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 TUR 24.0029X**

Certificate history:
Issue 0 (2025-05-07)

Status: **Current**

Issue No: 1

Date of Issue: 2026-11-02

Applicant: **AUREX MOTION SYSTEMS PTE. LTD.**
55 Toh Guan Road East Uni-Tech Centre
#03-01, Segment W100
Singapore 608601
Singapore

Equipment: **Explosion-Proof Servo Motors / Type(s): 70DX040C series, 90DX100C series, 130DXxxxC series**

Optional accessory:

Type of Protection: **Flameproof enclosures "db" and Equipment dust ignition protection by enclosure "tb"**

Marking: Ex db IIC T5 Gb

Ex db IIC T4 Gb

Ex tb IIIC T100°C Db

Ex tb IIIC T130°C Db

Ta: -20°C to +40°C

Approved for issue on behalf of the IECEx Certification Body: **Dipl.-Ing. He Mei**

Position: **Assigned certifier**

Signature: (for printed version) He Mei

Date: (for printed version) 2026.11.02

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:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany

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Date of issue: 2026-11-02 Issue No: 1

Manufacturer: **AUREX MOTION SYSTEMS PTE. LTD.**
55 Toh Guan Road East Uni-Tech Centre
#03-01, Segment W100
Singapore 608601
Singapore

Manufacturing locations:

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 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

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

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 Reports:

DE/TUR/ExTR24.0029/00 DE/TUR/ExTR24.0029/01

Quality Assessment Report:

DE/TUR/QAR25.0002/02

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

General product information:

DX series Explosion-Proof Servo Motors are specifically designed for industrial applications in explosive environments. The enclosure of motor is made of aluminium alloy and provides IP65 protection.

The equipment is in protection types "db", "tb", EPL level Gb/Db, and is intended to be installed at Gas Explosive atmospheres classified as Zone 1/Zone 2, or Dust Explosive atmospheres classified as Zone 21/Zone 22. The temperature class of 70DX040C series and 90DX100C series is T5 and T100°C. The temperature class of 130DXxxxC series is T4 and T130°C.

Technical data:

Ambient temperature: -20°C to +40°C

Ingress protection: IP65

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. DX Explosion-Proof Servo Motor has to be run with the converter that is at the safe area, and the detailed parameter has to follow with the manual.
2. Specific guidance noted to contact the original manufacturer for information on the dimension of the flameproof joints.
3. The oil seal shall be protected from exposure to daylight or light from luminaires.
4. Under explosive dust circumstances, the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
5. The equipment shall be incorporated with Ex certified cable glands or blanking plugs in accordance with IEC 60079-14.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Updated the manufacturer's name and address.

Annex:

DE-IECEx_TUR_24.0029_01_Attachment.pdf

Attachment to Certificate IECEx TUR 24.0029 X

Device: **Explosion-Proof Servo Motors**
Type(s): 70DX040C series, 90DX100C series, 130DXxxxC series

Manufacturer: **AUREX MOTION SYSTEMS PTE. LTD.**

Address: **55 Toh Guan Road East, Uni-Tech Centre #03-01, Segment W100, Singapore 608601**

General product information:

DX series Explosion-Proof Servo Motors are specifically designed for industrial applications in explosive environments. The enclosure of motor is made of aluminium alloy and provides IP65 protection.

The equipment is in protection types "db", "tb", EPL level Gb/Db, and is intended to be installed at Gas Explosive atmospheres classified as Zone 1/Zone 2, or Dust Explosive atmospheres classified as Zone 21/Zone 22. The temperature class of 70DX040C series and 90DX100C series is T5 and T100°C. The temperature class of 130DXxxxC series is T4 and T130°C.

The certificate includes following types:

70DX040C series

70	DX	040	C	-	0	T5	J	01
①	②	③	④		⑤	⑥	⑦	⑧

①	motor series.	70:70 mm square
②	Product Series.	DX: EX ATEX servo motor Zone 1.
③	Rated Power.	040: 400W
④	Motor length.	C: depending on motor inertia
⑤	Brake.	0: Motor without brake, 1: Motor with Brake
⑥	Temp. class.	T5: The motor surface temperature does not exceed 100 degrees
⑦	Sensor.	J: 23-bit Absolute Optical Encoder, E: Mechanical Multiturn Absolute Encoder, R: Resolver, Q:Others
⑧	Custom number.	

