INOVANCE

Revision List

referred to on Certificate No.: 01/205/5893.01/25

Product: Safety functions within the SV680 drive series

TÜVRheinland®
Precisely Right.

Safety functions within SV680 drive series

Product type	Supported safety functions	Report–No.:	Certification Status
SV680 drive series	Safe Torque Off (STO)	968/FSP 2435.02/25	*Valid*
	Safe Brake Control (SBC)	968/FSP 2435.02/25	*Valid*
	Safe Stop 1 (SS1-t, SS1-r)	968/FSP 2435.02/25	*Valid*
	Safe Operating Stop (SOS)	968/FSP 2435.02/25	*Valid*
	Safe Stop 2 (SS2-t, SS2-r)	968/FSP 2435.02/25	*Valid*
	Safely-Limited Speed (SLS)	968/FSP 2435.02/25	*Valid*
	Safe Speed Monitor (SSM)	968/FSP 2435.02/25	*Valid*
	Safe Direction (SDI)	968/FSP 2435.02/25	*Valid*

SV680 drive series product variants with only safety function Safe Torque Off (STO)

No.	Size	Type Designation[1]	Description	Drive Board		Control Board			Report–No.:	Certification Status
				Type	HW Rev.	Type	HW Rev.	SW Rev.		
1	A	SV680NS1R6I(a)	220V 1Phase,1.6A	SV680NS1R6I-GINTM2	B00	SV680NS2R8I-GINTU1	A05	H00.07=0001.0 Files: MS_STO.h and MS_STO.c CRC32: DBC74E80	968/FSP 2435.02/25	*Valid*
2	A	SV680NS2R8I(a)	220V 1Phase,2.8A	SV680NS2R8I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
3	C	SV680NS5R5I(a)	220V 1Phase,5.5A	SV680NS5R5I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
4	C	SV680NS7R6I(a)	220V 1Phase,7.6A	SV680NS7R6I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
5	D	SV680NS012I(a)	220V 1Phase,12A	SV680NS012I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
6	E	SV680NS018I(a)	220V 3Phase,18A	SV680NS018I-GINTM2	B00				968/FSP 2435.02/25	*Valid*

[1] (a) is used to indicate the customer identity, which can be blank or a suffix "XXXXXXXXXX" where is the combination of any alphanumeric and/or symbols.

Suzhou Inovance Technology Co., Ltd.
No.52, Tian E Dang Road Wuzhong District
215104, Suzhou City
Jiangsu Province, P.R. China

TÜV Rheinland Industrie Service GmbH
Automation - Functional Safety (A-FS)
Am Grauen Stein
51105 Köln / Germany

No.	Size	Type Designation[1]	Description	Drive Board		Control Board			Report–No.:	Certification Status
				Type	HW Rev.	Type	HW Rev.	SW Rev.		
7	E	SV680NS022I(a)	220V 3Phase,22A	SV680NS022I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
8	E	SV680NS027I(a)	220V 3Phase,27A	SV680NS027I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
9	C	SV680NT3R5I(a)	380V 3Phase,3.5A	SV680NT3R5I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
10	C	SV680NT5R4I(a)	380V 3Phase,5.4A	SV680NT5R4I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
11	D	SV680NT8R4I(a)	380V 3Phase,8.4A	SV680NT8R4I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
12	D	SV680NT012I(a)	380V 3Phase,12A	SV680NT012I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
13	E	SV680NT017I(a)	380V 3Phase,17A	SV680NT017I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
14	E	SV680NT021I(a)	380V 3Phase,21A	SV680NT021I-GINTM3	B00				968/FSP 2435.02/25	*Valid*
15	E	SV680NT026I(a)	380V 3Phase,26A	SV680NT026I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
16	A	SV680PS1R6I(a)	220V 1Phase,1.6A	SV680NS1R6I-GINTM2	B00	SV680PS2R8I-GINTU1	A05	H00.07=0001.0 Files: MS_STO.h and MS_STO.c CRC32: DBC74E80	968/FSP 2435.02/25	*Valid*
17	A	SV680PS2R8I(a)	220V 1Phase,2.8A	SV680NS2R8I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
18	C	SV680PS5R5I(a)	220V 1Phase,5.5A	SV680NS5R5I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
19	C	SV680PS7R6I(a)	220V 1Phase,7.6A	SV680NS7R6I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
20	D	SV680PS012I(a)	220V 1Phase,12A	SV680NS012I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
21	E	SV680PS018I(a)	220V 3Phase,18A	SV680NS018I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
22	E	SV680PS022I(a)	220V 3Phase,22A	SV680NS022I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
23	E	SV680PS027I(a)	220V 3Phase,27A	SV680NS027I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
24	C	SV680PT3R5I(a)	380V 3Phase,3.5A	SV680NT3R5I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
25	C	SV680PT5R4I(a)	380V 3Phase,5.4A	SV680NT5R4I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
26	D	SV680PT8R4I(a)	380V 3Phase,8.4A	SV680NT8R4I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
27	D	SV680PT012I(a)	380V 3Phase,12A	SV680NT012I-GINTM2	B00				968/FSP 2435.02/25	*Valid*

