE	6SL3210-1PH26-2UL0	04, 05, 10
PM240-2 (3AC, 600V, unfiltered, 75.0kW)	FSF	6SL3210-1PH28-0UL0	04
PM240-2 (3AC, 600V, unfiltered, 90.0kW)	FSF	6SL3210-1PH31-0UL0	04
PM240-2 (3AC, 600V, unfiltered, 110kW)	FSF	6SL3210-1PH31-2UL0	04
PM240-2 (3AC, 600V, unfiltered, 132kW)	FSF	6SL3210-1PH31-4UL0	04
PM240-2 (3AC, 600V, filtered, 11.0kW)	FSD	6SL3210-1PH21-4AL0	04, 05, 10
PM240-2 (3AC, 600V, filtered, 15.0kW)	FSD	6SL3210-1PH22-0AL0	04, 05, 10
PM240-2 (3AC, 600V, filtered, 18.5kW)	FSD	6SL3210-1PH22-3AL0	04, 05, 10
PM240-2 (3AC, 600V, filtered, 22.0kW)	FSD	6SL3210-1PH22-7AL0	04, 05, 10
PM240-2 (3AC, 600V, filtered, 30.0kW)	FSD	6SL3210-1PH23-5AL0	04, 05, 10
PM240-2 (3AC, 600V, filtered, 37.0kW)	FSD	6SL3210-1PH24-2AL0	04, 05, 10

Power Modules, 600V, IP21, internal air cooling, three phase inlet			
Description	Frame Size	Order Purchase No. (MLFB)	Hardware Version
PM240-2 (3AC, 600V, filtered, 45.0kW)	FSD	6SL3210-1PH25-2AL0	04, 05, 10
PM240-2 (3AC, 600V, filtered, 55.0kW)	FSE	6SL3210-1PH26-2AL0	04, 05, 10
PM240-2 (3AC, 600V, filtered, 75.0kW)	FSE	6SL3210-1PH28-0AL0	04
PM240-2 (3AC, 600V, filtered, 90.0kW)	FSF	6SL3210-1PH31-0AL0	04
PM240-2 (3AC, 600V, filtered, 110kW)	FSF	6SL3210-1PH31-2AL0	04
PM240-2 (3AC, 600V, filtered, 132kW)	FSF	6SL3210-1PH31-4AL0	04

2.3 Sensor Modules

Description	Order Purchase No. (MLFB)	Hardware Version
SMI20 (sensor module internal)	6SL3055-0AA00-5MA0 Included in motors with DRIVE-CLiQ interface: A5E00207496, A5E01122783, A5E02282294 6SL3055-0AA00-5MA3 (2. Generation) Included in motors with DRIVE-CLiQ interface: A5E01139087	B, C, D A, B, C, D, E, F, G, H, J, K, L, M
SMI24 (sensor module internal)	A5E33414618	C
SME20 (sensor module external)	6SL3055-0AA00-5EA0 6SL3055-0AA00-5EA3 (2. Generation)	A, B A, B, C, D, E, F, G, H, J, K, L
SME25 (sensor module external)	6SL3055-0AA00-5HA0 6SL3055-0AA00-5HA3 (2. Generation)	A, B A, B, C, D, E, F, G, H, J, K, L, M
SME120 (sensor module external)	6SL3055-0AA00-5JA0 6SL3055-0AA00-5JA3 (2. Generation)	A, B, C A, B, C, D, E, F, G, H
SME125 (sensor module external)	6SL3055-0AA00-5KA0 6SL3055-0AA00-5KA3 (2. Generation)	A, B, C A, B, C, D, E, F, G, H
SMC20 (sensor module cabinet)	6SL3055-0AA00-5BA1 6SL3055-0AA00-5BA2 6SL3055-0AA00-5BA3 (2. Generation)	A, B A A, B, C, D, E, F, G
SMC40 (sensor module cabinet)	6SL3055-0AA00-5DA0	A

2.4 Terminal Module

Description	Order Purchase No. (MLFB)	Hardware Version
TM54F	6SL3055-0AA00-3BA0	A, B, C, D

2.5 Brake Module

Description	Order Purchase No. (MLFB)	Hardware Version
Safe Brake Relay	6SL3252-0BB01-0AA0	A03, B01, C01

3 Boundary Conditions

3.1 Exceptions

The marked software versions may lead to unexpected behaviour if SOS is used in combination with SS2. Please contact your local support for details.

3.2 System Related Software

According to IEC61508-4 (2010) the related engineering system "SINAMICS Startdrive" is classified as T3 off-line support tool. Therefore, all required measures considering T3 off-line support tools as defined in [1] were applied.

Off-Line Support Tool	Version TIA Portal
SINAMICS Startdrive TIA	V13 SP1 V14