

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Frequency Converter

with type designation(s)
S 120 CM Semiconductor Power Moduls

Issued to

Siemens AG
Nürnberg, Germany

is found to comply with

DNV GL class programme DNVGL-CP-0395 – Type approval – Semiconductor converters
DNV GL rules for classification – Ships and offshore units

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2022-01-31**.

Issued at **Hamburg** on **2017-02-01**

DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Jens Altmann**

Duy Nam Le
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

1. SINAMICS Active Interface Module
2. SINAMICS Diode Line Module
3. SINAMICS Active Line Module
4. SINAMICS Motor Module

Cooling Circuit

Modules to be cooled bei closed cooling circuits.

Components

1. SINAMICS Active Interface Modules

TYPE	MLFB	Chassis	MAINS VOLTAGE [V]	POWER [kW]
Active Interface Module (AIM)	6SL3305-7TE38-4AAx	JIL	380-480	500
	6SL3305-7TE41-4AAx	JIL	380-480	900
	6SL3305-7TG37-4AAx	JIL	500-690	800
	6SL3305-7TG41-0AAx	JIL	500-690	1100
	6SL3305-7TG41-3AAx	JIL	500-690	1400
	6SL3305-7TG41-6AAx	JIL	500-690	1700
	L0459360 (*)	JIL	690	1700
	L0469673 (*)	JIL	690	1700
	x=3 : KTY sensor x=5 : Pt1000 sensor (*) for SGD			

Job Id:
Certificate No: **TAE00001M8**

2. SINAMICS Diode Line Modules

TYPE	MLFB	Chassis	MAINS VOLTAGE [V]	POWER [kW]
Diode Line Module (DLM)	L0353090	HDL	690	1700
	L0353091	HDL	690	1700
	L0353068	GDL	690	1100
	L0353067	JDL	690	2200

3. SINAMICS Active Line Modules

TYPE	MLFB	Chassis	MAINS VOLTAGE [V]	POWER [kW]
Active Line Module (ALM)				
	6SL3335-7TE35-0AA3	GXL	380-480	300
	6SL3335-7TE36-1AA3	HXL	380-480	380
	6SL3335-7TE38-4AA3	HXL	380-480	500
	6SL3335-7TE41-0AA3	JXL	380-480	630
	6SL3335-7TE41-4AA3	JXL	380-480	900
	6SL3335-7TG35-8AA3	HXL	500-690	630
	6SL3335-7TG37-4AA3	HXL	500-690	800
	6SL3335-7TG38-1AA3	HXL	500-690	900
	6SL3335-7TG41-0AA3	JXL	500-690	1100
	6SL3335-7TG41-3AA3	JXL	500-690	1400
	6SL3335-7TG41-6AA3	JXL	500-690	1700
ALM for SGD	6SL3335-7TG35-8AA4	HXL	500-690	630
	6SL3335-7TG41-3AA4	JXL	500-690	1400
	6SL3335-7TG41-6AA4	JXL	500-690	1700

4. SINAMICS Motor Modules

TYPE	MLFB	Chassis	MAINS VOLTAGE [V]	POWER [kW]
Motor Module (MoMo)	6SL3325-1TE32-1AA3	FXL	380-480	110
	6SL3325-1TE32-6AA3	FXL	380-480	132
	6SL3325-1TE33-1AA3	GXL	380-480	160
	6SL3325-1TE35-0AA3	GXL	380-480	250
	6SL3325-1TE36-1AA3	HXL	380-480	315
	6SL3325-1TE37-5AA3	HXL	380-480	400
	6SL3325-1TE38-4AA3	HXL	380-480	450
	6SL3325-1TE41-0AA3	JXL	380-480	560
	6SL3325-1TE41-2AA3	JXL	380-480	710
	6SL3325-1TE41-4AA3	JXL	380-480	800
	6SL3325-1TE41-4AS3	JXL	380-480	800

Job Id:
Certificate No: **TAE00001M8**

6SL3325-1TG31-0AA3	FXL	500-690	90
6SL3325-1TG31-5AA3	FXL	500-690	132
6SL3325-1TG32-2AA3	GXL	500-690	200
6SL3325-1TG33-3AA3	GXL	500-690	315
6SL3325-1TG34-7AA3	HXL	500-690	450
6SL3325-1TG35-8AA3	HXL	500-690	560
6SL3325-1TG37-4AA3	HXL	500-690	710
6SL3325-1TG38-0AA3	HXL	500-690	800
6SL3325-1TG38-1AA3	JXL	500-690	800
6SL3325-1TG41-0AA3	JXL	500-690	1000
6SL3325-1TG41-3AA3	JXL	500-690	1200
6SL3325-1TG41-6AA3	JXL	500-690	1500
6SL3325-1TG41-6AP3	JXL	500-690	1500

Application/Limitation

This converter power modules are destined for the installation in steel cabinets. Marine specific demands have to be considered. Instructions of the installation guide 4BS0808-003 have to be observed. The cubicles have to be equipped with anti condensation heating and air inlet filters.

Module characteristics:

Protection degree IP00, Temperature class B, Humidity class B, Vibration class A, EMC class A

The EMC measures of the module manufacturer have to be observed.

This modules may be used for the construction of all types of drives including electric propulsion.

Type Approval documentation

According to Siemens Overview chart Drawing No.: A5E39877810A, Project No.: 262.1-023899-1

Tests carried out

According to Siemens Overview chart Drawing No.: A5E39877810A, Project No.: 262.1-023899-1
Please see Certificate documentation for certificates TAE00001BS and TAE00001ES

Marking of product

In accordance with IEC60146-1-1 § 6.6.2

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable).



Job Id:
Certificate No: **TAE00001M8**

- Results from Routine Tests (RT) checked (if not available tests RT to be carried out).
- Review of type approval documentation.
- Review of possible change in design, materials and performance.
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Assessment to be performed at 2 and 3,5 years.

END OF CERTIFICATE