

**Statement for issuing a co-certificate**

<b>Report-No.:</b>	968/FSP 2102.00/20
<b>Date:</b>	2020-11-04
<b>Pages:</b>	4
<b>Type of approved and certified product:</b>	Safety function "Safe torque off" (STO) within DX4 series drive
<b>Type designation:</b>	DX4 series drive; Details see current "Revision List"
<b>Type designation at the co-certificate applicant:</b>	DX4 series drive; Details see current "Revision List"
<b>Co-certificate applicant:</b>	Trio Motion Technology Ltd. Shannon Way, Tewkesbury, Gloucestershire GL20 8ND United Kingdom
<b>Manufacturer/ original certificate holder:</b>	ESTUN AUTOMATION CO., LTD. No .155 Jiang Jun Road South, Jiang Ning Development Zone Nanjing 211100 P.R. China
<b>Customer-Order-No./Date:</b>	190126662 dated 2020-09-24
<b>Test Institute:</b>	TÜV Rheinland Industrie Service GmbH Automation - Functional Safety (A-FS) Am Grauen Stein 51105 Köln Germany
<b>TÜV-Quotation-No./Date:</b>	n/a
<b>TÜV-Order-No./Date:</b>	268128561 dated 2020-10-12
<b>Expert:</b>	Dipl.-Ing. Martin Kiontke

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## 1. **Scope**

This report bases on the inspection report 968/INS 297.00/20 and serve as the basis for the issue of an additional certificate for the co-certificate applicant stated on the front page.

The manufacturer / original certificate holder ESTUN AUTOMATION CO., LTD. has declared, that the previously type approved and certified product of the manufacturer /original certificate holder and the product, which is sold by the OEM / co-certificate applicant TRIO under his own trade name and/or type designation are technically identical.

The products in question are specified on the front page. For type code, refer to Safety Manual

## 2. **Standards forming the basis for the requirements**

- [N1] TM31\_V1.0 2020  
TM for Components acc. to. Annex IV of the Machinery Directive
- [N2] EN 61800-5-2:2017  
Adjustable speed electrical power drive systems  
Part 5-2: Safety requirements -  
Functional
- [N3] EN 61800-5-1:2007 + A1:2017  
Adjustable speed electrical power drive systems  
Part 5-1: Safety requirements -  
Electrical, thermal and energy
- [N4] EN IEC 61800-3:2018  
Adjustable speed electrical power drive systems  
Part 3: EMC requirements and specific test methods
- [N5] EN ISO 13849-1:2015  
Safety of Machinery - Safety Related Parts of Control Systems  
Part 1: General principles for design
- [N6] EN 62061:2005 + AC:2010 + A1:2013 + A2:2015  
Safety of machinery -  
Functional safety of safety-related electrical, electronic and programmable electronic control systems
- [N7] IEC 61508:2010, parts 1 - 7  
Functional safety of electrical/electronic/programmable electronic safety-related systems
- [N8] EN 60204-1:2018 (in extracts)  
Safety of machinery - Electrical equipment of machines  
Part 1: General requirements
- [N9] IEC 61326-3-1:2017  
Electrical equipment for measurement, control and laboratory use - EMC requirements  
Part 3-1: Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety) -  
General industrial applications

## 3. **Identification of the product to be tested**

The following table shows the product types Cross - Reference between the manufacturer / original certificate holder and the OEM / co-certificate applicant.

Type designation at <b>ESTUN <sup>1)</sup></b>	Type designation at <b>TRIO (OEM) <sup>2)</sup></b>
DX4-1A5AJA	DX4-1A5AJA
DX4-1A5A##-*	DX4-1A5A##-*
DX4-101AJA	DX4-101AJA

Type designation at <b>ESTUN</b> <sup>1)</sup>	Type designation at <b>TRIO (OEM)</b> <sup>2)</sup>
DX4-101A##-*	DX4-101A##-*
DX4-102AJA	DX4-102AJA
DX4-102A##-*	DX4-102A##-*
DX4-104AJA	DX4-104AJA
DX4-104A##-*	DX4-104A##-*
DX4-108AJA	DX4-108AJA
DX4-108A##-*	DX4-108A##-*
DX4-110AJA	DX4-110AJA
DX4-110A##-*	DX4-110A##-*
DX4-115AJA	DX4-115AJA
DX4-115A##-*	DX4-115A##-*
DX4-120AJA	DX4-120AJA
DX4-120A##-*	DX4-120A##-*
DX4-130AJA	DX4-130AJA
DX4-130A##-*	DX4-130A##-*

Note <sup>1)</sup>:

- # stands for A-Z to indicate encoder software edition;
- \* n/a to indicate ESTUN's general client;
- 0 ... 9 or A ... Z or any other form to indicate ESTUN's specific client number.

Note <sup>2)</sup>:

- # stands for A-Z to indicate encoder software edition;
- \* n/a to indicate TRIO's general client;
- 0 ... 9 or A ... Z or any other form to indicate TRIO's specific client number.

### 3.1. Technical data

According to a declaration of the manufacturer the products identified on the front page are technically identical including all safety-relevant information printed on the product.

The OEM / co-certificate applicant confirmed that all safety relevant information printed in the user manual is equal in content.

All technical data printed on the product and all safety relevant information printed in the Safety Manual and Product Manual were verified.

### 3.2. Documents

The following documents have been provided:

- Declaration from the manufacturer and the original certificate holder that original and OEM product are technically identical and correspond to the inspected original product, dated 2020-09-27 / 2020-09-29
- Declaration of the OEM that the user documentation is content identical to what has been inspected by the Test Institute, dated 2020-09-27 / 2020-09-29
- Cross Reference list between original device and co-certified device, dated 2020-09-29
- Product and Safety Manual of the OEM product, dated 2020-07-10
- Copy of the OEM product label, dated 2020-07-20

**3.3. Previous test reports and certificates of the original product**

No.	Report-No.	Date	Certificate	Date
[R1]	968/FSP 1903.00/19	2019-09-20	01/205/5728.00/19	2019-09-20
[R2]	968/INS 314.00/20	2020-08-10	-/-	-/-
[R3]	968/FSP 1903.01/20	2020-11-04	01/205/5728.01/20	2020-11-04

**3.4. Previous test reports and certificates of the brand-label product**

n/a

**4. Statement of the Test Institute**

As the products identified on the front page are technically identical in the relevant parts, the results of the type approval of the original product, which are documented in the above listed previous test reports, are also valid for the product of the OEM / co-certificate applicant.

The test results apply to the original product as well as to the brand-label product of the OEM / co-certificate applicant.

Therefore the issue of a co-certificate for Trio Motion Technology Ltd. is recommended.

Cologne, 2020-11-04  
TIS/A-FS/Kst. 970 ki-nie

Report released after review:  
Date: 2020-11-04

The expert

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