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Overview of Safety-Related Parameters for Siemens Components
in Accordance with ISO 13849-1 and IEC 62061

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Product Information

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Note on the present document

The TÜV-tested Safety Evaluation Tool supports you with the calculation of safety functions as proof for machine documentation. The tool is available free of charge on the Internet via www.siemens.com/safety-evaluation-tool. Below, please find an exported version of the safety-technical parameters of Safety Integrated products by Siemens for your own calculation procedures.

Disclaimer of liability

This overview of safety-related parameters for Siemens components in accordance with ISO 13849-1 and IEC 62061 ("Overview") is made available to you at no charge. With the exception of intentional or grossly negligent behavior or the fraudulent concealment of faults, we therefore exclude any liability with regard to the correctness of content, accuracy, completeness and usability of this overview. The use of this overview is completely voluntary and is at your own risk.

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Note

Every user is responsible for using the data provided to him, e.g. for other calculation tools. It is especially important to observe that all imported product data are always up to date. Further, you are obliged to exercise special care in safety-relevant areas.

Legend

SIL	Safety Integrity Level in accordance with IEC 62061
PL	Performance Level in accordance with ISO 13849-1
PFHD	Probability of dangerous failure per hour Note: The PFHD for SIMATIC F-PLC includes the PFHD of the SIMATIC F-PLC and the PROFISAFE specific PFHD of 1.00E-09.
B10	Number of duty cycles after which 10% of these devices fail
Ratio of dangerous failures	Amount (ratio) of the total failure rate of one component, subsystem or an element that can lead to a dangerous failure of a safety function.

T1	The maximum useful lifetime
AE1	Additional entry 1
AE2	Additional entry 2

Safety Technical Parameters

Table 1: ASIsafe - Safety Monitors

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
2-encoder system (HTL/TTL) (G130)	dede			0	0	0	0	-	-
Basic, 1 Enabling Circuit	3RK1105-1A.04-0CA0	SIL3	PL_E	6.20E-9	0	0	20	-	-
Basic, 2 Enabling Circuits	3RK1105-1B.04-0CA0	SIL3	PL_E	9.60E-9	0	0	20	-	-
Enhanced, 1 Enabling Circuit	3RK1105-1A.04-2CA0	SIL3	PL_E	6.20E-9	0	0	20	-	-
Enhanced, 2 Enabling Circuits	3RK1105-1B.04-2CA0	SIL3	PL_E	9.60E-9	0	0	20	-	-
Enhanced, 2 Enabling Circuits incl. control for one safe AS-i output	3RK1105-1B.04-4CA0	SIL3	PL_E	9.60E-9	0	0	20	-	-

Table 2: ASIsafe - safe outputs

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
S45F, 1F-RO/3DI/2DO	3RK1405-1S.15-0AA2	SIL3	PL_E	2.14E-8	0	0	20	-	-

Table 3: DP/AS-i F-Link

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
DP/AS-i F-LINK Gateway	3RK3141-.CD10	SIL3	PL_E	3.00E-9	0	0	20	-	-

Table 4: SIDOOR Control Unit

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
ATD401W Relay	6FB1141-1AT11-3WE2	SIL2	PL_D	2.29E-7	0	0	20	Limit of energy and force	-
ATD401W Relay	6FB1141-1AT11-3WE2	SIL2	PL_D	2.29E-7	0	0	20	Safety Inputs	-
ATD410W USS	6FB1141-4AT10-3WE2	SIL2	PL_D	2.29E-7	0	0	20	Limit of energy and force	-
ATD410W USS	6FB1141-4AT10-3WE2	SIL2	PL_D	2.29E-7	0	0	20	Safety Inputs	-
ATD420W PROFIBUS	6FB1141-2AT10-3WE2	SIL2	PL_D	2.29E-7	0	0	20	Limit of energy and force	-
ATD420W PROFIBUS	6FB1141-2AT10-3WE2	SIL2	PL_D	2.29E-7	0	0	20	Safety Inputs	-
ATD430W PROFINET	6FB1141-3AT10-3WE2	SIL2	PL_D	2.29E-7	0	0	20	Limit of energy and force	-
ATD430W PROFINET	6FB1141-3AT10-3WE2	SIL2	PL_D	2.29E-7	0	0	20	Safety Inputs	-
ATE530S PROFINET	6FB1231-3BM10-7AT0	SIL2	PL_D	1.30E-7	0	0	20	Limit of energy and force	-
ATE530S PROFINET	6FB1231-3BM10-7AT0	SIL2	PL_D	1.30E-7	0	0	20	Safety Inputs	-
ATE530S PROFINET COATED	6FB1231-3BM12-7AT0	SIL2	PL_D	1.30E-7	0	0	20	Limit of energy and force	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
ATE530S PROFINET COATED	6FB1231-3BM12-7AT0	SIL2	PL_D	1.30E-7	0	0	20	Safety Inputs	-
ATE531S PROFINET	6FB1231-3BM11-7AT0	SIL2	PL_D	1.30E-7	0	0	20	Limit of energy and force	-
ATE531S PROFINET	6FB1231-3BM11-7AT0	SIL2	PL_D	1.30E-7	0	0	20	Safety Inputs	-

Table 5: SIMATIC ET200M - fail-safe Modules

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
SM326 F-DI 24	6ES7326-1BK02-0AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
SM326 F-DI 24	6ES7326-1BK02-0AB0	SIL2	PL_D	1.00E-8	0	0	20	1 channel	-
SM326 F-DI 8 Namur	6ES7326-1RF01-0AB0	SIL2	PL_D	2.00E-8	0	0	20	1 channel	-
SM326 F-DI 8 Namur	6ES7326-1RF01-0AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
SM326 F-DO 10	6ES7326-2BF10-0AB0	SIL3	PL_E	1.00E-9	0	0	20	-	-
SM326 F-DO 8	6ES7326-2BF41-0AB0	SIL3	PL_E	3.00E-9	0	0	20	-	-
SM336 F-AI 6	6ES7336-4GE00-0AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
SM336 F-AI 6	6ES7336-4GE00-0AB0	SIL3	PL_E	1.00E-8	0	0	20	1 channel	-

Table 6: SIMATIC ET200MP - fail-safe Modules

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
SM526 F-DI 16	6ES7526-1BH00-0AB0	SIL3	PL_D	1.00E-9	0	0	20	1 channel	-
SM526 F-DI 16	6ES7526-1BH00-0AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
SM526 F-DI 16	6AG1526-1BH00-2AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
SM526 F-DI 16	6AG1526-1BH00-2AB0	SIL3	PL_D	1.00E-9	0	0	20	1 channel	-
SM526 F-DQ 8	6ES7526-2BF00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
SM526 F-DQ 8	6AG1526-2BF00-2AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-

Table 7: SIMATIC ET200S - Frequency converter / Motor starters

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Failsafe Motor Starter	3RK1301-0.B13-.AA4	SIL3	PL_E	1.80E-9	0	0	10	-	-
High Feature Motor Starter	3RK1301-0.B10-.AA4			0	1000000	73	20	-	-
High Feature Motor Starter	3RK1301-0.B10-.AB4			0	1000000	73	20	-	-
Standard Motor Starter	3RK1301-..B00-.AA2			0	1000000	73	20	-	-

Table 8: SIMATIC ET200S - fail-safe Modules

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
EM138 1 F-RO	6ES7138-4FR00-0AA0	SIL3	PL_E	8.00E-9	0	0	20	Output	Signal changes at least once per day
EM138 1 F-RO	6ES7138-4FR00-0AA0	SIL3	PL_E	1.00E-9	0	0	20	Output	Signal changes fewer than once per day