Suzhou Inovance Technology Co., Ltd.
No.52, Tian E Dang Road Wuzhong District
215104, Suzhou City
Jiangsu Province, P.R. China

TÜV Rheinland Industrie Service GmbH
Automation - Functional Safety (A-FS)
Am Grauen Stein
51105 Köln / Germany

No.	Size	Type Designation[1]	Description	Drive Board		Control Board			Report–No.:	Certification Status
				Type	HW Rev.	Type	HW Rev.	SW Rev.		
28	E	SV680PT017I(a)	380V 3Phase,17A	SV680NT017I-GINTM2	B00				968/FSP 2435.02/25	*Valid*
29	E	SV680PT021I(a)	380V 3Phase,21A	SV680NT021I-GINTM3	B00				968/FSP 2435.02/25	*Valid*
30	E	SV680PT026I(a)	380V 3Phase,26A	SV680NT026I-GINTM2	B00				968/FSP 2435.02/25	*Valid*

SV680 drive series product variants with safety functions Safe Torque Off (STO) / Safe Brake Control (SBC) / Safe Stop 1 (SS1) / Safe Operating Stop (SOS) / Safe Stop 2 (SS2) / Safely-Limited Speed (SLS) / Safe Speed Monitor (SSM) / Safe Direction (SDI)

No.	Size	Type Designation[2]	Description	Drive Board		Control Board			Safety Module			Report–No.:	Certification Status
				Type	HW Rev.	Type	HW Rev.	SW Rev.	Type	HW Rev.	SW Rev.		
1	A	SV680NS1R6S(a)	220V 1Phase,1.6A	SV680NS1R6I-GINTM2	B00	SV680NS2R8S-GINTU1	A05	H00.07=0001.0 Files: MS_STO.h and MS_STO.c CRC32:DBC74E80	SV680NS2R8SU6	A11	H20.00=001.20 File: (0302BE47)SV680S-GINT-SafetyModule_H20.00=001.20_0900_20250225.bin CRC32: E8CF5CCE File: Master MCU hex SV680_Master.hex CRC32: 559E049E File: Slave MCU hex SV680_Slaved.hex CRC32: 4BB232C4 File: Source code folder V01B02D00_20250226 CRC32: 9F186E6E	968/FSP 2435.02/25	*Valid*
2	A	SV680NS2R8S(a)	220V 1Phase,2.8A	SV680NS2R8I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
3	C	SV680NS5R5S(a)	220V 1Phase,5.5A	SV680NS5R5I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
4	C	SV680NS7R6S(a)	220V 1Phase,7.6A	SV680NS7R6I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
5	D	SV680NS012S(a)	220V 1Phase,12A	SV680NS012I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
6	E	SV680NS018S(a)	220V 3Phase,18A	SV680NS018I-GINTM2	B00							968/FSP 2435.02/25	*Valid*

[2] (a) is used to indicate the customer identity, which can be blank or a suffix “XXXXXXXXXX” where is the combination of any alphanumeric and/or symbols.

No.	Size	Type Designation[2]	Description	Drive Board		Control Board			Safety Module			Report–No.:	Certification Status
				Type	HW Rev.	Type	HW Rev.	SW Rev.	Type	HW Rev.	SW Rev.		
7	E	SV680NS022S(a)	220V 3Phase,22A	SV680NS022I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
8	E	SV680NS027S(a)	220V 3Phase,27A	SV680NS027I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
9	C	SV680NT3R5S(a)	380V 3Phase,3.5A	SV680NT3R5I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
10	C	SV680NT5R4S(a)	380V 3Phase,5.4A	SV680NT5R4I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
11	D	SV680NT8R4S(a)	380V 3Phase,8.4A	SV680NT8R4I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
12	D	SV680NT012S(a)	380V 3Phase,12A	SV680NT012I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
13	E	SV680NT017S(a)	380V 3Phase,17A	SV680NT017I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
14	E	SV680NT021S(a)	380V 3Phase,21A	SV680NT021I-GINTM3	B00							968/FSP 2435.02/25	*Valid*
15	E	SV680NT026S(a)	380V 3Phase,26A	SV680NT026I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
16	A	SV680PS1R6S(a)	220V 1Phase,1.6A	SV680NS1R6I-GINTM2	B00	SV680PS2R8S-GINTU1	A05	H00.07=0001.0 Files: MS_STO.h and MS_STO.c CRC32:DBC74E80	SV680NS2R8SU6	A11	H20.00=001.20 File: (0302BE47)SV680S-GINT-SafetyModule_H20.00=001.20_0900_20250225.bin CRC32: E8CF5CCE File: Master MCU hex SV680_Master.hex CRC32: 559E049E File: Slave MCU hex SV680_Slaved.hex CRC32: 4BB232C4	968/FSP 2435.02/25	*Valid*
17	A	SV680PS2R8S(a)	220V 1Phase,2.8A	SV680NS2R8I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
18	C	SV680PS5R5S(a)	220V 1Phase,5.5A	SV680NS5R5I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
19	C	SV680PS7R6S(a)	220V 1Phase,7.6A	SV680NS7R6I-GINTM2	B00							968/FSP 2435.02/25	*Valid*

