IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx TPS 25.0065X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2026-01-19		
Applicant:	**A&S Industry Technology (Tianjin) Co., Ltd.** No. D9-1/D9-2, Saida International Industrial City Xiqing Economic & Technological District Tianjin 300385 **China**		
Equipment:	**Ex PM SERVO MOTOR, type: AKME series**		
Optional accessory:			
Type of Protection:	**Increased safety "ec", Encapsulation "mc", Dust ignition protection by enclosures "tc"**		
Marking:	Ex ec mc IIC T4 Gc Ex tc IIIC T130°C Dc		

Approved for issue on behalf of the IECEx Certification Body: **Xia Jiayan**

Position: **Technical Certifier**

Signature: (for printed version)

Date: (for printed version) 2026-01-19

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

TÜV SÜD Product Service GmbH
Ridlerstr. 65
D-80339 Munich
Germany

Product Service

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Manufacturer: **A&S Industry Technology (Tianjin) Co., Ltd.**
No. D9-1/D9-2, Saida International Industrial City
Xiqing Economic & Technological District
Tianjin 300385
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Manufacturing locations: **A&S Industry Technology (Tianjin) Co., Ltd.**
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China

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

IEC 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

DE/TPS/ExTR25.0068/00

Quality Assessment Report:

DE/TPS/QAR24.0002/01

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The AKME series servo motors are intended to be used in Zone 2 and Zone 22. The protection types of the equipment are increased safety "ec", encapsulation "mc", dust ignition protection by enclosures “tc”

Each servo motor mainly consists of a rotor, stator, bearing, encoder, and connector. The stator has a protection type of encapsulation “mc”. The enclosure has a protection type of increased safety "ec" and dust ignition protection by enclosures "tc"

The different series of servo motors have similar designs but vary in size, volume, and electrical parameters, type of connector and with or without a brake.

For the AKME1 series, install the clamping plate to secure the connector using hexagon fasteners at the connection to prevent the risk of disconnection. The cable shall be attached to the motor.

The servo motor is made of aluminum alloy and has an ingress protection IP64 according to IEC 60079-0.

The synchronous servo motor operates in drive systems together with Kollmorgen servo drives under specified speed and/or torque control. All manufacturer instructions regarding frequency or speed range, and torque limitations must be followed.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The servo motor must be used with the drive which specified as manufacturer’s user manual and complies with the motor electrical specifications and operating characteristics. Frequency converter must be chosen according to the parameters specified in this certificate. The maximum prospective short-circuit current of the driver is 300A.
2. The performance data of the explosion proof motor must be used in according to the technical data.
3. The connectors are tested with the servo motor to ensure ingress protection of IEC 60079-0 completely.
   For AKME1 series, the bonding conductor connection on the clamping plate shall provide effective connection to the metal enclosure. The external earthing connection shall be connected to the grounding system of the final end-installation according to the user manual.
   For AKME2 series, AKME3 series, AKME4 series, AKME5 series, AKME6 series, AKME7 series, the mating connectors and cable must be chosen according to the type specified in user manual.
4. The brakes are intended to be used only as parking device.
5. Each motor shall be equipped with a thermal protector connected to the motor control circuit in such a manner as to disconnect the source of supply to prevent exceeding the specified temperature class.
6. For installation in Zone 2 hazardous area, transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment (see Annex H.5 of IEC 60079-7).
7. For installation in Zone 2 hazardous area, the equipment is intended to be installed in environments with a pollution level that shall be limited to pollution degree 2 or better, as defined in IEC 60664-1 (see Annex H.3 of IEC 60079-7).

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Equipment (continued):

Rating:

Max. rated input voltage: 400 V AC

Max. rated DC bus voltage: 560 V DC

Modulation: PWM

Duty type: S1

Degree of protection: IP 64

Ambient temperature: +5 °C≤ Ta ≤+40 °C

AKME1 Series, Max. Rated power: 0.21 kW

AKME2 Series, Max. Rated power: 0.62 kW

AKME3 Series, Max. Rated power: 1.15 kW

AKME4 Series, Max. Rated power: 1.52 kW

AKME5 Series, Max. Rated power: 3.59 kW

AKME6 Series, Max. Rated power: 5.74 kW

AKME7 Series, Max. Rated power: 7.64 kW

Details see Annex of IECEx Cerificate of Conformity

Annex:

Annex to CoC IECEx TPS 25.0065X.pdf