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
EM138 4 F-DI/3 F-DO	6ES7138-4FC01-0AB0	SIL2	PL_D	1.00E-8	0	0	20	2 channels	-
EM138 4 F-DO	6ES7138-4FB04-0AB0	SIL3	PL_E	1.00E-9	0	0	20	-	-
EM138 4/8 F-DI	6ES7138-4FA05-0AB0	SIL2	PL_D	1.00E-8	0	0	20	1 channel	-
EM138 4/8 F-DI	6ES7138-4FA05-0AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
EM138 PM-E F	6ES7138-4CF03-0AB0	SIL3	PL_E	1.00E-9	0	0	20	Output	Terminaloutput
EM138 PM-E F	6ES7138-4CF42-0AB0	SIL3	PL_E	1.00E-9	0	0	20	Output	Terminaloutput
EM138 PM-E F	6ES7138-4CF03-0AB0	SIL2	PL_D	1.00E-9	0	0	20	Output	Potential group SIL2/PLd
EM138 PM-E F	6ES7138-4CF03-0AB0	SIL1	PL_C	1.00E-9	0	0	20	Output	Potential group SIL1/PLc
EM138 PM-E F	6ES7138-4CF42-0AB0	SIL2	PL_D	1.00E-9	0	0	20	Output	Potential group SIL2/PLd
EM138 PM-E F	6ES7138-4CF42-0AB0	SIL1	PL_C	1.00E-9	0	0	20	Output	Potential group SIL1/PLc
F-CM Multiplier	3RK1903-3CA00	SIL3	PL_E	6.90E-10	0	0	10	-	-
PM-D F PROFIsafe	3RK1903-3BA02	SIL3	PL_E	1.00E-9	0	0	20	-	-
PM-D F1 - Monitored Start-up (Solution local)	3RK1903-1BA00	SIL3	PL_E	8.73E-9	0	0	20	-	-
PM-D F2 - Automatic start-up (Solution local)	3RK1903-1BB00	SIL3	PL_E	9.01E-9	0	0	20	-	-
PM-D F3 - Expansion to PM-D F 1/2, time-delayed (Solution local)	3RK1903-1BD00	SIL2	PL_D	1.35E-9	0	0	20	-	-
PM-D F4 - Expansion to PM-D F 1/2 (Solution local)	3RK1903-1BC00	SIL3	PL_E	9.05E-9	0	0	20	-	-
PM-D F5 - Expansion to PM-D F1 to F4, Contact Multiplier (Solution local)	3RK1903-1BE00	SIL3	PL_E	9.05E-9	0	0	20	-	-
PM-D FX1 Failsafe (Solution local)	3RK1903-3DA00	SIL3	PL_E	5.70E-11	0	0	10	-	-

Table 9: SIMATIC ET200SP - Frequency converter / Motor starters

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Failsafe Direct-on-line starter	3RK1308-0CE00-0CP0	SIL3	PL_E	3.60E-9	0	0	20	-	-
Failsafe Direct-on-line starter	3RK1308-0CD00-0CP0	SIL3	PL_E	3.60E-9	0	0	20	-	-
Failsafe Direct-on-line starter	3RK1308-0CC00-0CP0	SIL3	PL_E	3.60E-9	0	0	20	-	-
Failsafe Direct-on-line starter	3RK1308-0CB00-0CP0	SIL3	PL_E	3.60E-9	0	0	20	-	-
Failsafe Reversing starter	3RK1308-0DE00-0CP0	SIL3	PL_E	3.60E-9	0	0	20	-	-
Failsafe Reversing starter	3RK1308-0DD00-0CP0	SIL3	PL_E	3.60E-9	0	0	20	-	-
Failsafe Reversing starter	3RK1308-0DC00-0CP0	SIL3	PL_E	3.60E-9	0	0	20	-	-
Failsafe Reversing starter	3RK1308-0DB00-0CP0	SIL3	PL_E	3.60E-9	0	0	20	-	-

Table 10: SIMATIC ET200SP - fail-safe -Modules

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
EM136 1 F-RQ	6ES7136-6RA00-0BF0	SIL2	PL_D	1.00E-8	0	0	20	Functional test once per year	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
EM136 1 F-RQ	6ES7136-6RA00-0BF0	SIL3	PL_E	6.00E-9	0	0	20	Functional test once per month	-
EM136 1 F-RQ	6AG1136-6RA00-2BF0	SIL3	PL_E	6.00E-9	0	0	20	Functional test once per month	-
EM136 1 F-RQ	6AG1136-6RA00-2BF0	SIL2	PL_D	1.00E-8	0	0	20	Functional test once per year	-
EM136 4 F-DQ	6ES7136-6DB00-0CA0	SIL3	PL_E	1.00E-9	0	0	20	-	-
EM136 4 F-DQ	6AG1136-6DB00-2CA0	SIL3	PL_E	1.00E-9	0	0	20	-	-
EM136 8 F-DI	6ES7136-6BA00-0CA0	SIL3	PL_D	1.00E-9	0	0	20	1 channel	-
EM136 8 F-DI	6ES7136-6BA00-0CA0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
EM136 8 F-DI	6AG1136-6BA00-2CA0	SIL3	PL_D	1.00E-9	0	0	20	1 channel	-
EM136 8 F-DI	6AG1136-6BA00-2CA0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
EM136 F-PM-E	6ES7136-6PA00-0BC0	SIL3	PL_E	1.00E-9	0	0	20	Output	Terminaloutput
EM136 F-PM-E	6ES7136-6PA00-0BC0	SIL3	PL_D	1.00E-9	0	0	20	Input	1 channel
EM136 F-PM-E	6ES7136-6PA00-0BC0	SIL3	PL_E	1.00E-9	0	0	20	Input	2 channels
EM136 F-PM-E	6ES7136-6PA00-0BC0	SIL2	PL_D	1.00E-9	0	0	20	Output	Potential group SIL2/PLd
EM136 F-PM-E	6ES7136-6PA00-0BC0	SIL1	PL_C	1.00E-9	0	0	20	Output	Potential group SIL1/PLc
EM136 F-PM-E	6AG1136-6PA00-2BC0	SIL3	PL_D	1.00E-9	0	0	20	Input	1 channel
EM136 F-PM-E	6AG1136-6PA00-2BC0	SIL3	PL_E	1.00E-9	0	0	20	Input	2 channels
EM136 F-PM-E	6AG1136-6PA00-2BC0	SIL2	PL_D	1.00E-9	0	0	20	Output	Potential group SIL2/PLd
EM136 F-PM-E	6AG1136-6PA00-2BC0	SIL1	PL_C	1.00E-9	0	0	20	Output	Potential group SIL1/PLc
EM136 F-PM-E	6AG1136-6PA00-2BC0	SIL3	PL_E	1.00E-9	0	0	20	Output	Terminaloutput
F-CM AS-i Safety	3RK7136-6SC00-0BC1	SIL3	PL_E	1.89E-9	0	0	20	-	-

Table 11: SIMATIC ET200eco - fail-safe Modules

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
EM148 4/8 F-DI	6ES7148-3FA00-0XB0	SIL2	PL_D	1.00E-8	0	0	20	1 channel	-
EM148 4/8 F-DI	6ES7148-3FA00-0XB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-

Table 12: SIMATIC ET200iSP - fail-safe Modules

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
EM 4 F-AI Ex HART	6ES7138-7FA00-0AB0	SIL3	PL_D	1.00E-8	0	0	20	1 channel	-
EM 4 F-AI Ex HART	6ES7138-7FA00-0AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
EM 4 F-DO Ex 17,4V/40mA	6ES7138-7FD00-0AB0	SIL3	PL_E	1.00E-9	0	0	20	1 channel	-
EM 4 F-DO Ex 17,4V/40mA	6ES7138-7FD00-0AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
EM 8 F-DI Ex NAMUR	6ES7138-7FN00-0AB0	SIL3	PL_E	1.00E-9	0	0	20	1 channel	-
EM 8 F-DI Ex NAMUR	6ES7138-7FN00-0AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-

Table 13: SIMATIC ET200pro - Frequency converter / Motor starters

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
ET200pro FC	6SL3235-0TE21-1SB0	SIL2	PL_D	5.00E-8	0	0	20	-	-
High Feature Motor Starter	3RK1304-5.S40-.AA.			0	1000000	73	20	-	-
Standard Motor Starter	3RK1304-5.S40-.AA.			0	1000000	73	20	-	-

Table 14: SIMATIC ET200pro - fail-safe Modules

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
ASM (Disconnecting Modul)	3RK1304-0HS00-8AA0	SIL3	PL_E	1.00E-15	0	0	10	-	-
EM148 8/16 F-DI	6ES7148-4FA00-0AB0	SIL2	PL_D	1.00E-8	0	0	20	1 channel	-
EM148 8/16 F-DI	6ES7148-4FA00-0AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
EM148 4/8 F-DI/ 4 F-DO	6ES7148-4FC00-0AB0	SIL2	PL_D	1.00E-8	0	0	20	1 channel	-
EM148 4/8 F-DI/ 4 F-DO	6ES7148-4FC00-0AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
F-RSM (Isolator Modul)	3RK1304-0HS00-7AA0	SIL3	PL_E	5.35E-11	0	0	10	-	-
F-SWITCH PROFISAFE	6ES7148-4FS00-0AB0	SIL3	PL_E	1.00E-9	0	0	20	2 channels	-
F-SWITCH PROFISAFE	6ES7148-4FS00-0AB0	SIL2	PL_D	1.00E-8	0	0	20	1 channel	-