No.	Size	Type Designation[2]	Description	Drive Board		Control Board			Safety Module			Report–No.:	Certification Status
				Type	HW Rev.	Type	HW Rev.	SW Rev.	Type	HW Rev.	SW Rev.		
20	D	SV680PS012S(a)	220V 1Phase,12A	SV680NS01 2I-GINTM2	B00						File: Source code folder V01B02D00_20250226 CRC32: 9F186E6E	968/FSP 2435.02/25	*Valid*
21	E	SV680PS018S(a)	220V 3Phase,18A	SV680NS01 8I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
22	E	SV680PS022S(a)	220V 3Phase,22A	SV680NS02 2I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
23	E	SV680PS027S(a)	220V 3Phase,27A	SV680NS02 7I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
24	C	SV680PT3R5S(a)	380V 3Phase,3.5A	SV680NT3R 5I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
25	C	SV680PT5R4S(a)	380V 3Phase,5.4A	SV680NT5R 4I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
26	D	SV680PT8R4S(a)	380V 3Phase,8.4A	SV680NT8R 4I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
27	D	SV680PT012S(a)	380V 3Phase,12A	SV680NT01 2I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
28	E	SV680PT017S(a)	380V 3Phase,17A	SV680NT01 7I-GINTM2	B00							968/FSP 2435.02/25	*Valid*
29	E	SV680PT021S(a)	380V 3Phase,21A	SV680NT02 1I-GINTM3	B00							968/FSP 2435.02/25	*Valid*
30	E	SV680PT026S(a)	380V 3Phase,26A	SV680NT02 6I-GINTM2	B00							968/FSP 2435.02/25	*Valid*

Safety encoder of SV680 drive series

No.	Type Designation[3]	Encoder Board Type	HW Rev.	SW Rev.	Report–No.:	Certification Status
1	EA33H6-B26M16-TH5N1T	EA33B26M16H5M3	A07	26405 File: SafeFunc_ Encoder_ Slaves.bin CRC32: 9F87998A File: SafeFunc_ Encoder_ Masters.bin CRC32: B24EBD4F File: SafeFunc_ Encoder_ Slaves.hex CRC32: 84C3756B File: SafeFunc_ Encoder_ Masters.hex CRC32: FCD366E9 File: Source code folder SafeFunc_ Encoder_ Slaves CRC32: ABF01FFB File: Source code folder SafeFunc_ Encoder_ Masters CRC32: 94A2386B	968/FSP 2435.02/25	*Valid*
2	EA45H8-B26M16-TH5N1T				968/FSP 2435.02/25	*Valid*
3	EA79R8-B26M16-TH5Y3-FS				968/FSP 2435.02/25	*Valid*

Configuration SW tool of SV680 drive series

No.	Type Designation	Description	HW Rev.	SW Rev.	Report–No.:	Certification Status
1	InoDriverShop	Configuration SW tool, used for the implementation of software-based parameterization of safety-related parameters of SV680 drive series	-/-	1.0.1.0 (File: SafetyParameterPanel CRC32: 6D9A6F55) 1.0.0 (File: SafetyParameters.xml CRC32: 190AF738)	968/FSP 2435.02/25	*Valid*

[3] There are three variants of safety encoder (i.e. EA33H6-B26M16-TH5N1T, EA45H8-B26M16-TH5N1T and EA79R8-B26M16-TH5Y3-FS), they have different mechanical construction in order to match with different servo motors, but have exactly the same electronic hardware and software version.

Safety Manual / User documentation

Document No.	Description	Revision	Date	Report–No.:	Certification Status
[U1]	43_03_SV680N_Series_Servo_Drive_Safety_Guide_A06_2025_04.pdf	A06	2025-04	968/FSP 2435.02/25	*Valid*
[U2]	43_04_SV680P_Series_Servo_Drive_Safety_Guide_A06_2025_04.pdf	A06	2025-04	968/FSP 2435.02/25	*Valid*
[U3]	43_01_SV680N Series Servo Drive Selection Guide_A02.pdf	A02	2021-12	968/FSP 2435.01/23	*Valid*
[U4]	43_02_SV680P Series Servo Drive Selection Guide_A02.pdf	A02	2021-12	968/FSP 2435.01/23	*Valid*
[U5]	47_Inodriveshop_User_Manual_V1.0.1_2022-07-20.pdf	1.0.1	2022-07-20	968/FSP 2435.01/23	*Valid*

The content of this Revision List has been agreed between manufacturer and Test Institute.

Revision:

Date	Rev.	Description / Changes	Author
2023-10-16	1.0	Initial creation, based on Report-No.: 968/FSP 2435.01/23	yz, jmu/A-FS&CS
2025-04-03	1.1	Modifications made in HW and SW, based on 968/FSP 2435.02/25	yz/A-FS&CS