Motor parameter:

motor Flange(mm)	70
Weight (kg)	2.4
Rated Power (kW)	0.4
Rated Voltage (V)	220
Rated Torque (N·m)	1.27
Maximum Torque (N·m)	3.81
Rated Current (Arms)	2.9
Maximum Current (Arms)	8.7
Rated Speed (rpm)	3000
Maximum Speed (rpm)	5000
Torque Constant	0.438
Duty	S1

Rotor Inertia (10^{-4}kg·m^2)	without brake 0.487 with brake 0.52

Electrical parameter of brake:

Holding Torque (N·m)	1.3
Supply Voltage ±10% (VDC)	24
Rated Power (W)	11
Coil Resistance ±7(Ω)	55.33
Excitation Current (A)	0.45
Pull-in Time (ms)	≤ 60
Drop-out Time (ms)	≤ 20
Backlash (°)	≤1.5

Permissible Shaft Load

Permissible Radial Load (N)	245
Permissible Axial Load(N)	98

90DX100C series

90	DX	100	C	-	0	T5	J	01
①	②	③	④		⑤	⑥	⑦	⑧

①	motor series.	90: 85 mm square
②	Product Series.	DX: EX ATEX servo motor Zone 1.
③	Rated Power.	100: 1000W
④	Motor length.	C: depending on motor inertia
⑤	Brake.	0: Motor without brake, 1: Motor with Brake
⑥	Temp. class.	T5: The motor surface temperature does not exceed 100 degrees
⑦	Sensor.	J: 23-bit Absolute Optical Encoder, E: Mechanical Multiturn Absolute Encoder, R: Resolver, Q:Others
⑧	Custom number.	

Motor parameter:

motor Flange(mm)	90
Weight (kg)	4.4
Rated Power (kW)	1.0
Rated Voltage (V)	220
Rated Torque (N·m)	3.18
Maximum Torque (N·m)	9.9
Rated Current (Arms)	4.5
Maximum Current (Arms)	13.5
Rated Speed (rpm)	3000
Maximum Speed (rpm)	4500
Torque Constant	0.78
Duty	S1
Rotor Inertia (10^{-4}kg·m^2)	without brake 1.81 with brake 2.1

Electrical parameter of brake:

Holding Torque (N·m)	4
Supply Voltage ±10% (VDC)	24
Rated Power (W)	14
Coil Resistance ±7(Ω)	38.6
Excitation Current (A)	0.62
Pull-in Time (ms)	≤ 60
Drop-out Time (ms)	≤ 40
Backlash (°)	≤1.5

Permissible Shaft Load

Permissible Radial Load (N)	392
Permissible Axial Load(N)	147

130DXxxxC series

130	DX	380	C	-	0	T4	J	01
①	②	③	④		⑤	⑥	⑦	⑧

①	motor series.	70:70 mm square, 90: 85 mm square, 130: 130 mm square
②	Product Series.	DX: EX ATEX servo motor Zone 1.
③	Rated Power.	380: 3800W, 260: 2600W, 150: 1500W
④	Motor length.	C: depending on motor inertia
⑤	Brake.	0: Motor without brake, 1: Motor with Brake
⑥	Temp. class.	T4: The motor surface temperature does not exceed 130 degrees
⑦	Sensor.	J: 23-bit Absolute Optical Encoder, E: Mechanical Multiturn Absolute Encoder, R: Resolver, Q:Others
⑧	Custom number.	

Motor parameter:

Type	130D150C	130D260C	130D380C
motor Flange(mm)	130	130	130
Weight (kg)	12	14	15
Rated Power (kW)	1.5	2.6	3.8
Rated Voltage (V)	220	380	380
Rated Torque (N·m)	6	10	15
Maximum Torque (N·m)	18	25	30
Rated Current (Arms)	6.0	5.9	7.4
Maximum Current (Arms)	18	17.8	22.5
Rated Speed (rpm)	2500	2500	2500
Maximum Speed (rpm)	2800	2800	2800
Torque Constant	1.67	1.69	2.03
Duty	S1	S1	S1
Rotor Inertia (10^{-4}kg·m^2)	12.6	19.4	27.7

Electrical parameter of brake:

Type	130D150C	130D260C	130D380C
Holding Torque (N·m)	16	16	16
Supply Voltage ±10% (VDC)	24	24	24
Rated Power (W)	16	16	16

Coil Resistance ±7(Ω)	34.7	34.7	34.7
Excitation Current (A)	0.69	0.69	0.69
Pull-in Time (ms)	≤ 85	≤ 85	≤ 85
Drop-out Time (ms)	≤ 30	≤ 30	≤ 30
Backlash (°)	≤ 0.5	≤ 0.5	≤ 0.5

Permissible Shaft Load

Type	130D150C	130D260C	130D380C
Permissible Radial Load (N)	490	490	490
Permissible Axial Load(N)	160	160	160