Table 15: SIMATIC HMI

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Key Panel 8F PN	6AV3688-3AF37-0AX0	SIL2	PL_D	5.95E-10	0	0	10	1 channel	-
Key Panel 8F PN	6AV3688-3AF37-0AX0	SIL3	PL_E	2.55E-10	0	0	10	2 channels	-
Key Panel KP32F PN	6AV3688-3EH47-0AX0	SIL2	PL_D	5.95E-10	0	0	10	1 channel	-
Key Panel KP32F PN	6AV3688-3EH47-0AX0	SIL3	PL_E	2.55E-10	0	0	10	2 channels	-
Mobile Panel 177 DP with enabling switch	6AV6 645-0AA01-0AX0	SIL2	PL_D	1.35E-7	0	0	20	-	-
Mobile Panel 177 DP with enabling switch and STOP button	6AV6 645-0AB01-0AX0	SIL2	PL_D	1.35E-7	0	0	20	-	-
Mobile Panel 177 DP with enabling switch, STOP button, Hand wheel, key switch and illuminated button	6AV6 645-0AC01-0AX0	SIL2	PL_D	1.35E-7	0	0	20	-	-
Mobile Panel 177 PN with enabling switch	6AV6 645-0BA01-0AX0	SIL2	PL_D	1.35E-7	0	0	20	-	-
Mobile Panel 177 PN with enabling switch und STOP button	6AV6 645-0BB01-0AX0	SIL2	PL_D	1.35E-7	0	0	20	-	-
Mobile Panel 177 PN with enabling switch, STOP button, hand wheel, key switch and illuminated button	6AV6 645-0BC01-0AX0	SIL2	PL_D	1.35E-7	0	0	20	-	-
Mobile Panel 277 10" DP/PN with enabling switch and STOP button	6AV6 645-0BE02-0AX0	SIL2	PL_D	1.35E-7	0	0	20	-	-
Mobile Panel 277 DP/PN with enabling switch	6AV6 645-0CA01-0AX0	SIL2	PL_D	1.35E-7	0	0	20	-	-
Mobile Panel 277 DP/PN with enabling switch and stop button	6AV6 645-0CB01-0AX0	SIL2	PL_D	1.35E-7	0	0	20	-	-
Mobile Panel 277 DP/PN with enabling switch, stop button, hand wheel, key switch and illuminated button	6AV6 645-0CC01-0AX0	SIL2	PL_D	1.35E-7	0	0	20	-	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Mobile Panel 277 F IWLAN Profisafe with enabling switch and E-STOP	6AV6 645-0EB01-0AX1	SIL3	PL_E	1.00E-10	0	0	10	-	-
Mobile Panel 277 F IWLAN Profisafe with enabling switch and E-STOP for USA	6AV6 645-0GB01-0AX1	SIL3	PL_E	8.60E-11	0	0	10	-	-
Mobile Panel 277 F IWLAN Profisafe with enabling switch, E-STOP, hand wheel, key switch and illuminated push button	6AV6 645-0EC01-0AX1	SIL3	PL_E	1.00E-10	0	0	10	-	-
Mobile Panel 277 F IWLAN Profisafe with enabling switch, E-STOP, hand wheel, key switch and illuminated push button for USA	6AV6 645-0GC01-0AX1	SIL3	PL_E	8.60E-11	0	0	10	-	-
Mobile Panel 277 F IWLAN Profisafe, RFID-Tag	6AV6 645-0EF01-0AX1	SIL3	PL_E	8.60E-11	0	0	10	-	-
Mobile Panel 277 F IWLAN Profisafe, RFID-Tag for USA	6AV6 645-0GF01-0AX1	SIL3	PL_E	8.60E-11	0	0	10	-	-
Mobile Panel KTP400F	6AV2125-2DB23-0AX0	SIL3	PL_E	1.00E-8	0	0	20	-	-
Mobile Panel KTP700F	6AV2125-2GB23-0AX0	SIL3	PL_E	1.00E-8	0	0	20	-	-
Mobile Panel KTP900F	6AV2125-2JB23-0AX0	SIL3	PL_E	1.00E-8	0	0	20	-	-

Table 16: SIMATIC S7 F-CPU

Product	Ordernumber	SIL	PL	PFHD *	B10	Ratio of dangerous failures	T1	AE1	AE2
CPU 1214FC DC/DC/DC	6ES7214-1AF40-0XB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1214FC DC/DC/DC	6AG1214-1AF40-5XB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1214FC DC/DC/Rly	6ES7214-1HF40-0XB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1214FC DC/DC/Rly	6AG1214-1HF40-5XB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1215FC DC/DC/DC	6ES7215-1AF40-0XB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1215FC DC/DC/Rly	6ES7215-1HF40-0XB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1505SP	6ES7672-5SC01-0YA0	SIL3	PL_E	4.00E-9	0	0	10	-	-
CPU 1507S	6ES7672-7FC01-0YA0	SIL3	PL_E	4.00E-9	0	0	10	-	-
CPU 1510SPF-1PN	6ES7510-1SJ00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1510SPF-1PN	6ES7510-1SJ01-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1510SPF-1PN	6AG1510-1SJ01-2AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1511F-1PN	6ES7511-1FK00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1511F-1PN	6ES7511-1FK01-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1511F-1PN	6AG1511-1FK01-2AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1511TF-1PN	6ES7511-1UK00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1512SPF-1PN	6ES7512-1SK00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1512SPF-1PN	6ES7512-1SK01-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1512SPF-1PN	6AG1512-1SK01-2AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1513F-1PN	6ES7513-1FL00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1513F-1PN	6ES7513-1FL01-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1513F-1PN	6AG1513-1FL01-2AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1515F-2PN	6ES7515-2FM00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-

Product	Ordernumber	SIL	PL	PFHD *	B10	Ratio of dangerous failures	T1	AE1	AE2
CPU 1515F-2PN	6ES7515-2FM01-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1515TF-2PN	6ES7515-2UM00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1516F-3PN/DP	6ES7516-3FN00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1516F-3PN/DP	6ES7516-3FN01-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1516F-3PN/DP	6AG1516-3FN01-2AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1517F-3PN/DP	6ES7517-3FP00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1517TF-3PN/DP	6ES7517-3UP00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1518F-4PN/DP	6ES7518-4FP00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 1518F-4PN/DP	6AG1518-4FP00-4AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 315F 2DP	6ES7315-6FF04-0AB0	SIL3	PL_E	1.50E-9	0	0	20	-	-
CPU 315F 2PN/DP	6ES7315-2FJ14-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 317F 2DP	6ES7317-6FF04-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 317F 2PN/DP	6ES7317-2FK14-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 317TF-3PN/DP	6ES7317-7UL10-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 319F 3PN/DP	6ES7318-3FL01-0AB0	SIL3	PL_E	4.00E-9	0	0	20	-	-
CPU 412H	6ES7412-5HK06-0AB0	SIL3	PL_E	5.30E-9	0	0	20	-	-
CPU 414F-3PN/DP	6ES7414-3FM06-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 414F-3PN/DP	6ES7414-3FM07-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 414H	6ES7414-5HM06-0AB0	SIL3	PL_E	5.30E-9	0	0	20	-	-
CPU 416F-2	6ES7416-2FN05-0AB0	SIL3	PL_E	2.09E-9	0	0	20	-	-
CPU 416F-2	6ES7416-2FP07-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 416F-3PN/DP	6ES7416-3FS06-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 416F-3PN/DP	6ES7416-3FS07-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
CPU 416H	6ES7416-5HS06-0AB0	SIL3	PL_E	5.30E-9	0	0	20	-	-
CPU 417H	6ES7417-5HT06-0AB0	SIL3	PL_E	5.30E-9	0	0	20	-	-
IM151-7 F-CPU	6ES7151-7FA21-0AB0	SIL3	PL_E	1.35E-9	0	0	20	-	-
IM151-8 F-CPU	6ES7151-8FB01-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
IM154-8 F-CPU	6ES7154-8FB01-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
IM154-8 F-CPU	6ES7154-8FX00-0AB0	SIL3	PL_E	2.00E-9	0	0	20	-	-
WinAC RTX F	6ES7671-1RC08-0YA0	SIL3	PL_E	4.00E-9	0	0	10	-	-

* Note: The PFHD for SIMATIC F-PLC includes the PFHD of the SIMATIC F-PLC and the PROFISAFE specific PFHD of 1.00E-09.

Table 17: SIMATIC S7-1200 - fail-safe Modules

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
SM 1226 F-DI 16	6ES7226-6BA32-0XB0	SIL2	PL_D	1.00E-8	0	0	20	1 channel	-
SM 1226 F-DI 16	6ES7226-6BA32-0XB0	SIL3	PL_E	1.00E-10	0	0	20	2 channels	-
SM 1226 F-DI 16	6AG1226-6BA32-5XB0	SIL3	PL_E	1.00E-10	0	0	20	2 channels	-
SM 1226 F-DI 16	6AG1226-6BA32-5XB0	SIL2	PL_D	1.00E-8	0	0	20	1 channel	-
SM 1226 F-DQ 2xRLY	6ES7226-6RA32-0XB0	SIL3	PL_E	4.00E-9	0	0	20	-	-
SM 1226 F-DQ 2xRLY	6AG1226-6RA32-5XB0	SIL3	PL_E	4.00E-9	0	0	20	-	-
SM 1226 F-DQ 4	6ES7226-6DA32-0XB0	SIL3	PL_E	4.00E-9	0	0	20	-	-
SM 1226 F-DQ 4	6AG1226-6DA32-5XB0	SIL3	PL_E	4.00E-9	0	0	20	-	-

Table 18: SIMOCODE pro

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
DM-F LOCAL AC/DC 110-240V	3UF73200-1AU00-0	SIL1	PL_C	7.80E-7	0	0	20	one channel sensor	-
DM-F LOCAL AC/DC 110-240V	3UF73200-1AU00-0	SIL3	PL_E	8.18E-9	0	0	20	two channel sensor	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
DM-F LOCAL DC 24V	3UF73200-1AB00-0	SIL1	PL_C	7.69E-7	0	0	20	one channel sensor	-
DM-F LOCAL DC 24V	3UF73200-1AB00-0	SIL3	PL_E	8.06E-9	0	0	20	two channel sensor	-
DM-F PROFISAFE AC/DC 110-240V	3UF73300-1AU00-0	SIL3	PL_E	7.78E-9	0	0	20	-	-
DM-F PROFISAFE DC 24V	3UF73300-1AB00-0	SIL3	PL_E	7.65E-9	0	0	20	-	-

Table 19: SIMOTION

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
SIMOTION CX32	6SL3040-0NA00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D410 DP	6AU1410-0AA00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D410 PN	6AU1410-0AB00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D410-2 DP	6AU1410-2AA00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D410-2 DP/PN	6AU1410-2AD00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D425	6AU1425-0AA00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D425-2 DP	6AU1425-2AA00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D425-2 DP/PN	6AU1425-2AD00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D435	6AU1435-0AA00-0AA1	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D435-2 DP	6AU1435-2AA00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D435-2 DP/PN	6AU1435-2AD00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D445-2 DP/PN	6AU1445-2AD00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION D455-2 DP/PN	6AU1455-2AD00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
SIMOTION CX32-2	6AU1432-2AA00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-

Table 20: SINAMICS G110M

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
CU240M	6SL3544-0xB02-1BA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240M AS-i	6SL3544_0xB02_1MA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240M DP	6SL3544-0xB02-1PA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240M PN	6SL3544-0xB02-1FA0	SIL2	PL_D	5.00E-8	0	0	20	-	-

Table 21: SINAMICS G120

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
CU240E-2	6SL3244-0BB12-1BA1	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240E-2 DP	6SL3244-0BB12-1PA1	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240E-2 DP-F	6SL3244-0BB13-1PA1	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240E-2 F	6SL3244-0BB13-1BA1	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240E-2 PN	6SL3244-0BB12-1FA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240E-2 PN-F	6SL3244-0BB13-1FA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU250S-2	6SL3246-0BA22-1BA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU250S-2 CAN	6SL3246-0BA22-1CA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU250S-2 DP	6SL3246-0BA22-1PA0	SIL2	PL_D	5.00E-8	0	0	20	-	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
CU250S-2 PN	6SL3246-0BA22-1FA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
G120C	6SL3210-xxxxx-xxBx	SIL2	PL_D	5.00E-8	0	0	20	-	-
G120C	6SL3210-xxxxx-xxPx	SIL2	PL_D	5.00E-8	0	0	20	-	-
G120C	6SL3210-xxxxx-xxCx	SIL2	PL_D	5.00E-8	0	0	20	-	-
G120C	6SL3210-xxxxx-xxFx	SIL2	PL_D	5.00E-8	0	0	20	-	-

Table 22: SINAMICS G120D

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
CU240D-2 DP	6SL3544-0FB20-1PA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240D-2 DP-F	6SL3544-0FB21-1PA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240D-2 PN	6SL3544-0FB20-1FA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240D-2 PN-F	6SL3544-0FB21-1FA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240D-2 PN-F FO	6SL3544-0FB21-1FC0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU240D-2 PN-F PP	6SL3544-0FB21-1FB0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU250D-2 DP-F	6SL3546-0FB21-1PA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU250D-2 PN-F	6SL3546-0FB21-1FA0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU250D-2 PN-F FO	6SL3546-0FB21-1FC0	SIL2	PL_D	5.00E-8	0	0	20	-	-
CU250D-2 PN-F PP	6SL3546-0FB21-1FB0	SIL2	PL_D	5.00E-8	0	0	20	-	-

Table 23: SINAMICS G130

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
2-encoder system (HTL/TTL) (G130)	ohne	SIL2	PL_D	1.00E-7	0	0	20	irrelevant	-
G130 POWERMODULE; SI-BASIC FUNCTIONS TERMINAL CONNECTION	6SL3310-1G...-...3	SIL2	PL_D	2.40E-8	0	0	20	Basic Functions (STO, SS1)	without SBC
G130 POWERMODULE; SI-EXTENDED FUNCTIONS; 2 ENCODER, PROFISAFE	6SL3310-1G...-...3	SIL2	PL_D	1.25E-7	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC
G130 POWERMODULE; SI-EXTENDED FUNCTIONS; 2 ENCODER, TM54F	6SL3310-1G...-...3	SIL2	PL_D	1.63E-7	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC

Table 24: SINAMICS G150

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
2-encoder system (HTL/TTL) (G150)	ohne	SIL2	PL_D	1.00E-7	0	0	20	irrelevant	-
G150; SI-BASIC FUNCTIONS VIA TERMINAL CONNECTION	6SL3710-1G...-...3	SIL2	PL_D	2.40E-8	0	0	20	Basic Functions (STO, SS1)	without SBC
G150; SI-BASIC FUNCTIONS; OPTION K82	6SL3710-1G...-...3	SIL2	PL_D	2.45E-8	0	0	20	Basic Functions (STO, SS1)	without SBC
G150; SI-EXTENDED FUNCTIONS; OPTION K01 + K50, K52, K87	6SL3710-1G...-...3	SIL2	PL_D	1.63E-7	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
G150; SI-EXTENDED FUNCTIONS; OPTION K01 + K50, K52, PROFISAFE	6SL3710-1G...-...3	SIL2	PL_D	1.25E-7	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC

Table 25: SINAMICS G150 Parallel Circuit

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
G150 PARALLEL; SI-EXT FUNC; OPTION K01 + K50, K52, K87	6SL3710-1G...-...3	SIL2	PL_D	1.78E-7	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC
G150 PARALLEL; SI-EXT FUNC; OPTION K01 + K50, K52, PROFISAFE	6SL3710-1G...-...3	SIL2	PL_D	1.40E-7	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC
G150 PARALLELCIRCUIT ; SI-BASIC FUNCTIONS OPTION K82	6SL3710-2G...-...3	SIL2	PL_D	3.85E-8	0	0	20	-	-

Table 26: SINAMICS PM240-2 FSD...FSF STO

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
CU240E-2	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU240E-2 DP	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU240E-2 DP-F	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU240E-2 F	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU240E-2 PN	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU240E-2 PN-F	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU250S-2	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU250S-2 CAN	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU250S-2 DP	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU250S-2 PN	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU305 CAN	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU305 DP	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU305 PN	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU310-2 DP	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU310-2 PN	6SL321x-1PHxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-

Table 27: SINAMICS PM240P-2 FSD...FSF STO

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
CU230P-2	6SL321x-1Rxxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU230P-2 CAN	6SL321x-1Rxxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU230P-2 DP	6SL321x-1Rxxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU230P-2 PN	6SL321x-1Rxxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU240E-2	6SL321x-1Rxxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU240E-2 DP	6SL321x-1Rxxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU240E-2 DP-F	6SL321x-1Rxxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU240E-2 F	6SL321x-1Rxxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU240E-2 PN	6SL321x-1Rxxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-
CU240E-2 PN-F	6SL321x-1Rxxx-xxLx	SIL3	PL_E	5.00E-9	0	0	20	-	-

Table 28: SINAMICS S110

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Control Unit CU305 CAN	6SL3040-0JA02-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
Control Unit CU305 DP	6SL3040-0JA00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
Control Unit CU305 PN	6SL3040-0JA01-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
Motion Monitoring sensorless for Framesize Booksize and Blocksize	ohne	SIL2	PL_D	5.00E-9	0	0	20	irrelevant	-
Motor with DRIVE-CLiQ Interface, 1-Encoder system sin/cos	ohne	SIL2	PL_D	2.60E-8	0	0	20	integrated interface (SMI)	-
Motor with DRIVE-CLiQ Interface, 1-Encoder system sin/cos	ohne	SIL2	PL_D	3.00E-8	0	0	20	highly integrated interface (DQI)	-
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL3210-1SB1x-xxA0	SIL2	PL_D	1.80E-8	0	0	20	-	without SBC
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL3210-1SB1x-xxA0	SIL2	PL_D	2.20E-8	0	0	20	-	with SBC
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL321x-1PBxx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	-	without SBC
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL321x-1PBxx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	-	with SBC
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL321x-1PCxx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	-	without SBC
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL321x-1PCxx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	-	with SBC
Power Module Frame Size Blocksize 3AC 400V	6SL321x-1SExx-xxA0	SIL2	PL_D	1.80E-8	0	0	20	-	without SBC
Power Module Frame Size Blocksize 3AC 400V	6SL321x-1SExx-xxA0	SIL2	PL_D	2.20E-8	0	0	20	-	with SBC
Power Module Frame Size Blocksize 3AC 400V	6SL321x-1PExx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	-	without SBC
Power Module Frame Size Blocksize 3AC 400V	6SL321x-1PExx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	-	with SBC
Power Module Frame Size Blocksize 3AC 500V – 690V	6SL321x-1PHxx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	-	without SBC
Power Module Frame Size Blocksize 3AC 500V – 690V	6SL321x-1PHxx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	-	with SBC
Sensor Module SMC/E 20/25/40/120/125, 1-Encoder system sin/cos	6SL3055-0AA00-5xAx	SIL2	PL_D	2.60E-8	0	0	20	-	-

Table 29: SINAMICS S120 AC/AC

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
2-encoder system (HTL/TTL) (S120 ACAC)	ohne	SIL2	PL_D	1.00E-7	0	0	20	irrelevant	-
2-encoder system (both encoders with DRIVE-CLiQ or sin/cos-encoder)	ohne	SIL2	PL_D	7.00E-9	0	0	20	irrelevant	-
Control Unit CU310-2 DP	6SL3040-1LA00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
Control Unit CU310-2 PN	6SL3040-1LA01-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
Motion Monitoring sensorless for Framesize Booksize and Blocksize	ohne	SIL2	PL_D	5.00E-9	0	0	20	irrelevant	-
Motion Monitoring sensorless for Framesize Chassis	ohne	SIL2	PL_D	2.00E-8	0	0	20	irrelevant	-
Motor with DRIVE-CLiQ Interface, 1-Encoder system sin/cos	ohne	SIL2	PL_D	2.60E-8	0	0	20	integrated interface (SMI)	-
Motor with DRIVE-CLiQ Interface, 1-Encoder system sin/cos	ohne	SIL2	PL_D	3.00E-8	0	0	20	highly integrated interface (DQI)	-
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL3210-1SB1x-xxA0	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL3210-1SB1x-xxA0	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL321x-1PBxx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL321x-1PBxx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL321x-1PCxx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-
Power Module Frame Size Blocksize 1AC/3AC 200 - 240V	6SL321x-1PCxx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Power Module Frame Size Blocksize 3AC 400V	6SL321x-1SExx-xxA0	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-
Power Module Frame Size Blocksize 3AC 400V	6SL321x-1SExx-xxA0	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Power Module Frame Size Blocksize 3AC 400V	6SL321x-1PExx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-
Power Module Frame Size Blocksize 3AC 400V	6SL321x-1PExx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Power Module Frame Size Blocksize 3AC 500V – 690V	6SL321x-1PHxx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-
Power Module Frame Size Blocksize 3AC 500V – 690V	6SL321x-1PHxx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Power Module Frame Size Chassis	6SL331x-1TExx-xAA3	SIL2	PL_D	1.40E-8	0	0	20	without SBC	-
Power Module Frame Size Chassis	6SL331x-1TExx-xAA3	SIL2	PL_D	1.50E-8	0	0	20	with SBC	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Sensor Module SMC/E 20/25/40/120/125, 1-Encoder system sin/cos	6SL3055-0AA00-5xAx	SIL2	PL_D	2.60E-8	0	0	20	-	-
Terminal Module TM54F	6SL3055-0AA00-3BA0	SIL2	PL_D	3.80E-8	0	0	20	-	-

Table 30: SINAMICS S120 CABINET MODULES

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
2-encoder system (HTL/TTL) (S120 CM)	ohne	SIL2	PL_D	1.00E-7	0	0	20	irrelevant	-
S120 CM; SI-BASIC FUNCTIONS; OPTION K82	6SL3720-1T...-...3	SIL2	PL_D	2.45E-8	0	0	20	Basic Functions (STO, SS2)	without SBC
S120 CM; SI-BASIC FUNCTIONS; VIA TERMINAL CONNECTION	6SL3720-1T...-...3	SIL2	PL_D	2.40E-8	0	0	20	Basic Functions (STO, SS1)	without SBC
S120 CM; SI-EXTENDED FUNCTIONS; 1 AXIS; OPTION K01 + K87	6SL3720-1T...-...3	SIL2	PL_D	8.80E-8	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC
S120 CM; SI-EXTENDED FUNCTIONS; 2 AXIS; OPTION K02 + K87	6SL3720-1T...-...3	SIL2	PL_D	1.28E-7	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC
S120 CM; SI-EXTENDED FUNCTIONS; 3 AXIS; OPTION K03 + K87	6SL3720-1T...-...3	SIL2	PL_D	1.68E-7	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC
S120 CM; SI-EXTENDED FUNCTIONS; 4 AXIS; OPTION K04 + K87	6SL3720-1T...-...3	SIL2	PL_D	2.08E-7	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC
S120 CM; SI-EXTENDED FUNCTIONS; 4 AXIS; OPTION K05 + K87	6SL3720-1T...-...3	SIL2	PL_D	2.48E-7	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC

Table 31: SINAMICS S120 modular

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
2-encoder system (HTL/TTL) (S120 modular)	ohne	SIL2	PL_D	1.00E-7	0	0	20	irrelevant	-
2-encoder system (both encoders with DRIVE-CLiQ or sin/cos-encoder)	ohne	SIL2	PL_D	7.00E-9	0	0	20	irrelevant	-
Combi Motor Module	6SL3111-3VE2x-xxA0	SIL2	PL_D	3.40E-8	0	0	20	-	-
Combi Motor Module	6SL3111-4VE2x-xxA0	SIL2	PL_D	4.40E-8	0	0	20	-	-
Control Unit CU320-2 DP	6SL3040-1MA00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
Control Unit CU320-2 PN	6SL3040-1MA01-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
Double Motor Module Frame Size Booksize	6SL312x-2TExx-xAxx	SIL2	PL_D	1.00E-8	0	0	20	1 Axis	without SBC

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Double Motor Module Frame Size Booksize	6SL312x-2TExx-xAxx	SIL2	PL_D	1.40E-8	0	0	20	1 Axis	with SBC
Double Motor Module Frame Size Booksize	6SL312x-2TExx-xAxx	SIL2	PL_D	1.20E-8	0	0	20	2 Axis	without SBC
Double Motor Module Frame Size Booksize	6SL312x-2TExx-xAxx	SIL2	PL_D	2.00E-8	0	0	20	2 Axis	with SBC
Double Motor Module Frame Size Booksize	6SL312x-2TExx-xAxx	SIL2	PL_D	1.60E-8	0	0	20	2 Axis	1 axis with SBC
Double Motor Module Frame Size Booksize Compact	6SL3420-2TExx-xAA1	SIL2	PL_D	1.00E-8	0	0	20	1 Axis	without SBC
Double Motor Module Frame Size Booksize Compact	6SL3420-2TExx-xAA1	SIL2	PL_D	1.40E-8	0	0	20	1 Axis	with SBC
Double Motor Module Frame Size Booksize Compact	6SL3420-2TExx-xAA1	SIL2	PL_D	1.20E-8	0	0	20	2 Axis	without SBC
Double Motor Module Frame Size Booksize Compact	6SL3420-2TExx-xAA1	SIL2	PL_D	2.00E-8	0	0	20	2 Axis	with SBC
Double Motor Module Frame Size Booksize Compact	6SL3420-2TExx-xAA1	SIL2	PL_D	1.60E-8	0	0	20	2 Axis	1 axis with SBC
Hydraulic Linear Actor	6SL3420-2HX00-0AA0	SIL2	PL_D	1.40E-8	0	0	20	1 Axis	-
Hydraulic Linear Actor	6SL3420-2HX00-0AA0	SIL2	PL_D	2.00E-8	0	0	20	2 Axis	-
Motion Monitoring sensorless for Framesize Booksize and Blocksize	ohne	SIL2	PL_D	5.00E-9	0	0	20	irrelevant	-
Motion Monitoring sensorless for Framesize Chassis	ohne	SIL2	PL_D	2.00E-8	0	0	20	irrelevant	-
Motor Module Frame Size Chassis	6SL332x-1Txxx-xAA3	SIL2	PL_D	1.40E-8	0	0	20	without SBC	-
Motor Module Frame Size Chassis	6SL332x-1Txxx-xAA3	SIL2	PL_D	1.50E-8	0	0	20	with SBC	-
Motor with DRIVE-CLiQ Interface, 1-Encoder system sin/cos	ohne	SIL2	PL_D	2.60E-8	0	0	20	integrated interface (SMI)	-
Motor with DRIVE-CLiQ Interface, 1-Encoder system sin/cos	ohne	SIL2	PL_D	3.00E-8	0	0	20	highly integrated interface (DQI)	-
Power Module Frame Size Blocksize 3AC 500V – 690V (via CUA3x)	6SL321x-1PHxx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-
Power Module Frame Size Blocksize 3AC 500V – 690V (via CUA3x)	6SL321x-1PHxx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Power Module Frame Size Chassis	6SL331x-1TExx-xAA3	SIL2	PL_D	1.40E-8	0	0	20	without SBC	-
Power Module Frame Size Chassis	6SL331x-1TExx-xAA3	SIL2	PL_D	1.50E-8	0	0	20	with SBC	-
Power Module Framesize Blocksize 1AC/3AC 200V - 230V (via CUA3x)	6SL3210-1SB1x-xxA0	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-
Power Module Framesize Blocksize 1AC/3AC 200V - 230V (via CUA3x)	6SL3210-1SB1x-xxA0	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Power Module Framesize Blocksize 1AC/3AC 200V - 230V (via CUA3x)	6SL321x-1PBxx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Power Module Frame Size Blocksize 1AC/3AC 200V - 230V (via CUA3x)	6SL321x-1PBxx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Power Module Frame Size Blocksize 1AC/3AC 200V - 230V (via CUA3x)	6SL321x-1PCxx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-
Power Module Frame Size Blocksize 1AC/3AC 200V - 230V (via CUA3x)	6SL321x-1PCxx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Power Module Frame Size Blocksize 3AC 400V (via CUA3x)	6SL321x-1SExx-xxA0	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-
Power Module Frame Size Blocksize 3AC 400V (via CUA3x)	6SL321x-1SExx-xxA0	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Power Module Frame Size Blocksize 3AC 400V (via CUA3x)	6SL321x-1PExx-xxLx	SIL2	PL_D	1.80E-8	0	0	20	without SBC	-
Power Module Frame Size Blocksize 3AC 400V (via CUA3x)	6SL321x-1PExx-xxLx	SIL2	PL_D	2.20E-8	0	0	20	with SBC	-
Sensor Module SMC/E 20/25/40/120/125, 1-Encoder system sin/cos	6SL3055-0AA00-5xAx	SIL2	PL_D	2.60E-8	0	0	20	-	-
Single Motor Module Frame Size Booksize	6SL312x-1xExx-xAxx	SIL2	PL_D	1.00E-8	0	0	20	without SBC	-
Single Motor Module Frame Size Booksize	6SL312x-1xExx-xAxx	SIL2	PL_D	1.40E-8	0	0	20	with SBC	-
Single Motor Module Frame Size Booksize Compact	6SL3420-1TExx-xAA1	SIL2	PL_D	1.00E-8	0	0	20	without SBC	-
Single Motor Module Frame Size Booksize Compact	6SL3420-1TExx-xAA1	SIL2	PL_D	1.40E-8	0	0	20	with SBC	-
Terminal Module TM54F	6SL3055-0AA00-3BA0	SIL2	PL_D	3.80E-8	0	0	20	-	-

Table 32: SINAMICS S150

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
2-Gebersystem (HTL/TTL) (S150)	ohne	SIL2	PL_D	1.00E-7	0	0	20	irrelevant	-
S150; SI-BASIC FUNCTIONS; OPTION K82	6SL3710-7L...-...3	SIL2	PL_D	2.45E-8	0	0	20	Basic Functions (STO, SS1)	without SBC
S150; SI-BASIC FUNCTIONS; VIA TERMINAL CONNECTION	6SL3710-7L...-...3	SIL2	PL_D	2.40E-8	0	0	20	Basic Functions (STO, SS1)	without SBC
S150; SI- EXTENDED FUNCTIONS; OPTION K01 + K87	6SL3710-7L...-...3	SIL2	PL_D	8.80E-8	0	0	20	Extended Functions (STO, SS1, SS2, SLS, SSM)	without SBC

Table 33: SINAMICS V90

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
V90	6SL3210-5Fxxx-xUxx	SIL2	PL_D	5.00E-8	0	0	20	-	-

Table 34: SINUMERIK 828D

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
NUMERICAL CONTROL EXTENSION NX 15.3 (SIN 828D)	6SL-3040-1NB00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
NUMERICAL CONTROL EXTENSION NX10.3 (SIN 828D)	6SL3040-1NC00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 240.3	6FC5370-4AA30-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 240.3	6FC5370-4AA30-0AA1	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 241.3	6FC5370-3AA30-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 241.3	6FC5370-3AA30-0AA1	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 260.3	6FC5370-6AA30-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 260.3	6FC5370-6AA30-0AA1	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 261.3	6FC5370-5AA30-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 261.3	6FC5370-5AA30-0AA1	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 280.3	6FC5370-8AA30-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 280.3	6FC5370-8AA30-0AA1	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 281.3	6FC5370-7AA30-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 281.3	6FC5370-7AA30-0AA1	SIL2	PL_D	1.00E-8	0	0	20	-	-
PPU 290.3	6FC5370-8AA30-0BA0	SIL2	PL_D	1.00E-8	0	0	20	-	-

Table 35: SINUMERIK 840D sl

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
NCU 710.3B PN	6FC5371-0AA30-0AB0	SIL2	PL_D	6.60E-8	0	0	20	SINUMERIK Safety integrated	-
NCU 710.3B PN	6FC5371-0AA30-0AB0	SIL2	PL_D	1.00E-8	0	0	20	SINAMICS Safety Integrated basic (STO, SBC, SS1)	-
NCU 720.3 PN	6FC5372-0AA30-0AA1	SIL2	PL_D	6.60E-8	0	0	20	SINUMERIK Safety integrated	-
NCU 720.3 PN	6FC5372-0AA30-0AA1	SIL2	PL_D	1.00E-8	0	0	20	SINAMICS Safety Integrated basic (STO, SBC, SS1)	-
NCU 720.3B PN	6FC5372-0AA30-0AB0	SIL2	PL_D	6.60E-8	0	0	20	SINUMERIK Safety integrated	-
NCU 720.3B PN	6FC5372-0AA30-0AB0	SIL2	PL_D	1.00E-8	0	0	20	SINAMICS Safety Integrated basic (STO, SBC, SS1)	-
NCU 730.3 PN	6FC5373-0AA30-0AA1	SIL2	PL_D	6.60E-8	0	0	20	SINUMERIK Safety integrated	-
NCU 730.3 PN	6FC5373-0AA30-0AA1	SIL2	PL_D	1.00E-8	0	0	20	SINAMICS Safety Integrated basic (STO, SBC, SS1)	-
NCU 730.3B PN	6FC5373-0AA30-0AB0	SIL2	PL_D	6.60E-8	0	0	20	SINUMERIK Safety integrated	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
NCU 730.3B PN	6FC5373-0AA30-0AB0	SIL2	PL_D	1.00E-8	0	0	20	SINAMICS Safety Integrated basic (STO, SBC, SS1)	-
NCU 730.3B PN	6FC5373-0AA31-0AB0	SIL2	PL_D	1.00E-8	0	0	20	SINAMICS Safety Integrated basic (STO, SBC, SS1)	-
NCU 730.3B PN	6FC5373-0AA31-0AB0	SIL2	PL_D	6.60E-8	0	0	20	SINUMERIK Safety integrated	-
NUMERICAL CONTROL EXTENSION NX 10.3 (SIN 840D sl)	6SL3040-1NC00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-
NUMERICAL CONTROL EXTENSION NX15.3 (SIN 840D)	6SL3040-1NB00-0AA0	SIL2	PL_D	1.00E-8	0	0	20	-	-

Table 36: SINUMERIK Handheld unit

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
HT 2, EMERGENCY STOP pushbutton (with PN Plus connection box)	6FC5303-0AA00-2AA0	SIL2	PL_D	1.01E-7	0	0	20	-	-
HT 2, EMERGENCY STOP pushbutton (with PN basic connection box)	6FC5303-0AA00-2AA0			0	50000	50	20	-	-
HT 2, Enabling button	6FC5303-0AA00-2AA0	SIL2	PL_D	1.35E-7	0	0	20	-	-
HT 8, EMERGENCY STOP pushbutton (with PN basic connection box)	6FC5403-0AA20-0AA1			0	50000	50	20	-	-
HT 8, EMERGENCY STOP pushbutton (with PN basic connection box)	6FC5403-0AA20-1AA1			0	50000	50	20	-	-
HT 8, EMERGENCY STOP pushbutton (with PN Plus connection box)	6FC5403-0AA20-0AA1	SIL2	PL_D	1.01E-7	0	0	20	-	-
HT 8, EMERGENCY STOP pushbutton (with PN Plus connection box)	6FC5403-0AA20-1AA1	SIL2	PL_D	1.01E-7	0	0	20	-	-
HT 8, Enabling button	6FC5403-0AA20-0AA1	SIL3	PL_E	5.07E-9	0	0	20	-	-
HT 8, Enabling button	6FC5403-0AA20-1AA1	SIL3	PL_E	5.07E-9	0	0	20	-	-
Mini handheld unit, EMERGENCY Stop pushbutton	6FX2007-1AD03			0	50000	50	20	-	-
Mini handheld unit, EMERGENCY Stop pushbutton	6FX2007-1AD13			0	50000	50	20	-	-
Mini handheld unit, Enabling button	6FX2007-1AD03			0	50000	50	20	-	-
Mini handheld unit, Enabling button	6FX2007-1AD13			0	50000	50	20	-	-

Table 37: SINUMERIK Machine control panel

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
MCP 483, EMERGENCY STOP pushbutton	6FC5303-0AF22-0AA1			0	100000	20	20	-	-
MCP 483, EMERGENCY STOP pushbutton	6FC5303-0AF22-1AA1			0	100000	20	20	-	-

Table 38: SIRIUS Circuit Breakers

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Circuit Breaker 3RV	3RV1			0	5000	50	10	-	-
Circuit Breaker 3RV	3RV2			0	5000	50	10	-	-

Table 39: SIRIUS Commanding and Signaling Devices

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
EMERGENCY STOP pushbutton, Cable Operated Switch	3SE71			0	100000	50	20	-	-
EMERGENCY STOP pushbutton, Key-Operated-Release	3SU1...-1H.20			0	100000	20	20	-	-
EMERGENCY STOP pushbutton, Tension Release (Pull to unlatch)	3SB3...-T..			0	30000	20	20	-	-
EMERGENCY STOP pushbutton, Tension Release (Pull to unlatch)	3SF581			0	30000	20	20	-	-
EMERGENCY STOP pushbutton, Tension Release (Pull to unlatch)	3SU1...-1.A20			0	100000	20	20	-	-
EMERGENCY STOP pushbutton, Turn-to-Release (rotate to unlatch)	3SB3.0.-1.A2.			0	100000	20	20	-	-
EMERGENCY STOP pushbutton, Turn-to-Release (rotate to unlatch)	3SF581			0	100000	20	20	-	-
EMERGENCY STOP pushbutton, Turn-to-Release (rotate to unlatch)	3SU1...-1.B20			0	100000	20	20	-	-
EMERGENCY STOP pushbutton, Turn-to-Release (rotate to unlatch)	3SU1801-0NB10-4HB2			0	100000	20	20	-	-
Failsafe interface module	3SU1400-1LL10-3BA1	SIL3	PL_E	6.00E-10	0	0	20	-	-
Failsafe interface module	3SU1400-1LL10-1BA1	SIL3	PL_E	6.00E-10	0	0	20	-	-
Key switch CES - latching and momentary contact	3SU1..0-5...1			0	300000	20	20	-	-
Key switch CES - latching contact	3SB3...-4....			0	50000	20	20	-	-
Key switch CES - latching contact	3SU1..0-5...1			0	100000	20	20	-	-
Key switch CES - momentary contact	3SB3...-4....			0	100000	20	20	-	-
Key switch CES - momentary contact	3SU10.0-5..01			0	500000	20	20	-	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Key switch CES - with key monitoring	3SB3...-4....			0	20000	20	20	-	-
Two-Hand Operations Console	3SB3863			0	10000000	20	20	-	-

Table 40: SIRIUS Contactors / Motor Starters

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Compact Starter 3RA6 (up to 12A)	3RA61			0	3000000	73	20	-	-
Compact Starter 3RA6 (up to 12A)	3RA62			0	3000000	73	20	-	-
Compact Starter 3RA6 (up to 12A)	3RA64			0	3000000	73	20	-	-
Compact Starter 3RA6 (up to 12A)	3RA65			0	1500000	73	20	-	-
Compact Starter 3RA6 (up to 32A)	3RA61			0	2000000	73	20	-	-
Compact Starter 3RA6 (up to 32A)	3RA65			0	1500000	73	20	-	-
Compact Starter 3RA6 (up to 32A)	3RA62			0	2000000	73	20	-	-
Compact Starter 3RA6 (up to 32A)	3RA64			0	2000000	73	20	-	-
Contacto 3RT	3RT10			0	1000000	73	20	-	-
Contacto 3RT	3RT20			0	1000000	73	20	-	-
Contacto 3RT	3RT12			0	1000000	73	20	-	-
Contacto 3RT	3RT13			0	1000000	73	20	-	-
Contacto 3RT	3RT14			0	1000000	73	20	-	-
Contacto 3RT	3RT23			0	1000000	73	20	-	-
Contacto 3TB	3TB5			0	1000000	73	20	-	-
Contacto 3TF	3TF6			0	1000000	73	20	-	-
Contacto 3TF	3TF2			0	400000	73	20	-	-
Contacto Relay 3RH	3RH1			0	1000000	73	20	-	-
Contacto Relay 3RH	3RH2			0	1000000	73	20	-	-
Motor Starter 3RM1	3RM11	SIL3	PL_E	2.00E-8	0	0	20	-	-
Motor Starter 3RM1	3RM13	SIL3	PL_E	2.00E-8	0	0	20	-	-
Motor Starter M200D	3RK13.5-6.S41-.AA.			0	1000000	73	20	-	-

Table 41: SIRIUS Detecting Devices

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Hinge Switch	3SE5...-.U..			0	1000000	20	20	-	-
Hinge Switch	3SF1...-.U..			0	1000000	20	20	-	-
Hinge Switch (with Integral Hinge)	3SE2283			0	1000000	20	20	-	-
Magnetically Operated Switch	3SE6.0.-.BA..			0	10000000	50	20	-	-
RFID Safety Switch	3SE6315-.BB0.	SIL3	PL_E	2.70E-10	0	0	20	-	-
Safety Position Switch with Separate Actuator	3SE2...-.XX.			0	1000000	20	20	-	-
Safety Position Switch with Separate Actuator	3SE5...-.V..			0	1000000	20	20	-	-
Safety Position Switch with Separate Actuator	3SF1...-.V..			0	1000000	20	20	-	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Safety Position Switch with Tumbler	3SE53			0	1000000	20	20	-	-
Safety Position Switch with Tumbler	3SF13			0	1000000	20	20	-	-
Safety Position Switch with Tumbler (Interlocking, Solenoid-Locked)	3SE53			0	1000000	50	20	-	-
Safety Position Switch with Tumbler (Interlocking, Solenoid-Locked)	3SF13			0	1000000	50	20	-	-
Safety Position Switch with Tumbler (Interlocking, Spring-Locked)	3SE53			0	1000000	20	20	-	-
Safety Position Switch with Tumbler (Interlocking, Spring-Locked)	3SF13			0	1000000	20	20	-	-
Standard Position Switch	3SE5			0	10000000	20	20	-	-
Standard Position Switch	3SF1			0	10000000	20	20	-	-
Standard Position Switch (closing contact)	3SE5			0	10000000	50	20	-	-

Table 42: SIRIUS Modular Safety System 3RK3

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
2/4 F-DI, 1/2 F-RO	3RK3221-.AA10	SIL3	PL_E	3.79E-9	0	0	20	-	-
2/4 F-DI, 2 F-DO	3RK3231-.AA10	SIL3	PL_E	2.70E-9	0	0	20	-	-
4 F-DO	3RK3242-.AA10	SIL3	PL_E	3.18E-9	0	0	20	-	-
4/8 F-DI	3RK3211-.AA10	SIL3	PL_E	1.89E-9	0	0	20	-	-
4/8 F-RO	3RK3251-.AA10	SIL3	PL_E	7.15E-9	0	0	20	-	-
Central Module ASIsafe	3RK3122-.AC00	SIL3	PL_E	3.80E-9	0	0	20	-	-
Central Module ASIsafe	3RK3121-.AC00	SIL3	PL_E	3.80E-9	0	0	20	-	-
Central Module Advanced	3RK3131-.AC10	SIL3	PL_E	3.80E-9	0	0	20	-	-
Central Module Basic	3RK3111-.AA10	SIL3	PL_E	5.14E-9	0	0	20	-	-

Table 43: SIRIUS Safety Relays - 3SK1

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
3SK1 Advanced basic unit (relay)	3SK1121-.AB40	SIL3	PL_E	2.50E-9	0	0	20	-	-
3SK1 Advanced basic unit (relay)	3SK1121-.CB4.	SIL3	PL_E	3.70E-9	0	0	20	-	-
3SK1 Advanced basic unit (solid-state)	3SK1122-.AB40	SIL3	PL_E	1.30E-9	0	0	20	-	-
3SK1 Advanced basic unit (solid-state)	3SK1122-.CB4.	SIL3	PL_E	1.50E-9	0	0	20	-	-
3SK1 Advanced basic unit (solid-state)	3SK1120-.AB40	SIL3	PL_E	1.30E-9	0	0	20	-	-
3SK1 Input expansion	3SK1220-.AB40	SIL3	PL_E	1.00E-9	0	0	20	-	-
3SK1 Output expansion	3SK1211-.B..0	SIL3	PL_E	1.70E-9	0	0	20	-	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
3SK1 Output expansion	3SK1213-.A..0	SIL3	PL_E	1.00E-9	0	0	20	-	-
3SK1 Standard basic unit (relay)	3SK1111-.AB30	SIL3	PL_E	1.70E-9	0	0	20	-	-
3SK1 Standard basic unit (relay)	3SK1111-.AW20	SIL3	PL_E	1.50E-9	0	0	20	-	-
3SK1 Standard basic unit (solid-state)	3SK1112-.BB40	SIL3	PL_E	1.00E-9	0	0	20	-	-

Table 44: SIRIUS Safety Relays - 3SK2

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
3SK2 base unit	3SK2112-.AA10	SIL3	PL_E	1.00E-8	0	0	20	-	-
3SK2 base unit	3SK2122-.AA10	SIL3	PL_E	1.20E-8	0	0	20	-	-

Table 45: SIRIUS Safety Relays - 3TK28 - Contactor Relay Enabling Circuits

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
3TK2850	3TK2850-....0	SIL2	PL_D	1.14E-8	0	0	10	-	-
3TK2851	3TK2851-....0	SIL2	PL_D	1.10E-8	0	0	10	-	-
3TK2852	3TK2852-....0	SIL2	PL_D	1.07E-8	0	0	10	-	-
3TK2853	3TK2853-.BB40	SIL3	PL_E	1.08E-8	0	0	10	-	-
3TK2856 (Expansion)	3TK2856-.BB..	SIL3	PL_E	1.08E-8	0	0	10	-	-
3TK2857 (Expansion)	3TK2857-.BB..	SIL3	PL_E	1.08E-8	0	0	10	-	-

Table 46: SIRIUS Safety Relays - 3TK28 - Electronic Enabling Circuits

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
3TK2840	3TK2840-.BB..	SIL2	PL_D	1.01E-8	0	0	10	-	-
3TK2841	3TK2841-.BB..	SIL3	PL_E	5.35E-11	0	0	10	-	-
3TK2842	3TK2842-.BB..	SIL3	PL_E	5.35E-11	0	0	10	-	-

Table 47: SIRIUS Safety Relays - 3TK28 - Motion Monitoring

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
Speed Monitor 3TK2810	3TK2810-1.A4.	SIL3	PL_E	3.38E-9	0	0	20	-	-
Standstill Monitor 3TK2810	3TK2810-0.A0.	SIL3	PL_E	1.49E-9	0	0	20	-	-

Table 48: SIRIUS Safety Relays - 3TK28 - Multi-Function Devices

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
3TK2845 (Enabling Button)	3TK2845-.E...	SIL3	PL_E	6.86E-9	0	0	20	-	-
3TK2845 (Magnetic Force Interlocked Tumbler)	3TK2845-.G...	SIL3	PL_E	6.86E-9	0	0	20	-	-
3TK2845 (Monitored Start-up)	3TK2845-.D...	SIL3	PL_E	6.86E-9	0	0	20	-	-

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
3TK2845 (Monitored and Automatic Start-up)	3TK2845-.H...	SIL3	PL_E	6.86E-9	0	0	20	-	-
3TK2845 (Spring Force Interlocked Tumbler)	3TK2845-.F...	SIL3	PL_E	6.86E-9	0	0	20	-	-

Table 49: SIRIUS Safety Relays - 3TK28 - Relay Enabling Circuits

Product	Ordernumber	SIL	PL	PFHD	B10	Ratio of dangerous failures	T1	AE1	AE2
3TK2820	3TK2820-....0	SIL3	PL_E	9.40E-10	0	0	20	-	-
3TK2821 (Basic Unit)	3TK2821-.CB30	SIL1	PL_C	1.11E-9	0	0	20	-	-
3TK2821 (Expansion)	3TK2821-.CB30	SIL3	PL_E	1.11E-9	0	0	20	-	-
3TK2822	3TK2822-.CB30	SIL3	PL_E	1.22E-9	0	0	20	-	-
3TK2823	3TK2823-.CB30	SIL3	PL_E	1.24E-9	0	0	20	-	-
3TK2824 (Basic Unit)	3TK2824-....0	SIL1	PL_C	8.70E-10	0	0	20	-	-
3TK2824 (Expansion)	3TK2824-....0	SIL3	PL_E	8.70E-10	0	0	20	-	-
3TK2825	3TK2825-....0	SIL3	PL_E	1.42E-9	0	0	20	-	-
3TK2826 (With Delayed Enabling Circuits)	3TK2826-.....	SIL3	PL_E	7.79E-9	0	0	20	-	-
3TK2826 (Without Delayed Enabling Circuits)	3TK2826-....0	SIL3	PL_E	6.95E-9	0	0	20	-	-
3TK2827 (Delayed Enabling Circuits)	3TK2827-.....	SIL2	PL_D	2.62E-9	0	0	20	-	-
3TK2827 (Instantaneous Enabling Circuits)	3TK2827-.....	SIL3	PL_E	2.62E-9	0	0	20	-	-
3TK2828 (Delayed Enabling Circuits)	3TK2828-.....	SIL2	PL_D	2.62E-9	0	0	20	-	-
3TK2828 (Instantaneous Enabling Circuits)	3TK2828-.....	SIL3	PL_E	2.62E-9	0	0	20	-	-
3TK2830	3TK2830-....0	SIL3	PL_E	1.13E-9	0	0	20	-	-
3TK2834	3TK2834-....0	SIL3	PL_E	1.35E-9	0	0	20	-	-

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